What are the Prospects for Publishing Online Scholarly Journals in Malaysia? The Cultural Constraint

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Abstract

Most of the studies conducted on future business models for electronic scholarly publishing have concentrated on the major publishing areas of North America and Western Europe, and on large publishers (both for-profit and not-for-profit). This paper considers the prospects for electronic scholarly publishing in a smaller country away from these two parts of the world. Malaysia is a medium-sized developing country in Southeast Asia, with the ambition to become fully developed by 2020. The government has invested heavily both in ICT infrastructure and in educating the population in its use, and as a result Internet usage is quite high, and most academics and research workers can access the Internet both at work and at home. A number of journals are published by not-for-profit organisations in Malaysia, but their sales are small and their financial positions precarious, and few of them are available electronically yet. This work is based on a large-scale questionnaire survey of Malaysian scientists, and interviews with managers of university presses and other not-for-profit publishers in Malaysia, designed to reveal attitudes to online electronic journals among their potential authors and potential publishers. Those academics who published frequently in printed scholarly journals were significantly more positive in their attitude towards online journals, and this effect was particularly strong if they published in international journals and in English. Interviews with representatives of the presses of universities and research institutes revealed that most Malaysian journals are small, publishing only 20-30 papers per year, and have low print runs, typically about 300. They gain relatively little income from subscriptions, many copies being distributed though exchanges, and are subsidised by their host institutions. Only one journal among this sample of presses had a parallel electronic version; the remainder were print-only. An important feature of Malaysia is its very high value on Hofstede's Power Distance Index (PDI), which implies that a high level of deference to one's superiors is usual in Malaysia. The results from the interviews suggested strongly that the effect seen in scholarly publishing is a consequence of senior managerial figures in universities not supporting online publishing. Those researchers with a more international orientation are the ones most likely to go against the cultural trend.

Keywords: Malaysia; online scholarly journals; authors; editors

1 Background

Malaysia is a developing country in Southeast Asia with a national policy of achieving fully developed status by 2020 [1]. To this end the government has adopted information and communication technologies (ICT) with enthusiasm. It has installed a national network and strongly encouraged ICT education. Availability of PCs in workplaces and homes is high by developing world standards and most educated people have ready access to the Internet [2]. As a Commonwealth nation formerly part of the British Empire, Malaysia's international language is English, but most education takes place in the indigenous Malay language, an earlier policy from, the colonial period of emphasizing education in English having been dropped. Ethnic minorities (mainly Chinese and Indian) have other mother tongues. Most public-sector posts, including academic ones, are occupied by members of the Malay majority, while the ethnic Chinese minority are largely employed in the private sector and the ethnic Indian minority in agriculture.

As an Asian country with a Muslim majority, Malaysia is culturally distinct from the developed countries of Western Europe and North America where the majority of the world's scholarly journals are published. There have been a large number of research studies of many aspects of scholarly publishing in recent years, for example [3], but the majority of these have concentrated on the mainstream journals published in the West. A study of scholarly publishing in Singapore has appeared [4] and studies on Indian [5] and Chinese scholarly publishing are in progress. One of us (F.R.) has also conducted studies on scholarly publishing in New Zealand [6,7], a

developed country, but a small one geographically remote from the main publishing centres of the West, and comparisons and contrasts between the situation in Malaysia and that in New Zealand may be illuminating.

One factor in which Malaysia is quite extreme is Hofstede's Power Distance Index (PDI) [8]; this parameter measure the extent to which people in a culture defer to their superiors, and in international comparisons Hofstede found that Malaysia has one of the highest PDI values of any nation – that is, its people showed a high degree of deference and a substantial unwillingness to make decisions without referring them upwards for approval.

The scholarly publishing industry in Malaysia is small and is largely in the not-for-profit sector, with universities and research institutes responsible for the publication of most journals [9,10]. To date, few of the Malaysian journals are available electronically and at the time of the work reported here only one title was e-only [11]. The purpose of the research reported here was to estimate the possibilities for the development of a local electronic scholarly publishing in Malaysia, starting by seeking to ascertain the reasons for its slow development to date. This work forms the PhD project of one of the authors (J.Z.) [12].

