Electronic Publishing - Current Developments

The advent of electronic publishing and the Internet allows publishers to interact with, and measure, the behavior of their users as never before. As a result the opportunities for engaging with the author and the reader are much enhanced. At the same time some people have argued that electronic production and distribution, should enable a lower cost to libraries and the user. This presentation seeks to demonstrate the difference between the most simple publishing solutions and the more complex and sophisticated both in terms of capabilities and in terms of cost.

Chris Beckett (Atypon Systems, Vice President)

Chris Beckett has been Vice President of Sales and Marketing at Atypon since February 2007. Prior to this he co-founded his consultancy company, Scholarly Information Strategies, with Simon Inger in 2002 to help publishers and intermediaries develop and deliver electronic products and services. He has thirty years experience in libraries and publishing and considerable senior executive experience in product development, sales and marketing for industry intermediaries, including Blackwell Information Services, CatchWord, and Ingenta. Chris speaks extensively on issues surrounding electronic content, intermediaries and libraries, and is a qualified medical librarian. He is a member of UKSG, and ALPSP.

INTRODUCING ATYPON

Since 1995, our business has been providing publishers with sophisticated and flexible e-publishing solutions.
Our ambition is to help increase the readership of publishers, enable new business models, increase revenue, allow publishers to have complete control of their content web sites, and help them interact with the reader more effectively. In addition to providing publishers with innovative solutions Atypon software also powers CrossRef the backbone of the scholarly publishing industry's linking infrastructure. Recent publisher clients include the American Chemical Society (pubs.acs.org) and in the 2010 we will be launching a new site for The New England Journal of Medicine.

THE WORLD WIDE WEB

When the World Wide Web started in 1991, there were many things that were not known to us. We did not have a clear idea of how many journals existed and how these numbers changed from year to year. We did not know how many articles were published, how often they were read, who was reading them, and how valued they were. We did not know how many authors there were, how those numbers changed, and where the changes came from. We did not accurately know how many publishers there were and how many journals they published. Lastly, we did not know how many readers there were, how their numbers changed over time, and how much or how often they read. We were in the dark because the world was dominated by print.
The digital revolution—the advent of the World Wide Web—has allowed us to understand ourselves, our readers, and our users (readers but also libraries and editors etc) much more effectively through the analysis of downloads, citation patterns, and the way content is linked, and the links that are followed. In addition observing onsite behavior helps us understand how people behave when visiting websites.
In addition to helping us understand our readers and their behavior, the advent of the World Wide Web has made it possible for us to break up content. Whether this is a good idea is an interesting debate. Technology

enables us to disaggregate journal articles and books; recombine content; and link it with the distributed data collection, sharing, and analysis. It enables new forms of communication, blogging, and wikis. It allows us to develop ideas on the web collaboratively as a group. Moreover, tracking user behavior with or without registration allows us to better understand and market to readers and to provide them with what they want, when they want it.

CONTENT

Sally Morris who was the Secretary General of the ALPSP until recently had presented at our user conference in Boston last year. She had some interesting ways of looking at how content is changing. She asked the question "Should we insist on a single, fixed, "version of record" or is content becoming more like an agglomeration of the article but with multiple supporting pieces of information? Would it have commentary, blogging comments, video, and so on?" Thus, in the digital space content may dis-aggregate and re-aggregate in interesting ways.

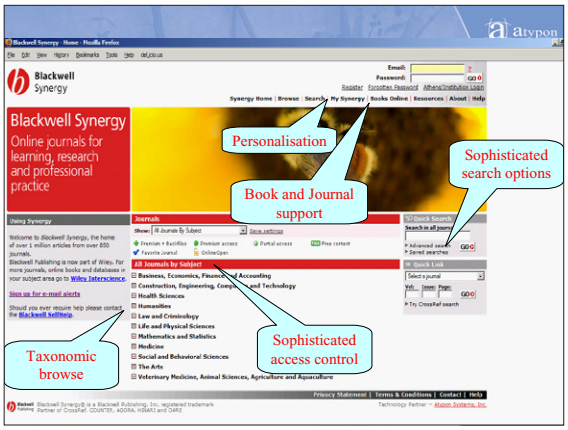
In the print era all we typically knew about the user was that they were in or associated with a library; the print copies would be dispatched to the library and that was all we knew. However, the user is now an individual directly interacting with your website, and the content they are interacting with is no longer a fixed unambiguous product. Also, the user has dis-aggregated from the library to the individual, and therefore the marketing challenge is no longer centered on the institution but is increasingly focused on the ability to market to an individual reader. Now there are new means of tracking behavior on a website. Users can be identified even if they are anonymous; they can be allocated to a virtual group so that you can market to them. Most important of all is the fact that the publisher, using tools on their desktop, can undertake these marketing activities. This is an important part of our philosophy at Atypon; Publishers should be able to achieve as much as possible from their desktop using tools provided by Atypon rather than having to phone or email us in order to control their site.

OUR SITES

I will now discuss some of the sites that we have built and point out certain features. Figure 1 shows the Blackwell Synergy site, which we ran for 6 or 7 years. Although it is now a dead site, it was extremely well thought of during the time we ran it for Blackwell. Some of the key features include:

- Subject browse structure
- Fairly complex access control with access, partial access, and free content icons.
- Sophisticated search and personalization tools, and journal support.

