White paper Feedback welcome by Toby Walsh August 12, 2013

Open Book Publication for the AI Community

Vision

Open access online journals like JAIR have helped improve the publishing scene. We envisage a similar transformation in the publishing of scientific books. We envision a not-for-profit publisher of open access conference proceedings, research monographs and collected works. Electronic copy will be available for free, and hard copy at close to cost using print on demand.

What are our goals?

Journal publishing has benefitted immensely from invovations provided by open and online operations. We believe that the publishing of scientific books can profit in a similar way. There are several opportunities.

- **Cost:** Some publishers will charge hundreds of dollars for an edited volume that cost only tens of dollars physically to produce. By comparison, AI Access will be a lean and low cost organization that can offer such texts using print on demand at close to cost.
- **Timeliness:** Many publishers will need to sell all copies of a text before printing a new edition. By comparison, AI Access will only use print on demand so can produce a new edition whenever it is needed.
- **Openness:** Online rights remain a major source of income for many publishers. By comparison, AI Access is a not-for-profit operation that has only modest operating costs to cover. We will provide open access to all our texts, at no cost to author or reader.
- **Responsiveness:** One of the benefits of a largely online operation is that we can provide excellent feedback to our readers and authors. You'd like to know how many copies your book has sold, who is downloading it (if you're being downloaded a lot in China, perhaps you want to have a Chinese translation prepared?), how often you've been cited and how your statistics compare to other volumes in the same series.

As yet, there are few not-for-profit and open access publishers of scientific books like conference proceedings, research monographs, and collected works like handbooks. Of course, any author or editor can just use a print on demand service. However, this requires some courage, time and effort, and will miss some of the value added by a good publishing house (e.g. copy editing, the reputation of a good book series). Publishers add value but much of that value comes from scientists themselves, or is easy to replicate online today.

What are we going to do?

In brief, we would steal the JAIR model and apply it to publishing scientific books. Publishing will take place under the umbrella of the AI Access Foundation, JAIR's not for profit publisher. It fits well the goals of the foundation. JAIR also has many of the resources that would be needed like servers, an editorial assistant, etc. JAIR's reputation will also be very valuable in launching the project. However, we would also "borrow" other aspects of the JAIR model that appear to have contributed to its success. For example, JAIR has consciously recruited younger members of the scientific community than was the average in other journals, and given them time limited terms. This has, I believe, been very helpful in getting the AI community involved in the journal.

Let me sketch some of the details. AI Access already has an online presence at http://aiaccess.org. AI Access will be a not-for-profit publisher of scientific books that cover the full width of topics in AI. All books will be free and open access at the AI Access website. Books will also be free to download via other electronic means (e.g. iTunes and Kindle). Hardcopy will be available from major outlets like Amazon at close to cost price using print on demand. There will be a Managing Editor-in-Chief in overall charge of books published by AI Access. Underneath will be an Editor for Collected Works, one for Proceedings, and one for Monographs. I am very pleased that Kristian Kersting, Pascal Poupart and Carles Sierra have agreed to join me in this endeavour. A high quality Advisory Board will be recruited to offer guidance, as well as a set of Associate Editors. All proposals will be reviewed by one or more of the Associate Editors before a contract is signed with the authors. Authors will be free to set the sale price for hardcopy, but AI Access will have some guidelines (e.g. at least \$15 more than the production price to cover our operating costs, but no text can be sold at above twice the production cost). They will also be free to decide how any surplus is distributed (including solely to themselves, or solely to AI Access to help offset other running costs, or somewhere in between). Authors will give AI Access the right to distribute their work, but authors will retain copyright so they can continue to post and distribute their work themselves. They could even sell it themselves if they wish. Associate Editors will be in charge of the reviewing of texts. Reviewers will be paid. The final text will also be proof read by professional copy editors. Paying for reviewing and proof reading adds significantly to the operating costs but is probably necessary to ensure quality is adequate and to get good reviews.

