On-Demand Publishing and Scholarship

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Abstract

On-demand publishing (also called self-publishing) has become very prominent as an alternative to the more traditional form of publishing. Can and should it count as scholarly work? What is it like publishing academic work via on-demand publishing? Is it worth the effort? This paper addresses these questions from the perspective of someone who has been through the experience. The paper proceeds with five sections. Section 1 addresses the issue of what academicians mean by the term *scholarship* or *scholarly work*. Section 2 provides an experiential description of publishing via this medium. Section 3 then addresses the question of whether academic work published via on-demand publishing can or should be regarded as scholarship. Section 4 discusses the issues one should consider before attempting to write and publish a textbook (via on-demand publishing or any other means). Finally, section 5 provides a summary and some concluding remarks.

Keywords: On-demand Publishing; Scholarship

1. Introduction: What is Scholarship?

On-demand publishing (also called self-publishing) has become very prominent as an alternative to the more traditional form of publishing. Can and should it count as scholarly work? What is it like publishing academic work via on-demand publishing? Is it worth the effort? This paper addresses these questions from the perspective of someone who has been through the experience.

First, let us examine how a few common dictionaries define the term *scholarship* or *scholarly work*. The on-line Webster Dictionary [Webster n.d.] defines *scholarship* as the "character, qualities, activity, or attainments of a scholar." It defines *scholar* as a "learned person, or a person who has done advanced study in a specified field." Finally, it defines *scholarly* as something that is "characteristic of, or suitable to learned persons." The online resource The Free Dictionary [Free Dictionary n.d.] and the American Heritage Dictionary [AHD 1991] both define *scholarship* as "the methods, discipline, and attainments of a scholar or scholars; knowledge resulting from study and research in a particular field." Finally, the online resource, [Your Dictionary n.d.] provides three alternate definitions: "standard of academic work; the systematized knowledge of a learned person, exhibiting accuracy, critical ability, and thoroughness; the knowledge attained by scholars, collectively."

These definitions all seem to convey a consistent theme about scholarship or scholarly work. Drawing from them, we may note that scholarship includes the following:

- Advanced research/study in a specific field
- Work resulting from advanced research/study that exhibits features such as quality, accuracy, critical thinking, and thoroughness
- Knowledge and attainment of scholar(s)

Traditionally, institutions of higher learning have pegged faculty evaluation and promotion to three fundamental tenets — teaching, service to the institution, and scholarship. While the first two areas are well understood, it appears that there are varying standards as to what institutions look for in the area of scholarship. Moreover, it appears that many institutions hold to a very narrow definition of scholarship to mean publication through a traditional publisher or peer-reviewed journal. This disconnection between the mainstream view of scholarship (as articulated in common dictionaries), and the traditional interpretation supported in many institutions of higher learning, sometimes result in a confrontation of ideas.

Since the mid-1990s, there has been some pushback on the traditional approach to scholarship that is embraced by many institutions, and a call to view scholarship in a more realistic and holistic way. One example of this is a paper by Arthur Dirks [Dirks 1998]. In this paper, Dirks makes the observation that looking at scholarship only in the historical sense is too limiting, and argues in favor of a "redefinition." The paper draws on the work of Charles Glassick (see [Glassick 1997) and Ernest Boyer (see [Boyer 1990]), who both propose that scholarship should be viewed on a wider spectrum that may be summarized by four intertwined dimensions:

- Discovery: The conduct of advanced research or study in order to gain additional insight or competence in a particular field
- Integration: The development of different perspectives on existing work
- **Application:** The application of acquired knowledge to solving complex problems
- Teaching: The effective preparation and dissemination of information to induce learning on the part of the recipients

Since Boyer's work was published, it has gained some traction in the academic community. One example of this is the American Historical Association's 1993 statement on the issue [AHA 1993]. This association has adopted the above-mentioned Boyer model for scholarship, and expanded it to suit the discipline of history. Additionally, the AHA argues that other disciplines should take a similar approach and redefine scholarship based on the idiosyncrasies of the discipline. A similar motion of scholarship redefinition is taking place in other disciplines such as health care, radiology, library and information services, and business ethics (for instance, see [Smith 2001], [ACRL 1998], and [McFarlane 2003]).

