Action Research into Online Publishing

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ABSTRACT

Action research is a suitable tool for research into the management of change in an organisation or community. While it combines the researcher and the change agent, and therefore incorporates the views and opinions of the researcher, it can help to shed light on problems that are not susceptible to other approaches. In this case, the action is the change to on-line publishing of the *Australasian Journal of Construction Economics and Building* that had achieved a very small circulation in a conventional format. The aim is to increase the availability of the journal without increase the costs. The various actions involved in changing the mode of operation are examined through their impact, to the extent that they can be isolated. The conclusion is that the actions have been beneficial, overall and in respect of the aims of increasing availability without increases in costs.

KEYWORDS

electronic publishing, scientific publishing, open access

INTRODUCTION

Action research is a branch of qualitative study. It centres around the study of impact of actions where the researcher may be both the initiator and the assessor of the action. This involvement in the project that is being researched distinguishes the action researcher from the traditional disinterested spectator of conventional science (Chalmers, 1982; Punch, 2005). The potential for this involvement to influence the perception of the outcome is acknowledged or even considered vital for achieving the aim of providing a guide for successfully initiating change in an organisation or community (Elden and Chisholm, 1993; Stringer, 2004). While there are various forms of action research, the model adopted here can be described as a spiral going from a plan to action to critical reflexion to revision of plan to action etc. as shown in Figure 1.

Action research is suitable when it is not possible to control or even enumerate all variables and where the research process cannot be standardised. In such cases where it is not possible to use a control group, action research provides a flexible and responsive research alternative.

Figure 1 – Action research model (adapted from McKay and Marshall 2001)
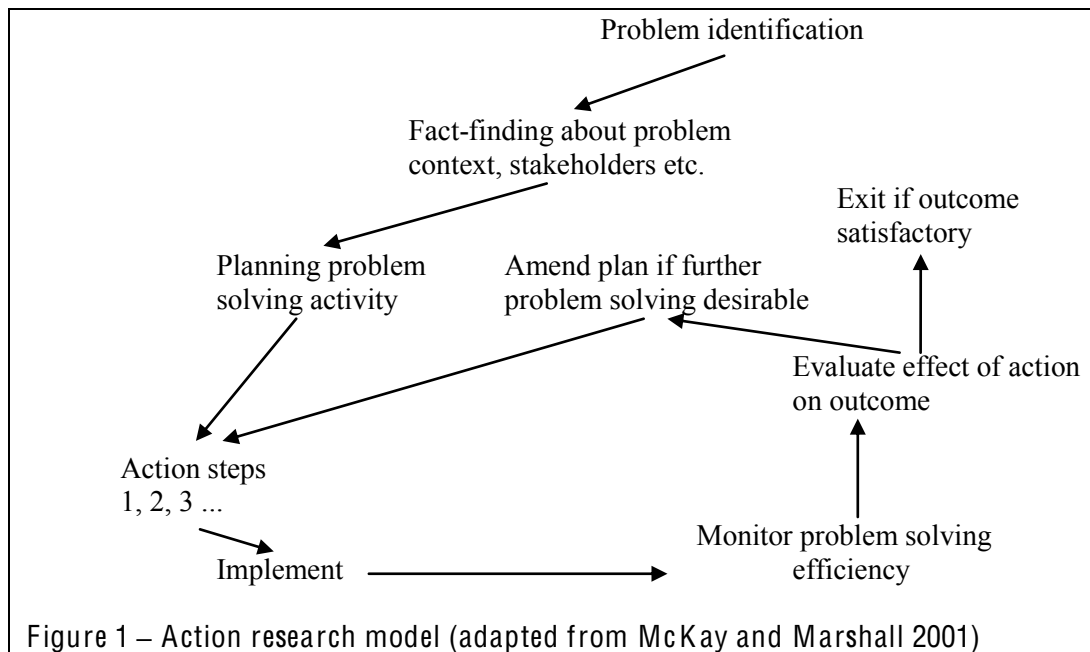
Research problem

The purpose of this project was, and continues to be the testing of various alternative strategies open to the *Australasian Journal of Construction Economics and Building* management aiming to increase the availability of their journal without increase the costs of publishing. The various actions involved in changing the mode of operation from hard copy only to free on line access are examined through their impact on the various aspects of the journal, to the extent that they can be isolated. Where actions have turned out to have undesirable effects, they have been reversed or modified. The outcome of the research itself is a set of actions that will achieve the aims of journals facing the same challenges.

