Assessing Scholarly Outlets

Dr. Robert A. Chin, East Carolina University

Robert A. "Bob" Chin is a Full Professor in the Department of Technology Systems, East Carolina University, where he has taught since 1986. He is the current Director of Publications for the Engineering Design Graphics Division and Editor for the Engineering Design Graphics Journal. Chin has served as the Engineering Design Graphics Division's annual and mid-year conference Program Chair, and he has served as a review board member for several journals including the EDGJ. He has been a program chair for the ASEE Southeastern Section and has served as the Engineering Graphics Division's vice-chair and chair and as the Instructional Unit's secretary, vice-chair, and chair. He just completed another term as the Engineering Graphics Division's vice-chair and is currently the Division's chair.

Michael Behm, East Carolina University

Michael Behm is an Associate Professor in the Occupational Safety Program at East Carolina University. Behm holds a Ph.D. from Oregon State University, and is a Certified Safety Professional. He is an active member of the National Institute for Occupational Safety and Health's (NIOSH) NORA Construction Sector and Prevention through Design Councils. In 2011, he was awarded a Research Fellowship with the Singapore National Parks Board and Centre for Urban Greenery and Ecology to study safe design aspects of rooftop and vertical greenery systems. Behm serves as editor of the Journal of Safety Health and Environmental Research, the academic practice journal of the American Society of Safety Engineers.

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Introduction

Compared to what has been available in the past, a plethora of scholarly outlets now exist where teacher/scholars can disseminate research findings and the results of their other creative activities. This is due in part to the need to share regardless of an institution's Carnegie Classification. Moreover, with the aid of technology, the number of invitations to present, publish, or to otherwise share their findings and results has grown. These opportunities range from international conferences, proceedings, and journals, as examples, to those that have a more regional focus. Some conferences and journals are quite broad and provide opportunities for presenters and authors to be included among a potpourri of persuasions. Others are quite specialized.

Some of the invitations originate from well-established and enduring entities, such as the American Society for Engineering Education or the Institute of Electrical and Electronics Engineers. Other invitations originate from start-up entities, new open access journals in particular, that aspire to establish themselves among the collection of entities that provide teacher/scholars with the opportunity to share their work. Some entities attempt to follow a traditional model of disseminating findings and results; some have implemented more creative means to facilitate the dissemination of findings and results. Some of the means of dissemination are highly regarded. Some have enduring, longstanding, and established reputations that continue to pass scrutiny time and time again. Some rely on measures of performance that continue to be debated, like impact factor, which according to some can be manipulated by authors and the journals themselves. Some do not.

Universities, administrators, and promotion and tenure committees look to published research as a measure of a teacher/scholar's scholarly performance. Not all publication outlets, however, are equal. With the ever increasing number of open access journals, teacher/scholars need to understand the issues to better ascertain research and publication outlet quality.

The purpose of this paper is to do just that; it focuses on and examines the nature of open access journals. In addition, this paper will offer suggestions for assessing selected scholarly outlets for sharing research findings and the result of other creative activities.

The Significance of Publishing

It is incumbent upon those who conduct research and otherwise pursue creative activities to share their findings. Disseminating, archiving, and retrieving new knowledge is significant to all disciplines in that it contributes to the vitality of the discipline and those it serves. Research findings and the outcome of creative activities also establish new directions for creating new knowledge and applying that knowledge.

Adding to the body of knowledge is the goal of research, the scientific method of inquiry, and other creative activities. The pursuit of new knowledge, however, is dependent on the dissemination and archiving of research findings and the results of creative activities, and ready

access to that new knowledge. Ready access, or the ability to retrieve new knowledge, cannot be overemphasized; timely access and ease of access are essential to sustaining the process of creating new knowledge and improving human undertakings.

The Significance of Writing

At the onset of any research effort or creative activity, the researcher normally conducts a thorough review and does an evaluation of previous works in the literature (or works in progress). This helps acquaint the researcher with the discipline as a whole and establishes whether ideas are truly new and significant.

Writing itself results in an understanding of the discipline that cannot be achieved by any other means. Orne (1981) notes that researchers "will get to really know a field only if [they] become sufficiently involved to contribute to it" (p. 4).[1] Furthermore, most researchers would agree that there is no better way to clarify and organize one's thoughts than by sharing them with others through the written medium.

Most important though, writing for one's discipline contributes to the vitality of the discipline, in particular if the writing is done well. It is only by disseminating research findings and the results of other creative activities that a discipline can advance.