Kathleen Fitzpatrick takes a different but useful perspective to the issue. She highlights the absurdity of failing to recognize contemporary knowledge resources such as Wikipedia, and other alternate means of publishing, while such alternatives continue to characterize life in the 21st century [Fitzpatrick 2009]. She goes on to propose an *open peer-to-peer review* process, where a community of scholars determine the relative value of works in their respective fields. This she argues would often be a more useful alternative to the traditional peer review by a few individuals. She describes the traditional approach as a "gate-keeping process" that though understandable is not always as enlightening.

While the thrust to redefine scholarship in various professional disciplines is understandable, it does not appear to be the most prudent option. Each attempt to "redefine" scholarship appears to essentially endorse the Boyer model, which incidentally, is consistent with major dictionary definitions of the term. What is required is recognition by institutions of higher learning that the narrow traditional interpretation of the term is no longer adequate. The required corrective measure is to recognize scholarship in the true sense of the word.

Based on the Boyer model and the various discussions on and around scholarship, here is a proposed working definition of the term: Scholarship is the demonstration of professional acumen at an advanced level in areas including intellectual curiosity and rigor, knowledge inquiry and exploration, knowledge integration, knowledge application, and teaching excellence. Scholarship has always been, and will continue to be multidimensional. It should not be boxed in by narrow individual perceptions due to limited experience.

In the absence of a universally accepted standard, each institution of higher learning needs to clearly define and clarify what it means by *scholarship*. In the interest of transparency, this information should be articulated in a policy document that is readily available to all affected stakeholders. This is particularly important in situations where scholarship is one area in which faculty members are evaluated for promotion and tenure.

2. Experiential Account of On-Demand Publishing

The moment I made the career switch from a software engineer and information technology (IT) consultant to a computer science (CS) educator, I did so with a strong resolve to make a significant contribution in the training and production of better CS professionals. This motivation prompted me into researching and preparing detailed lecture notes that would give students their best chances at success, and in the long term benefit others even beyond the reach of the classroom. This has further led me to treat each CS course that I teach as a project with not just short term objectives, but long term objectives of providing a useful information resource for my immediate students, as well as other students yet to be reached.

Five years ago, in conversation with the chief editor of a major publishing company, I told him about my manuscripts. He suggested to me that in view of the high level of competition in the field of CS, the best way to get my manuscripts published as textbooks was to work in stages, starting with an ondemand publisher. I conducted a research of the major on-demand publishing firms, and came up with a

shortlist of four, from which I selected one as the company that I would work with to get my manuscripts published. Being completely naïve to the herculean task I was about to embark on, I signed up for the publishing of four manuscripts — two textbooks (one in software engineering, and the other in database systems), and two community outreach books. The rest of this paper is based on my experience in the preparation of the textbooks. For the first 3 years, my work on these projects was done primarily in the summer and winter breaks. However, during the latter 2 years, my work intensified into an all-year effort, with more heightened focus in the summer and winter breaks.

2.1 Manuscript Preparation

The first phase in the journey to the publication of a textbook is the preparation of the manuscript. It is the first of several difficult steps. In order for a textbook to be credible, it must meet a number of criteria. These include (but are not confined to) relevance, accuracy, comprehensive coverage, reader-friendliness, and uniqueness. Let us briefly examine each criterion.

Relevance: Your textbook must relate to a specific problem domain or subject area. Choosing the problem domain can be tricky. Your problem domain must be based on an observed need that you have identified. If you choose a problem domain that is too large or complex, you may never complete a textbook that will be useful. On the other hand, if it is too narrowly defined, your work will not be taken seriously. Traditionally, textbooks have been based on courses that have been taught, or new courses to be taught. However, you may also adopt a multi-course or inter-course approach. Whatever the approach, it is imperative that your work be relevant to the identified problem domain.

Accuracy: Textbooks are not written for private use, but public use. It is therefore imperative that the materials covered are firmly grounded in established theories, concepts, principles, and methodologies. As author, you may also introduce new ideas provided that you are satisfied that enough experimenting and testing have been conducted to verify that such ideas make sense, and their application will not lead to unfavorable results. In short, the book must be authentic. Inaccuracies will significantly thwart the achievement of this objective.

