

Sustainability and Revenue Models for Online Academic Resources

An Ithaka Report

May 2008

Authors: Kevin Guthrie, Rebecca Griffiths, Nancy Maron





JISC, British Library, BBC, National Health Service, Becta, MLA and Engineering and Physical Sciences Research Council working together to fully realise the potential of e-content for all users. For more information on the Strategic Content Alliance, please visit:

www.jisc.ac.uk/contentalliance



I T H A K A

Ithaka promotes innovation in higher education by helping pioneering initiatives thrive.

With special thanks to the Joint Systems Information Committee for its support and advice.



This work is licensed under the Creative Commons Attribution-Noncommercial 3.0 License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc/3.0/> or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California, 94105, USA.

This report is available in alternative formats which can be found at: www.jisc.ac.uk/contentalliance

Contents

Executive Summary	4		
Processes	4		
Summary	5		
Section 1: Introduction	9		
1. There is a sustainability challenge facing online academic resources	9		
2. Why has it proven so difficult to sustain OARs?	11		
3. Objectives, methodology and structure of this report	12		
Section 2: Creating the Structure and Culture for Sustainability	15		
1. Most OAR projects should not assume ongoing support from initial funders.	15		
2. Sustainability plans must include and provide for resources to support future growth.	16		
3. OAR projects create value through the impact they have on users.	16		
4. Projects should think in terms of building scale through partnerships, collaborations, mergers, and even acquisitions.	16		
5. In a competitive world, strategic planning is imperative.	17		
6. OAR leaders must see both the needs of users and the competitive environment as dynamic and constantly changing.	18		
7. OAR leaders must become fully accountable both to their projects and to their funders.	18		
		8. Catalysing a dynamic environment for agility, creativity, risk-taking, and innovation is imperative.	19
		Section 3: Creating and Leveraging Value	20
		Understanding user needs is paramount but often neglected	20
		Creating competitive advantage	22
		Selecting a revenue model	24
		Section 4: Revenue Generating Options for OAR Projects	26
		1. Direct beneficiaries pay	27
		1a. Subscription or one-time payment	27
		1b. Pay-per-use	31
		1c. Contributor pays model	33
		2. Indirect beneficiaries pay	36
		2a. Host institutional funds/in-kind contributions	36
		2b. Corporate sponsorships	38
		2c. Advertisers	39
		2d. Build diverse streams of philanthropic funding	46
		2e. Leveraging content through licensing	48
		Conclusions	54
		Appendix A: Ithaka Framework for Sustainable Not-For-Profit Innovation	55
		Appendix B: Bibliography	61
		Appendix C: Interviewees	65

Executive Summary

This paper was commissioned by the Joint Information Systems Committee (JISC) as the first step in a three-stage process aimed at gaining a more systematic understanding of the mechanisms for pursuing sustainability in not-for-profit projects. It focuses on what we call ‘online academic resources’ (OARs), which are projects whose primary aim is to make content and scholarly discourse available on the web for research, collaboration, and teaching. This includes scholarly journals and monographs as well as a vast array of new formats that are emerging to disseminate scholarship, such as preprint servers and wikis. It also includes digital collections of primary source materials, datasets, and audio-visual materials that universities, libraries, museums, archives and other cultural and educational institutions are putting online.

This work is being done as part of the planning work for the Strategic Content Alliance (SCA), so it emphasises the development and maintenance of digital content useful in the networked world. In this first stage, we have conducted an initial assessment of the relevant literature focused on not-for-profit sustainability, and have compared the processes pursued in the not-for-profit and education sectors with those pursued by commercial organisations, specifically in the newspaper industry. The primary goal of this initial report is to determine to what extent it would make sense to conduct a more in-depth study of the issues surrounding sustainability.

Processes

This study was conducted over three months. We reviewed relevant literature and case studies from the fields of business, management, and philanthropy, we conducted interviews with individuals who have been involved in relevant organisations and initiatives, and we relied heavily on our experience from more than a decade starting up several not-for-profit digital content initiatives.¹

¹ This analysis is not based exclusively on information we have gathered specifically for this review, and we want to emphasise that it is not to be understood as ‘representative’ of the views of the community generally or of the people we interviewed.



Our goal for this first stage is modest: to establish context for a conversation about further work in this area and to help prioritise areas of inquiry that would be helpful both to funders and to new projects. Readers of this initial report are encouraged to challenge its analysis and commentary and to engage with us to identify the most valuable areas for further study.

Summary

There is no formulaic answer or single approach to achieving sustainability

There is no formulaic answer or single approach to achieving sustainability. No study can lay out a ‘one-size-fits-all’ plan that any organisation can follow to reach a point of financial stability. There are, however, a variety of processes and procedures that can help to improve the likelihood of entrepreneurial success. These include establishing organisational mechanisms to develop accountability in leaders, setting measurable goals and objectives, reviewing progress on those objectives on a regular basis, and assessing the performance of both the project and its leaders. Although the development of those procedures is outside the scope of this report, in Appendix A we have provided the framework Ithaka relies on to help guide the development of new initiatives. In our experience, we have been surprised by how few not-for-profit initiatives rooted in the academic environment have such procedures in place. Clearly the leaders of these initiatives are competent professionals; why do they not rely on processes that have proven effective in both commercial and not-for-profit contexts? We have concluded that a key reason for this is that academic researchers tend to approach these problems from a different perspective, and with a different mindset, than do commercial entrepreneurs.

The reason for this different mindset, we believe, is that these kinds of opportunities are relatively new to the academic environment and culture. Over the past decade, developments in technological infrastructure on college campuses combined with the revolutionary changes in the economics of disseminating content have encouraged the creation of services to provide online content hosted from college and university campuses. It now takes relatively little money to ‘publish’ content on a website, and once there it is theoretically true that anyone with a computer and internet connection can access it. The very low costs associated with this kind of passive distribution of information have encouraged the first wave of these projects to focus almost exclusively on securing resources to fund the upfront costs of developing the digital resources. Operating as they did within a grant-making culture, it has been natural for project leaders to see the challenges in ways consistent with their roles as principal investigators on research project grants.

Acting as the principal investigator of a research grant project is a very different responsibility from operating as the organisational leader of a sustainable enterprise. The issue of ‘impact’ is just one example. In our opinion, delivering impact is the key factor in the potential for achieving long-term sustainability; only high impact and highly useful materials will draw the financial support from beneficiaries needed for long-term success. Yet the importance of impact is often underestimated by leaders of not-for-profit digital resource projects. Much attention



is given to making material available and very little attention is given to doing the work to make sure that people will become aware of it, that they can find it, and if they do find it that they will actually use it. We find that few digital resource projects have devoted substantial financial or intellectual resources to understanding user needs, preferences and behaviours. Nor, often, have they invested in understanding the environment of other resources that compete for those users' attention and support. The absence of focused effort on use, impact, and competition among these types of projects has deep implications for their potential long-term success.

For these reasons, we suggest that a shift in mindset among project leaders is necessary if the projects are to secure the needed ongoing resources and manage their cost structures effectively. This shift in mindset has several components.

Among them:

1. Assuming that grant funding will always be available is not likely to lead to a successful sustainability plan. Of course there are exceptions to this assertion – for example, if a grantee is offering a service that is vital to a foundation's mission or is exclusively serving an important programmatic focus of the funder – but these cases are unusual. Most project leaders will have to generate other sources of ongoing support.
2. Project leaders need to adopt a more comprehensive definition of 'sustainability'. It is not enough to cover operating costs; projects need to generate capital for ongoing reinvestment in their content and/or technology if they are to grow and thrive. The web environment is evolving rapidly and relentlessly. It is incorrect to assume that, once the initial digitisation effort is finished and content is up on the web, the costs of maintaining a resource will drop to zero or nearly zero.
3. The value of a project is quantified by the benefits it creates for users – what it allows them to do that they could not do before. Audiences must value the resource if they are to use it, and it is the aggregated value that can be monetised in one way or another to support the enterprise on an ongoing basis. This focus on understanding, monitoring and measuring the demand side value of projects is new to many leaders of these projects, especially those who have traditionally operated in the grant-based culture.
4. Project leaders need to consider a range of options for long-term governance. Success might come in a variety of forms, and sustainability does not necessarily mean independence. An Initial Public Offering (IPO) is not the only exit strategy for a commercial venture. Start-ups in the private sector aim for independent profitability but they also consider it a success to sell their companies to a larger enterprise with the means to take those assets forward. They may also seek to merge with complementary businesses. Not-for-profit projects should think similarly about their options and pursue different forms of sustainability based on their particular strengths, their competition, and their spheres of activity. It is enormously difficult to survive in a competitive environment with a single product aimed at a single market.



Leaders must also embrace the fact that their environment is rapidly changing

5. The web is a highly competitive environment. Projects must embrace the best operating practices of their competitors for mindshare and resources, a group which includes commercial organisations. That means they will have to act strategically, develop marketing plans, seek out strategic partnerships, understand their competitive environment, and identify and measure themselves against clear goals and objectives for how they will accomplish their missions successfully and affordably. Public–private partnerships can provide access to both investment dollars and new skills and business discipline needed to thrive in this environment.
6. Leaders must also embrace the fact that their environment is rapidly changing. We are aware of many projects that, as part of an initial grant proposal, have committed to a multi-year course and then remain stubbornly committed to that course to fulfil those grant terms even as the environment has shifted in ways that require a new direction. OAR project leaders (and their funders) must continually ask whether they are headed in the right direction and be prepared to adapt when necessary.
7. Running a start-up is a full-time job and requires full-time leadership. The mode of principal investigators, in which they divide their time between overseeing a variety of research grants, teaching courses, and other responsibilities, is not conducive to entrepreneurial success. New initiatives aiming for sustainability require fully dedicated, fully invested, and intensely focused leadership. If a principal investigator cannot provide it, he or she will have to retain a very capable person who can.
8. Innovation depends on experimentation, and project leaders should embrace the fact that there are generally no straightforward solutions. In most cases, the initial plan for achieving sustainability will be wrong, and will require modification. Engaging in a recurring process of trying new things and adapting plans to fit lessons learned is critical to longer-term success.

The first part of the report is focused on highlighting the need to engender these principles in leaders of these not-for-profit projects and putting in place infrastructure to ensure success. Through its efforts to develop entrepreneurial not-for-profit organisations, Ithaka has developed a framework of operational and governance processes designed to increase the probabilities of success for new initiatives (see Appendix A). We think it beyond the scope of this study to review each of the components of that framework, even though we believe strongly that putting in place the right kind of organisational infrastructure to promote accountability, flexibility and discipline in any project is essential.

The middle section of the report focuses on the component of the above framework dedicated to defining the service model of the enterprise – how one goes about determining the value of the service to be developed. This value must be tied to how the project serves the needs of specific audiences, and how it does this more effectively than other available options. Most online academic resources invest too little in market research to inform their product development and the segments of users their projects will support. They risk developing services that are not what people really want or that go beyond what people are willing to support.



We want to emphasise that we recognise that sustainability has both a revenue component and an expense component

Moreover, on the web, secondary audiences (ie those not defined as the ‘core’ target audience) can be a valuable means of extending the impact of a project and tapping into new sources of revenue.

When the work to develop a clear understanding of the value of a project is completed, and a project can demonstrate that it indeed delivers a service that will have measurable impact on an intended community, the next question to be addressed is how to convert that value into sustainable support. We want to emphasise that we recognise that sustainability has both a revenue component and an expense component. We have chosen in this first stage to focus on the revenue side of the ledger. The final section of the report outlines the various mechanisms being used by projects and commercial organisations to monetise that value into ongoing revenue streams. Here we offer some high level principles, a framework for thinking about the options, and specific examples of some of the mechanisms of revenue generation being employed. Our objective is to test whether it would be useful to develop a descriptive matrix that groups organisations based on certain characteristics (for example, does the resource provide access to unique content?) and then provides them with information about the kinds of economic models being deployed by products and services with similar characteristics. Such an effort would require a substantial amount of research to categorise and research the different models. It would also only be a snapshot and would require regular updating to continue to be valuable. We hope this paper will promote dialogue that will help us to answer whether the development of such a resource is worth pursuing. Or, are there other research efforts that could be pursued that would advance the community’s ability to sustain important not-for-profit academic resources?

