The development of an electronic based journal of business entrepreneurship: The building of an operational model from secondary sources

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Abstract
This paper presents a rationale and support to create a web-based, electronic journal, serving Australian and International scholars and practitioners of entrepreneurship seeking advancement and knowledge. Extant literature review suggests that the World Wide Web now presents a method for entrepreneurs and business academics to communicate and respond to new approaches, opportunities, share successes and failures resulting from the exploration of new thoughts. The findings indicate that the electronic journal will deliver new knowledge in reduced time providing an opportunity for academic and practitioners to share knowledge and ideas assisting in economic progress.

1. Introduction

The rise of the World Wide Web has created one of the most challenging environments for entrepreneurship in recent times. The settings of the World Wide Web enables entrepreneurs to rapidly develop new approaches, share the successes and failures, and monitor what is new and useful (Oliva, 1998). Further, World Wide Web permits managers to become more efficient in how they gather, synthesize, utilize, and disseminate information. Thus helping their decision making processes. The focus of academia who strives to share their knowledge, such a media provides a greater audience around the world. It is further argued that those who are willing to experiment with new technology, products and service offerings will be better positioned to compete most effectively (Hodgetts, Luthans and Slocum, 1999).
It should be noted that authors who create new knowledge involving contemporary theories or paradigms find it difficult to obtain recognition in the publishing spheres. Especially since ‘that good article’ sometimes misses out publication mainly due to the limited space available in paper-based journals (Schauder, 1994). In order to attract equitable and open journal discussion and create distinctive competitive advantage for the new Faculty of Business and Enterprise at the Swinburne University of Technology, a mission to create a high-quality Internet based research journal was undertaken. This journal will focus on Business Innovation and Entrepreneurship providing participants a forum where each can become better aware of the problems, methodologies, discoveries, and directions. Further, it will comprise an international editorial board inviting papers from local and international academic community. Reviewers from all around the world will assess the papers in line with the editorial policy delivered by the editorial Board. It is anticipated that experts from Australia, Europe, North America, India, China, and South East Asia will participate in both reviewing and publishing in the Journal.

2. Purpose and Methodology

The major purpose of this study is to investigate the feasibility of web-based electronic journals, which would be housed in the Australian Graduate School of Entrepreneurship. Initially, secondary data would be collected from the Web, regarding information such as the usefulness of internet based journal publications, the success of these journals, their target audience, the rate of exposure, the benefit to readers, and their research quality. This data would be analysed statistically and detailed conclusions will be drawn. The findings will be interpreted and discussed in relation to the development of the Internet-based journal in business entrepreneurship. The main purpose will be to ensure that the authenticity of the journal is established. Further, it should be noted that as of 2005 Swinburne University has adopted the “Arrow” platform for open access dissemination of knowledge across disciplines. Consequently this platform will be used for the journal being proposed.
3. Literature Review

The first two scientific journals appeared in 1655: "Journal des Avans" in France, and "The Philosophical Transactions of the Royal Society", in England (Swales, 1990; Vrasides, 2000). Today’s hard copy scholarly journals are modelled on those developed for the new “professional history” of the nineteenth-century Germany (McDermott, 1994). One of the first historical periodicals still in existence is the “Historische Zeitschrift” which appeared in 1859, some two centuries after the first scientific journals (Steig, 1986). The paper journal, the main form of academic knowledge communication, dominated the world for five centuries since Gutenberg. One may argue that the introduction of the World Wide Web brought first signals that this dominance will be challenged. Especially that the electronic academic journals emphasize three important factors: money, technology, convenience and/or speed.

It is to be noted that the electronic publishing challenges conventional paper journals, and as stated by Waaijers (1997) offers the “full-blown usage of networked computers.” Such an offering was possible due to the electronic revolution which emerged since the two main technological changes appeared: (i) First the evolved computer, now cheap and powerful, and (ii) second, our recent ability to store and send massive quantities of data from computer to computer hither across the globe by the Internet (Young, 1996). Electronic journals pioneered new and more advanced forms of text production designed specifically to reach a wider and more diverse readership. At the same time however, the conventional and more stagnated academic journals continue as in the past.