THE RESEARCH PROJECT

The situation before the start of the project was a journal that after nine years and despite good academic quality had a paid circulation of only about 20 subscribers with a somewhat greater number given away to various forms of contributors. The editorship rotated among the various Schools of Building in Australian Universities, with an inevitably loss of continuity. Despite high subscription fees and voluntary editors, the low circulation meant that even with only two issues per year, the professional organisations that sponsored the journal were required to contribute financially. The aim of the actions was to increase the circulation without loss of quality or increase in costs.

An additional problem was that after being ungraded but with a good reputation the journal was ranked as a B grade journal in the 2010 ERA ranking, just as the first changes

were being implemented. These rankings have a tendency to be self-fulfilling and it was obvious that this was certainly going to have a major impact on the supply of good quality papers. In fact, in the long run this has the potential to kill the journal.

It was envisaged that the solution to the problems was to go to a free access electronic publication, which was a concept totally outside the experience of every-one involved with the journal. The project that evolved was typical for action research: a plan consistently re-formulated as the outcome of each action was evaluated (Wadsworth, 1998; Dick, 2001). The broad series of issues that needed plans resulting in observable actions included:

- Selecting a publisher
- Establishing the infrastructure required
- Determining a format for the journal
- Ensuring a good supply of papers

Selecting a publisher

Selecting a publisher was by far the least complicated and uncontroversial choice. It would have been possible to just set up a website, but the advantages of using a publisher with a computerised manuscript management facility, technical expertise and experience in promoting e-publishing were too obvious to miss. While there are several electronic publishers, offering similar packages, *UTSePress* offered it all together, for free, with geographical proximity and extensive support.

Technically, geographical proximity should not be an issue, as all aspects of the journal is handled over the internet, but in retrospect, the opportunity to attend regular meetings with other editors, where common problems are discussed, felt like an important source of information as well as a safety net. *UTSePress* publishes 14 journals in various disciplines, almost all of them started in the last five years, and there is a lot of recent experience to benefit from. With that comes also a lot of opportunities to realise how woefully under-resourced the journal is. Most of the journals are the efforts of teams of three to ten people, with a range of specialties, evident in multimedia offerings, complex layouts and special issues.

Establishing the infrastructure required

Chronologically, appointing a continuing editor was the first decision, but functionally it is part of the structure of the journal. It's too early yet to establish the impact of having a continuing editor, but it would have been difficult to establish the journal under the system of rotating editorship as in the first nine years in the life of the journal. Setting up the journal within the manuscript management facility adds a new layer of complexity to

being an editor. I'll look later at the implication of this and other actions on the work load of the editor.

The infrastructure included an editorial board, reviewers, proof readers and editorial assistant. The editorial board was determined primarily by what was required to become an A grade journal, i.e. it should contain a substantial number of the leaders in the discipline. This virtually ensures that the majority of the editorial board members have very little interest in or incentive to contribute apart from accepting the status still attached to being a member of an editorial board, as they are busy in other roles. A small number of members were selected as being young and on their way to leadership positions in the discipline in the hope that they would be prepared to do more. So it turned out. After each issue, I have communicated with the board members about various problems with their potential solutions, and the 25 per cent that have responded is either from this group or is an Australian that has had a long involvement with the journal. As a result, I have resolved to change policy and introduce a limited tenure for board members as a means to increase the numbers of these two groups on the board. I think it is important to have a board that is involved and that promotes the journal at every opportunity.

Having said that, there is little agreement on what the members are expected to do. In some journals, they do all or most of the reviewing or contribute to the editing, they may in some cases, more or less actively, be required to promote the journal but mostly, they are supposed to be a guarantee of quality by attaching their name to the journal. A less frequent but important job is to arbitrate between the editor and authors when there is a conflict. More formal board meetings or special roles for the members are rare.

The reviewers as a group, are a major problem, even for this journal where most of the reviewers have voluntarily requested that they be listed as reviewers. One of the reasons is that the journal needs so many. With current rejection rates, every successful paper requires 15 to 25 reviewers, with right fields of expertise and it is a difficult job that requires dedication. As a competitive argument to promote the journal I had decided to publish every approved paper within five months of submission. Technically, this should not be a great feat. The review should not take more than four weeks, the rewriting two weeks and the layout, proof reading etc one week. That is less than two months. Given publication every quarter, the total maximum possible time is five months but the median should be three or four.