Comprehensive Coverage: The text must cover the problem domain adequately. This means that the author must be well read, and well-informed about what various other experts have contributed to the field of interest.

Reader-friendliness: The text should be easy to read. All new terms must be clarified; unnecessary use of difficult language should be avoided. Additionally, creative implements that enhance learning should be used.

Uniqueness: Your manuscript must be unique. If it is just a replication of what other authors have done, then it is not needed. It must bring something new to the related field and problem domain. Of course, if you do not know what others have done, then you will not be in a position to make a credible introduction of something new and refreshing; hence the need to be well-read in the related problem domain.

As you prepare your manuscript, you should be guided by these factors. For increased flexibility, I have found it convenient to organize the chapters of each manuscript the way I would like to see the course taught, and to treat each chapter as a separate document. However, bear in mind that most publishers will require you to merge all chapters into one document, with separate file(s) for figures, diagrams, and other illustrations. Knowing this information up front will help you to be more organized in your manuscript preparation. This whole process may take you several years. Amassing knowledge about the contributions of multiple authors, assimilating that information, formulating your own approach to the subject matter, and articulating it well, will not happen overnight. In my case, I have

been refining my lecture notes and testing them on students from various countries, ethnicities, and cultural backgrounds, for over 13 years.

The final step in the manuscript preparation is its transformation into a format that is acceptable to the publisher. Different publishers have different formatting standards, so you simply need to follow the guidelines provided. This rather mundane activity can be quite time consuming, especially if you were not very organized in preparing the manuscript.

2.2 Manuscript Refinement

The second phase in your textbook publishing journey is the manuscript refinement phase. If you are working through an on-demand publisher, this phase is particularly challenging. The reason for this is that on-demand publishers do not provide you with experienced editors/authors to review and critique your work in the way that traditional publishers do. You will have to find suitably qualified individuals who have the stomach for this kind of activity on your own, and convince them to fulfill this role. In my case, after several attempts, I was fortunate to put together a manuscript review panel of five experts who agreed to provide me with feedback on my manuscripts. Two of my reviewers were professors at reputable institutions, who had themselves published textbooks in my areas of interest; two were practicing software engineers; the fifth person was a software auditor with background and training in software engineering. In the interest of integrity, the reviewers did not know of each other's roles (two of them knew each other, but did not know that they were both invited to participate; the other three were complete strangers who to date, have never met each other).

Working with these experts was a most rewarding experience. For 2 years, they provided me with critical evaluations of several drafts of the manuscript in each area. On occasions, I was challenged to research new areas and include them in the manuscript. On other occasions, I was challenged to revise chapters and sections of chapters. In the end, what resulted were two manuscripts that had been through several iterations of refinement in order to satisfy the probing eyes of five experts who did not know of each other's work or role on the project. When finally, it was observable that their comments on the quality of the work were converging, it was encouraging that the manuscripts had emerged from the rigors of criticism in much better shape than they previously were.

2.3 Manuscript Editing

After refining the manuscript, it is submitted to the publisher for editing. In the editing phase, your manuscript is reviewed for consistency, clarity, correct grammar, coherence, and other related issues. The deliverables from this process are the revised manuscript with editorial changes, an editing report explaining the changes, and a list of other recommended changes. Depending on how thorough the manuscript preparation was, this list could be quite long.

You are then required to carefully consider each change or recommended change, and determine an appropriate action. As the author, you have the option of accepting or rejecting each editorial change, and accepting or ignoring each editorial recommendation. This process can be another time-consuming exercise, depending on the size and complexity of the manuscript, and the number of changes and/or recommendations to be considered. Remember, blatant editorial mistakes reflect badly on the author as well as publisher, so you really want to focus on eliminating these glitches (the truth is, these typos have a way of showing up in major textbooks, so be extra careful).

At the end of this editing phase, you will obtain a manuscript that has been through several rounds of refinement. At this point you also will be required to submit all required accompanying documents (cover design, index terms, finalized illustrations, entries for table of contents, etc.). These documents will be used by the publisher to prepare your manuscript for production.

