

AUPress: A Comparison of an Open Access University Press with Traditional Presses

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ABSTRACT

This study is a comparison of AUPress with three other traditional (non-open access) Canadian university presses. The analysis is based on the rankings that are correlated with book sales on Amazon.com and Amazon.ca. Statistical methods include the sampling of the sales ranking of randomly selected books from each press. The results of one-way ANOVA analyses show that there is no significant difference in the ranking of printed books sold by AUPress in comparison with traditional university presses. However, AUPress, can demonstrate a significantly larger readership for its books as evidenced by the number of downloads of the open electronic versions.

Keywords

Open access, University presses, Printed books, Readership

Introduction

This investigation compares Canada's first open access press, namely, AUPress with three other traditional Canadian university presses, which do not support open access at this time and whose editions are available only for purchase mostly in print format. AUPress, on the other hand, allows free downloading of its online edition under a Creative Commons, (Attribution-Noncommercial-No Derivative Works 2.5 Canada) licence and sells copies of its print editions. Open access is a model for scholarly publishing in which authors and publishers make their content freely available online with no requirements for authentication or payment. This analysis is based on actual physical book sales rankings on the largest online book retailer: Amazon.com and the Canadian version: Amazon.ca. Statistical methods are used to determine whether or not the traditional university presses show higher or lower sales rankings than the open press. This includes the sampling of the sales ranking of eleven randomly selected recently released books from each press on two occasions separated by three months in 2010 and one occasion a year later in 2011.

AUPress is Canada's first fully open academic publisher. Founded in 2007, Athabasca University Press (<http://www.aupress.ca/>) released its first book in 2008. As of June, 2011, AUPress had published more than 50 books, which it produces in both electronic and print editions. Standard PDF format is used for both. In addition, the Press has acquired seven open access scholarly journals and two scholarly websites. The AUPress Editorial Committee, along with external peer reviewers drawn from a wide range of academic institutions, together serve as an assurance that the AUPress publications maintain a high level of quality.

One goal of the AUPress is to redress a situation in which scholars in developing countries write books or journal articles for publication in the West that, for reasons of cost, neither their colleagues at home nor their own university's library will subsequently be able to access. It subscribes to the view that knowledge is not a commodity but should be freely accessible to all. Everything it produces is available on its website in the form of PDFs that can be downloaded, at no cost, by anyone who has an Internet connection, including classroom and elearning uses. The books are licensed through the Creative Commons, giving anyone the right to reproduce the content for noncommercial purposes, as long as they attribute the source and make no derivative works. This thereby overcomes the most of the restrictions posed by copyright. More recently, the University of Ottawa Press has announced an open access collection, so this could be the beginning of a trend among Canadian universities in support of open access (University of Ottawa, 2010).

Athabasca University, of which the AUPress is part, is an open university, dedicated to overcoming barriers to education. In keeping with the university's mission, AUPress cultivates research that pertains to distance learning and new educational technologies. It also focuses on publishing innovative and experimental works (including poetry and creative nonfiction) that challenge established ideas.

Literature survey

The OECD Centre for Educational Research and Innovation (CERI) has led in the promotion of open resources. It has identified several advantages supporting the use of open access materials. These include expanded access especially for non-traditional learners and promoting lifelong learning, bridging the gap between non-formal, informal and formal learning. The survey reports that institutions benefit by leveraging funding through free sharing and reuse of resources and improved quality (OECD, 2007). In addition, the IMS Global Learning Consortium has entered into a partnership with the Global Learning Resource Connection to enhance the discovery of educational resources, leveraging web technology to enable open electronic publishing (IMS Consortium, 2010).

Other open access proponents like Downes (2007, 2011) and Wiley (2007) stress the need for sustainability of open materials in terms of funding, technology and content. Downes describes several different such sustainability models that are presently in use: Memberships, Donations, Conversions, Contributor Pays, Sponsorships, Institutional, and Governmental. Wiley agrees and also adds other models such as the Sakai Platform model where universities collaborate and share resources, and the Volunteer model.