Some scholars with a strong interest in entrepreneurship at major universities stated that publications indicative of the highest scholarly competence in this field include the Academy of Management Journal, Administrative Science Quarterly, Academy of Management Review, Strategic management Journal, and Journal of Business Venturing (McMillan, 1991, 1993). Further, Harrison and Leitch (1996) found that research on entrepreneurship published in various well established journals from 1987 to 1993 represented a significantly small percentage. One may argue that this low publication outcome may be result of “fresh entrepreneurial blood” of scholars who prefer to publish.
in other medium. Further, they warned that entrepreneurship scholars becoming increasingly self-referential and inward-directed due to current paper based journal “exclusivity in articles acceptance” and overall restrictions. Thus it seems obvious that significant amount of knowledge is not shared through the traditional print based medium as the infrastructure of such publications does not allow flexibility of sharing a diverse range of ideas.

Imperative change to deliver journals electronically within the world arena came not only from the rapid advancements in technology but also from the fact that the production of paper journals presents various problems, such as limited flexibility, cost and other factors. Such problems are easily resolvable through electronic versions which clearly eliminate the slowness of the process world-wide circulation of journals, faster turnarounds of paper from the time of submission to the actual publication, as well as being cost effective to the university and libraries. (Burbules & Bruce, 1995). As highlighted by Frank Quinn (1994), electronic journals emphasize the speed of publication of new ideas “electronic communication is cheap, fast, and accessible.” Rather than taking three to four years for a scholar’s article to appear in a print journal, articles can be published immediately, whether grouped and massaged by a cyber-editor under an electronic journal and made globally available on the Internet. It is needless to say that the electronic journal offers academics the opportunity to engage in knowledge sharing, improving quality of their research that makes them more effective and efficient in their work. Moreover, electronic journals create the prospect for greater flexibility in the author-reader relationship expanding the potential for interactivity, and numerous methods of data presentation (Vrasidas, 2000). Hence, according to Glass (1999) electronic journals provide an enlarged readership opportunity to wider academic and community members, and also those residing in developing countries where up-to-date scholarly literature on entrepreneurship, business and innovation is essential for the development of social and economy as a whole.

Rusch-Feja and Siebeky (1999), surveyed researchers at the Max Planck Institute and revealed a high acceptance of electronic journals and a reluctance to return to print
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journals. In addition to querying users’ opinions of electronic journals they tracked student and faculty use via annual surveys from 1998 to 2000. Daily, weekly, or monthly faculty use of electronic academic journals increased by 17.7% over the time period, while print use decreased by 8.7% (Rogers, 2001). Bauer (2001) examined the use of indexes in an academic health sciences library with electronic-journal-use statistics to make meaningful comparisons with print statistics. Bauer and others noted that the use of sampled electronic journals in American universities increased more than 100% from 1997 to 1999 (Bauer, 2001; Pomfrett, 1999). Further, they also found that in many cases academics preferred electronic journals due to ease of access and printing, and ease of searching, and most importantly the convenience of simultaneous comparison of many views. Don Schauder (1994) wrote about the irony of the printed journals stating that the publications by “printed journals are not unique, they are extensively electronically assisted”. Almost every American paper journal in the mid-1990s was electronically alternated. As he concluded, “electronic journals are the mainstream mode for journal publishing in the scholarly world of the future.” Interesting to note is the fact that the world market for scholarly journals represented, US$3 billion in year 1997. It was estimated that no more than 1.5 percent of this was available electronically. By the year 2005, the forecasts produced by Anderson Consultancy for the European Union suggests that this could rise to 25 percent (Brown, 1997).

It should be noted that the progress of electronic web-based academic journals is quite often halted by a number of a significant aspects, namely the economic benefits of publishers, copyright issues, unfunded resistance of academics to change the old tradition of scholarly publishing, and the prestige for publishing online articles versus articles on paper (Vrasidas, 2000). Additionally, such a lack in progress could well be due to propagation of an ethos of elitism for paper published in printed journals. As suggested by some sociologists, certain characteristics of authors: where they were educated and are currently employed, the influence of reviewers’ recommendations and editors’ decisions about whether or not to publish in paper journals (Bakaniec, 1987). This to some degree had at times a sociological impact on some academics who suffered having self-doubts as to the sufficient competence to criticise a great scholar and/or by fear of not being...
accepted into the reputable paper journal (Zuckermann and Merton, 1971). Thus, one may argue that the electronic web-based academic journal may provide equality for those who may otherwise be restricted and unable to share in their findings, views and overall academic knowledge.

The fundamental aspect of the written word is to:

- provide the basis of argument (Clark 1986);
- provide an overview of the state of the art, including best practice (Clark 1986);
- identify the gaps in the body of knowledge (Zikmund 1997);
- resolve apparent contradictions;
- stimulate theoretical sensitivity via knowledge of philosophical writings and existing theory (Strauss & Corbin 1990);
- direct theoretical sampling (e.g. provide ideas of where you might go to uncover phenomenon);
- provide supplementary validation (Strauss & Corbin 1990);
- unearth research questions (Strauss & Corbin 1990); and
- place interpretations on entrepreneurial literature by using it as a secondary source of data (i.e. where the literature is grouped and given conceptual labels).