Beyond Writing

According to Katz (1997), the sharing of new knowledge can be accomplished by a variety formal, semiformal, and informal means, facilitated by traditional communication mediums and the Internet.[2] The informal may include face-to-face discussions, telephone conversations, drafts of manuscripts circulated among friends and colleagues, discussions at meetings and seminars, and private correspondence. Reports on the current status of projects or other works in progress, dissemination of ideas through formal outlets such as a series in a journal that reports on works in progress, copies of speeches delivered at conferences, or summaries of studies are examples of semiformal means of disseminating findings. Works offered for general circulation through mediums such as journals and other periodicals and books complete the formal process.

Redmond, Sinclair, and Brown's (1972) rationalization curve (see Figure 1) illustrates the research process and the manner in which new knowledge is disseminated and archived.[3] While the intent of their illustration is to depict the dissemination process with implications for decisions libraries must make on collecting information and to who that information is to be offered, it nevertheless offers a perspective on the dissemination and consumption of new knowledge. They suggest that much of what takes place in the informal phase, which includes what Katz describes in both the informal and semi-formal phases, actually occurs among those who comprise the "invisible college."[4] Price (1971) characterizes the invisible college as a group of people working in a similar field, such as scientists, engineers, or engineering technologists, in some informal fashion outside the mainstream of conventional journals.[5] Katz characterizes the invisible college as those personal contacts that possess a certain expertise or have access to those possessing that expertise.[6] Personal contacts may include friends and colleagues; the researcher's personal library of books, periodicals, newspaper clippings,

hardcopy products downloaded from CD-ROMs; and the like. This may also include the likes of Internet-based communication—e-mail, LISTSERVs, USENET discussion groups, Twitter, Facebook, YouTube, blogs, and the like. The rationalization curve also depicts the relationship between writing, archiving in primary publications (not to be confused with primary sources), abstracting and indexing in secondary publications, and their integration and re-publication in tertiary publications.
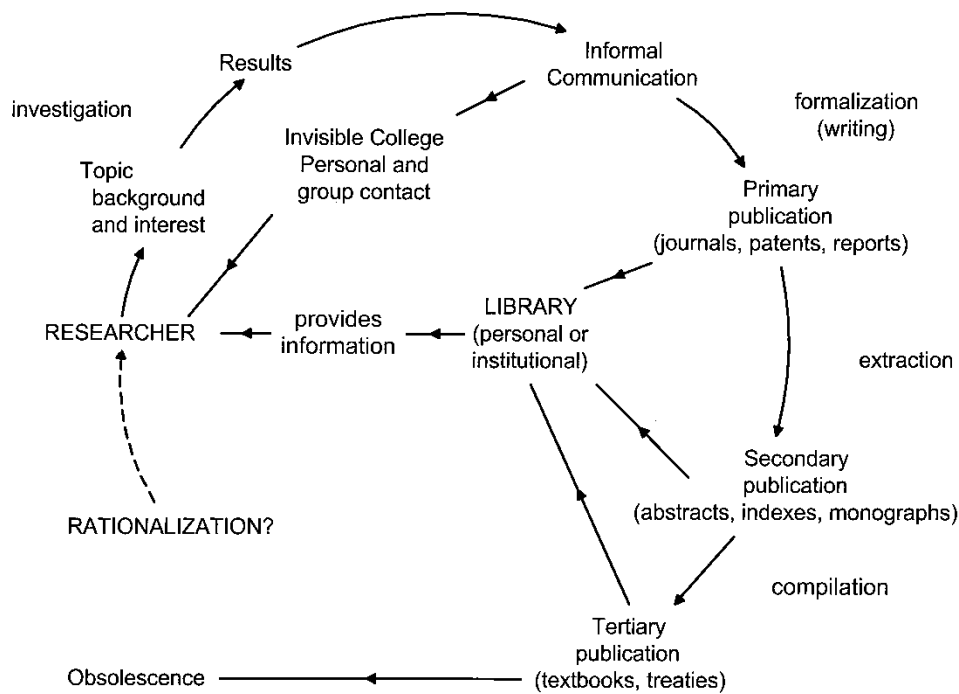
Figure 1. The Rationalization Curve.

Kent, Lancour, and Daily's Encyclopedia of Library and Information Science (1980) offers a similar perspective (see Figure 2)[7]. Like Katz[8] and Redmond, Sinclair, and Brown,[9] this graphic depiction also incorporates three different means of disseminating new knowledge—nonformal, preliminary, and formal. It too suggests that dissemination occurs through primary literature— that is, through nonformal, preliminary, and formal means; its surrogation by secondary services and its eventual integration and compaction in reviews, textbooks, and encyclopedias; and its secondary surrogation by tertiary services.

