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Google Books as Infrastructure of In/justice: Towards a Sociotechnical Account of Rawlsian Justice, Information, and Technology

Anna Lauren Hoffmann
University of Wisconsin-Milwaukee

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GOOGLE BOOKS AS INFRASTRUCTURE OF IN/JUSTICE:

TOWARDS A SOCIOTECHNICAL ACCOUNT OF RAWLSIAN JUSTICE,

INFORMATION, AND TECHNOLOGY

by

Anna Lauren Hoffmann

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ABSTRACT
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Anna Lauren Hoffmann

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The Google Books project is germane for examining underappreciated dimensions of
social justice and access to information from a Rawlsian perspective. To date, however,
the standard account of Rawls as applied to information and technology has focused
almost exclusively on rights to access and information as a primary good (Drahos 1996;
van den Hoven and Rooksby 2008; Duff 2011). In this dissertation, the author develops
an alternative to the standard account—the sociotechnical account—that draws on
underappreciated resources available within discussions of Rawls' work. Specifically, the
author focuses on the importance of Rawls' basic structure argument and the value of
self-respect—two ideas that figure prominently in Rawls' theory and have been discussed
extensively by its critics. After developing this alternative account, the author undertakes
a disclosive ethical analysis of Google Books from a social justice perspective. As a
method, disclosive ethics is concerned with identifying morally opaque features of
artifacts and systems. Following Brey (2000; 2010), the analysis proceeds along three
levels: theoretical, disclosure, and application. At the *theoretical level*, extant Rawlsian
applications are scrutinized and rearticulated in light of advanced informational and
technological practices. At the *disclosure level*, morally opaque dimensions of Google

Books are disclosed as relevant to self-respect and social justice. In particular, the author focuses on three dimensions of the Books project that would go otherwise overlooked on the standard account of Rawls: quality of scans and metadata, visibility of indexes in Books' preview mode, and Google's conception of the value of information. At the *application level*, disclosed dimensions are examined according to both the standard and sociotechnical accounts. Ultimately, the author shows how, on a sociotechnical account, these three dimensions of Google Books raise otherwise overlooked questions regarding social justice, information, and technology today.

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ACKNOWLEDGEMENTS

In many ways, a dissertation is a sort of journal. Its contents are informed and shaped by one's experiences—some academic, some not. Entire chapters can grow out of a seemingly innocuous conference exchange; significant life events can radically reframe one's relationship to the subject matter at hand. These experiences are enshrined in the document as arguments and ideas. Ultimately, the dissertation is not only a piece of scholarship, but—like a journal—it is also a record of how far one has travelled, intellectually and otherwise. This dissertation is no exception and I would like to acknowledge those that have impacted me during my travels.

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Chapter 1.0: Introduction

Imagine sitting at your computer and, in less than a second, searching the full text of every book ever written. Imagine an historian being able to instantly find every book that mentions the Battle of Algiers. Imagine a high school student in Bangladesh discovering an out-of-print author held only in a library in Ann Arbor. Imagine one giant electronic card catalog that makes all the world's books discoverable with just a few keystrokes by anyone, anywhere, anytime."

–Eric Schmidt, "Books of Revelation," *The Wall Street Journal*

Google is so strange. It promises everything, but everything isn't there. You type in the words for what you need, and what you need becomes superfluous in an instant, shadowed instantaneously by the things you really need, and none of them answerable by Google.

–Ali Smith, *There But For The*

1.1 "It promises everything..."

This dissertation is about promises and what isn't there.

It began with an interest in the promise of the Google Books project, Google's massive and controversial book scanning initiative. Proponents have defended the project by pointing to its potential for promoting an "egalitarianism of information" and expanding social and economic opportunities, as when former Google CEO Eric Schmidt invited future users to "imagine the cultural impact of putting tens of millions of previously inaccessible volumes into one vast index, every word of which is searchable by anyone, rich and poor, urban and rural, First World and Third, *en toute langue*—and all, of course, entirely for free" [emphasis original] (Schmidt 2005, para. 9). The benefits of such an index proved central to the November 2013 decision in *Authors Guild v. Google* that ruled Google's book scanning efforts protected by fair use. In the decision, presiding Judge Denny Chin listed as among the benefits of Google's collection:

increased and efficient access to books; improved access for disabled persons through text-to-speech capabilities for digitized text; and the granting of new life to otherwise neglected and out-of-print works (*Author's Guild v. Google*, 2013, p. 9-12). Overall, Judge Chin claimed that, "indeed, all society benefits" from the existence of Google's massive digital library (*Author's Guild v. Google*, 2013, p. 26).

Critics have been hesitant to fully embrace Google Books, noting that the project might ultimately subvert the promises of equality and opportunity it claims to further. Vaidyanathan's (2011) *The Googlization of Everything* carefully considers the consequences of surrendering control of the world's knowledge—in the digital realm at least—to a private company. "Hanging over the promise of access to knowledge offered by Google Books," Vaidyanathan (2011) writes, "is the specter of its opposite— restrictions on open access to books, their contents, and the power that such access might help provide" (p. 156). Similarly, Waller (2009) warns that Google's values of efficiency and technical rationality have come to supplant the liberal democratic values traditionally bestowed upon books by libraries. In narrower discussions, other critics argue Google's privacy policies threaten to compromise intellectual freedom and expressive liberties (Grimmelmann, 2010; Zimmer, 2012). At the same time, challenges to existing copyright law posed by the Books project are indicative of the ongoing tension between intellectual property rights and control of information on the one hand and rights to access information on the other (Samuelson, 2009; Newman, 2011).

These discussions invoke broad questions of liberty, equality, and social justice in the face of advanced information and communication technologies (ICTs). To date, however, few discussions about the project have thoroughly or explicitly engaged Google

Books across a wide range of liberal values, focusing instead on narrower issues of informational freedoms, control versus access, and social or economic opportunity. Initially, I was interested pushing beyond a single- or limited-issue focus to surface the broader themes and values latent these otherwise disparate discussions. I viewed the debates surrounding Google Books as fertile ground for attending to far-reaching questions of basic liberties, equality, and opportunity—all values relevant to liberal theories of social justice.

To frame my thinking, I turned to the work of John Rawls—arguably the most important liberal political philosopher of the 20th century (Nagel, 1999). As G.A. Cohen (2008)—himself a sharp critic of Rawls—has put it, "at most two books in the history of Western political philosophy have a claim to be regarded as greater than [Rawls'] *A Theory of Justice*: Plato's *Republic* and Hobbes's *Leviathan*" (p. 11). For present purposes, Rawls' work promised a comprehensive and systematic vision of social justice through which to assess the challenges presented by a large-scale information infrastructure like Google Books. Further, appealing to Rawls to address the moral and political challenges of informational and technological practices has scholarly precedent—notable efforts include Bell's (1973) classic discussion of "post-industrial society," Benkler's (2006) liberal political economic analyses of networked production, van Dijk's (2005) influential account of the "digital divide," and Sclove's (1992) work on democracy and technological design. Beyond these seminal works, Rawls has been employed extensively in conversations of morality, ethics, and ICTs (for example: Brey, 2000a; van den Hoven & Rooksby, 2008; Raber, 2004). Inspired by previous efforts, I

sought to extend Rawlsian ideas to an assessment of the Google Books project and its capacities for both furthering and subverting social justice.

As I sifted through various engagements with Rawls, however, I struggled with applications of his work. I failed to see in many of these discussions the parts of *justice as fairness* that had drawn me to Rawls in the first place—namely, his arguments regarding background justice and the social bases of self-respect. I also rarely saw information and technology scholars drawing on prominent feminist, leftist, and disabilities discussions of Rawlsian justice that had thoroughly informed my own understanding of his work. In addition, I saw many scholars explicitly rejecting Rawls work and abandoning his ideas for other approaches, in particular the "capabilities approach" advocated by economist Amartya Sen.

Increasingly, my dissertation came to focus on sorting out and critically examining the picture of Rawls that has emerged in discussions of social justice, information, and technology today. I felt that if I wanted to address a project like Google Books using a Rawlsian frame, I needed to first attend to the frame itself. To that end, I have sought to identify shortcomings of extant applications and recover the promise of Rawls for attending to issues of social justice, information, and technology.

1.2 Beyond Haves and Have-Nots: Identifying the Limits of Distributive Justice

I began by pulling all the references to Rawls I could find from scholarly databases and journals where I knew explicit discussions of ethics, information, and technology lived. I read these works closely and inventoried their Rawlsian contents. Along the way, common themes emerged and I was able to uncover a clear picture of information and technology as important primary goods—that is, as vital instruments for

the pursuit and achievement of a wide range of human ends. Further, I found plentiful depictions of Rawls' original position reasoning, his famous veil of ignorance, and his two principles of justice. It became clear that most applications of Rawls' work were focused on the ways information and technology can be conceptualized as discrete and commodifiable goods and on prescriptions for how these goods should be distributed. Normatively speaking, these discussions were concerned with attending to the gap between information or technology "haves" and "have-nots."

Eventually, I came to understand these applications as the given or "standard" account of Rawls in discussions of social justice, information, and technology. Overall, the standard account is oriented towards problems related to the unequal distribution of informational and technological goods exacerbated by the rapid development and adoption of advanced ICTs (Lipinski & Britz, 2000; van den Hoven & Rooksby, 2008; Duff, 2008). Generally, work in this area is conducted under the assumption that, despite their empowering potential, new ICTs "may also maintain, and even exacerbate, existing inequalities as they are grafted onto preexisting socioeconomic structures" (van den Hoven & Rooksby, 2008, p. 377). The standard account's focus on distributions is unsurprising, given Rawls' own emphasis on distributive justice. However, I also found that much work on Rawls, information, and technology adopts Rawls' distributive prescriptions without due consideration to the assumptions that underwrite his theory. Scholars in this area have failed to attend to the relevance of Rawls' foundational assumptions for the sorts of complex networked relationships afforded by advanced ICTs today. Ultimately, I came to view this uncritical focus on distributions as a particular limitation of the standard account: by reducing issues of social justice, information, and

technology to purely distributive terms, all we are left to talk about are problems of distribution.

But, as both critics and proponents of Rawls in other domains have pointed out, a focus on distributions tends to obscure or make invisible other dimensions that are equally important to the realization of social justice. Feminist critics of Rawls, for example, have long been aware of the unfair social burdens of reproductive labor that have historically fallen on women. Leftist critics underscore imbalances in economic decision-making power, arguing that distributions of goods cannot account for structural processes that allow such power to concentrate into relatively few hands. Disabilities critics have shown how normative standards of ability shape our world in ways that are biased, as when public buildings that lack access for wheelchairs impose a normative standard of mobility that excludes many otherwise capable persons. These critiques are attuned to the ways that the design of social, economic, and physical institutions assign roles and duties, structure decision making power, and impose normative standards in ways that are relevant to social justice but are not necessarily reducible to talk of distributions. Similarly, conceiving of information as a primary good cannot tell us much about the ways in which information is collected, framed, analyzed, presented, or packaged—only about the ways in which it is disseminated. By reducing informational and technological goods to just (or mere) things to be distributed according to certain principles, standard discussions of Rawls, information, and technology are unable to address the structures or processes that pattern distributions. Consequently, the structures and systems that allow for access to information—or the ways the these systems may

promote the distributions of some types of information while at the same time hindering others—go overlooked from the standpoint of Rawlsian justice.

1.3 Framing the Argument

1.3.1 Main ideas. In the face of advanced ICTs and large-scale information infrastructures like the Google Books project, discussions of social justice today must not only account for distributions of informational and technological goods, but also for the ways in which informational and technological systems fundamentally shape social, political, and economic relationships. We must be cognizant of the fact that technological devices and information systems exhibit their own values—and that those values exert their influence on the ideals of the societies within which they are embedded. Information and technology are not simply instrumental to, but intimately bound up with moral values like social justice, as they both mediate our perception of morally relevant aspects of particular situations and actively shape our responses to them (Verbeek, 2009).

Against the focus on distributive justice, this dissertation advances an alternative to the standard account of Rawls in discussions of information and technology. It seeks to recover the importance of the basic structure argument and the social bases of self-respect within Rawls' theory of justice—features of his work that have gone largely overlooked. It also draws regularly on insights from feminist, leftist, disabilities, and other critics of Rawls in order to arrive a more robust and inclusive picture of social justice than one concerned simply with information or technology "haves" and "have-nots." By foregrounding these foundational elements and critical discussions, this alternative frame seeks to avoid a narrowly distributive focus in order to show how information and technology might be otherwise accounted for in a broadly Rawlsian manner. Ultimately,

the sociotechnical relations afforded by technological systems and information infrastructures are integral to the production and upkeep of Rawls' basic structure and that technological artifacts and information systems are not merely instrumental to, but actively shape relations between institutions and individuals. In this way, sociotechnical relations can be viewed as integral to the promotion and preservation of what Rawls' refers to as "background justice." Accordingly, I will refer to this alternative approach as *the sociotechnical account*. As a normative project, the sociotechnical account seeks to identify the ways in which considerations of the design and implementation of information technology variously empowers some and disempowers others.

1.3.2 Guiding questions. The questions that guide my inquiry in the following dissertation are:

1. How has the work of John Rawls been applied in scholarly discussions of social justice, information, and technology? What dimensions of *justice as fairness* (and its attendant debates) have been marshaled for use? What dimensions have been overlooked?

2. What alternative approaches for thinking about social justice, information, and technology can be recovered from these overlooked dimensions and discussions of Rawls' work?

3. How might both extant and alternative accounts of Rawls reveal different kinds of social justice issues raised by a large-scale, information infrastructure project like Google Books?

1.3.3 Avoiding bad faith. Finally, this dissertation insists that it is not simply a matter of technological wonder that Google Books allows an imagined Bangladeshi high

schooler to access an out-of-print text in Michigan. Sociotechnical infrastructures like those that support the Books project are integral to discussions of the reach and requirements of social justice today, since "by mediating human experiences and practices...[our technologies] help to shape the quality of our lives and, more importantly, our moral actions and decisions" (Verbeek, 2009, p. 227). Accordingly, the site and scope of social justice must be formulated in ways that account for the global reach of today's sociotechnical infrastructures. As political philosopher and Nobel Prize-winning economist Amartya Sen (2009) writes:

> The neighborhood that is constructed by our relations with distant people is something that has pervasive relevance to the understanding of justice in general, particularly so in the contemporary world. We are linked with each other through trade, commerce, literature, language, music, arts, entertainment, religion, medicine, healthcare, politics, news reports, media communication and other ties.... There are few non-neighbors left in the world today. (p. 172-173)

Political philosopher Onora O'Neill (2000) expresses a similar sentiment when she notes that

> to deny the agency of others with whom we interact in...complex ways reeks of bad faith. Bad faith can be avoided only by counting as members of the plurality for whom principles of justice are to hold anybody with whom interaction is to be undertaken or held possible. (p. 157)

Put another way, the normative demands of social justice obligate us to anybody with whom—to use Hume's (1777/1975) phrase—"mutual connexions" are possible, as through the networks of information and knowledge exchange enabled by Google Books.

1.4 Disclosive Ethics and Google Books

  1.4.1 Google Books' digital dominance. Beyond the ways in which Google Books invokes important liberal ideas of liberty, equality, and opportunity as mentioned above, analyses of the project take on additional importance in light of its dominance within the overall landscape of digital scanning initiatives. Given the massive size of the project, it has become difficult for other initiatives or organizations to justify the development of alternatives to Google's collection. As Paul Duguid (2007) puts it, "with each scanned page, Google Books' Library Project, by its quantity if not necessarily by its quality, makes the possibility of a better alternative unlikely. The Project may then become the library of the future, whatever its quality, by default" (para. 6). The inertia of the Books project is made particularly evident in the HathiTrust Digital Library, which consolidates collections from Google, OCA, Microsoft, and other initiatives for preservation and institutional access purposes (HathiTrust, 2014). Though HathiTrust aggregates content from various sources, more than 90 percent of the collection's 10 million book scans have been produced by Google (York, 2010; Conway, 2013). As a practical reality, then, Google Books has become the dominant digital library in the world—not only as a standalone collection, but by serving as the backbone for other digital library efforts as well.

  It is my aim to extend discussion of the relationship of Google Books and social justice by surfacing additional features of the project that might otherwise remain opaque from a moral point of view. Traditionally, applied ethical analyses of information and technology focus on morally salient problems—in the case of Google books, obvious issues surrounding privacy, control/access, and censorship have been thoroughly

discussed. However, there are additional dimensions of the Google Books project that are of moral import, though their relevance may be less immediately evident. In this dissertation, I identify and discuss three such dimensions: 1) quality of scans and metadata; 2) visibility (and invisibility) of information work patterned by the service's snippet and preview mechanisms; and 3) the value of information as conceptualized in the context of Google search as opposed to a library setting. To surface the moral relevance of these features, I rely on the method of disclosive ethics as developed by Brey (2000a) and others (see, for example: Introna, 2005). As discussed in more detail below, disclosive ethics is concerned with moving past obvious moral issues raised by technology use to also address moral issues obscured by the development and design of information technologies. In particular, I am interested in bringing attention to dimensions of the development and design of the Google Books project relevant to a theory of social justice—dimensions that are not immediately apparent when looked at through the standard account's focus on distributive issues. While moving along these three different dimensions, I hope to show how, under the sociotechnical account, certain features of sociotechnical systems move to the foreground while the distributive concerns that dominate the standard account recede into the background. In this way, Google Books can be viewed as potentially hindering the realization of social justice in ways that are not reducible to problems of distribution.

1.4.2 Disclosive ethics. I adopt as a framework for the present analysis the method of "disclosive ethics" developed by Brey (2000a) Disclosive ethics was developed, in part, as a response to perceived shortcomings in standard approaches to computer ethics prevalent during the 1980s and 1990s. These standard approaches, as

with other areas of applied ethics, were largely concerned with developing ethical analyses and principles for guiding human action in practice. In the case of computer ethics, early scholars and professionals were concerned almost exclusively with normative evaluations of computer use. Towards the end of the 1990s, Brey and others began arguing that, while use should remain a central concern, information and computer ethics should also attend to the development, design, and management of computer technology. In particular, Brey (2000b) argued for a more broadly inclusive applied ethics—one that accounts for all practices that essentially involve computers, including (but not limited to) "the use, development, regulation, management, advocacy and advertisement of computer technology" (p. 125). Broadening the scope of applied ethics in technology requires researchers and ethicists to not only focus on actions, but to also attend to the products of actions—that is, to also pay further attention to "computer systems and software, manuals, advertisements, and law and policies regulating the use of computers" (Brey, 2000b, p. 125). These products "deserve special mention because their moral properties may be analyzed independently from the actions that have lead to them" (Brey, 2000b, p. 125). In short, applied ethics for technology must take up both actions and the products of actions.

In order to show how technological artifacts or systems might be analyzed independently of their use, Brey (2000a) proposed a method for exposing moral dimensions of technology that might not be immediately obvious in our interactions with technological devices and artifacts. While standard models of applied computer ethics focused on the most salient—or, "morally transparent"—actions involving technology, "like software theft, hacking, electronic monitoring, or Internet pornography" (Brey,

2000a, p. 10), the disclosive model recognizes that other moral dimensions of technology are less obvious. For instance, the methods of online tracking used by many private companies are invisible or unknown to average users (Brey, 2000a, p. 11). Similarly, certain technological practices may give the appearance of being morally neutral when they are, in fact, value-laden. The work of Introna and Nissenbaum (2000), for example, exposes how the search results produced by search engine algorithms—which, on the surface, appear to innocuously help users navigate the Web—are biased towards large sites or towards sites designed by particularly savvy computer professionals. As a result, smaller websites and the voices of the less computer literate are regularly discriminated against by routine practices of online search. The method of disclosive ethics seeks to surface these "morally opaque" features of technological artifacts and systems so that they may become the subject of ethical scrutiny.

Other scholars have further developed the disclosive approach. According to Introna (2005), the method of disclosive ethics allows us to address a number of ethical and political problems raised by the increasing ubiquity of information technology in human activity. Introna (2005), argues that much of contemporary information technology "is mostly not evident, obvious, transparent or open to inspection by the ordinary everyday person affected by it. It is rather obscure, subsumed and black-boxed in ways that only makes its surface available for inspection" (p. 75). These "black-boxes" keep potentially meaningful questions of ethics and politics hidden from plain view, dismissed as innocuous matters of functionality and design. But, Introna (2007; see also: Brigham & Introna, 2007) argues that viewing problems of technological design as merely pragmatic questions leaves "technology as such…unproblematised" and

reinforces an "ontological separation between the technical world and the social world" that ignores the ways in which technology and society are co-constitutive (p. 11). Against this ontological distinction, Introna (2005) insists that "many seemingly pragmatic or technical decisions may have very important and profound consequences for those excluded" (p. 78). Applied ethics in technology, then, should seek "to trace all the moral implications…from what seems to be simple or pragmatic decisions…through to social practices, and ultimately, to the production of particular social orders, rather than others" (Introna, 2005, p. 78-79). As method, disclosive ethics is particularly well suited to the task of exposing the ways in which informational and technological systems "[exclude] some and not others—irrespective of whether this was intended by the designers or not" (Introna , 2005, p. 79).

In the present analysis, I follow Brey's (2000a; 2010) formulation of disclosive ethics as proceeding along three levels: *disclosure*, *theory*, and *application*. At the *disclosure level*, morally opaque features of a given technology are surfaced and disclosed as morally relevant. At the *theoretical level*, available moral theories and analytic frameworks are identified and scrutinized in light of the advanced informational and technological practices in question. At the *application level*, features surfaced at the disclosure level are subjected to analysis according to the moral frameworks introduced and scrutinized at the theoretical level. The application level, then, is ultimately where moral deliberations take place (Brey, 2010, p. 53). In following Brey's multi-level analysis, I adopt a straightforwardly normative approach to disclosive ethics as opposed to the more descriptive approach advocated by Introna (2005). For Brey, relevant moral values are identified beforehand while, for Introna, the identification of relevant values is

to be the outcome of—and not the motivation for—undertaking a disclosive analysis (see: Introna, 2005; Brey, 2010, p. 54). For present purposes, Brey's model is appropriate since I have already identified a concern for the moral value of social justice in discussions of information and technology.

1.4.3 Levels of analysis. Overall, I am primarily concerned with critically examining the ways in which Rawls' influential theory of social justice has been conceived of and applied to issues of information and technology. Consequently, much of this dissertation takes place at the theoretical level—it is primarily concerned with identifying and scrutinizing an applied moral framework. At this level, I introduce extant applications of Rawls to issues of social justice, information, and technology and identify their strengths and potential shortcomings. In response, I develop an alternative account that builds on underappreciated resources from Rawls' work. Following Brey's break from "standard" computer ethics, I will refer to extant applications as *the standard account* of Rawls in information and technology while the alternative account will be referred to as *the sociotechnical account*.

In the final chapters, I move from the theoretical to the disclosive and application levels to demonstrate the different ways both the standard and sociotechnical accounts of Rawls address issues of social justice, information, and technology. To do so, I apply both the standard and sociotechnical accounts to Google Books. Given its massive size and the range of stakeholders invoked, Google's massive book digitization project is germane for demonstrating the applicability of both the standard and sociotechnical accounts of Rawlsian social justice to informational and technological issues. As a project, its impact stretches from individual authors to multinational corporations to the

(potentially global) reading public. As a large-scale initiative, is a rich example of the complex sociotechnical relations informational and technological systems organizes between information, institutions, and individuals. As a practical reality, Google Books has become—and is likely to remain for some time—the dominant digital library in the world. In the present case, I use Google Books as illustrative of the idea that the development, design, and dissemination of certain technological artifacts, platforms, or systems have consequences that are of concern for a conception of social justice.

The analysis of Google Books proceeds in two stages. First, I work to surface morally opaque features of Google Books (*disclosive level*) along three dimensions: 1) quality of scans and metadata; 2) visibility (and invisibility) of information work patterned by the service's snippet and preview mechanisms; and 3) the value of information as conceptualized in the context of Google search as opposed to a library setting. Second, I examine each of these features according to both the standard and sociotechnical accounts of Rawls sketched earlier (*application level*). While moving along these three different dimensions, I hope to show how the sociotechnical account foregrounds non-distributive dimensions of social justice that go otherwise overlooked by the standard account's focus on information rights and goods within a distributive framework.

1.4.4 Definitions. It will be useful to lay out some more or less concise definitions of "information," "technology," and "sociotechnical"—terms I employ throughout the dissertation. I view "information" and "technology" here as separate, but related concepts. Though at times a simple reference to "ICTs" (information and communication technologies) might seem appropriate, I will continue to enforce a

separation between information and technology in order to keep in view the idea that moral issues raised by information are not wholly reducible to talk of technological artifacts and systems. For example, discussions of the moral value of informational privacy today are not wholly tied to any particular technological system, though contemporary ICTs might challenge our notions of privacy in many ways. And, while I am primarily concerned with ICTs in my discussion—that is, technologies for the creation, storage, organization, and dissemination of information—I do not want to preclude the relevance of other types of technology for social justice, especially productive or industrial technologies. Similarly, I am also concerned with information systems—like standards and classification schemes—that might not be immediately thought of as "technology" in the same way that one thinks of computers or mobile phones as "technology." In referring to "information and technology," then, I seek to make room for a range of systems and infrastructures within my discussion.

In enforcing this distinction, I do not at the same time mean to suggest that concepts of information and technology are wholly exclusive. Following Drahos (1996), there are times when information may fruitfully be considered an "abstract object," separable from any given material expression, representative of certain "core structures" for determining "whether disparate physical objects are the same or similar, or resemble each other" (Drahos, 154). But, while an abstract conception of information might be useful in some contexts, here it is stressed that information is ultimately manifested and known through material systems and physical objects like technological artifacts or information infrastructures. Importantly, these systems and objects are not blank slates exclusively shaped by the information they distribute; rather, the relationship between

information as an abstract object and its physical manifestation is dialectical—information both informs and is informed by the values and affordances of the physical objects through which it is expressed.

The relationship between the individual persons, information, and technology with which I am concerned is best expressed through the idea of the "sociotechnical." For present purposes, the sociotechnical can be defined in line with Kline's (1980/2003) "sociotechnical system of use," that is, "a system using combinations of hardware and people (and usually other elements) to accomplish tasks that humans cannot perform unaided by such systems—to extend human capacities" (p. 211). This definition accounts for technological artifacts themselves (hardware), limited systems of simple manufacture (the persons, procedures, and resources that go into the making of technological artifacts), as well as for the teleological conception of technology as a means or method for accomplishing this or that task (Kline, 1980/2003). Combined, these various conceptions of technology make up the broader sociotechnical systems of use with which I am concerned.

In some sense, human societies have always been sociotechnical—we have always been, among other things, "tool making animals" (Gehlen, 1983/2003, p. 213). At the same time, human tools have long been concerned with the preservation, organization, and dissemination of information in a variety of formats, from cave paintings to clay tablets to the printing press. Today, the relationship between information and technology is further complicated by the widespread adoption of advanced networks and ICTs. These advances have allowed developed nations to transition from largely industrial to informational technological infrastructures marked, in part, by the increasing

importance of intellectual and intangible (i.e., informational) assets and information-intensive services in our everyday lives (Floridi, 2010a). Increasingly, the industrial focus on technologies for producing physical goods is supplanted by an emphasis on those that produce informational goods. Meanwhile, mass production is usurped by mass communication and our social and economic lives revolve less around an industrial infrastructure designed to support the movement of material wealth, and instead become dominated by infrastructures designed to support flows of information.

  1.4.5 Limitations. Adopting any framework means adopting both its possibilities and its limitations. In appealing to Rawls, the sociotechnical account inherits a controversial view of individuals and agency. The reader will notice that I avoid use of the term "agent," save for instances where cited authors and works have used the term. Instead, I opt for the term individual or, as is sometimes the case, persons. While agents may be more precise in some places, I want to set aside a debate over what constitutes agency itself. Instead, by talking about individuals (or persons), I mean simply to adopt an idea of human agents as neither wholly independent from nor overdetermined by social forces. I assume, from the start, that individuals are capable of undertaking actions to some extent (though the complexity of those actions may vary). As per liberalism generally, I adopt a commitment to the individual person as the ultimate unit of moral concern. Though there are, perhaps, certain moral issues better captured by talk of groups or communities (that is, that cannot be reduced to talk of individual members), I ascribe to the idea that the whole of morality or ethics cannot be adequately captured at the level of groups and that, to some extent, a focus on individuals is unavoidable.

In addition, I follow Rawls in affirming the idea that social justice applies in the first to social institutions—though I aim to account for the relationship between institutions and individuals in sociotechnical terms. Or, put another way, I take the position that social justice is concerned with the impact of social, economic, political, *and technological* structures and systems on individuals' life prospects. Despite this institutional focus, I want to resist the Rawlsian picture of individual agency within institutional structures as ideal and perfectly executable. Instead, I follow O'Neill (2000) in emphasizing individual agency as vulnerable and in need of support. A focus on vulnerability will help keep this work cognizant of the ways social justice issues can manifest themselves along complex, often intersecting racial, gender, sexual, educational, religious, socioeconomic, and other lines. In particular, the various feminist, leftist, capabilities, disabilities, and other critiques draw on this work are cited explicitly because of their emphasis on the vulnerabilities of individuals in a variety of contexts—from the home to the workplace to interactions with technology. To be sure, I do not claim to account for all dimensions or intersections relevant to an account of information, technology, and social justice—rather, I simply mean to keep their relevance visible along the way.

1.5 Ideal versus Non-ideal Theory

Adopting a Rawlsian framework also means adopting—to some extent—a commitment to the value of ideal theory as opposed to non-ideal theory. Put briefly, the debate between ideal and non-ideal theory is a debate over the methodology used to arrive at normative prescriptions of justice (Valentini, 2012). Often times, the distinction between ideal and non-ideal theorizing is one between utopian and so-called "realist"

reasoning about justice. On the ideal—or utopian—account, principles of justice are taken to be independent of factual constraints or contextual considerations (Valentini, 2012, p. 657). Non-ideal—or "realist"—accounts, on the other hand, consider utopian ideals of social justice imaginable, but not feasible (Valentini, 2012, p. 659). Instead, principles of justice should be heavily informed by practical, real-world, and context-bound considerations. On other readings of the ideal/non-ideal distinction, the contrast is between end- or ideal-state and transitional theorizing. On the former, ideal theory is viewed as describing a long-term goal of perfect justice whereas the latter—exemplified, in particular, by the work of Amartya Sen (2009)—works to articulate the intermediate steps necessary in order to achieve ideals of justice.[1]

The relationship between Rawlsian theory and ideal/non-ideal theorizing is disputed. Some fully "utopian" theorists of justice take his work to be too beholden to considerations of feasibility, as represented by his assumptions of limited altruism and moderate scarcity. Heavily realist or transitional accounts, on the other hand, find Rawls' theory too idealistic and unable to offer real, concrete prescriptions for achieving justice in the real world. For the purposes of this dissertation, I assume Rawls' theory to be—in many ways—ideal, but I also view ideal theorizing as both useful and unavoidable. Accounts of justice that are not beholden to any feasibility constraints do, indeed, risk irrelevance. However, accounts of justice that are overly burdened by real-world considerations run the arguably more dangerous risk of biasing theorizing about social justice towards existing practices and institutions. In this sense, I view the abstracting away (to some degree) from actual circumstances as useful for helping articulate a vision

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[1] For a more comprehensive review of various interpretations of the ideal/non-ideal distinction, see Valentini, 2012.

of justice beyond the status quo. Further, such abstractions are, as O'Neill (2000) has it, innocuous and unavoidable (p. 67). "We abstract whenever we make claims or decisions or follow policies or react to persons on a basis that *brackets* some predicates…. All normative principles and standards, including principles of justice, are always, inevitably and properly abstract" (O'Neill, 2000, p. 67). Idealizations, on the other hand, do not simply bracket certain predicates, rather, they "either [deny] those predicates…or [assert] that absent predicates obtain…. When this happens, reasoning may be based on false, *idealized* conceptions, of reason and action, of persons and situations" (p. 68). As opposed to a concern over the value of ideal versus non-ideal theorizing, the more immediately pressing issue for this dissertation concerns the soundness of the ideals and assumptions as to the relevance of information and technology for realizing social justice today.

1.6 Connections to Other Research: Information, Infrastructure, and Values

As a method, disclosive ethics has seen a range of applications, including online communities (Skog, 2011), social networking applications (Light & McGrath, 2010), facial recognition systems (Introna, 2005), and virtual reality technologies (Brey, 2008b). Of particular relevance to the present study is Beghtol's (2005) disclosive analysis of ethical issues in the creation and maintenance of knowledge representations and organization systems. According to Beghtol (2005), insufficient attention has been paid to the ethical foundations of these systems and the means by which they spread information and knowledge "across cultural, social, national, spatial, temporal, linguistic, and domain boundaries" (p. 903). Brey's version of the disclosive method is employed in order to surface morally opaque features of the ontologies, metadata schemes, and other

taxonomies that permit knowledge organization systems to function. Beghtol's insights into the moral dimensions of these systems speaks directly to the Google Books project and its efforts to scan, index, and make searchable more than 30 million books from libraries around the world. Similarly, the works of Introna and Nissenbaum (2000) and Zimmer (2008a; 2008b; 2012) on the ethics of search engines will inform discussion of the moral dimensions of the search algorithms and practices by which Google makes its collection of books available. Indeed, search engines have firmly established themselves as "centers of gravity" for access to digital information, including (but not limited to) academic research, news, financial data, and commercial information (Zimmer, 2008b, p. 82-83). But search engines are not innocuous information-delivery systems—as with information technology broadly, the design of search engines and their algorithms can have (intended or unintended) moral consequences.

In addition to being a multi-level approach, Brey (2000b) argues that disclosive analyses should also be multi-disciplinary, drawing on a wide range of theoretical and practical considerations. In this spirit, I draw on literature from the Rawlsian political philosophical tradition, philosophy of technology, as well as broader discussions of Rawls in information and computer ethics literature from the last three decades. In addition, I often turn to ideas from feminist, leftist, disabilities, and queer theorists to keep the proposed sociotechnical account inclusive of a broader range of issues than the standard account and its binaristic focus on informational "haves" and "have-nots." In doing so, I resist the view that social justice issues with regard to information and technology are wholly reducible matters of distributive justice.

Despite explicit adoption of the method of disclosive ethics, I also acknowledge affinities with the method of "infrastructural inversion" developed and employed by Bowker (1994; see also: Star & Ruhleder, 1996; Bowker & Star, 1999; Lee, Dourish, & Mark, 2006). Infrastructural inversion is "a methodological device, a figure/ground reversal that places infrastructure in the foreground and reveals its relational nature" (Lee et al, 2006, n.p.). "[It] is a struggle against the tendency of infrastructure to disappear (except when breaking down). It means learning to look closely at technologies and arrangements that, by design and by habit, tend to fade into the woodwork" (Bowker & Star, 1999, p. 34). Through the lens of infrastructural inversion, my analysis can be read as shifting the focus on Google Books from one that conceives of the service as a "what"—that is, as simply a tool for information access—and, instead, towards understanding the service as a "when," occurring, following Star and Ruhleder (1996) "when local practices are afforded by a larger-scale technology, which can then be used in a natural, ready-to-hand fashion" (p. 6). Paying due methodological attention to the architecture and use of sociotechnical systems will serve to keep morally relevant features of the sociotechnical system in question—in this instance, the Google Books project—from "fading into the woodwork" during the course of the analysis (Bowker & Star, 1999, p. 33).

Finally, I present this study as an attempt to parse out and reclaim the value of social justice in technological contexts from talk of values and technology broadly. Often times, and as Langdon Winner (1986) lamented more than 20 years ago, discussions of values "[act] like a lawn mower that cuts flat whole fields of meaning and leaves them characterless" (p. 158). While the situation Winner described in the late 1980s has

improved, there is still a tendency to talk in overly broad terms, lumping specific values like privacy, efficiency, justice, trust, security, and autonomy together with little regard to their specific intellectual and practical histories. But, as Flanagan, Howe, and Nissenbaum (2008) argue, a "sound grasp of value terms is one of the necessary links between values and specific design features" since "the choices designers make in shaping [technological design] will be guided by their understandings of [relevant] value concepts" (p. 326-327).

1.7 Chapter Outline

The remainder of the dissertation proceeds as follows:

Chapter 2: This chapter provides a comprehensive overview of Rawls' theory of justice, paying particular attention to the foundational assumptions and model-conceptions that underwrite his work.

Chapter 3: This chapter reviews applications of Rawls to moral and political issues relative to information and technology. The review is divided into two parts: 1) a broad overview of the ways in which Rawls has been applied and 2) a more detailed review of major Rawlsian proponents. Combined, these applications form what I refer to as *the standard account* of Rawls, information, and technology.

Chapter 4: Against the standard account, this chapter develops an alternative approach—*the sociotechnical account*—to Rawls' work that foregrounds problems of background justice and self respect for a theory of justice. The development of the sociotechnical account proceeds in two parts: 1) it begins with a discussion of the ways in which sociotechnical relations help produce and

maintain the background conditions that constitute Rawls' basic structure and 2) it builds on this discussion of the productive role of sociotechnical relations to show how technological systems and information infrastructures can both support and undermine the development of self-respect.

Chapter 5: This chapter advances an analysis of Google Books according to both the standard and sociotechnical accounts of Rawls, information, and technology. In particular, three features of the Books project are disclosed and assessed: 1) quality of scans and metadata; 2) visibility (and invisibility) of information work patterned by the service's snippet and preview mechanisms; and 3) the value of information as conceptualized in the context of Google search as opposed to a library setting.

Chapter 6: The final chapter presents a brief reflection on the preceding arguments and suggests some ways in which the sociotechnical account can be further developed for application beyond Google Books.

Chapter 2.0: John Rawls and *Justice As Fairness*

2.1 Introduction

This chapter presents a comprehensive overview of Rawls' theory of social justice, paying particular attention to its foundational assumptions and methodological commitments. This overview is integral to the later development of the sociotechnical account, as it draws on underappreciated or overlooked resources yet available in Rawls' work. The chapter begins by placing Rawls' work in context, discussing its influences, and drawing connections connections to the liberal political philosophical tradition broadly. From there, Rawls' methodological and theoretical commitments are introduced. After situating Rawls' work, I sketch his theory of justice—*justice as fairness*—and some of its main ideas, focusing on 1) his argument from the basic structure and the idea of public reason and 2) his model-conceptions of "free and equal moral persons," "well-ordered society," and the original position. At the end of the chapter is an overview of capabilities, communitarian, leftist, feminist, and disabilities debates surrounding Rawls' work that further clarify (and problematize) *justice as fairness*. Ultimately, the overview presented in this chapter will provide a baseline against which applications of Rawls in information and technology can be reviewed.

2.1.1 Situating Rawls. Committed to the idea that there can be a reasonable, public basis for argument on moral issues, Rawls' life work sets out to develop such a basis for reasoning about social justice in contemporary liberal democratic societies. This commitment is made explicit in his early writing:

> ...does there exist a reasonable method for validating and invalidating given or proposed moral rules and those decisions made on the basis of them? For to say of

scientific knowledge that it is objective is to say that the propositions expressed therein may be evidenced to be true by a reasonable and reliable method, that is, by the rules and procedures of what we may call 'inductive logic'; and, similarly, to establish the objectivity of moral rules, and the decisions based upon them, we must exhibit the decision procedure, which can be shown to be both reasonable and reliable, at least in some cases, for deciding between moral rules and lines of conduct consequent to them (Rawls, 1951/1999a, p. 1).

Initially, Rawls had hoped that such a procedure might be useful for constructing a wide range ethical principles, but as his career progressed he refined and restricted the scope of its applicability, eventually limiting it to the construction of principles of justice (see, generally: Rawls, 1980/1999d; Rawls, 1993; O'Neill, 2003). Perhaps his most notable achievement was the development of the "original position"—a constructive procedure for modeling rational decision-making under conditions that are fair (hence the name of his theory, *justice as fairness*). As I discuss below, this procedure allowed Rawls to revive and further the idea of a social contract as found in the work of Hobbes, Locke, and—in different ways—Kant and Rousseau.