We hope that the framework, analysis and examples presented in this paper provide helpful background and useful context for a discussion of the important challenge of sustainability, and the next steps to take.

Section 1: Introduction

1. There is a sustainability challenge facing online academic resources

Over the last decade, the development of digital and networked technologies has generated great excitement about the promise of new digital distribution mechanisms that support scholarship in more efficient and productive ways. During this period of experimentation, many millions of dollars have been invested by foundations, government agencies, universities and cultural organisations to create online academic resources (OARs), not only e-journals and e-books, but digital content of all types in a rich variety of formats that support teaching, research and collaboration among scholars.

Many of these projects initially intended to pilot or test new approaches to knowledge dissemination and, having fulfilled that original objective, are no longer operating. Others have emerged or are emerging from such a research phase and have become valuable to specific academic audiences, but lack mechanisms to generate recurring financial resources to cover the ongoing costs associated with providing an ongoing service. And more and more new projects are being created with the premise that they should develop into sustainable services. Regardless of the initial intention, if the projects cannot achieve financial sustainability, they will either limp along or fail altogether.

So, what is at risk here? In the print world, if a publisher failed or its books went out of print, some number of those books would still be available on library shelves. And sometimes events would revitalise the academic value of those materials and they would come back into circulation. When an online resource fails, its content may become completely unavailable, resulting in a real loss to teaching, learning, and research, not to mention the loss of the initial investment required to create it. It is important therefore for the developers of these resources to think carefully and strategically about sustainability and long-term access to the materials they generate as they build these resources.



And there is indeed reason for concern. We have seen evidence that the funding stream for already-established projects has already begun to taper off. As we transition from a period of experimentation to one that demands ongoing services, funders find they are being asked to devote an increasing share of their resources to maintaining existing projects, limiting the funds they have available to support new innovation. In recent planning documents JISC outlines the problem: ‘Unless services and the output from development projects can transition away from full JISC funding, the flexibility of the JISC to fund further innovation will diminish or disappear as more and more of its longer term funding is used to support them.’² Although some projects may be able to attract recurring philanthropic or government funding, most projects cannot rely solely on this. A more rigorous and comprehensive approach to sustainability, therefore, is needed throughout the OAR community.

We define ‘sustainability’ as **having a mechanism in place for generating, or gaining access to, the economic resources necessary to keep the intellectual property or the service available on an ongoing basis.**³ This does not mean that every ‘project’ will need to launch an independent organisation to do this – indeed, most probably it should not. It also does not presuppose any particular method for revenue generation: an Open Access resource, for example, will have a different set of revenue options available to it than a project that is willing to charge a subscription fee, but both should be expected to develop a sustainable economic model. In short, every project needs to put in place an organisational infrastructure that includes focused leadership and an entrepreneurial culture that will enable it to continuously evaluate and select from a full range of strategic options available for revenue generation, management of expenses and opportunities for strategic collaboration. Pursuing sustainability is as much about a mindset and a process as it is about producing a written plan.⁴

To reiterate, not all philanthropically funded digital initiatives necessarily should aim to be sustainable. There is a critical distinction between online academic resource projects that are in essence meant to be R&D and those that have missions to offer resources and services to a community of users over a sustained period of time. This paper is strictly about the latter projects. We want to contribute to deeper community-wide understanding of what it takes for these projects to continue to succeed and to be supported over the long run.

² Joint Information Systems Committee Business Development Requirements Study document (2007).

³ We should clarify that we are not referring to environmental sustainability in this paper, but rather economic sustainability.

⁴ Describing the organisational structure necessary to promote innovation is outside the scope of this paper, though in Appendix A we have provided the key components of a framework that Ithaka has developed to guide not-for-profit entrepreneurship.



2. Why has it proven so difficult to sustain OARs?

Providing a web-based academic resource is far more complicated than is often understood, and competition in the online environment is perhaps the most important factor in this. Even though many OARs aim only to provide specialised tools and content to academic users, they must pursue sustainability in the dynamic and increasingly commercial online environment. There, OARs necessarily compete for the attention and mindshare of even academic users against Google, Flickr, YouTube, and a variety of other services, whose offerings regularly (even if unintentionally) cross the line between academic and non-academic content. By deciding to launch web-based resources or services, scholarly projects are moving from a relatively sheltered environment operating at the pace of the academic enterprise into one that operates at the speed of web commerce. It is a challenging new world.

This expertise is quite different from what is required of a leader of an ongoing service enterprise

Moreover, many OARs are led by individuals, often principal investigators from academia, whose experience is in securing research and grant funding, and delivering research results. This expertise is quite different from what is required of a leader of an ongoing service enterprise. Because leadership is so important to the success of any enterprise, we address this issue in considerable detail in Section 2, where we consider ways that the academic mindset may need to be changed to support these kinds of services.

The challenges to financially succeeding in the online environment have become abundantly clear through the crises that have disrupted many 'traditional' business models in the commercial world, including scholarly and consumer book publishing, newspapers, and the music business. Content producers of all types are currently engaged in a struggle for survival, as they determine how they can provide what their audience desires – more content at no charge – without eroding the revenue that their businesses rely on. This has been keenly felt in the newspaper industry, where today most news content is freely available online, largely supported by advertising revenues. For that reason we spend considerably more space in Section 4 describing different implications associated with pursuing advertising on the web.

Another aspect of the challenge for OARs competing in the commercial network economy is that there is a strong set of mission-based reasons why not-for-profit OARs should be available to all potential users without charge. All OAR projects must develop sustainable economic models whether they are Open Access or not; having a starting requirement that the resource be freely available simply restricts the range of revenue generating options available to the project.

Pursuing sustainability on the web is an enormous challenge for any organisation, even the largest commercial organisation. For small not-for-profit projects emerging from the higher education sector, it is harder still, and may feel like flying to a different planet or learning a whole new language. The good news is that the internet is still in early stages of its evolution; newcomers crop up and succeed all the time (YouTube was started in 2005; Facebook in 2004!).



3. Objectives, methodology and structure of this report

This study arose out of the increasing concerns expressed to us by philanthropic agencies that grantees were not making the transition from dependence on grants to alternative sources of financial support. In addition, OAR project leaders have increasingly approached Ithaka and other organisations or individuals with experience of developing new financial models, looking for help in developing a reliable path toward economic sustainability. Moreover, Ithaka itself wrestles with and has experience addressing these same issues in the work we do to incubate and develop new enterprises. In combining these increasing concerns and our experience, the one thing that we are sure of is that there is no formulaic answer to developing sustainable enterprises. No study is going to be able to lay out a 'one-size-fits-all' plan that any entity can follow to achieve business success. This problem is made even harder by the fact that we are in the infant stages of a dynamic web, and it is simply too early to say whether any resource is sustainable for the very long term. Sustainability is a moving target in this domain.

This study is only the first step in defining a deeper analysis of the diverse sustainability paths for OARs

This study is, therefore, only the first step in defining a deeper analysis of the diverse sustainability paths for OARs. The paper is intended to serve as a background document to help inform a series of conversations about what approaches further study should take, and what type of tools the community of funders and project leaders would find most useful. One hypothesis we intend to test is whether it would be useful to develop a descriptive matrix that groups organisations based on certain characteristics (for example, does the resource provide access to unique content?) and then provides them with information about the kinds of economic models being deployed by products and services with similar characteristics. Such an effort would require a substantial amount of research to categorise and research the different models. It would also only be a snapshot and would require regular updating to continue to be valuable. Is the development of such a resource worth pursuing? Or are there other research efforts that could be pursued that would advance the community's ability to sustain important OARs?

A note about perspective: this study examines the sustainability question from the point of view of an individual OAR, a project seeking to develop and implement a sustainability strategy for itself. This is, necessarily, a theoretical model only: quite often, the projects we have encountered are part of a larger ecosystem of projects, and therefore subject to many other decision-making forces beyond the project level. The perspective of the leader of a non-profit organisation or university managing a whole portfolio of digital projects is likely to have different concerns and different revenue options available to them, as well as different strategies for balancing the range of projects they sponsor. In the same vein, we often refer to a 'project leader', a person with responsibility for decision-making for the organisation, although in many cases, this can be a team of people either within an organisation or even across several organisations. While not a part of this paper, these important and complex dynamics could be addressed in future research on this topic.



Sustainability can be attained by a combination of increasing revenue and/or reducing costs, so understanding both sides of the ledger is essential. Given the scope and the short period allotted for this first phase of the project (three months), we decided to focus the initial assessment on the revenue side of sustainability. We drew from several types of sources:

- Literature addressing the strategies, options, and risks for not-for-profits seeking to develop sustainable business models. These include papers and books published by business school faculty and by practitioners such as the Bridgespan Group, a non-profit consultancy⁵
- Press coverage and blogs on the efforts by commercial and non-profit websites to build successful revenue models
- Reports on the newspaper industry, which we thought might offer some valuable comparative data and possibly some thought-provoking questions on the impact of commercial forces on existing publishing models⁶
- Interviews with staff from a number of newspapers, other web-based commercial enterprises, and cultural institutions in the UK

A detailed bibliography of these sources is provided in Appendix B.

We also drew heavily from our own experience over more than a decade working with not-for-profit OAR projects. We have direct experience with Journal Storage (JSTOR): Ithaka's president, Kevin Guthrie, was JSTOR's founder and president for ten years, and we continue to provide consulting services to it. We have worked closely with Ithaka's incubated initiatives – Portico, Aluka and the National Institute for Technology and Education (NITLE) – which all strive to provide services related to information technology. We have consulted for several open source software projects and produced a report on the potential for open source software in higher education. We have consulted for a number of projects seeking to provide content online for research and/or teaching. We published a report last year on university publishing in the digital age, in which we spoke with a large number of university presses, scholarly societies, and librarians about the challenges of moving scholarly communications online. And we meet regularly with projects coming out of our community that are grappling with sustainability.

⁵ Many sources have dealt with the general issue of revenue generation for non-profit organisations, some regarding digital resources. These include Alan R. Andreasen and Philip Kotler, *Strategic Marketing for Non-profit Organizations*, Sixth Edition (Prentice Hall, 2003); Barry J. McLeish, *Successful Marketing Strategies for Non-profit Organizations* (John Wiley, 1995); and Kelly Campbell and Betsy Haley, *Business Planning for Non-profits: What it is and why it matters* (Bridgespan Group, 2006).

⁶ The parallels between the world of traditional scholarship and that of newspaper journalism seemed striking: both are grounded in long-held traditions and have seen the method of distributing this information radically transformed in recent years. Both fields have struggled with questions of making information freely available, while still generating sustaining revenue. And both were accustomed to working within long-established traditions: newspapers could rely on circulation plus advertising, within a well-defined, geographically delimited market, while academic projects were typically grant-funded. Where the newspaper industry parts ways with academia, though, is that as a for-profit industry, the decisions companies are making now concerning how to generate revenue are not just a 'healthy' exercise; they are literally a matter of life and death. As such, the intensity of experimentation and analysis that newspapers are devoting to this topic will help inform online educational resources as they now take up this challenge.



*Understanding
the scale and
characteristics of that
community is essential*

The analysis in this paper is therefore informed by a blend of general experience and targeted research. It is not meant to be an objective statement of facts collected, or even 'representative' of the views of the community or of people interviewed. It is deeply influenced by our own experiences and observations. Throughout the paper we will try to be clear about the basis for our assertions.