Pressure to Publish

"Publish or perish" is a familiar phenomenon and phrase that continues to be bandied about in academia. Today there is probably more pressure than ever to publish, regardless of an institution's Carnegie Classification[TM]. Faculty jobs, institutional prestige, grant monies, and the like are on the line. Some countries have introduced a cash bonus system for articles published in top international scientific journals (van Dalen and Henkens, 2012; Franzoni et al., 2011).[10, 11]

van Dalen and Henkens (2012) found that the pressure is more profound in Western societies but is increasing in emerging countries like China and South Korea.[12]
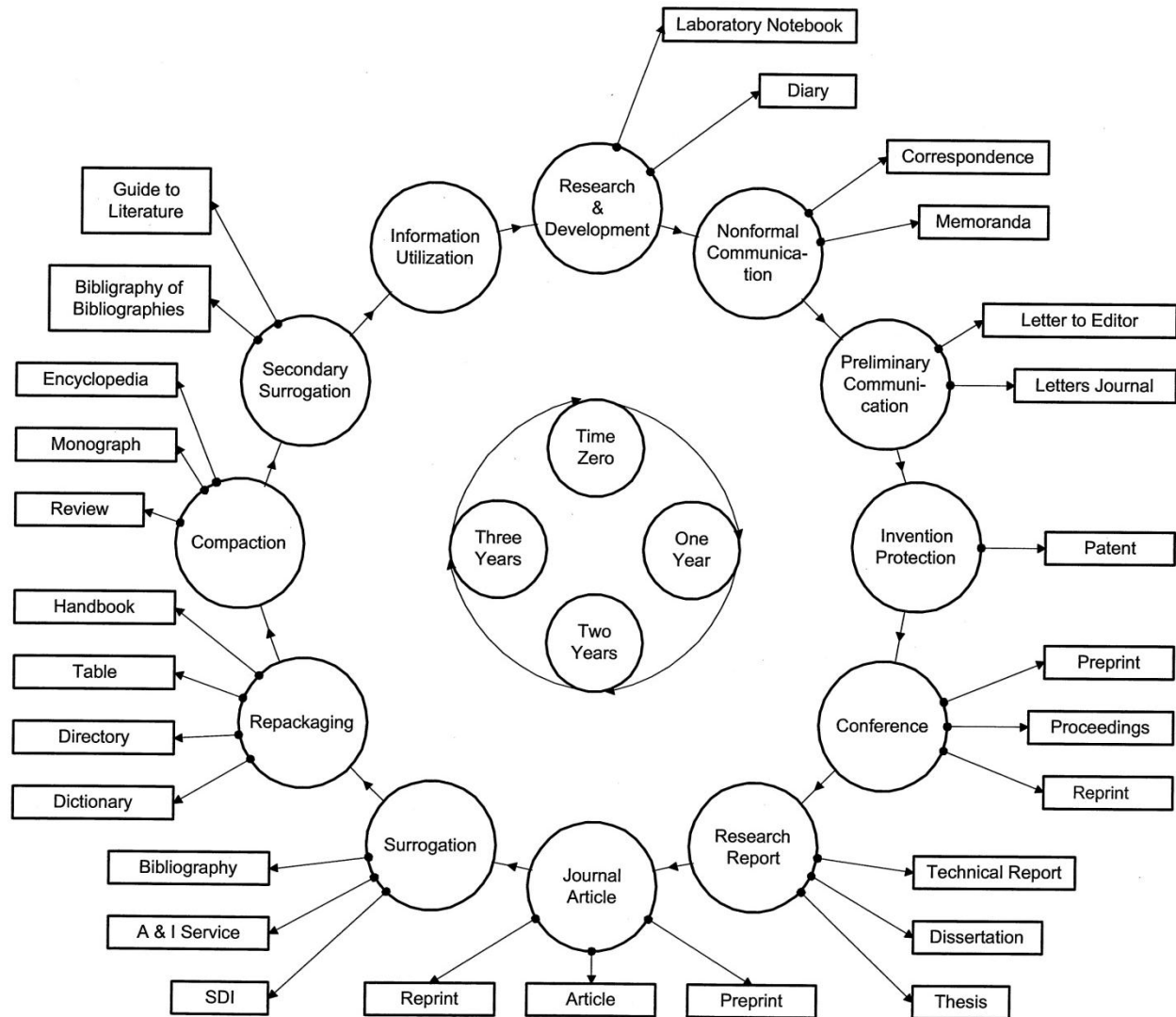

Figure 2. Evolution of Scientific Information.