2 Methodology

Two main approaches were adopted. The first was a questionnaire survey of scientists in Malaysia who are actual or potential contributors to the scholarly literature. This survey sought to measure their attitudes towards electronic publishing, and to find relationships between these attitudes and various demographic and other factors. The second was a set of structured interviews with staff in universities and other non-profit organisations responsible for the publishing programmes of those bodies. One of us (J.Z.) is herself an academic from a Malaysian university, currently seconded to Loughborough University as a research student, and as such she was well placed to carry out these interviews, which mainly took place in the Malay language.

3 Results

3.1 Questionnaire

3.1.1 Demographic factors

Few of the respondents were under 26 years old (1.4%) or over 55 (4.1%), which is not surprising given that most had higher degrees, and the normal retirement age for public employees in Malaysia is 55. They were fairly evenly spread among the five-year cohorts between 26 and 55, with a slight bias towards the groups aged 31-35, 36-40 and 41-45. Chi-squared testing showed that age was not a significant factor in determining attitude toward e-publishing. Just under 40% of the respondents were women and just over 60% were men; compared to the known proportions in the public services in Malaysia, men were slightly over-represented in the self-selected responding group. There was no significant difference between the genders in attitude towards online publishing. As expected, 84% of the respondents were Malay, with 8% ethnic Chinese, 4% ethnic Indian and 4% other ethnic groups; the non-Malay groups were too small for any effective statistical testing of attitudes by ethnic group.

3.1.2 Workplace, qualifications and job

Nearly 80% of those responding worked in universities and just over 20% in research institutes. Those working in universities were slightly more likely to be favourable towards e-publishing but the effect was not significant. Overall, 55% of the respondents had a master's degree as their highest qualification and 42% had doctorates; only 3% were qualified to the bachelor's degree level only, which is not surprising as the master's degree is usually the minimum qualification for academic or research employment in Malaysia. A chi-squared test showed that the higher the educational qualification, the more likely is a positive attitude towards online publication, at the $p < 0.05$ level. Overall, 52% of the respondents had obtained their highest degree from universities in the developed West and 48% from Malaysian universities or those in other Asian countries. There was a correlation between place of education and attitude towards online publishing, those educated in the West being more positive, significant at the $p < 0.05$ level. As expected from their places of employment, the majority of the respondents were lecturers (59%), associate professors (13%), professors (4%); 16% described themselves as researchers or research officers and 8% as administrators. There was no significant correlation between job title and attitude towards online publishing. There was a bimodal distribution of 'length of time in present job', a majority have been in their job for 2-5 years (42%) or 6-9 years (18%) but another large group being very long-

serving, 17% having been in their present job for 17 or more years. Length of service had no significant relationship with attitude to online publishing. Subject fields were described by respondents in various ways but for statistical analysis these were combined into five broad groups (hard sciences: 41%, arts: 5%, economics: 19%, social sciences: 15% and engineering: 21%). There was no significant relationship between field of study and attitude towards e-publishing.

3.1.3 ICT availability and use

Of the respondents, 70% could access the Internet from their home computer, 18% had offline machines at home, and 12% had no home machine. At the workplace, 98% could access the Internet, and only one person in the entire sample had no use of a computer at work. Access to the technology was not significantly related to attitude to online publishing.

A more complex question explored the kinds of use people made of their computers: 97% used e-mail daily, 95% used word-processing daily, and 86% surfed the WWW daily. However, creating PDFs (42% said 'never') and HTML files (40% 'never') were much rarer activities. Using the point-biserial correlation test, greater use of ICT was significantly correlated with more positive attitudes towards online publishing ($p < 0.01$).

Another question explored the use of different electronic information resources. Of the respondents, 50% looked at electronic newspapers daily, 28% at online scholarly journals daily and a further 37% looked at them once or twice a week, 23% looked at archival materials daily and 34% once or twice a week, while conference proceedings and government publications are looked at less often but still a substantial amount, with 75% of respondents looking at both these resources at least once a month. The use of archival materials, conference proceedings and government publications was shown by the chi-squared test to be significantly correlated with positive attitudes towards e-publishing, at the $p < 0.05$ level in each case. Overall use of electronic resources was shown by the point-biserial test to be significantly correlated with positive attitudes towards e-publishing at the $p < 0.01$ level.