2.1.2 Historical context.[2] In Rawls (1971b) own words, the aim of his theory "is to generalize and carry to a higher order of abstraction the traditional theory of the social contract as represented by Locke, Rousseau, and Kant" (p. xviii). He also views the role of a social contract much as Kant did—not as an actual agreement but, instead, as a hypothetical construct. For Rawls (and for Kant) it is not important for citizens to have ever actually agreed to a social contract for mutual advantage, but that a theory of justice

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[2] I am indebted to the work of Samuel Freeman (2007) for informing much of my understanding of Rawls in both historical and theoretical context.

could be hypothetically agreed to by ideal citizens under conditions that are fair. His Kantian affinities are further evident in his assertions as to the intrinsic worth and dignity of all pesons. Rawls (1971b) makes this idea explicit at the start of *Theory*: "Each person possesses an inviolability founded on justice that even the welfare of society as a whole cannot override" (p. 3). His commitment to human dignity is further evident in extended discussions of the role of self-respect (Rawls, 1971b, p. 386-391) and in his assertions that individuals should not have to debase themselves to earn a living (Rawls, 2001, p. 177).

Though Rawls is situated in the liberal tradition, his work differs in important ways from other strands of liberalism, such as the classical liberal economic thought descended from the work of Adam Smith. Unlike with classical liberalism, Rawls' work does not view liberalism as a fundamentally or narrowly economic doctrine tied to the rise of capitalism and market economic thought. Rather, Rawls (2007a) locates the roots of liberalism in the 16th and 17th century Wars of Religion and the Reformation, which he views as "ending with the, at first, reluctant acceptance of the principle of toleration and liberty of conscience" (p. 11). For Rawls, then, liberalism is fundamentally concerned with ideals of toleration and the promotion of basic freedoms of conscience, expression, and association. Rawls also describes liberalism as an incomplete and ongoing project. He approvingly cites the idea of political theory as outlined by R.G. Collingwood: "The history of political theory is not the history of different answers to one and the same question, but the history of a problem more or less changing, whose solution was changing with it" (Collingwood as cited in Rawls, 2007b, p. 103).[3]

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[3]It is important to note that Rawls does not profess to be a historian—let alone a historian of liberalism — and I do not mean to implicate him as such. Rather, I simply present this sketch to better understand the

Liberalism, then, is not to be viewed as an answer to some singular question (or limited set of questions), but, rather, as a rough set of core commitments evolving alongside new or emergent problems—put another way, it is a solution that changes along with its problems.

By locating the foundations of liberalism in religious toleration and the Reformation, liberalism expresses a certain modern character. This is not to say, however, that various elements of liberalism were not espoused or advocated for by societies or philosophers prior to the Reformation (to assert as much would be plainly untrue). As Ryan (2007) points out, "[much] of what liberals value is not distinctively modern because is what is valued by almost anyone" (p. 5). Rather, it is liberalism's worldview—the reasons why liberals value what they do—that makes it distinctly modern. Ryan (2007) describes the unique confluence of historical events that imbues liberalism with its essential modern character in the following:

> The Protestant contribution is the claim that as individuals every one of us is under an obligation to consider our place in the world, and our relationship to God, and to be ready at every moment to give an account of ourselves and our deed to the Creator. Because we are obliged to render an honest account, we must think for ourselves and say plainly what we think; this yields...the right of private judgement and therefore a genuine moral individualism. The other aspect is the destruction of the teleological conception of the universe [that] was to undermine the naturalness of rank and order. No longer could a hereditary and hierarchical

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historical roots of liberalism as Rawls himself seemed understand them. In Rawls (2007a) words, "This is a philosopher's schematic version of speculative history, and to be recognized as such" (footnote 9, p. 11).

system of ranks gain validity by claiming to be inscribed in the natural order. (p. 6)

Jeremy Waldron (1987), in his important paper on the theoretical foundations of liberalism, emphasizes the connection between liberalism and the Enlightenment broadly, which lent liberalism its "confidence in the human ability to make sense of the world, to grasp its regularities and fundamental principles, to predict its future, and to manipulate its powers for the benefit of mankind" (p. 134). In the Enlightenment, he further claims, one finds the source of a set of specifically liberal normative attitudes regarding the justification of social and political institutions (Waldron, 1987, p. 134). It is the demand for "intelligible justifications in social and political life" that Waldron (1987) puts at the foundation of liberalism (p. 135). Importantly, such justifications "must be available in principle for everyone, for society is to be understood by the individual mind, not by tradition or sense of a community" (Waldron, 1987, p. 135).

Galston (1995) also describes the different commitments of liberalism as emanating from both Enlightenment and Reformation traditions. The Enlightenment tradition of liberalism emphasizes reason as ultimate authority—institutions must be justified by appeal to individual reason, rather than tradition or divine authority (Galston, 1995, p. 525-526). Rawls (2007a), too, affirms the Enlightenment tradition of legitimacy as foundational when he defines a legitimate regime as one where

political and social institutions are justifiable to all citizens—to each and every one—by addressing their reason, theoretical and practical. Again: a justification of the institutions of the social world must be, in principle, available to everyone, and so justifiable to all who live under them (p. 13).

In contrast, the Reformation tradition is foremost concerned with religious diversity and toleration (Galston, 1995, p. 525-526). Both the Enlightenment and Reformation traditions inform Rawls' particular view of liberalism.

Outside of social contract liberals, Rawls was also influenced proponents of utilitarianism. Though he ultimately argues against principles of justice rooted in utilitarian thought, he relies at different points on ideas developed by Hume, Sidgwick, and Mill in particular. From Hume, Rawls inherits a focus on institutions and practices as the subject of justice, as well as a vision of the circumstances of justice (that is, circumstances marked by the need for social cooperation in the face of moderate scarcity). The influence of Hume is particularly evident in his early work on different conceptions of rules—for Rawls (as for Hume), there is an important distinction to be made between justifying a practice and justifying an action that falls under a particular practice (see, generally: Rawls, 1955/1999b). Theories of justice, Rawls thinks, properly apply to the former and not the latter—as moral and political doctrines, they apply not to particular actions that fall underneath moral or political practices but, rather, they serve to justify moral or political practices themselves. In other words, theories of justice should work to regulate institutional and social practices and not individual behavior. This distinction is important for understanding Rawls' assertion that his principles of justice apply to the "basic structure of society" and not to individual action. From Sidgwick, Rawls inherits the systematic comparison of ethical positions that underpins his argument for his principles of justice against utilitarian (and other) principles in the original position. Finally, Rawls finds in Mill a powerful defense of basic liberties like freedoms

of conscience and expression—liberties that Rawls' grants lexical priority throughout his work.

2.1.3 Theoretical context. Methodologically, Rawls' work represents a type of moral constructivism. Early in his writing, Rawls' constructivism is explicitly Kantian, though he later attempts to articulate a form of constructivism that is purely political and justifiable apart from its earlier Kantian formulation. While contemporary proponents of Kantian-influenced moral constructivism differ (sometimes markedly), they all share a commitment to the idea that moral principles do not require metaphysical vindication.[4] Instead, Rawls' brand of constructivism "holds that moral objectivity is to be understood in terms of a suitably constructed social point of view that all can accept. Apart from the procedure of constructing the principles of justice, there are no moral facts" (Rawls, 1980/1999d, p. 307). This approach categorically differs from justifications rooted in moral realism, which holds that moral concepts refer to independent moral facts that, once apprehended, become self-evident.[5] For realists, articulating moral principles is a matter of developing methods for arriving at these independently-given facts. Constructivism, on the other hand, does not commit itself to the existence of an order of independently-given moral facts. Instead, moral principles are adopted not because they are true, but because they issue "from social procedures that are, in some sense, suitable" (Darwall, Gibbard, and Railton, 1992, p. 139). Put another way: for moral realism the justification of moral principles is best characterized as an epistemological problem, while for constructivists it is a practical one. The practical task before the constructivist,

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[4] One point on which Kantian constructivists regularly disagree is on the types of moral principles that may be constructed. For example, Rawls (1993) held that only principles of justice could be constructed while Thomas Scanlon (1998) extends the concept of construction to a range of moral issues.
[5] For a detailed account of the differences between constructivism and moral realism, see Korsgaard, 2008.

then, is to identify "what social procedures [are] suitable" and "what procedures count as yielding reasonable principles" (Darwall, Gibbard, and Railton, 1992, p. 139). It is this task that Rawls sees before him in developing an account of justice.

    2.1.4 Summary. The details of Rawls' influences and method are important for understanding the motivations and assumptions that underwrite the development of *justice as fairness*. For example, recognizing Rawls' Kantian affinities helps to highlight his rooting of individual liberty and autonomy in ideas of dignity and moral independence (as opposed to, for example, notions of self-ownership as typified by the Lockean tradition). Also, understanding Rawlsian liberalism as founded on an ideal of toleration and freedoms of conscience and expression (as opposed to the economic liberties emphasized by classic and neo-liberals) makes clearer his reasons for prioritizing the protection of personal and expressive liberties over socioeconomic ones. In addition, emphasizing Rawls' Humean influences reinforces the importance of his distinction between the application of moral principles to institutional and individual circumstances. Finally, keeping in view his constructivist method demonstrates the relevance of the original position—Rawls' does not take principles of justice to be self-evident or independent of the procedures that construct them.

2.2 Theory

    2.2.1 Argument from the basic structure. Rawls views the moral justification of the basic structure of contemporary liberal democratic societies as the primary problem of a theory of justice (Rawls, 1971b, p. 4). As he puts it

    one main feature of justice as fairness is that it takes the basic structure as [its]

    primary subject.... It does so in part because the effects of the basic structure on

citizens' aims, aspirations and character, as well as on their opportunities and their

ability to take advantage of them, are pervasive and present from the beginning of

life. (Rawls, 2001, p. 10)

As a consequence, Rawls' focus is on principles of justice for governing the basic

structure of society—that is, how its basic institutions fit together to distribute, among

other things, rights, responsibilities, and wealth—and not the individual decisions and

actions of persons within society. He views institutional arrangements and individual

decisions as markedly different subjects to be regulated by different types of principles

(recall his indebtedness to Hume). So, while the primary unit of moral concern for Rawls

is (as with liberal theory generally) the individual, it is notable that Rawls' theory is not

aimed at providing principles for the regulation of individual behavior.

Rawls gives two kinds of reasons for taking the basic structure as his primary

subject. Under the first kind of reason, he argues that principles of justice are necessary

for the regulation and preservation of just background conditions against which

individuals live out their lives—what Rawls refers to as "background justice." Rawls'

(1993) concern with background justice is rooted in a belief that injustice arises not

because individuals in society are necessarily deceitful or disingenuous but because there

is a "…tendency…for background justice to be eroded even when individuals act fairly"

(Rawls, 1993, p. 269). This assumption is built, in part, on what Rawls views as the

limited foresight of individuals and associations in any given society. "Individuals and

associations," Rawls (1993) thinks, "cannot comprehend the ramifications of their

particular actions viewed collectively, nor can they be expected to foresee future

circumstances that shape and transform present tendencies" (p. 268). For Rawls, "the

overall result of separate and independent transactions is away from and not toward background justice" (p. 267). He assumes that "if transactions between individuals are to be fair" then "certain background conditions are necessary" (Rawls, 1993, p. 269). Given these conditions, he argues for "an institutional division of labor between the basic structure and the rules applying directly to individuals and associations and to be followed by them in particular transactions" (Rawls, 1993, p. 268-269). This "institutional division of labor" frees individuals and associations up to pursue their chosen ends, confident that somewhere else in the basic structure "the necessary corrections to preserve background justice are being made" (Rawls, 1993, p. 269). Once this division of labor is established, the need for certain special institutions for the preservation of background justice becomes clear. Further, since these institutions are conceived of as distinct from individual actions or local exchanges, these special institutions require special principles—principles of social justice.

Under the second kind of reason, Rawls (2001) centers on the basic structure for its "profound and pervasive" influence on the life chances of citizens (p. 55-56).

> We assess our prospects in life according to our place in society and we form our ends and purposes in the light of the means and opportunities we can realistically expect. So whether we are hopeful and optimistic about our future, or resigned and apathetic, depends both on the inequalities associated with our social position and on the public principles of justice that society not merely professes but more or less effectively uses to regulate the institutions of background justice. (Rawls, 2001, p. 56)

In this way, the basic structure can be seen as integral to the structuring of political, social, and economic possibilities both now and in the future. "This it does," Rawls (2001) notes, "by the expectations and ambitions it encourages in the present, and indeed over a complete life" (p. 56). Combined, these two kinds of reasons make up Rawls' justification for taking the basic structure as his primary subject.

Within the basic structure, Rawls intends his principles of justice to apply to institutions that he believes are essential to establishing and maintaining productive social cooperation, including (but not limited to): a constitution and the system of government it defines; systems of property for regulating the use of goods; and economic markets for distributing productive resources. Rawls refers to these institutions as "basic institutions" and his two principles of justice are intended to address their design. At the same time, these principles are not intended to apply directly to individual behavior or the inner-workings of other types of associations in society—in particular, private associations, religious institutions, and the family. However, the relationship between principles of justice and these other associations—associations that are sometimes (but not consistently) characterized as "non-basic institutions"—has not always been clear in Rawls' work. His characterization of the institution of the family, in particular, has drawn a great deal of criticism.[6] In order to gain a better picture of Rawls' understanding of these different types of institutions, however, it is necessary to address Rawls' idea of public reason.

2.2.2 The idea of public reason. Rawls' description of the idea of public reason is complex and a full account of the idea is beyond the scope of this section, but two features of this debate are important for the present discussion: 1) the idea of public

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[6] I attend to the institution of the family later in this section.

reason as distinguished from nonpublic reason and 2) clarification on the concept of basic
institutions regulable by principles of justice. Here, I focus on the first feature and only
briefly touch on the second feature (though it will be addressed in more detail later in the
dissertation). In particular, the first feature is important to understanding the rules of
deliberation Rawls later imposes on parties in the original position.

In the following passage, Rawls (2001) illustrates the idea of public reason by
contrasting it with nonpublic reason:

> All ways of reasoning—whether individual, associational, or political—must
> accept certain common elements: principles of inference and rules of evidence;
> they must incorporate fundamental concepts of judgment, inference and evidence,
> and include standards of correctness and criteria of truth. Otherwise they would
> not be ways of reasoning but something else: mere rhetoric or artifices of
> persuasion…. Nevertheless, different procedures and methods are appropriate in
> view of the different conceptions of themselves held by individuals and corporate
> bodies, and given the different conditions under which their reasoning is carried
> out as well as the different constraints to which their reasoning is properly
> subject." (p. 92-93)

In other words, different sorts of institutions and associations (and their attendant
practices) are governed by different sorts of reasoning. For example, the methods of
reasoning and rules of evidence appropriate for a church need to be justifiable to its
members—but not necessarily to non-members. Further, the types of reasons and rules
relevant to religious institutions may differ considerably from those considered
authoritative in scientific circles and different yet still from forms of reasoning employed

by firms and labor unions, to use some of Rawls' own examples (see: Rawls, 2001, p. 92-93). In a just society, these ways of reasoning are authoritative within their specified contexts and individuals may freely accept the authority of different institutions in accordance with personal beliefs. At the same time, an individual is also permitted to reject the authority of other types of non-basic institutions without jeopardizing their standing as a citizen. For example, leaving a particular religious sect may carry certain social or other consequences, but it does not jeopardize one's standing as a citizen in a liberal democracy. As Rawls (2001) explains: "In the case of ecclesiastical authority, since apostasy and heresy are not legal offenses, those who are no longer able to recognize a church's authority may cease being members without running afoul of state power" (p. 93). The idea is a familiar one, as it underwrites our most basic views on the freedoms of conscience, speech, association, and movement. The ability of individuals to effectively exercise these freedoms serves to justify the authority of different nonpublic reasons within their appropriate context.

Public reasons must also be justifiable to those to whom they apply—in this case, citizens of a liberal democracy. However, public reasons could only be freely accepted in the same way as nonpublic reasons if it were as easy or feasible to reject state authority and leave the society within which one was raised as it is to freely reject different theological, philosophical, or other associations. But, as Rawls (2001) argues, this is not similarly feasible, since it

> involves leaving the society and culture in which we have been raised, the society and culture whose language we use in speech and thought to express and understand ourselves, our aims, goals and values; the society and culture whose

history, customs, and conventions we depend on to find our place in our social world…. The state's authority cannot, then, be freely accepted in the sense that the bonds of society and culture, of history and social place of origin, begin so early to shape our life and are normally so strong that the right of emigration (suitably qualified) does not suffice to make accepting its authority free, politically speaking. (p. 93-94)

As a consequence, public reasons must be justifiable to all (recall the liberal notion of legitimacy). Further, for Rawls, this "all" is understood as containing a wide range of competing and perhaps irreconcilable worldviews. Rawls refers to these competing worldviews as "comprehensive doctrines" consisting of items such as persons' philosophical, moral, or religious beliefs, their sentiments and loyalties, as well as their fundamental values and projects, among other things. The concept of comprehensive doctrines is used to demonstrate 1) the diversity of backgrounds, motivations, and reasons individuals appeal to when setting and pursuing various ends and 2) that one person's doctrine may, at times, be irreconcilable with that of another. Further, individual members of society might—at any given moment—possess only a partially fleshed out (and perhaps incoherent) comprehensive doctrine. Even so, however, it is presumed that individuals will, at any given time, possess some more or less complete set of religious, philosophical, or moral ideals that shape their conception of the good and inform their aims and aspirations. Unlike nonpublic reasons for associations that might be oriented towards a single religious, philosophical, or other doctrine, public reasons for a political society must account for a plurality of competing comprehensive doctrines.[7]

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[7] It is important to point out, however, that Rawls does not think society has to accommodate every possible comprehensive doctrine. To delineate between those doctrines with which society must be

Consequently, standards for public reasoning are more stringent than for forms of nonpublic reasoning.

Understanding the distinction between public and nonpublic reasoning makes clearer Rawls' distinction between basic institutions and other types of associations. It also serves to further justify his focus on principles of justice for basic institutions: Rawls' principles are designed to meet the stringent standards of public reasoning required to justify authority of basic institutions in a liberal democracy. As such, they are not intended to apply directly to the inner-workings of other types of associations that fall within the basic structure. But, while Rawls' principles of justice are not applicable to the internal workings of non-basic institutions, his principles of justice do impose certain constraints on their overall operations. To use Rawls' own example, liberal principles of justice do not require governance *within* religious institutions to be democratic. However, they do protect the rights and liberties of the members of religious institutions—as a result, churches cannot "practice effective intolerance, since, as the principles of justice require, public law does not recognize heresy and apostasy as crimes, and members of churches are always at liberty to leave their faith" (Rawls, 1997/1999f, p. 597).

Though this distinction appears somewhat straightforward here, there are points in Rawls' theory where the idea of basic institutions (immediately governed by principles of justice) and other associations (merely constrained by principles of justice) comes under strain. This tension becomes particularly evident in Rawls' discussion of the family. Early on, feminist critics challenged Rawls' conception of family structures and familial relations as being unjustly patriarchical. Their sharp and sustained criticisms later forced

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concerned from those that it does not need to recognize, he outlines a criterion of reasonableness, which is defined in relation to the rational. The distinction between the reasonable and the rational is discussed later.

Rawls to re-evaluate and clarify the role of the family as an institution in society. Ultimately, he admits the family as among his list of basic institutions given its role in "the orderly production and reproduction of society and its culture from one generation to the next" (Rawls, 1997/1999f, p. 595). Unlike other basic institutions (such as systems of property or economic markets), however, Rawls does not think the family should be regulated immediately by principles of justice. Instead, he views the application of his principles to the family much in the same way as they are applied to non-basic institutions:

> To put the case another way, we distinguish between the point of view of people as citizens and their point of view as members of families and of other associations. As citizens we have reasons to impose the constraints specified by the political principles of justice on associations; while as members of associations we have reasons for limiting those constraints so that they leave room for a free and flourishing internal life appropriate to the association in question. Here again we see the need for the division of labor between different kinds of principles. We wouldn't want political principles of justice—including principles of distributive justice—to apply directly to the internal life of the family. (Rawls, 1997/1999f, p. 598)

Just as principles of justice protect the rights of members of religious organizations as citizens, so too do principles of justice apply to members of the family as citizens.

Though there are lingering problems with Rawls description of the family overall, I discuss it here only to further draw out the relationship between principles of justice designed to regulate institutions essential to the basic structure of society and principles

for regulating the inner workings of groups and associations that fall within—but are not viewed on Rawls' account as essential to—the basic structure. That being said, Rawls (2001) also admits that his characterization of the basic structure is deliberately loose and open to further interpretation (p. 12). Finally, though this discussion may not appear to have immediate implications for problems of social justice, information, and technology, its relevance will be made clearer in later chapters. For now, this discussion of Rawls' focus on the basic structure helps us better understand that he does not intend his principles to apply to individual behavior or to the inner-workings of non-basic institutions or the family. Rather, they apply to the basic structure of society, that is, a loosely defined set of basic institutions essential to the development and reproduction of social cooperation over time. In addition, they put certain constraints on the operations of other types of associations and groups. Ultimately, then, Rawls is concerned with articulating just background conditions against which individuals set and pursue valued ends in line with a range of reasonable comprehensive doctrines.

2.2.3 Model-conceptions. As previously discussed, Rawls is committed to the idea that there are no moral truths prior to or independent of our practical reasoning about them. Instead, moral truths (in Rawls' case, principles of justice) are the outcome of suitable procedures that incorporate relevant features of practical reason. Rawls puts forward his famous "original position" as one such suitable procedure. Understanding the role of this procedure, however, can sometimes make it easy to overstate its importance for arriving at his two principles of justice. Much of the "heavy lifting" of Rawls theory is done while setting up the parameters of the procedure, well before Rawls arrives at the original position—ultimately, the device is simply intended to operationalize the relevant

features of practical reason that Rawls lays out in advance. The following section foregrounds the foundational assumptions that underwrite the original position.

To start, I introduce two of Rawls' three ideal moral conceptions—referred to as "model-conceptions" —of persons and society (the first two model-conceptions) that set conditions for the design of the original position (the third model-conception). Importantly, these model-conceptions are not the outcomes of constructive procedures as are his principles of justice. Instead, they are simply laid out as per the requirements of constructivism generally. After introducing Rawls' first two model-conceptions of persons and society, I lay out the ways in which these two model-conceptions are operationalized in the original position—Rawls' third ideal model-conception—and describe briefly the deliberations that take place within the device. Finally, I outline the two principles of justice that Rawls believes parties in the original position would arrive at as suitable for regulating the basic structure of liberal democratic societies.

2.2.3.1 Well-ordered society and moral persons. Rawls' model-conceptions are clearly articulated in Rawls' (1980/1999d) description of the driving idea of *justice as fairness*:

> justice as fairness begins from the idea that the most appropriate conception of justice for the basic structure of a [well-ordered] democratic society is one that its citizens would adopt in a situation that is fair between them and in which they are represented solely as free and equal moral persons. (p. 310)

Here, we find reference to the ideal moral conceptions of persons, a well-ordered society, and the original position that lie at the base of Rawls' constructivism. Again, this is not to say that these models justify the use of a constructive procedure itself, as that justification

is given by the method of constructivism broadly. Rather, they serve to justify the design of the procedure (that is, its content and parameters). In particular, the model-conceptions of the well-ordered society and the moral person isolate aspects of practical reason essential to constructing suitable principles of justice.[8]

The first relevant model-conception is that of the "well-ordered society." Rawls (1980/1999d) identifies such a society as one in which everyone accepts (and knows others also accept) the same principles of justice (p. 309). Further, its basic structure—that is, the arrangement of its main institutions into one scheme—is believed by all to satisfy the principles of justice (Rawls, 1980/1999d, p. 309). Finally, the principles of justice are public and founded on reasonable beliefs as determined by generally accepted methods of inquiry (Rawls, 1980/1999d, p. 309). This model-conception plays in important role in arguing for the selection of certain principles of justice, as parties in the original position are charged with choosing principles (from a range of options) that line up or square with the idea of a well-ordered society.[9] Or, put another way: if the principles proposed in the original position do not square with the idea of a well-ordered society then that counts as an argument against them.

The second relevant model-conception is that of the "moral person." Moral persons in society, Rawls claims, importantly view themselves, in their political and social relations, as free and equal. This idea of moral persons contains three components that must be defined: free, equal, and moral.

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[8] It is important to note, however, that Rawls thinks societies and persons are more than these models. However, "if certain principles of justice would indeed be agreed to," a constructivist account of justice must connect definite principles with particular conceptions of the person and society (Rawls, 1980/1999d, p. 308). Put another way, other conceptions of persons might be appropriate for reasoning about other moral principles but, insofar as we are concerned with principles of justice, we are, Rawls thinks, concerned with the model-conceptions he advances.

[9] As Rawls (2001) puts it: "The suitability of a conception of justice for a well-ordered society provides an important criterion for comparing political conceptions of justice" (p. 9).

1.   Persons as moral are a) said to possess the two moral powers, that is, they have an effective sense of justice (a capacity to recognize and act from justice's demands) and b) they also possess a conception of the good (that is, they have some more or less complete set of valued ends and are capable of adopting effective means to those ends).

2.   Persons are equal insofar as they recognize that everyone has an equal right to determine and evaluate the principles of justice that are to govern the basic structure of society.

3.   Finally, persons are free if a) they think they are entitled to make claims on common institutions in order to fulfill their goals and higher-order interests and b) they believe that they can revise or change their conception of the good at any given time.

It is important to note the ways in which Rawls understands the concepts of equality and freedom in these model-conceptions. First, Rawls does not consider people equal in all respects—he is aware that there will be natural inequalities in the distribution of certain talents and abilities. What is important from the standpoint of justice, however, is that people are equal "…in that they are all regarded as having to the essential minimal degree the moral powers necessary to engage in social cooperation over a complete life and to take part in society as equal citizens" (Rawls, 2001, p. 20). Though Rawls' definitions of "essential minimal degree" and "a complete life" are distinct points of contention for some critics, what is important here is that persons are defined as equal insofar as they are conceived of as a) equally capable of exercising the two moral powers and b) having an equal claim on the political process.

Second, Rawls does not assume that people are free or autonomous in the sense of free from natural or social contingencies and influences. In this sense, Rawls' theory is not (against the claims of some critics) ahistorical or unduly atomistic since it does not view persons as ultimately detached or removed from their cultural or historical circumstances. Rather, Rawls views people as free so long as they view themselves a) as able to revise their aims and ambitions as they see fit (that is, they do not view themselves as permanently bound to any single conception of the good) and b) as responsible for their ends and can make claims on behalf of those ends. By conceiving of equality and freedom in these limited ways, Rawls seeks to avoid metaphysical questions regarding free will and determinism that he views as irrelevant to the articulation of principles of justice (see, generally: Rawls, 1985/1999e).

For Rawls, free and equal moral persons are also said to be both reasonable and rational, though he defines this idea in a specific way. Recalling that the method of Kantian constructivism requires moral principles to be arrived at through suitable procedures, Rawls' theory must incorporate dimensions of persons' capacities for reason that can be justified as relevant to social justice.[10] Insofar as we are concerned with principles of justice, Rawls thinks, we are concerned with people's capacities to be both reasonable and rational. Understanding these concepts, then, is integral to understanding the reasons Rawls has for adopting the model-conceptions outlined above.

In crude terms, Rawls thinks a person has the capacity to be reasonable if they are prepared to advance standards, principles, or reasons for action believed to be justifiable to (reasonable) others.

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[10] Rawls distinction here echoes the Kantian distinction between pure practical reason and empirical practical reason (see: Rawls, 1993, footnote 1, p. 48).

Persons are reasonable in one basic aspect when, among equals say, they are

ready to propose principles and standards as fair terms of cooperation and to abide

by them willingly, given the assurance that others will likewise do so. Those

norms they view as reasonable for everyone to accept and therefore as justifiable

to them; and they are ready to discuss the fair terms that others propose. (Rawls,

1993, p. 49)

On this account, reasonableness falls somewhere between pure altruism (acting solely on

behalf of the common good) and mutual advantage (cooperating with others to advance

one's own ends). Reasonable persons, Rawls (1993) thinks, "are not moved by the

general good as such but desire for its own sake a social world in which they, as free and

equal, can cooperate with others on terms all can accept" (p. 50).

By contrast, persons are rational when they exercise "powers of judgment and

deliberation in seeking ends and interests peculiarly [their] own" (Rawls, 1993, p. 50).

Rawls' notion of rationality accounts for the rationally self-interested person familiar to

economic theory and classical liberalism, though it is constrained by his idea of

reasonableness. In addition, Rawls' (1993) vision of rationality goes beyond mere self-

interest:

rational agents as such [are not] solely self-interested: that is, their interests are

not always interests in benefits to themselves. Every interest is an interest of a self

(agent), but not every interest is in benefits to the self that has it. Indeed, rational

agents may have all kinds of affections for persons and attachments to

communities and places, including love of country and of nature; and they may

select and order their ends in various ways. (p. 51)

What distinguishes the rational from the reasonable is "the desire to engage in fair cooperation as such" (Rawls, 1993, p. 51). Together

> neither the reasonable nor the rational can stand without the other. Merely reasonable agents would have no ends of their own they wanted to advance by fair cooperation; merely rational agents lack a sense of justice and fail to recognize the independent validity of claims of others. (Rawls, 1993, p. 52)

Importantly, these complementary ideas bring together concepts of equality and freedom that are often viewed by both critics and proponents of liberalism as in tension with one another. The reasonable gives expression to equality insofar as it recognizes that all persons have an equal claim on matters of justice; the rational expresses the idea of the freedom of individuals to set, pursue, and revise individual ends.[11] Further, the reasonable and the rational work together to produce a fuller picture of persons acting in the real world: it does not make unreasonable assumptions about persons' abilities to exercise pure altruism (for example, in conditions of moderate scarcity or in the face of familial, religious, or other social commitments) nor does it reduce individuals to exclusively self-interested, rational calculators (as is typical of certain strands of economic or libertarian theory).

Finally, the ideas of the reasonable and the rational are embedded in Rawls' articulation of the idea of the two moral powers. The notion of the reasonable is articulated in the first moral power: the ability of individuals to exercise an effective

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[11] Another way of viewing the concepts of the reasonable and the rational are as an attempt to reconcile two otherwise distinct approaches to justice found in the social contract tradition. On the one hand, rationality here represents the Lockean (and, to some extent, Hobbesian) tradition of agreement for mutual advantage. Reasonableness, on the other hand, expresses the ideas of democracy and the general will found in the work of Rousseau. In this way, Rawls is able to weave together two established traditions in order to further develop the idea of a social contract generally.

sense of justice, that is, a capacity to recognize and act from justice's demands. The rational is represented by the second moral power: the capacity of individuals to possess and pursue a conception of the good, that is, to adopt some more or less complete set of valued ends and take up effective means to those ends. On an earlier account, Rawls (1971b) presented the moral powers in a controversial Kantian manner, claiming that they are constitutive of our nature as free and equal persons (p. 226). In his later work, Rawls distances his theory from its Kantian underpinnings, but the ideas of the reasonable and the rational are retained through his development of political (as opposed to Kantian) constructivism. As a matter of political constructivism, he came to defend the two moral powers as simply features of persons that are necessary for social cooperation (Rawls, 1993). Regardless, the challenge for Rawls in constructing principles of justice is to develop a decision procedure that incorporates these important ideas that, as Rawls argues, appropriately represent different dimensions of persons and their capacities for practical reasoning.

 2.2.3.2 The original position. Rawls' two model-conceptions—of a well-ordered society and free and equal moral persons—help set conditions for the design of his third model-conception: the original position.

> First, [the original position] models what we regard…as fair conditions under which the representatives of citizens, viewed solely as free and equal persons, are to agree to the fair terms of social cooperation (as expressed by principles of justice) whereby the basic structure is to be regulated.
>
> Second, it models what we regard—here and now—as acceptable restrictions on the reasons on the basis of which the parties (as citizens' representatives), situated

in those fair conditions, may properly put forward certain principles of justice and

reject others. (Rawls, 2001, p. 80)

Further, Rawls (1980/1999d) describes the original position as incorporating "pure procedural justice at the highest level" (p. 310). That is,

the fairness of the circumstances under which agreement is reached transfers to

the principles of justice agreed to; since the original position situates free and

equal moral persons fairly with respect to one another, any conception of justice

they adopt is likewise fair. (Rawls, 1980/1999d, p. 310)

Hence the name of Rawls' theory, *justice as fairness*.

Beyond the ideals of free and equal moral persons capable of exercising both reasonableness and rationality, Rawls also imposes additional constraints that inform deliberation in the original position. One set of conditions are what Rawls (2001) refers to as (following Hume) "the circumstances of justice" (p. 84). The circumstances of justice are intended to reflect (generally) our current historical circumstances, since if the principles selected in the original position are to be useful they must in designed, in part, to be applicable to our actual conditions in the actual world (Rawls, 2001, p. 84). He divides the circumstances of justice into two parts, objective and subjective. Among the objective circumstances of justice are conditions of moderate scarcity and the necessity of social cooperation.[12] In light of this moderate scarcity, then, social cooperation is necessary to ensure that a decent standard of living for all is arrived at and maintained. The subjective circumstances of justice include the fact of reasonable pluralism. Recalling foundational liberal ideals of toleration and religious diversity, Rawls believes

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[12] Here, Rawls admits his theory as not applicable in cases of extreme scarcity (i.e, famine) or unlimited abundance; instead, it is designed to apply to societies where there are enough resources to achieve a decent standard of living for all, but not so many that distributive justice is no longer a concern.

a liberal democratic society will inevitably contain a wide array of reasonable comprehensive doctrines that will be different, often competing, and sometimes irreconcilable with one another. The fact of reasonable pluralism must be accepted as a permanent part of the circumstances of justice, Rawls (2001) argues, because "[there] is no politically practicable way to eliminate this diversity except by the oppressive use of state power to establish a particular comprehensive doctrine and to silence dissent" (p. 84). Such oppressive force clearly runs counter the aims of a liberal conception of justice. Finally, Rawls also stipulates that the reasoning parties employ in the original position must be public, that is, they must make use of public reasons (as previously defined).

At this point, parties (as free and equal moral persons) have been introduced to the original position, constrained by the circumstances of justice, and committed to the employment of public reasons in their deliberations about principles of justice (for a well-ordered society). Below, I address the ways Rawls further models rationality and reasonableness through 1) the introduction of primary goods (modeling the rational) and 2) the veil of ignorance (modeling the reasonable).

Primary goods: modeling the rational. In order to model the idea of rationality, Rawls charges parties in the original position with securing sufficient means for the exercise of their two moral powers. In order to give content to this idea, Rawls introduces the concept of primary goods to the original position. "These goods," Rawls (2001) argues, "are things citizens need as free and equal [moral] persons" and they are not merely "things it is simply rational to want or desire, or to prefer or even to crave" (p. 58). Primary goods are Rawls' way of making explicit the rational autonomy of individuals as described in the model-conception of free and equal moral persons.

The original version of Rawls' (1971a) *A Theory of Justice* was unclear about the justification for primary goods as the object of distribution within Rawls' framework. As Joshua Cohen (2003) points out, Rawls initially "presented the interest in [primary goods] in terms of what it is rational for individuals to want to pursue their ends without an idea of the person in the background" (p. 108). But, the presentation of primary goods changed in the revised version of *A Theory of Justice*:

> In the revised version, the presentation of primary goods generally—and of the liberties in particular—is modified. Thus the account of primary goods generally, and of the liberties in particular is now said to 'depend on a moral conception of the person that embodies a certain ideal…. Primary goods are now characterized as what persons need in their status as free and equal citizens, and as moral and fully cooperating members of society over a complete life. (Cohen, 2003, p. 108)

The move, then, is from an understanding of primary goods as "advancing human interests under all conditions" to "advancing the goods of citizens understood as free and equal persons" (Cohen, 2003, p. 108). Cohen's discussion helps to further emphasize the fundamental importance of Rawls' conception of the person to the development of *justice as fairness*. In the original position, these moral persons are moved by their interest in exercising the two moral powers—primary goods are then introduced as a way to make this interest concrete.

Rawls' index of primary goods is derived by ascertaining which things are generally necessary as both social conditions and all-purpose means not for advancing persons' interests generally under particular historical circumstances, but for enabling persons to exercise their moral powers specifically (Rawls, 1993, p. 314). "These goods,"

Rawls (2001) states, "are things citizens need as free and equal [moral] persons" and they are not merely "things it is simply rational to want or desire, or to prefer or even to crave" (p. 58). In other words, primary goods are an expression of the interests of moral persons and not the consequence of an empirical or historical inquiry.

The list of primary goods that Rawls adopts includes: basic rights and liberties; freedom of movement and free choice of occupation; powers and prerogatives of offices and positions of responsibility in political and economic institutions; income and wealth; and the social bases of self-respect. Rawls further specifies the basic rights and liberties by way of a list. Just as the index of primary goods was derived from certain features of persons (that is, their interest in effectively exercising their two moral powers), so is the list of basic liberties—Rawls (2001) seeks out "what liberties provide the political and social conditions essential for the adequate development and full exercise of the two moral powers" (p. 45). Recall that the first moral power is an effective sense of justice. To promote the exercise of this power, Rawls (2001) points to equal political liberties and freedom of thought as enabling persons "to develop and to exercise these powers in judging the justice of the basic structure of society and its social policies" (p. 45). The second moral power—the capacity to adopt and pursue a conception of the good—is promoted through liberty of conscience and freedom of association (Rawls, 2001, p. 45). In fact, Rawls (1993) views liberty of conscience and the freedom of association as both exceptionally important and fundamentally intertwined, "for unless we are at liberty to associate with other like-minded citizens, the exercise of liberty of conscience is denied" (p. 310-315). Rawls (1971b) also affords special consideration to the primary good of self-respect, calling it "perhaps the most important primary good" (p. 386). Self-respect,

according to Rawls (1971b), is defined as both "a persons' sense of his own value, his secure conviction that his conception of his good, his plan of life is worth carrying out" and a "confidence in one's ability, so far as it is within one's power to fulfill one's intentions" (p. 386). Taken together, committing parties in the original position to the task of securing a fair share of primary goods operationalizes Rawls' ideal of rationality.

The veil of ignorance: modeling the reasonable. Reasonableness is modeled in the original position by situating parties in symmetrical relations with one another. Parties are said to be symmetrically situated when: 1) they are described in the same way (as free and equal moral persons); 2) they are similarly constrained by the use of public reasons in their deliberations; and 3) when they are exposed to the same informational constraints, such as the circumstances of justice and the veil of ignorance. With regard to (1), I have already described the idea of free and equal moral persons. I have also already briefly addressed (2), that is, the idea that parties in the original position must employ public (as opposed to non-public) reasons in their deliberations. Recall that in order to satisfy the liberal criteria of legitimacy public reasons must be justifiable to everyone in the society to which they apply. Given the fact of reasonable pluralism (the subjective circumstances of justice), this society is assumed to contain a wide range of competing and perhaps irreconcilable comprehensive doctrines. In order to accommodate the diversity of comprehensive doctrines, public reasons must be reasons that are not oriented towards any single comprehensive view. Instead, parties in the original position seek what Rawls (1993) calls an "overlapping consensus" (p. 133-172).[13]

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[13] For Rawls (1993), a single comprehensive doctrine "cannot secure the basis of social unity, nor can it provide the content of public reason on fundamental political questions" (p. 134). In order to be unified and stable, members of a society "must affirm the same political conception of justice," though they do not need to do so "for all the same reasons, all the way down" (Rawls, 2001, p. 32). Instead, a political

Regarding (3), Rawls places certain informational constraints on deliberations in order to fully ensure that parties are situated symmetrically. First, he presents the objective and subjective circumstances of justice in order to reflect the historical circumstances that make the problem of justice relevant—all parties are equally subject to the problem of moderate scarcity and the fact of reasonable pluralism. Second, Rawls (1980/1999d) employs the "veil of ignorance," which deprives parties of information regarding "their place in society, their class position, or social status" as well as "their fortune in the distribution of natural talents and abilities" and of "their own distinctive psychological dispositions and propensities…" (p. 310). Parties are also denied particular knowledge of their held beliefs and desired ends—in other words, parties know they have comprehensive doctrines but do not know their doctrines' specific contents. In the absence of this knowledge, parties are to rely on the notion of primary goods to give substance to their deliberations.[14] Such restrictions, Rawls (1980/1999d) argues, are "required if no one is to be advantaged or disadvantaged by natural contingencies or social chance in the adoption of principles." (p. 310). Overall, these informational parameters serve to situate individuals as rationally autonomous and mutually disinterested, ensuring that deliberation between the parties is fair insofar as they are not constrained by previous conceptions of justice or other commitments but, instead, are

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conception (as Rawls intends *justice as fairness* to be) should aspire to be justifiable to a wide range of reasonable comprehensive doctrines.