Frequently asked questions

AI Access can't hope to compete with the big publishing houses? Agreed. This is one reason to focus only on AI. Also, we don't need to "win". We just need to provide some competition, so that prices are kept down and access is more open.

AI Access will lack the credibility of a big publisher? Much of the credibility for a publisher comes from us. We sit on the scientific board. We review the publishing proposals. Some we recommend, some we reject. All of this will be reproduced in AI Access books. In addition, AI Access will issue ISBNs, DOIs, and will be abstracted and indexed in all the major venues.

AI Access will lack the visibility of a big publishing house? Again, this is another reason to focus on AI. We will go along to conferences like IJCAI and AAAI and have the same visibility to the AI community as any big publisher.

What sort of books will AI Access publish? Collected works (e.g. the Handbook for Constraint Programming or a Festschrift), Proceedings (e.g. the sort of proceedings published in LNCS), and Research Monographs (e.g. a prize winning PhD thesis). Initially, we will not publish textbooks (but this can always be reviewed). Publishers on the whole already price textbooks more accessibly. Textbooks also require significantly different expertise and capabilities, and have longer lead times than the texts we are planning to publish rapidly at AI Access.

In what ways will AI Access distinguish itself? First and foremost, we will be an open access electronic publisher. We'll encourage authors to embrace this. For example, as well as the conference proceedings, we could publish slides from talks and videos of the lectures at the AI Access website. We could also publish "living" handbooks, where authors update their chapters continually for rapidly moving research fields. Second, our aim is to have a younger, more rapidly changing editorial board than the mainstream publishers. Third, AI Access is not-for-profit. Online books will always be free. Physical books will be sold at close to cost. Fourth, AI Access will be open and responsive to its authors. For example, each book will have an information page, where authors can see information about downloads, sales, and citations. Information will also be provided online about each series (e.g. a ranking of the most downloaded books). We will have tight deadlines for responding to submitted proposals, for reviewing texts and for producing camera ready copy.

How many books will AI Access publish per year? A reasonable goal is to aim for half a dozen books in the first year of operation. We might expect to double this every year for the first couple of years. If AI Access was publishing one book per week in a steady state, I would consider this a great success. If we become the publisher for several annual conferences, a couple of annual Best Thesis prizes, and develop a reputation for publishing good quality Handbooks and Festschrifts¹, this looks achievable.

How much will a typical book published by AI Access cost? Consider the Handbook of Constraint Programming. This has 978 pages. Using a print on demand service like Lightning Source, we could sell this at around \$45 in hardcover, \$35 in softcover (including \$15 to cover our overheads), and give it away for free on the web, the Kindle, the Nook and iBooks. This compares to Elsevier who currently sells it for \$210 for the hardcover, and Amazon who charges \$156 for the electronic Kindle edition.

How will AI Access finance its operations? Like JAIR, the goal will be to be lean so that we don't have to worry too much about our running costs. However, unlike JAIR, we have a natural source of income (the sale of hardcopies). The aspiration will be to be self-financing in 5 years. In the shorter term, organizations like IJCAI, Google, AAAI and NICTA, as well as funding agencies like NSF, EU, EPSRC and the ARC will be approached for some start up funds. We hope to receive a sympathetic reception from many of these organizations and agencies. For instance, the goals of AI Access fit well with Google's much broader aims of "organizing the world's information", as well as the ambitions of many funding agencies to open access to scientific results. By the time the first book is published, our goal will be to have raised over \$30k to fund operations for at least two years.

How will AI Access become self sustaining? Suppose we publish 24 books per year, and that at least \$15 of the sale price of each print copy goes towards our costs. If we modestly assume lifetime sales of 100 copies of any book then we will have an annual income of \$24 x 15 x 100, which is \$36000. Of this, we will need to spend around \$24000 per year on copy editors and reviewers (at \$1000 per book). This leaves \$12000 to cover other operating costs like servers and secretarial support (estimated around \$5-10K per year). Any surplus will be reinvested back into the community (e.g. translating books into popular languages like Spanish and Chinese).

¹Many of the first and second generation of AI researchers are coming up to that age :-)