The structure of this report is as follows. In Section 2, we describe the mindset we believe is required to lead and operate a successful ongoing service. This section draws most heavily from our experience, and attempts to call attention to some of the structural and cultural issues that hinder OAR projects from adopting practices that are most conducive to achieving sustainability. Section 3 highlights what we regard as the most important step in developing a sustainable enterprise, namely, developing an understanding of the sustainable value that the project will generate and of the community it is intended to serve. Understanding the scale and characteristics of that community is essential. Without such a thorough understanding of the inherent value of the resource, one cannot develop successful revenue and expense models to pursue it. Section 4 represents an initial effort to sketch out a possible framework for the descriptive matrix described above. Although it does not identify different kinds of projects and associate them with different revenue models, it does attempt to provide an overview of the different kinds of revenue models being pursued by academic and commercial online resources.

This study was funded in part by JISC through the Strategic Content Alliance, which aims to provide tools to help OAR projects in the UK develop sustainable models. We hope that this report will provide useful structure for a conversation about next steps to assist not only the JISC, but also other funders around the world that share concerns about the long-term sustainability of Online Academic Resources.

Section 2: Creating the Structure and Culture for Sustainability

One important step toward creating an environment of sustainable innovation is to influence the mindsets of those leading the projects. There are profoundly important differences between a research project and a sustainable scholarly service. Most of the people currently in a position to oversee digital projects in the academic environment operate in a research culture. They did not choose a career leading organisations providing services in a competitive marketplace. They chose a life in the academic environment and culture. As academic projects find themselves co-mingled with commercial efforts, the approaches required to sustain these not-for-profit services are very similar to those that make business enterprises successful, even though the ultimate motives of commercial and not-for-profit entrepreneurs, and the measures of success, may be quite different. What follows are descriptions of eight approaches and perspectives that in our experience are conducive to pursuing sustainability in the not-for-profit context.

1. Most OAR projects should not assume ongoing support from initial funders.

It is the role of foundations and government agencies to provide start-up capital for academic projects that are unlikely to generate commercial returns and are therefore unlikely to attract commercial interest. Some foundations may be prepared to make repeated investments in projects that are critical to their own missions, and perhaps prepared to make recurring commitments to fund operating expenses.⁷ But in most cases, projects must regard initial funding as precisely that – start-up funding to bridge the organisation to other reliable, recurring, and diverse sources of support. Taking this approach is healthy because it forces projects to engage a variety of beneficiaries directly (users; commercial, governmental and non-profit beneficiaries), rather than working only to ensure that the primary funder continues to be satisfied with progress.

⁷ To the extent that philanthropic funding is part of the ongoing revenue mix for some projects, it is important for them to think in terms of delivering value to the funder's mission.



2. Sustainability plans must include and provide for resources to support future growth.

There is a tendency in grant-funded projects to focus on fixed budgets to cover defined operating expenses. They do not allow for the generation of funds to support capital investment. To thrive on the internet, projects need to evolve and grow. The half-life for content on the web is quite short; a static resource will quickly become stale and lose the interest of users. A thriving resource or service should strive to generate surplus revenue for reinvestment over time.

3. OAR projects create value through the impact they have on users.

Many projects are conceived with a supply-side mentality (we want to share this great collection of content; we have an innovative approach; we have innovative technology, etc.) rather than from a demand-driven desire to address a need that is not being met. Projects need to understand their users and their users' needs in great depth. It is surprising how many not-for-profit and academic projects operate with little user input in design and even less user feedback after implementation. Without a strategic understanding of users' needs, it is only through serendipity that a resource can attract users and have an impact on a significant population or field of academic endeavour. Attracting users is essential for garnering support from a variety of sources, including philanthropies and government agencies.

4. Projects should think in terms of building scale through partnerships, collaborations, mergers, and even acquisitions.

Many OARs are conceived as single resources aimed at a single market. The advantage to this approach is that they are positioned to do that one thing better than anyone else (reflecting the academic value on highly specialised expertise). On the other hand, this narrow focus can quickly become a liability, as projects struggle to achieve critical mass.⁸ It is a kind of paradox that publishing a single item on the web costs next to nothing, but publishing aggregated content in an effective and sustainable way favours massive scale. Scale is required to support the technology platform and the staff to manage that infrastructure, as well as staff for tasks such as user support, marketing, and fundraising. An important question is whether highly specialised projects can piggyback as low marginal costs on existing organisations and infrastructure, or if they need to be supported completely by a new entity. There is significant overhead needed to support independent operations (legal costs of incorporation, basic infrastructure needs such as finance, human resources and desktop support, and the mechanism

⁸ Note that, of the 1,924 different collections inventoried in the UK, 1,051 were found to be held by different owners. *Digital Repositories and Archives Inventory: Conclusions and Recommendations*, Sheila Anderson and Daisy Abbott, project managers. For further detail, see: www.jisc.ac.uk/whatwedo/programmes/digitalrepositories2007/project_inventory



through which funding is generated). Many projects would, we suspect, be better off joining forces with an existing enterprise that already has much of this infrastructure in place.

Extending this idea leads us to suggest that there may be times when an existing project no longer makes sense as a standalone enterprise. Leaders should explore a range of possible outcomes, including licensing, incorporation into an existing enterprise, merging with other similar projects, and other alternatives to indefinite growth.⁹ Here again, one can learn from the experience of the for-profit world. Exit strategies for start-up enterprises include a full range of such options. An IPO is not the only successful outcome. Being purchased by an existing organisation or merging with other organisations can also represent success. The same should be true for not-for-profit and academic innovation.

5. In a competitive world, strategic planning is imperative.

Leaders of OAR projects pursuing sustainability must come to terms with the fact that they are operating in a distinctive environment. A study published last year by Diane Harley and her colleagues at the Center for Studies in Higher Education (CSHE) observed, ‘There is much hesitation in academic circles to endorse the concepts of market research, strategic planning, and commercial sustainability. Academic institutions do not operate in the same way as commercial enterprises and, some say, we should not expect them to.’¹⁰ Another study conducted by the National Science Digital Library (NSDL) found that ‘the business-plan approach to sustainability, with accompanying words like “market analysis” or “due diligence” was not on the radar of most respondents. In fact, there was an undertone of antipathy towards “productizing” project research.’¹¹

Since the academy’s primary product, knowledge, can now be distributed digitally... the days of insulation are over

Historically, academic projects have been shielded from commercial pressures, in part by funders, but mainly because their economic environment operated largely independently from other areas of commerce with revenue, activity, and pace being generated and controlled in a top-down fashion within the community. Since the academy’s primary product, knowledge, can now be distributed digitally, and is now transmitted on the same infrastructure as all forms of commercial information and entertainment, the days of insulation are over. The academy is pierced by opportunity and challenge at every level. Accepting and even embracing the mechanisms of the marketplace, if properly placed in a mission-oriented context, can enhance the value that a project generates by sharpening its understanding of where need is greatest and how it can most usefully deploy its resources. The project leaders that are most likely to succeed in this environment are those who can operate successfully under the pressures of competition and accountability, and in the messiness of innovation and continual reinvention.

⁹ Rita Gunther McGrath and Thomas Keil, ‘The Value Captor’s Process: Getting the Most out of Your New Business Ventures,’ *Harvard Business Review*, May 2007, pp. 128–136.

¹⁰ Diane Harley, et al., *Use and Users of Digital Resources: A Focus on Undergraduate Education in the Humanities and Social Sciences*. Center for Studies in Higher Education, UC Berkeley (April 2006), page 7–23. See: <http://digitalresourcestudy.berkeley.edu>

¹¹ NSDL, Sustainability Standing Committee: Position, Progress & Plans, 2003 NSDL Annual Meeting Poster.



Public–private partnerships can be useful strategies for entering a commercial marketplace. Commercial organisations can provide a number of benefits: investment funds or ongoing revenue streams, access to new customers, access to new technology or expertise, and also (with the right partner) exposure to business-minded discipline – a rigorous and fast-paced approach to decision making and risk taking.

6. OAR leaders must see both the needs of users and the competitive environment as dynamic and constantly changing.

OARs not only need to think through how they will compete in the current environment, they also need to try to imagine how this environment will be different three years down the line. But not even the most prescient and experienced internet sage would claim to have good foresight over such a time horizon. Instead, most would counsel the project to fail early and often, to develop the capability for rapid cycles of experimentation, rather than spending multiple years attempting to build the optimal resource in isolation from the market. Unfortunately, many OARs are structurally set up to do the latter – their grants are committed for multiple years and tied to a specific deliverable; the project staff spend extended periods of time developing a set of requirements around very specific workflows, or painstakingly identifying and acquiring rights to a highly curated set of content, only to lift their heads and find that the workflows have changed, or that the resource created has been overwhelmed by the changing needs and demands of users.

7. OAR leaders must become fully accountable both to their projects and to their funders.

Academic leaders often are accustomed to practices of the grant system. For example, some principal investigators are only allowed to spend a fraction of their time on a given project, and many retain multiple positions within their host institutions. The problem is that a new initiative aiming for sustainability requires fully dedicated, fully invested, and intensely focused leadership. There are a variety of ways to encourage this kind of focus and accountability, and some of those are outlined in the aforementioned Appendix A. It is important that there be external oversight for the project that requires regular reporting and evaluation of progress toward defined objectives. In addition, as it pertains to the leadership, there should be efforts to ensure that the operational leader is fully dedicated to the project and that their job security is tied to performance in achieving measurable outcomes, in terms of both operational goals and financial projections.



8. Catalysing a dynamic environment for agility, creativity, risk-taking, and innovation is imperative.

Most projects will arrive at the right business model, the right pricing model, or the right ‘sales’ pitch only after multiple attempts. The competitive environment online is always changing. Most successful online ventures are marked by a willingness to constantly try new things. In the newspaper industry, the UK-based *The Guardian*’s focus on a variety of revenue models quickly and efficiently made it possible for them to test the waters earlier than their competitors. *The Guardian* decided early on to pursue an advertising rather than subscription strategy, and were able to build a large audience while other newspapers were still trying to replicate their print models online. Commercial sites such as Facebook, YouTube and Google are constantly trying out new services or products to see which will resonate with users. Clearly, very few non-profits have the resources to take large risks and make numerous simultaneous investments, but the ability and willingness to take risks on a smaller scale and to accept that some attempts will fail is still critical.

‘Invest a little to learn a lot’

Clayton Christenson, a professor at the Harvard Business School, articulates a ‘good enough’ principle in *The Innovator’s Dilemma* – an urgency in getting new ideas to market quickly, if not perfectly.¹² As the Newspaper Next project terms it, the fast-paced arena of the internet demands an approach of ‘Invest a little to learn a lot.’¹³ A key question is whether funding bodies are prepared to support such experimentation and nimbleness within grant projects, and whether they can tolerate such experiments when they fail.

¹² Clayton M. Christensen, *The Innovator’s Dilemma* (Collins Business Essentials, 2006).

¹³ *NewspaperNext: Blueprint for Transformation* (American Press Institute, 2006), p. 29. Available online at www.newspapernext.org

Section 3: Creating and Leveraging Value

Understanding user needs is paramount but often neglected

In Section 2, we highlighted the fact that taking a demand-driven approach to understanding value through the needs of users is an important shift in thinking that needs to happen for most not-for-profit OARs. Without developing a clear sense of the sustainable value a project offers to a community, there can be no sustainability. And yet, many not-for-profit initiatives fail to embrace this essential point. As a recent study of digital resources put it, ‘the “build it and they will come” approach [of many university digital initiatives] has in many ways precluded systematic investigations of user behaviour and demand.’¹⁴

Indeed, the level of attention and resources dedicated to understanding who users are, what they need, and how they use a resource, has been insufficient in many cases we have studied. Project leaders tend to focus on the inherent values of the product or service itself – the quality or uniqueness of the content, the novelty of their approach, the elegance of their technology, or the degree to which it satisfies their own research needs. They do not often enough go on to test which of these attributes, or what other attributes, might be of greatest importance to their intended users. Other principal investigators set out only to create a service that is helpful to them in their own research work, assuming that it will be helpful to others, but doing little to determine if there is another community that will benefit from its creation.