3.1.4 Reasons for publishing and frequency of publishing

In a three-point Likert-scale question (Disagree- Neutral-Agree), 97% of the respondents agreed that they published for career advancement and 97% for sharing knowledge; 88% said that they did so to help secure future research funding, 87% for personal prestige, and 74% because their research funder required publication. With such small numbers in the 'Neutral' and 'Disagree' cells no useful statistical analysis could be done here. Another question explored where respondents placed their research results: 71% never used an electronic preprint archive, 70% never used an international journal with parallel print and electronic versions, 74% never used a local journal with parallel print and online versions, and almost 78% never used an online-only journal. Turning to print publications, matters were reversed: 67% often publish in conference proceedings, 33% often publish in local print journals without an international reputation, 27% often publish in local print journals with an international reputation, 20% often publish in print journals published outside Malaysia, and 10% often publish in book form. There is a significant correlation, by the chi-squared test, between frequent use of each of these five types of print publication and positive attitudes towards online publishing, at the $p < 0.01$ level in each case. Using the point-biserial test, there is a significant correlation between frequent use of these print media overall and positive attitude towards online publishing, again at the $p < 0.01$ level. Use of the Mann-Whitney U test also confirmed this result. Respondents were also asked how many articles they had published over the period 1998-2003. The mean number was just under 15, with the largest tally being 120 and the lowest zero. The point-biserial test showed that the larger the number of articles published the more positive was the attitude towards e-publishing. When the language used in the published papers was examined, the point-biserial test showed that the use of the English language was correlated with positive attitudes towards e-publishing.

A long question examined the factors considered important when the respondent decided where to publish a paper. The two most important factors were the perceived reputation of the paper and its impact factor; speed of publication, language of the journal, and circulation of the journal followed as the three next most important factors. The last three factors, considered least important, were the commercial status of the publisher, the ability to include manipulatable content such as software or simulations, and finally (lowest of all) its ability to include video and sound. A further question examined respondents' attitudes towards peer review. On a three-point Likert scale (Disagree-Neutral-Agree), 91% agreed that electronic means should be used to speed up peer review and 91% also agreed that they preferred to submit to a journal that maintained formal peer review. There was agreement from 80% that traditional peer review is still relevant to online journals, but agreement fell to 59% when the suggestion that, for online journals, referees should cease to be anonymous was put forward. The

lowest level of agreement (44%) was to the statement that open review should replace traditional peer review for online journals. None of the results here correlated significantly with attitudes to online publishing, however. On copyright, the largest group preferred the traditional arrangement of transfer of copyright to the publisher, but the group expressing this view was negative in its attitude towards online publishing (73% negative). To a question on electronic preprint archives, 77% said that such archives were important in their subject area, but only 10% had ever deposited a preprint in such an archive.

3.1.5 Persuading and hindering factors towards adoption of electronic publishing

The factor most likely to persuade an author to publish in an electronic journal is recognition – 96% said that his was 'important'; backup from their institution was rated important by 89%, institutional policy on e-publishing by 92%. Factors hindering adoption were tested by a three-point Likert-scale question; 'no funding to maintain online publishing activities' was agreed to by 68%, copyright considerations by 62%, lack of recognition from their institution by 60%, lack of technological know-how by 63%, perceived low quality of e-publications by 60%, and lack of support from the institution by 60%. However, in a final question, respondents nevertheless agreed that online journals will have replaced print journals within five years.

3.2 Interviews

Interviews were held with representatives of the presses at eight public universities and five research institutes in Malaysia early in 2004. The respondents were asked about the current activities of their presses – number of journals and books published, circulations, how the press was organised including the division of responsibility between press staff and academic editors, line of management control of the press by its parent organisation, etc. They were then asked about the problems that they faced, their perceptions on the publishing activities of Malaysian scientists, their views on online scholarly publishing and factors impacting scholarly publishing in Malaysia in general, and their plans (or lack of them) for electronic publishing in the future.