This is the live ACS site, which is a new site (Figure 2&3). ACS were one of the pioneers of electronic publishing and built and ran their in-house system for 13 years.



(Figure 1)

(Figure 2)

(Figure 3)

At the end of that period I think they had reached the limits of their, by then, long-standing, architecture. They evaluated the possible build or buy options and chose Atypon as their partner for their new site. In the course of building this site the editorial department of ACS had to analyze all of the article types that they had. To their surprise, they discovered that they had over 400 types of articles. The process of building any new site therefore imposes some new discipline on the workflow. However once you have a more structured workflow and especially a structured XML workflow you can build some rather interesting sites. These are the issues and positive challenges that confront any publisher - the ACS was not unique in that respect.

The ACS were unique in being the foremost chemistry publisher, one of the world's largest scholarly societies with, as a result, very high traffic levels, and a loyal readership of research and professional chemists, with high expectations. This obviously influenced the design and functionality of the site to a great extent.

Being a chemical society, chemistry was at the forefront. Because chemists engage more rapidly with formulae and molecular structures as compared to text, the ACS made sure that these attributes of an article were put at the forefront.

Another interesting design approach was to provide tabbed based browsing of the Ahead of Print, Current Issue, Most Cited, and Most Read articles. This has proved very popular with the users, the most cited and the most read article tabs are the ones most used.

ACS have put the figures and images in front of the reader wherever possible and appropriate so that it is possible to navigate easily through the figures and images within an article.

OTHER FEATURES

ACS have pop-up reference boxes with internal and external linking.

ACS have separated out the presentation of figures from that of text, you can download images to PowerPoint, and blow up the images to see them more clearly.

There are many other features that are relevant; for example, with some Web 2.0 features, you can post articles on your Facebook account or "Digg it!" or "Del.icio.us."

Each journal incidentally has a different look and feel; our application allows for extensive customization of individual pages. In this case the ACS chose to apply different color schemes for each of their journals in this case you can see the scheme employed by JACS, the biggest chemistry journal.

Another point to remember, and this is not dependent upon XML but is a feature of all the custom websites that we build for publishers, is that all these areas are editable areas that are directly under the control of the publisher.

Here is an example of podcasting being built into a site. Another very important point when implementing any feature rich web site designed to grow traffic and therefore your business, whether society or commercial is that you need to assign a Digital Object Identifier to every object that you wish to independently reference whether for linking, bundling or selling purposes.

ATYPON'S ADMINISTRATIVE TOOL

I think several other providers offer some kind of administrative interface for publishers. However the Atypon Administrative tool is particularly rich in terms of the control it offers to the publisher. The publisher first needs to have control of and be able to load and check content. Similarly the publisher can define what they are selling anyway they like. While it is important to be able to sell a journal subscription, it is also important to able to sell a collection of articles centered on a theme.

Similarly, it is important to have a tool that allows you to define the users, be they institutions or individuals. You then need to define the business rules that integrate the content and the user.

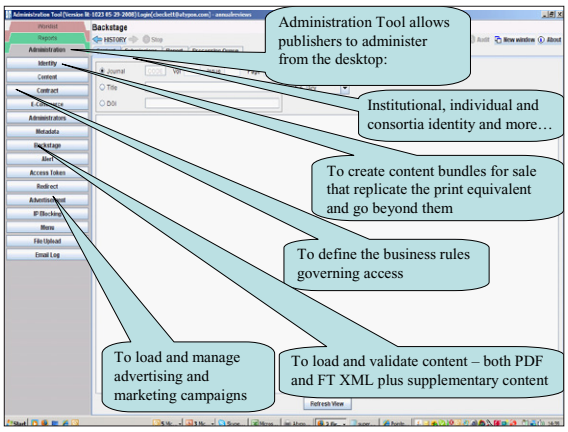
Of course, you need to be able to control the look and feel of your site as well, which of course includes the deployment of Web 2.0 tools. You must also be able to report all of the activity on the site.

In an ideal world, and I live in an ideal world, you need to be able to make all of these changes in real time from your desktop.

ATYPON'S ADMINISTRATIVE TOOL INTERFACE (Figure 4)

It allows them to administer user identity so as to define universities and institutions in terms of IP addresses and so on and consortia in terms of groups of universities. You need to be able to create content bundles for sale in order to replicate the print and sell exactly the same content electronically. At the same time, you may need to sell something completely different which has no print equivalent.

You then need to be able to define the business rules that govern access, in other words, for how long and at



(Figure 4)

what price? Our tool has areas in the system where you can load content. However, while that content could be a PDF with meta-data, or Full-Text XML, you also need to be able to load and review supplementary content because you may need to load a video or the podcast for instance; the possibilities are many.

You also need to be able to manage and load advertising and marketing campaigns. In the scholarly industry, we do not consider ourselves in the advertising business and we do not necessarily strive to increase advertising revenue. Nevertheless many of our clients including the ACS have multiple advertising spaces on their site where they can, for example, can control and promote their own journals, promote devices from chemical device manufacturers, or maybe promote content based around a forthcoming conference to society members.