[14] Other information that is permitted behind the veil of ignorance includes: general principles of science and common sense; the fact of reasonable pluralism, that is, that there exists a diversity of reasonable religious, philosophical, and moral doctrines; and it is assumed that there are (at least to some degree) sufficient resources to realize the principles agreed to—that is, citizens will not be living in conditions of extreme scarcity (the objective circumstances of justice).

interested only in advancing their desired (but unknown and indeterminate) ends as specified by the index of primary goods.[15]

2.2.3.3 Selecting principles of justice. Once inside the original position, parties are to deliberate and select principles of justice for regulating the basic structure of a well-ordered society. Loosely following the method of ethics developed by Sidgwick, Rawls puts before the parties different sets of principles of justice rooted in different philosophical schools of thought (including his own two principles). In this way, the original position acts as a device for selection—that is, principles of justice are not deduced from Rawls' ideal moral conceptions but, rather, they are selected from a given list (Rawls, 2001, p. 83).[16] Finally, Rawls (2001) recognizes that this approach cannot establish the best conception of justice out of all possible systems—but doing so is not necessary for practical purposes. We are, Rawls argues, not looking for the best conception. Instead, we seek a suitable conception that can provide a moral basis for the justification of the basic structure of a democratic society.

Once the conditions for deliberations in the original position have been set up, Rawls aims to show why parties in the original position would adopt his principles over principles from other philosophical traditions, most notably utilitarian principles. While I do not address these other principles here, it is worth noting that the original position is designed in such a way so that the deliberating parties would most reasonably select his

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[15] "That the parties are symmetrically situated is required if they are to be seen as representatives of free and equal citizens who are to reach an agreement under conditions that are fair... To model this conviction in the original position, the parties are not allowed to know the social position of those they represent, or the particular comprehensive doctrine of the person each represents. The same idea is extended to information about people's race and ethnic group, sex and gender, and their various native endowments such as strength and intelligence…" (Rawls, 1993, p. 24-25).

[16] Selection from a list is preferable, Rawls (2001) thinks, as trying to determine what alternatives parties in the original position might think up themselves would be "a complicated business" and distract from the practical aims of the endeavor (p. 83).

two principles over others. In other words, Rawls stacks the deck in his favor. This is not, however, a defect of Rawls' (1971b) theory—rather, it is a feature:

> there are…many possible interpretations of the initial situation. This conception varies depending upon how the contracting parties are conceived, upon what their beliefs and interests are said to be, upon which alternatives are available to them, and so on. In this sense, there are many different contract theories. Justice as fairness is but one of these. But the question of justification is settled, as far as it can be, by showing that there is one interpretation of the initial situation which best expresses the conditions that are widely thought reasonable to impose on the choice of principles yet which, at the same time, leads to a conception that characterizes our considered judgments…. We may conjecture that for each traditional conception of justice there exists an interpretation of the initial situation in which its principles are the preferred solution. (p. 105)

This extended passage reinforces the importance of the assumptions Rawls builds into the model-conceptions that set constraints on the design of the original position. These assumptions, as we have seen, are the ones Rawls thinks it is reasonable to make when working out an appropriate procedure for the selection of principles of justice. If one is critical of the principles Rawls' parties adopt, it is not necessarily their reasoning inside the original position that should be criticized but, rather, the assumptions and constraints that Rawls builds into his model-conceptions in first place.

 2.2.3.4 Rawls' two principles of justice. Built on the preceding ideas, Rawls proposes two principles of justice:

1. Each person has the same indefeasible claim to a fully adequate scheme of equal basic liberties, which scheme is compatible with the same scheme of liberties for all; and

2. Social and economic inequalities are to satisfy two conditions: first, they are to be attached to offices and positions open to all under conditions of fair equality of opportunity and second, they are to be to the greatest benefit of the least-advantaged members of society (the difference principle)[17]

Rawls intends these principles to specify a fair distribution of primary goods in society to effectively promote persons' ability to exercise their two moral powers. The first principle guarantees individuals equal basic civil and political liberties—including (but not limited to) freedom of speech and expression, religion, association, choice of occupation, right to vote, and the right to hold office, as well as the fair value of the political liberties (that is, similarly able and motivated people should have the same prospects for political participation).

The second principle provides for the effective actualization of the first: it ensures fair equality of social, professional, and economic opportunity, and permits social, professional, and economic inequality only if they work to the benefit of the least-advantaged (the difference principle). To put it another way, inequalities are only permitted on the basis that, were they to be eliminated, the position of the worst- off would be made even worse. Further, Rawls two principles are lexically ordered: the first principle is necessarily prior to the first, while the first part of the second principle (fair equality of opportunity) is necessarily prior to the second part (the difference principle).

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[17] Here I have quoted Rawls (2001) formulation of the principles as they appear in *Justice As Fairness: A Restatement* (p. 42-43).

For Rawls (2001), this arrangement "means that in applying a principle…we assume the prior principles are fully satisfied" (p. 43). As a consequence, the distribution of basic liberties in the first principle cannot be compromised to improve conditions according to the second principle (for example, one cannot trade the right to vote for a greater share of economic benefits). The basic civil and political liberties, then, have special priority for Rawls. Overall, these two principles are designed to maximize the distribution of primary goods, recognized earlier as "things that every rational man is presumed to want" and "normally have a use whatever a person's rational plan of life" (Rawls, 1971b, p. 54).

2.2.4 Summary.

Rawls' development of *justice as fairness* is complicated. Following the requirements of constructivism, he has to begin by clearly laying out features of persons' practical reason and justify their relevance for constructing principles of justice. He goes to great lengths to articulate a vision of moral persons as free and equal, reasonable and rational, and prepared to deliberate about principles of justice. Further, he seeks out ways to effectively operationalize these features of persons within the original position. By putting forward an index of primary goods and charging parties in the original position with securing their fair share of such goods, Rawls is able to give expression to individual rationality. By excluding from consideration information regarding persons' specific place in society, Rawls is able to give expression to the notion of reasonableness. Once inside the original position, Rawls further endeavors to construct conditions under which reasoning about principles of justice can be construed as fair. To this end, he employs various informational restrictions—including the ideas of public reason and the veil of

ignorance—in order to prevent deliberations from being biased towards any one particular view (or comprehensive doctrine).

As is evident in the preceding overview, much of the theoretical "heavy lifting" of Rawls' theory is done well before parties begin to select principles of justice within the original position. Further, their selection of Rawls' two principles of justice is a foregone conclusion: Rawls' constructs the original position in such a way as to make the selection of his principles inevitable. To reiterate, however, this is not a defect in Rawls' theory—it is a feature. Understanding it as a feature of *justice as fairness*, however, serves to reinforce the importance of attending to the foundational assumptions that underwrite the construction of the original position. Simply adopting or advocating for Rawls' principles without also attending to the foundational ideas that serve to justify them means accepting uncritically Rawls' assumptions about persons and society.

2.3 Debates

Many prominent debates surrounding Rawls work center on the model-conceptions of the person and society that set conditions for the design of the original position. These debates are particularly important as they not only challenge Rawls' resultant two principles, but his starting points—the very foundations upon which his theory is built. If these starting points are called into question—if they are shown to not accurately capture aspects of persons and society relevant to justice—then the entire framework of justice as fairness is undermined. Rawls' own constant revision of the foundations of his theory (often in response to effective critiques) demonstrates the

difficulty of setting appropriate starting points for reasoning about justice.[18] This does not mean, of course, that reasoning about justice is impossible. It is, however, difficult.

In the following, I briefly outline the challenges leveled against Rawls' conceptions of persons, society, and the original position by capabilities, communitarian, leftist, disabilities, and feminist perspectives. Though these critiques are by no means exhaustive of the range of debate surrounding Rawls' work, they are particularly relevant for a discussion of his conceptions of person and society. Finally, it should be noted the full force of each of these critiques often goes well beyond a mere challenge to Rawls' model-conceptions. However, for the time being, I will limit my discussion to those aspects.

2.3.1 Capabilities debates. Developed by economist Amartya Sen, and advanced in important ways by Martha Nussbaum, the capabilities approach represents one of the most pressing challenges to *justice as fairness* available today. Sen's (2009) account of justice calls into question the importance of Rawlsian model-conceptions broadly, arguing instead for an approach centered on "ways of judging how to reduce injustice and advance justice, rather than aiming only at the characterization of perfectly just societies—an exercise that is such a dominant feature of many theories of justice in political philosophy today" (p. xi). Sen (2009) argues that an over-reliance on abstract models, especially those of institutions in a well-ordered society, ultimately overlooks the "inescapable relevance" of human behavior (p. 67). Further, Sen (1990) thinks the uniform model-conception of the person cannot account for "interpersonal comparisons that must form a crucial part of the…basis of justice" (p. 112). Nussbaum's account, on

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[18] For a more detailed inventory of the revisions Rawls made to his starting points over the course of his career, see O'Neill, 2000, p. 72-73.

the other hand, is less disparaging of Rawls' model-conceptions—instead of abandoning them altogether, she proposes replacing Rawls' Kantian conception of the person with one that is Aristotelean/Marxist in nature (see, generally: Nussbaum, 2004).[19]

2.3.2 Communitarian debates. Communitarian critics—notably Alasdair MacIntyre (1981), Michael Walzer (1984), Charles Taylor (1989), and Michael Sandel (1998)—take issue with Rawls' conception of the person, as well as the way the original position models relations between persons in society. They argue that Rawls' conception of persons defined as distinct and prior to their valued ends (or, in Rawls' terms, their conceptions of the good) represents an incoherent picture of personhood (Mulhall and Swift, 2003, p. 464-465). For communitarians, the radical detachment of persons from their substantive commitments (which they take to be constitutive—rather than subsequent to—the self) is "psychologically impossible…[and] would anyway deprive the participants of the resources they needed to reason about social justice" (Mulhall and Swift, 2003, p. 465). As a further consequence of this problem, these theorists claim that Rawls' design of the original position (and the mutually-disinterested deliberation that takes place within it) fails to properly account for the "necessarily social or communal origin of any individual's ways of thinking" (Mulhall and Swift, 2003, p. 467). Last, as argued by Walzer (1984), given the social contingencies of human life (that is, human dependence on particular social or communal arrangements), Rawls' theory cannot have the universal applicability to which it aspires.[20]

2.3.3 Leftist debates. Various leftist and Marxist thinkers have leveled criticisms against Rawls' entire system of justice—from its model-conceptions and justificatory

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[19] For a review of the capabilities approach and some of its limitations, see Cohen, 1995 and Pogge, 2010.
[20] For a summary of the communitarian position and the responses made by Rawls and his defenders, see Mulhall and Swift, 2003.

foundations to its resultant two principles. G.A. Cohen (2008), who has argued forcefully against both Rawls and constructivism, challenges the idea that the basic structure of a well-ordered society represents the singularly appropriate subject of justice. Borrowing a phrase familiar from feminist theory, he argues that "the personal is political," and that "principles of distributive justice, principles, that is, about the just distribution of benefits and burdens in society, apply, wherever else they do, to people's legally unconstrained choices" (Cohen, 2008, p. 116). His point is not that the basic structure is an inappropriate subject of justice, but that it cannot be the only appropriate subject—justice also bears on the individual decisions of persons in society.

Gerald Doppelt (1981) has argued that justice as fairness is ideological, incorporating as it does certain positive bourgeois-democratic achievements (such as the assumption that all individuals possess equal dignity and equal liberty in some respect) while accepting uncritically certain negative "structural features of capitalist democracy which…prevent it from acknowledging other human claims" (p. 281-282). For example, Doppelt (1981) believes that Rawls' (inherently Kantian) model-conception of the moral person rationalizes a detachment of dignity from economic position, since it prioritizes persons as citizens and not as workers. As a result, Rawls' envisaged well-ordered society—structurally speaking—"cannot be systematically organized to affirm the dignity of its laborers…" (p. 282). Julius Sensat (2007) has suggested that Rawls' justification for the original position is also vulnerable to accusations that it incorporates (or is, at least, unnecessarily tolerant of) estrangement, as conceived by Marx. First, parties deliberating in the original position only compare his two principles against utilitarian principles, and ignore any principles grounded in the socialist tradition "that would

accord the highest priority to extensions of the rights of democratic political participation to encompass collective determination of the most important sectors of the economy…" (Sensat, 2007, p. 50). Second, Rawls model-conception of the moral person as free and equal is atomistic, and commits persons, foremost, to their respective individual (and differing) conceptions of the good (Sensat, 2007, p. 51). The first issue leaves Rawls vulnerable to economic estrangement, as his two principles are not tested against principles that would be more sensitive to such issues as they might arise in capitalist democracies; the second issue exposes justice as fairness to the problem of political or moral estrangement, as the parties, in acting independently of (and not necessarily in concert with) one another, might generate macrosocial effects that work to undermine the system of justice within which the parties undertake (and make sense of) individual actions.

2.3.4 Disabilities debates. Disabilities critics of Rawls take aim at his model-conceptions of both persons and society, as well as *justice as fairness'* reliance on primary goods as an appropriate metric for justice generally (see: Nussbaum, 2006; Terzi, 2010). Since, for Rawls (2001), persons are conceptualized "as having to the essential minimal degree the moral powers necessary to engage in social cooperation over a complete life and to take part in society as equal citizens" (p. 20) his theory is forced to set aside questions of justice for persons with various cognitive or physical disabilities. In fact, Rawls (1993) makes this exclusion explicit: "I put aside for the time being…temporary disabilities and also permanent disabilities or mental disorders so severe as to prevent people from being cooperating members of society in the usual sense" (p. 20). Instead, Rawls' theory postpones addressing issues of disabilities until a

conception of justice for so-called "normal cases" can be worked out. Part of this problem stems from the limited account of diversity Rawls builds into the foundation of the original position—he accounts for a plurality of comprehensive doctrines (or conceptions of the good) but he sets aside the heterogeneity of human abilities. As a result, Rawls' two principles of justice seem to exclude considerations that would be sensitive to diverse abilities, in particular differences in the abilities of individuals to make use of primary goods (Terzi, 2010).

2.3.5 Feminist debates. Like communitarian critics, feminist critics—notably Alison Jaggar (1983) and Susan Moller Okin (1989)—challenge Rawls' conception of the person and the supposedly symmetrical relations established between them by the design of the original position. A model of persons as mutually disinterested, seeking only to advance their own interests (as represented by Rawls' commitment to primary goods), they claim, places an undue premium on rationality and does not appropriately consider the possibilities of human capacities for altruism, care, or love when reasoning about moral issues (including justice). In this way, and despite Rawls' own claims to the contrary, they view his theory as egoistic. Other critics—inspired by Habermasian ideals of social dialogue and the public sphere—bemoan the lack of diversity of voices in the original position. By limiting persons to a single, uniform conception and subjecting them to a singular veil of ignorance, "the parties are imagined as basically all alike, and as reasoning on their own, rather than exchanging claims and counterclaims in a dialogue in which different perspectives can be presented and investigated" (Nussbaum, 2003, p.

494-495). In this way, the original position is unduly monological and limits the possibilities for Rawls' theory to deal with issues of justice between genders.[21]

Feminist critics also commonly reject the Rawls' idea that the subject of justice should be confined to the regulation of the basic structure of society. As previously discussed, Rawls' early work was unclear as to whether or not the family was to be admitted as part of the basic structure regulated by principles of justice. Okin (1989), in particular, aimed much of her criticism at this ambiguity (p. 89-109). According to Okin (1989), Rawls offers "strikingly little indication…that the modern liberal society to which the principles of justice are to be applied is deeply and pervasively gender-structured" (p. 89). In response, Rawls (1997/1999f) eventually admitted the family as part of the basic structure of society, but concedes that his two principles of justice do not apply directly to its internal workings. As a consequence, his theory appears to overlook the ways in which unjust power relations may persist in institutions or arrangements not directly regulated by his principles of justice, such as within the family.

2.4 Summary

Given its overall prominence, it is not surprising that Rawls' work has been cited extensively in discussions of social justice, information, and technology. As the preceding overview makes clear, Rawls' theory is deeply complex—it draws on and furthers powerful insights from a range of moral and political philosophical thought. It presents a systematic way to think about and arrive at "moral rules and lines of conduct consequent to them" (Rawls, 1951/1999a, p. 1). Moreover, since the publication *A Theory of Justice* in 1971, Rawls' ideas have generated a great deal of discussion and debate between its defenders and critics. These discussions have helped clarify and

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[21] For a summary of feminist criticisms and some responses available to Rawlsians, see Nussbaum, 2003.

deepen our understandings of basic liberal values such as freedom and equality and helped open up new lines of moral inquiry into issues of social justice for various marginalized or exploited groups. Resistance to Rawls' institutional focus and lexical principles has helped fuel the development of alternative metrics for justice, most notably the capabilities approach advocated for by Sen and Nussbaum.

Stressing the value of attending to the ideas developed in debates over Rawls for thinking about moral issues in information and technology, Karsten Weber (2010) has called for a return to Rawlsian theory by scholars interested in issues of ethics, information, and technology. Though there has been much handwringing over whether or not new and novel frameworks are needed to address issues of morality in the face of advanced ICTs, Weber argues that the wealth of resources yet available in the liberal tradition alone suggests that inventing entirely new theories is not entirely necessary. In the following, I echo this sentiment. However, it demands that we gain a better understanding of just which Rawlsian resources have been marshaled for use in informational and technological contexts and which have gone overlooked.

Chapter 3.0: Applications of Rawls to Information and Technology

3.1 Introduction

The primary aim of this chapter is to show how researchers and scholars interested in social justice, information, and technology have commonly employed Rawls' work and its attendant debates. The discussion is divided into two parts. In the first part, I present a broad overview of engagements with Rawls in informational and technological contexts based on more than 150 scholarly articles from databases and journals dedicated to considerations of information and technology ethics, information/technology studies, philosophy of information, philosophy of technology, technology and human values, or some combination thereof.[22] Of course, Rawls' influence extends beyond these domains. However, my aim is not to present a critical review of Rawls specifically but, rather, of the way in which Rawls' work has been discussed at the intersections of social justice, information, and technology—my choice of publications and databases reflects this focus. In addition to these sources, I consulted outside articles referencing Rawls that were frequently cited in works culled from the primary search—though, admittedly, the number of outside articles is small, as most of these citations were accounted for already.

In the second part, I focus on scholars whose bodies of work demonstrate a significant commitment to the development of Rawlsian theory with regard to information and technology. During the primary literature review, five scholars in

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[22] Consulted databases include Library, Information Science, & Technology Abstracts (LISTA) and the digital library of the Association of Computing and Machinery (ACM), both of which contain a wide range of publications relevant to ethics, information, and technology. Consulted journals include *Ethics and Information Technology*; *Journal of Information Ethics* (JIE); *International Review of Information Ethics* (IRIE); *Philosophy and Technology*; *Information, Communication, and Ethics* (ICE); *Science, Technology, and Human Values: Journal of the Society for Social Studies of Science* (ST&HV); *Journal of the American Society for Information Science and Technology* (JASIST); and *First Monday*.

particular stood out as major proponents of Rawls: Drahos (1996), van den Hoven (1995; 1997), Brey (2000a; 2007), Britz (2004; 2008), and Duff (2011; 2012). Drahos, van den Hoven, and Brey represent the most systematic and comprehensive attempts to articulate concerns from the areas of information and technology studies within a Rawlsian framework—each author pays close attention to the mechanics of Rawls theory and how information and technology might best be accounted for within it. In contrast, Britz and Duff follow the spirit and ideals of Rawls' work but do not attempt to account for information or technology within the framework of *justice as fairness* itself. Instead, they extract Rawls' basic ideas and attempt to further develop them in applied contexts. Britz, for example, is concerned with articulating practical principles for attending to social justice in the flow of information from the affluent global north to the relatively disadvantaged global south. Duff, on the other hand, attempts to develop concrete prescriptions for how certain types of information should be distributed within affluent liberal democratic societies.

Drahos, van den Hoven, and Brey are more strict and systematic in their use of Rawls, while Britz and Duff are more generous in their interpretations. Nonetheless, each author shares a set of core conceptions and commitments: they are all committed to the idea that access to information should be a basic liberty; they each argue that information is vital to the pursuit of individual and collective ends; and they focus on the concept of information as a resource in the abstract, in particular by conceiving of information as a primary good. Combined with the most common uses of Rawls revealed by the broader review, these central concerns come together to form what I will refer to as the "standard

account" of Rawls in informational and technological contexts. At the end of the chapter, I sketch the main ideas of the standard account and articulate some of its shortcomings.

3.2 Survey of Engagements

As previously noted, references to Rawls in the areas of ethics, information, and technology are common. They are not, however, scattershot—references to Rawls' work tend to fall into one of four categories: 1) as a figurehead or representative of contemporary Western philosophy, in particular social contract theory; 2) as an oppositional figure, that is, as representative of an argument or position to be resisted; 3) as an authority for a particular normative concept, such as the idea of procedural justice or the priority or liberty; and 4) methodologically, that is, as a method for reasoning about and arriving at moral rules or principles (here, original position reasoning and the veil of ignorance are particularly prominent). I discuss each of these four areas in detail below. After doing so, I briefly identify some gaps in uses of Rawls that emerge from the review.

3.2.1 Rawls as figurehead. Rawls is commonly cited as a figurehead for Western or liberal philosophy generally or social contract doctrines specifically. This type of reference often stands alone and serves to situate an author's work in relation to a Western philosophical tradition generally without explicitly engaging Rawls' work (Laudon, 1995; Kling, 1996; Carbo & Smith, 2008; Hongladorem, 2008; Chang, 2011; Brabham, 2012). Garg and Camp (2012), for example, invoke Rawls as representative of "Western philosophies" generally (p. 10), while Hildebrandt (2011) and Duff (2005) cite him as a contemporary example of deontological ethical reasoning. Clarke and Roache (2012) mention Rawls' work as typical of contemporary liberal political philosophy and

Levy (2012) situates Rawls as an authority on the historical roots of liberalism. Similarly, Reed and Sanders (2008), Litscha and Karamasin (2012), and Heeney (2012) recognize Rawls' place in a liberal social contract tradition alongside Hobbes, Locke, and Rousseau (p. 1136). Hamlett (2003), Hands (2005), and Brabham (2012) admit his work as representative of certain debates concerning deliberative and participatory democracy.[23]

In a similar vein, Rawls is often invoked as a figure worth appealing to in future discussions. In these instances, a work describes an ethical or political dilemma in relation to information technology and cites Rawlsian justice as a possible solution. In Wheeler's (2003) critical discussion of the ACM Code of Ethics, for example, Rawls' political liberalism is cited as one possible way of systematically thinking through complex moral and political issues. Jain and Boehm (2005) suggest Rawls' framework as potentially useful for attending to human values in software engineering contexts. Finally, Kahn, Gill, Reichert, Kanda, Ishiguro, and Ruckert (2010) cite uses of Rawls by developmental psychologists as a future direction for philosophically-grounded research in the field of human-robot interaction. None of these works, however, explicitly attempt to apply Rawls to their stated informational or technological problems.

3.2.2 Rawls as oppositional figure. The inverse of figurehead approaches, oppositional uses reject Rawls' framework as inappropriate for addressing issues of morality and social justice. Within oppositional approaches, two general paths can be identified. On the first path, Rawls work is contrasted against an already existing critique in order to better illustrate the alternative position. This is most common in articles that

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[23] Occasionally, this sort of fleeting reference serves to obscure or misconstrue important features of Rawls' work, For instance, Bardy and Rubens (2009) align Rawls with a Benthamite conception of utilitarianism, overlooking the fact that Rawls' work was driven (at least in part) by a critique of utilitarian reasoning.

appeal to the capabilities approach (unsurprising, given that the capabilities approach is built, in part, on a critique of Rawls). Examples of this approach include: capabilities analyses of morality and robots as caretakers (Borenstein & Pearson, 2010; Vallor, 2011); Coeckelbergh's (2011) articulation of the capabilities approach as a suitable foundation for a comprehensive "ethical-anthropological framework;" and Johnstone's (2007) application of the capabilities approach for normative analyses of technology generally. Outside of capabilities discussions, Rawls is also cited as incompatible with a feminist ethics of care (Froelich, 2004; Capurro, 2008). In a particularly clear example, Allen (2013) rehearses both capabilities and feminist critiques of Rawls' institutional focus in her discussion of frameworks for assessing disaster response efforts by NGOs. In these cases, Rawls' work is only indirectly criticized—it is simply presented to reinforce or justify the choice of an alternative framework.

On the second path, Rawls' work is not only used to punctuate or illustrate an alternative approach, but is directly challenged as well. Hands (2005), for example, criticizes Rawls' model of public reasoning as an "idolatry of the state" that mischaracterizes civil society as residing solely in the relationships between citizens and state institutions, and not also between citizens themselves (n.p.). Similarly, Noveck (2005) challenges Rawls' "idealization" of group deliberation behind the veil of ignorance (n.p.). More broadly, Brothers (1999) finds the liberal approach typified by Rawls as wholly inadequate for addressing issues of social justice in a Global Information Society. In a pointed example, Atikinson (2001) cites Rawls' use of the veil of ignorance as emblematic of a "neutral" liberal ideology that limits our thinking about library services:

One of liberalism's central concerns is to ensure fairness or justice, and the library

is, therefore, intent upon providing a "just" service. As defined by John Rawls,

the ideal person to engage in such a just interchange would be someone who is

entirely without bias or predilection—someone who views the world through a

"veil of ignorance" with respect to his or her own needs, preferences or place in

society…. Only, we imagine, by totally ignoring our own personal histories can

we avoid prejudicing the user's search: we want always to connect the user

directly to the information without getting in the way ourselves…." (Atkinson,

2001, p. 4)

Here, Rawls' veil of ignorance is interpreted independent from Rawls' model-

conceptions of persons, society, and the original position. As shown in the previous

chapter, however, the veil of ignorance is introduced specifically to ensure fair

deliberations between parties in the original position. Contrary to Atkinson's claims, the

veil is not neutral with respect to needs, preferences, or place in society; instead, it

articulates "morally arbitrary" features of persons, that is, features that are irrelevant to

the provision of primary goods or the application of moral and political principles.

Atkinson's interpretation fails to appreciate the role of the basic structure: Rawls'

work is not designed to apply to persons' individual behavior within social and political

institutions like a library but, rather, it stipulates conditions of fairness in the provision of

goods and the application of justice by social institutions that make up the basic structure.

As argued earlier, the original position (including the veil of ignorance) and its resultant

two principles of justice apply not to individual actions or decisions, but to institutional

and social structures. Atkinson could hardly deny that, from an institutional perspective,

persons' ability to use the library should not be contingent upon morally arbitrary factors like race, gender, or religious affiliation.

Similarly muddled interpretations have been prevalent in discussions of intercultural information ethics, where Rawls' Western liberal commitments are taken as a signal of his ultimate incompatibility with intercultural ethical frameworks. Ess (2007), for example, argues that Rawls expects people to "[bracket their] diverse metaphysical beliefs" so that they might engage "with [their] fellow citizens simply on the basis of what is politically expedient" (p. 21). While this is not an uncommon interpretation, it misconstrues the role of persons' comprehensive doctrines (which contain, among other things, persons' metaphysical beliefs) in Rawls' system of justice. Given the demands of public reasoning, Rawls does indeed argue that certain types of reasoning ought to be bracketed (for that matter, so does Ess); however, Rawls makes this argument from the perspective of institutions, not individuals. In fact, Rawls explicitly acknowledges that persons cannot wholly set aside their various commitments—they need to find justifications for political arrangements within their own comprehensive doctrines in order to support them as anything other than a "politically expedient" *modus vivendi* (Rawls, 2001, p. 192-195). Like Atkinson (2001), Ess's argument mistakenly exchanges persons for institutions as the primary target of Rawls' theory. As a result, Rawls is presented in such a way so as to be incompatible with an intercultural information ethic when other interpretations might suggest otherwise.[24]

In a similar fashion, Wong's (2012) discussion of ICTs and the good life depends heavily on criticisms of Rawlsian liberalism made by Michael Walzer (1984)—namely, that Rawls' framework is not attentive to the social and cultural embeddedness of

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[24] See Hausmanninger (2004) for a defense of Rawls in the context of global information ethics.

individuals. However, these criticisms overlook the ways in which Rawls' argument from the basic structure is designed to respond directly to the justice of the social and cultural "background conditions" against which individuals live their lives. In this way, Rawls' theory is not removed from but, rather, designed specifically to respond to certain carefully bracketed contextual considerations.[25]

3.2.3 Normative applications. Outside of figurehead or oppositional uses, Rawls' work is frequently cited for its clear articulation of certain normative concepts. Sometimes, scholars of information and technology simply endorse Rawls' normative system wholesale. For example, Johnson and Miller (2002)—in an editorial exploring the issues of morality and diversity in computing contexts—invoke Rawls's two principles of justice as support for promoting equal opportunity in professional computing. They appeal to Rawlsian justice to argue that "jobs in computing should be open to all" (Johnson & Miller, 2002, p. 10). Most examples, however, are not so broad. Instead, specific dimensions of Rawls' theory are discussed and endorsed as authoritative or normatively appropriate, namely: his articulation of procedural justice; his formulation of the difference principle; his discussions of basic liberties and the priority of liberty; and the idea of an overlapping consensus.

3.2.3.1 Procedural justice. Computer scientists interested in developing computational models of legal reasoning have turned to Rawls definition of procedural justice as a model (Lodder & Herezog, 1995; Leenes, 2001; Zeleznikow, Bellucci, Schild, & Mackenzie, 2007; Roth, Riveret, Rotolo, & Governatori, 2007; Gordon, 1993). According to this work, procedural justice "is concerned with making and implementing

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[25] Most notably, proponents of the "practice-dependent" interpretation of Rawls have shown how *justice as fairness* can be read as methodologically dependent on a notion of social embeddedness (Ronzoni, 2009; James, 2005). I return to the idea of practice-dependence in the next chapter.

decisions according to a fair process" (Zeleznikow, et al, 2007, p. 238). Put another way, just outcomes are the result of fair processes and are not assessed independently of the procedures from which they issue. A representative example is Lodder and Herczog's (1995) "DiaLaw," which builds on a definition of law as "purely procedural" (in the Rawlsian sense) to create a dialogical approach to modeling legal reasoning in computing environments.

3.2.3.2 Difference principle. Computer scientists have also relied on Rawls' work in attempting to justify particular distributions of computing resources within a network. In these instances, the difference principle—alternatively referred to as the "maximin" principle (i.e., maximizing the minimum)—is used to argue for egalitarian distributions without appealing to utilitarian principles (Ephrati, Zlotkin, & Rosenschein, 1994; Crowcroft & Oechslin, 1998; Dramitinos, Stamoulis, & Courcoubetis, 2004; Radunović & Boudec, 2007). The Rawlsian idea that fair distributions are distributions arranged to improve the position of the worst-off has offered computer scientists a potent alternative notion of fairness for discussing allocations of resources in computer networks that does not rely on simply trying to maximize overall utility.

In a different manner, scholars working in the areas of information or digital divides often appeal to the difference principle to show how certain inequalities with regard to access to information or technology are unjust (Britz & Ponelis, 2005; Duff, 2006; Hodel-Widmer, 2006; Bose, 2012). Wolf and Grodzinsky (2006) and Misra (2012) also cite the difference principle in this way, arguing that software engineers ought to take into account the special considerations of the least-advantaged. In a unique application, Ottinger (2013) cites the difference principle as a potential alternative model

for assessing the environmental risks of technological development. Rather than relying exclusively on political and economic arguments, Ottinger (2013) argues that the difference principle can be used to make a moral assessment as to whether or not a given community or area would be made worse off by proposed facilities or developments.

3.2.3.3 Basic liberties and the priority of liberty. Rawls' account of basic liberties (as enshrined in his first principle of justice) and their priority has featured prominently in different works (Primeaux, 1998; Taebi, 2011). For example, Laird (1993) cites Rawls' assertion that, in democratic societies, certain basic political liberties cannot be traded off for other goods (for example, trading voting rights for money). Similarly, Franke (2012) invokes the lexical ordering of Rawls' two principles to argue against justifications of censorship that appeal to second-principle considerations (such as economic efficiency or property rights). Vaccaro and Madsen (2009) draw on van den Hoven and Rooksby's (2008) interpretation of Rawls to articulate an "informational liberty" (alternatively described as a "right to know") to be enshrined alongside other Rawlsian basic liberties. In a different vein, Mattlage (2007) discusses Rawlsian basic liberties in the context of intellectual property rights and Margaret Jane Radin's (1993) "contested commodities." In particular, the author notes that Rawls' "treatment of basic liberties recognizes the incommensurability of certain primary (usually material) goods and the basic liberties of individuals" (Mattlage, 2007, p. 21).

3.2.3.4 Overlapping Consensus. The idea of an overlapping consensus— developed most prominently in *Political Liberalism*—has also figured into discussions of ethics, information, and technology. For example, van de Poel and Zwart (2010) suggest that an overlapping consensus could be a valuable approach to reaching agreement on

moral issues in research and development (R&D) contexts. In a different vein, both Hausmanninger (2004) and Søraker (2006) draw on Rawls' concept of an overlapping consensus in their normative discussions of the Internet, though in different ways. Hausmanninger (2004) argues against normative visions of the Internet that rely on pragmatic arguments and instead advocates a return to universal principles for global ethics debates. For Hasumanninger (2004), the idea of an overlapping consensus represents a promising framework for developing an ethics of the Internet that is simultaneously global and pluralistic (p. 7). Inversely, Søraker (2006) argues that pragmatic arguments actually present the best foundation for the development of a global overlapping consensus on ethical issues with regard to the Internet.

3.2.3.5 Additional considerations. Though the above features represent the most commonly consulted dimensions of Rawls' work, other features have been invoked as well. Bärwolff (2009), Bose (2012), and Collste (2008), for example, cite Rawls' conception of justice as generally preferable from a normative perspective. Fallis and Whitcomb (2008) briefly cite Rawls in the context of rationality and advancing particular ends. Mathiesen (2013) has appealed to Rawls' definition of a right as something that can be owed to a rights-holder as a matter of justice. Dell and Venkatesh (2012) rely on Rawls' distinction between the reasonable and rational to show that the exercise of reasonableness should be emphasized in social design settings. Finally, in a discussion of reconciling conflicting human values within Values Sensitive Design (VSD) and related design methodologies, Burmeister, Weckert, and Williamson (2011) cite Rawls' discussion of the tension between the values of equality and efficiency.

3.2.4 Methodological applications. Similar to the above are what might best be referred to as methodological uses of Rawls. In these instances, an author (or authors) adopts a method or procedure from Rawls' body of work and employs it in applied contexts. For example, in their article "How Good is Good Enough: An Ethical Analysis of Software Construction and Use," Collins, Miller, Spielman, and Wherry (1994) declare: "We use the reasoning that Rawls applied to general societal ethics in the specific context of software fairness, modifying his ideas as needed to apply to computing" (p. 85).[26] Similarly general approaches are taken by Lockhart (2001), Johnson and Miller (2002), and Murphy (2012). In a different vein, Powers (2003) uses Rawls' distinction between two concepts of rules to systematically identify norms and standards at play in a particular online community (see also: Tavani, Grodzinsky, & Spinello, 2003). Most methodological uses of Rawls, however, are not so broad and tend to appeal specifically to Rawls' method of wide reflective equilibrium (discussed below) or the original position (and, more often, its veil of ignorance).

3.2.4.1 Wide reflective equilibrium. Rawls (2001) articulates the idea of "wide reflective equilibrium" to address conflicts when "the implications of the judgments we render on one question [are] inconsistent or incongruent with those we render on other questions" (p. 30). In a state of wide reflective equilibrium, a person

has carefully considered alternative conceptions of justice and the force of various arguments for them. More exactly, this person has considered the leading conceptions of political justice found in our philosophical tradition (including views critical of the concept of justice itself...), and has weighed the force of the

[26] The recognition of the value of Rawls for thinking through problems in technological contexts by Collins, et al has been reaffirmed elsewhere (see: Siponen and Vartiainen, 2007).

different philosophical and other reasons for them. In this case, we suppose this

person's general convictions, first principles, and particular judgments are in line;

…the reflective equilibrium is wide, given the wide-ranging reflection and

possibly many changes of view that have preceded it. (Rawls, 2001, p. 31)

In short: a person is said to have reached a state of wide reflective equilibrium when they have brought their general moral and ethical principles more or less "in line" with their considered judgments about particular cases or situations. Further, Rawls argues that the method of wide reflective equilibrium demonstrates why people would choose his principles of justice over utilitarian principles, lending justificatory force to his theory.

Various works have recognized the value of wide reflective equilibrium for reasoning about not only justice, but a wide range of ethical issues. van den Hoven (1997) has argued that wide reflective equilibrium represents an appropriate methodological approach for computer ethics, and others have followed him in this assertion (Tavani, 2001; Bynum, 2000; Himma, 2008). Elia (2009), in his discussion of ICTs and transparency, describes the method as particularly valuable for "testing broad moral principles against empirical data, situation difference, and intuitions or judgments regarding specific cases in an ongoing and potentially revisionary way" (p. 147). van de Poel and Zwart (2010) and Doorn (2012) explicitly deploy the method in their attempts to morally assess particular research and development (R&D) practices. Tidwell (1999) uses the method to discuss how the World Wide Web can support ethical debates between professional communities. Additionally, Clarke and Roache (2012) cite wide reflective equilibrium as a useful way of thinking through moral dimensions of human enhancement technologies.

3.2.4.2 Original position and the veil of ignorance. The most common methodological engagement with Rawls is through the device of the original position. In many cases, the idea or "spirit" of the original position as a thought experiment is applied to a particular ethical issue raised by information or technology. Culnan and Regan (1995) rely on Rawls' characterization of "mutually disinterested" persons in the original position to stress the importance of preserving individual privacy in the face of massive political campaign mailing lists in the United States. Similarly, Introna (2000) and Olivier (2002) invoke the original position as a way to ask what information privacy policies persons might choose under ideal conditions. Vartiainen and Siponen (2010) recommend the veil of ignorance as a useful tool for helping students think about moral dimensions of pirating software. Johansson (2011) relies heavily on Brandt's (1972) modification of the veil of ignorance to discuss the morality of unmanned armed vehicles (UAVs). Kaddu (2007) employs a modified original position and veil of ignorance to advocate for a free flow of information in society. LePoire (2005) suggests a version of the veil for resolving tensions between development, risk, and uncertainty when developing technological solutions to social problems. Finally, Cooke (2005) cites the original position as perhaps valuable for generating an ethical defense of GLBT-specific library and professional organizations.

The above uses of the original position tend to be less detailed, though they all explicitly or implicitly endorse impartiality as integral to the development and justification of moral principles. In contrast, Chopra and Dexter (2009) develop a particularly robust application of original position reasoning while generating their

defense of "Freedom Zero" of the Free Software Definition. Their discussion is worth citing at length for the clarity and detail of their application:

> suppose [a software development] community were assembled behind a veil of ignorance: none of the group knows in advance which position in the community they will hold. Individuals would not know their social and political positions, or others' reasons for being interested in the project. Some will be users of the software, some will be core developers and maintainers, while others will write code and documentation. In order to determine a just allocation of rights and responsibilities, the group is asked, still behind the veil, to determine which rights should be granted to whom. Most plausibly, the community would choose to grant Freedom Zero to all. If a particular subgroup in the community could unilaterally decide for what purposes a program could be used, each member would be justified in fearing that such a subgroup could prevent his legitimate use of the software. Alternatively, the group as a whole could try to arrive at a set of restrictions by consensus, but such a process could be intractable if no-one knows their eventual position in the community. (Chopra & Dexter, 2009, p. 294)

Within the reviewed literature, Chopra and Dexter's application represents the most developed use of original position reasoning to a specifically informational or technological issue.