In early 2012, the University of Sydney fired 100 of its research faculty for not publishing enough; another 64 were told they had the choice to leave the University or have their positions converted to teaching positions (Pincock, 2012).[13] How much is not enough? In this case Pinock reported that "their positions were being terminated because they hadn't published at least four 'research outputs' over the past three years".[14] Originally the staff had been told that a publication rate of 0.8 per year would be satisfactory. Other sources gave the hurdle as four refereed publications in an 18-month period (Berry, 2012)[15]. Regardless of the rate, there is no mention of the quality of publication outlets deemed to be satisfactory; this was also pointed out by a number of commenters, one who even mentioned the plethora of online journals. McNeill (2012) recently reported that a Japanese anesthesiologist faked nearly 200 medical studies over

two decades.[16] This is not a recent phenomenon, nor one that is proliferated solely by the Internet. Woolf (1986) describes several fraud cases; one in particular describes an author who published 68 articles per year in a five year period.[17]

According to Houghton and Oppenheim (2010), "open access publishing refers primarily to journal publishing where access is free of charge to readers, while authors and their employing or funding organizations pay for publication, or the publication is supported by other sponsors making it free for both readers and authors. Use restrictions can be minimal as no access toll is imposed."[18]

Solomon and Björk (2012) describe two 'waves' of open access journals.[19] First, "the early open access journals were published by academics largely using voluntary labor and small subsidies. A second wave comprised established society journals with stable subscription income that made the electronic version of the journal openly accessible." Some now see a third wave—predatory open access journals. Predatory publishers email prospective authors soliciting manuscripts offering fast peer review; some mention a fee upfront whereas others invoice the author after the article has been accepted and copyright handed over to the publisher (Sanchez, 2012).[20]

Jeffrey Beall, a Librarian at the University of Colorado at Denver, maintains a website, which includes a list of predatory open access publishers and journals.[21] Among the publishers and journals cited, the word 'engineering' and 'technology' appeared numerous times either individually or in combination. The 17 publishers that follow were among those listed:

Academy of Science and Engineering (ASE)
Engineering and Technology Publishing
International Academy of Science, Engineering and Technology (International ASET)
International Association for Engineering & Technology
International Association for Engineering and Management Education (IAEME)
International Conference on Computer Science and Engineering
International Journals of Engineering & Sciences
International Scientific Engineering and Research Publications
Science and Engineering Publishing Company
Society of Engineering Science and Technology (SEST India)
World Academy of Science, Engineering and Technology (WASET)
World Scientific and Engineering Academy and Society (WSEAS)
Advancements and Development in Technology International (Aditi)
Centre For Info Bio Technology (CIBTech)
Institute of Electronic & Information Technology
International Institute for Science, Technology and Education (IISTE)
International Network for Applied Sciences and Technology

The 37 titles that follow were among the individual journals, not necessarily tied to a particular publisher, listed by Beall:

Frontiers in Aerospace Engineering
International Journal of Computational Engineering Research
International Journal of Computer Applications in Engineering Sciences (IJCAES)
International Journal of Computer Science Engineering (IJCSE)

International Journal of Emerging Technology and Advanced Engineering
International Journal of Engineering and Advanced Technology (IJEAT)
International Journal of Engineering and Applied Sciences
International Journal of Engineering and Computer Science (IJECS)
International Journal of Engineering and Innovative Technology (IJEIT)
International Journal of Engineering Research and Applications
International Journal of Engineering Science & Advanced Technology
International Journal of Engineering, Science and Technology
International Journal of Engineering Sciences & Research Technology (IJESRT)
International Journal of Humanities, Engineering and Pharmaceutical Sciences
International Journal of Innovative Technology and Exploring Engineering (IJITEE)
International Journal of Modern Engineering Research (IJMER)
International Journal of Power Electronics Engineering
International Journal of Recent Technology and Engineering (IJRTE)
International Journal of Research and Innovation in Computer Engineering (IJRICE)
International Journal of Scientific & Engineering Research
International Journal of Soft Computing and Engineering
Universal Journal of Computer Science and Engineering Technology (UniCSE)
Global Journal of Management Science and Technology
An International Journal of Agricultural Technology (IJAT)
International Journal of Computer and Information Technology (IJCIT)
International Journal of Information and Communication Technology Research
International Journal of Information Technology & Management
International Journal of Life Sciences Biotechnology and Pharma Research (IJLBPR)
International Journal of Novel Drug Delivery Technology
International Journal of Pharmacy and Technology (IJPT)
International Journal of Science and Advanced Technology (IJSAT)
International Journal of Science and Technology
International Journal of Scientific & Technology Research
Journal of Knowledge Management, Economics and Information Technology
Research in Biotechnology
Universal Journal of Applied Computer Science and Technology
World Journal of Science and Technology (WJST)