It is important not to confuse this kind of market research process (sometimes called product marketing) with the more intuitive process that drives innovation. Entrepreneurial leaders must have an instinct about where there is an unmet need or opportunity to transform the way people work, and market research is unlikely to generate these insights. Market research is most useful in fine tuning the translation of a broad vision into a service or for services that are broadly familiar to users but fill a gap in, say, a particular discipline. It can also be beneficial in making critical decisions about service design. For example, some projects start out with a broad

¹⁴ Harley et al., section 7, p. 3.



For an online resource, then, a critical first step toward sustainability is gaining an understanding of the needs of its community of users

statement of need ('There is a need for better online courses in field X') but then fail to delve into the specifics ('Do instructors want course materials that take an innovative or generic pedagogical approach? Do these materials need to be integrated with course management systems? Are instructors willing to learn a new interface for each set of course materials? How many people would benefit from having access to such a resource?'). In this instance, market research could help the project design a service that will have strong appeal to its intended users.

For an online resource, then, a critical first step toward sustainability is gaining an understanding of the needs of its community of users. Only by understanding these needs deeply and in their true complexity can an OAR begin to address these needs. And only by addressing these needs in an enduring way can users gain meaningful benefits. As a result of these benefits, users realise the value of having access to the resource – value generated, for example, in their increased productivity or ability to do new kinds of work. And as a result of this value, users and other potential stakeholders are motivated to invest resources to ensure that the value being generated is not lost, but rather maximised.

Not all users are the same, and a not-for-profit project must focus on its most important user community first, which should be identifiable by the mission of the project. This core audience could be defined in a variety of ways; for example, a highly cited academic journal focuses on the needs of faculty in a specific academic discipline. At the same time, project leaders may find opportunities to broaden their impact and revenue potential by imagining how their services could benefit secondary audiences.¹⁵ For OARs, this might mean thinking about the needs of audiences across disciplinary boundaries, in secondary education, or even in the general public. To pick up on the previous example, an academic journal in history may find that its historical backfiles are important to genealogists and could develop mechanisms to meet the needs of that audience. JSTOR offers another example. It was originally envisioned to offer an opportunity for research libraries with large collections of journal backfiles to realise savings in shelf space while also improving the accessibility of those backfiles. It has proven to be valuable at all kinds of institutions – small colleges, community colleges, high schools, small research institutes – that have never before been able to collect long journal backruns. The emergence of widely used search engines such as Google has introduced JSTOR to an even wider community of users not directly associated with academia. It is possible to remain true to mission while engaging new constituencies to offer more value to a broadened scope of users.

The emergence of ubiquitous networking capacity facilitates this ability to reach users with different needs and approaches. In looking at the news industry, we found that some newspapers have taken advantage of the web to expand their reach to new audiences. In the United Kingdom, the top five news-related websites all attract more readers from outside the UK than from within its borders. As of August 2007, only 37% of Guardian.com's audience came from the UK, as did

¹⁵ Harley et al., section 7, p. 17. This summarises the part of a meeting in 2005 which addressed the pros and cons of serving a project's 'unintended' audience. Some saw opportunity in this new audience segment, while others underlined the possible costs and trade-offs that would need to be considered.



33% of TimesOnline.com.¹⁶ These readers from outside these newspapers' print circulation audience contribute to the traffic volumes and therefore the potential for advertising dollars. Another example is bbc.com, created as a for-profit venture to generate advertising revenue by providing the BBC's content to non-UK audiences.

OARs should focus on their core constituency first, with an eye to how that constituency is likely to evolve over time, but they cannot ignore the possibility that their work might be leveraged at relatively little cost to be valuable to other constituencies. By taking the time to understand core as well as secondary audiences and markets, project leaders increase the likelihood of translating their needs into products and services that are transformational and have impact. The more the project leaders understand about both core and secondary users, the better they can choose revenue models that will support the needs and reinforce the ethos of those visiting the site. And in turn, these users will form the first step towards successfully undertaking the revenue strategies discussed below.

Creating competitive advantage

As was discussed earlier in this report, offering electronic resources over the internet is a competitive undertaking. Projects not only have to compete for resources, they must also compete for the attention of users. In order to generate sustainable value, OARs must consider and develop persistent areas of activity that distinguish them from alternatives. These become areas of competitive advantage that then must be monitored and managed. This does not necessarily mean building the world's best resource – the OAR service's features have to be calibrated to what its market can support. Often this means offering something that is 'good enough' to meet users' basic needs, and then building from there based on how the market reacts. Even innovative and successful projects that enjoy first-mover advantage, by their very success, encourage competitors to enter the same space. Focusing on competitive advantage, both in the launch of a project and as it matures, is an essential element of sustainability.

OARs must develop competitive advantages regardless of the revenue model they rely on for support. It does not matter if a resource is subscription-based, Open Access, or supported by budgets of a host institution. For any site, users have a choice in what they pay for, where they spend their time online, or whether to volunteer their time to help support a project. Each project must build sources of advantage that make it valuable and attractive to users, and find ways to sustain these advantages over time.¹⁷

Assets or capabilities that make a project uniquely valuable to users, and are challenging for other services to replicate, include:

¹⁶ See www.guardian.co.uk/media/2007/aug/13/mondaymediasection11

¹⁷ We have observed that many non-profits expect to create competitive advantages in the area of costs, because they do not need to generate a profit for shareholders. This is rarely successful for a number of reasons, but scale is probably the most important. Non-profits struggle to achieve economies of scale because their access to capital for investments or merger and acquisitions is so limited. In general, they are better off pursuing other sources of competitive advantage.



- Offering a superior product or service that is tailored to the needs of users
- Providing a lower cost solution, often by taking advantage of economies of scale
- Having exclusive access to unique content
- Building brand loyalty among users
- Creating 'switching costs' that make it difficult for users to move to other providers
- Creating first mover advantage (though this is difficult to sustain, unless the organisation turns rapid innovation and speed-to-market into a core organisational strength)
- Building two-sided network effects
- Creating an environment that attracts the best talent

For purposes of illustration, we will highlight two types of competitive advantage that seem especially powerful for online resources. One is in creating online communities that take advantage of and build services that leverage network effects. Sites such as eBay and Wikipedia create an attractive 'marketplace' for both suppliers and consumers (eBay for physical products, Wikipedia for information). Once such a marketplace is operating at very large scale, it becomes very difficult for others to replicate. On a smaller scale, *The Guardian* leveraged the affinity among its readers to launch new services such as a dating site (which charges membership fees, currently boasts 75,000 members and reports 1,000 new members joining each week¹⁸) and their 'Comment is free' blogging site, which has largely contributed to the average reader 'length of visit' times of 37 minutes on the site as a whole (by way of comparison, this figure is nearly twice that of NYTimes.com).¹⁹ In the academic sector, these kinds of communities taking advantage of networks have so far been created through grassroots, volunteer-driven websites such as Research Papers in Economics (RePEc), arXiv (in physics), and Humanities and Social Sciences Online (H-Net).

A second approach involves creating integrated environments of content and software tools that become deeply ingrained in the user's workflow

A second approach involves creating integrated environments of content and software tools that become deeply ingrained in the user's workflow. Responding to user needs and becoming embedded in user workflows introduces switching costs that can serve as an important source of competitive advantage. Commercial publishers are increasingly attempting to broaden their services beyond publication of finished scholarly works to involvement earlier in the research enterprise, for example, by developing infrastructure to support the creation and maintenance of pre-prints and tools for scholarly collaboration. The variety of efforts being pursued by the Nature Publishing Group is one example of this approach. Bloomberg, the financial information company, takes a similar approach. Its real-time financial data and analysis service aims to supply finance professionals with every layer of data they require to accomplish their jobs. Their substantial news service operates

¹⁸ The initial profile posting and browsing is free, and subscribers can then pay a daily or monthly fee for the privilege to contact other members.

¹⁹ Interview with Colin Hughes, Managing Director, Guardian Professional. On the other hand, the blogging pages themselves do not attract many advertisers; despite the high traffic advertisers remain leery of advertising there.



in support of their core financial data business, creating an integrated product for users, who (in theory) should never need to conduct research beyond their Bloomberg terminal.²⁰ Other large publishers are pursuing their own versions of this strategy, as well.²¹ We see a number of OAR projects, too, trying to provide integrated suites of content, tools, services, and community, together comprising the environment for research and collaboration. An open question is whether these projects can amass the scale and capabilities to provide this array of services and achieve this kind of competitive advantage.

Selecting a revenue model

After determining how value is created for an important community of users, and considering how this value can be maintained in a competitive environment, the next critical question is how value can be translated into recurring revenue streams. It is to be expected that all not-for-profit OAR projects will need to generate some amount of ongoing revenue or financial support, even those that are able to motivate volunteer contributions for content and platform development or find other ways to keep costs very low. For example, the Wikipedia Foundation's annual operating budget is a non-trivial \$4.6 million, of which over half goes to pay for servers and other equipment.²²

The first place to start is by developing a set of criteria against which to evaluate revenue options. These criteria may include:

- Alignment with the mission of the project: Can we implement this model in a way that is consistent with our core values and mission?
- Fit with the project staff's capabilities and strengths: Do we have the ability to implement this model?
- Demands on staff time and focus: Will implementing this model distract us from the activities that are core to our mission?
- Investment requirements: Do we have the resources to implement this model?
- Level of risk: Can this model be implemented with an acceptable level of risk to our finances and reputation?
- Ancillary benefits: Would this model enhance our reputation or create opportunities to deepen relationships with key constituents?

It is most desirable to generate income from activities related to the core value proposition of the project, as opposed to ancillary activities unrelated to the core mission. Otherwise, there is a risk of mission-creep and distraction.

²⁰ Interview with Alastair Cotton, Sales Director, Europe, Middle East and Africa, Bloomberg News.

²¹ According to a strategy director at LexisNexis (a subsidiary of Reed Elsevier), many large database publishers are concerned that their content will become increasingly commoditised and are seeking new sources of competitive advantage by bundling content with software. These companies aim to become ingrained in the day-to-day workflows of their users and to mix personal content with the service providers' content.

²² Alana Semuels, 'Wikipedia's tin-cup approach wears thin,' *Los Angeles Times*, March 10 2008. Available at www.latimes.com/business/la-fi-wikipedia10mar10,0,7404443.story



In our consideration of revenue generating options, we have found it helpful to group those who value specific OARs into two broad categories, based on the way in which they engage with the resource itself: direct beneficiaries and indirect beneficiaries. Direct beneficiaries have been the focus of the discussion above. These are the users who actually access the OAR and derive value from interacting with it: the scholars who submit their articles to a repository, the students who visit a site to conduct research, the private citizen who follows an online course.

Indirect beneficiaries may not directly benefit from the content of the resource, but can derive significant value from the resource in a variety of ways. Stakeholders in the scholarly communications process – universities, foundations, government agencies – care deeply about their societal impact and will therefore be interested in supporting its success in some way. In considering revenue generating options, not-for-profit OARs should be sure to understand and anticipate the needs of these indirect beneficiaries as well. While OARs will find general alignment of mission with some of these constituents, as is the case with users, they must pay close attention to the specific goals these potential supporters embrace. For example, in the case of a foundation with a program designed to advance digital scholarship, any project would want to be able to articulate specifically how the project helps the foundation achieve its objectives.

*Corporate sponsors
or advertisers may find
value in the visitors to
an OAR website...*

Another important type of indirect beneficiaries are companies that have a commercial interest in the assets created by a project. Corporations may be interested in partnerships or sponsorships if the mission and reputation of the OAR resonates with the company's target audience. Corporate sponsors or advertisers may find value in the visitors to an OAR website, if the user community represents the demographic they hope to reach with promotional or branding messages. In a review of an earlier draft of this Peter Kaufman noted that 'the relationships that have been developed over the short history of OAR involve a number of entangling alliances that may provide some pointers to sustainability moving forward.' A good example is Mozilla Firefox's arrangement with Google, whereby Firefox earns a healthy revenue stream by incorporating a Google search box within the browser itself. Might some OARs secure similarly reliable sources of funding through corporate partnerships? Much has been written about public-private partnerships, and this seems a fruitful area for continued exploration.²³ Again, understanding what drives corporate interests, and how a project aligns with those goals, is the first step toward exploring this potential source of revenue.