There are some reviewers that perform to a very high standard, but they are in a minority, maybe 25 per cent. The most common response is to arrogantly ignore to answer the request, probably about 30 per cent. Next, of about equal frequencies are the positive response followed by eternal silence, the short review: "it stinks", the ego-centred review:

"he hasn't quoted my paper so he can't possibly be accepted" or, from the person who has not listed any particular interests: "this is not my field'. The problem with these responses is that they successfully work towards prolonging the review period. This means that they work against the performance indicator that I have used as the most important way to promote the journal - the short time between submission and publication.

One of the problems with being committed to a rapid turn-over of papers is that every little non-performance by a reviewer requires an immediate response by the editor. This is time consuming and labour intensive. This decision alone probably accounts for half to two thirds of the work load and is a constant source of frustration. On the upside is that so far, only one paper has exceeded the five months and only marginally.

The most efficient way to deal with the people who don't respond at all or responded but don't submit a review seems to be, not a reminder or a carefully worded polite email explaining why I don't like what they do. Rather it seems to be to tell them that I've removed them from the register of reviewers and then accept their explanation of how the computer hard disk had failed or how they had been on study leave in places where there were no computers. Follow up requests for reviews to these people have normally been dealt with within days.

For the rest of the problem reviewers, there seems to be no efficient way to utilise them. There is little evidence of the request for a review being seen as an expression of confidence or an opportunity to help shaping the future of the discipline. Rather it is a disturbance where the less effort spent, the better.

The problem with taking a hard line with reviewers – or as I prefer to look at it, to look after the interests of authors - is that those that do perform risk being called upon more often. Given the problems with peer review, there are undeniable advantages with a small group of good performers: timely and considered reviews but it may also lead to some insularity. A compromise that seems to work is to use two proven performers together with one less well known. However, even with proven reviewers, the differences in perceptions are such that most papers must also be reviewed by the editor to ensure consistency in recommendations. Just quoting the reviews would cause considerable confusion among authors when reviewers demand mutually inconsistent amendments.

Determining a format for the journal

E-publishing is very flexible, and there are several possible formats available. One that utilises the flexibility of on-line publishing to the limit is to publish each paper as it becomes available. From a logistic point of view, this is probably the easiest model, and it also reduces the time for authors between submission and publication.

Technically, it is also possible to reduce the time between submission and publication further by subjecting the papers to a rough screening only before they are uploaded into a temporary section. Comments can then be invited, either from any interested reader or from a selected group as to the merits of papers and if the paper is of a sufficient quality to be accepted and allocated to an issue. This would amount to a different form of peer review, although it is easy to see how the process could be manipulated. Issues and volumes can then be created as different criteria are satisfied, either based on subject matter or on chronology of submission.

The most common model, however, is one that doesn't utilise the flexibility but resembles conventional publishing with a specified number of issues each year, each issue containing a specific number of papers. In a conservative environment like academic publishing, this model maximises the probability of achieving a high ranking as it becomes directly comparable to conventional journals. It is also easier to promote as each new issue becomes a distinct event.

It was decided that at least until the journal is more firmly established, the latter model should be followed, but that within the format, flexibility should be utilised by establishing a forum for discussion between issues. This forum has, so far, been a complete failure, which is probably the strongest indicator we have so far, that more innovative models of publication would currently not necessarily be successful. However, as e-publishing becomes more accepted, and there are strong indicators that it will be the norm, rather than the exception in the near future, the advantages that it has in forms of reading tools, multi-media capability and flexibility are likely to become much more appreciated or even demanded. The journal will continue a careful introduction of new features as we go along.

Journal rankings depend on the quality of the research they report, but it is evident that auxiliary aspects, such as the layout of the journal, the reputation of the members on the editorial board or citations are used as proxies. That would mean that there is no room for any other types of papers, although most journals carry book reviews. The possibility of segmenting the journal into different section has been used to introduce a third type of papers, referred to as "Viewpoint". These are papers that do not report original research, are not peer reviewed but deal with issues of general interest to the discipline. While they so far have not resulted in a debate within the journal, authors of viewpoints have been contacted directly by readers and have a positive perception of their usefulness.