3.2.1 Current activity

With one exception, all the presses produced at least one journal, and other products included books and monographs, annual reports, manuals, conference proceedings volumes and brochures. Generally, university presses were responsible for production aspects but editorial control was in the hands of academics within the various departments of the university in question, although there was one university where the press had editorial responsibility too. By contrast, research institute presses were generally responsible for the entire process of editing and producing their journals. Most of the presses were small operations with only a handful of staff. Most of their journals were also small, only one of the titles being quarterly, most appearing twice a year, and a few being only annual productions; 12-15 articles per issue is the usual extent. Most of these Malaysian-based journals accept articles in either English or the Malay language, though Malay articles are required to have an English abstract, and there are signs of a trend towards English-only publishing. Most journals are peer-reviewed, but sometimes all reviewing was undertaken entirely by academic staff within the one host institution of the journal. Print runs are small, averaging about 300. Often, copies are supplied to other universities and research institutes within Malaysia free of charge, but most titles have a small number of paying subscribers, perhaps internationally distributed, but almost always numbering less than 100. A minority of the presses are able to obtain submissions of papers from outside Malaysia, the countries of the Indian subcontinent, Australia and even the USA being mentioned as sources of material.

3.2.2 Factors effecting choice of publishing outlet by authors

Most of the presses reported difficulty in obtaining enough material to fill their issues. Lack of sufficient papers sometimes delays publication of an issue, which in turn adds delay to the publication of the few papers that are available for that issue and renders the entire journal less attractive to authors. Paradoxically, one press suffering from this problem divided its journal into six more specialised titles, each appearing at the same half-yearly interval as the original broader title, and the result was an increase in submissions and overall improved viability. Academic and research staff are expected to write research articles and, all other things being equal, to place them in their own institution's journals. Often, though, conference publication is preferred to journal publication by the authors, perhaps because presentation at a conference generally permits authors to charge the cost of travel to and attendance at the conference to their employing institution, while journal publication carries no similar direct benefits. Another important factor is the prestige that attaches to publication in 'international' journals – that is, those published in the developed countries of the West, almost invariably in English. Scientists

gain an international reputation, and with it possibilities of promotion and enhanced research funding, if they demonstrate their ability to gain acceptance for their work in journals of international standing, so the best Malaysian scientists send their best work to foreign journals. On the other hand, owing to the change in educational policy in recent years that has made Malay the main teaching medium in schools rather than English, many Malaysians otherwise well-qualified in their specialist fields cannot write in English to a standard acceptable to international journals. Nevertheless, press representatives' perception was that most rejections of Malaysian papers by international journals were based on the substance of the papers, not on language difficulties. Rejection rates from international journals are high – perhaps 70-60% – whereas local journals reject only about 20% of submissions. The fact that the local journals accept papers written in Malay helps them to gain more submissions. Within Malaysian journals, too, there is a perceived order of quality, so some of the better journals gain plenty of submission from Malaysian institutions other than their own host one.

A key factor in obtaining submissions is inclusion in Thomson ISI's Web of Knowledge database. One local journal now included in the Web of Knowledge found that its submissions had increased noticeably, including some from outside Malaysia.

3.2.3 Perceptions on electronic publishing

Most of the respondents from presses were positive in their attitude towards online publishing, and felt that the technology necessary to provide scientific information to readers at low cost is, or easily could be, available in Malaysian institutions. Obstacles were seen as human rather than technical factors. None of the presses interviewed had undertaken any online-only publishing, and only one had parallel print and online versions of a journal. The remaining journals were all print-only, though three of the research institutes put abstracts online, and others made back issues available online free of charge – the print issues had to be scanned to achieve this, and the work was done by the institute's library or ICT department.

In one university, the faculty of computer and information science publishes a journal and had the skills and resources to make it available online as a parallel version with the print one; this project had the strong support of the dean of the faculty, and the journal is published without the involvement of the university press. In another case, a Special Interest Group, not affiliated to any university press, produces the one e-only journal in Malaysia – the *Internet Journal of E-Language Learning and Teaching, iJELLT* [11].