Indirect beneficiaries can be an important source of financial support for a project, but they may provide other advantages as well, including credibility, high level guidance, in-kind contributions, new skill sets, and access to new markets. Section 4 focuses on the variety of revenue opportunities that may exist for OARs, both from direct as well as indirect beneficiaries.

²³ See www.intelligenttelevision.com/index.php/marketingculture

Section 4: Revenue Generating Options for OAR Projects

Generating revenue to support a new initiative is challenging even in a stable environment. It is especially difficult in the dynamic, transitional marketplace that is presently operating on the web. Web commerce is in the midst of a vigorous experimental phase, and even the most innovative and well-capitalised commercial information resource enterprises (everything from newspapers, to books, to music, to photo and video hosting services) are struggling to find viable new models. This introduces even further complexity to the not-for-profit OARs, which must address some of the challenges described in the preceding sections of this report even as they aim at a rapidly moving target.

We can therefore not possibly offer generalised solutions or recommendations for what revenue models OARs should pursue

We can therefore not possibly offer generalised solutions or recommendations for what revenue models OARs should pursue. There are no such general solutions. We are considering, however, whether a descriptive informational resource would be valuable as a tool to help leaders of not-for-profit OARs learn about the various types of economic models being used by projects and companies with characteristics similar to their own. We can imagine a website where an OAR might identify key characteristics (for example, it might indicate that it holds unique content, that its user community is a particular size, and that it focuses on a certain academic discipline), and the site could then generate descriptions of the approaches taken by a variety of existing projects with similar characteristics. One of the essential questions we aim to pose in this report is whether it seems that such a resource could in fact be valuable, and if it is, would it be sufficiently worthwhile to invest resources in the research and analysis that would be required for its creation.

In the sections below we try to offer a structured description of the range of revenue models we see operating on the web, in both the not-for-profit and commercial sectors. The goal is to make it simpler for leaders of OARs to consider what kinds of models may be most appropriate for them. This also could be seen as an introduction to the type of toolset that might be developed with considerably more effort if the concept seems promising.



The framework outlined below and described in the following sections groups models first in terms of the source of revenue, whether from direct or indirect beneficiaries. Under each of these broad categories, we identify specific revenue generating options.²⁴ Although each of these options could conceivably stand alone and be relied on exclusively, most projects will need to utilise a blend of options. The mix of revenue models appropriate for any project will depend on the particular characteristics of that specific project.²⁵ Future stages of this research may include case studies of real revenue models, analysing how some of these revenue-generating methods function together.

1. Direct beneficiaries pay
 - a. Subscription or one-time payment
 - b. Pay per use
 - c. Contributor pays

2. Indirect beneficiaries pay
 - a. Host institution's support
 - b. Corporate sponsorships
 - c. Advertising
 - d. Philanthropic funding
 - e. Licence content

In this section we describe each of these revenue generating models, providing an overview of the key factors that operate in each model, along with benefits and risks. The section concludes with a summary table for all of the models.

1. Direct beneficiaries pay

The following four options are all ways to leverage the value a project creates for direct beneficiaries.

1a. Subscription or one-time payment

Description

In the subscription model, the publisher typically assumes a certain financial risk up front, funding the time and effort it takes to select and prepare the content for publication, as well as the operating infrastructure (marketing, distribution, technology) needed to make that content available. The publisher then seeks to

²⁴ The revenue models listed above should be considered archetypes only. For example, we include a discussion of the 'subscription' model, to explain how this particular revenue mechanism functions. We do not, however, discuss in depth here the many forms this can take in practice, including subscriptions for 'premium content' only, sites that charge subscription for one class of customer but not others, etc. Further stages of this research could include case studies of the many types of hybrid revenue models that exist.

²⁵ For a study of the optimal mix of funding sources for non-profits in general, see William Foster et al., 'In Search of Sustainable Funding: Is Diversity of Sources Really the Answer?' *The Non-profit Quarterly*, Spring 2007, pp. 26–29.



recoup as much as possible of the cost in subscription fees, paid by individuals or institutions. The risk is that the fees will not cover the costs; the potential upside is that they may far surpass it.

In a subscription-based resource, access to some or all of the content is restricted to those who pay for it. Fees can be structured as flat annual access fees or large one-time payments followed by much lower annual maintenance fees. Sometimes all content is gated, and sometimes one layer of content is available free and another layer is considered 'premium'. An important tool for maximising access (and generally optimising revenue generation) is value-based pricing, where fees are tiered according to the value each type of customer receives and ability to pay. Traditionally, academic journals sold paper subscriptions both to individuals and to institutions. For the most part, that model made the initial transition to the electronic domain, but it has come under pressure for a variety of reasons. For one, individual subscriptions became less necessary with the availability of institutional site licences. Also, new means for distribution in the electronic environment have resulted in pressures for Open Access, as well as more use of pay-per-view models (document delivery in the print world).

Examples

- Virtually all traditional academic journal publications have been supported with subscription revenue in print and online have initially offered paid site licences to institutions as well as individual licences
- Aggregations such as JSTOR, Project Muse, ProQuest, ScienceDirect, Alexander Street Press collections
- Portals such as Columbia International Affairs Online (CIAO)

Whom it suits

- Owners of unique content
- Content aggregators
 - using a unique process or source of expertise in selecting content that has scholarly significance
 - bringing together content that is interrelated in meaningful ways
 - amplifying the value in those relationships through internal linking and other features to increase discoverability
 - providing a stamp of authenticity on that content
- Preservation services
- Resources with significant market potential – the audience is sizable, willing, and able to pay
- Resources that provide tools to enable users to tailor a site to their needs²⁶

²⁶ See Kevin Kelly, 'Better than Free,' *The Technium*, for more thoughts on what makes a subscription site viable: www.kk.org/thetechnium/archives/2008/01/better_than_fre.php



Benefits

- Predictable source of revenue over the term of the subscription. The costs associated with retaining existing subscribers are generally lower than bringing on new ones
- Ability to generate data about subscribers and thus develop a clearer profile of customers (though this data must be carefully managed with an eye toward privacy issues). This enhanced market awareness can lead to the development of new or enhanced products and services within the enterprise, while also constituting valuable knowledge that may be useful for potential advertisers
- Subscription offers can be customised for different customers based on perceived value and ability to pay. New forms of pricing are being developed, such as tiered approaches, price discrimination, and consortial packages. These techniques allow publishers to maximise revenues, and potentially also to optimise access within the constraints of a subscription model
- Subscription should ideally call upon those who benefit most from a service to support it financially. This prevents a ‘free rider’ problem, where many who could afford to support something that is provided as a public good choose not to

Disadvantages/risks

- A powerful values-driven preference for Open Access in many parts of the academy has resulted in challenges to the subscription model
- In the print world there was little controversy about the need to charge for journals, monographs, or other research outputs. Each customer incurred measurable (if small) incremental costs for printing and distribution, and there was a clear logic for charging fees (plus a margin to cover up-front publication costs) to users. Online, however, the marginal costs of each user are close to zero, so the linkage between variable costs and revenues is broken
- The variability of subscription fee structures can be complex for customers to understand and difficult to compare
- The wealth of competing sources of information available on the web can also call into question the ‘value’ of a particular resource. Online readers are often happy to seek information through portals and aggregators, rather than directly on proprietary sites. This has forced content vendors to look very hard at just what unique value their product or service provides. If a free competitor provides information in a fashion deemed ‘good enough’ by its users, then a subscription service may find it difficult to maintain its subscriber base, even if it can claim to have superior content or features
- Subscriptions by definition restrict usage of a resource to those who subscribe to it. This is a disadvantage from a mission perspective for not-for-profit projects with a commitment to provide as wide access to its resource as possible. It can make it harder to build a case for generating other kinds of revenue, such as advertising or grants. It can also be a disadvantage to users in developing countries, who sometimes lack both the financial resources and means (eg credit cards, bank accounts) to conduct transactions



Some commercial content websites aimed at individuals have rigorously tested the costs and benefits of maintaining subscription models

The academic community made a rapid transition to an electronic information economy heavily reliant on subscriptions. It did so in part because there was already a strong legacy of subscriptions supporting academic journals, but also because the primary buyers were institutions aiming to provide resources for their constituents. With institutional third parties paying instead of individuals, the initial pressures of the web that all content should be free did not hit the academic publishers as hard as they did in other industries like music where buyers were individuals.

Some commercial content websites aimed at individuals have rigorously tested the costs and benefits of maintaining subscription models. *The Guardian* counts its decision to abandon subscription early on as key to its success,²⁷ while the *Washingtonpost.com* (which decided to make content freely available early on) is routinely cited for its above-the-norm contributions from online advertising.²⁸ A number of others have experimented with both subscriptions and free access and decided to forego subscription revenues. *NYTimes.com*, for example, abandoned its TimesSelect subscription model when it observed that most of its traffic growth was coming from search referrals like Google. It inferred that these users are not loyal *NYTimes.com* readers (who start from the home page), and thus are less likely to subscribe. Since future growth of the site was driven by these non-loyal users, they concluded that advertising revenue was likely to surpass subscription revenues at some point, and should thus be prioritised.²⁹

And yet, there are still notable examples of subscription sites on the commercial web – *Wall Street Journal's* *WSJ.com* first among them – which seem to be successfully maintaining online subscribers.³⁰ Other examples include *The Economist* (www.economist.com) and *The Financial Times* (www.ft.com). These examples demonstrate a mix of gated and free content, as the websites try to optimise revenues from multiple sources. Their goal is typically both to capture value from their most loyal readers in the form of subscriptions, and to generate advertising revenue by attracting broader audiences to the public areas of their sites. It is important to note that in each of these cases, the newspapers benefited in their initial forays online from their established brands and reputations for trust and quality.

Costs attributable to the subscription model

- Access controls
- Order processing
- Licence agreements with subscribers
- Sales force

²⁷ Interview with Colin Hughes.

²⁸ *Washingtonpost.com* generates 15% of the Washington Post's advertising revenue, compared to under 10% for most newspapers, according to the State of the Media report. See www.stateofthenewsmedia.org/2008/narrative_newspapers_economics.php?cat=3&media=4#2

²⁹ Richard Pérez-Peña, 'Times to Stop Charging for Parts of Its Web Site,' *The New York Times*, September 18 2007. Available online at www.nytimes.com/2008/02/07/business/media/07paper.html

³⁰ *WSJ.com* is said to have reached 1 million paying subscribers by the fourth quarter of 2007 and generate \$50 to 60 million in annual revenues.



Key questions

- Is there a sizable enough targeted audience for my content or service to cover direct costs and even generate a surplus for reinvestment?
- It is possible to charge subscription fees that are compatible with my mission? What audiences would I lose, and how important are they?
- How will a decision to pursue a subscription model impact my ability to attract funds from indirect beneficiaries, such as host institutions and foundations?

Areas for further research

- How much is spent on subscription fees worldwide?
- How does this break out between various types of resources?
- Do non-profit providers account for a substantial portion, and how do their fees compare to commercial providers?
- Of OAR projects, how many are generating significant revenues from subscriptions and how far do these go towards cost recovery?

1b. Pay-per-use

Description

One variant of the ‘user pays’ model is pay-per-use, where the user can either purchase specific pieces of content (eg article or download) or gain access for a limited amount of time (eg by the hour, day, week) rather than buying access to a bundle of content for a sustained period of time, as in a traditional subscription model. Many scholarly publishers have introduced pay-per-view models to broaden access to materials that are usually provided through scholarly society memberships or sold to libraries via subscription site licences. Pay-per-use then functions as a way for content owners to reach secondary groups of customers who do not require unlimited access to a digital resource, or who may prefer not to have the ongoing relationship with the site publisher that a subscription requires. For resources with both subscription and pay-per-use options, prices are usually set so that frequent users of the resource will recognise the financial incentive to subscribe.