The academic reward system is structured to encourage the production of ideas. It does this by rewarding the creation and dissemination of “good” ideas, ideas that are widely read and acknowledged by an unrestricted number of academics and professionals. If this is the fundamental characteristic of academic than one may argue that the restriction of publicizing “the written word” on entrepreneurship and business rated knowledge prevents progress. Literature should not be viewed as a secondary source of data only (Strauss & Corbin 1990) but most importantly should serve as the basis for entrepreneurial and business theory building (Lewis & Grimes 1999; Saunders 1999). It is further believed that Australian literature on entrepreneurship could become well placed within the world of academia if delivered by electronic means. This would offer a wider audience and rapid knowledge dissemination in comparison with the current paper based journals provides. It is therefore, paramount for academia to support, implement and expand the potential of electronic web-based academic journals striving for “the times ahead” unveiling endless opportunity to knowledge seekers of today and tomorrow.
It is believed that the slowness and adaptation of the new electronic journal publishing is guided by the academic community’s perception of its quality often restricts funding for its development. It may be argued that the introduction of a single innovation in technology cannot be successful until it is accompanied by an appropriate set of social, behavioural, organizational and institutional innovations (Goldhar, 1997). Further, the largest restrain is the reluctance of authors to entrust their work to a new, unproven medium in place of the one that has served them faithfully for years (Harnad, 1998). One may suggest that such acceptance will only come about when the academics and funding bodies accept electronic publishing as a comprehensive medium of knowledge dissemination as equal to paper-based.

Further, considering that there are about 5000 entrepreneurship academics in the world and there are around 48 prime entrepreneurial journals, there are only 35 researchers per journal. Further, most journals publish 20-40 papers a year, and a lot of researchers work in teams. It may therefore be argued that academic papers on entrepreneurship are in short supply, especially good ones.

Electronic Journal in Entrepreneurship, Business and Innovation could address a worldwide audience for the exploration and dissemination of Australian views, ideas and experiences. It should also be noted that such an initiative may also create both inter and intra university collaboration.

4. First electronic journal

The Online Journal of Current Clinical Trials is believed to be the world’s first online peer-reviewed journal published in September 1991 (Palca, 1991). This experiment was a joint venture of the American Association for the Advancement of Science (AAAS) and (OCLC) Online Computer Library Centre. The Journal was revolutionary, as its publishing was to be wholly electronic - manuscripts would be submitted, peer-reviewed, and edited without ever being printed. Many were sceptical that the journal would not be able to meet its stated objective of speeding up the peer-review process to make scientific findings available sooner in order to help critically ill patients. This and a handful of
other academic electronic journal titles were the only ones available through the
developing new networks (Okerson, 2000). Their formats were plain text with no
graphics, foreign characters, bolding, or italicising. The online publishing industry really
began to grow between 1994 and 1995.

5. Research findings

Growth of Academic Electronic Journals

TOTAL 27 36 45 181 306 1093 2459 2602 2800 3910 4800 5380

The advancement of electronic journals can be described through three evolutionary
phases: (i) early, (ii) evolving and (iii) advanced with a number of studies being
conducted worldwide until date (Tenopir, 2003).

5.1 The early stage

The early phase commenced in the late 1980s and lasted until 1995 with the first
electronic journals projects being conducted and accompanied by the first use studies. It
may be concluded that they suggest global non-use and lack of preferences and
The early phase of electronic journals can be therefore, characterised as experimental
projects, with a limited number of titles, and users. More importantly the human perception and believe in value of electronic journals was slow in comparison with progress of electronic means (Rowland, 1995; McKnight, 1995).

5.2 The evolving stage

The evolving phase from 1996 to 1999 was characterised by a significant increase of electronic academic journals (Woodward, 1997, 1998; Okerson, 2000; Harter, 1998; Tomney & Burton, 1998). Further, limitations of use and/or significant growth are mainly technical barriers, continued lack of acceptance and/or luck of knowledge in computers, and most importantly peer-pressure, and the fact that prestige and adequate peer-review were still associated with paper journals (Peterson Bishop, 1998; Gomes & Meadows, 1998; Speier, 1999).