Advantages of online publication were seen by the press representatives interviewed as low cost, speed of publication, universal access, and promotion of the host university on the Internet. Disadvantages are perceived instability of online journals – authors do not want to entrust their papers to an e-journal that might disappear after a short time. Worries about ease of plagiarism of online material are another inhibiting factor, as is the perception of low quality that still attaches to e-only publications. It was also perceived that libraries will continue to demand a print version for archival purposes.

The key issue for presses regarding the possible establishment of an online journal is the attitude of senior managers of the university or research institute, who need to understand the issues involved and be prepared to allocate the necessary resources. In several cases the presses regarded themselves as 'bystanders', keeping themselves informed about electronic publishing but awaiting instruction from their senior management before undertaking any e-journal projects. Others have been even less active, and have barely discussed the possibility of online publishing yet.

3.2.4 Hindering factors

Following on from the discussions reported above, the representatives of the presses were asked what they thought were the key factors hindering the adoption of online publishing in their institution. One factor was the lack of the necessary skills – while people with the skills existed somewhere within the institution, they were not always under the control of the press. The technology is usually there, but the people to operate it are not. A second factor was lack of enthusiasm for online publishing among the scientists themselves, whose influence within universities and research institutes is strong. With firm policy leadership, they might support e-publishing, but if the priority of senior managements is towards high research reputation gained through publishing in high impact-factor journals, scientists will be wary of submitting to new journals of unknown quality. Furthermore several universities do not have any clear policy on whether or not e-only publications are regarded as acceptable in any tenure or promotion applications. A third issue is that while the presses produce the journals, in universities the editorial control lies with academics, and the editorial boards are reluctant to consider electronic publishing. Despite government backing for the widespread use of ICT, press respondents

felt that there was still a wariness among Malaysians about it – the example was quoted that even when students attempt degree courses delivered through electronic distance learning programmes, and are offered cheap loans to enable them to buy a computer, they often take the loan but do not buy a computer with it, preferring to access their e-learning materials in cybercafés.

It was also suggested by respondents that many younger scientists are unwilling or unable to write papers at all, whether for electronic or conventional publication. This was attributed to the educational system failing to inculcate critical or creative thinking. Until recently, little was done in Malaysia the results from research projects – researchers supplied an internal report to their funding body but no-one checked whether the results had been made public anywhere. However, as in other countries, it is now beginning to be the case that scientific staff are required to produce a certain number of publications in order to keep their jobs: one university now requires two publications per person per annum, though these could be in conference proceedings. An increase in submissions to some local journals has been noted as an effect of this. Language difficulties are another factor limiting publication – to achieve publication in a journal recognised by the Web of Knowledge, whether international or local, scientists must write in English, of which some of them have only an imperfect command. (But if they want their work to make a local impact, especially among the lay public, it needs to be in Malay.) It was felt that this problem would be an especially severe problem for online publications, because these can be seen all over the world – Malaysians are unwilling to be seen internationally as foolish because of their poor English, whereas a printed journal that circulates only within the country would lead to less embarrassment. So Malaysians as readers are happy to download electronic materials from the Internet, but they are apprehensive about mounting their own work online.

A further hindering factor for the possible launch of online journals was un=certainty about viable business models. If no charges are made for access to the journals, its international visibility would be improved. But then it is not clear how the press's costs would be covered. One approach is to launch the online product free of charge but to introduce charges later on when the title is more established, and one of the presses mentioned that they might introduce charges in about five years' time. Another possible model would be to provide free online access as a replacement for the print copies currently distributed free of charge, printing only enough copies to satisfy the subscription sales. With modern short-run print technology this would lead to a financial saving.

Finally, lack of enthusiasm for e-publishing from the institution's senior managers is common; they naturally tend to belong to the older generation of scientists, and enthusiasm for ICT use is stronger among the younger, more junior ranks of researchers.

4 Discussion

The objective of this work was to describe the current state of electronic journals publishing in Malaysia, from the perspectives both of those who publish them and of Malaysian academics and researchers. Based on the results of interviews and a questionnaire survey, the intention was to seek to explain the current state of affairs and then to make predictions and recommendations for the future of scholarly publishing in Malaysia.