Examples

Many of the large sites serving academia offer a variety of pay-per-use options, especially the scientific journals and commercial firms. These include the American Chemical Society, AnthroSource, Blackwell Synergy, HighWire Press journals, JSTOR, Sage, and ScienceDirect.

Whom it suits

- Some of the same success drivers apply here as in a subscription model. Users may value quality of content, immediacy, and authenticity



- A resource that has identified users who may be unwilling or unable to subscribe to the service, whose needs for content are occasional and unpredictable
- This transaction-based model can work best when its users require discrete amounts of information in a time-sensitive (urgent) fashion; for example, lawyers seeking a particular document, but not interested in taking the time to establish a subscription
- If individual pieces of content are for sale, the site must be optimised so that search engines can easily discover those articles

Benefits

- Pay-per-use can broaden the audience for a subscriber-based service by appealing to users who are unable or unwilling to commit to a longer-term or more expensive obligation to the resource. In other words, it is a way to leverage value created for secondary audiences
- It provides a low-cost way to test the demand for a resource for totally different types of users

Disadvantages

- Some would argue that putting any price on content limits its usefulness
- Prices must be set carefully – low enough to stimulate demand, but high enough so that potential subscribers do not migrate to the pay-per-use option. A deep understanding of user needs (how many articles are needed, how often) will help a site publisher to make these calculations (ie How many pay-per-use articles does a user buy before it makes more financial sense to become an annual subscriber?)
- For aggregators such as JSTOR, this may require the negotiation of different kinds of rights with content providers

Costs attributable to pay-per-view

- Need to license access and payment module
- Additional marketing efforts to reach secondary audiences for this service, such as search engine optimisation
- Legal costs associated with understanding rights risks

Key questions

- Is there really sufficient demand outside my targeted audience to justify the cost or effort to establish this new pricing model?
- Is my metadata optimised to attract users beyond core subscribers? What information is needed for users to be able to determine whether something is worth purchasing?



- Is my content dependent on the value of its aggregation rather than its individual components?

Areas for further research

For OARs with a subscription model in place, pay-per-use provides the potential to reach out to secondary audiences who are not likely candidates for subscription. Establishing a pricing model that can maximise these 'one-off' sales without jeopardising the subscriber base is critical. It requires research to determine the price points and a marketing effort to identify the target audience for this service and build awareness. Learning more about attempts to combine pay-per-view with subscription models could inform our thinking about how to address different segments of users.

Our sense is that stand-alone pay-per-view models have increased with the popularity of Google and other search engines. It would be useful to quantify the size of the pay-per-view market and its growth trajectory in order to get a sense of the opportunity for non-profits. How many organisations are doing this? How much money are they generating? In mid-2006 we investigated the pay-per-view options available from various academic journal publishers, and found that most offered pay-per-view options and that their prices ranged from \$7 to \$39 per article. We would be interested to see whether prices have risen or fallen since then, and what other kinds of educational content are available through pay-per-view.

Our sense is that stand-alone pay-per-view models have increased with the popularity of Google and other search engines

1c. Contributor pays model

Description

In the contributor pays model, the publisher seeks to recover costs up front by charging fees to authors or other content contributors in the form of publication or hosting fees. It is useful to remember that in the print world, a variant of this model involves authors paying special fees for the use of colour illustrations and other special elements, so the practice of the author contributing is not totally new. These are called page charges and provide supplementary revenue to cover the additional costs associated with specialised work.

The implication of using a contributor pays model is that a primary beneficiary of the project is the author, who wishes to make his content available on the web and pays the OAR to provide this service. The OAR is responsible for providing the technological and organisational infrastructure to publish content online. Selective publications also incur editorial costs.³¹

Examples

- BioMedCentral

³¹ Another type of contributor pays model is when an organization chooses to have content it owns hosted on another site. Many scholarly associations pursue such a model, where they work with an electronic publisher to hold and disseminate content. Libraries are increasingly considering this model for making some of their specialised content available to users.



- Public Library of Science (PLoS)
- Some journals on BioOne and HighWire Press

Whom it suits

- The author pays model for journals has been pushed by publishers with an Open Access mission
- It seems to be most compelling and is making the most headway in subject areas that are heavily underwritten by government or institutional funding (primarily the sciences)

Benefits

- If the rights-owner has the resources to pay for hosting, content can be made available for free to an unlimited audience
- Variable costs are meant to be covered as they are incurred, reducing downside risk
- It recognises that authors are also important beneficiaries of the service, as they need to publish in order to advance

Disadvantages

- The ability to use the demand-side marketplace to judge the impact of the resource, measure its success, and gain the feedback of users is absent. Other metrics and communications channels therefore need to be developed and prioritised
- A study conducted by the Center for Studies in Higher Education in 2006 found resistance among faculty to the author pays model because of associations with vanity publishing, concerns about academic integrity, and concerns that this system might discriminate against scholars without access to publishing budgets^{32, 33}
- The upside is essentially eliminated if the publication only accepts author fees for those works it chooses to publish: no matter how many users the content attracts, the publishers' revenues will stay the same. (BioMedCentral has also begun selling advertising space on its site, however – if they are successful, this disadvantage could be neutralised.)
- In fact, as a publication grows more prestigious, more articles will be submitted, driving up the costs of processing articles that are declined and thus publication charges for those that do get published, and as usage grows the associated access costs will increase without a commensurate increase in revenue. This can be countered by imposing fees on all works submitted for review, not just on those accepted for publication

³² See 'The Influence of Academic Values on Scholarly Publication and Communication Practices.' Diane Harley, Sarah Earl-Novell, Jennifer Arter, Shannon Lawrence, and C. Judson King. CSHE.13.06. (September 2006), p. 6. Available at <http://csh.berkeley.edu/publications/publications.php?id=232>

³³ Outside education, Lulu.com caters to authors who want to publish their works online and provides a variety of services to promote and distribute their content. See www.lulu.com



- The author pays model provides no recurring revenue to maintain an author's work. Long-term preservation must either be paid by charging an author a higher price at the moment of contribution that would be used either to build an endowment to fund future preservation costs, or by charging current authors a higher price to cover migration and other investments made in older content (social security model)
- For Open Access publishers aiming to make research freely available, much will depend upon the economic model and sources of support that fund a particular discipline. In the sciences, government agencies such as the National Institutes of Health in the US and organisations such as the Wellcome Trust in the UK provide substantial funding to support research. They operate from a position of strength when it comes to influencing, even determining, how research results derived from work they support is disseminated. The Wellcome Trust's Open Access model, for example, pays publishers for Wellcome-commissioned research on condition that after an embargo the article goes into Open Access repositories. Similar mandates are being proposed and adopted by other foundations and government agencies.

Costs associated with the contributor pays model

- Requires successful marketing to individual scholars and researchers

Questions

- What is the demand for this service in your target population? Do authors in that discipline have access to resources to pay contribution fees?
- What makes your site attractive as a place to put content? Does it offer prestige through some selection process or credentialing? Does it have a strong brand? Does it have a large audience? Is it indexed by the major search engines? Will the content be connected with related content? What marketing services does the site provide to ensure that the content gets exposure? Finally, does the site make it easy for authors to submit their work and get feedback?
- Cost is a key success driver for hosting services, which are likely to grow commoditised (unless combined with some other form of value creation). How will this service ensure that its costs are competitive? Does it have access to low cost labour? Does it have economies of scale?
- Will anything be left over to pay for preservation, and what does this cost? What happens to backfiles if the publisher stops attracting articles?

Further research

- What share of research in the sciences is currently published under a contributor pays model?
- Is this model spreading to other disciplines?
- What are the financial prospects for various author contributing Open Access publishers – are they able to cover their costs, and have their author charges stabilised?



2. Indirect beneficiaries pay

The methods of revenue generation discussed above deal with the perceived value of the resource in the eyes of direct beneficiaries and the factors that drive their interest to support it financially. In this section, we will explore methods of generating revenue from those who do not use the resource itself, but instead derive value from having access to those who do, or from affiliation with the mission of the program.

These 'indirect' beneficiaries of the resource include those that have a purely commercial interest, such as promoting sales or generating leads in exchange for advertising dollars, partners who value association with the mission and the access to the users or some other assets created by the venture, and host institutions that see the project as a means to advance their own goals.

2a. Host institutional funds/in-kind contributions

Description

Universities and colleges allocate resources based on their organisational goals and missions – building a new program area, attracting better faculty and students, enhancing alumni relations, raising awareness of their collections, etc. Projects must be consistent with the mission and then make a case to their host organisation as to how they create value for it.

Examples

Examples of new types of projects that have remained affiliated with their university and depend on their university for ongoing support are projects such as the University of Michigan's Making of America. This collection is supported by the university and remains an Open Access resource. There are an uncountable number of special collections and other digital material hosted by universities at a cost that is not recovered through subscriptions or any other direct method. There are also projects that do generate revenue from other sources that remain hosted by their university. Examples include the Stanford Encyclopedia of Philosophy, HighWire Press and Project Muse. The Massachusetts Institute of Technology (MIT) Open Courseware (OCW) is another example of a project hosted at the original university where it was founded. The content is freely available and MIT continues to endeavour to raise grant money and other forms of support. A key factor in its quest for sustainability will be the success the project has in making the case to MIT that the project fulfils a core objective and therefore should be supported on an ongoing basis in MIT's operating budget.

Whom it suits

OARs that are integral to the reputation or mission of their institution and benefit it in terms of prestige, ties to other institutions, impact in key areas, use of core assets (library collections), etc.



Benefits

- Institution-based projects can piggyback on institutional resources (space, staff expertise, labour or grad students, infrastructure such as servers, financial resources)
- The brand of the institution can lend prestige to the project

Disadvantages

- Priorities of institutions can change – new academic focus areas – leaving the project without a home or support
- It can be hard to make the case for how programs other than teaching and research are at the centre of university priorities. In this sense, projects may always feel vulnerable and need to fight for support and attention, leaving them in a position of being undercapitalised. This is the situation that many university presses feel that they find themselves in

Costs

- Regular maintenance of the relationship, translating value for users to value for host

Questions

- How does my project serve my institution's mission?
- How does my project enhance my institution's reputation?
- Does it help the university to attract new students and faculty?
- Does it provide a valuable service to alumni?
- Does my project create skills, expertise, opportunities that are valuable elsewhere in the organisation?
- Does my project leverage institutional assets such as faculty interests or library and museum special collections?
- Does my project establish a new model of collaboration within the university or cross-institutionally in ways that benefit local and system-wide interests?
- Is my institution committed to this as a project worthy of launch funding, or can I deliver long-term benefits that build my program into core budgeting?

Areas for further research

We have little sense of how many OAR projects are launched with external funding and subsequently succeed in becoming folded into a university operating budget. It would be useful to examine some examples, to see how much money universities are willing to put into these projects and what value they perceive from them. Attracting institutional support seems particularly important for Open Access projects. At a system-wide level, it would be useful (though challenging) to build a picture of what universities are spending to license academic resources, and what it would cost them to fund these same resources on the supply side.



2b. Corporate sponsorships

Description

Corporate sponsors pay non-profit organisations money or in-kind resources for the right to be associated with the non-profit – and reach its core audience – in a variety of ways. This can be seen as an implicit endorsement of the company and/or its products and services. A non-profit seeking corporate sponsors must understand the needs and goals of the companies it targets, and be able to make a case for how it can create value for them.³⁴

In its simplest form, a corporate sponsorship can include a branding advertisement that appears on a non-profit's website, but other in-kind exchanges and partnerships can creatively exploit the value of both parties in many ways, including providing access to membership through various media, creating joint campaigns on mission-related themes, providing discounted goods or services, and more. Corporate partnerships can extend far beyond sponsorships, as noted earlier, and should be considered as one of a range of possible arrangements that can create value on both sides.

In its simplest form, a corporate sponsorship can include a branding advertisement that appears on a non-profit's website...

