

1-1-2017

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Recommended Citation

Cowden, Daniel (2017) "Spimes, Prosthetics, and Identity," *Datum: student journal of architecture*: Vol. 8 , Article 20.

Available at: <http://lib.dr.iastate.edu/datum/vol8/iss1/20>

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SPIMES, PROSTHETICS, AND IDENTITY

Daniel Cowden

This is about how a future society, in which prosthetics have been normalized and we are surrounded by spime objects, might claim the ability to construct identities which are both personal and physical. We will operate by assuming that being human requires having a physical component, an operational entity. In other words, the “body” is a fundamental part of who we are as humans. The definition of “body” includes a physical identity that is also operational. Spimes are relevant because they allow people to be more involved in the process of “making.” They are developed using an open source model, made possible with an all-capable design tool, and are informed by the vast amount of information they make available. Prosthetics are the site for intervention because they propose a radical new relationship of object and human. For the first time, humans have created physical objects which must be internalized. As a result of constructing the body with spimes, we may unlock a future where the production of identities is made very accessible.

LET'S GET ACQUAINTED

“The most important thing to know about Spimes is that they are precisely located in space and time. They have histories. They are recorded, tracked, inventoried, and always associated with a story. Spimes have identities: they are protagonists of a documented process. They are searchable, like Google. You can think of Spimes as being auto-Google objects.” (Sterling, SIGGRAPH)

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Other characteristics of spimes that are fundamental to this discourse include ones that are made using CAD and other rapid-prototyping methods that can design virtually anything.

IDENTIFYING THROUGH MAKING

The act of making is fundamental in order to identify. Everyone participates in this, not just experienced sculptors, architects, and render artists. Sure, artists are more in tune with this phase of creating identity, but we all participate in it when we put together outfits or layout the furniture for and decorate our apartment. The moment when objects internalize identity is when they are

being made. Making is not synonymous with fabrication: the making phase must be comprised of design, prototyping, and fabrication. How can we create a culture of objects where an intimate process of making is made accessible to more people?

Next, let's identify historic and current object-human relationships. It is clear that for the artisanal object it is the artisan whose identity is worked upon during making, but what identity is constructed when objects of mass production are made? Do these objects still internalize human identities? Interrogating Sterling's account of the history of human-object relationships, Sterling identifies four dominant classes of objects historically: Artifacts, machines, products and gizmos.

"The differences between [these objects] are found in the material cultures they make possible, the kind of society they produce, and the kind of human being that is necessary to make and use them. Artifacts are made and used by hunter-gatherers and subsistence farmers. Machines are made and used by customers, in an industrial society. Products are made and used by consumers, in a military-industrial complex. While Gizmos are made and used by end-users, in whatever today is – a 'New World Disorder,' a 'Terrorism-Entertainment Complex,' our own brief interregnum."
(Sterling, SIGGRAPH)

Artifacts construct individual identities of the artisan when they are being made. It seems that both machines and products construct the identity of the governments, corporations, firms, or other, singular, groups who can obtain the skills and resources to create objects and remain competitive in markets. Gizmos construct the identity of networks of the aforementioned "groups." They construct the identities of entire cultures in their making. The trend is clear: our objects are increasingly becoming expressions of the collective as opposed to the individual.

SPIMES

How do we create a culture of objects that allows us as individuals to identify more thoroughly through making? Spimes are a big step in the right direction. Spimes come after gizmos on our historical timeline of object-human relationships. Spimes are revolutionary because they are objects that advocate for the construction of individual identities. Spimes record and make available vast amounts of information and include a mechanism in them that always allows them to be connected to the internet.

Because of this, people can mine for data about spimes, about their lifespan and stories, about their specific version/design, its exposure to certain chemicals, and about how sustainable they are. This information is personal in an unprecedented way and it is all available as content for one to understand and design their personal spime with. The increased capacity for identifying through making derives from the “owner’s” increased access to information about his/her prosthetic. For example, if you knew about the manufacturing processes for all of your clothing you could design a composition based on this information. Whatever the hypothetical means of accessing it are (Sterling suggest RFID-chips) this is not a very radical vision. The internet has already revolutionized how information is collected, disseminated and processed. Sterling refers to the barcode and the internet as precedents for how this system will work.

The process of making spimes is also more accessible because it operates using a model similar to open source software. This means that anyone with the skills can work on its virtual model. For spimes, which are designed using computer-aided design software, the skills are easier to learn and more versatile. If it is not already the case that just about anything can be designed with CAD software, then the statement will hold true for CAD’s predecessor. The other necessary component of accessibility is a way to prototype and materialize ideas that are accessible at a similar level as it’s open source design. This idea is represented with the 3d printer. There has to be a way to create a workflow that can tap into both the virtual and physical states of spimes. Spimes facilitate the democratization of information, and make means of production, personal design decisions, and workflows more accessible.

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PROSTHETICS

Prosthetics are in a class of their own when it comes to human-object relationships. These are some of the first objects which are internalized by humans. Furthermore, they will evolve to do more than just replicate and replace.

“Instead of considering technology as external to the body and as extending and massively augmenting it, we can conceive that in fact our human bodies might look the same except that they are now recolonized by nanobots and nano sensors and in fact we probably need more surveillance inside the human body.” (Stelarc, Art, Design, Future of Man)

While Stelarc's "nanobot" prosthetics are literally internalized, the fact that they change our operational identities calls for their psychological internalization. They provide the body with new functions and new ways to be aware in the world. Once your body has acquired new functions it must learn new ways of acting, of performing.

SPIME PROSTHETICS

If spime prosthetics are made, a completely new relationship between object and human will be created. We will experience the internalization of an object which has already been internalized in it's making through the individual's own expression. Spimes are unprecedented in their capacity collect and make available amounts of information. All spimes will have internalized identity, but whose identity they internalize needs to be directed. Prosthetics have unique characteristics that call for them as objects to be internalized. They need to be internalized if they are to become our "body", and they will need to be if we are to embrace a cyborg type of existence. Thus, an opportunity is brought forth: the spime prosthetic. Our "body" is the frontier in which we can use spimes to construct personal identities in a commercial, capitalist society, through democratization of information and internalization of spime objects which rely on this information.

At last, if the means of production are made more accessible they will inevitably construct a culture which is in control of its individual identities. If the universal means of prototyping could also fabricate and these machines (represented by the 3d printer) become spimes themselves, the whole process could be completely autonomous. Couple this independence with the special object properties that prosthetics have and you could develop a "workout" that can build your synthetic body parts. Your spime 3d printer which has, as an object, internalized your identity becomes the machine for, as quickly as you can design, building your body. So, the prosthetic has now, on yet another level, internalized identity because it is fabricated by a spime. Ultimately, a cycle of body building that can work on your synthetic self is realized, resulting in a completely organic prosthetic.

"The body is as contingent as anything else that we do. We should be able to choose how we redesign our bodies." (Stelarc, Art, Design, Future of Man)