It may be observed that 1999 represented a turning point in sharing knowledge in electronic journals (Okerson, 2000). With a number of electronic academic journal titles grows, the integration of this new medium into the academic world become significant (Rusch-Feja & Siebeky, 1999; Tenopir & King, 2002). This was also pointed out by the first quantitative analyses, which show how quickly use of electronic journals was growing (Mackie-Mason, 1999; sanville, 2001.

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Source: Typology of e-journal users (adopted from Mahé, 2004)
5.3 The advanced stage

It may be stated that the advanced phase continues with mixed perceptions. Paper based journals although expensive and inefficient continue to attract conservative views on their superiority with electronic journals straggling for equal recognition.

5.4 Findings

Extensive study conducted until date indicates limited scope of data being available on the researched topic. However, judging and being guided by the study conducted by Max Planck Institute on “Evolution of usage and acceptance of electronic journals” one may conclude that conventional paper based academic journals are highly profitable for publishers, as copies are constantly re-printed and copyright assigned to the publishers. At the same time electronic journals where academics generally provide their labour free, as writers, reviewers, editors and members of editorial boards. Further, paper based journals have not been relinquished as the academic disciplines serve more than just the purpose of generating knowledge. They are also communities in which individuals establish their careers and where they navigate hierarchies of status, prestige and power. Much of this activity is linked to disciplinary systems of scholarly perception of how to communicate knowledge. It is believed that scholars who researched have based their career on old paper based journal system with the new breed of academics taking more interest in electronic journals. Electronic academic journals thus are more likely to be propagated by the comparatively young, and the technologically sophisticated. One may observe that entrepreneurship is about progress, it may therefore, be stated that this process of establishing electronic academic journals is purposely halted as a source of progressing thought for scholars.

6. Max Planck Research of Electronic Journals (October 1999)
The highest number of academic users of the electronic journals indicates that they used it weekly, every two weeks or monthly. Electronic journals from publishers included in the Max Planck Research of electronic journals were used very little and at most on a monthly basis.

Source: Frequencies of Use by Publishers (adopted from Max Planck Research 1999)

Source: Advantages and Disadvantages Total (adopted from Max Planck Research 1999)
Advantage:

The usage of electronic journals by academia was considered highly advantageous. In comparison, the general level of the disadvantages was only half as strong. The greatest advantage of electronic journals as seen by the respondents of Max Planck survey include the direct accessibility from the researcher's desktop, the prompt availability, the possibilities of downloading (or printing out) the desired document or information segment, the currency and up to date information electronic journals provide over print versions, and full text retrieval possibilities. Seventy-seven and a half percent of the respondents considered that obtaining the electronic journals quicker than print versions as very advantageous. Use of electronic journals from the desktop was seen as very advantageous (78%) and less advantageous (10.9%). Similarly, the possibilities for downloading (or printing) articles were considered very advantageous (72.9%) and less advantageous (12.6%). The currency of information content in the electronic journals was seen as almost as advantageous as use from the researcher's desktop.

Disadvantage:

Disadvantages were seen in reading from the monitor, loss of some attributes of the paper version, lack of standardization, lack of citation status, and standards. The dependency on the computer and on networks was a disadvantage for almost half of all the respondents though not necessarily a large disadvantage. A similar distribution of answers was apparent for the aspect of reading on the monitor. The lack of standardization and the incompleteness of the electronic holdings were seen as a disadvantage by about 40% of the respondents, though predominately as less disadvantageous.

7. Discussion

"Scholarly publications" are generally defined as publications in "refereed" journals, both paper-based and electronic versions, as well as scholarly books. This description relates to the merit and promotion of scholarly knowledge for all to share. It may be argued that electronic journals have initiated new sophisticated forms of the written word designed specifically to reach a wider and more diverse readership. As recently observed
the electronic journals within American academia are significantly advancing. During 2001, Berkeley Electronic Press journals received 210 submissions. That figure rose to 464 in 2002 to 730 in 2003. In 2002, articles were viewed over 95,000 times while in 2003, this has doubled to 230,000. Further, in 2004 over 1000 submissions and 370,000 article reviews were registered. Consequently this resulted in more than 100,000 professors, researchers, and other interested parties participating in the Berkeley Electronic Press Journal to disseminate their knowledge to a wide public forum.