Another prominent use of Rawls is available in Jim Moor's (1999) framework of "just consequentialism," which relies on the impartiality of original position reasoning. Dissatisfied with traditional tensions between deontological and consequentialist frameworks , Moor (1999) sets out to articulate a unified theory that might aid applied

computer ethics that he sees as "immersed in ad hoc analyses" and "searching for practical guidance" (p. 65). Noting that actions involving computers can sometimes have harmful consequences, he insists that policy makers and computer ethicists cannot abandon consequentialist reasoning altogether. However, he also recognizes that consequentialist reasoning can often be insensitive to principles of justice and human rights. In order to account for this shortcoming of consequentialism, Moor (1999) develops a framework of "just consequentialism" that he thinks allows policy makers and ethicists "to take into account the consequences of policies while at the same time making sure that these policies are constrained by principles of justice" (p. 66).

To begin, Moor (1999) insists that all persons are interested in a certain set of core goods, namely life, happiness, and autonomy (inversely, he believes that humans also generally have an interest in avoiding certain core evils including—unsurprisingly—death, unhappiness and lack of autonomy). For Moor (1999), happiness is defined vaguely as "pleasure and the absence of pain" (p. 66). Autonomy, on the other hand, is articulated by reference to another set of goods which he refers to as "the goods of autonomy." The goods of autonomy include (but are not necessarily limited to): ability, security, knowledge, freedom, opportunity, and resources to accomplish projects (Moor, 1999, p. 66). Much like how Rawls' primary goods are an expression of the two moral powers (the first of which includes rational autonomy), Moor's set of goods express the value of autonomy that just consequentialism is designed to promote. "Of course," Moor (1999) continues, "humans are not necessarily concerned about the lives, happiness, and autonomy of others, but they are concerned about their own" (p. 66). Ethics intervenes, then, to prevent people from inflicting unjustified harm on one another.

Another way to make this point is to regard the core goods as marking

fundamental human rights—at least as negative human rights. Humans ought to

have their lives, happiness, and autonomy protected. And this principle of

justice—the protection of fundamental human rights—should guide us in sharing

ethical policies for using computer technology. (Moor, 1999 p. 66)

To preserve this principle of justice, Moor develops a minimal impartiality test grounded

in Gert's (1998) "blindfold of justice," itself a modification of Rawls' veil of ignorance.

The test is a two-part procedure: first, one abstract morally relevant features of a given

action; second, one considers whether or not the abstracted action could be publicly

allowed (that is, one asks what the world would be like if everyone performed the same

or similar actions). Like Rawls' veil of ignorance, this process of abstraction allows one

to consider morally relevant features of a given situation without reference to benefits or

harms to particular persons. In this way, Moor thinks, we can—at a minimum—arrive at

some universal agreements on matters relevant to computer ethics. At the very least there

will be some policies or actions "every rational, impartial person would regard as unjust"

(Moor, 1999, p. 67). These policies and actions can be explicitly barred. After this

minimum has been met, however, we can use consequentialist reasoning to assess the

benefits and harms of other, permissible policies and actions.[27]

Outside of these detailed applications, other scholars have simply emphasized the

original position's value as a framework for addressing ethical issues generally. Floridi

(1999), for example, admits the original position as a rare example of a patient-oriented

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[27] Moor's "just consequentialism" has been applied to a range of computing and informational contexts, including privacy-enhancing technologies (Tavani & Moor, 2001), values in design (Flanagan et al 2008), video games (Gotterbarn & Moor, 2009), and software engineering (Gotterbarn & Miller, 2009).

approach to moral reasoning in the typically agent-centered Western philosophical tradition. The original position, Floridi (1999) notes,

> must be acknowledged to stress the crucial importance of the impartial nature of moral concern, thanks to the hypothetical scenario in which rational agents are asked to determine the nature of society in a complete state of ignorance of what their positions would be in it, thus transforming the agent into the potential patient of the action…. (p. 42)

Floridi repeatedly affirms the relevance of the original position for thinking about a patient-centered information ethics (see: Floridi, 2006; Floridi 2010b). In a different vein, Visala (1996) uses the original position to defend a "universalizable" moral discourse and subsequently attempts to unite a Habermasian model of communicative rationality with a Rawlsian model of rational decision-making behind a veil of ignorance. Wallace (1999) holds up the veil of ignorance as reinforcing the value of anonymity for helping people make ethical decisions. In a detailed discussion of moral dimensions of data mining practices in health care and insurance industries, Lercher (2008) endorses the original position for the way in which it limits the role of risk-taking in the selection of principles of justice. "If none of the contracting parties [in an original position]," Lercher (2008) writes, "knows whether he or she has any condition resulting in higher than average health risks, it seems that they would not agree to rules governing insurance that permitted insurance to be denied to those with higher than average risks" (p. 38).

      3.2.5 Gaps. Though this overview demonstrates a number of common engagements with Rawlsian theory, it also exposes gaps in the application of his work. For example, the ideas of background justice and fair background conditions integral to

Rawls argument from the basic structure do not figure heavily into discussions of social justice, information, and technology. Although the notion of primary goods is present, not all of Rawls primary goods receive the same degree of consideration—the social bases of self-respect, for instance, have gone overlooked. Similarly, Rawls' model-conceptions of free and equal moral persons and a well-ordered society that underwrite the normative authority of the original position are not discussed. Without due attention to its foundations, most deployments of original position-style reasoning lack the rigor of Rawls' articulation. In many places, the appeal to Rawlsian concepts has been quite limited in scope, often failing to also draw on well-developed discussions in other domains. Weber (2010), as mentioned earlier, has identified a similar shortcoming, pointing out that scholars interested in intercultural information ethics have ignored important developments and clarifications in the area of group and minority rights generated by debates over Rawls' work (i.e., Kymlicka, 1989). Further, while the review turned up references to capabilities and communitarian debates, it also showed that disabilities, leftist, and feminist perspectives have rarely been consulted. Finally, in spite of van den Hoven's (2010) acknowledgement that Rawls' focus on the basic structure equips us with powerful tools for thinking about ethics in the context of design, scholars have overlooked the relevance of the argument from the basic structure.[28]

3.3 Major Proponents

Beyond limited or passing engagements with Rawls' work, five scholars have emerged as major proponents of Rawlsian thought in informational and technological contexts. In the mid-1990s, Peter Drahos began appealing to Rawlsian thought in

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[28] Palm (2009) is one exception. In this study, the author attempts to describe fair background conditions for workplace surveillance practices.

discussions of information justice. In particular, Drahos relied on Rawls' two principles to develop a systematic account of intellectual property rights and just distributions of informational goods. Not long after, Jeroen van den Hoven also began advocating for the value of Rawls' work, though his concerns revolved less around intellectual property specifically and instead centered on access to information generally. His discussion with Emma Rooksby (see: van den Hoven & Rooksby, 2008) is, to date, the most comprehensive account of information as a primary good in the Rawlsian sense. In addition to van den Hoven, Philip Brey has appealed to Rawls for thinking through moral dimensions of information and technology. As already discussed, Brey's disclosive method of computer ethics calls for the subjecting of opaque moral features of technology to analysis according to existing moral, ethical, or political frameworks— *justice as fairness* is frequently cited as one such existing framework (see, for example: Brey, 2000a). Together, Drahos, van den Hoven, and Brey have done a great deal of work to articulate the role of information as a primary good within the framework of Rawls' theory of justice.

In a less systematic manner, Johannes Britz (along with frequent co-authors Shana Ponelis and Peter Lor) has, on various occasions, relied on Rawls' two principles of justice as a model for thinking through just distributions of information goods on a global scale. Britz's work focuses on the implications of a Rawlsian approach to justice for applied informational and technological issues, especially as they relate to the flow of informational and technological goods between affluent Western countries and less-advantaged African nations. Similarly, Alistair Duff has also promoted the use of Rawls for studying issues of social justice in a global information society (or, as he often has it,

a "post-industrial" society). Duff's major work—*A Normative Theory of the Information Society* (2012)—represents perhaps the most robust interpretation of Rawls to applied issues of information distribution. In the book and elsewhere (see: Duff, 2011), he proposes concrete prescriptions for distributing the types of information he views as relevant to justice today.

While all of these authors vary in their attention to the details of Rawls' theory (Drahos, van den Hoven, and Brey are stricter and more systematic, while Britz and Duff are looser and more generous in their interpretations), each account revolves around a similar set of conceptions and concerns. In the following section, I review their work in more detail, explicitly addressing their uses and interpretations of Rawls. After doing so, I bring together their common features and—combined with the uses of Rawls reviewed in the previous section—develop what I refer to as *the standard account* of Rawls in available discussions of social justice, information, and technology.

3.3.1 Drahos. In *A Philosophy of Intellectual Property*, Drahos (1996) addresses problems of information, intellectual property rights, and social justice through a Rawlsian lens. Overall, he is concerned with showing what sorts of intellectual property rights arrangements might be justifiable according to a robust theory of justice such as *justice as fairness*. He argues that Rawls' theory is an appropriate one to adopt for a few reasons. First, he sees Rawls' work as less metaphysically problematic than an account rooted in natural rights. Second, Rawls' "impeccable liberal pedigree" means his theory will not be inherently hostile to the concept of property rights altogether. And, finally, Rawls' two principles set a clear benchmark against which the justice of any given intellectual property rights scheme can be assessed. Drahos (1996) is also aware of the

challenges that have been put to Rawls' work—he recognizes that adopting a Rawlsian frame means simultaneously acquiring established opposition to that frame (p. 172). Nonetheless, he is not interested in responding to critics of Rawls directly and, instead, seeks to articulate its value for addressing issues of intellectual property rights.

Drahos begins his analysis by outlining the importance of information for knowledge construction, development of the economy, and the exercise of power. He defines information as an "abstract object" in a legalistic sense—that is, as an object that can be conceived of in abstract terms despite ultimately being known through physical objects. Information in the abstract is a sort of highly useful fiction—it represents certain "core structures" used by various actors in deciding "whether disparate physical objects are the same or similar, or resemble each other" (Drahos, 1996, p. 154). Given information's status as an abstract object, Drahos is also quick to note two other properties of information that are important in the context of justice. First, information, unlike physical goods, is non-rivalrous: its use by one person does not preclude or diminish its ability to be used simultaneously by another person. Second, information has a tendency to spread. "Humans are information gatherers and exchangers," Drahos (1996) argues, and "in a world full of digital technology…the capacity of humans to spread information is greatly enhanced" (p. 172). Though information about a given subject or topic may be scarce at times (that is, people may be ignorant or restricted from having access), information is not scarce once it exists, since the "supply of information to one person does not diminish the amount available for supply to another person" (Drahos, 1996, p. 171). Consequently, information challenges ideas of scarcity that underwrite most discussions of distributive justice.

In order to account for information within a scheme of distributive justice, Drahos argues that information should be considered a primary good in the Rawlsian sense. Drahos (1996) asserts that rational persons would want more and not less information since—as with rights, liberties, opportunities, and resources (Rawls' other primary goods)—information is indispensable to pursuing one's valued ends or life projects:

> One reason for thinking that information is a primary good is its crucial role in human planning…. After all, the act of planning requires information. Plans take their shape according to the information available to the planners. The more information they have about the world to which their desires, purposes and goals relate, the more specific their plans can be. The less information individuals have, the more general their plans have to be. In a world where the amount of information available for planning was ever diminishing, a point would be reached where planning could not take place. (p. 174)

For Drahos (1996), persons need more than equal rights and liberties in order to develop and pursue plans and make decisions—they also need information (p. 175).

Drahos goes on to account for information as a Rawlsian primary good at two different levels: domestic and international. At the domestic level, Drahos (1996) suggests a "freedom of information" to sit alongside other basic liberties, like freedom of expression (p. 176). Here, the equal relevance and import of information for individuals finds explicit protection through Rawls' lexically-prior first principle. At the same time, Drahos emphasizes the economic value of information. He cites positive economics and Rawls' difference principle as providing some justification for certain productive inequalities in the distribution of information: inequalities in the distribution of

information may be justified so long as they provide incentives to produce more information or goods that, ultimately, improve the well-being of the least-advantaged.

> One can imagine cases where the unequal distribution of some socially useful information through, say, the patents mechanism would satisfy the difference principle and be therefore a permissible inequality. If it were really true, for example, that certain kinds of beneficial drug inventions would only have taken place because of the patent system then the temporary inequalities that the patent system creates in terms of access to information could be accommodated under the difference principle. (Drahos, 1996, p. 177)

However, Drahos (1996) is also quick to emphasize that certain inequalities in the distribution of information could never be justified since, under a Rawlsian scheme, second-principle considerations cannot take priority over first-principle ones (p. 177-178). For example, basic and political liberties cannot be compromised in order to gain economic or positional advantages with regard to information resources. Instead, property rights in information should be viewed "as a tool to preserve political liberties and maximize access to, and the distribution of, primary goods such as information" (Drahos, 1996, p. 178).

To work this way, Drahos (1996) believes that parties in the original position would adopt a scheme of property rights in information that severely limited monopoly rights (p. 179). Since monopoly rights in information limit the degree to which information diffuses throughout the population, they have the potential to generate unjust inequalities between information haves and have-nots by undermining the ability of the latter group to effectively exercise their first principle rights and liberties. For this reason,

parties in the original position, Drahos argues, would likely adopt a minimal (as opposed to maximal) scheme of intellectual property rights.

At the international level, Drahos adjusts his view of informational justice to accommodate the differences between Rawls domestic and global theories of justice. He believes parties at the global level would also adopt a severely limited scheme of intellectual property rights, though their reasons for doing so would be different. At the global level, Rawls abandons his domestic original position and develops an alternative procedure where the representative parties are "peoples"—not individual rational persons (Rawls, 1999g). On Rawls' account, since there is no such thing as a global basic structure (i.e., a world government) comparable to those found at the domestic level, it does not make sense to design an original position for arriving at principles of justice to govern a global basic structure in the same way that his domestic theory is designed to govern the basic structure of domestic institutions. Instead, parties in a global original position come together to deliberate about terms for governing relations between states, so the appropriate representatives in the original position will be "peoples" and not individuals. These peoples, Rawls argues, would be most interested in developing some basic rules and procedures for governing cooperation between states, as well as establishing some minimal institutions and agencies responsible for enforcing these basic rules.

In discussing global intellectual property agreements, Drahos emphasizes Rawls' argument that peoples in a global original position would likely adopt a position of non-interference, that is, that states should not interfere in the inner-workings of other states' domestic structures (so long as those structures meet certain minimal standards of

decency). This condition of non-intervention, Drahos argues, would severely restrict the possible global intellectual property agreements that could be justified. In particular, robust protectionist schemes of intellectual property rights would be barred since they would unduly interfere in domestic property structures and undermine the autonomy of individual states (Drahos, 1996, p. 190).[29]

Drahos' argument against maximal and protectionist intellectual property schemes is compelling and reflects the spirit of the difference principle as articulated by Rawls. However, because Drahos limits his focus to the ways in which intellectual property rights impact the distribution of information, so is the application of his argument to information and technological issues limited. Though he is clear that information in the abstract is ultimately known through physical objects, his discussion does not address potential injustices that may arise from the design of physical objects through which information is ultimately known. Structurally speaking, physical objects like technological artifacts or information infrastructures are not blank or neutral vessels exclusively shaped by the information they distribute; rather, the relationship between information as an abstract object and its physical manifestation is dialectical— information both informs and is informed by the values and affordances of the physical objects through which it is expressed. So, while Drahos' use of Rawls has profound implications for policy and ethical discussions of intellectual property regimes and their distributive effects, it cannot account for non-distributive issues of values embedded in the design of informational systems or technological objects.

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[29] Drahos (1996) defines a scheme of intellectual property rights as protectionist if "(1) it favors longer periods of protection rather than shorter; (2) it properties more areas of information rather than fewer; (3) it imposes substantive standards of intellectual property protection uniformly on all states; (4) it has few or no discretionary mechanisms that allow nation states to adjust substantive standards and the levels of protection to suit their level of economic development" (p. 189)

3.3.2 van den Hoven. Jeroen van den Hoven has engaged Rawlsian theory, information, and technology on multiple fronts. Broadly, he believes Rawls' systematic construction of principles of justice for well-ordered, democratic societies helped pave the way for considering issues of design in ethics: "Thinking about social justice can, in the context of Rawls' theory, be described as formulating and justifying the principles of justice in accordance with which we should design the basic institutions in society" (van den Hoven, 2010, p. 76). For van den Hoven (2010), "the design turn" goes beyond offering simple applied ethical analyses to also address

> the economic conditions, institutional and legal frameworks and incentive structures that need to be realized if our applied analyses are to stand a chance in their implementation and thus contribute to bringing about real and desirable moral changes in the real world. (p. 76)

While work in this vein is largely focused on institutional design, he believes it simultaneously raises issues relevant to the design of sociotechnical systems and technological artifacts (van den Hoven, 2008, p. 59; van den Hoven, 2010, p. 76). Additionally, van den Hoven (1997) has argued that Rawls' method of wide reflective equilibrium (described earlier) is the most appropriate methodology for considering ethical issues in the context of computers and other advanced ICTs (see also: van den Hoven, 2008, p. 56-57).

van den Hoven's most thorough and pointed engagements with Rawls position information as a primary good within justice as fairness (1995; see also: van den Hoven & Rooksby, 2008). As with Drahos earlier, van den Hoven argues that information qualifies as a primary good in the Rawlsian sense via its role in persons' life planning.

The idea of forming, revising, and pursuing a rational plan subject to the conditions that confront one hardly makes sense without assuming that information relevant to the task is relatively easy to come by. New information about the world is the first thing you need if you want to make, evaluate, and revise rational plans about your life. (van den Hoven & Rooksby, 2008, p. 382).

Since, on Rawls' account, 1) primary goods are assumed to have value regardless of the details of one's plan of life and 2) it is rational for persons to prefer a greater (and not lesser) share of primary goods, the indispensability of information to pursuing one's ends seems to make it an excellent candidate as a primary good.[30]

Unlike Drahos, van den Hoven goes beyond simply showing the (obvious) instrumental value of information to also differentiate between different types of Rawlsian primary goods and further justify the claim that information should be added to the index. Recall that Rawls distinguishes between different types of primary goods: basic liberties, opportunities, and income and wealth (all-purpose means). Citing Rawls' assertion that the basic liberties are necessary background institutions for the exercise of the second moral power, van den Hoven and Rooksby (2008) argue that access to information should be protected alongside established basic liberties like free speech or freedom of movement. Such an informational basic liberty would be violated, for example, in a situation "in which…a national information infrastructure…reaches urban citizens but not rural citizens, thereby preventing rural citizens from accessing relevant information stored only online" (van den Hoven & Rooksby, 2008, p. 385). This sort of

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[30] van den Hoven & Rooksby (2008) summarize a conception of information as a primary good as: "(PG 1) the freedom to acquire information relevant to rational life planning qualifies as a BASIC LIBERTY under the first principle of justice. (PG 2) Opportunities to acquire information are, like opportunities for education or health care, afforded under the opportunity principle" (p. 386; for an earlier formulation, see van den Hoven, 1995).

situation would unjustly impose inequalities in information liberties on rural citizens (van den Hoven & Rooksby, 2008, p. 385). Given the lexical priority Rawls affords to protection of these basic liberties, van den Hoven is able to find and defend a basis within Rawls' theory for information policies that promote equitable access.

While access to information is amenable to Rawls' index of basic liberties, information and ICTs also represent opportunities and resources that can be, van den Hoven thinks, further accommodated under Rawls' second principle of justice. In this way, the formal right to access information already outlined is given substantive expression:

> Now if, in a society, a substantial proportion of information relevant to citizens' life planning is only accessible via information media, then, in that society, a guarantee of equal liberty to seek information will not be sufficient in itself to ensure that all citizens have access to all relevant information. In such a society, access to (often expensive and complex) information media will also be necessary for citizens to access much of the information relevant to their rational life planning. To put the point in general terms, ensuring a just distribution of information requires not only a just distribution of information liberties for all citizens, but also mechanisms to ensure that people's opportunities to exercise their information liberties are roughly equal. (van den Hoven & Rooksby, 2008, p. 385)

In describing access to information in opportunistic terms, van den Hoven is able to further accommodate information under the equal opportunities protections afforded by

Rawls' second principle of justice (unlike Drahos, who uses the problem of intellectual property rights to account for information under the difference principle).

van den Hoven's work also attends to a number of critiques that have been leveled against Rawls work. In particular, the work of Amartya Sen and Thomas Pogge, as well as (though in a different way) communitarian Michael Walzer have figured heavily into his thoughts on information, technology, and justice. Thomas Pogge's (2002) prominent socioeconomic critique has informed van den Hoven's efforts to define information as a primary good, and he readily admits the challenge of supplying people with effective means to the realization of basic liberties (including a right to access information). Pogge challenges the lexical priority of Rawls first principle, arguing that without a sufficient share of material means and all-purpose goods (considerations relegated to Rawls' second principle) citizens will be unable to effectively exercise their first-principle liberties (see, generally: Pogge, 1989). If some and not others have the means to exercise their basic liberties, the overall worth of liberty remains unequal regardless of formal protections. van den Hoven and Rooksby (2008) recognize this challenge, noting that "in high-technology information societies, people [need to be] educated in the use of information technologies, and afforded access to information media sufficient for them to be able to participate in their society's common life" (p. 389). Following Pogge's solution that Rawls' first principle require basic socioeconomic needs to be satisfied at the same time that basic liberties are articulated and protected, van den Hoven and Rooksby argue that appropriate basic needs of access to—and education in the use of—ICTs be included as well.

More recently, van den Hoven has helped develop the use of Sen's capabilities approach in the context of technological design (Oosterlaken & van den Hoven, 2011). Similar to socioeconomic considerations in the effective exercise of information liberties, capabilities debates help demonstrate the shortcomings of a primary goods approach, since people are "not equally endowed with the natural talents so important for making use of information goods, namely, cognitive abilities" (van den Hoven & Rooksby, 2008, p. 391). In the context of privacy, van den Hoven has turned to Michael Walzer's (1984) work on "spheres of justice" to make sense of challenges to privacy and autonomy in the face of advanced ICTs. In particular, van den Hoven appeals to Walzer's critique of Rawlsian "simple equality" to demonstrate the ways in which people not only distribute goods, but also distribute the meanings assigned to goods—including information (van den Hoven & Vermaas, 2007). Rawls' simple equality of primary goods cannot account for these complex local meanings assigned to goods. Echoing Helen Nissenbaum's (2010) theory of contextual integrity (also indebted to Walzer), van den Hoven and co-auther Peiter Vermaas (2007) have argued that the "meaning and value of information is local, and allocation schemes and local practices that distribute access to information should accommodate local meaning and should therefore be associated with specific spheres" (p. 287). When information from one sphere is distributed according to the norms and logic of another sphere, information injustice results—at least on a Walzerian account. Finally, van den Hoven has also, at different points, cited criticisms of Rawls by Dworkin (choice-sensitivity) and Garfinkel (positionality) and suggested their implications for information and information technology. Despite this wide range of

critiques, however, van den Hoven has not pursued leftist, feminist, or disabilities critiques of Rawls' work.

While van den Hoven recognizes the urgency of certain critiques and acknowledges that they must be addressed if Rawlsian justice is to remain relevant in an information society, he does not himself take on that task. Additionally, in his early work he criticizes Rawlsian theorists for overlooking the fundamental role technological artifacts and information infrastructures play in shaping human possibilities:

> technology has become a paramount feature of the objects of their studies in healthcare, education, science, business, government, and politics. Information Technology has become part and parcel of the tools which society uses to regulate and steer itself and its component parts. (van den Hoven, 1995, p. 2)

However, though he has written extensively about the ways in which values and biases may be embedded in technology, he does not evoke Rawls in these discussions. Further, Mathiesen (2004) has argued that van den Hoven's distributive focus on information as a primary good cannot account for situations where a lack of information may be morally desirable (n.p.). Indeed, the primary goods approach advocated by van den Hoven provides few tools for identifying and assessing the justness of non-distributive features of technological artifacts or information systems. Like other Rawlsian theorists before him, van den Hoven appears to consider social justice in information and technology in narrowly distributive terms as there remains a gap between his work on values embedded in design and his discussions of Rawlsian justice.

3.3.3 Brey. Across his varied projects, Brey is largely concerned with clarifying and synthesizing analyses of information and technology issues across disparate

disciplines or contexts. He has, for example, proposed broader normative analyses of the Internet and new media, seeking to develop an axiology of technology—that is, a theory of values in technology—that might help researchers, ethicists, and designers systematically consider issues of power and value for both existing and emergent technologies. He is also interested in developing methods and heuristics for uniting otherwise disconnected debates and issuing normative judgments in a systematic and coherent manner. As already discussed, this interest led him to develop a method of disclosive computer ethics that aims to systematize analyses of morally opaque features of technological systems (Brey, 2000a; 2012). One of the strengths of this method is that it offers researchers and ethicists a clear path for surfacing otherwise obscure or overlooked features of technology that may have moral import. Once these features have been surfaced they become available for analyses according to established moral or political frameworks. "For example," Brey (2000a) writes, "to start off a disclosive analysis a feature of a computer system may initially be identified as (potentially) unjust when it systematically favors the interests of some user groups over those of others" (p. 13). Once surfaced, morally problematic features can be subject to a theoretical analysis according to established theoretical framworks—he often cites Rawls' theory of justice as a relevant example. A disclosive analysis that appeals to Rawls might, he thinks, help one assess the justness of a technological artifact or system through appeal to the ways it generates "an unequal distribution of primary social goods according to Rawls's theory of justice" (Brey, 2000a, p. 13).

Unlike Drahos or van den Hoven, Brey does not attempt to thoroughly or systematically account for information within a Rawlsian framework. Instead, he is

concerned with describing or accounting for informational and technological phenomena in ways that are congenial to Rawls system. For example, he often speaks of information or access to technology as relevant additions to Rawls' index of primary goods—but he is careful to justify how this might be according to Rawls' own criteria (and not by critiquing the construction of Rawls' index). Primary goods also feature prominently in his conception of empowerment. In "The Technological Construction of Social Power," Brey (2008a) advances a theory of technology and power that is intended to serve as a foundation for the development of a more robust critical theory of technology. Though a full discussion of this paper is outside the scope of this overview, it is necessary to understand Brey's definition of empowerment in relation to his ideas about power in general in order to see the work that Rawlsian primary goods does within the framework. Brey briefly presents an overview of competing conceptions of social power advanced by Lukes (1974), Dowding (1996), and Weber (1948) before outlining two formulations of the social power, one broad and one narrow. In a broad sense, Brey (2008a) defines social power as "the power to determine social outcomes, which are changes of any kind in the makeup of society" (p. 5). In the narrow sense (which he relies on for the rest of the paper), he defines social power more simply as "the power to influence the behavior of others" (Brey, 2008a, p. 5).

Within this landscape of social power, individual agents are socially empowered on Brey's (2008a) account if they are "free to determine [their] own goals and choose [their] own actions, and…can exercise social power in relation to others to help attain these goals" (p. 6). Later, Brey (2008a) relies on Rawlsian primary goods to further concretize this notion of empowerment:

Empowerment…can be understood as (1) having the power to use one's primary

goods to one's own ends (freedom from restraint by others and from other

restraints) and (2) the successful acquisition of a relevant share of primary social

goods to more effectively further one's ends. (p. 16)

Consequently, Brey asserts that justice demands the adoption of design methods and

regulations that promote the empowerment of individuals in the sense just described.

Though he does not explicitly reference Rawls, it is clear that it is Rawlsian justice that

he has in mind, as he relies on language familiar to the difference principle in noting that

technology design should promote the interests of the least-advantaged (Brey, 2008a, p.

21).

In addition, Brey (2006; 2007) has also adopted the Rawlsian idea of

comprehensive doctrines to describe the value-systems or ideologies held by individuals,

groups, or institutions when they make claims as to the goodness or badness of

information and technology. In his axiology of new media, Brey relies on Rawls' concept

of comprehensive doctrines to make sense of the lenses through which different

individuals, groups, or institutions make value judgments about new media content and

practices. For Brey (2007), as for Rawls, comprehensive doctrines contain a thick

conception of the good—detailed systems that define what one finds both intrinsically

and instrumentally valuable—and some more or less comprehensive set of accompanying

beliefs and norms of conduct (p. 7). A normative axiology of new media, then, "utilizes a

certain value system or thick conception of the good to critique particular value

implications of technology or culture" (p. 9). Examples of explicit comprehensive

doctrines that may be adopted in order to critique the value implications of new media

include comprehensive religious doctrines (for example, Christianity, Judaism, or Islam), secularized consumer-oriented doctrines (i.e., conceptions of the good promoted by marketers, advertising agencies, and other similar institutions), or political doctrines (for example, liberalism, socialism, or communitarianism). Brey (2006) similarly relies on the concept of comprehensive doctrines in exploring the social and cultural implications of the Internet in particular—he argues that making explicit the content and commitments of one's comprehensive doctrine is integral to understanding a given appraisal of the Internet or new media.

Messerly (2007) has criticized Brey's use of Rawls as uncritical. It is misleading of Brey, Messerly (2007) thinks, to blindly advocate or promote the use of a political theory like Rawls' without reference to its attendant controversies. However, Messerly appears to overstate Brey's overall reliance on Rawls. Compared to the work of Drahos or van den Hoven, Brey's use of Rawls is quite limited—he only suggests *justice as fairness* as one example of an existing moral theory one might appeal to in the course of a disclosive ethical analysis. Brey also makes numerous references to competing political ideologies—such as libertarianism and communitarianism—recognizing, in a roundabout way at least, the controversial playing field of political theory. Brey does not, however, challenge or interrogate the foundational model-conceptions of Rawls' theory when employing specific concepts (like primary goods or comprehensive doctrines). In this sense, Brey is not critical of Rawls. So, Messerly is correct to criticize Brey's relatively uncritical adherence to a Rawlsian system, but he is misguided in his choice of illustration.

3.3.4 Britz. Britz (2004; 2008) is largely concerned with developing normative prescriptions for addressing the moral dimensions of a global information society. "It is a moral imperative," he writes, "that the continuous construction of the growing information society be regulated by a set of universal principles based on social justice" (Britz, 2004, p. 193). Though Britz (2008) views our global information society as continuous with—and not wholly distinct from—preceding industrial relations, he argues that contemporary developments in ICTs "have changed the very nature of these relationships and impacted our socioeconomic and political activities" (p. 1172). Along with these changes come new challenges for defining and promoting social justice today. Early articulations (Lipinski & Britz, 2000) of this idea are rooted in interpretations of information and Rawlsian justice offered by Drahos (1996) and van den Hoven (1995), though Britz later moves away from these interpretations of Rawls' principles (Britz, 2008).

Throughout his work, Britz attends to a tension he sees between the control of information and access to information. On the control side, Britz and various co-authors identify individual creators, publishers, and other intellectual property holders, as well as government agencies and affluent or "information-rich" states; on the access side are users of information—citizens, students, other creators, and developing or "information-poor" states. In the context of scholarly information, Britz and Ponelis (2005) describe the tension as between publishers' "need to control distribution of information in order to protect their interests" and access to information that is "needed for education and development" (p. 234). In the context of global economic relations, this conflict plays out between "the right to own and control" information asserted by affluent countries and

transnational corporations and "the right of access to information" claimed by developing nations often disadvantaged or further marginalized by global information policies (Britz, Lor, & Bothma, 2006).

This tension between control and access parallels the tension between liberty and equality found in Rawls' work. Control, on Britz's account, is concerned with the freedom of information creators and intellectual property holders to dictate the flow of their property while issues of access raise important questions about equality and the claims of users can make against the ownership and control rights of creators. For Britz, as for Rawls, this tension can be resolved through the application of principles of social justice. Indeed, "anytime a society…must settle a dispute involving information controllers and users, it involves a potential question of social justice" (Lipinski & Britz, 2000, p. 50). To this end, Britz and various co-authors put forward principles tailored specifically for addressing social justice and information. Though the number and type of principles vary in different publications, they all share certain common features:

1. A fundamental right of access to information should be enshrined alongside other basic liberties. Britz variously roots this claim in Article 19 of the *Universal Declaration of Human Rights* (Ponelis & Britz, 2008), the *World Summit on the Information Society's Statement on the Right to Communicate* (Britz, 2008), or to the role of information in promoting human well-being and developing rational plans of life (Lipinski & Britz, 2000 p. 63; Lor & Britz, 2007).

2. All people should have access to the same scheme of rights, which scheme includes rights to communicate and to access information. This assertion reflects

the equal consideration given to all individuals by Rawls' first principle of justice (Britz et al, 2006; Lor & Britz, 2007; Lor & Britz, 2012).

3. The protection of individual rights to control information (for example, intellectual property rights) should be justified by appeal to social utility or the common good. Here, "creators and distributors of information goods" can claim control rights so long as they do not thwart creativity generally, exacerbate the gap between information-rich and information-poor, or demand unfair compensation (Lipinski & Britz, 2000; Britz & Ponelis, 2005; Britz et al, 2006; Lor & Britz, 2007).

4. Inequalities in the distribution of information—or in the distribution of benefits and burdens in an informational society—must be justified according to agreed upon norms or rules, for example Rawls' difference principle (Britz, 2004, p. 202; Britz, 2008).

Unlike other authors reviewed in this section, Britz recognizes the importance of achieving social justice outside of distributive arrangements. He extends his concerns beyond distributive justice to also address important ideas of recognition, contribution, and participation in an information society. For example, he argues that appropriately recognizing the equal worth and dignity of all people (*justice as recognition*) should constrain any contemporary principles of justice (Britz, 2008, p. 1175). In line with Sen (1993), facilitating opportunities for people to meaningfully participate in economic or political activities (*justice as participation*) also serves to further reinforce persons' dignity and well-being (Britz, 2008, p. 1178). He also invokes Young's (1990) discussion of the generative role principles of justice can play in fostering a sense of justice among a

population (Britz, 2008). Additionally, Britz (2008) is keen to the ways in which important issues of social justice might be obscured by existing structures and institutions. "These preset conditions make it difficult," he writes, "to change or alter society according to the moral imperatives set by justice" (Britz, 2008, p. 1174). Britz (2008) argues—following Lötter (2000)—that in-depth analyses are needed to examine injustices obscured by embedded structures.

It is unclear, however, if some of the principles Britz proposes sufficiently recognize and reflect this concern with hidden injustices—at least at a conceptual level. For example, the demand that inequalities between the information-rich and the information-poor are only permissible if they meet certain criteria set by widely understood and accepted norms and rules betrays a conservative bias, privileging existing norms over the development of new ones. Adapting Rawls' difference principle, Britz (2008) holds that "inequalities must…not be to the disadvantage of the information poor and the marginalized" (p. 1175). Of course, Britz might not be referring to actually existing norms and rules, as many currently operating norms and rules regulating the distribution of goods—informational, technological, or otherwise—are no doubt unjust. Though it is not clear in his work, Britz could be referring to norms and rules that could—hypothetically—be widely understood and accepted. This interpretation is plausible, given the Kantian roots of the theories of justice that undergird both Rawls' theory and Britz's work. Here, Britz might appeal to norms and rules justified by something like Kant's categorical imperative—that is, inequalities are only permissible if they meet criteria set by norms and rules that everyone involved could hypothetically agree upon.

Britz also, at times, emphasizes ideas of desert that Rawls tends to de-emphasize. Britz's (2008) emphasis is clear in his definition of social justice: "to give a person or a group—in this case, all those who are part of the global Information Society—what they deserve" (p. 1174). He explicitly codifies the notion of desert in his work, arguing that "everyone should get what they deserve—be it good or bad" (Britz, 2008, p. 1175). For Britz, desert seems to be a general concept—he never defines it beyond the broad idea of receiving one's due. Rawls (2001), on the other hand, is careful to distinguish between three different kinds of desert and specify those that are relevant for social justice and which are not:

> First, the idea of moral desert in the strict sense, that is, the moral worth of a person's character as a whole (and of a person's several virtues) as given by a comprehensive moral doctrine; as well as the moral worth of particular actions; Second, the idea of legitimate expectations (and its companion idea of entitlements), which is the other side of the principle of fairness; and Third, the idea of deservingness as specified by a scheme of public rules designed to achieve certain purposes. (p. 73)

Of these three types of desert, Rawls is explicit that the first idea—of moral desert—cannot be reconciled with his system of justice and, in particular, the fact of reasonable pluralism. Because he admits that persons will have conflicting conceptions of the good, they will not be able to "agree on a comprehensive doctrine to specify an idea of moral desert for political purposes" (Rawls, 2001, p. 73). Instead, the second idea (of legitimate expectations) is put forward as a replacement for moral desert in a theory of justice. Whereas moral desert is assessed according to a comprehensive moral doctrine,

legitimate expectations are determined by "the public rules that specify the scheme of cooperation" as laid out by *justice as fairness* (Rawls, 2001, p. 72). Additionally, Rawls (2001) admits the third kind of desert—deservingness specified by a scheme of public rules—so long as the scheme of public rules are "designed to achieve social purposes" (p. 74). Ultimately, notions of legitimate expectation and individual deservingness are only justified with reference to the entire system while moral desert is expressly dismissed.

Overall, Britz's articulation of desert is far less explicit—he never connects his ideas on desert generally to his explicit discussions of the common norms and rules that justify expectations of desert in the first place. At times, however, his notion of desert seems squarely in line with a Rawlsian idea of legitimate expectations, as with his discussion of common norms and rules to accommodate differences based on merit and outcomes. In other places, he seems to rely on a heavily moralized (in the sense of "moral desert" specified above) view of desert, as when he argues, "everyone should get what they deserve—be it good or bad" (Britz, 2008, p. 1175). In the end, Britz's effective and wide-ranging account of social justice issues in an information society would benefit from explicitly adopting the Rawlsian idea of legitimate expectations to avoid confusion with a comprehensively moral notion of desert.

3.3.5 Duff. Alistair Duff develops a Rawls-based framework for addressing the problem of a just distribution of information in affluent Western democracies. He sets aside technological dimensions of the digital divide (such as the distribution of technological artifacts or the limits of current information infrastructures) to address "a far more intractable information divide" which he views as underwriting the broader phenomenon of the digital divide (Duff, 2011, p. 604). Duff cites an informational

dimension of digital divide debates often obscured by discussion of devices or the Internet alone. It is at this information divide that Duff's (2011) framework is directed, and he seeks to "[postulate] a way of thinking about how to approximate a more 'inclusive' information society" (p. 605). To address this divide, Duff (2011; 2012) appeals to Rawls (as well as the philosopher R.H. Tawney) to develop the "Rawls-Tawney theorem"—a normative framework modeled directly on Rawls' theory of justice (but limited in certain ways by the fraternal ethos of Tawney's work).

As with Drahos and van den Hoven earlier, Duff (2011) appeals to the Rawlsian notion of primary goods, insisting that "in the postindustrial era…information has graduated into a primary good in Rawls's sense" (p. 607). While the case can be made that information was an important a primary good in the industrial context that frames Rawls' work, Duff argues that it is even more important now, as "the distribution of informational goods must be a central issue in postindustrial societies" (Duff, 2011, p. 607).[31] Duff (2011) does not, however, appeal to Rawls' theory alone. Rawls, Duff (2011) argues, ultimately permits "very considerable socioeconomic inequalities" that, over time, might undermine the achievement of social justice (p. 608). In particular, Rawls' famous difference principle, Duff (2011) thinks, "leaves far too much room for

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[31] Curiously, Duff's (2011) characterization of primary goods does not appeal to any Rawlsian conception of the person. Instead, Duff pins his argument on the contingencies of a postindustrial society (p. 607). Overlooking this feature of Rawls' theory leads Duff to consider the distribution of informational goods without attending to the ways in which the Rawls' index of primary goods work as an expression of the interest persons have in exercising their two moral powers. Duff describes Rawls' theory of justice as "predicated on the selection of a set of 'primary goods,' meaning social resources considered to be the proper object of social justice" (p. 607). Duff does not further elaborate on Rawls' list of primary goods, but simply argues that information should be added to the list, since "the distribution of informational goods must be a central issue in postindustrial societies" (p. 607). One gets the sense, from Duff's account, that primary goods (including information) are a set of important, historically contingent all-purpose means that can be marshaled to serve a wide range of human ends. That is, primary goods are simply resources that—at any given time—are vital to furthering human interests under all (or most) conditions without reference to the humans themselves. This is, however, a mischaracterization of the nature and role of primary goods within Rawls' theory of justice.

interpretation" and potentially allows for excessive inequalities between the best and the least well-off in a given society (p. 608). To account for this problem, Duff (2011) adds the "Tawney proviso," which stipulates that not only should justifiable inequalities work to the benefit of the least advantaged (as under Rawls' difference principle), but they should also not be allowed to grow so large as to generate class divisions (p. 608).[32]

The "main referent" with which Duff's (2011) Rawls-Tawney theorem is concerned "is *information*, not ICTs, nor new media, nor the information infrastructure" [emphasis original] (p. 608). Though technological artifacts and infrastructure are important, Duff (2011) thinks "they are *politically* significant only insofar as they impinge on the social distribution of information itself—information qua facts, data, the basic building-blocks of knowledge and participation" [emphasis original] (p. 608). As far as Duff (2011) is concerned, information is to be treated as "an identifiable and separable good" of the type that can properly be subject to a distributive scheme like the one articulated by Rawls (p. 609). He further asserts that, within the domain of information as a separable good, certain types of information are more important than others. He (2011) thinks that other information and technology theorists that have made use of Rawls have failed to "make clear whether [information] falls under [Rawls'] first or second principle of justice" and "when they do thus specify, they tend to lump all information under either the first or the second, rather than pause to ask whether different types of information belong under separate principles" (p. 609).[33] He (2011) does not

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[32] Duff (2011) does not, however, specify what range of inequality is large enough to generate class divisions. He only notes that in Tawney's work "…it is fairly clear that [the] ideal of social democracy involved top earners taking home no more than three or four times the income of the lowest paid" (p. 608).