2.4 Further Manuscript Transformation

The refined manuscript is taken by the publisher and passed through a process called typesetting. This may take 1-3 months (bearing in mind that yours is not the only manuscript that the publisher is processing). During this period, the publisher also secures an ISBN number and Library of Congress (LOC) number for your book. The primary deliverable from this process is what is called a galley or layout of the book — a PDF file that contains the internal layout with the pages shown in exactly the way they will appear in the printed book. You will also receive additional PDF files with the cover design and other marketing-related resources. Each of these items will need careful verification.

2.5 Proofreading

The proofreading phase is perhaps the most tedious phase in the journey of textbook publication. Among the items to be checked are the cover design, the book's internal layout, and the marketing materials (book mark, business card, poster, post card, web site, press release narrative, and e-mail narrative). Refinement of each of these resources could take several iterations.

The most time-consuming activity during this phase is proofreading the book's internal layout. As the author you should check the layout line-by-line, to ensure that it is consistent with the final version of the manuscript. Any encountered inconsistency or mistake must be reported. Additionally, during this period, you may make additional changes to the manuscript, and request that these changes be reflected in the layout. In the dynamic field of computer science, where technologies and methodologies are constantly in a state of revision or replacement, revision of the manuscript is inevitable with each year that its publication is delayed.

Proofreading may take anywhere between 6 months and several years. In my experience, proofreading for my two books went on for a period of 2 years. During this period, I took the opportunity to continue getting professional feedback from my manuscript review panel, and made several revisions to ensure that the final products remained relevant and representative of prevailing theories, technologies, and methodologies in the respective fields. All told, each manuscript went through a total of 18 iterations.

2.6 Book Production

Once the book layout and the accompanying resources are approved, the book goes into production. As the author, you get the opportunity to see an actual draft of the book before anyone else. You get the chance to proofread it one final time, make additional revisions or corrections, or approve it. Once the approval is given, the book is then finalized, printed, and goes into the public domain.

2.7 Book Review Campaign

During the initial entry of your book into the public domain, your on-demand publisher will launch a book review campaign as part of the marketing strategy. As part of this campaign, the publisher will invite a selected number of experts to review your book, and send their reaction back. You will be provided with a copy of each book review report, which you can use to further revise your book for the second edition. During this period, you are also encouraged to invite mainstream traditional publishers to consider your book for adoption.

2.8 Second Edition

If you have taken the meticulous steps to ensure that the first edition of your book is of a sufficiently high quality, this increases its chances of gaining the attention of a mainstream traditional publisher. This gives you an opportunity to further refine your manuscript as you work towards your book's second edition. Having travelled the difficult and treacherous road of on-demand publishing, you are likely to find this experience much more enjoyable and less stressful. The reason for this is twofold: firstly, the traditional publisher will provide a lot of the services that you previously had to provide yourself; secondly, the traditional publisher will also do a lot of the legwork and marketing that you previously had to do on your own.

3. Can On-Demand Published Work be Recognized as Scholarship?

Can and should work published through on-demand publishing qualify as scholarship? The answer to this question is, it depends on what the work is, and the process through which that work was passed. If as a CS professional, you decide to write a book expressing you opinions about beautiful women, crocodiles, or flowers, and such opinions are unsubstantiated by facts or empirical evidence, then that work may not be regarded as scholarship. Such work might be useful, and might even find lucrative resonance from the consuming public. However, it would be difficult to qualify such work as scholarly.

But what if the work is more serious than unfounded opinions on beautiful women or flowers? A reexamination of the discussion in section 1 reveals that scholarly work is characterized by the process followed, and the quality exhibited. It is not defined by the name of a publisher (though it is true that certain publishers are known for the quality of their products). If an author chooses to publish a work by meticulously going through the process described in section 2, and produces a high quality product that makes a significant contribution to his/her field, then clearly this qualifies as scholarly work. It would therefore be irrational to refuse to recognize it as such. That would be equivalent to the proverbial act of "throwing the baby out with the bath-water."