Despite such growth in journals delivered electronically, there are divergent views on the Internet based academic journals in terms of its authenticity and the quality of knowledge disseminated. Consequently, conventional and more stagnated paper based academic journals continue and some argue that the role of scholar is not to perform the duties of a publishing house and therefore superiority of paper-based journals should not be questioned (Press, 1995; Rowland, 1995). Many researchers are critical of the electronic journals due to their poor quality. Others are concerned that electronic journals, even if refereed, are not considered as prestigious as traditional paper-based journals that have been around for a while, in part because they have been established recently (Butler, 1995). Such journals may not be mainstream and, in fact, may be experimental, avant-garde, or perhaps even controversial, thus raising larger political issues within the academic world of the appropriateness of particular research areas. Also, by applying subscription fees to the electronic journals one prevents access to academic articles resulting in the restriction of access for the majority (Brent, 1995; Hickey, 1995). Subsequently, valuable academic research is beyond the reach of all creating prolonged gaps in knowledge delivery.

Some more optimistic points of view presents electronic journals as transforming scholarly publications for the better by allowing people to quickly seek out information, respond to others, publish electronic journals at lower costs, and shorten the time of the typically long cycle of publishing peer-reviewed articles (Brown, 1997; Harnad, 1995a,b; Lanham, 1993; Moret, 1997; Odlyzko, 1995; Schwier, 1994; Stodolsky, 1995; Taubes, 1996a,b). Furthermore, some noted in general that electronic journals facilitate greater
scholarly interaction, the spread of up-to-date findings and overall the advancement of knowledge (Barry, 1995; Berge & Collons, 1994; Butler, 1994; Cronin & Overfelt, 1995; O'Haver, 1995; Ruhleder, 1995; Schauder, 1994).

Taking into consideration that over 85 percent of academic journal articles originate at universities one may believe that in order to progress, universities should become their own publishers of electronic journals of the highest quality. In *Chronicle of Higher Education*, (Charlene Hurt, 1990) paper journals are as obsolete as the primary means of communicating current scholarly findings. Jerome Yavarkovsky, (1990) stated that *it is time to join a vast and powerful system for scholarly communications... in traditional terms, we are the authors, the editors, the paper mills, the printing presses, the binders, and the readers. We are part of a perfect, vertically integrated enterprise... our universities and other research organizations have the choice: control electronic publishing to our economic and intellectual advantage, or surrender the initiative and the future of scholarly communication to others*. A comprehensive study undertaken at Ohio State University declared a change from 200 to over 3000 electronic journals as a move towards a point where academics would be happy to see the subscription of paper-based journals cancelled (Rogers, 2002). Moreover, the recently conducted review of electronic journal studies from 1997 to 2001 notes the overall dramatic increase in the proportion of electronic compared with print journal usage (Tenopir, & King, 2002).

It seems that the goals of academia remain the same as in the past. Authors wish to contribute to the body of knowledge in their field and be recognized for it by their peers at the same time academics wish to be recognized for career advancement, especially in achieving tenure from their universities (Arnold, 1995; Harnad, 1995a; Tenopir, 1995). It may therefore be argued that these goals remain the same despite differences in the delivery medium. It can well be that this problem represents a perception only and therefore, social acceptance may be lagging behind the new modes of communication (Kling and Covi, 1995),
While some support various advantages that electronic publications can offer, such as speed and/or delivery of images difficult or impossible to replicate in paper journals some have questioned the value or the procedures for peer review of electronic journals (Fuller, 1995b), others do not take issue with it as such ((Hamad, 1995b; Odlyzko, 1995). The tension seems to be over the degree of control necessary in a system to create a balance among getting new ideas out and allowing a free flow of ideas among a variety of academics, not just elite, while still managing to preserve consensus and high quality of both paper-based and electronic journals. It is believed that the strength of the editorial Board and nature, and value of the peer review process may result in widespread acceptance of electronic academic journals. Various authors noted that, in general, electronic journals facilitated greater scholarly interaction spread of up-to-date findings and overall advancement of knowledge (Barry, 1995; Berge and Collons, 1994; Butler, 1994; Cronin and Overfelt, 1995; O'Haver, 1995; Ruhleder, 1995; Schauder, 1994).

Hence, in knowledge economy the need for interaction between academics across the world would result in increasing acceptance of electronic delivery. Therefore, there is a necessity to be more flexible and open to new technologies which would diminish value divide among supporters of printed and electronic versions and thus improving the perception of electronic journals. At the same time there is no reason to believe that electronic journals are any different from paper-based, and to ignore them would be to ignore a significant change in the way in which academic knowledge is being published and distributed in the 21st century. It is believed that one should support electronic journals that are open access and free of charge, as knowledge should not be the domain for those who pay but for all who cherish its progress.
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Bibliography

11 Clark, N. (1986), 'Writing up the doctoral thesis', Graduate Management Research, Autumn.


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