[33] This assertion, however, overlooks the ways in which both Drahos and van den Hoven have carefully and explicitly considered the place of information in both of Rawls' principles of justice, as discussed earlier.

give any particular reason as to why we must delineate between different types of information, but he is convinced that not doing so generates "weaknesses…in most current neo-Rawlsian information society theory" (p. 609).

To address this supposed weakness, Duff manufactures a hierarchical classification scheme that divides information into three types: A, B, and C. Type A information includes information relevant to citizenship, such as electoral information and information pertaining to one's political and legal rights. Type B information is classified as "within the orbit of social justice, [but] not so vital that it must be distributed exactly equally" (Duff, 2011, p 609). This type of information includes domestic and foreign news, as well as general scientific, technical, and medical information. Finally, type C information includes "all other information" (Duff, 2011, p. 609). Though he specifically cites soft news and entertainment as examples, type C would presumably include all literary, artistic, and other cultural information not captured by the political, legal, scientific, or medical interests of types A and B. Finally, Duff deems this last category of information as unimportant in terms of social justice. "In a world of scarce resources," Duff (2011) writes, "the state cannot be burdened with the distribution of football scores, celebrity photo shots and the like" (p. 609). While he admits that "the precise location of the boundaries between" the different types of information is up for debate, he declares his rough classification scheme "sound" (Duff, 2011, p. 609).

Ultimately, Duff's system is designed to articulate a just distribution of information according to his hierarchical classification scheme. His Rawls-Tawney theorem is as follows:

First Principle: Each person has an equal right to Type A information

Second Principle: Inequalities in the social distribution of Type B information are

permissible if and only if such inequalities

   a) maximize the informational resources of the worst-off group

   b) are subject to equality of access

   c) are not extensive enough to cause class divisions (the Tawney proviso)

(The distribution of Type C information, comprising all other information, can be

safely left to market forces.) (p. 609)

Formally speaking, the theorem emulates Rawls' two principles of justice, as the first

principle appears to take priority over the second. Further, Duff's second principle

follows the multi-part form of Rawls' second principle as it accounts for both a version of

the difference principle (a) and equality of opportunity (b). The influence of Tawney can

be seen in the second principle as well (the Tawney proviso). Finally, Type C information

is altogether excluded from consideration under a scheme of social justice and left to

"market forces" for its distribution.

Duff's theorem is dependent upon distinguishing between different types of

information when considering its distribution. Within his framework, only two

specifically delineated types of information—types A and B—are considered relevant to

social justice and receive special consideration under the Rawls-Tawney principle. Type

A information is assigned the highest priority, as it contains political and legal

information integral to the exercise of one's citizenship. Type B information lumps

together domestic and foreign news, as well as general scientific, technical, and medical

information as "within the orbit of social justice" but not vital (Duff, 2011, p. 609). Duff

(2011) does not, however, specify why this information is relevant but not vital, only

noting that it is "of course important" (p. 609). Further, it is unclear what it might mean to arrange inequalities of this type B information to "maximize the informational resources of the worst-off group," as called for by Duff's (2011) second principle (p. 609).

Ambiguities in the first two principles aside, Duff's taxonomy of information potentially conflicts Rawls' theory of justice in its exclusion of type C information from consideration. In particular, the exclusion of type C information can easily serve as a justification for undermining the social bases self-respect—one of Rawls' most important primary goods—for certain individuals or groups. While he only mentions "soft news" and "entertainment" specifically, the range and types of information that comprise "all other information" not accounted for by types A and B is, indeed, vast. It would feasibly contain all sorts of social and cultural information—literary, artistic, and beyond—that Duff asserts as irrelevant to social justice. However, various kinds of type C information can often prove integral to the development of self-respect for certain individuals or groups. For example, certain types of social and economic information (beyond that specified as type B information) are required for persons to build and maintain solidarity. Even information about sports teams (which Duff derides as unimportant) may underwrite the self-respect of certain communities or national associations. Similarly, certain types of cultural information are indispensable for people to associate with like-minded others. Here, the activities of lesbian, gay, bisexual, transgender and queer (LGBTQ) communities are instructive, as information regarding access, community and political histories, safe spaces, and even events are integral to participation.

Duff's (2011) argument that the distribution of this type of information can be "safely left to market forces" (p. 609) does not extend adequate protection for information that might help provide the bases of self-respect for some. If social justice is, for Rawls, about securing for individuals the resources needed to exercise their two moral powers, securing all necessary information should be the aim of a Rawlsian approach to distributive justice in information. Duff's lack of concern with self-respect helps expose at least one way in which the Rawls-Tawney theorem might actually undermine Rawlsian justice.

3.4 Sketching the Standard Account of Rawls as Applied to Information and Technology

The engagements with Rawls reviewed in this section converge upon similar themes. In one way or another, most uses are concerned with the just distribution of information as a resource at both domestic and global levels. In the process, they all appeal to Rawls' two principles of justice, though in slightly different ways. The most robust accounts in this area focus on the status of information as a primary good of the sort Rawls' theory is designed to distribute: information should count as a primary good because it is integral to rational life planning and for furthering human interests in an informational—or postindustrial—society. The instrumental value of information finds expression in the articulation of rights of access to information. At times, access rights are cast in negative terms (i.e., that one should not be hindered in the pursuit of certain kinds of information) or positive rights to information (i.e., that certain types of information should be made accessible by the state or other responsible agencies). The salient point here is that insofar as Rawls has been marshaled for use, it has largely been

to talk about the distribution of information as a primary good. Less thoroughly addressed are questions surrounding the distribution of technological artifacts or access to certain technologies. Duff mentions such access as important, but only insofar as it impacts the distribution of information in society. Similarly, Drahos distinguishes between information as an abstract object and information as expressed through physical objects like technological artifacts or systems, though he sets aside the latter and focuses on the former in order to better focus on the question of intellectual property rights.

I will refer to this focus on the distribution of information as a primary good as the "standard account" of Rawls in discussions of justice, information, and technology. The standard account's focus on distributions is in many ways unsurprising, given Rawls' own emphasis on the distributive dimensions of social justice. Rawls (1971b) himself describes his work as "[providing] in the first instance a standard whereby the distributive aspects of the basic structure of society are to be assessed" (p. 8). In particular, major proponents of the standard account have tended to adhere to this description without interrogating its foundations. They accept Rawls' normative prescriptions without offering particular consideration to the model-conceptions that underwrite *justice as fairness* and their relevance for the information or technological contexts within which they are applied. Put another way, the standard account tends to approach Rawls' two principles of justice as formulated and justified apart from social or technological practices. Indeed, it is the assumed "practice-independence" of Rawls' theory that seems, at times, to lend *justice as fairness* its real normative force: through his sophisticated use of original position reasoning, Rawls' principles seem to emerge from, as Sangiovanni (2008) puts it, "a normative point of view unfettered by…existing institutions and

practices" that keeps us from "constraining the content of justice by whatever social and political arrangements we happen to share," arrangements that may be, "at best, merely the product of arbitrary historical contingency or, at worst, the result of past injustice itself" (p. 137). Specific features of practices or contexts are secondary concerns—they only become relevant once we seek to implement an independent conception of justice already worked out.

This is not to say that contextual considerations have been entirely absent. Proponents of the standard account have been careful to point out that Rawls' ideas were not formulated with advanced networked or information societies in mind (notably: Duff, 2011). Rather, Rawls' theory was worked out to address problems of distribution against a backdrop of industrial social and economic practices typical of affluent Western democracies in the mid-twentieth century—hence its focus on the distribution of rights, opportunities, and material wealth in the form of income and property. However, the response to the limits of Rawls' industrial perspective has not been to revisit the foundational assumptions of his theory in order to assess their continuing relevance for societies dominated by sophisticated networks and technologies designed to support flows of information. Instead, the opposite has happened: rather than reinterpreting Rawls in light of new contextual considerations, the standard account seeks to reinterpret contemporary informational or technological phenomena in terms congenial to Rawls' system. This approach is particularly evident in Drahos' interpretation of intellectual property rights as well as various interpretations of information as a Rawlsian primary good (as in the works of van den Hoven, Brey, Britz, and Duff). The assumption here is that Rawls' powerful practice-independent conclusions are to be preserved and contextual

considerations reinterpreted accordingly. As a consequence, the standard account of Rawls implicitly endorses the idea that principles of justice are to be worked out first, and contextual considerations attended to second.

I would suggest, however, that this approach fails to fully appreciate Rawls' own motivations—in particular, his reasons for developing an index of primary goods. Rawls denies that primary goods account for things deemed generally necessary for advancing persons' interests under particular historical circumstances. In light of this, simply noting—as Drahos, van den Hoven, Brey, Britz, and Duff all variously do—that information, because of its vital importance today, should be added to the index is misguided. Duff (2011) makes this mistake most explicit when he argues "that in the postindustrial era, where a much greater measure of informatization has occurred, information has graduated into a primary good in Rawls's sense" (p. 607). However, Rawls did not arrive at his index of primary goods by simply thinking long and hard about what available goods might best advance persons' interests generally. Consequently, we cannot simply add information to the index just because we have thought long and hard about its importance as an all-purpose resource in an information society. Rather, one must keep in mind that Rawls' theory is designed to best promote the effective exercise of persons' two moral powers—that is, their capacities for a sense of justice and to adopt and pursue a conception of the good. As Rawls (1980/1999d) puts it, the problem of primary goods cannot be discussed until "the conception of the person and its highest-order interests are fixed" (p. 314). At times, Drahos and van den Hoven are keen to Rawls' justification for an index of primary goods in making explicit the ways in which information supports the exercise the second moral power. However, they still fall

short of reconsidering Rawls' model-conceptions of persons and society in light of the informational and technological practices they seek to address.

Beyond adopting an uncritical view of Rawls' model-conceptions, the reviewed engagements have also tended to overstate the authority of the original position and its veil of ignorance for Rawls, ignoring the device's justificatory foundations. Though it carries illustrative force, most of Rawls' theoretical heavy lifting is done well before parties begin to deliberate inside the original position. Importantly, the model-conceptions that he develops and advances (free and equal persons, a well-ordered society) and their expression (two moral powers, primary goods) are not constructed in the original position or behind the veil of ignorance. Instead, they are simply laid out, (recall that their justification is derived from Rawls' constructivist method generally). No doubt, the original position and the veil of ignorance represent powerful tools for exploring issues of social justice in various domains, as evidenced by their widespread application to informational and technological issues. However, their seductiveness as illustrative tools draws attention away from other features of Rawls' theory that might be similarly useful for thinking about issues of social justice, information, and technology.

In clarifying the motivations behind Rawls' theory, I do not mean to refute the idea that information should be considered a primary good, nor do I mean to suggest that attending to unjust distributions of information (or technology) is not important. As the various accounts reviewed in this chapter have effectively demonstrated, attending to the justice of informational and other distributions is indispensable to the pursuit of justice in contemporary liberal democracies broadly. However, I do suggest that the focus on distributions represents a particular limitation of the standard account: by reducing issues

of social justice, information, and technology to purely distributive terms, all we are left to talk about are problems of distribution. But, as both critics and proponents of Rawls have pointed out, the focus on distributions tends to obscure or make invisible other dimensions that are as—if not more—important to the realization of social justice. As Iris Marion Young (2006) puts it,

> while patterns of the distribution of resources, opportunities, and income are very important issues of justice, theoretical focus on them tends to deflect attention from important aspects of structural processes in at least two ways. First, focus on distribution pays too little attention to the processes that produce the distributions. Second, focus on distribution of benefits and burdens obscures important aspects of structural processes that do not fit well under a distributive paradigm. (p. 91)

She cites as examples the problems of the social division of labor, structures of decision making power, and the elevation of certain judgments to normative standards—that is, processes in which "the attributes, comportments, or ways of life that are 'normal,' in the sense of exhibited by…dominant social segments, come to also have the connotation of being the 'best'" (Young, 2006, p. 95). Currently, the standard account inherits these same blind spots: it reduces informational and technological goods to just (or mere) things to be distributed along a certain pattern or according to certain principles. It does not consider the structures or processes that pattern distributions as also evaluable according to principles of justice. Conceiving of information as a primary good cannot tell us much about the ways in which information is collected, framed, analyzed, presented, or packaged—only about the ways in which it is disseminated. Consequently, the structures and systems that allow people to access to information—or the ways these

systems may promote the distributions of some types of information while at the same time hindering others—go overlooked from the standpoint of Rawlsian justice.

The importance of non-distributive dimensions of justice is well developed by critics of Rawls' work. Many of these critiques, however, have gone overlooked by proponents of the standard account. For example, feminist critiques of Rawls have long been aware of the unfair social division of reproductive labor and the raising of children, a burden that—historically speaking—has disproportionately fallen on women. Leftist critics have pointed to problems of decision-making power with relation to productive technologies in society, arguing that Rawls permits control of such technologies to concentrate into relatively few hands, leading to unjust imbalances in power.[34] Further, disabilities critics have shown how normative standards of ability shape social and physical environments in ways that are biased against certain groups of people. For example, public buildings that lack access for wheelchairs impose a normative standard of mobility that excludes many otherwise capable persons. These debates share an attention to the ways that the design of social, economic, and physical institutions assign roles and duties, structure decision making power, and impose normative standards in ways that are relevant to social justice but are not necessarily reducible to distributive terms.

One might object to the above argument by pointing out that some proponents of the standard account do, in fact, account for problems of justice in non-distributive terms. Brey, in particular, is committed to systematically exposing the values and biases embedded within technological artifacts and systems—he is attuned to the ways in which

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[34] Regarding the problem of control of productive technologies, Rawls himself even entertains the idea that perhaps subjecting productive technologies to democratic control (in a manner envisioned by John Stuart Mill) would better realize his system of justice (Rawls, 2001, p. 178).

not only the use but also the design of technology can create and sustain relations that empower some users and disempower others. Similarly, van den Hoven orients us towards the ways in which the design of things is relevant to justice by making explicit the fact that Rawls' principles of justice are intended to regulate not individual human action but, rather, the design of the basic structure. Britz, too, is cognizant of non-distributive dimensions of justice, like recognition and contribution. Indeed, it is not difficult to see how the design of technological systems recognizes some (while rendering others invisible) or more readily facilitates the contributions of certain people while making participation more difficult for others. Whereas the work of Drahos and Duff limits us to thinking about purely distributive concerns with regard to information, Britz, Brey, and van den Hoven suggest paths forward for considering justice in information and technology outside of distributions. I would suggest, however, that though these authors do pay attention to non-distributive issues, they do not propose Rawlsian strategies for attending to them. For example, in his discussions of privacy, van den Hoven appeals not to Rawls, but to the work of communitarian philosopher Michael Walzer (1984). Similarly, Britz and van den Hoven have, as of late, turned their attention to Sen's capabilities approach, scaling back on their reliance on Rawlsian thought (Britz, Hoffmann, Ponelis, Zimmer, & Lor, 2013; Oosterlaken & van den Hoven, 2011).

At first glance, this abandonment of Rawls when addressing non-distributive dimensions of justice seems to point to limitations of the Rawlsian framework itself. The overview of oppositional engagements with Rawls, for example, showed that many scholars are resisting Rawls in favor of the capabilities approach. This shift is in some ways unsurprising, as the capabilities approach is predicated (in part) on overcoming

perceived limitations of *justice as fairness* (Sen, 1979; Sen, 1990; Sen, 2009).[35] Famously, Sen (1979) argues that Rawls' focus on primary goods might be appropriate if all people possessed roughly similar abilities to use such goods: "if people were basically very similar then an index of primary goods might be quite a good way of judging advantage" (p. 215). The problem, however, is that people are not very similar. In fact, "people seem to have very different needs varying with health, longevity, climatic conditions, location, work conditions, temperament, and even body size (affecting food and clothing requirements)" (Sen, 1979, p. 216). Against a primary goods metric, Sen advocates for a focus on the real capabilities people have to convert goods into functionings, that is, on what people are actually able to do and to be. The focus on human capacities emphasizes human development and the fulfillment of human needs not in terms of subjective well-being or resources, but on the capabilities of individuals to convert available goods—like information—into substantive freedoms (Britz, et al, 2013, p. 107-108; Robeyns & Brighouse, 2010). Certainly, problems of informational and technological literacy—that is, the ability of different individuals to make more or less effective use of available information and technology—seem better accounted for under a capabilities model than one rooted in Rawlsian primary goods.

I would suggest, however, that the abandonment of Rawlsian ideas in favor of the capabilities approach for addressing issues of social justice, information, and technology has been somewhat uncritical. Certainly, the capabilities approach provides some valuable insight, but it is not without its own limitations. For example, Sen's approach to justice ultimately hinges on a narrowly teleological conception of technology as

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[35] For more on the debate between Rawls' theory and the capabilities approach, see, generally: Brighouse and Robeyns, 2010.

instrumental to development and human flourishing. But, as previously noted, the use of technology is not simply instrumental to but intimately bound up with morality. Neither the standard account of Rawls nor the capabilities approach are able to account for the ways in which technology both mediates our perception of morally relevant aspects of particular situations and actively shapes our responses to them. Since the problem of social justice is both a moral and practical problem, technological mediation has implications for both conceiving of and achieving justice. Conceiving of technology as merely instrumental is ultimately unsatisfactory. Any viable theory of social justice today ought to consider the how values embedded in the design of technological artifacts and systems might actively promote—or hinder—social justice.

Against the shortcomings of the standard account, I hope to show that there are resources yet available in Rawls' work and attendant discussions that can help more fully inform discussions of social justice, information, and technology. In particular, recognizing that Rawls derives his index of primary goods by first articulating features of persons relevant to a theory of justice invites us to revisit the foundations of justice as fairness in order to more fully develop a comprehensively Rawlsian approach to social justice, information, and technology. In revisiting the foundations of his theory, we are reminded that Rawls' model-conception of the person as capable of exercising the two moral powers arises out of a particular interpretation of the role of principles of justice for regulating the basic structure of society.

Overall, Rawls (1993) is concerned with problems of "background justice," namely a "tendency…for background justice to be eroded even when individuals act fairly: the overall result of separate and independent transactions is away from and not

toward background justice" (p. 267). Rawls' model of the moral person, along with his model of a well-ordered society and the terms of the original position (including its veil of ignorance), are designed as a response to (not given independently of) the role of the basic structure in securing background justice. Further, his conception of justice is not worked out for just any basic structure, but the structure of relatively well-off Western democracies. The standard account, in its focus on primary goods and original position reasoning has, however, tended to neglect the importance of background justice and the argument from the basic structure for Rawls. In the next chapter, I put forward a different, but complimentary, account—*the sociotechnical account*—that foregrounds the role of the basic structure and demonstrates its relevance for discussions of information and technological practices.

Chapter 4.0: Towards a Sociotechnical Account of Rawlsian Justice, Information, and Technology

4.1 Introduction

In the previous chapter, I argued that a dependence on the idea of distributions of primary goods and the original position limits the standard account of Rawls to distributive dimensions of social justice, information, and technology. In this chapter, I put forward an alternative account rooted in otherwise overlooked features of Rawls' work, as well as the work of leftist, feminist, and disabilities critics. In particular, the alternative account developed here foregrounds the role of background justice and Rawls' argument from the basic structure. By revisiting this foundational piece in the development and justification of justice as fairness, I hope to avoid the standard account's reliance on primary goods and show how informational and technological issues can be addressed elsewhere in Rawls' theory. Ultimately, I am concerned with the role of sociotechnical relations in promoting and preserving background justice, that is, I am interested in the ways in which technological artifacts and information systems secure and shape relations between institutions and individuals within the basic structure. Accordingly, I will refer to my approach as the sociotechnical account.

In forwarding this alternative account, I do not mean to suggest that the standard account should be jettisoned in favor of a sociotechnical interpretation. As the previously reviewed proponents of Rawls make clear, Rawls' primary goods are indispensable to development and pursuit of one's conception of the good. Indeed, in a liberal society dedicated to a plurality of reasonable conceptions of the good, attending to distributions of primary goods is of great importance—even capabilities approaches predicated on the

rejection of primary goods as an appropriate metric of justice readily admit the importance of rights, opportunities, and all-purpose means like income and wealth to persons' welfare. What I mean to suggest, however, is that the primacy of distributive concerns in analyses of social justice, information, and technology ultimately limits the range and types of social justice issues available for consideration. In the end, the sociotechnical account should not be viewed as in competition with the standard account but, rather, as complimentary or supplementary. Together, they can help produce a more complete Rawlsian picture of social justice, information, and technology.

4.2 Situating the Sociotechnical Account I: Information, Technology and the Basic Structure

Before discussing the relationship between technology and Rawls' basic structure, I want to revisit Rawls' picture of the basic structure of society. As previously noted, Rawls' discussion of the family as a basic institution is instructive when trying to arrive at a complete picture of his conception of the basic structure. "The family," Rawls (1997/1999f) argues, "is part of the basic structure, since one of its main roles is to be the basis of the orderly production and reproduction of society and its culture from one generation to the next" (p. 595). Here, Rawls (1997/1999f) has in mind the "socially necessary" labor of raising and caring for children, "ensuring their moral development and education into the wider culture" (p. 596). Setting aside concerns over his conceptions of human reproduction and family structures, the above passage makes explicit one of the qualifying features of a basic institution on a Rawlsian account: the production and reproduction of society and culture over time. Further, the task of reproducing society is ongoing, as Rawls (1997/1999f) views society—and the political

society he describes in *Political Liberalism* in particular—as "a scheme of social cooperation over time indefinitely" (p. 595). As a result, "the idea of a future time when its affairs are to be concluded and society disbanded is foreign to the conception of political society" (Rawls, 1997/1999f, p. 595). A Rawlsian conception of social justice, then, is concerned with the ongoing reproduction of society over time.

Beyond the reproduction of society, Rawls' discussion of the family also reminds us that he envisions different sorts of principles for governing different sorts of practices—an idea that has featured heavily throughout his writings.[36] Rawls (1993) writes:

> it is the distinct purposes and roles of the parts of the social structure, and how they fit together, that explains there being different principles for distinct kinds of subjects. Indeed, it seems natural to suppose that the distinctive character and autonomy of the various elements of society requires that, within some sphere, they act from their own principles designed to fit their peculiar nature. (p. 262)

This commitment to "different principles for distinct kinds of subjects" helps to explain, for example, the dramatic differences between the way Rawls implements his theory at the domestic and international levels, as accounted for by Drahos (1996) in his discussion of social justice and intellectual property rights. Rawls views domestic structures as different in kind from international relations and so he treats them according to different principles. At the international level, he zeroes in on relations between "peoples," while in the domestic context, as cited above, he focuses his attention on "the basic structure of society," that is "the way in which the major social institutions distribute fundamental

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[36] For an early articulation of this idea, see: Rawls, 1955/1999b.

rights and duties and determine the division of advantages from social cooperation" (Rawls, 1971b, p. 6). For Rawls (1958), "major social institutions" denote "any form of activity specified by a system of rules which defines offices, roles, moves, penalties, defenses, and so on, and which gives the activity its structure" (footnote 1, p. 164). In short: different principles for different types of things.

But a focus on different principles for different things neglects the relations between things—that is, it does not account for the various connections between institutions and individuals. A focus on the articulation of discrete sets of principles for discrete types of things deflects attention from the practices and procedures that routinely connect and maintain relationships between different things, such as between individuals and institutions in the basic structure. While conceiving of these various spheres of activity as distinct is useful in some ways, in others it is atomistic in the worst sense: one ends up with different sets of principles for governing basic institutions, individual transactions, and voluntary associations respectively, but is left with little guidance for addressing the ways institutions, associations, and individuals relate to one another. In the following section, I argue that accounting for sociotechnical relations—that is, relations mediated by information and technology—offers one way to begin accounting for connections between institutions and individuals.

In the following, I argue that sociotechnical relations are integral to the Rawlsian idea of the ongoing production and reproduction of society over time. For example, sociotechnical practices and infrastructures routinely organize and make useful resources necessary for the operation and upkeep of political, economic, and social practices—practices that constitute the indefinite social cooperation with which Rawls is concerned.

Moreover, capacities for the collection and statistical analysis of information make possible the bureaucratic systems of liberal democrac societies that Rawls intends his principles to regulate in the first place. As Braman (2006) describes, bureaucratic welfare structures require the collection and processing of vast amounts of information in order to function (p. 33-34).

> While we do not generally perceive items such as file cabinets or genres such as statistical tables as technologies today, they were very much considered so when first introduced. Indeed, early in the twentieth century printed forms were considered 'systems,' and their use marked the height of sophistication in organizational practice. (Braman, 2006, p. 33)

Braman's description captures the relationship between information in the abstract, material artifacts (file cabinets, statistical tables), and sociotechnical practices (organizational systems) in ways that an Drahos' earlier account, for example, does not (as it focuses exclusively on information in the abstract). Since sociotechnical practices are constitutive of the sorts of societies that Rawls intends his principles to govern, we ought to pay closer attention to their place in a theory of social justice.

I begin this section by more fully developing the disconnection between Rawls' basic institutions on the one hand and individual transactions on the other. To address this disconnect, I focus on the relationship between technology and society, paying particular attention to technology's productive role within the basic structure, that is, its role in shaping and reproducing political, social, and economic practices over time. Though this discussion is primarily informed by traditions in the philosophy of technology and science and technology studies (STS), the connections to liberal theory—and, in

particular, liberal values of freedom, equality, and democracy—will be made clear. Finally, I move away from a discussion of technology and society broadly to focus on information infrastructures specifically. In turning to insights from the domain of infrastructure studies, I show how the idea of infrastructure both challenges and supports Rawls' picture of the basic structure. Attending to practices organized by information infrastructures, for example, offers one way to account for connections between institutions and individuals missing from Rawls' background conditions. At the same time, however, understanding the ubiquity of infrastructure lends empirical weight to Rawls' assertions as to the "profound and pervasive" nature of the basic structure.

4.2.1 Revisiting the basic structure argument. Recall that, for Rawls, the basic structure is the primary subject of justice:

> One main feature of justice as fairness is that it takes the basic structure as [its] primary subject.... It does so in part because the effects of the basic structure on citizens' aims, aspirations and character, as well as on their opportunities and their ability to take advantage of them, are pervasive and present from the beginning of life. (Rawls, 2001, p. 10)

Also recall that Rawls gives two kinds of reasons for taking the basic structure as his primary subject. Under the first kind of reason, principles of justice are said to be necessary for preserving background justice—that is, for the regulation and preservation of just background conditions over time. Rawls (1993) does not believe that injustice arises because individuals are necessarily deceitful or disingenuous in the pursuit of these ends, but because of a "tendency…for background justice to be eroded even when individuals act fairly: the overall result of separate and independent transactions is away

from and not toward background justice" (p. 267). Given the limited foresight of individuals and groups, he assumes that "if transactions between individuals are to be fair" then "certain background conditions are necessary" (Rawls, 1993, p. 269). Under the second kind of reason, Rawls (2001) cites the basic structure's "profound and pervasive" influence in structuring the political, social, and economic possibilities available to citizens, both now and in the future (p. 55-56). "This it does," Rawls (2001) notes, "by the expectations and ambitions it encourages in the present, and indeed over a complete life" (p. 56).

Rawls' focus on the basic structure has been the subject of various criticisms. G.A. Cohen, in particular, has resisted Rawls' assertion that principles of justice properly apply to the basic structure of society alone. He argues that "principles of distributive justice, principles, that is, about the just distribution of benefits and burdens in society, apply, wherever else they do, to people's legally unconstrained choices" (Cohen, 2008, p. 116). His point is not that the basic structure is an inappropriate subject of justice, but that it cannot be the only appropriate subject—justice also bears on non-coercive structures, like social norms and other informal pressures. "My own fundamental concern," Cohen (2008) writes,

> is neither the basic structure of society, in any sense, nor people's individual choices, but the pattern of benefits and burdens in society: that is neither a structure in which choice occurs nor a set of choices, but the upshot of structure and choices alike. (p. 126)

However, Cohen's distinction between the basic structure and the "legally unconstrained choices" of individuals betrays his conception of the basic structure as comprised exclusively of legally-coercive institutions.

But, as Miriam Ronzoni (2007) has pointed out, Rawls is not necessarily committed to conceiving of the basic structure as comprised solely of legally coercive institutions, nor is he committed to the idea that the basic structure is the only thing capable of being just or unjust (p. 70). "In [Rawls'] account," Ronzoni (2007) writes, "many things can be called just or unjust (for example, laws, attitudes, or persons), however, different criteria and considerations apply when we assess their justice" (p. 70). As previously discussed, Rawls deliberately establishes a division between principles designed to regulate just background conditions and those that should apply to local exchanges and transactions. "The justice of a society, on Rawls's account, is determined by the justice of its basic structure, and the principles that apply to the basic structure are different from the principles that apply, say, to individual conduct" (Ronzoni, 2007, p 70). The crux of the debate between Cohen and Rawls does not, then, rest on whether or not the basic structure is the only thing that can be assessed in terms of justice. Instead, it revolves around two distinct, but related concerns: the first regards whether social justice is determined by the basic structure of society while the second asks whether or not principles of justice for the basic structure differ from principles of justice for other entities (Ronzoni, 2007, p. 70-71).

Ronzoni defends Rawls against Cohen's criticisms, arguing that the latter's concerns rest on a common misunderstanding of the notion of the basic structure. Even if one endorses a purely coercive and institutional understanding of the basic structure, on

Ronzoni's account, the theoretical structure of Rawls' theory is ambiguous and leaves room for discussing not only basic institutions, but non-coercive structures and individual decisions as well. Cohen seems to believe that once we have determined what (legally coercive) institutions comprise the Rawlsian basic structure, all that is left to do is to design those institutions in a way that is consistent with Rawls' two principles of justice (Ronzoni, 2007, p. 72). There is no way, then, to extend an evaluation of the justness of the basic structure to things that fall outside of its institutional arrangement. This interpretation of Rawls, however, takes "the structure of an institutional framework [as] something fixed and given, that cannot be questioned" (Ronzoni, 2007, p. 72). Conceiving of Rawls' basic structure in this way, Ronzoni (2007) argues, is "not an intelligible enterprise" since

> institutions are created to realize certain standards of justice, and whether they succeed in doing so is the criterion according to which we should assess their justice. But whether institutions fail or succeed in realizing a standard of justice largely depends on the context in which they operate, and the specific obstacles that they are expected to encounter. If a society affirms fair equality of opportunity, but fails to address the main existing obstacles to fair equality of opportunity through its institutional setting, our legitimate concern is that such a society might not have the right institutions. (p. 72)

On this view, the basic structure is not conceived of as prior to or independent of any social context, but, rather, it represents a particular *response to* contextual considerations. Achieving social justice is not simply a matter of determining what institutions make up the basic structure, arranging those institutions according to some set of principles, and

washing our hands of the rest. Instead, we must first consider what conditions are necessary for principles of justice to be satisfied—that is, we must first inquire as to "which institutional structure needs to be set up in order to allow the principles of justice to be realised…in the specific context in which we are operating" (Ronzoni, 2007, p. 72). Contextual considerations (which include, among other things, non-coercive structures, social norms, and individual decisions) are not secondary to but, instead, inform our understanding of the basic structure. In this way, Ronzoni is able to account for factors relevant to justice that fall outside the basic structure, while still maintaining the division between different types of principles as established by Rawls.

David Estlund (1998) advances a similar contextually-sensitive interpretation of the Rawlsian' basic structure, though in a different way. As with Cohen, Estlund believes that considerations of social justice must go beyond legally-coercive structures, especially as it concerns the ways non-coercive structures and normative standards impact the well-being of the least well-off in a given society. As Estlund (1998) puts it, "the needs of the least well-off assert themselves well beyond the relatively rare contexts in which a citizen is deliberating about how to design or adjust the basic structure of society" (p. 112). What Cohen importantly brings to our attention, Estlund (1998) thinks, is an understanding that "we are often working on the basic structure of society just by working within it" (p. 112), but he disagrees with Cohen on the degree to which concerns of social justice should be a controlling factor in individuals' lives. He grants that people might—at times—be motivated by a concern for social justice in their legally-unconstrained choices, but that this motivation properly sits alongside other motivations, such as limited prerogatives of self-interest or affection towards friends and family. "A

good citizen's motives," he writes, "will be some mix of self-interest, affection, weak and strong moral factors, and the promotion of social justice" (Estlund, 1998, p. 112). In the face of these mixed motivations, Estlund (1998) reinforces the importance of background justice by arguing that institutions within the basic structure "ought to be set up to meet the principles of justice even when individuals permissibly exercise the prerogatives it is reasonable for them to recognize" (p. 112). As with Ronzoni, our conception of the basic structure should be informed by contextual considerations, as with the fact that individuals possess various motivations for action. Ultimately, Estlund thinks (as does Rawls) that it would be unreasonable to expect individuals to always act in a way that promotes the basic structure's conformity to principles of justice. For Estlund, then, individuals work on the basic structure at the same time they work within it, though—given a variety of motivations for action—they may not be working exclusively towards social justice. For Ronzoni, social context is to be taken into consideration when debating the types of institutions and how they are to be arranged—we must have the right institutions in view of our social context of we are to develop a viable picture of the basic structure to be regulated by principles of social justice.

These discussions lay bare the tension between attending to localized and individual actions on the one hand and broader institutional arrangements on the other. It is clear that principles of justice are relevant at both levels—though there is disagreement as to the ways in which such principles are relevant and the degree to with which they apply. What is missing for both Estlund and Ronzoni, however, is some way to describe this relationship between local practices on the one hand and broader institutional processes on the other. We need, to use Estlund's phrasing, to be able to account for the

ways in which individuals are working "on" the basic structure of society at the same time as they are working within it. Doing so, I argue, requires dropping the sharp distinction between the individual and the institutional. Instead, we must recognize that local processes inform the shape and nature of institutions while local practices and behaviors are simultaneously shaped by institutional practices and constraints. Below, I argue that this co-constitutive relationship can be accounted for by attending to ways in which sociotechnical practices support social, economic, and political structures and facilitate social cooperation over time.

     4.2.2 Technology and the basic structure. The ways in which technological artifacts and practices inform social, cultural, and economic structures have long been a point of contention for philosophers, scientists, and scholars. In some ways, human societies have always been informed by technological practices, as the tools and processes that gave rise to coordinated agricultural efforts some 10,000 years ago helped mark the transition from a largely nomadic existence to one centered around permanent settlement and organized production. In a different way, discussions of technology and its relationship to societal values like freedom, autonomy, democracy, and equality have been perpetually present in Western thought. Plato and Aristotle both distinguished (though in different ways) between *epistēmē* (knowledge or theory) and *technē* (craft or technical arts), and developed accounts of the relationship between the two concepts. Notably, Plato (trans., 1992/2003) explored the ways in which a technical art (*technē*) of ruling a city (the task of philosophers in Ancient Greece) could be informed by theoretical knowledge (*epistēmē*). Enlightenment thinkers, inspired by the Newtonian revolution in our understanding of the physical world, revered scientific progress and

technological development as a force for spreading ideals of liberty and rationality and radically altering structures of political rule and economic exchange. In contrast to his Enlightenment contemporaries, however, Rousseau argued that the spread of science and technology led to moral degradation, engendering vanity and penchants for luxury, and causing persons to "[lose] the taste for solid virtues" (Rousseau, 1992/2003, p. 60).

Discussions of technology and society came into particular focus during the 20th century. In the 1930's, Lewis Mumford began discussing technology as culturally situated and "argued, in effect, that culture preceded technics in human evolution" (Smith, 1994). Echoing Rousseauian reservations, he expressed concerns over the "disadvantages and costs" associated with some forms of technological development, but remained cautiously optimistic that human intervention could stem technology's more pernicious effects (see, generally: Mumford, 1964). Jacques Ellul articulated similar concerns, but without a sense of optimism. For Ellul, (1980/2003) a certain sort of technological rationality engendered by technological artifacts and systems had itself become an autonomous organism that defies ordinary moral judgment (p. 394). Instead of developing technological systems and artifacts in line with human values, Ellul saw humans as modifying their value systems in line with technological ideals. In turn, technology fatally becomes "the creative force of new values, of new ethics" (Ellul, 1980/2003, p. 396). Langdon Winner (1986) presented a vision of technology as similarly autonomous, but less systematic and more volatile than Ellul's view. According to Winner (1986), new technologies are developed and introduced by humans without a full appreciation of their consequences or side effects. Despite their differences, all three of these authors share a rejection of the idea that technology is a value-neutral instrument or

vessel for the pursuit of human ends. Instead, technological systems and artifacts exhibit value systems and ideals that inform the values and ideals of those societies within which they are embedded.

The extent to which technology exerts its influence on society has been another point of contention. Economic historian Robert Heilbroner (1967/1994a), building on the observation by Marx that "the steam-mill [gives you] society with the industrial capitalist" (Marx as cited in Heilbroner, 1967/1994a, p. 54), argues that technological development unfolds along an independent and determinate pattern that ultimately determines the structure of socioeconomic activity in advanced industrial societies.[37] In contrast to deterministic accounts, social constructivist approaches—as typified by the works of Bijker (1997), Pinch and Bijker (1987), and Woolgar (1991)—reject deterministic linkages between technology and society and instead argue that the meanings and values that we ascribe to technical artifacts are the result of complex social, political, and economic processes. In this sense, technology is socially determined, rather than technological development determining the shape of society. In a different manner, Latour (1999/2009; 2005) and actor-network theorists position the relationship between technology and society as one of both human and technological (i.e., non-human) actors enmeshed in webs of relations, neither of which overdetermine the structure or actions of others.

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[37] Later, however, Heilbroner (1994b) makes room for certain social or political preconditions necessary for technology to unfold in the way he describes. This move can be best described as the difference between what has become known as "hard" versus "soft" technological determinism. In contrast, Bruce Bimber (1994)—influenced by G.A. Cohen's (1978) account of Marx's theory of history—rejects the idea that technological determinism can admit such variations. Instead, Bimber argues that only a strict sort of "hard" technological determinism counts as such.

Outside of broad social, economic, or political discussions, scholars have also explored the relationship between technology and democratic society specifically. Prominent among such efforts is Habermas' (1970/2003) work on technology and the public sphere, wherein he explores the tenuous relationship between technology and democracy and asks, "how can the power of technical control be brought within the range of the consensus of acting and transacting citizens?" (p. 533). In addressing this question, Habermas argues that technological development has had "unplanned sociocultural consequences" and that future development must be brought under rational control in order to free public political discourse from the "irrationality of domination" of undirected technical progress (p. 535).[38] Andrew Feenberg (1992/2003) has demonstrated the ways in which sociotechnical systems have overshadowed political democracy in their total impact on people's daily lives. Decisions regarding technology, Feenberg (1992/2003) notes, "have far more to do with control over patterns of urban growth, the design of dwellings and transportation systems, the selection of innovations, our experience as employees, patients, and consumers, than all the governmental institutions of our society put together" (p. 652). Given the tremendous power wielded by those in a position to make decisions with regard to technology, he argues that technological development should be subordinated to democratic practices and processes. Richard Sclove (2000/2009) has made a similar argument for the democratization of technology, claiming that the subordination of technological development to democratic prerogatives is the only way "technologies begin actively to support, rather than to coerce or constrict,

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[38] "This challenge of technology cannot be met by technology alone. It is rather a question of setting into motion a politically effective discussion that rationally brings the social potential constituted by technical knowledge and ability into a defined and controlled relation to our practical knowledge and will" (Habermas, 1970/2003, p. 535).

people's chosen ways of life" (p. 279). Brey (2007) reaffirms an expanded version of this notion, arguing that "the democratization of technology is not just the democratization of physical designs, [but] is also the democratization of the social context of the technology and of the language that we use to talk about it" (p. 23). On each account, possibilities for democracy in society are structured in important ways by available technologies and sociotechnical practices.