It became clear that, among Malaysian scholars, having a positive attitude towards online scholarly journals correlated significantly with a number of variables. Those with a doctorate were more likely to be positive towards online publishing that those whose highest educational qualification was a bachelor's or master's degree, and those whose highest degree had been obtained from a Western university were more likely to be positive than those whose education had taken place entirely in Asia. Those who had published a lot of papers in conventional printed literature were more positive towards online journals than those with a smaller number, and those who published predominantly in English were more positive than those who published more in the indigenous language. Those who made more use of ICT generally, and of electronic information resources in particular, were more likely to be positive than those made less use of these things. By contrast, respondents' age, gender, length of service in their present job, and ethnic group did not turn out to be significantly related to their attitude towards online scholarly publishing. The group of variables that did show a significant relationship with attitudes towards online publishing can, perhaps, be broadly described as a Western cultural orientation, emphasising education in the West, use of the English language, heavy use of ICT, and 'publish or perish'.

As has been found in many other studies in various countries, for example [13], respondents remain concerned about standards and quality control. While a majority expects online publishing to become the norm, there is strong support for the continuation of peer review.

The interviews with editorial staff in university and research-institute presses showed a similar situation to that found in New Zealand [6,7], a small but developed country which is culturally in the West although geographically in the East. There were comments in both cases that researchers of good reputation prefer to publish in 'international' journals – that is, ones published in Western Europe or North America predominantly. Therefore the local journals struggle to acquire enough good papers or even, in some cases, enough papers, regardless of quality, to publish a scheduled issue at all. As in New Zealand, issues were infrequent anyway – half-yearly or even annual journals predominating. Concerns with impact factors, and thus with the question of inclusion of local journals in the Thomson ISI Web of Knowledge databases, were reported by editors in both Malaysia and New Zealand. Other factors, though, seemed more peculiar to Malaysia. A reluctance on the part, especially, of young researchers to write up their research for publication at all was noted by some press staff, and it was also noted that Malaysian researchers tend to prefer to write up their material for conference presentation, for several reasons. First, presenting at a conference usually entitles one to financial support to attend the conference, and this business travel is seen as a benefit not enjoyed by those who write for journal publication. Secondly, conference papers may be more ephemeral and many Malaysian authors, lacking in confidence about their command of English, might prefer not to be subject to embarrassment in a permanent publication – indeed, one argument against online publishing is that one's work is more likely to be seen throughout the world. This visibility is usually quoted as an advantage, but could be seen as a drawback by those not confident about the standard of their work. Thirdly, writing up work in the exact style and format required for a particular journal is seen as laborious and time-consuming ,and may be wasted effort if the paper is rejected.

We interpret these remarks by press staff as indicating a cultural trait among Malaysian, and particularly perhaps among younger, less experienced and less Westernised authors, related to the Hofstede PDI [8]. Malaysians habitually defer to their superiors and take their lead from them. They are less inclined, perhaps, than younger researchers in the West might be to strike out on their own and develop their ideas and their publications in original or innovative ways, without direct instruction or encouragement to do so from those above them in the hierarchy. This is in spite of the considerable investment in ICT networks and training by the Malaysian government as part of its policy to modernise the country and render it fully developed by 2020 [1]. Culture, perhaps, can transcend technology and government policy.

Which raises the question: what if anything can be done to remove these cultural blocks to the acceptance of online scholarly publishing in Malaysia? One change that he government could make would be to give full recognition to publication in local online journals by academics and research institute workers, and to insist more forcefully publication of the results of all government-funded research in journal-article form. In their turn, the not-for-profit and public-sector scholarly publishing presses could collaborate more closely together, to try to create a national scholarly publishing system, rather than the present fragmented picture of many different and weak organisations involved; the senior management of universities also need to give more support to their own presses and trust the publishing professionals in them better to do an effective job. Here the situation of university presses in Malaysia is not greatly different from that of the small university presses in the UK.

The technology is available and staff are available in universities – though not always within the presses – to create an effective electronic scholarly publishing industry in Malaysia, against the day when it becomes a fully developed country. But clear leadership from government and from the most senior academics and university administrators will be needed to overcome the cultural constraints currently hindering this development.

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