Other "innovations" in line with the emphasis on the needs of the authors, has been a change in the required control of copy right. Before going on line, the journal like almost every other paper journal had a copy right agreement that basically transferred most of the rights to the journal. In the title of his book, *Free Culture: How Big Media Uses*

Technology and the Law to Lock Down Culture and Control Creativity, Professor Lessig (2004) suggests the problems with this kind of copyright and the book provides a fascinating account of the impact this kind of copyright and how media can control cultural works.

In place of this, the journal has elected to use a Creative Commons Attribution Agreement. This means that authors who publish in the journal retain copyright and grant the journal right of first publication. The work is simultaneously licensed under a Creative Commons Attribution Licence that allows others to share the work - to read, download, redistribute, include in databases, and otherwise use - subject only to an acknowledgement of the work's authorship and initial publication in this journal (Wilson, 2005). Authors are also able to enter into separate, additional contractual arrangements for the non-exclusive distribution of the journal's published version of the work (e.g. post it to an institutional repository or publish it in a book), with an acknowledgement only of its initial publication in this journal. Under conventional copy rights, this is illegal (Bjork et al. 2010).

While so far no-one has reported this as a reason for selecting the journal (or any other journal with a similar arrangement) over conventional journals, it should be a crucial issue for authors that want the widest possible distribution of their work. The copy right is there essentially to secure pecuniary rights, in this case for the journal, and by doing that, they restrict the circulation of ideas to maximise the value of their copyright. Most academic writers have little or no pecuniary interests in their research papers. What is important to them is the spread of their ideas and that they are acknowledged as the original author. Conventional copy right therefore in the majority of cases work against the interest of the original author while the creative commons attribution agreement allows the author to make his writings as widely available as possible (Bjork et al. 2010). There have also been several studies showing that openly available articles are cited more by peers (Hajjem et al. 2005, Norris et al. 2008, Evans 2009).

Ensuring a good supply of papers

A journal stands and falls with the quality of the papers it publishes. Assuming that it has a reasonable selection process this means the quality of the papers submitted to it. There are two impacts here - the decision to go on-line as an open access journal and the publication of the ERA ranking several months before the first electronic issue - that may be responsible for the catastrophic decline in submissions of good papers from outside Australia, starting some three months before the first electronic issue.

No more than ten years ago, academics did almost all their reading from paper journal issues, while now, most are reading from a downloaded digital copy. Part of this change

has been the proliferation of open access journals (Willinsky, 2005), at the end of 2009 numbering some 6000, covering some 8.5 % of the total output of scientific papers. This is the so called Gold Open Access, which is published without any restrictions. An additional 11.9 per cent are available as Green Open Access, i.e. available as open access a year after publication in a journal with restricted access. This means that a total of 20.4 per cent of all scientific papers are available on free access (http://www.doaj.org/).

It is difficult to establish the impact of the decision to go on-line. There are feelings among some potential authors, voiced by the chair person of the ranking committee for the discipline, that it is less prestigious to publish in an exclusively electronic journal, and that electronic journals cannot be ranked A or A*. The latter is wrong, at least to the extent that in other disciplines there are many examples of electronic top ranking journals. It can also be argued that free access online journals opens up a totally new readership, particularly in developing countries that would attract many authors that regard this as important to publish in such journals.

The decline in the supply of international papers started also before it was announced that the journal would go online exclusively.

The evidence points to the decline in submission of international papers being the direct result of the publication of the ERA ranking where the journal was ranked B. In the last year before the ranking was released 40 per cent of the papers came from Australia, 29 per cent from Africa, 6 per cent from Europe and 25 per cent from Asia (primarily HK, Malaysia and Thailand). In the period after the release, the corresponding figures are 62 per cent from Australia, 28 per cent from Africa, 3 per cent from Europe and 7 per cent from Asia. This is obviously going to be very difficult to turn around as it is primarily outside the control of the editor. A strong promotion in Australia seems to have been quite successful and the emphasis is now on promoting the journal in Asia and Europe through personal requests to colleagues and through the editorial board members.

It was always obvious that the ERA ranking was going to be self-fulfilling but the speed and the magnitude of the impact on the submission of international papers is surprising. In a way, it should not matter, as the international papers can be replaced by good Australian papers, but it is difficult to promote the journal as truly international with no international papers to back it up.