A unifying theme that emerges from these discussions is the recognition that technology is not morally neutral and, moreover, the moral relevance of technology goes beyond mere issues of use. Instead, technological artifacts and systems both mediate our perception of morally relevant aspects of particular situations and actively shape our responses to them (Verbeek, 2009). For Verbeek (2009) and other philosophers of technology, the use of technological systems and artifacts is not simply instrumental to human ends, but intimately bound up with our ideas about morality itself. Briggle and Mitcham (2009) have expressed a similar sentiment with regard to information: information should not be viewed as a neutral medium or empty package for encoding and transmitting culture—that is, information is not just the box but the contents as well (p. 171). In this way, information—like technology—actively shapes our moral, political, and cultural considerations. Moral analyses must attend to the ways in which the design and development of technological artifacts and information systems might promote or obscure different moral values or ethical norms (Brey, 2010, p. 41-42).

4.2.3 Infrastructure and the basic structure. Some of the most well developed discussions of the complex interactions between technology and the institutions and practices that make up Rawls' basic structure are found in the emerging domain of

infrastructure studies. Broadly speaking, infrastructure studies draws on discussions in computer science, information science, communication, organization theory, cognitive science, and STS in order to better understand the development and impact of infrastructure as "a persistent set of resources that can also support the ongoing daily activities of heterogeneous actors" (Ribes & Polk, 2012, p. 254). These resources include (but are not necessarily limited to) some combination of the technological (tools and technologies), the technical (classifications and standards), and the social (work and communication practices). As a descriptive project, infrastructure studies seeks to understand "the long now" of existing infrastructures and how they help make possible and organize certain practices or relationships (Bowker, Baker, Millerand, & Ribes, 2010). As a normative project, it attends to the political and ethical dimensions of the categories and standards that infrastructures impose on the world. Moreover, given the tendency of infrastructure to disappear or fade into the background, careful attention to political and ethical questions is of particular importance. As Bowker and Star (1999) describe,

> good, usable systems disappear almost by definition. The easier they are to use, the harder they are to see. As well, most of the time, the bigger they are, the harder they are to see. Unless we are electricians or building inspectors, we rarely think about the myriad of databases, standards, and instruction manuals subtending our reading lamps, much less about the politics of the electric grid that they tap into. (p. 33)

By balancing descriptive and normative considerations, infrastructure can be seen as both "an idea, a vision or an ideal" and "a practice, a commitment and a long term endeavor"

(Ribes, 2006, p. 299). Through careful analyses of the development, dissemination and use of infrastructure, "we can achieve a deeper understanding of how it is that individuals and communities meet infrastructure" (Bowker & Star, 1999, p. 33).

Importantly, understanding infrastructure means conceiving of it not merely as some thing or set of things (for example, a combination of tools and standards and patterns of work) that make coordinated activity possible. Rather, infrastructure can only be understood in practice—it is a "when," not a "what," occurring when "the tension between the local and global is resolved" (Star & Ruhleder, 1996, p. 4-6). An

> infrastructure occurs when local practices are afforded by a larger-scale technology, which can then be used in a natural, ready-to-hand fashion. It becomes transparent as local variations are folded into organizational changes, and becomes an unambiguous home—for somebody. This is not a physical location nor a permanent one, but a working one…. (Star & Ruhleder, 1996, p. 6)

Elaborating on the above, Star and Ruhleder (1996) outline a series of dimensions, "the configuration of [which] forms 'an infrastructure,' which is without absolute boundary or a priori definition" (Star & Ruhleder, 1996, p. 6).[39]

- Embeddedness. Infrastructure is "sunk" into, inside of, other structures, social arrangements and technologies;

- Transparency. Infrastructure is transparent to use, in the sense that it does not have to be reinvented each time or assembled for each task, but invisibly supports those tasks;

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[39] The following is quoted from Star and Ruhleder (1996, p. 5-6).

- Reach or scope. This may be either spatial or temporal—infrastructure has reach beyond a single event or one-site practice;

- Learned as part of membership. The taken-for-grantedness of artifacts and organizational arrangements is a sine qua non of membership in a community of practice…. Strangers and outsiders encounter infrastructure as a target object to be learned about. New participants acquire a naturalized familiarity with its objects as they become members;

- Links with conventions of practice. Infrastructure both shapes and is shaped by the conventions of a community of practice, e.g. the ways that cycles of day-night work are affected by and affect electrical power rates and needs….

- Embodiment of standards. Modified by scope and often by conflicting conventions, infrastructure takes on transparency by plugging into other infrastructures and tools in a standardized fashion.

- Built on an installed base. Infrastructure does not grow *de novo*; it wrestles with the "intertia of the installed base" and inherits strengths and limitations from that base….

- Becomes visible upon breakdown. The normally invisible quality of working infrastructure becomes visible when it breaks: the server is down, the bridge washes out, there is a power blackout. Even when there are back-up mechanisms or procedures, their existence further highlights the now-visible infrastructure.

Following Star and Ruhleder's description, we might also think of Rawls' basic structure not as a what but as a when—"neither a structure in which choice occurs nor a set of

choices, but the upshot of structure and choices alike," to repurpose Cohen's (2008) original criticism (p. 126).

4.2.4 Summary. The domain of infrastructure studies provides a comprehensive and concrete way to consider the relationships between institutions, associations, and individuals that make up Rawls' basic structure. For example, infrastructure endures invisibly (except in moments of breakdown)—it fades into the woodwork of Rawls' background conditions. Through conventions of practice and the deployment of standards it is able to connect a range of institutional and individual activities. The ubiquity and reach of infrastructure attends to Rawls' notion of pervasiveness, while the constraints generated by the proliferation of standards and classification combined with the tangible disruptions caused by its breakdown captures his idea of profundity. Further, understanding that infrastructures are built on installed bases—inheriting the capacities and limitations of the bases they are built on—lends empirical weight to Rawls' claim that, though any single transaction between individuals may be considered just, a great many transactions accumulating over time may ultimately lead away from (and not towards) justice. While a design decision for a single component of a technological system or artifact may not be an issue of justice in and of itself, the accumulation of such decisions over time and through different layers of infrastructural development may ultimately stand in the way of the realization of social justice. This struggle with inertia echoes Britz's (2008) discussion of the struggle to achieve justice in the face of conditions that seem too far entrenched or social institutions that seem immovable. "These preset conditions make it difficult," Britz (2008) writes, "to change or alter society according to the moral imperatives set by justice" (p. 1174).

While infrastructure defies any atomistic conception of institutions and individuals, it also reinforces the Rawlsian idea of a "profound and pervasive" basic structure. Recasting the relationship between institutions and individuals as one mediated by technology and infrastructure allows us a better picture of the basic structure to be regulated by principles of justice. Understanding the sociotechnical relations organized by infrastructure also helps us bridge the gap between transacting individuals and the background conditions of the basic structure. Rather than being disconnected from the basic structure as if it were a static backdrop, persons can be seen as inhabiting multiple roles, acting both "against" and "on" the basic structure simultaneously. Following Millerand and Baker (2010), persons are at once social actors, sociopolitical actors, and sociotechnical actors. As social actors, persons generate, exchange, and consume information and resources made available by institutions within the basic structure; as sociopolitical actors, persons' positions and political capacities are set within "an organizational and political 'web' of interactions" mediated by the basic structure; as sociotechnical actors, persons are regarded "as engaging in definition and development with the system" (Millerand and Baker, 2010, p. 141).

Admitting persons' multiple roles and relationships reminds us that Rawls' conception of persons as free never conceives of persons as wholly independent from natural or social forces—that is, they are not conceived of as having free will in any metaphysical sense, nor are they seen as being entirely determined by their circumstances. Instead, persons are able to revise and adjust their expectations according to their interactions with institutions and other persons in the basic structure. Though Rawls is here understood as describing the natural and social embeddedness of individual

lives, it can include sociotechnical embeddedness as well: we interact with information and technology in physical form; we receive information and encounter technology according to organizational and other social practices; data and information is processed through technological systems and "made sense of" to different degrees by institutions and other individuals before we ever encounter it. If information is a primary good on the standard account, then the sociotechnical account attends to the technologically mediated standards and practices that deliver information as a primary good to us.

In response to critics of Rawls' focus on the basic structure as opposed to individual transactions, the above lessons from the philosophy of technology and infrastructure studies tells us that Rawls' focus is important and appropriate. It also, however, offers more concreteness and clarity as to the sorts of interactions that constitute the basic structure then does Rawls' amorphous conception. For Rawls, the basic structure seems to be everywhere and nowhere—it has profound and pervasive effects and its institutions "hang together" (Rawls, 2001, p. 199), but we are not able to say why or how. Attending to sociotechnical relations (as represented, in particular, by infrastructure) allows us to see how the basic structure is made possible by social and technical practices, as well as through the the instruments and systems that permit their functioning and maintain them over time.

This relationship between justice and infrastructure is forcefully illustrated by Jackson, Edwards, Bowker, & Knobel (2007):

> to begin, across virtually every type and class of emergent infrastructure we can identify provisional "winners" and "losers" — those whose positions, programs, work experiences, or general qualities of life are enhanced (or conversely,

challenged and undermined) by the developing infrastructure. Clear examples can be found in…the variable experiences of twentieth century factory automation (and later, computerization) strategies, through which managerial and technical groups gain new control over the production process, while certain classes of trade and unskilled workers see their workplace power and employment prospects shrink. These and other examples remind us that emergent infrastructures will often have important distributional consequences, reorganizing resource flows and opportunities for action across scales ranging from the local workplace to the global economy. Short–term experiences and long–term expectations of gain and loss will shape the incentive structures of individuals and institutions tasked with responding to infrastructural change. (para. 14)

If, as Rawls has it, principles of justice are designed to address the basic structure's profound and pervasive influence on people's lives, then it is imperative that we consider the ways in which certain values are embedded in the sociotechnical processes through which people work "on" the basic structure (to revisit Estlund's way of putting it). Just as Drahos explained that the abstract concept of information only makes itself known through physical expression, the abstract notion of the pervasiveness of the basic structure is made explicit in technology and infrastructure.

By bringing sociotechnical relations to the fore, we can begin to see how basic institutions and individual transactions are not isolated from one another but, rather, they mutually constitute one another. In addition, it offers a Rawlsian discussion of social justice one way to move beyond a discussion of mere distributions to account for the practices, systems, and conventions that generate distributions. Paying attention to

sociotechnical relations gives us a way to more fully understand the dynamic relationship between persons and the basic structure, a relationship that is overlooked by debates between "individual transactions" and "background justice" as wholly distinct.

4.3 Situating the Sociotechnical Account II: Sociotechnical Bases of Self-Respect

In the previous section, I described some of the ways in which sociotechnical relations are integral to conceiving of the basic structure of society, as well as for its production and reproduction over time. I also resisted an atomistic picture of institutions and individuals as distinct and, instead, called upon insights from infrastructure studies to recast the basic structure not as a static set of institutions but as produced by the individuals, technologies, and practices it contains. In this section, I explore one way that the sociotechnical relations integral to the production of the basic structure are relevant to the realization of social justice. Namely, I am concerned with the relevance of sociotechnical systems for supporting the development of persons' self-respect, an important feature of *justice as fairness* overlooked by scholars of information and technology.

To be sure, there are other overlooked features of Rawls' work that might be useful for discussing the role of sociotechnical relations for promoting (or hindering) social justice. For example, Eschenfelder, Howard, and Desai (2005) have focused on Rawls' conception of civil disobedience in order to discuss practices of digital rights management (DRM) software circumvention. Palm (2009) has used the idea of just background conditions in order to normatively assess workplace surveillance practices. Powers (2003) has appealed to Rawls' two concepts of rules to make sense of norm construction and transgression in virtual communities. These examples are important

exceptions to the standard account of Rawls in information and technology, though I am not interested in pursuing them here. Instead, I seek to articulate the relationship between Rawlsian social justice, self-respect, and sociotechnical practices.

Earlier, I briefly addressed Rawls' idea of the social bases of self-respect and its importance as "perhaps the most important primary good" (Rawls, 1971b, p. 386). Compared to other features of *justice as fairness*, there has been little sustained attention to the implications of self-respect for the application of Rawlsian theory to informational and technological issues—in fact, the idea of respect generally has not received a great deal of attention. Robin Dillon (2010), who has written extensively on the topics of dignity and self-respect, has voiced her concern over this "relative inattention" to respect in information and technology literature, as advanced ICTs

> have become a significant dimension of human life, and as such [have] moral implications. And central among the moral implications of human life are those that have to do with respect. This is because whether and how people respect or disrespect each other or themselves, are respected or disrespected by others, individually or collectively, and are worthy or unworthy of the respect of others or of themselves, significantly shape the moral quality of individuals' lives, their interpersonal interactions, and their social and political organizations and engagements, determining to a significant extent whether individuals flourish or flounder, whether interpersonal relations are harmonious or hostile, whether social and political institutions and activities are just or unjust, and whether our characters and lives, individually and collectively, are morally commendable or condemnable. (p. 18)

The importance of dignity and respect for social justice is well documented elsewhere. Dillon's work is one example, as is the work of Elizabeth Telfer (1968), Stephen Darwall (1977; 2006), and—of course—Rawls (1971b). Other philosophical explorations have focused more precisely on the relationship between particular features of persons' identities (such as race) and the development of self-respect, as with Boxill (1992) and Moody-Adams (1992). Work on both the capabilities approach—especially as represented by Nussbaum—and disabilities critics of Rawls have generated other valuable discussions of the ways in which accounting for primary goods is not sufficient for fully supporting human dignity. More recently, standalone pieces on Rawls' conception of self-respect have further reinforced its importance for both Rawls and for theories of social justice generally (see: Zink, 2011; Doppelt, 2009).

Drawing on these discussions, I want to more thoroughly consider the role of self-respect for attending to issues of social justice, information, and technology. In particular, I want to move past Rawls' narrowly distributive conception of self-respect as a primary good and consider the problem of self-respect more broadly. Following Doppelt (2009), the idea that self-respect can even qualify as a primary good is a questionable one, since it cannot be distributed in the ways that other primary goods (in particular, income and wealth) can (p. 128). Here, I argue in favor of an expanded notion of self-respect useful for articulating how a person's sense of self-respect can be promoted or undermined by the design and use (i.e., non-distributive dimensions) of informational and technological systems. In doing so, I hope to show how sociotechnical relations can promote the development of self-respect for some persons and groups while at the same time hindering its development for others.

I begin by discussing the role of self-respect for Rawls' and identifying some shortcomings in his discussion as demonstrated by leftist, feminist, and disabilities critics. From there, I advocate for an understanding of self-respect that goes beyond Rawls' limited and largely individualistic conception to also account for socially contingent features of self-respect. Afterwards, I offer a discussion of privacy, administrative identities, and "values-conscious design" that demonstrates some ways in which self-respect can be contingent on sociotechnical practices. Ultimately, my aim is to bring attention to the relevance of self-respect for discussions of social justice, information, and technology and help, in a small way, to alleviate the lack of attention paid to the subject lamented by Dillon.

4.3.1 Rawls and the social bases of self-respect. Self-respect figures into the development of *justice as fairness* at various points. Most prominently, Rawls counts "the social bases of self-respect" as among the primary goods his theory is designed to distribute—even going so far as to call it "perhaps the most important primary good" (Rawls, 1971b, p. 386). As a primary good, the social bases of self-respect provide an individual with 1) "a sense of his own value" and 2) a "secure conviction that his conception of his good, his plan of life is worth carrying out" (Rawls, 1971b, p. 386). Zink (2011) further clarifies these two aspects of self-respect as follows:

the first aspect of self-respect provides individuals the motivation to pursue their respective conceptions of the good. Without a secure sense of one's own value and the value of one's aims, individuals will lack the desire to execute their plan of life. The second aspect of self-respect relates to the first of course, for without the confidence in one's abilities to fulfill a chosen plan, then the individual will

lack the persistence necessary to pursue her interests, no matter how much value they have for her. (p. 332)

Zinks' description makes clear that Rawls' conception of self-respect contains a limited social dimension, as having a sense of one's own value depends, in part, on how one is viewed by others (note that Rawls does not list "self-respect" as a primary good but, rather, "the social bases of self-respect"). "When we feel that our plans are of little value," Rawls (1971b) writes, "we cannot pursue them with pleasure or take delight in their execution" (p. 386). In perhaps his most eloquent statement on the topic, Rawls (1968/1999c) says "our self-respect, which mirrors our sense of our own worth, depends in part upon the respect shown to us by others; no one can long possess an assurance of his own value in the face of enduring contempt or even the indifference of others" (p. 171). Here and elsewhere in Rawls' writings, self-respect, like other primary goods, is necessary for the effective exercise of his second moral power, that is, a capacity to set and pursue a conception of the good.

Self-respect also serves to promote the exercise of Rawls' first moral power, though his argument here is slightly more complicated, as it involves what is known as his argument from stability. A full account of the argument from stability is outside the scope of this section, but a brief discussion should suffice for showing the relevance of self-respect to the effective exercise of Rawls' first moral power. Recall that Rawls holds his first principle of justice to be lexically prior to the second principle. In defending his two principles of justice, Rawls attempts to show that the priority he assigns to liberty through his first principle serves to better promote persons' sense of their own worth (and discourages attitudes like envy and resentment) than principles from other traditions. In

particular, the priority and equal value of political liberties afforded by his first principle, as Cohen (2003) points out, helps promote the effective exercise of the first moral power (an effective sense of justice):

> we regard one another as equals in part because we regard one another as having the capacity to assess the justice of the society: to make reasonable judgments about the rights we should have and about a fair distribution of benefits and burdens. So my self-respect is founded in part on my sense of myself as an equal member who shares responsibility for making the fundamental judgements, with final authority, about social and political issues…. When others respect me as an equal, they confirm my sense of my own value. (p. 109)

Further, second principle considerations (fair equality of opportunity and the difference principle) help provide a basis for individuals' relative socioeconomic independence, ensuring that no one person must be necessarily subordinate or subservient to another.

In the original, unrevised edition of *Theory*, self-respect appears to be critical to demonstrating that parties in the original position would select his principles over principles from other philosophical traditions (Zink, 2011, p. 338-339). In the revised edition, the justificatory role of self-respect is downplayed, though the implicit idea remains: Rawls believes that not only should a conception of justice be justifiable to parties in the original position, but it should also be stable, with stability being measured by its ability to cultivate in individuals a sense of justice and discourage countervailing inclinations or attitudes (Zink, 2011, p. 338). In particular, a conception of justice should promote values like self-respect and discourage tendencies towards envy or resentment that might, over time, undermine the development of Rawls' first moral power (that is, a

capacity for a sense of justice). For parties selecting principles of justice in the original position, if one conception of justice better promotes a sense of justice than another—by, among other things, supporting the development of self-respect—, then that is to count as a reason for parties to choose that conception. Rawls holds that the priority of liberty along with the equal protection provided by the lexical ordering of his two principles creates an appropriate foundation for self-respect rooted in equal political and basic liberties (Rawls, 1971b, p. 477). Consequently, it helps to cultivate individuals' sense of justice and discourage countervailing inclinations, which counts as a reason in favor of selecting *justice as fairness* over competing conceptions in the original position.

Rawls' argument from stability combined with the social bases of self-respect as a primary good helps show how self-respect is integral to the exercise of not just one, but both moral powers. It also, however, exposes two main limits of Rawls' conception of self-respect. First, Rawls clearly views self-respect as "a matter of individual motivation" and that those who lack it "do not possess the psychological disposition necessary for acting from a sense of justice" (Zink, 2011, p. 338-339). Second, Rawls' two principles of justice do not exhaust the social and cultural sources available for cultivating self-respect in individuals. Though his conception of self-respect contains a limited social dimension, his view of self-respect ultimately lives and dies with the individual.

The problems with this individualistic conception are well documented by leftist, disabilities, and feminist critics of Rawls. For leftist critics, a solely individualistic conception of self-respect does not appropriately attend to uneven distributions of decision-making power that structure socioeconomic relations in ways that favor the development of self-respect for certain classes of people over others. On this view,

"Rawls' conception does not adequately comprehend…the deep ways in which equality and inequality in its social bases are decisively shaped by the distribution of economic power and position in advanced industrial society" (Doppelt, 1981, p. 260). As Rawls (2007c) himself points out in his lectures on Marx, leftist conceptions are suspicious of the assumption that the conditions under which individuals are able to exercise certain moral ideals can be improved independent of economic circumstances. On this leftist account, the realization of self-respect for certain individuals (workers) is unduly subject to the decisions of others (capitalists) that drive economic relations. These individuals are constantly subject, as Marx (1844/1975) puts it, to the "whims of the wealthy" (p. 283).[40]

Rawls' bracketing of issues related to disability obscures other ways in which self-respect is contingent on considerations external to the individual. Often, what counts as a disability in the first place is contextual, determined not by any particular ability or range of abilities exhibited by persons but, rather, by features of the social and physical environment. For example, blindness is only a disability with regard to reading in the absence of Braille; similarly, being wheelchair-bound is only a disability with regard to mobility in the absence of appropriate accommodations. Here, capabilities and disabilities critics of Rawls often converge, as in Sen's argument against resource-based models that measure justice based on distributions of primary goods. Focusing on a specific bundle of primary goods would be appropriate, Sen (1979) thinks, if all people possessed roughly a similar ability to use such goods. The problem, however, is that people are not very

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[40] It is worth pointing out that Rawls does attempt to confront this difficulty, though not fully. Later in his writings, he entertains the idea that a model of worker-managed firms as described by Mill might compatible with his theory. In the end, however, Rawls neither affirms nor rejects Mill's vision. He simply points out that, in the time since Mill's writing, worker-managed firms have not become common, and he does not believe they show any sign of winning out over privately-owned capitalist firms (See: Rawls, 2001, p. 176-178).

similar, but "have very different needs varying with health, longevity, climatic conditions, location, work conditions, temperament, and even body size" (Sen, 1979, p. 215-216). So, even though an individual might have plentiful access to primary goods, other considerations might negatively impact their well-being in ways relevant to social justice. For example, it is possible that an individual confined to a wheelchair could be relatively well-off economically, but issues of mobility raised by a lack of wheelchair-appropriate access to various spaces might impinge on his or her dignity and sense of self-respect (Nussbaum, 2004, footnote 22, p. 129).

Even if a primary goods account could accommodate some considerations related to disability (for example, through the allocation of funds for addressing them), problems related to cultural and social norms are likely to remain. As Terzi (2010) describes, persons with disabilities also face difficulties "in dealing with the reactions by other people to the way they look, act, or simply to the way they are" (p. 163). Social circumstances, then, "question disabled people's equal social bases of self-respect" (Terzi, 2010, p. 163). In the case of disability, a person's self-respect clearly depends, in part, on external features of the social and physical environment that are not wholly reducible to individual considerations.

The social contingency of self-respect is also relevant to Rawls' characterization of the family. Recall that Rawls views the family as a part of the basic structure, but does not conceive of the family's inner-workings as regulable by his principles of justice. Instead, families are to be treated like non-basic institutions such as churches or universities: they are to be constrained—but not immediately regulated—by the two principles of *justice as fairness*. The intuition behind this move is a recognition that the

sphere of the family is integral to the exercise of Rawls' second moral power and a liberal theory of justice must not unduly or unjustifiably interfere with an individual's ability to pursue and promote their conception of the good. But this characterization of the family abstracts away from the often oppressive realities of many family structures and situations. As Nussbaum (2004) forcefully describes: "the family is one of the most non-voluntary and pervasively influential of social institutions, and one of the most notorious homes of sex hierarchy, denial of equal opportunity, and sex-based violence and humiliation" (p. 115). Rawls' position appears to recognize the equal standing of all family members as citizens but fails to offer an appropriate response to injustice that may occur within the family structure. However, if a theory of social justice is serious about providing the social bases of self-respect equally for all, issues of sex-based subordination and oppression in the family cannot be ignored. Further, problems of sex-based and other forms of oppression are not solely limited to the family—they must also be addressed within broader social and cultural structures. As Susan Moller Okin (2004) has shown in her potent criticisms of both Rawls and liberalism generally, the development of self-respect is intimately tied to one's place within a larger culture and whether or not that culture forces particular social roles upon certain categories of people (p. 202).

What these discussions make clear is that self-respect is not only a matter of individual motivation but also contingent on external cultural factors such as the economy, the built environment, and other social and cultural structures. As Doppelt (2009) neatly summarizes, individuals "participate in multiple contexts of evaluation including networks of friends, family, neighborhood, church, workplaces, political

citizenship, national identity" (Doppelt, 2009, p. 132), all of which have some bearing on one's self-respect. I further argue that the development and maintenance of self-respect is contingent on sociotechnical factors. In the following, I develop more robust picture of self-respect than that offered by Rawls, one that more clearly demonstrates the social and cultural contingency of self-respect before turning to a discussion of self-respect, information, and technology.

4.3.2 Social dimensions of self-respect. Broadly speaking, respect can be described as the appropriate response to dignity, just as esteem is to the estimable (see: Darwall, 2006, p. 119-121). Unlike attitudes such as esteem, however, respect is something that can be mandated—and not simply called for—by dignity. As Darwall (2006) puts it, "someone who fails to esteem your estimable qualities may not give you the response you deserve, but esteem is nothing you or anyone else can expect or demand. Not so with respect of your dignity" (p. 120). However, this understanding of respect as something that is required by dignity conflicts with other common uses and understandings of respect. Depending on the context, respect is variously a thing, a state, or an emotion. Sometimes, it to refers to something that is deserved categorically (as with respect for persons); other times, it seems to admit degrees and can be gained or lost based on merit.

In response to these different uses, it is helpful to understand the now-classic distinction made by Darwall (1977) between appraisal respect and recognition respect. Appraisal respect, as the name implies, "is an assessment of someone's conduct or character or of something that somehow involves these" (Darwall, 2006, p. 122; see also: Darwall, 1977, p. 41). One might, for example, have respect for another's specific skills

or abilities—for example, a volleyball player might respect the skills of a particular setter. However, when we say that all persons are owed respect by virtue of being persons, we are not making an appraisal but, instead, we are making a claim that informs or constrains our relations with one another (Darwall, 2006, p. 123). Darwall (1977) calls this form of respect recognition respect, as it refers to "appropriate consideration or recognition to some feature of an object in deliberating about what to do" (p. 38). In short: by respecting persons we are not appraising them but, rather, we are recognizing that persons are (by virtue of being persons) necessarily due certain considerations and constraints on our behavior towards them. Certainly, an untalented volleyball player is not due the same appraisal respect as a talented one, insofar as volleyball abilities are concerned. However, that same untalented volleyball player is nonetheless due recognition respect as a person, since "to have recognition respect for a person as such is not necessarily to give [someone] credit for anything in particular" but, rather, it is to recognize "that the fact that he or she is a person places moral constraints on our behavior" (Darwall, 1977, p. 46).

One main difference between appraisal and recognition respect, then, is the admission of degrees—appraisal respect can admit degrees whereas recognition respect cannot. However, as a particular brand of respect, self-respect blurs the distinction between appraisal and recognition respect. For example, one can fail to express recognition respect for oneself through certain behaviors, such as by submitting to indignities or not caring whether one is taken seriously; at the same time, one can fail to express appraisal respect for oneself by holding a low opinion of oneself as a person (Darwall, 1977, p. 47-48).

One's self-esteem may suffer from a low opinion of, for example, one's

appearance, temperament, wit, physical capacities, and so forth. One cannot

always be what one would wish to be, and one's opinion of oneself may suffer.

Such a failing by itself does not give rise to lack of appraisal self-respect,

although it might suffer if one attributed the failing to a lack of will, an inability

to bring oneself to do what one wanted most to do. So far forth the failing would

be regarded as arising from a defect in one's character and not solely from, for

example, a lack of physical ability. (Darwall, 1977, p. 48)

Darwall's description is reminiscent of Rawls' conception of self-respect—both

characterize self-respect as fundamentally reducible to considerations internal to an

individual. Like Rawls, Darwall (1977) also admits that self-respect contains a social

dimension, noting that what constitutes self-respect may "vary with society, convention,

and context" (p. 48). But Darwall (1977) goes beyond Rawls insofar as he makes the

nature of this social contingency more explicit: self-respect can depend "both on the

appropriate conception of persons and on what behaviors are taken to express this

conception or the lack of it" (p. 48). In other words, whether or not an individual realizes

self-respect depends, in part, on socially-defined ideas of what it means to be a self-

respecting individual. Consequently, accounting for the social dimension of self-respect

means accounting for the social and cultural conceptions of respect available to

individuals.

Dillon (1997) argues that if we are committed to viewing self-respect as a largely

personal problem—a personal inadequacy or psychological defect, the relief of which is a

matter of personal responsibility—we cannot ignore the frameworks that influence the

development of "basal self-understandings." These basal frameworks help underwrite our self-respect long before we begin to exercise agency—they

> are constructed in the complex, emotionally charged interplay of self, others, and institutions which begins before we are capable of conceptualizing self, worth, persons, institutions, and the relations among them, and it shapes and delimits our conceptual scheme…and our agentic capacities. (Dillon, 1997, p. 244)

Moreoever,

> it is essential to recognize that basal interpretive frameworks are also constructed in and by social, cultural, and political contexts, which for many categories of persons are contexts of oppression…. Where subordination and devaluation of a category of persons pervades social, cultural, and political reality, we should expect, other things equal, the respect such persons can have for themselves to be shaped in particular ways. (Dillon, 1997, p. 245-246)

In other words, though my sense of self-respect may be my own, it is not wholly reducible to my sense of self. It is, rather, constructed through the complex interplay of social, cultural, and political forces.

The ways in which self-respect is socially constructed are made explicit in discussions of institutionalized injustice and the development of self-respect for racial or ethnic groups. Both Thomas (1983/1995) and Boxill (1976; 1992), for example, have shown how the aim of political protest and American civil rights movements can be viewed not exclusively in terms of the expansion of freedom and the winning of rights for African-Americans, but also as a process of liberating self-respect. In this way, they follow Rawls in admitting the profound influence of social institutions on the

development of self-respect, but they are more explicit in attending to the role of protest for transforming unjust institutional structures and asserting the self-respect of marginalized groups. Moody-Adams (1992) also accounts for self-respect in the face of entrenched social discrimination, making clear that the possibilities for individuals to develop and hold such a conviction are constrained by normative standards embedded in social, political and economic structures. In addition to institutionalized racism, embedded heteronormative standards of sexuality shape the possibilities for self-respect held by bisexual and homosexual individuals (Mohr, 1988) while cisnormative standards of binary gender frame the ways in which transgender or gender non-conforming individuals might exercise self-respect.

Jonathan Wolff's (1998) notion of "respect-standing" presents a concrete way to consider the degradation of self-respect in the face of institutionalized discrimination. A person's respect-standing, at least as Wolff (1998) has it, is defined as the degree of respect others have for that person (p. 107). If a person is treated with contempt, she will likely be led to believe that she has low respect-standing; conversely, if a person is treated decently, she will likely believe her respect-standing is high (Wolff, 1998, p. 107). Moreover, it is particularly insulting for a person to be treated with less respect than is due, and it is demeaning to require someone to do anything that might reasonably be expected to lower her respect-standing (Wolff, 1998, p. 107).

Wolff goes on to describe three ways in which one's respect-standing might be (reasonably or unreasonably) diminished. The first two ways account for failures of common courtesy and issues of mistrust. If one is frequently ignored, patronized, or lectured, one might be led to believe that she has low-respect standing (Wolff, 1998, p.

108). Similarly, being regularly or systematically mistrusted can also undermine one's sense of her own respect-standing:

> to be asked to justify oneself or one's claims can often be insulting. It is undignified; as if others suspect one has something to hide. Although it is important not to exaggerate, being called to account for one's actions or claims— or at least being called too often, or in circumstances when others are not, or when the depth of investigation seems out of proportion—gives the impression that one is not trusted, that one is an object of suspicion and hence is not being respected. (Wolff, 1998, p. 108)

This is not to say that people should never have to stand up and account for their actions, nor is it an invitation for some to exploit the trust of others. Rather, it is simply to say that a person' respect-standing can be undermined by uneven patterns of trust in society—as when some are subject to disproportionate and invasive investigations or are made to account for their day-to-day actions or beliefs more often than others.

In addition to failures of common courtesy and mistrust, Wolff (1998) outlines a third source of diminished respect-standing which he refers to as "shameful revelation" (p. 109-110). In instances of shameful revelation, one is forced to behave in a certain way or reveal things about themselves that reduce her respect standing (Wolff, 1998, p. 109). Specifically, Wolff thinks this can mean people are forced to reveal details about themselves or their lives that they find shameful, though he is also quick to recognize that what might be considered shameful is also often socially-relative or contingent. But the contingent nature of shame, Wolff (1998) rightly argues, does not make it irrelevant, since it does not follow from this contingency

that shame is somehow 'unreal' or even unjustified. For example, it is quite common for teachers, doctors, or social workers to claim that some particular trait is 'nothing to be ashamed of.' However, unless people typically were ashamed of such a trait there would be no need for such reassurance. Even if there is no good reason why a particular trait should lower your respect-standing, the fact is that it can, or, at least, may lead one to believe that it will. So even if a source of shame is contingent and even irrational it can still be experienced as a source of shame. (p. 114-115)

For present purposes, I set aside the complexities of shame as both an experience and a term. Instead, I only mean to emphasize Wolff's point that being pressed to act in certain ways or to reveal information about oneself that might not be valued by a broader culture—or, worse, that might lead to active discrimination—can be a source of diminished respect-standing. That is, being so pressed can undermine one's self-respect.

These various understandings of self-respect fit with and expand on the limited view of self-respect as a matter of personal responsibility for living up to standards or views we set for ourselves found in Rawls' (1971b) work (p. 440-46; see also: Dillon, 1997, footnote 18, p. 232). In going beyond Rawls, they permit a more robust picture of how the "profound and pervasive" social, cultural, and political institutions that make up the basic structure of society come to structure the possibilities for self-respect that are available to certain categories or groups of people. If we include sociotechnical institutions in our picture of the basic structure—as I argued we should in the previous section—then we ought to also pay close attention the ways in which sociotechnical factors can support or undermine social justice by structuring possibilities for self-

respect. Below, I draw on discussions of privacy, administrative identities, and design to show how self-respect can be influenced—at least in part—by available informational and technological systems

4.3.3 Sociotechnical bases of self-respect: privacy, identity, and design.

Discussions of respect and privacy have long been bound up with innovations in technology. For example, the paradigmatic notion of privacy as "the right to be let alone"—detailed by Samuel Warren and Louis Brandeis in their classic 1890 article on the right to privacy—was a direct response to the increased presence and popularity of Eastman Kodak Company's small and inexpensive snap cameras, which allowed almost anyone to become a photographer and further propagated the salacious gossip news (or "yellow journalism") of the day (Solove, 2008, p. 15). "Recent inventions and business methods," the authors wrote at the time, "call attention to the next step which must be taken for the protection of the person, and for securing to the individual...the right 'to be let alone'" (Warren and Brandeis, 1984/1890, p. 76). While Warren and Brandeis' did not use the language of self-respect, they sought to affirm the fundamental role of privacy in preventing indignities and securing "the protection of the person." The contemporary landscape of privacy is, of course, much more complicated—from sophisticated surveillance practices to advanced data mining and database matching techniques enabled by networked computer systems, technological advances over the last 150 years have forced constant reconsiderations of the role of privacy, autonomy, and respect in modern liberal societies (Regan, 1995; Solove, 2008; Nissenbaum, 2010).

Privacy rights claimed against informational or technological invasions are often justified by appealing to ideals of individual autonomy, self-determination, and dignity.

According to Regan (1995), "privacy inheres in the individual as an individual and is important to the individual primarily for self-development or for the establishment of intimate or human relationships" (p. 24). Bloustein (1964/1984) describes privacy as preserving an "individual's independence, dignity, and integrity; it defines man's essence as a unique and self-determining being" (p. 163). Similarly, Westin (1967) defines privacy as "the claim of individuals, groups, or institutions to determine for themselves when, how, and to what extent information about them is communicated to others" (Westin, 1967, p. 7). As Benn (1971) puts it, "any man who desires that he himself should not be an object of scrutiny" has "a prima facie ground for limiting the freedom of others to observe and report at will" (p. 12-13). One's dignity can be undermined unless safeguards are put in place to "[insulate] individual objectives from social scrutiny...and thereby [protect] the realm of the personal" (Schoeman, 1984, p. 415). On these accounts, privacy is one way to express respect for individual dignity and autonomy.

Other conceptions of privacy go beyond individual considerations to also account for its role in social life. As Reiman (1976) points out in his discussion of the relationship between privacy and intimacy, "what constitutes intimacy is not merely the sharing of otherwise withheld information, but the context of caring which makes the sharing of personal information significant" (p. 33). In other words, our privacy expectations are determined, in part, by normative standards of information sharing that are not fully accounted for by discussions of individual control. Nissenbaum (2010) argues that our social lives are framed by activities and practices that take place within specific contexts, and these contexts are characterized, in part, by the norms that govern the flow of information within them. These "context-relative informational norms," as she describes

them, "prescribe, for a given context, the types of information, the parties who are the subjects of the information as well as those who are sending and receiving it, and the principles under which this information is transmitted" (Nissenbaum, 2010, p. 141). Privacy violations occur when the norms that govern the flow of personal information in a given context are upset in certain ways. In a healthcare context, for example, information shared with a doctor by a patient is generally considered unidirectional (that is, the doctor is not expected to share the same types of personal information in return) and confidential. If the unidirectionality and confidentiality of this flow are disrupted (for instance, if the doctor were to share intimate details of a patient's condition with someone irrelevant to the patient's treatment) then a patient's privacy has been violated.

It is important to point out, however, that protecting privacy does not always promote or protect self-respect for all individuals or groups. As feminist critics have argued, defenses of privacy often institutionalize power imbalances in the home—imbalances that traditionally disfavor and disempower women. Consequently, privacy protections developed to promote liberal ideals of autonomy or dignity can actually serve to reinforce conditions of domestic confinement, traditional social roles, and violence against women (Allen, 2004, p. 35). Similarly, Iris Marion Young (2004) argues that privacy protections can undermine human dignity when they are applied unevenly or conceived of inappropriately, as evidenced by the uneven privacy protections afforded to senior citizens residing in many nursing care facilities.

The foregoing discussions of privacy implicate Wolff's sources of reduced respect-standing in various ways. Failures of courtesy occur when contextually-bound information norms are misunderstood or violated, as when changes to online social

networking platforms upend previously established information flows.[41] The widespread deployment of pervasive surveillance technologies can promote an environment of mistrust, as exemplified by recent revelations of domestic spying carried out by the National Security Administration. Finally, the ubiquitous and invasive data-gathering techniques employed online can produce (to use Wolff's term) "revelations" of information, that is, they can unwittingly reveal information about an individual that invites undue scrutiny or has negative social and financial consequences. Depending on how these technological practices are employed, they can have the effect of reducing a person's respect-standing—from an undue subjection to surveillance to the forced disclosure of otherwise personal or sensitive information.

Beyond privacy, the standards and categories imposed by informational and technological systems can also influence one's sense of self-respect. All informational and technological systems require some more or less complete set of standards, classifications, or protocols in order to function—without recognizable and shared standards, advanced communication networks like the Internet would be impossible. In some cases, the standards imposed by these systems are of immediate relevance to a person's sense of self, imposing what Manders-Huits (2010) describes as an "administrative conception" of identity and identification.