In addition, Antelman (2004) has revealed some evidence that open access articles have a greater research impact, primarily because of their increased accessibility. This greater impact factor enjoyed by open access publications is supported by research conducted by Harnad and Brody (2004), who claim that OA dramatically increases the number of potential users of any given article.

Nicholas, Rowlands, Clark, Huntington, et al. (2008) conducted “the biggest survey of its kind” on the use of scholarly ebooks. Surprisingly, the investigation showed that there was already a major penetration of ebooks in academia. Their study discovered that academics and students of every age group do read online “with alacrity” and they do not read whole books, but rather bits of them. This rather explains the propensity of the majority of readers accessing the AUPress website, who choose chapters rather than whole books for download.

This survey was followed up by a JISC Observatory (2009) study that determined that ebooks had no conclusive negative impact on UK print sales. Moreover, Hilton III and Wiley (2010), in their comparison of free ebooks and traditional sellers, saw sales gains after the free versions were released. This was in contrast to their initial hypothesis that book sales would decline. Their research demonstrated that a correlation exists between a free ebook and increased print sales. This study on Amazon rankings was designed to provide complementary data to either support or refute these hypotheses.

In addition, Eysenbach (2006) concluded that open access articles are more immediately recognized and cited by peers than non-open access articles. This finding was supported by Donovan and Watson (2011), who confirmed in their study that open access improves an article’s research impact noting that open access articles “can expect to receive 50% more citations than non-open access writings of similar age from the same venue.”

Amazon sales ranking

The Amazon sales ranking number is provided as a service for authors and publishers and can be one reasonable gauge of the number of printed books purchased. The ranking provides a relative measure that is useful for assessing a book’s sales performance on Amazon. The lower ranking number of a particular book can be interpreted as signifying higher sales. Two ranking lists were studied, based on both Amazon.com and Amazon.ca sales, which are updated each hour to reflect recent and historical sales of every book sold on the respective web sites. For competitive reasons, Amazon does not release actual sales information to the public, so very few, if any people outside of Amazon know the actual sales numbers (Amazon, 2010).

Significantly, this rating does not apply to Kindle books that have been increasing rapidly in sales volume (Rosenthal, 2010). The introduction of the Kindle, iPad and other ebook readers and tablets are beginning to have an enormous impact on electronic and print book sales. Amazon is now selling more electronic than print books (Allen, 2009; TechBuzz, 2010). As the electronic publishing industry matures, it will be increasingly important to research the effects of the free distribution of electronic books. Meanwhile, their rankings refer to printed book sales only.

Rampant Tech Press (n.d.) and Sampson (2010) have independently ventured to extrapolate the sales to a ranking order. They have come up with similar information displayed on the following table (Table 1).

Table 1. Rank Number relation to sales (Rampant Tech Press, n. d.; Sampson, 2010)

Rank #	Rampant Press Copies Sold/day	Sampson copies per week
> #1	3000	> 1,000 copies per week
> #10	650	200 – 1,000 copies per week
> #100	100	100 – 200 copies per week
> #1000	13	10 – 100 copies per week
> #10,000	2.2 (11 copies every 5 days)	1 – 10 copies per week
> #100,000	0.2 (1 copy every 5 days)	< 200 books sold
> #1,000,000	0.006 (3 copies every 500 days)	< 40 books sold
> #2,000,000	0.0001 (1 copy every 1000 days)	1 book ordered

Rosenthal (2010) also provides similar estimates, noting that the lower ranking books (those with a higher ranking number, (>#100,000) move comparatively little in their ranking as opposed to rather erratic movements in the best sellers (<#10,000). He notes that weak sellers decay relatively slowly. He observes that a title must sell at least one copy a year to remain above a rank of two million. As most academic books never reach the lowest rankings, they are with a few exceptions, to be considered “weak sellers” (>#100,000).