The promotion, which has been successful in Australia, has concentrated on three things. Firstly, it has emphasised the need for Australia to have a respected journal, with all the spin-off this mean in terms of involvement for people in Australian institutions. The remaining two aspects have been used internationally as well as in Australia and include an extremely short period from submission to publication and a great number of registered readers.

Despite problems with referees and in particular specialist referees such as statisticians with completing their reviews on time, the time has been kept under five months with one exception, not counting a couple of instances where authors have taken so long to make necessary amendments that they have missed the next issue. For authors that think they have got something to say, particularly if there is an ongoing discussion, the speed of publication should be a powerful argument to use the journal.

The final argument is the size of the readership. With almost 300 registered readers, we compare well with most journals in the field, most of which have less than 100 subscribers. While registrations and subscriptions are not directly comparable, the free access provides another powerful incentive. With free access to the full text of the articles, there are advantages also for a casual reader who discovers a paper through the many search avenues open to readers. What this means is that by placing a paper in the journal, it becomes available to a wider range of readers than most alternatives.

READERSHIP

Before the change to online publishing, the readership of the journal was almost exclusively Australian. Stray copies found their way to Singapore and Malaysia but a substantial proportion of the papers would have come from places where the journal was not available. This situation has now been reversed. The readership is much more widely distributed than the sources of papers. Australia, including NZ, still dominates with 45 per cent of the total, followed by Asia 27 per cent (including 4 per cent from the Middle East), Europe 18 per cent (about half from UK), Africa 17 per cent and the Americas 3 per cent. Given the solid interest in Asia and Europe, it would seem that with an upgrading to A or A*, there is no reason why the journal should not be able to increase its attraction as a place to publish most things. On the other hand, there is still sufficiently readership in Australia, NZ and Singapore to justify a limited number of papers of special interest to the region.

A source of surprise is that very few of the readers are practitioners. Virtually a hundred per cent work at universities or research institutes. This may indicate that it would be desirable to stress the non-academic segments of the journal, primarily the viewpoint, but also the book reviews, to get professionals to register.

CONCLUSION

Close observation of the impact of actions designed to change the way a journal is published has provided us with information that would be of considerable interest to anyone contemplating a similar action. Consistent with the aims of the research project,

there is now also an action plan covering all issues except reviewing where various revisions of action plans have been met by moderate success only.

On the whole, the aims of the change over from paper only to free access electronic publication have been reached. The readership has increased from 20 subscriptions to some 300 registered readers. The journal is now published four issues per year instead of two, but despite this, the cost to the sponsors has not increased.

It is impossible to isolate the impact on the supply of papers as the change-over coincided with the publication of the ERA ranking, but there is no evidence that the support in Australia has declined.

The change-over has also made it possible to be more responsive to the needs of primarily authors but also readers. However, the changing environment for academic publishing caused by the ERA ranking has caused problems that are not related to the management of the journal, and may in the long run prove terminal.

The remaining issue is the reviewing where different approaches have failed to solve the problems of quality and reliability.

There is no evidence that either readers or authors are interested in the new flexibility offered by electronic publication. The opportunities for interactive reading, multimedia presentations and commentary have not been utilised as yet, in the way that they are in some of the UTS ePress publications in the social sciences.

The findings presented here are tentative as the time frame is too short to identify, with high levels of confidence, trends, random events and permanent changes.

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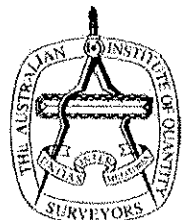
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This year's conference is titled **Getting a Building Degree – The End of the Beginning**.

All papers included in these proceedings have gone through a formal and rigorous review process, involving at least two referees external to the author's home institution. Full papers were exposed to a two-stage peer review process of double blind refereeing. A refereeing form appended to the papers was provided to the referees to complete, and included additional space for comments to the authors. If the referees agreed to the paper, their advice was accepted, and if referees did not agree the conference convenors independently reviewed the paper and the substance of the comments. In those cases a determination was made on the basis of evidence available.

The conference secretariat received 51 papers, of which 43 were accepted following amendments, and published herein. This represented a 16% rejection rate.

All papers forming part of the proceedings were discussed at the conference.

Technical Committee

The conference convenors would like to thank the following people for their assistance in refereeing papers:

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