Presently, we find ourselves regularly defined in relation to others in IT-mediated environments. This happens for example when we are seeking information on the Internet and using Google as a search engine: The search behavior of all users is

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[41] For example, Facebook's introduction of its NewsFeed feature shifted the flow of information within the service from the manual navigation of static profile pages to an automated stream of user updates visible upon logging into the site. This shift "threatened the privacy of users who previously assumed that only those friends who happened to visit their page would notice the changes; instead, any change made was automatically fed to all followers" (Zimmer and Hoffmann, 2011, p. 177).

recorded and analyzed in order to present the searcher with the most relevant search results. And when we buy a book at Amazon.com, we receive information on the preferences of other customers: 'someone who bought this book also bought X….' For processing technologies…we appear as statistical objects of study, abstracted from our personal preferences and life plans, and from our individual capacities and freedom to choose. (Manders-Huits, 2010, p. 45)

Manders-Huits argues that administrative conceptions of personal identity can come into conflict with our self-informative identities—that is, with self-conceptions that are more comprehensive, reflexive, and moral in nature. Administrative conceptions are nominal and entail a third-person, attributed perspective, whereas self-informative identities have a reflexive relationship to the subject to which the identity refers (Manders-Huits, 2010, p. 47).

She discusses three ways in which these identities can come into tension. The first, and perhaps most obvious, is the problem of computational reductionism, that is, an "endorsement of the ideal that anything can be expressed in terms of data (and the probabilities and profiles based on them)" (Manders-Huits, 2010, p. 51). Though necessary for the operation of computational systems, practices of computational reductionism cannot take into account "soft information or data, such as contextual and motivational features, background knowledge, and (personal) explanation regarding actions or decisions" (Manders-Huits, 2010, p. 51). In addition, the persistence of information (particularly digital information online) regarding one's nominal identity can obstruct the development of a self-informative identity. Because information captured in files and databases endures, is easily spread, and is often difficult to change or remove,

the ability of individuals "to wrest themselves from (former) characterizations and change in light of (new) moral considerations" is stunted (Manders-Huits, 2010, p. 52). Lastly, Manders-Huits (2010) draws on Ian Hacking's notion of "dynamic nominalism" to show how moral or self-informative identities often take up or are shaped by available categories, labels, or attributed identifications (p. 52-53). The increasing "ubiquity and possibilities of profiling by means of information technology evidently enhances the aptness of dynamic nominalism," as individuals incorporate attributed, third-personal descriptions into their self-informative identities (p. 53). She cites Lawrence Lessig's concept of "nominalization" to further describe this phenomenon: "The system watches what you do; it fits you into a pattern; the pattern is then fed back to you in the form of options set by the pattern; the options reinforce the patterns; the cycle begins again" (Lessig, 1999, p. 154; Lessig as cited in Manders-Huits, 2010, p. 53).

The relevance of computational reductionism, the persistence of information, and dynamic nominalism to social justice is reflected in Iris Marion Young's call to attend to processes in which certain attributes, comportments, or ways of life are normalized by the basic structure of society. Information or standards that are imposed on an individual from without—and that endure in ways that are difficult to change—can impact one's ability to exercise their second moral power on Rawls' account, as it becomes difficult to freely revise one's values and commitments throughout the course of one's life. In addition to the tensions identified by Manders-Huits, there is also a problem of persons being forced to engage with informational or technological systems (or where avoiding such an engagement would be impractical or have severe consequences) that impose nominal or administrative identities that fundamentally contradict one's self-informative

identity. For example, the filling out of forms is often a prerequisite for receiving services of varying levels of importance—from joining online social networks to receiving access to medical care. However, a form that asks for one's gender identity and only provides options for "male" or "female" imposes a binary conception of gender that may come into conflict with non-binary identities. Here, the imposition of a nominal identity goes beyond mere semantics—through the filling out of a form, an individual has little choice but to endorse a worldview that fundamentally conflicts with one's own. In order to receive the benefits of certain services or to gain access to certain spaces (online and off), individuals in these instances must engage in what might be referred to as "informational contortionism," modifying and twisting information about themselves to fit pre-determined, often inflexible categories.[42] Building on this metaphor, we might also say that—once this information is compiled and used to generate a profile of the person providing the contorted information—the imposition of certain categories represents an act of informational disfigurement, a form of informational violence reminiscent of Spade's (2011) discussion of the administrative violences enacted upon transgender identities by legal systems.

The problem of self-respect also poses practical issues for the design and development of ethical technology. Scholars and researchers involved in the emerging area of values-conscious design, in particular, focus on the ways in which human values may come to reside in technological artifacts and systems, and—inversely—how the design of technology may come to shape human values (Boehner, David, Kaye, & Sengers, 2005; Friedman, Kahn, & Borning, 2006; Flanagan et al, 2008; Camp, n.d.). Work in this area is driven by a "concern over the moral and ethical consequences of our

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[42] I am indebted to David Phillips for the contortionist metaphor.

modern technological era" and focuses on ways to "ensure that particular attention to moral and technical values becomes an integral part of the conception, design, and development of [information and communication technology]" (Manders-Huits & Zimmer, 2009). The problems of values-conscious and ethical design take on new urgency as sophisticated ICTs pervade increasingly large portions of daily life.

Perhaps the paradigmatic example of a values-conscious design effort is RAPUNSEL, a National Science Foundation-funded research project developed to help teach computer programming skills to young girls (RAPUNSEL, 2014). The design and development of RAPUNSEL was motived by a desire to address the absence of women in areas of technological development, especially computer programming (Flanagan et al, 2005). Working from the assumption that the disinterest in math, science, and computing exhibited by adolescent girls is partly a result of the ways in which these subjects are taught, researchers set out—based on evidence that girls are receptive to networked software environments and social learning—to produce a computer game in which programming is an integral part of play (Flanagan et al, 2005, p. 752).

To build the game, developers and researchers deployed a value-conscious design methodology called Values at Play (VAP), "a theoretically grounded approach that [allows research teams] to consider human values in a rigorous and iterative manner throughout the design cycle" (Flanagan et al, 2005, p. 754). VAP unfolds heuristically, accounting for human values at various stages of the design process. First, researchers and designers engage in a process of "values discovery," wherein values relevant to a given project are identified, clarified, and indexed for reference. At this stage, sources of values include "individuals, institutions, societies, and cultures that suggest relevant

values or place values-oriented demands on creators" (Flanagan et al, 2005, p. 754).
Second, researchers and designers identify and articulate the tensions between relevant
values. Examples of such conflicts may be (but are not limited to) those between
transparency and privacy, openness and security, or safety and cost. Once conflicts are
identified, researchers and designers can choose from a variety of resolution strategies.
Third, researchers and designers continually develop small, targeted prototypes to allow
for quick response to issues or conflicts that invoke relevant values as articulated and
clarified in the discovery and conflict-identification phases. Constantly developing and
deploying small prototypes helps to ensure that issues are recognized and resolved at key
points along the design path, rather than having to address them in later (and often costly)
stages of development. In the fourth and final step, VAP calls for a phase of values
verification, where initial and emergent values (as identified in the discovery phase) are
compared against a final version to verify that the desired values are ultimately embedded
in the product (Flanagan et al, 2005, p. 758).

In the case of RAPUNSEL, researchers engaged in a process of values discovery
through ongoing consideration of documents and discussions regarding: the project goals
and hypotheses; prior work conducted in related disciplines; beliefs and values held by
the game's designers and relevant stakeholders (such as players, parents, educators, and
funders) (Flanagan et al, 2005). Further, the process of values discovery was iterative;
researchers and designers remained constantly aware that "[values] not only appear
throughout the process but can also change in importance and even type" (Flanagan et al,
2005, p. 756). In addition, researchers and designers were careful to identify and
articulate any values-based conflicts, allowing them to discuss and revise the game in

development to make sure it hewed close to the values as articulated in the project goals and hypotheses:

> For example, when the question arose, early on, about how to devise a reward structure for the game environment, designers first reasoned that a care-giving or nurturing structure would work best due to the popularity of such games with the target audience. However, further research and prototyping showed that this initial conception was incorrect. Rather than promote the values of cooperation and collaboration, this original game design fostered quite a competitive style of care-giving.... The initial design thus led to a values conflict. Later design iterations established a cooperative reward structure that encouraged sharing of elements and ideas between players—goals better matched to empirical findings on girls' science and mathematics learning preferences. (Flanagan et al, 2005, p. 756)

Overall, the RAPUNSEL project demonstrates how problems of human values can emerge at various stages in the design process. Ultimately, designs that promote certain values over others can also provide for (or hinder) the development of self-respect in certain types of individuals. In the case of RAPNUSEL, researchers were able to show that certain values of competitiveness did not support the identities and particular skill sets of young girls in ways that, over time, could lead to a lack of confidence in one's abilities and—with regard to certain subjects—come to undermine one's self-respect.

4.3.4 Summary. The preceding discussion aimed to show the various ways in which sociotechnical relations can influence the development of self-respect. Discussions of privacy highlight the ways in which technological advancements can threaten individual autonomy and dignity. Issues of computational reductionism, the persistence

of information, and dynamic nominalism highlight conflicts between the administrative conception of persons imposed by technology and our own moral, self-informative identities. Questions regarding the values embedded in the design of technology show how the promotion of certain values over others can similarly promote the development of self-respect for some people and hinder it for others. Moreover, such a pattern of promotion and demotion of certain values can perpetuate already entrenched injustice by informally deterring certain types of people from pursuing particular career paths or intellectual endeavors.

Of all the major proponents of Rawls discussed, only van den Hoven devotes some time to discussing the social bases of self-respect (van den Hoven, 1995). He is not, however, interested in the relevance of information and technology to self-respect but, rather, he relies on Rawls' discussion of this particular primary good in order to reinforce his argument for information as a primary good.[43] Also, I identified earlier a gap between van den Hoven's work on values embedded in design and Rawlsian justice. Here, the social bases of self-respect offer one way to connect these discussions: distribution of the social bases of self-respect is vital ("perhaps the most important primary good") within Rawls' distributive scheme, but assessing whether or not a given system or artifact provides a basis for self-respect for a diverse group of people allows us to evaluate relevant non-distributive dimensions of information and technology. Once we have assessed the ways in which it may either support or undermine the development of self-respect, we can then consider it within Rawls' distributive scheme. In this way, we can

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[43] Just as institutions may be responsible for providing the bases of self-respect in persons but they cannot be held responsible for whether any given individual's self-respect is actually realized, van den Hoven argues that institutions that provide access to information should not be held responsible as to whether or not people actually gain knowledge from information (van den Hoven, 1995, p. 13).

also connect non-distributive concerns of the sociotechnical account with issues of distributive justice that mark the standard account.

Just as buildings without wheelchair access promote a certain normative standard of ability for individuals who are otherwise capable of exercising Rawls' two moral powers, the design of information technology endorses certain abilities and strategies as normatively appropriate. The routine promotion of certain normative standards over others offers some and deprives others of the social bases of self-respect. Buildings that exclude wheelchairs can contribute to a negative self-conception for someone who is wheelchair-bound, while computer applications designed to teach certain skills, like math or computer programming, that routinely evoke certain values over others (as in the case of competition versus cooperation in the RAPUNSEL example) may undermine one's confidence by leading one to believe that she is not good at certain subjects. These are, of course, generalizations, but the point is not to show that such conditions will always, without regard to other factors, contribute to the diminishment of self-respect. Rather, I only mean to show how it might be that the design of technological artifacts and systems can come to promote the self-respect of some while undermining that of others.

4.4 Against the "Enduring Contempt" of Information and Technology: Towards a Sociotechnical Account of Rawlsian Justice

> For our self-respect, which mirrors our sense of our own worth, depends in part upon the respect shown to us by others; no one can long possess an assurance of his own value in the face of enduring contempt or even the indifference of others.

> –Rawls, Distributive Justice: Some Addenda

As demonstrated by various scholars and philosophers, our self-respect is informed, in part, by considerations external to the self. Our sense of our own value, as Dillon (1997) argues, is developed in the "interplay of self, others, and institutions which begins before we are capable of conceptualizing self, worth, persons, institutions, and the relations among them" (p. 244). Particularly pernicious are the relations and practices institutionalized in Rawls' basic structure that constitute the background conditions against which individuals conceive of their selves, formulate conceptions of the good, and set and pursue valued ends. But, recalling one of Rawls' (1968/1999c) earliest and most eloquent statements on the subject of self-respect, it is unreasonable to expect that individuals will remain assured of their own value "in the face of enduring contempt or even the indifference of others" (p. 171). While others have shown how institutionalized discrimination within social, economic, or political structures can serve to disempower individuals along racial, gender, sexual, or other lines, I have tried to demonstrate that the development and design of information and technological systems can also carry discriminatory biases. Further, given the inertia of existing sociotechnical infrastructures, biases embedded in the sociotechnical systems and practices that help reproduce social, economic, and political structures over time can have long-lasting and far-reaching effects. Consequently, the "enduring contempt and indifference" of biased and value-laden technologies can have a profound and pervasive impact on the development of self-respect for some well into the future.

As a normative project, then, the sociotechnical account seeks to identify ways in which considerations of the design and implementation of information technology variously empowers some and disempowers others. It is in a notion of empowerment that,

I believe, the standard and sociotechnical accounts of Rawls can come together. For example, Brey (2007) defines empowerment as "(1) having the power to use one's primary goods to one's own ends (freedom from restraint by others and from other restraints) and (2) the successful acquisition of a relevant share of primary social goods to more effectively further one's ends" (p. 16). As noted previously in the section Brey's work, he clearly views access to productive information and communication technologies as a relevant contemporary addition to Rawls' scheme of primary goods. In this way, empowerment can be seen as a normative aim of the standard account insofar as it is concerned with supplying individuals with the goods needed to pursue valued ends. But, Brey also recognizes that the ethical or political impact of technology may vary in its context of use. "The same technological artifact may," Brey (2007) writes, "empower one user more than it does another [since] artifacts will necessarily serve certain goals or interests better than others [and] may be more or less compatible with the attributes of users" (p. 17). Additionally, Brey (2007) shows us how technology can differentially foster the self-respect of its users (though he does not connect this discussion to a Rawlsian conception):

> Technological artifacts make assumptions about the attributes and needs of their users, and when these assumptions are not met, users are not fully empowered by these artifacts. Users may even be disempowered by such artifacts, because empowerment is often a relative notion, defined relative to the empowerment of others. (p. 18)

Though Brey is talking specifically about technological artifacts, it is not difficult to see how representation through categories or ontologies that are embedded in technological

artifacts, systems, or infrastructures can also fail to meet the expectation of users from marginalized backgrounds. For example, being presented with only two gender options on a form reinforces a binary gender system which undermines the value of a trans or non-binary persons' identity.

Not seeing one's self reflected in the systems and structures one must navigate to acquire information or other goods (like medical services, for example) denies one an important basis for developing self-respect. But, where proponents of the standard account have to abandon Rawls in order to talk about ideas of empowerment and self-respect, the sociotechnical account stays with Rawls (and his critics) by appealing to the productive role of sociotechnical relations within the basic structure and their consequences for self-respect in order to account for non-distributive dimensions of social justice, information, and technology.

4.5 Summary: Comparing the Standard and Sociotechnical Accounts

As complimentary lenses, the standard and sociotechnical accounts are concerned with different dimensions of social justice, information, and technology. The standard account's focus is distributive and centered on the instrumental importance of informational and technological resources for the pursuit of valued ends. Its primary mechanism for securing access to resources is the articulation of various informational rights and liberties to stand alongside other Rawlsian basic liberties, like freedom of expression or association. Implicit in the focus on informational resources and liberties is a conception of individuals as idealized rational agents, able to effectively exercise liberties and make use of informational and technological goods. The sociotechnical account, on the other hand, is concerned with non-distributive dimensions of social

justice, information, and technology. It strays from Rawls in following Young's (2006) call to attend to the normative standards embedded in various structures—standards that support positive self-valuations and the development of self-respect for some but deny others similar opportunities. It also follows O'Neill (2000), as well as the patient-oriented spirit of Rawls' veil of ignorance (as emphasized by Floridi, 2006), to conceive of individual agents and their self-respect as vulnerable and in need of support. Though it appeals to critics of Rawls, however, the sociotechnical account is still—I would argue—still broadly Rawlsian in spirit, as it focuses on the ways in which sociotechnical practices that produce the background conditions of the basic structure can come to support or undermine the development of self-respect. The ideas of the basic structure and self-respect, as I have shown, are indispensible features of Rawls' work.

To summarize, the various focal points of both the standard and sociotechnical accounts of Rawls as applied to information and technology are laid out below.

	Standard Account	Sociotechnical Account
Technology and Society	resource; instrumental	embedded; co-constitutive
Social Justice	distributive; atomistic	Relational; holistic
Agents	idealized; agent-oriented	vulnerable; patient-oriented
Rawlsian Focus	primary goods; basic liberties	basic structure; self-respect
Provisions	informational goods and liberties	dignity and self-respect

Table 1: Comparing the Standard and Sociotechnical Accounts

Chapter 5.0: Disclosing Google Books

5.1 Introduction

Following the method of disclosive ethics, the previous chapters were engaged at the theoretical level. Chapter 2 presented Rawls' theory while Chapter 3 articulated the standard account of Rawls as applied to information and technology. The previous chapter drew on under-appreciated arguments and resources in Rawls' theory to put forward an alternative framework—*the sociotechnical account*—for considering, in particular, non-distributive issues of sociotechnical relations and self-respect. In this chapter, I move from the theoretical level to the disclosive and application levels of analysis. After further introducing Google Books, I surface and discuss three morally opaque features of the project (*disclosure*): 1) quality of scans and metadata; 2) visibility (and invisibility) of information work patterned by the service's snippet and preview mechanisms; and 3) the value of information as informed by library history and practice versus the algorithmic search environment engineered by Google. After discussing these features, I assess their relevance to social justice according to both the standard and sociotechnical accounts of Rawls sketched earlier (*application*). In the end, I use Google Books as illustrative of the idea that social justice issues with regard to information and technology go beyond matters of distribution and also extend to issues of development and design. In doing so, I also show how the sociotechnical account is able to foreground certain features of sociotechnical systems that the standard account is otherwise ill-equipped to address.[44]

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[44] It should be noted that the shift here from sustained discussion of Rawlsian political philosophy to a focus on Google Books risks confusing the use of certain terms. For example, "primary goods" has distinct meanings in an economic context (relevant to a discussion of Google Books as for-profit company) versus

5.2 Google Books: Background

5.2.1 Relevance. The Google Books project is germane for demonstrating the applicability of both the standard and sociotechnical accounts of Rawls outlined earlier. As a project, Google Books is unprecedented and, in many ways, wildly successful—it stands to remain the dominant online digital library well into the future. As a large-scale information infrastructure, is also a rich example of complex sociotechnical relations organized between technologies, institutions, and individuals today. It invokes a wide range of stakeholders—from individual authors to multinational corporations to a potentially global public.

Recalling Star and Ruhleder's (1996) definition of infrastructure, it is possible to understand the complex relations organized by Google Books along a number of dimensions. For example, Google Books is embedded in (or "sunk into") existing technological structures, as it is dependent upon larger networks like the Internet for facilitating access to its collection. In this sense, it is "built on an installed base" and, as a consequence, inherits certain limitations and a dependence on standards set by the World Wide Web and the Internet. The Google Books project is also embedded within existing economic structures, as it is designed to be sensitive to existing copyright interests (e.g., only showing "snippets" of certain copyrighted works). Google Books also shapes and is shaped by communities of practice, as its scanning initiative is informed by the practices of its partner institutions—namely, libraries—and, in turn, informs and overcomes localized practices of libraries to make their collections of books more universally accessible. In particular, this process of overcoming localized practices includes

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its meaning within Rawls' theory. For present purposes, potentially confusing terms should be viewed within their Rawlsian context (i.e., "primary goods" refer to Rawlsian primary goods).

removing collections of books from contexts traditionally informed by women's work (Harris, 1992) and subjecting them to the technical rationality of a male-dominated technology industry. Further, the service becomes visible upon breakdown. For Google Books, this goes beyond simple interruptions in service (not uncommon for Google services), as it is also evident in the dubious quality of many scans. Poor, indecipherable, or otherwise badly scanned copies of books expose the infrastructure of the Books project, making an otherwise transparent system visible to users.

Attention to Google Books also takes on additional importance in light of its position within the overall landscape of digital scanning initiatives. Given its massive scope and size, it has become difficult for other institutions to justify allocating funds and other resources to developing alternative projects. As Paul Duguid (2007) puts it,

> with each scanned page, Google Books' Library Project, by its quantity if not necessarily by its quality, makes the possibility of a better alternative unlikely. The Project may then become the library of the future, whatever its quality, by default (para. 6).

One notable competitor is the Open Content Alliance (OCA)— an open academic consortium based around a partnership of libraries and corporate sponsors under the administration of the Internet Archive (Leetaru, 2008). Launched in 2005 as a counter to the commercial and proprietary practices of Google, OCA partner libraries make their collections available for scanning, while corporate sponsors provide funding for digitization (Leetaru, 2008). But while the OCA may represent a different, perhaps more

transparent approach to the digitization of library collections, it cannot keep up with Google Books in terms of sheer volume.[45]

The inertia of the Books project is further evident within the HathiTrust Digital Library, which consolidates collections from Google, OCA, Microsoft, and other initiatives for preservation and institutional access purposes (HathiTrust, 2014). Despite drawing on various sources, scans from the Google Books project dominate HathiTrust's collection. As Paul Conway (2013) describes it, behind HathiTrust's "commitment to a longstanding mandate of research libraries is a simple reality: HathiTrust is now and is likely to be for the foreseeable future primarily a repository for digitized library volumes from Google's foray into large-scale digitization" (p. 17). In fact, over 90 percent of the more than 10 million book scans in HathiTrust's collection were originally produced by Google (York, 2010; Conway, 2013). As a practical reality, Google Books has become the dominant digital library in the world—not only as a standalone collection, but by serving as the backbone for other digital library efforts as well. Furthermore, it is likely to retain its dominance well into the future.

In addition to its overall dominance, both proponents and critics of Google Books have highlighted its relevance to the pursuit of liberal values like liberty and equality. Proponents of the project have touted its potential for an increased "egalitarianism of information" (Schmidt, 2005, para. 9) through the creation of an educational and commercial platform to expand access. Others have argued that the Books project will generate an equalization of higher education institutions by opening up the collections of

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[45] It should be noted, however, that the overall transparency and openness of the OCA as an alternative to Google Books can be called into question. See: Leetaru, 2008.

large research libraries to smaller institutions.[46] Critics, on the other hand, have expressed concerns over issues of user privacy (Grimmelmann, 2010, p. 44-47), intellectual freedom and censorship (Zimmer, 2012), and the granting of an exclusive (though ultimately unsuccessful) deal to Google that seemingly circumvents—via the proposed settlement—established copyright law (Newman, 2011, p. 12). The possibilities touted by proponents speak to the ways in which sociotechnical infrastructures can enable widespread information access vital to the furthering of equality and individual liberty, especially if one conceives of information as a primary good. At the same time, the challenges of critics expose the ways in which Google Books might ultimately subvert the ideals of equality and individual liberty it claims to further. It is my aim to extend discussion of the relationship of Google Books and liberal values by surfacing morally opaque features and assessing them according to both the standard and sociotechnical account outlined earlier.

In examining Google Books according to a liberal conception of social justice, however, I do not mean to imply that Google has the sorts of responsibilities for achieving or furthering social justice commonly associated with state or governmental agencies. To claim as much would be to misrepresent the motivations and interests of Google, as it is, foremost, a private companies providing a particular set of online services. Nonetheless, it is possible to distinguish between the motivations of a particular agent or agency and its capacities for promoting social justice. Whether or not a particular private project is motivated by a concern for justice does not preclude scholars or critics from examining the specific ways it might be capable of promoting justice (or,

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[46] See discussion in Samuelson, 2009, p. 1320-1321.

inversely, perpetuating injustice). O'Neill (2001) has explicitly recognized this distinction in the context of nonstate agencies (such as NGOs) and transnational corporations, and argued that it is worth attending to their capacities as potential "agents of justice" rather than focusing on their supposed or assumed motivations (p. 189).

> From the point of view of achieving justice—however we conceptualise it—agents and agencies must dispose not only of capacities which they could deploy if circumstances were favourable, but of capabilities, that is to say, of specific, effectively resourced capacities which they can deploy in actual circumstances. (O'Neill, 2001, p. 189)

Danielle Citron and Helen Norton (2011), for example, have explored the role of online intermediaries like Google for fostering responsible digital citizenship. As made explicit in Rawls' principles of justice, notions of equal respect and basic liberties (among them freedom of expression) are an integral to an account of social justice. Citron and Norton's work points us towards at least one way Google's services have been discussed as relevant to the furthering (or undermining) liberal and democratic values.

5.2.2 A brief history. Google first launched its book scanning initiative in 2002, furthering the company's stated mission to "organize the world's information and make it universally accessible and useful," (Google, Inc., n.d.). The project aims to do to the world's collection of printed books what the company has already done for webpages: index their contents, analyze their connections, and make them searchable. In the first few years of its development, Google sought support from publishers willing to contribute in-print books to the collection—an effort now known as the Partner Program (Newman, 2011; Grimmelman, 2009). In 2004, Google also announced its "Google

Print" Library Project (Google, Inc., 2004), initially driven by partnerships with libraries at the University of Michigan, Harvard, Oxford, Stanford, and the New York Public Library. The goal of the Library Project was—and remains—to scan entire library collections for inclusion in the company's books database. For Google, the Library Project held more promise than the Partner Program for the rapid growth of their collection, since it afforded them access to more than 15 million titles with only a handful of partnerships, compared to just hundreds of titles made available by thousands of publishers (Newman, 2011, p. 5). In 2005, Google Print was renamed Google Books in order to better communicate the initiative's mission to the public (Google, Inc., 2005).

While the Library Project helped rapidly expand Google's collection, it was perceived as a potential threat to the copyright interests of authors and publishers. Though Google has always maintained that its use of scanned books from library collections was protected under fair use provisions, various interest groups and publishers objected that Google's development and maintenance of a vast archive of library collections for commercial benefit represented a violation of copyright (Newman, 2011; Samuelson, 2009). In 2005, The Authors Guild of America and several individual authors brought a lawsuit against Google, maintaining that the Books project was a violation of copyright law. Shortly after, five publishers filed a similar complaint, which was eventually consolidated with the authors' lawsuit (Grimmelmann, 2009, p. 3).

In 2008, a settlement was proposed which would have released Google from liability for both past and future scanning efforts in exchange for $125 million in compensation (Grimmelmann, 2009, p. 4). In addition, the Google Books Settlement also 1) proposed a non-profit Books Rights Registry to act as a mediator between Google and

copyright holders; 2) authorized Google to begin selling both individual books (in ebook form) and subscriptions to the company's books database to libraries, universities, and other interested institutions; and 3) proposed the creation of a research database to open up Google's collection for large-scale computational analysis and scholarly study (Grimmelmann, 2009, p 4-5). The initial settlement was met with much criticism. Objections to the agreement ranged from concerns over issues of privacy, copyright policy, and the collection's inclusion of foreign books (i.e., books published outside of the United States) to accusations that Google was being granted an unfair monopoly over the digital books market (Grimmelmann, 2010; Zimmer, 2012). Still others objected to the settlement entirely, hoping for (and eventually receiving) a broad fair use ruling that would have benefits beyond Google Books. In response to these concerns, parties to the lawsuit proposed an amended settlement in 2009. The court rejected the amended settlement in March, 2011.

In the years since its inception, Google Books failed to have the wholly transformative impact on the publishing industry anticipated by proponents and critics alike. As none of the lawsuits forced Google Books offline or prevented Google from continuing its scanning efforts, the project was able to move forward despite litigation. Eventually, Google Books settled into the broader information ecosystem of the Web and its preview mechanisms have effectively prevented it from sparking widespread copyright violation. The everyday utility of Google Books proved central to Judge Chin's November 2013 ruling that Google's book scanning efforts are protected by fair use. As Grimmelmann (2013) summarizes, the current position of Google Books

might have seemed unlikely in the early days of the lawsuit, when Google's book scanning was new and scary. But [the] ruling demonstrates just how much the world has changed. Since Google began its program nine years ago, book scanning has become domesticated, and its benefits are easy to see. What was once viewed almost as science fiction has become part of our daily reality—everyone, it seems, has used Google Books…. (para. 2)

Judge Chin listed as primary benefits increased and efficient access to books, new possibilities for quantitative research of texts, improved access for disabled persons (as with text-to-speech capabilities for digitized text), and the granting of new life to otherwise neglected and out-of-print works (*Author's Guild v. Google*, 2013, p. 9-12). Judge Chin also held that the service ultimately benefits authors and publishers, since Google provides links to retailers where a reader or researcher can purchase commercially available titles (*Author's Guild v. Google*, 2013, p. 12). Finally, Judge Chin affirmed the optimism of the project's biggest proponents in his assertion that "indeed, all society benefits" (*Author's Guild v. Google*, 2013, p. 26).

Beyond its application to Google Books, Judge Chin's fair use ruling also has implications for the copying of digital information generally. As Jonathan Band (2014) describes, the reliance on fair use in Chin's decision is "a function of the conflicts resulting from the interaction of a changing copyright system and evolving digital technology" (para. 11). The continual lengthening of copyright terms means that, today, more works are protected than ever before; at the same time, however, digital technology allows users to make dramatically more copies, often simply by "turning on their computer[s], viewing websites with browsers, responding to and forwarding emails"

(Band, 2014, para 11). Chin's decision further solidifies the role of fair use in enabling and protecting not only large-scale initiatives like Google Books, but routine online activities as well.

       5.2.3 Surfacing morally opaque features. To use language employed by Star (1999), the above details reveal different narratives surrounding Google Books. One such narrative is a descriptive, roughly chronological, and largely legal "story" of Google Books and its relationship to other information institutions, like libraries and publishers—as in the history sketched above. Another narrative might foreground what Google Books' "does" from an aspirational standpoint: it works to achieve a heightened "egalitarianism of information;" it helps equalize institutions of higher learning; it improves commercial access to lesser-known or otherwise unavailable works; and it provides dramatically expanded access to relatively closed-off library collections. This type of story is typical of Google Books' proponents and further reinforced by Judge Chin's fair use ruling. This narrative, however, tends to consolidate the perspectives of the Books project's many and varied collaborators as if they were part of a unified voice "with a presumably monolithic agenda" (Star, 1999, p. 385). In this case, Google's "monolithic agenda" is presented as one dedicated to the organization and universal accessibility of the world's information, as per the company's broad mission statement.

       When surfacing moral dimensions of particular technology or platform, it is important to pay attention to the kinds of stories being told. In particular, we should pay attention to those stories that might be obscured or even forestalled by dominant narratives. For example, focusing on Google's choice to first partner with publishers foregrounds issues of information control and intellectual property interests, while the

eventual decision to partner with libraries highlights the project's struggle to balance values of efficiency (libraries had more to offer Google than publishers in terms of volume) with legal concerns (potential copyright infringement). From the perspective of some critics, the story of Google Books is one about a company largely unconstrained in its pursuit of a digital library at the expense of important library values like privacy and intellectual freedom. For still other critics, the project tells a story of a corporate entity re-writing copyright law without legislation, outside of established legal channels. In light of Judge Chin's fair use ruling, yet another story emerges regarding the role of fair use in enabling innovative digital information initiatives for both private and public benefit. From a broader historical and cultural standpoint, Google Books concerns the imposition of ideals of technological rationality and efficiency (typical of search engine technology) onto entire swaths of recorded human knowledge. All of these stories are large, sweeping, and complex; many of them have been told elsewhere. Save for the brief background sketched above, it is not my intention to retell them here.

Instead want to tell three different stories, each of which aim to surface otherwise obscured moral dimensions of the Google Books project. In particular, each story foregrounds a different feature of the project in order to better understand the ways in which Google constructs particular kinds of relationships. The first story concerns the relationship between original texts and Google's book scans. In this story, I draw on existing research as to the quality of scans and metadata within the collection and discuss its broader moral implications, particularly for those who lack access to other types of information institutions. In the second story, I attend to the relationship Google Books' preview mode establishes between different types of information work, showing how the

project's previews and snippets mechanism prioritizes the process of automatic indexing and obscures the information work of human indexers through its obscuring of back-of-book indexes. Finally, I venture a story about the relationship between users and information relative to both libraries and Google. In particular, I show how this relationship—conceived of differently in each setting—constructs a particular conception of the value of information. Understanding these different conceptions is important for assessing the changing relevance of users' moral and political claims when information once situated in a library context is submitted to the "black-box" of Google search.

While not exhaustive of the range of features of Google Books that might have moral import, explication of these particular features allows us to begin attending to the relationships Google Books organizes between institutions, individuals, and information and their potential consequences for the development of self-respect for different individuals or groups. Many of these relationships would, however, go overlooked by discussions of social justice concerned primarily with distributions of goods. The standard account sketched earlier, for example, only allows us to consider these issues from the standpoint of primary goods and access to information; it only permits us a view of information as an indispensable good for the development and pursuit of individual ends. By contrast, the sociotechnical account centers on technologically-mediated relations between institutions and individuals and how these relations might support the development of self-respect for some while hindering it for others. Where the standard account focuses on the importance of information for pursuing life plans, the sociotechnical account examines the ways systems are implemented and access is structured to better understand their potential impact on the development of self-respect.

5.3 Google Books: Issues

5.3.1 Quality of scans and metadata. Anecdotal evidence of poor or distorted pages and unreadable documents within Google Books has been available for a number of years. "The Art of Google Books"—a blog dedicated to capturing errors or other blips in the Google Books archive and presenting them as aesthetic objects out of context—has documented hundreds of errors, ranging from skewed or distorted images to margin notes and graffiti to scans partially obscured by human fingers (Goldsmith, 2013). Medieval historian Ronald Musto (2009) vividly describes such distortions or disruptions of texts as a type of "mutilation;" he has described being appalled by the "mutilated, good-enough version of our already vicarious understanding of the past" encoded in historical texts "rushed through the scanning process so that Google could lay claim to as many artifacts of our cultural past in as short a time and with as small a budget as possible" (Musto, 2009, para. 15). For Musto (2009), there is a clear disconnect between Google's promotion of the Books project and its reality:

> Google Books has represented to us that its massive digitization project will offer a valuable, reliable, open-access research tool that would make the digital at least the equivalent and—through its ubiquity and ease—the clear superior of print. It is, after all, the 'public good'…that lies behind all of Google Books' claims for fair-use rights to its digitization schemes. (para. 9)

These aesthetic and anecdotal accounts raise important questions regarding digital preservation, research, and epistemology. From a practical perspective, however, the existence of hundreds—indeed, even many thousands—of such errors are to be unexpected from a digital scanning initiative as ambitious as Google Books.

Systematic attempts have been made to address the issue of quality in Google Books, though most efforts are limited in scope as the massive size of Google Books' collection makes it difficult to assess the overall quality of Google's scans or metadata records. In one study, Duguid (2007) zeroed in on a single text—*The Life and Opinions of Tristram Shandy, Gentleman*—in order to "probe what kind of quality [Google Books] might present to an ordinary user that Google envisages wanting to find a book" (para. 6). His analysis revealed a number of issues immediately relevant to a casual reader: scans of the book were frequently accompanied by inconsistent or missing metadata regarding volume information; text on the page was lopped off at the margins in some versions; most egregiously, Google's automated scanning process outright removed the book's iconic solid black page, originally inserted by the author in response to the death of one of the story's characters (Duguid, 2007, para. 13). Though this particular scan does not necessarily reflect the quality of scans across the entire archive, it does call into question the quality of access Google Books affords an ordinary, everyday user.

Other studies have attempted to document errors across a range of pages and texts, but results vary greatly depending on the parameters of a given analysis. For example, one study found a 1% error rate out of a random 2,500 page sample of the entire collection (James, 2010) while another study that limited its sample to fully available public domain texts published before 1923 identified a full 32% of texts to be of poor or insufficient quality (Gevinson, 2010). Based on a study of 93,858 pages from 1,000 pre-1923 volumes, Conway (2013) found that a minority of fully viewable public domain texts could be considered error-free, but that the majority of errors are low-level and have a negligible effect on readability (p. 26). Outside of general readability, however,

Conway (2013) reports concerns that the pervasiveness of low-level errors as well as the widespread visibility of evidence of the scanning process (such as fingers or equipment visible in the scan) undermines the digitization standards set by other information institutions (such as libraries, archives and museums), replacing them with lower standards that become normalized as simply the cost of building such a massive collection (p. 27). Beyond low-level errors, the random distribution of fatal errors (that is, errors that render a text entirely unfit for use) throughout the collection also undermines its authority and trustworthiness, making it an ultimately unreliable source of information for users.

Other examinations have shown how errors or inconsistencies in the scanning process produce poor or inconsistent metadata for individual texts (Nunberg, 2009; Chen, 2012). In a study comparing the metadata entries for texts available in both Google Books and WorldCat, roughly one-quarter of the compared entries in Google Books did not actually contain a scanned copy of the corresponding text (Chen, 2012). As with random distributions of fatal errors, random distribution of absent or missing scans for particular records further undermines the authority and reliability of Google Books.

5.3.2 Indexes and preview mode. The proliferation of information in digital form—as well as the increasing sophistication of the tools and methods available for managing information—has presented new challenges for indexers. The rise of automated indexing processes have allowed for the near-instant granting of access to the contents of digitized books via keyword access—computers are able to quickly and efficiently identify occurrences of words and direct readers to their location. Compared to human-generated back-of-book indexes, however, automated indexes are little more than

concordances—that is, simple lists showing where words or phrases appear in a text (Society of Indexers, 2013). Google Books full-text search is one example of automated indexing: for a given keyword or set of keywords, Google displays a list of pages in a text where the words appear. But mere concordances cannot account for contextual or intertextual dimensions of a text. For example, automated indexing processes have great difficulty handling homographs, synonyms, and significant versus trivial occurrences of a term.

Wright's (2012) comparative analysis of the different navigational tools available for the print version versus the Amazon Kindle e-book edition of historical novel *The Devil in the White City* by Erik Larson is illustrative of the limitations of automated indexing. The original print version of Larson's novel included a human-generated index of 1,032 lines that was omitted from the Kindle e-book, leaving readers at the mercy of Amazon's "X-Ray"—the service's built-in automated indexing functionality (Wright, 2012). While Amazon's X-Ray allows for some interesting visual representations of textual data (tallies of word occurrences visualized on charts, for example), it failed to grasp many important details that were accounted for in the human-created index. For example, X-Ray linked readers to outside information (such as Wikipedia pages) for featured historical figures like William "Buffalo Bill" Cody, but it failed to recognize that "Buffalo Bill" and William Cody were, in fact, the same person.

A great number of indexes have been scanned and included in Google Books' collection. For public domain books, indexes are open and available along with the rest of a work—indexes are treated, along with the body of a text, in a uniformly accessible way. For in-copyright texts, however, Google does not treat back-of-book indexes the same as

the rest of a text. Instead, indexes are excluded from preview-mode altogether. That is, the Google Books preview mechanism does not show full-page previews of any part of an index, though it shows up to twenty percent of the rest of the text. In fact, for in-copyright works, a user is only able to access "snippets" of index pages by conducting full-text keyword searches of the entire text and serendipitously happening on an instance of a term found in the back-of-book index. Deprived of any ability to peruse indexes, users are left to develop their own keyword searches with only the additional guidance of the Google-generated "common terms and phrases" tag cloud added to the metadata for each book. While these tags may help some readers formulate effective keyword-searches, they still cannot account for the implicit knowledge and contextual considerations afforded by human indexes.

Following Star (1999), information systems encode work in different ways. For example, a system may do certain things for you, it may require workaround or modifications in order for work to proceed, or it might leave gaps in the work that need to be bridged by other actors (Star, 1999, p. 385). In the case of human-generated indexes, a great deal of information work is done for the reader—key terms and concepts are codified, contextualized, and made easily accessible at the back of a book. In this sense, the work of indexers is encoded in a ready and visible way. Moreover, this type of information work is highly useful and highly valued—back-of-book indexes are indispensable to the work of scholars, researchers, journalists, novelists, and beyond.[47] At the same time, however, authors of indexes are rarely listed or given explicit credit for their intellectual work. Mulvany (1995) notes a fear that the profession's largely

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[47] In the 19th century, authors such as Thomas Carlyle and Lord Campbell even went so far as to suggest that any author who published a book without an index should be denied the benefits of copyright (Beare, 2007, p. 261).

anonymous nature "cloaks a lack of accountability and respect" for indexers generally (p. 241). So, while the work of indexers is highly visible and highly useful, the workers themselves are largely invisible and often go unrecognized. In this way, indexing represents a type of information work with a tenuous relationship to visibility: indexes are clearly demarcated in the backs of many books and considered indispensable to many other types of work, while indexers themselves remain largely invisible.