Sampson (2010) notes that the Amazon rankings provide only marginal sales data that are rough estimates at best. On the other hand he claims that the relative sales ranking can be useful for comparisons among books. Books with rankings between #10,000 and #100,000 are recalculated once a day; historic sales information plays a key role in these calculations. However, with books ranking higher than #100,000, which are also recalculated every day, history takes a back seat.

Methodology

Stratified sampling is a common probability method that is considered to be better than random sampling because the stratification reduces sampling error. The relevant stratum in this case was a subgroup of books published between 2008 and 2010. This was necessary because the targeted population consisted of AUPress books. As AUPress is new, it only had published books in those years. Random sampling was then used to select a reasonable number of samples (n=11) from each publisher. This provided the researchers with confidence that the strata represented each population reasonably well and accurately represented the overall publications in the years under investigation. Limiting the other presses to a subgroup made up of their most recent books published ensured a fair comparison with the new AUPress.

The sampled publications were then investigated to determine their ranking order on both Amazon.com and Amazon.ca. It was considered appropriate to investigate both “stores” as it was expected that Canadian scholarly publications would be relatively better sellers in Canada than internationally. The survey was also conducted on three dates separated, the first two separated by three months and the last by one year (January and April, 2010 and April, 2011). This date separation is recommended to get more trustworthy ranking numbers as the numbers can be skewed drastically if measured on any one occasion (Rosenthal, 2010; Shepard, 2010; & Sampson, 2010).

The investigation

The investigation aimed to determine whether or not there was a ranking difference between the ranking of the books in the open press and any of the traditional presses. AUPress (AUP) which is the open access university press was compared to the following three traditional presses: University of Toronto Press (UTP), University of Calgary Press (UCP) and University of Alberta Press (UAP) in terms of sales ranking of these presses from Amazon (amazon.ca & amazon.com).. The aim of the study was to determine if there is a significant difference between the open access press and the traditional presses using the mean sales rank.

The **Null Hypothesis** was posited that the mean sales ranks of AUP, UTP, UCP and UAP are equal. This was tested by the ANOVA analysis against the **Alternative Hypothesis** that the mean sales ranks of AUP, UTP, UCP and UAP are not equal.

The Amazon.com and Amazon.ca ranking results for these four university presses are available in the following Tables 2 and 3 for January, 2010; and Tables 4 and 5 for April, 2010.

Table 2. Rankings from Amazon.ca, January 2010

Athabasca University Press	University of Toronto Press	University of Calgary Press	University of Alberta Press
57,105	227,397	422,660	154,521
198,141	119,746	111,002	355,812
239,621	46,419	396,751	424,099
98,969	56,934	561,944	246,631
101,707	201,532	683,365	169,208
225,921	227,397	1,195,769	65,710
145,839	249,305	237,886	60,384
488,360	477,072	421,807	83,253
80,031	283,831	270,707	91,869
408,713	419,100	388,270	267,048
122,315	332,398	787,757	197,166

Table 3. Rankings from Amazon.com, January 2010

Athabasca University Press	University of Toronto Press	University of Calgary Press	University of Alberta Press
1,260,279	2,393,121	3,124,635	1,290,317
705,438	3,337,710	160,272	3,428,847
1,062,251	1,190,429	1,048,357	4,068,647
1,765,283	735,372	1,797,624	776,928
2,940,755	2,992,991	647,557	1,365,207
4,472,042	2,393,121	3,076,338	999,705
1,086,172	1,483,875	724,521	334,671
1,712,101	2,376,571	4,938,289	2,865,188
2,637,674	2,248,576	4,312,491	4,205,723
2,087,648	618,051	3,634,196	8,581,611
1,068,800	1,654,718	2,006,625	3,419,384