Examples

- Knowledge@Wharton
- MIT OCW (sponsored by Ab Initio)
- Computer hardware and software companies sometimes offer deep discounts on their products (and even some free assets) as promotional consideration for endorsement by a content provider
- Open source software projects (eg Moodle) seek sponsorship from potential service providers

Benefits

- Corporate sponsorships can tap new sources of revenue
- This can serve as a sort of controlled experiment for advertising
- Corporate sponsors sometimes agree to in-kind exchanges of value, such as deeply discounted hardware or software
- This model offers non-profits an opportunity to monetise an intangible source of value – their reputations
- Some corporate projects are well aligned with research activity in the academy, and sponsorships can be an acknowledgement of this overlap in mission

³⁴ Alan R. Andreasen, 'Profits for Non-profits: Find a Corporate Partner,' *Harvard Business Review*, November–December 1996, pp. 56–57. Also see Andreasen and Kotler, *Strategic Marketing for Non-profit Organizations*, Chapter 7 on Generating Funds, and p. 196 for a list of characteristics to help non-profits identify the most likely corporations to approach for donation or collaboration.



Disadvantages

- Could cause suspicion, negative perceptions – users don't want their resources supported by a corporation; funders feel compromised
- Could lead to mission drift – agenda can be inappropriately influenced by for-profit concerns
- Corporate priorities change – not necessarily a long-term solution
- Can be complicated to create and implement – business development time and legal issues

Costs

- Business development and legal costs of negotiating agreements

Key questions

- Do the non-profit and corporation complement each other's goals? Is our cause (project) particularly attractive to certain companies or industries?
- Does the company engage in any activities at odds with the mission or ethos of the organisation?
- Does the company place undue restrictions on the non-profit's activities or otherwise interfere with its operations?
- Is there a strong fit in the audiences served by the company and the non-profit initiative?
- Does the company have a positive brand image in the higher education community?
- Does it have a strong commitment to serving this community (ie does higher education comprise an important market for this company (Blackboard), or does it only account for a small share of the company's total sales (Oracle, Amazon))?
- Is there a logical fit between the products/services provided by the two organisations? Do they complement each other?

Areas for future research

It is not clear to us how much potential there is for OARs in attracting corporate sponsors. There are few examples, and those we know of involve relatively small payments (\$10,000 payments do not go very far unless there are a large number of them!). We would be interested in learning more about how many of these arrangements exist and what benefits non-profits are able to glean from them.

2c. Advertisers

Advertising is almost completely absent from academic websites. This is probably due to concerns about the potential commercialisation of scholarship and scepticism regarding whether advertising could be a successful strategy for OARs. It is also not permitted by some funding bodies and institutions. We have chosen to delve more deeply into this model than the others for three reasons. First, this



has become by far the most prevalent business model for commercial content providers on the web, and certainly for those that are open to the public. Second, there is little familiarity in our community with how advertising works, and thus we see this as an opportunity to at least shine some light on it. Third, this section provides a glimpse of the kind of detailed research that could be undertaken for other revenue models, if readers of this paper think that would be useful.

Description

In its basic mission – connecting sellers with potential buyers and communicating a persuasive message – online advertising is very much like its traditional (offline) media counterparts. Advertisers seek out ways to communicate a message as efficiently and effectively as possible to those people they most wish to reach. They choose formats and publications based on their understanding of the readership, listenership, or viewership that those vehicles offer, with the hope that the audience ‘delivered’ to them 1) is likely to see the ad, and 2) is likely to be interested in the content of the ad.

Although it still only accounts for a small share (under 10%) of overall advertising, the online advertising industry is in the midst of a swift expansion, growing by 25% in the US market over the past year, an estimated \$21.1 billion for the full year 2007, a new record.³⁵ In the UK, online advertising reached £2.6 billion (\$5.3 billion) in 2007, up 30% over the previous year.³⁶

Advertising is quickly appearing – thanks in particular to the user-friendly Google AdSense program – on even the smallest websites and blogs, in both the commercial and non-profit sectors. But most of the money spent on online ads, and most of the places hosting those ads, are not small at all. In 2006, the fifty largest online sites attracted 93% of online advertising dollars. While this could sound discouraging for smaller sites considering online advertising strategies, it also does point to room for growth as advertisers continue to shift more dollars online.³⁷

Online advertising has radically changed what is possible in terms of ad design and how ad value is determined. Technological advances have prompted new forms of creativity, as well as new ways to target the ads that appear to the users most likely to want to see them, and new ways to measure the impact of those ads. These changes mean that advertising revenue models are also prone to change, as different metrics for audience measurement create a keener picture of the ‘value’ of an ad, for example, to drive traffic to a site, obtain customer data, or trigger a sale.

The three dominant ad formats are search, display and classified ads:

³⁵ Interactive Advertising Bureau press release, February 25 2008. Available online at www.iab.net/about_the_iab/recent_press_releases/press_release_archive/press_release/195115

³⁶ ‘UK Online Advertising: Reaching Maturity,’ EMarketer report March 2008. See: www.emarketer.com/Reports/All/Emarketer_2000405.aspx?src=report_head_info_sitesearch

³⁷ IAB Internet Advertising Revenue Report: 2006 Full-Year Results, conducted by PriceWaterhouseCoopers, May 2007. Available online at www.iab.net/media/file/resources_adrevenue_pdf_IAB_PwC_2006_Final.pdf



	Formats	Models	Share of Market
Search Ads	Advertisers create text-only ads and bid on keywords of search providers (Google AdWords, Yahoo!, etc.). ^{38, 39}	AdWords helps advertisers place their ads. It initially charged based on number of impressions, but then moved to Cost Per Click. AdSense is Google's program for site owners and crawls the website to determine which ads to place there. Website publishers can sign up to host ads and share revenue, with some ability to filter out ads they do not want.	In 2006, search advertising revenues rose 31%, reaching \$6.8 billion, which accounted for 40% of all online advertising. ⁴⁰ Despite the obvious benefits to advertisers and smaller publishers, pay-per-click search ads have been a target of manipulation, known as 'click fraud'.
Display Ads	Banners, interstitials, pop-ups, in-text ads, roll-overs.	Advertiser pays for a fixed placement on a page or in a section, and the ad appears there throughout the length of its run. Banners can be static, or include hyperlinks, or rich-media. Payment for banners can be based on Cost Per Thousand (CPM), or as a flat rate per time period, based on factors including position, size, and traffic.	Display advertising totalled \$5.4 billion in 2006, making up 32% of total ad revenues (down from 34% the year before). ⁴¹ With the recent acquisitions of the ad agency DoubleClick by Google and Right Media by Yahoo!, some think that better targeting for display ads will make this a more attractive option for advertisers. ⁴²
Classified Ads	Sellers advertise specific items or services for sale to potential buyers.	Pricing tends to be determined by size of ad (number of lines or words) and duration (eg flat price for a 30-day listing). While craigslist.org was at first entirely free for all listings, it now charges for career and real estate listings.	This category accounted for 18% of all online ads in 2006.

According to the Best Practices Report of the Newspaper Association of America, the fastest growing segments of online advertising formats are paid-search, video and email advertising.⁴³ While for 2007, banner and listings together make up well over half of the market, some projections suggest that by 2012 paid search, online video, and email will play a greater role, particularly in local markets, as banner ads continue to decline in market share.⁴⁴

³⁸ The advertiser chooses keywords that will help place the ad, with the price per click determined by demand, as the result of an ongoing auction among advertisers. The total cost of his campaign is the established cost for that keyword, times the number of times that the ad placed there is clicked.

³⁹ Youngme Moon, *Google Advertising*, Harvard Business School case #9-507-038, revised October 11 2007.

⁴⁰ IAB Internet Advertising Revenue Report: 2006 Full-Year Results, conducted by PriceWaterhouseCoopers, May 2007.

⁴¹ *ibid.*

⁴² 'The Promise of Online Display Ads,' May 1 2007, in *BusinessWeek*. www.businessweek.com/technology/content/apr2007/tc20070430_987177.htm.

⁴³ 'Best Practices Report: How Leading Newspaper Sites Manage Sales,' Borrell Associates, July 2007.

⁴⁴ *NewspaperNext 2.0: Making the Leap Beyond 'Newspaper Companies'* (American Press Institute, 2008), p. 93.



Advertising networks

Of special interest to smaller sites is the growth of ad networks which aggregate ad inventory from related sites and bundle that inventory for advertisers. The advertisers can use networks in order to reach twenty local markets, for example, without having to place twenty separate campaigns. Smaller niche sites can also group together to offer premium (not just surplus) ad inventory to advertisers who otherwise would not make the effort to seek them out individually. In addition, specialised networks have started to appear, such as Yahoo! and Google (newspapers) and Zillow (real estate). Some ad networks include: Gorillanation.com (500,000 monthly impressions minimum); Advertising.com (2 million monthly impressions minimum), and Adster.com. For blogging sites, BlogAds.com aggregates clusters of sites into 'hives'. RMX Direct/Right Media (recently acquired by Yahoo!) and Doubleclick.com (recently acquired by Google) also feature ad marketplaces or exchanges.

Whom it suits

For OAR projects to exploit the current growth in online advertising, it is important to understand how ads are valued, and therefore which type of ad might be the best fit for an academic project. Often advertisers aim to target a specific type of audience, and will pay more for placements that reach these segments (especially those that are hard to reach and have disposable income).⁴⁵ The value to the advertiser depends on how well a publication is presumed to deliver the advertiser's desired audience.

Certain types of advertising may be suitable for projects with the following strengths:

- **High volume of site traffic.** Today, the two most common measurements are unique visits and page views, both usually per month. While most sites will brag about their 'uniques', advertising rates and fees are still most often dependent upon impressions, so page views are extremely important as well.⁴⁶ For sites with less traffic, programs such as Google AdSense and ad networks that can aggregate sites and their visitors for advertisers seem to have the most potential
- **Loyal visitors who return often and spend time on the site.** Advertisers will sometimes pay a premium for 'sticky' sites, where users can be exposed to an ad multiple times. Scholarly resources tend to be targeted to a core audience who will return often and spend significant time on them. If users to the site

⁴⁵ An ad for baseball bats in the sports section, then, was considered likely to be more effective than one in the metro section where you might find sports enthusiasts, but they'd be among a good deal of other readers with little interest at all in sports.

⁴⁶ Josh Chasin, 'Where the Buys Are: Ads Live on Pages,' in *Online Media Metrics Newsletter*, February 5 2008. See: http://blogs.mediapost.com/metrics_insider/?p=31. This newsletter makes the very good point that in terms of getting an accurate picture of the primary demographic visiting a website, Page Views make the most sense to analyse. Uniques will count heavy users and accidental one-timers with the same weight; an assessment of page views is more likely to show what type of users are really spending time on the site, and therefore going to see the advertisements served on its pages.



spend time reading rather than surfing around a website (generating fewer impressions), businesses interested in branding, rather than driving immediate sales, are the most likely target⁴⁷

- **Targeted demographic.** Advertisers pay a premium for the ability to target a specific group and to know who it is they are reaching. The audience may be defined by geography (eg national vs. regional), by gender, by the topic of a website (a site with military maps might attract military history scholars), or by the characteristics associated with the users of a website (readers of the *Wall Street Journal* are defined by their high level of education, salary range, and other factors, and thus are also courted by retailers of luxury goods and services). This requires that the site capture at least a minimum of data on its visitors, which can be done through a simple, free registration process
- **Strong brand.** Projects with a well-known reputation and brand may be able to attract corporate advertisers seeking recognition for supporting a worthy cause
- **Workflow fit.** Some advertisers are more concerned with reaching people who are engaged in a particular activity than in a particular demographic. For example, hotels and travel agents wish to reach people in the process of planning a trip. Camera manufacturers wish to target people who are researching digital cameras. Scholarly resources with at least some connection to the product or service offered will have the most potential here. For example, a textbook company might be interested in advertising on MIT's OCW site, which is used by instructors preparing lessons; an airline company might be interested in a site catering to students and scholars in travel abroad programs, etc.

Some advertisers are more concerned with reaching people who are engaged in a particular activity than in a particular demographic

How much revenue can a scholarly resource generate from advertising?