The concern with these publishers and journals is that they exacerbate the "publish or perish" culture. A newly minted PhD may want to demonstrate something publishable on their vitae. A junior faculty member may feel pressure to publish quickly and in large numbers for tenure purposes. The seasoned professor may feel the need to keep the list of publications on their CV going. Administrators and tenure/promotion committees must be able to adequately discern publication quality. This can be difficult in large and diverse units and at institutions in which committees must provide recommendations—i.e., committees at the department, college, provost, and presidential levels.

Responding

All teacher/scholars, first and foremost, should become familiar with Beall's Criteria for Determining Predatory Open-Access Publishers and respond accordingly.[22] However; this understanding must also be grounded in the instructional process, where quality is instilled over quantity. This can only occur if faculty recognize the issues and respond accordingly.

Numerous options are also available to senior teacher/scholars. While the selected suggestions that follow were in response to Iowa State University's Interinstitutional Committee on Educational Coordination's observation that "the promise of the digital revolution to decrease costs and increase access has been thwarted by commercial publishers interested in maximizing revenues through raising prices and restricting use", they are a start.[23]

The Task Force suggests that individual faculty members:

- Modify, if appropriate, any contract you sign with a commercial publisher to ensure your right to use your work, including posting on a public archive.
- Examine the pricing, copyright, and licensing agreements of any commercially published journal you contribute to as an author, reviewer, or editor.
- Consider using your influence by the choices you make about where to publish, and about service as a reviewer or member of an editorial board, and by influencing your colleagues to do the same.
- Investigate your campus intellectual property policies and participate actively in their development.
- Support your library's participation in projects that seek to transform scholarly publishing in accord with academic values, such as SPARC, the Scholarly Publishing & Academic Resources Coalition.

The Task Force suggests that members of the campus community:

- Encourage discussion of scholarly communication issues and proposals for change in your department and school.
- Invite library participation in faculty departmental meetings and graduate seminars to discuss these issues.
- Include electronic publications that meet standards of quality in promotion and tenure discussions.

And as members of professional societies, the Task Force suggests that members:

- Encourage your professional society to consider creating alternatives to expensive commercial titles.
- Support actively your society's electronic publishing program by submitting papers, reviewing, and serving on editorial boards.
- Encourage your society to explore alternatives to contracting or selling publications to a commercial publisher.
- Encourage your society to maintain reasonable prices, and faculty and user friendly access terms.

Should tenure and promotion committees and administrators prohibit faculty from publishing in or serving on Editorial Boards of questionable and predatory journals? The response should reflect the fact that institutional resources should not be used to enable such endeavors. Prohibiting someone from publishing where they wish might violate their academic freedom,

however. Violating one's academic freedom should not be condoned; however, prudent use of taxpayer and institutional resources should also be a priority. Tenure and promotion committees and administrators should scrutinize each publication outlet, decide whether that publication "counts", and share their findings.

While we have focused largely on journals, this same approach must also be applied to conference attendance and presentations. In addition to offers by venues in which to publish, teacher/scholars also receive numerous emails and other invitations to present at conferences. Many of the conferences are in Asia and some in tropical locations. Some offer the opportunity to present and then publish the paper in their journal. However, one must attend the conference and present, which requires an investment. The author may then be charged for journal publishing costs: double charged so to speak.

Conclusion

Not all open access publishers or journals are bad or produce poor quality products. The purpose of this paper was not to condemn open access models. There are costs to doing business and costs associated with publishing. From a financial perspective, some believe that open access is inevitable.[24] Concern should continue to focus on quality and impact on a discipline. The rise in open access journals and publishers coupled with the pressure on faculty can be disconcerting if clear and open channels of communications are not available. The gatekeepers must ensure that authors, scholars, researchers, and the like think about and are aware of the sources and the outlets in terms of quality and impact on the discipline before the rush to publish—caveat emptor.

Along with a university librarian, hold a departmental faculty forum on the topic and share and discuss Beall's websites. Be cautious with formally making any decisions about banning or not counting certain publishers or journals. Each faculty member must become more aware of these issues; this will lead to healthier discussions about quality and impact of each publication. The issues raised can heighten faculty awareness. Senior faculty have a responsibility for ensuring that junior faculty are aware of their boundaries, the importance of contributing to the discipline, and mentoring students on the dissemination and consumption of the available literature and the discipline's body of knowledge.

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