Table 4. Rankings from Amazon.ca, April 2010

Athabasca University Press	University of Toronto Press	University of Calgary Press	University of Alberta Press
168,692	123,953	211,059	518,411
198,349	147,143	292,372	285,057
265,556	210,104	151,690	456,564
157,685	96,042	616,459	262,456
168,185	278,407	762,310	503,667
161,030	123,953	464,457	190,884
381,654	312,514	240,932	8,851
530,916	233,513	454,194	230,104
314,160	400,998	88,945	207,242
437,952	216,795	349,672	155,859
130,555	351,933	887,941	183,728

Table 5. Rankings from Amazon.com April 2010

Athabasca University Press	University of Toronto Press	University of Calgary Press	University of Alberta Press
2,118,462	2,604,504	3,351,468	338,028
2,857,528	590,544	489,905	4,967,211
1,079,861	1,165,025	474,650	4,378,205
184,133	723,673	851,699	695,601
4,945,041	2,887,859	2,498,913	200,399
4,871,260	2,604,504	759,218	1,949,501
1,432,406	1,498,134	888,175	1,008,402
1,754,331	2,752,047	1,208,738	3,069,183
2,855,897	2,398,991	4,647,516	4,525,754
1,236,135	855,558	3,918,130	4,067,474
664,396	1,696,327	1,989,543	3,672,513

By merging the rankings of Table 2 to Table 5, a total of 44 data sets for each of the press were used for the data analysis. Table 6 shows the mean, standard deviation and standard error of all the four university presses.. One-way ANOVA was then used to test if there is any significant difference among these four presses. The result (Table 7) shows there is no significant difference $F(3,172) = .761, p = 0.518$, therefore the Null Hypothesis cannot be rejected. This implies that academic books on open access do not lessen printed book sales online in comparison with traditional university presses.

Table 6. The Mean, Std Deviation and Std. Error

Presses	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
AUP	44	1133622	1310647	197587	57105	4945041
UTP	44	1053141	1029137	155148	46419	3337710
UCP	44	1285155	1369355	206438	88945	4938289
UAP	44	1484705	1920836	289577	8851	8581611
Average	44	1239156	1407494	212188	50330	5450663

Note: AUP: Athabasca University Press, UTP: University of Toronto Press, UCP: University of Calgary Press, UAP: University of Alberta Press

Table 7. One-way ANOVA Analysis Results

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.759e ¹²	3	1.586e ¹²	.761	.518
Within Groups	3.587e ¹⁴	172	2.085e ¹²		
Total	3.635e ¹⁴	175			

AUPress book downloads

In the six months prior to this survey first being conducted, there were a total of more than 24,000 chapter downloads, of which more than 9,000 were full books. The average total number of downloads was 2,000 and the full book average was over 700. The median download rate for full books was 226 and the total downloads median was 798 (including chapters). Some of the more popular scholarly books, particularly those in the elearning field, had more than 2,000 full book downloads and over 6,000 total downloads (including chapters) as shown in Table 8.

Table 8. Six Month Book + chapter downloads at AUPress

Books	Aug'09	Sep'09	Oct'09	Nov'09	Dec'09	Jan'10	Total	Full Books
A	98	105	166	193	117	119	798	333
B	73	55	75	51	86	76	416	38
C	93	90	141	114	75	94	607	69

D	34	19	60	46	32	32	223	19
E	832	1439	1326	1158	818	1335	6908	2376
F	67	23	78	44	12	17	241	58
G	68	43	135	205	100	140	691	137
H	897	1090	1960	1642	1447	1447	8483	4439
I	144	137	220	219	161	92	973	226
J	93	110	134	166	113	90	706	156
K	182	127	249	160	267	124	1109	311
L	36	218	306	261	186	215	1222	257
M	0	606	506	299	209	255	1875	798
Total	Ave/book	1886	Full book	Ave:	709	Total	24522	9217

- all requests made by known robots and spiders have been excluded from the download counts
- If multiple requests come from the same visitor in a relatively short period of time (a few hours) FOR THE SAME FILE, the requested is counted as a single request

AUPress books and chapters have been downloaded by scholars and other users in more than sixty different countries. As expected the largest numbers of downloaders (more than 50%) are from Canada and the USA, but more than 33% of the other downloaders were from developing countries (2314). Others were from the emerging countries of eastern Europe (385). Several books have also won distinguished international academic awards and have been reviewed and cited in leading scholarly journals. So, open access scholarly publications can claim a much higher and more global readership than traditional publications. The Amazon ranking data suggests that, at least in one measure, open access books sell as well as traditional press books, and the large number of downloads of open access books point to a significant advantage over traditional publications in terms of total number of readers.