To be more specific, once a work shows evidence of having survived the rigorous phases of knowledge inquiry, knowledge exploration, knowledge integration, knowledge application, documentation, professional scrutiny, and dissemination, to emerge as a product of high quality, such a work has fulfilled the requirements to be classified as being scholarly.

Institutions of higher learning are predominantly traditional organizations, so it is natural that there is a tendency to cling to traditional practices. However, in this matter, it is clear that the Boyer model for scholarship is more accurate and realistic than the more traditional perspective. On-demand publishing is part of life in the 21st century, and there is no indication that this will cease to be the case in the foreseeable future. Apart from its obvious economic benefits, on-demand publishing forces the author to take responsibility, and be accountable for his/her work. This could lead to an improvement in quality of the published work from the serious author.

4. Is On-Demand Publishing For You?

Recently I was talking to a colleague, and he was telling me that in his field, traditional publishers are often begging college professors to submit manuscript proposals for consideration. I smiled, and explained to him that in CS, it is the opposite: traditional publishers may review your proposal, but in many cases, you have to be prepared to join a long queue, or be shut out by the competition (see [Fitzpatrick 2009]).

Is on-demand publishing for you? That depends on your passion, persistence, willingness to work extremely hard, and level of confidence in your work. These factors are critical; each deserves a bit of clarification.

Passion and Persistence: In order to publish a textbook, you really need to be strongly passionate about knowledge inquiry, exploration, integration, application, and dissemination. In developing this passion, you also need a certain persistence that does not accept *no* or *can't* as a viable answer to probing question about possibilities. Passion and persistence are what influenced the invention of the printing press and the advancement of the publishing industry (for example, see [Ament 2007] and [Putnam 1898]); they continue to characterize publishing today.

Attitude to Hard Work: Writing a textbook is an extremely difficult undertaking. It requires you to read extensively on the subject matter, and to formulate your own approach to the materials covered. It requires a certain amount of discipline, patience, and attention to detail that is rare. The vast majority of educators do not ever attempt this feat in their lifetime. If it was easy to do, the statistic would have been different. If you are going to take this challenge on, you must be prepared to work very hard over an extended period of time; and you must be prepared to reject some discouragements against the pursuit of this objective.

Confidence in Your Work: The third criterion needed for writing a textbook comes in part as a consequence of the two earlier-mentioned criteria. Driven by your passion, and your attitude towards hard work, you must have confidence in your ability to do whatever is necessary to achieve your objective of producing a work of high quality.

Armed with an adequate dosage of these three criteria, you need to assess whether it is more feasible to initially target a traditional publisher, or an on-demand publisher. In my situation, I made the judgment that the latter approach was the more prudent alternative. I am glad I did, because of the ways I have benefitted from the experience. I have learned so much, now I can share a snippet in this paper.

5. Summary and Concluding Remarks

This paper starts out by examining what is meant by the term *scholarship* or *scholarly work*. It makes the observation that there is an apparent difference in interpretation between the mainstream view of scholarship, and the more narrowly defined traditional view supported by many institutions of higher learning. It highlights the ongoing effort to resolve this dichotomy.

The paper moves on to describe the process of textbook publication via on-demand publishing from the perspective of someone who has experienced it. The paper makes the observation that scholarly work is characterized by the process followed, and the quality exhibited. It then makes the argument that once a work shows evidence of having survived the rigorous phases of knowledge inquiry, knowledge exploration, knowledge integration, knowledge application, documentation, professional scrutiny, and dissemination, to emerge as a product of high quality, such a work has fulfilled the requirements to be classified as being scholarly.

Finally, the paper provides some basic guidelines for upcoming authors. It argues that in order to be a successful author, one needs to possess passion, persistence, willingness to work extremely hard, and a high level of confidence in his/her work.

For better or for worse (and many would argue in favor of the former), on-demand publishing, electronic publishing, and other innovative forms of publishing are here in the present, and are expected to be around in the foreseeable future (see [MIT 2009]). Typically, institutions of higher learning usually lag contemporary industry practices by a few years. These innovative publishing options have been around for some time now. It's therefore time for institutions that are still somewhat behind to do some catching up.

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