It is unclear, however, why Google should choose to exclude indexes from preview mode. The benefits to readers seem clear: as with other types of bibliographic information or metadata, the value added to a text by human indexers can help a reader quickly and effectively assess the relevance of a text to their needs. Further, there appear to be no immediate legal constraints placed on making previews of indexes available, nor does there seem to be any additional concern from publishers that indexes should be excluded. Though the Google Books Settlement is now void, its treatment of indexes is instructive in this regard. In it, indexes are classified as "Front Matter Display," as defined in section 1.61 of the amended settlement agreement:

> 'Front Matter Display' means the display to users of Google Products and Services of one or more of the title page, copyright page, table of contents, other pages that appear prior to the table of contents at the front of the Book, and indexes of a Book. (*Author's Guild v Google*, 2011, p. 9)

Importantly, there are no preview constraints placed on Google in the agreement with regard to Front Matter Display, as specified by "Preview Uses" in section 1.108 (*Author's Guild v. Google*, 2011, p. 16). Further explication of preview uses in section

4.3 also grant Google the right to display indexes along with other bibliographic information (*Author's Guild v. Google*, 2011, p. 62).

If Google treated back-of-book indexes the same way they treated the bodies of texts, then the Books service would—on the surface, at least—appear to simply extend the complicated visibility of human indexing into the digital realm. That is, if Google allowed blanket preview access to in-copyright books and their indexes, then it would be difficult to say that Google is doing anything more than inheriting from libraries the practice of encoding the information work of indexers in a particular way. But, this is not the case. Instead, Google excludes back-of-book indexes from preview mode altogether. If there are no external legal or practical constraints on the ability to show previews of index pages, then the decision to exclude indexes appears to lie with Google. Intentional or not, this obscuring of indexes means the further obscuring of the information work performed by human indexers: where the work of human indexers was once clearly visible, it is now obscured.

5.3.3 The value of information. Google's library partner program—starting with the University of Michigan in 2005 and expanding outward to today include the collections of more than 40 university, public, and national libraries—has been indispensable to the development and growth of Google Books. In return for opening up collections for scanning, Google provides libraries with digital archives of individual collections—an invaluable resource, the development of which would be otherwise out of reach for many institutions. Partnerships with libraries have made Google Books possible (at least as we know it today) while Google has helped libraries quickly and efficiently digitize large swaths of their collections. In this sense, it seems that the relationship

between Google and the mission of libraries is mutually beneficial: Google wants to index all of the world's information and make it useful while libraries, as the American Library Association (2004) puts it, aim to make information "readily, equally, and equitably accessible to all library users" (n.p.). But, however mutually beneficial the arrangement initially appears, institutions like libraries and companies like Google are ultimately informed by different values that—as Waller (2009) has argued—reveal radically different conceptions of the value of information.

It is the "grand tradition" of libraries that ready and equitable access to information is integral to a functioning democracy (McColvin, 1956; Waller, 2009). As Buschman (2004; 2005) describes it, libraries support the existence of a robust public sphere in the Habermasian sense—that is, they enact "the principle of critique and rational argumentation through the commitment to balanced collections, preserving them over time, and furthering inclusion through active attempts to make collections and resources reflect historical and current intellectual diversity" (Buschman, 2005, p. 2). In addition, the tradition of progressive librarianship has helped infuse library rhetoric and practice with a commitment to intellectual freedom (Samek, 2005). As Morgan (2006) characterizes it:

> the public library exists primarily to provide access to information on all subjects, from all points of view, to all people…served by the library, regardless of race, nationality, ethnic origin, religion, income, age, or any other arbitrary classification. The individual library user exercises free choice about whether she seeks information or library materials for educational, recreational, informational, cultural, political, job-related, or other reasons. (p. 8)

A commitment to intellectual freedom readily acknowledges the role of diverse types of information for supporting liberal freedoms like liberty of conscience and freedom of association. Further, by rejecting morally arbitrary distinctions between the types of information made available and the types of patrons served, libraries support an ideal of equal democratic citizens. The relevance of any given piece of information is subjective and contextual, determined by its usefulness to a user conceived of as a free and equal citizen—the moral and political claims of citizens directly inform the value and relevance of information. Ultimately, information in a library context derives its value from libraries' role in promoting and preserving a democratic ideal.

Despite being built on the backs of library collections, the Books project is framed by Google's stated mission to "organize the world's information and make it universally accessible and useful," (Google, Inc., n.d.). While Google makes a broad and ambiguous moral commitment in its "don't be evil" motto, the company is not immediately concerned with furthering democratic values or conceiving of its users as free and equal. For Google, the value and relevance of information is not determined by its subjective usefulness for democratic citizens; instead, Google indexes and organizes its information in a way that is useful for marketing and advertising purposes. In order to sell custom advertisements that appear alongside search results, Google must demonstrate that it can effectively match information resources to particular queries in ways that are consistent and relevant for advertisers. The value of information is determined by its relevance to queries and keywords that can then be sold for marketing purposes. By contrast to the subjective value of information for libraries, information in the context of Google is conceived of as "objectively" valuable insofar as it demonstrates relevance to a search

query (Waller, 2009, para. 11).[48] The moral and political claims of users, then, are not directly implicated by Google's conception of the value of information.

The contrast between the subjective value of information for libraries and its objective value for Google exposes a fundamental tension between the two entities—put simply, libraries and Google "want different things" (Waller, 2009, para. 5). From the perspective of social justice, this tension raises questions as to the relevance of moral and political claims within different types of information institutions and infrastructures. For libraries, the moral and political claims of users directly inform the value of information, since information is valuable only insofar as it is subjectively useful for free and equal democratic citizens. For Google, on the other hand, information is only valuable insofar as it is objectively relevant to a given search query, regardless of the person inquiring. The relevance of users' moral and political claims is not immediately implicated, since— from the perspective of search engine algorithms—the question of information organization and retrieval is fundamentally a technical problem of connecting some set of resources to a query within the system.

The distinction between the subjective value of information for libraries and its objective value for Google is made explicit in their different responses to problems of representational bias. Historically, libraries have served as sites for protest against biases embedded in information systems, such as library subject headings and classification schemes. Today, cultural and representational biases in information organization systems

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[48] I borrow the term "objective" from Waller's (2009) discussion of libraries and Google Books. By employing it, I do not mean to imply an additional value judgment—that is, I do not meant to suggest that the "objective" value of information is somehow morally or actually superior to the subjective value bestowed on information by libraries. In fact, both conceptions of the value information are subjective— both libraries and Google rely on conceptions of information relevant from their subjective perspectives. Here, I only mean to use the term "objective" to distinguish between the value assigned to information by reference to search queries for Google and the subjective value assigned to information in a library context by reference to equal democratic citizens.

are well documented.[49] With regard to the Library of Congress's subject headings (LCSH) in particular, Sanford Berman's 1971 book *Prejudices and Antipathies: A Tract on the LC Subject Heads Concerning People* is arguably the most visible and effective example of a critique of representational biases in library classification schemes. In the text, Berman (1971) addressed widespread problems of Western, white, and religious bias reflected the LCSH and proposed a series of 225 changes to remedy them.

Though the library community initially met the work with mixed reviews, it is estimated that in the time between 1971 and 2005 at least 60% of Berman's suggestions have been implemented either faithfully or in spirit (Knowlton, 2005).[50] To be sure, the information and knowledge organization systems employed by libraries are not perfect—any effort to organize the whole of human knowledge and experience to a set of discrete categories is inevitably reductionist and incomplete. Nonetheless, effective moral and political intervention for redress of cultural and representational wrongs is possible. More importantly, the moral and political claims of citizens against representational wrongs are immediately relevant to the value of information in a library context.

Comparatively, the politics and biases of search engines are less accessible. In their seminal article "Shaping the Web: Why the Politics of Search Engines Matters," Introna and Nissenbaum (2000) brought to light various political and moral dimensions of search algorithms like those employed by Google. They endeavored to show how the

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[49] Many scholars have forcefully and eloquently articulated the nature and effects of representational biases in classification systems. Notable examples include: the continuing subjugation of women to men and the mishandling of feminist subjects (i.e., Olson, 2001); the foreclosure of opportunities for certain types of queer representation (i.e., Keilty, 2009); and the long-term social and economic impact of policy and funding decisions based on controversial classifications (i.e., Bowker & Star, 1999).

[50] Many of these changes are documented and readily accessible in online copies of back issues of the now discontinued *Cataloguing Service Bulletin*, a quarterly publication of the Library of Congress that ran from 1978 to 2010. Today, updates and changes to LCSH are made available in news items posted to the webpage of the Acquisitions and Bibliographic Access Directorate of the Library of Congress.

technical limitations of algorithmic search leads to "systematic inclusions and exclusions...that dictate systematic prominence for some sites, dictating systematic invisibility for others" (Introna and Nissenbaum, 2000, p. 171). It is well understood, for example, that Google's PageRank algorithm examines not only the content of a given webpage but also the type and quality of the pages that link to it—as a consequence, pages with higher PageRanks tend to be more prominent in lists of search results. For Google, then, relevance is in large part continuous with popularity and visibility (Diaz, 2008). Since the publication of Introna and Nissenbaum's article, scholars have continued to critically address issues of information bias, censorship, online diversity, and democratic deliberation as they relate to search engine technology (Hargittai, 2007; Zimmer, 2008a; Diaz, 2008).[51] Ultimately, work in this area is driven by "a desire to prevent online information from merely mimicking the power structure of the conglomerates that dominate the media landscape" (Granka, 2010, p. 365).

The biases of search engine technology serve to exacerbate what Diaz (2008) calls "link inequality"—the disparity between underrepresented pages and thoroughly linked-to and visible pages. To be sure, PageRank is not the only feature of Google's search technology that generates a list of results for a given query—commercial interests, linguistic cues, Web metadata, and personalized results also contribute. However, insofar as Google relies on PageRank to deliver results, Google search does not mitigate against arbitrary inequality, but, rather, tends to mirror or exacerbate the uneven distribution of links on the Web (Diaz, 2008, p. 16). Recognizing the hidden or obscured politics of search engine technology challenges utopian visions of the World Wide Web as a

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[51] For a dedicated review of literature on the politics of search engines, see Granka, 2010.

revolutionary, inherently democratic, and seemingly limitless platform for the exchange of diverse types of information.

The moral and political consequences of automated search algorithms are clear in Google's management of sensitive or controversial search terms. In a now infamous example, the top Google hit for the keyword "jew" was—for a time during the mid-2000s—an anti-Semitic hate site. Upset with this particular site's prominence in Google's results, people organized and used a technique referred to as "Googlebombing" in an effort to replace the top Google result with the Wikipedia page for "Jews." [52] This touched off a counter-"Googlebomb," as neo-Nazi sites tried to reclaim the top spot for the original hate site (Grimmelmann, 2008/2009, p. 943). Google's formal response was not to censor or edit the list of results, but to add an "Offensive Search Results" disclaimer that linked to a page explaining how the results list was generated. Conducting the same search today, the offending page persists on the first page of results (though it is no longer the first hit) and the "Offensive Search Results" disclaimer remains in place. Overall, Google's official stance on the matter appears to be "don't blame us, the computers did it" (Grimmelmann, 2008/2009, p. 944). In view of Google's conception of information as directly concerned with connecting resources to particular queries, the response makes sense. For those affected by the prominence of hate sites in the results of the world's dominant search environment, however, "the computer did it" offers little comfort.

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[52] Googlebombing is a practice that takes advantage of the PageRank algorithm by generating a great number of links to a page, making sure that each link uses the same term or phrase. Over time, Google's system starts to associate the chosen term or phrase with the linked-to page—but that also means that Google can be tricked, since "all you would have to do is get a lot of friends to create links using particular words" (Grimmelmann, 2008/2009, p. 942).

The claim here is not that people cannot or have not asserted particular moral or political claims against Google and search engines as points of protest—that is, as the foregoing discussion shows, not the case. Rather, it is to say that the different ways in which libraries and Google conceive of the value of information also generates a fundamental difference in how users' moral and political claims are implicated. In a library context, the value of information derives from its value for free and equal citizens; for Google, the value of information derives from its relevance to search queries that can be sold for marketing and advertising purposes. In the case of Google Books, submitting library collections to the organization and algorithmic logic of Google search means displacing the moral and political claims of citizens—though proponents claim that Google Books helps open up libraries to broader, more "universal" access, it simultaneously sacrifices the immediacy of user's moral and political claims on the value of information.

5.4 Google Books: Applying the Standard and Sociotechnical Accounts

5.4.1 Quality of scans and metadata.

5.4.1.1 The standard account. The standard account emphasizes the role of information as a primary good and access to information as a basic liberty. Errors and poor quality scans within Google Books' collection become relevant in terms of the effective exercise of informational liberties—in this case, an unreliable or untrustworthy archive potentially undermines the ability of individuals to effectively exercise rights to access information, especially for those without ready access to information institutions like large public or university research libraries. This complaint, however, might be resisted as unfair. Google Books, as previously discussed, is concerned with access

digitization as opposed to preservation and is not necessarily concerned with achieving the quality demanded by preservationists, information professionals, or researchers (Leetaru, 2008). Rather, Google is simply trying to create conditions for mass access to print materials online. In terms of generating conditions for widespread access, the existence of low-level error is largely irrelevant since, as Conway (2013) notes, such errors do not actively hinder reading. In order to make the massive amounts of information otherwise exclusively confined to libraries available online, pragmatic matters of cost, time, and space must be taken into consideration. On the standard account, poor quality scans and metadata can be dismissed as simply the cost of making valuable library collections widely and easily accessible online.

   5.4.1.2 The sociotechnical account. Where the standard account foregrounds access to resources, the sociotechnical account attends to relationships produced and maintained through sociotechnical systems. Google Books does indeed make collections previously confined to libraries readily available to a broader public, but—for many individuals—the possibilities for access to these texts are mediated entirely by the standards and values set by Google. Consequently, the unreliable access afforded through Google Books can be viewed as reinforcing (rather than overcoming) the gap between those with and those without ready access to alternative information institutions. Further, issues of institutional access and privilege are intimately bound up with an individual's sense of self-respect. The sub-par access described by Duguid (2007) does not communicate to an ordinary user that their reading experience is valued more highly than Google's desire to quickly and efficiently index massive collections of books. Instead, it reinforces and reminds us of unequal access and institutional privilege. This is not to say

that Google Books should not make available its resources; nor is it to say that there are no benefits to the massive collection the company has developed. What the sociotechnical account suggests, however, is a resistance to the idea that Google Books goes very far in bridging the divide between contemporary information haves and have-nots in any broad, institutional sense. Instead, the sociotechnical account asks us to pay attention to the ways the collection might be indicative of further injustices in access to information, privilege, and power.

5.4.2 Indexes and preview mode.

5.4.2.1 The standard account. The standard account's focus on rights and resources interprets Google's preview mechanism as a pragmatic compromise between control and access—it is representative of a balancing act between the control sought intellectual property interests and widespread access to books for public benefit. The obscuring of human indexes in preview mode does not immediately appear to violate any particular information liberties, as main bodies of texts can still be previewed. Moreover, individuals are not wholly deprived access to indexes since they remain accessible through keyword searches. The differential treatment of back-of-book indexes may be a curiosity, but given that previews of the rest of the book are available, it is unlikely that the standard account would view their exclusion from previews as a problem for social justice.

5.4.2.2 The sociotechnical account. The sociotechnical account's holistic and contextual focus views the exclusion of back-of-book indexes from preview mode a relevant from a social justice perspective. This exclusion exposes the relationship Google Books establishes between the reader and the text as one mediated by a technical

rationality that priortizes efficiency and automation over expertise and contextual sensitivity. In this way, Google systematically promotes one sort of information work (automated indexing) over another (human indexing): users cannot effectively use a back-of-book index to assess a text and, instead, must rely on generating their own keywords for in-text searching. In short, Google Books promotes of the rationality and efficiency of algorithmic search over the expertise and contextual considerations of human indexing.

If both human-generated and automated methods delivered similar or comparable results, this might not be cause for concern. However, human indexes and the sort of automatic indexes available in Google Books vary considerably. The differential treatment of different types of information work potentially undermines self-respect in two different ways. First, however unintentionally, it further obscures and devalues the work of one type of information worker, depriving them of an important basis for self-respect. Second, individuals lacking the skills to formulate effective keywords apart from Google's "common terms and phrases" tags are systematically disadvantaged in their use of Google Books. Without access to substantive alternatives for navigating the contents of a book, users attempting to assess the relevance of a particular text in preview mode are offered the rationality and efficiency of search engines but are deprived of the value of the implicit knowledge and contextual considerations added to a text by human indexers.

5.4.3 The value of information.

5.4.3.1 The standard account. The standard account and its focus on distributive justice makes no reference the value of goods being distributed outside of their

instrumental value for setting and pursuing particular ends. With regard to Google Books, the standard account is only concerned with attending to the expanded distribution of information goods—it is not concerned with the value bestowed on that information by the context within which it is embedded. Whether a book resides in a library or is captured by a scan in Google's collection is only important insofar as it impacts its overall distribution. In line with the claims of the project's proponents and Judge Chin's 2013 fair use decision, the standard account would accept that Google Books, by expanding access to a massive number of books, furthers information justice broadly.

5.4.3.2 The sociotechnical account. The sociotechnical account is concerned with the ways information and technological systems exhibit their own value systems and provide (or elide) opportunities for the development of self-respect. On this account, libraries can be viewed as having served an important role in underwriting the self-respect of persons especially in the senses described by Rawls—that is, they support self-respect founded in part on an individual's being accounted for as an equal citizen with shared responsibilities for making fundamental judgments about social and political issues. In short: they promote self-respect founded on equal citizenship. Libraries have also served as sites for protest and political intervention into information and knowledge systems. Challenges over banned books, critiques of classification systems, and debates over the role of libraries in local communities all offer individuals and groups opportunities to assert their self-respect. Boxill (1976), in particular, has demonstrated the importance of meaningful protest as important for the assertion and maintenance of self-respect.[53]

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[53] "People do not take the powerless seriously. Because he wants to know himself as self-respecting, the powerless but self-respecting person is driven to make others take him seriously. He is driven to make his

Search engines, on the other hand, organize different relationships between an individual and a text—and it is this difference that has implications for self-respect and social justice. Effective, concrete protest against an explicit taxonomy presents a more robust foundation for the exercise of self-respect by marginalized groups and individuals than protest against an opaque and constantly shifting target like complex and proprietary search engine algorithms. The comparative opacity of Google search is problematic in light of the power they wield online—they are able to direct and shape the flow of information on the World Wide Web, relying on automated algorithms for determining what content to display and what content to ignore in response to a given query. The complexity and proprietary nature of Google's search technology makes assessing its moral and political dimensions incredibly difficult (Diaz, 2008, p. 17). Ultimately, the "black box" (Introna, 2007) of search algorithms and the "objective" value of information for Google present an unreliable foundation upon which to further develop a robust sense of self-respect.

5.5 Summary

Taken individually, the dimensions of Google Books disclosed in this chapter might be considered curious and marginally relevant from a moral perspective. Collectively, however, they tell a story of the particular sorts of relationships established between institutions, individuals, and information through the design and development of an information infrastructure. The moral relevance of these relationships, however, is

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claim to self-respect unmistakable. Therefore, since nothing as unequivocally expresses what a person thinks he believes as his own emphatic statement, the powerless but self-respecting person will declare his self-respect. He will protest. His protest affirms that he has rights. More important, it tells everyone that he believes he has rights and that he therefore claims self-respect. When he has to endure wrongs he cannot repel and feels his self-respect threatened, he will publicly claim it in order to reassure himself that he has it. His reassurance does not come from persuading others that he has self-respect. It comes from using his claim to self-respect as a challenge" (Boxill, 1976, p. 69).

insufficiently captured by concerns over distributions and rights to access information. Consequently, the standard account has a difficult time assessing the overall relevance of the quality of scans and metadata, treatment of back-of-book indexes, and competing conceptions of the value of information for social justice. Indeed, from a purely distributive standpoint, Google Books appears to further the cause of social justice with regard to information. Without reference to quality, Google's massive digital library improves access to information by making available books that would otherwise be inaccessible to the wider public. In this sense, the collection opens up new possibilities for a heightened "egalitarianism of information." That Google prioritizes automated indexing and obscures human indexing does not immediately impact the overall increase in the distribution of books. In addition, the standard account's focus on distributions forestalls an evaluation of the value assigned to information in different contexts—it is only equipped to address distributions of resources without reference to the value bestowed on them in a given context..

By contrast, the sociotechnical account's focus on the different relationships mediated by Google Books suggests that the project does not—and perhaps cannot—address issues of self-respect tied variously to institutional position and opportunity, information work, and the immediacy of users' moral and political claims with regard to the value of information. On this account, the proliferation of Google Books and its "good enough" access is viewed as reinforcing a division between those with high-quality access to information institutions like prestigious research libraries and those largely at the mercy of Google. The sociotechnical account also attends to the moral relevance of the ways information work is encoded within Google Books by identifying its potential

impact on the ability of users to effectively navigate information as well as its further obscuring of the work done by human indexers. Finally, the sociotechnical account inquires as to how the value of information is constructed within different contexts. It finds a robust foundation for supporting individuals' self-respect within a library context, where the value of information is directly informed by the moral and political claims of democratic citizens. In the context of Google, by contrast, the objective value of information derived from its relevance for particular search queries combined with the complex, propriety, and "black boxed" nature of search algorithms provides too uncertain a foundation for the assertion and maintenance of self-respect for many.

It is not my intention to condemn Google Books as wholly unjust. Rather, I have tried to show how the different frames employed to assess the justness of a particular information or technological system can expose different dimensions relevant to furthering social justice. From a distributive perspective, Google Books offers expanded opportunities for access to books in ways that promote social justice. In particular, its digitization efforts have enabled—as noted by Judge Chin in his 2013 fair use decision— widespread access to books for people with difficulties receiving text in book format. In this sense, Google Books promotes social justice by helping to reduce arbitrary or socially-constructed inequalities that stem from certain disabilities. At the same time, however, a non-distributive frame helps recognize that the expanded access afforded by Google's massive digitization efforts also present new challenges. Attention to widespread rates of error and random distribution of fatal error within Google's collection, for example, shows how the compromises to quality made in order to quickly and efficiently scan millions of library books have further consequences that are relevant

to social justice. Widespread but low-quality and unreliable access may attend to a quantitative divide between information haves and have-nots, but it also exposes further injustices with regard to quality of access.

Chapter 6.0: Concluding Remarks

Imagine sitting at your computer and, in less than a second, searching the full text of every book ever written. Imagine an historian being able to instantly find every book that mentions the Battle of Algiers. Imagine a high school student in Bangladesh discovering an out-of-print author held only in a library in Ann Arbor. Imagine one giant electronic card catalog that makes all the world's books discoverable with just a few keystrokes by anyone, anywhere, anytime."

–Eric Schmidt, "Books of Revelation," *The Wall Street Journal*

Google is so strange. It promises everything, but everything isn't there. You type in the words for what you need, and what you need becomes superfluous in an instant, shadowed instantaneously by the things you really need, and none of them answerable by Google.

–Ali Smith, *There But For The*

"...but everything isn't there."

In Ali Smith's novel, *There But For The*, Mark—a late middle-aged, gay Londoner—finds himself trapped in the middle of an awkward dinner party. When conversation suddenly turns to the topic of his sexuality, Mark begins to suspect that his invitation was less than genuine—it appears the waspy, Greenwich-based hosts have included Mark as a curiosity, a token sexual minority to shake up their otherwise heteronormative guest list. As the party carries on, Mark (a touch drunk on wine) drifts inward, quietly reflecting on his own private struggles with shame and longing as a result of sexual difference. He recalls attempts to combat feelings of marginalization and degradation using Google. He describes typing the words *something beautiful* into a Google image search only to be met with random pictures of sunsets, babies, and Mother Teresa. "Google is so strange," he thinks to himself, "it promises everything, but everything isn't there." He sees value in the access to information Google provides, but

his perspective is jaded. "Sure, there's a certain charm to being able to look up and watch Eartha Kitt singing Old Fashioned Millionaire in 1957," he thinks, "but the charm is a kind of deception about a whole new way of feeling lonely, a semblance of plenitude but really a new level of Dante's inferno...."[54] As another guest nods in agreement, Mark suddenly realizes he has been reflecting out loud for some time. He panics and stops talking.

"Bit of a Luddite approach, though," the hostess says.

Mark, feeling sick, excuses himself from the table.

Google Books as Infrastructure of In/Justice

As with Mark's cynicism in the face of Google's techno-utopian plenitude, the treatment of Google Books in the foregoing dissertation runs the risk of appearing, at times, anti-Google. To blunt the force of such an accusation, I have tried—where relevant—to embrace the promise of the Books project as touted by its proponents. In many ways, it seems that all of society stands to benefit from Google Books, to use Judge Chin's words (*The Author's Guild v. Google*, 2013, p. 26). It would be unfair to assert that there could be no benefits derived from "putting tens of millions of previously inaccessible volumes into one vast index, every word of which is searchable by anyone, rich and poor, urban and rural, First World and Third, *en toute langue*" (Schmidt 2005, para. 9). In particular, vastly expanded resources for individuals with reading disabilities and the protection afforded to other routine online activities by extension of the fair use ruling in the Google Books lawsuit (as described by Band, 2014) are positive outcomes that help further the cause of social justice with regard to information and technology.

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[54] Direct quotations are from pages 105 and 106 of the paperback edition of Ali Smith's 2011 novel *There But For The,* published by Anchor Books.

But blind adoration of Google and the ways in which it might further distributive justice uncritically accepts features of the Books project that might undermine social justice in other ways. Evgeny Morozov (2011) has referred to an uncritical faith in the proliferation of ICTs as an unqualified force for good as "the Google Doctrine." He describes as "irrational exuberance" the "intense Western longing for a world where information technology is the liberator rather than the oppressor, a world where technology could be harvested to spread democracy around the globe" (Morozov, 2011, p. 5). Certainly, the comments made by ex-Google CEO and current Google Executive Chairman Eric Schmidt fit squarely within the Google Doctrine. Though Schmidt does not make explicit reference to social justice or democracy in his discussion of the company's Books project, Schmidt's rhetoric carries with it an air of unlimited possibility—as if lives will be improved through sheer force of connection to resources.

In the case of the Books project, an increased access to information around the globe is made possible by the different relationships organized and mediated by Google. But as Hume (1777/1975) reminds us, "the boundaries of justice...grow larger, in proportion to the largeness of men's views, and the force of their mutual connexions" (p. 192). Understanding social justice in the face of advanced ICTs means not only attending to the number of "mutual connexions," but to their nature and scope as well. Though Google may allow for more connections to be made between institutions, individuals, and information, those connections are structured in particular ways. The design and implementation of a project like Google Books opens up certain possibilities while simultaneously obscuring others. The quality of Google's scans and metadata, its prioritization of certain kinds of information work over others, and its conception of the

value of information carry unintended consequences for users—consequences that cannot necessarily be reduced to distributive terms. Attending to the justness of a project like Google Books, then, means not only attending to distributive outcomes, but these non-distributive dimensions as well.

Unfortunately, many available frameworks for attending to issues of systematic injustice, discrimination, and inequality with regard to access to information and technology also struggle to account for justice outside of distributions. Deployments of Rawlsian theory in this area, as I have shown, regularly focus on information and technology as discrete sorts of goods, characterizing information injustice as little more than a relative lack of access to these goods. But, as the Young (2006) argued earlier, while distributions of resources, opportunities, and income are no doubt important, their dominance in discussion has tended to deflect attention from processes that do not fit into a distributive paradigm. Discussions of Rawlsian social justice, information, and technology inherit similar problems, as a focus on the distributions of goods and opportunities obscures questions of power and privilege in the design and development of the technological systems and information infrastructures that pervade our daily lives.

In order to expand the scope of analysis beyond distributive issues, this dissertation has put forward an alternative to the standard account of Rawls in discussions of information and technology. This alternative account—*the sociotechnical account*—aims to recover important non-distributive features of Rawls' work, such as his basic structure argument and the social bases of self-respect. Where applicable, it also draws on insights from feminist, leftist, disabilities, and other critics of Rawls in order to arrive a more robust and inclusive picture of social justice than one concerned simply with

information or technological goods. By foregrounding these foundational pieces and critical discussions, the sociotechnical account avoids a narrowly distributive focus to show how social justice concerns with regard to information and technology might be otherwise accounted for in a broadly Rawlsian manner. It shows how sociotechnical relations are integral to the production and upkeep of Rawls' basic structure and that technological artifacts and information systems are not merely instrumental to, but actively shape relations between institutions and individuals. In this way, sociotechnical relations can be viewed as integral to the promotion and preservation of what Rawls' refers to as "background justice." Finally, the sociotechnical account seeks to identify the ways in which these sociotechnical relations variously empower some and disempower others.

Though addressing social justice issues within Google Books was the impetus for developing a sociotechnical account of Rawls' work its relevance extends beyond the Books project. Theoretically speaking, it opens up new avenues for connecting potent ideas from discussions of philosophy, technology, and society to Rawlsian social justice. It pulls together and synthesizes the work of Rawlsian proponents like Drahos, van den Hoven, Brey, Britz and Duff and shows the strengths and limits of a focus on distributive justice. It recovers the importance of attending to issues of background justice and self-respect for scholars working on issues of social justice, information, and technology; in doing so, it heeds Young's call for "taking the basic structure seriously" and it attends to Dillon's concerns over the relative lack of attention to issues of respect and ICTs. In doing so, however, it may be argued that this dissertation's focus on the role of self-respect is, in some ways, too narrow. The narrowness of the present discussion, however,

should be viewed as indicative of a particular focus on the role of self-respect within a broadly Rawlsian system of justice. No doubt, the value of self-respect merits sustained attention itself, in particular as it relates to broader discussion of respect, dignity and autonomy that—as Dillon noted—have received relatively little attention. It is my hope that thie discussion presented here may contribute to the further development of a more far-reaching account of the relationship between self-respect, information, and technology.

On a practical level, it provides a theoretical foundation for further examination of the relationship between self-respect and information infrastructures. Understanding how different sorts of information infrastructures variously empower some individuals and groups by providing a secure foundation upon which to build a sense of their own value and disempower others by providing too slender a basis for a similar sense of self-respect is indispensible to assessing the justness of informational and technological systems. Though some ideas of the sociotechnical account remain underdeveloped—in particular, the notions of "informational disfigurement" and its connection to existing research on administrative violence—I have nonetheless tried to articulate a starting point for their further exploration.

Ultimately, whether one adopts a distributive focus typical of the standard account or a relational lens as emphasized by the sociotechnical account has an impact on the sorts of issues that emerge from an analysis of a platform like Google Books. On the standard account, Google Books appears to generally further the cause of social justice with regard to information by vastly expanding access to books that would be otherwise inaccessible to a wider public. In this sense, Google Books works to achieve a heightened

"egalitarianism of information." By contrast, the sociotechnical account's focus on the relationships mediated by Google through the development and design Books shows how the project fails to address issues of self-respect rooted in institutional position and opportunity, information work, and the immediacy of users' moral and political claims with regard to the value of information. Combined, these two accounts present a more complete—if mixed—moral exploration of Google Books as an infrastructure of in/justice. They paint a complicated picture of an information infrastructure that advances the cause of social justice, information, and technology in some ways, but might undermine it in others.

Or, recalling Mark's reflection, they reveal the how Google promises everything, but everything isn't there.

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of dataveillance. In A. Spink & M. Zimmer (Eds.) *Web search: Springer series in

information science and knowledge management, 14* (pp. 77-99). Berlin,

Germany: Springer-Verlag.

Zimmer, M. (2012). The ethical (re)design of the Google Books project. In *iConference

'12: Proceedings of the 2012 iConference* (pp. 363-369). Toronto, Canada: ACM.

Zimmer, M., & Hoffmann, A.L. (2011). Privacy, context, and oversharing: Reputational

challenges in a Web 2.0 world. In H. Masum & M. Tovey (Eds.), *The reputation

society: How online opinions are reshaping the offline world* (pp. 175-184).

Cambridge, MA: MIT Press.

Zink, J. R. (2011). Reconsidering the role of self-respect in Rawls's *A Theory of Justice*.

The Journal of Politics, 73(2), 331-344.

ANNA LAUREN HOFFMANN
Curriculum Vitae

School of Information Studies
University of Wisconsin-Milwaukee

hoffma89@uwm.edu // +1-(608)-520-6955 // annaeveryday.com

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EDUCATION

University of Wisconsin-Milwaukee
Ph.D. Candidate, Information Studies (in progress), 2009-present
Major Area: Information Policy and Ethics
Minor Area: Philosophy
Dissertation: "Google Books as Infrastructure of In/Justice: Towards a
   Sociotechnical Account of Rawlsian Justice, Information, and Technology"
Committee: Dr. Michael Zimmer (co-chair), Dr. Johannes Britz (co-chair), Dr.
   Sandra Braman, Dr. Wilhelm Peekhaus, Dr. Andrea Westlund

University of Wisconsin-Milwaukee
M.L.I.S., Library and Information Science, 2007-2009
Thesis: "Oversharing: A Critical Discourse Analysis"
Committee: Dr. Elizabeth Buchanan (chair), Dr. Johannes Britz, Dr. Michael
Zimmer

University of Minnesota-Twin Cities
B.A., English / Studies in Cinema and Media Culture, 2001-2005

Fundación José Ortega y Gasset – Buenos Aires, Argentina
Diploma, Latin American History and Culture, 2004

PUBLICATIONS

Britz, J., **Hoffmann, A.**, Ponelis, S., Zimmer, M., & Lor, P. (2013). On
considering the application of Amartya Sen's capability approach to an
information-based rights framework. *Information Development*, *29*(2), 106-113.
(*as Anthony Hoffmann*)

Thompson, H., Koepfler, J.A., Sydenham, K., & **Hoffmann, A.** (2013). Real
Talk: A toolkit for community engagement, transparency and mobile governance.
iConference 2013 Proceedings (pp. 729-732). (*as Anthony Hoffmann*)

Zimmer, M., & **Hoffmann, A.** (2012). Privacy, context, and oversharing:
Reputational challenges in a Web 2.0 world. In H. Masum & M. Tovey (Eds.),
The reputation society: How online opinions are reshaping the offline world (pp.
175-174). Cambridge, MA: MIT Press. (*as Anthony Hoffmann*)

PRESENTATIONS

Google Books as Infrastructure of In/Justice. Internet Research 14.0 – Association of Internet Researchers Conference. Denver, CO. October 2013.

"Mutual Connexions": Technology, Infrastructure, and the Scope of Social Justice. Annual Meeting of the Society for Social Studies of Science (4S). San Diego, CA. October 2013.

Just Things: Justice, Technology, and the Limits of Liberal Egalitarianism. 18th International Conference of the Society for Philosophy and Technology. Lisbon, Portugal, July 2013.

Rewiring Rawls: Towards a Sociotechnical Critique of Justice As Fairness, Oxford Internet Institute Summer Doctoral Programme, Oxford Internet Institute, University of Oxford, Oxford, UK. July 2012.

Rewiring Rawls: Social Justice, Technology, and the Information Society, The 4th ICTs and Society Conference: Critique, Democracy, and Philosophy in the 21st Century Information Society, Uppsala University, Uppsala, Sweden. May 2012.

The Social (Network) Contract: On Facebook, Persons, and Information Property,
The Midwest Interdisciplinary Graduate Conference, University of Wisconsin-Milwaukee, Milwaukee, WI. February 2012.

"Mutual Connexions": On Obligation and the Scope of Justice in the Information Society, Center for Information Policy Research Brown Bag Research Lunch, University of Wisconsin-Milwaukee, Milwaukee, WI. November 2011.

New Directions For INSEIT (panel presentation), Computer Ethics/Philosophical Enquiry, Milwaukee, Wisconsin. June 2011.

Me, not Mine: Facebook, Ontic Informational Beings, and the Problem with Information as Property, Connections 2011: The Great Lakes Information Science Conference, University of Wisconsin-Milwaukee, Milwaukee, WI. May 2011.

Me, not Mine: Facebook, Ontic Informational Beings, and the Problem with Information as Property, Theorizing the Web, University of Maryland-College Park, MD. April 2011.

I, Me, Mine: Facebook's Philosophy and Personal Information as Property, Internet Research 11.0 – Association of Internet Researchers Conference, Göteborg, Sweden. October 2010.

Rethinking Roles, Reinforcing Ethics: Intellectual Authority in the Digital Era, 95th Annual Convention of the National Communication Association, Chicago, IL. November 2009.

Oversharing: A Critical Discourse Analysis, Internet Research 10.0 - Association of Internet Researchers Conference, Milwaukee, WI. October 2009.

New Directions for Information Justice, Computer Ethics/Philosophical Enquiry, Corfu, Greece. June 2009 (w/ Dr. Keith Miller, UI-Springfield).

The Five WTFs, University of Wisconsin-Milwaukee OneWebDay Celebration, Milwaukee, WI. September 2008.

POSTER SESSIONS

Oversharing: A Critical Discourse Analysis, School of Information Studies Student Research Poster Session. University of Wisconsin-Milwaukee, March 2009.

RESEARCH ACTIVITIES

Selected Participant, *Doctoral Colloquium*, iConference, Berlin School of Library and Information Science. Humboldt-Universität zu Berlin, Germany, March 2014.

Selected Participant, *Values in Design Workshop,* University of California-Irvine. Irvine, CA, August 2012.

Selected Participant*, Oxford Internet Institute Summer Doctoral Programme*, Oxford Internet Institute. University of Oxford, Oxford, UK, July 2012.

Research Assistant, *Sustainability in the Curriculum Project*, Office of the Provost. University of Wisconsin-Milwaukee, 2011-2012. (w/ Dr. Sandra Braman & Provost Johannes Britz)

Project Assistant, *Internet Research Ethics Digital Library, Resource Center and Commons*. University of Wisconsin-Milwaukee, 2009-2011. (w/ Dr. Elizabeth Buchanan [PI], funded by the National Science Foundation)

Research Assistant, Center for Information Policy Research. University of Wisconsin-Milwaukee, 2007-2011.

Researcher, *Access to Libraries and Information: Towards a Fairer World*, IFLA/FAIFE World Report. University of Pretoria, South Africa, 2008. (Report available at: http://www.ifla-world-report.org/)

TEACHING EXPERIENCE

Instructor, *Introduction to Information Science & Technology* (INFOST 110), University of Wisconsin-Milwaukee. Online, 2013-2014.

Instructor, *Information Technology Ethics* (INFOST 120), University of Wisconsin-Milwaukee. Online, 2011-2013. Onsite, 2011-2012.

Adjunct Instructor, *Theories of Interactive Media* (ICM 501), Quinnipiac University. Online, 2010-2013.

Teaching Assistant, *Information Technology Ethics* (INFOST 120), University of Wisconsin-Milwaukee. Onsite, 2009-2011. (w/ Dr. Michael Zimmer)

Teaching Assistant, *Introduction to Information Science & Technology* (INFOST 110), University of Wisconsin-Milwaukee. Onsite, 2008-2009. (w/ Drs. Michael Zimmer & Thomas Walker)

FELLOWSHIPS AND AWARDS

Travel Grant, Center for International Education, University of Wisconsin-Milwaukee, 2009.

INSEIT Fellow, International Society for Ethics and Information Technology, 2008-2009.

PROFESSIONAL SERVICE

Graduate Student Representative, Executive Committee of the Association of Internet Researchers, 2013-2014.

Program Committee, *Computer Ethics / Philosophical Enquiry*. Milwaukee, WI, 2011.

Co-organizer, *Teaching Information Ethics in Africa*. University of Botswana, Gaborone, Botswana, September 2010.

Co-organizer, *Internet Research 10.0: Association of Internet Researchers Conference*. Milwaukee, WI, October 2009.

Co-organizer, *Thinking Critically: Alternative Perspectives and Methods in Information Studies*. University of Wisconsin-Milwaukee, May 2008

Editor/Designer, *Quarterly Newsletter for the International Society for Ethics and Information Technology*, 2008-2011.

ADDITIONAL COVERAGE

Milwaukee Journal Sentinel, Men's Health

PROFESSIONAL AFFILIATIONS

The Society for Philosophy and Technology (since 2013)
Society for Social Studies of Science (since 2013)
Association of Internet Researchers (since 2009)
International Society for Ethics and Information Technology (2008-2012)
National Communication Association (2009-2010)