Conclusion

Results suggest that there is no significant difference in the Amazon rankings. This suggests that releasing academic books on open access does not lessen printed book sales online in comparison with traditional university presses using Amazon.com and Amazon.ca rankings. On the other hand, AUPress, because it is open access and publicly available at no cost, can boast of having a significantly larger readership for its books. The traditional university presses, because of their cost, print-only format, and other proprietary limitations are not readily available and therefore not accessible to many potential readers.

As has been noted, the introduction of the Kindle, iPad and other eBooks and tablets are beginning to have an enormous impact on electronic and print book sales. As the electronic publishing industry matures it will be increasingly important to research the effects of the free distribution of electronic books. Nevertheless, the results of this investigation must be viewed with some caution. These results cannot be easily generalized to other book sales. Causation has not been proven. In addition, the wide differences among the rankings of individual books were not factored into this study. As more open access presses are established, a larger sampling pool should be attempted to determine whether or not there is a more robust relationship between relative ranking of the different books and the impact of open access publishing.

Publishers are very reluctant to provide book sale numbers to researchers, so unfortunately this study could not address other sales. So, we were not able to determine actual sales, nor could we factor in the sales to university libraries, which are major purchasers of academic books. However, this is changing as Amazon and other online booksellers are becoming more convenient sources for purchases. Future analysis needs to be done to determine whether open access total book sales and library book sales are significantly different.

Traditional publishers have argued that open access publication will inevitably undercut sales of printed books and is thus inherently unsustainable. The experience of AUPress suggests otherwise. Like all university presses, AUPress receives funding from its parent university. But, to support its open access program, the Press also earns revenue from the sale of its books, both in traditional print format and as enhanced electronic files (Universal PDFs or epub files). The latter are currently purchased chiefly by libraries, which, for reasons of convenience, prefer to acquire

new titles through ebook vendors who represent a wide array of presses. Even when a book's content is available for free online, many individual readers still choose to purchase print. In addition, online publications are more readily discoverable, which increases the number of potential customers and thus serves as a marketing tool.

Moreover, there is the significant added advantage as shown in this paper, namely substantially increasing readership, even in developing countries, of scholarly books that are made available on line. To date, the AUPress's books have been accessed more than 120,000 times by learners. This aids scholars in their obligation to disseminate their research and can contribute significantly to their citation by other researchers who have open access to their ideas.

Although this study has focused on the Amazon ranking related to print sales, institutions could also benefit in other ways unrelated to actual sales. For example, the wider dissemination of knowledge not only serves to extend a university's research mandate, but it also provides positive publicity among learners around the world. This can be very valuable in enhancing the university's reputation and possibly increasing enrollments.

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Appendix

AUPress Book Description

	Author/Editor	Title
A	Brink	<i>Imagining Head Smashed In</i>
B	Karras	<i>Northern Rover</i>
C	Carter	<i>Importance of Being Monogamous</i>
D	Jameson	<i>One Step over the Line</i>
E	Anderson	<i>Theory and Practice of Online Learning</i>
F	Atkinson	<i>Making Game</i>
G	Foran	<i>Expansive Discourses</i>
H	Ally	<i>Mobile Learning</i>
I	Smith	<i>Liberalism Surveillance and Resistance</i>
J	Perry	<i>More Moments in Time</i>
K	Allan	<i>Bomb Canada</i>
L	MacDonald	<i>Beaver Hills</i>
M	Power	<i>Designer's Log</i>

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