Generally speaking, most ad revenue can be based on one of the following methods:

- Cost per impression multiplied by the number of impressions served (page views shown, as for display ads)
- Cost per click multiplied by the number of times ad is clicked on (for search ads)
- Cost per action multiplied by the number of actions (such as purchasing an item or filling out a form)
- Flat rate for a display ad for a fixed amount of time, based on size, position, estimated page views, and, in some cases, on time of day

Inventory can be sold directly (usually by the largest sites), through an agency, or through a network. There are costs involved with selling ad inventory, either employing a sales force or sharing a portion of the revenue generated with an agent. Some sites use multiple approaches; the *New York Times* sells ad space directly with its own sales team and auctions off unsold inventory through Google.

⁴⁷ See more about 'engagement' in OnMetrics: <http://blog.webanalyticsdemystified.com/weblog/2007/10/how-to-measure-visitor-engagement-redux.html>



Usually they are able to generate more revenue selling directly, though the director of strategy and operations at NYTimes.com noted that the science section was very difficult to sell directly, but that it went for a higher CPM through Google's auction.⁴⁸

The two critical factors determining how much ad revenue a site can generate are the volume and the quality of its traffic. Jeremy Liew of Lightspeed Venture Partners⁴⁹ has provided some examples of how these two factors work in tandem, and the scale needed to become a large ad-supported site. His three types of online businesses, paraphrased here, are defined by the nature of the audience each draws:

- *Market Reach*: Sites whose content aims to attract a very broad audience and appeals to a very wide demographic swath. Some examples would include: general news, eBay, YouTube. Because the audience reached is so broad and large, advertising rates tend to be on the lower side in terms of CPM, and are offset by the sheer volume of page views or impressions. As Liew points out, sites like this generally command around \$1 CPM. If you have this type of audience and your site gets 2,000,000 page views a month, you could yield \$2,000 a month.
- *Targeted demographic*: On the other hand, sites which attract users of a well-defined and desirable demographic can command a higher CPM, in the higher single digit range. While fewer people may visit a men's sports site or a women's magazine site, advertisers seeking to reach that demographic will pay more to reach them, so rates are higher. If your site has a readership that is appealing to an advertiser, and you have the user data to demonstrate this, a site with 2,000,000 page views a month could yield \$10,000 a month.
- *Endemic Advertising site*: Where the topic at hand is not just well-targeted, but strongly related to a consumer good that its visitors are likely to want to buy, this desirable readership allows sites to charge much more. Here, where the link between viewer interest and product being sold is so tight, value of advertising is higher, so RPM could be \$20 or higher. If the site has a very targeted readership, and that readership is particularly appealing to a type of advertiser, at a rate of \$20 CPM, 2,000,000 page views a month could yield \$40,000 a month. An example would be a site catering to language professors and students who travel abroad, appealing to travel agencies.

Benefits

- For sites with heavy traffic and good data on visitors, advertising can open up an as-yet-untapped revenue source
- Smaller sites can test their potential at very little risk through programs like Google AdSense

⁴⁸ Unlike a print circulation, the actual numbers of people (unique visitors) can fluctuate day to day, and the ad agencies have devised ways to help advertisers maximise impact of an ad based on its reach (breadth of people who see the ad) and frequency of the ad (number of times the same person is exposed to the ad). From *Best Practices for Optimizing Web Advertising Effectiveness*, Rick E. Bruner, DoubleClick Research Director with Marissa Gluck, Radar Research (May 2006). www.doubleclick.com/insight/research

⁴⁹ See <http://lsvp.wordpress.com/2007/02/26/three-ways-to-build-an-online-media-business-to-50m-in-revenue>



- The field is very fluid, and the variety of ad formats, types and pricing models allow a site to experiment with the types of advertising that will fit it best
- More and more advertiser money is flowing online each year, so if successful, this revenue stream should continue to grow

Disadvantages/risks

- Securing and retaining advertisers requires skilled personnel and time
- Some site users may dislike the feel of hosting ads on the site
- Setting ad prices can be tricky when measurement criteria are so fluid
- Ad revenue is not 'guaranteed' and takes time to build up; it is unlikely to replace other revenue streams right away
- If a site becomes overly dependent on advertising it can undermine the editorial integrity of the project. Many people feel this is happening in the newspaper industry

Costs

- If working with an agency or network, they will require a percentage in commission (30% is common)
- If working directly with advertisers, costs will include salary for skilled online advertising sales staff and for someone to handle invoicing/collections

Key questions for OARs

- How much traffic does my site generate (unique visitors per month)?
- How many ad impressions could the site generate (page views per month)?
- How much do I know about the visitors to my site (demographic data)?
- How can I measure their 'engagement' with the site (time spent, articles viewed, etc.)?
- How might my site visitors be valuable to advertisers? Do they have special interests that correspond to a certain type of business?
- What costs will we need to assume to host ads on our site and collect payments?
- Will the community for this project accept that we are hosting ads?

Areas for further research

- It would be useful to have examples of projects with different levels of traffic volume, with actual costs and actual revenues earned through advertising
- Further comparative data on comparable websites' ad rates, to better determine what some academic sites might be able to charge for their ads
- Further research on networks and other means to aggregate the audiences of the more specialised scholarly websites



Conclusion

Online advertising represents uncharted waters for many scholarly projects, and few OARs attract the levels of traffic needed to make an advertising strategy worthwhile. While OARs are unlikely to sustain themselves purely on advertising, it seems like a promising opportunity for some of the larger resources to enhance their revenue streams and potentially enable more free access to their content. Smaller sites can easily experiment with search ads at very little cost.

If an ad network emerged representing academic sites, and was able to offer services at minimal cost and with minimal staff attention, more projects of all sizes might be able to tap into advertising as one of their sources of revenue (if not the primary source). It would be a useful exercise to gather usage data for a set of academic resources and try to estimate what the potential advertising revenue might be.

2d. Build diverse streams of philanthropic funding

Grant funding is, of course, a critical source of investment funds for innovation in academic resources, and may be part of the mix of an ongoing sustainability strategy. OARs hoping to tap into philanthropic funds must make the case to donors that their funds will be used to create impact in accordance with their missions, and that this impact can be sustained.

Most not-for-profit project leaders have considerable experience in pursuing and securing grant funding, so we will not address the issue at length here. In approaching foundations, there is a tendency for there to be a kind of contest-oriented culture, an environment where the object is to ‘win’ the grant. It is valuable for an OAR to think of foundations more like any other customer in the sense of trying to solve a problem for that customer. Giving away money effectively and in ways that have positive impact on a community is very challenging. Projects should give more thought to how their services help grant-makers achieve their objectives, rather than focus on how the foundation’s money can help the grantee achieve its objectives.

This holds, as well, for those projects seeking donations from individuals. Any fundraising campaign, big or small, needs to make a strong case to its audience. Political blogger Joshua Micah Marshall puts out a call for donations to fund specific new elements of his site, TalkingPointsMemo.com, as does the significantly larger Wikipedia, whose budget relies on users recognising its value and contributing.⁵⁰

We would like to highlight a model that can best be classified as philanthropy, but with a slightly different spin. The endowment model may tap into funds from direct users (or their libraries) as well as the various types of indirect beneficiaries. We have classed it here because it does not involve payment in exchange for a service.

Most not-for-profit project leaders have considerable experience in pursuing and securing grant funding...

⁵⁰ David Glenn, ‘The (Josh) Marshall Plan: Break News, connect the dots, stay small.’ *Columbia Journalism Review*, September/October 2007. Also see: www.talkingpointsmemo.com



Endowment model

The endowment model is well established on college and university campuses in the United States as a way to sustain the institution as a whole, special projects, and faculty chairs. It is less common in other countries. Building an endowment entails accumulating enough capital that an activity or operation can be supported by the income from investments and interest on that capital, without tapping into the funds themselves. Once an endowment is established, organisations typically spend approximately 4 to 5% of the endowment's total value per year. (In the United States, foundations with endowments are required to spend a minimum of 5% of their endowment value per year.) This means that in order to fund operations on an ongoing basis, projects need to raise approximately 20 times the annual operating budget in endowment. Examples of projects pursuing this approach are the Stanford Encyclopedia of Philosophy (SEP) and the Walt Whitman archive. SEP has reported that it is making progress towards its goal of \$4 million: over \$2.2 million has been raised by contributing library partners (which includes a \$500,000 challenge grant from the National Endowment for the Humanities), and Stanford has raised \$1.125 million through its own development efforts.⁵¹ JSTOR also pursues a variant of this approach by charging one-time Archive Capital Fees of its participants, which are used to establish board-designated reserves that will be used for preservation purposes to ensure that the technology and data associated with the JSTOR archive remains accessible as technologies evolve. So these funds are used to cover archiving, while annual access fees are used to cover operations.

How widely replicable is the endowment model? There is a logic to appealing to libraries for up-front contributions that 'permanently' free both sides from the logistics of a subscription model and make the resource freely available to a much larger audience. On the other hand, there are obviously limited funds available from the existing direct beneficiaries to fund this approach; libraries are struggling to keep up with annual subscription increases. Coming up with 20 times current subscription costs is obviously impossible. The endowment model will depend heavily, therefore, on projects being able to make the case for the importance of their resources to indirect beneficiaries such as host institutions and other donors. Some challenges for other projects include:

- Such models will always have to support free riders, and this number is likely to grow if reliance on endowments to cover costs proliferate
- Each project must raise 20 times the annual operating budget for a project. This goal must be approached as any other major fund-raising drive by a university or cultural institution, and it is not clear that many OAR projects have access to the necessary fund-raising apparatus and relationships to do this
- The endowment model has the risk of insulating a project from the need to be responsive to its market, since the funding is contributed up front

⁵¹ Interview with Principal Editor Edward N. Zalta and Senior Editor Uri Nodelman, Stanford University, February 8 2008. SEP's operating budget of \$200,000 per year covers salary and benefits for two senior positions (@75% time), 8.5% Stanford administrative fee to cover overheads, travel to conferences to discuss and promote the project, computer hardware, software, and servers, outsourced document editing costs, and some student labor for miscellaneous projects. See <http://plato.stanford.edu/about.html#pubmod>



- Since the endowment target is calibrated to support a skeletal level of funding, there is little room for a project to grow or evolve into something very different, should the market's needs change. If a project makes the case that they need to raise \$5 million to cover \$250,000 in operations, will there be funds available to pursue capital projects?

Success drivers

- Establishing value to the scholarly community before undertaking the fundraising effort
- Offering attributes of importance to potential funders (high quality content, Open Access, cross-disciplinary appeal)
- Fund-raising targets that reflect the benefit that different types of institutions derive from the resources (similar to tiered access fees)
- A supportive host institution with resources substantially greater than those required by the project to be funded, that is willing to provide key services, particularly access to development staff, donor relationships, and investment management

2e. Leveraging content through licensing

Description

The intellectual property that many OARs own is itself a tremendous source of value, and sometimes this value extends beyond the users of the site, to other organisations and companies who have different ways of using it. A licensing or syndication model involves granting one or more outside organisations permission and responsibility for distributing the outputs of a project. Revenues are generated for content owners in the form of royalties. Projects can choose syndication as their primary route to market, or as a supplementary outreach vehicle. Many newspaper companies, for example, create revenue primarily through advertising and subscription, but also generate a steady stream by licensing their archive of older articles to commercial databases which aggregate similar materials and offer them to educational institutions.

Licensing options include:

- **Exclusive licensing** – Providing a single party with the exclusive right to distribute a project output can be necessary to encourage substantial investment in further developing and distributing the project, but it also means that the project is more dependent on its partner's strategy and execution. There will always be a balance between how much each side is willing to invest in the form of both effort and capital, and how much control over the project they can reasonably expect. This revenue model is a particularly useful one for public/private partnerships, allowing a corporation to exploit the content in untapped markets, while providing the non-profit with revenue and/or services that otherwise would be beyond their reach



- **Exclusive distribution** – The OAR project can use this approach to maintain tighter control over the exact nature of the product, but appoint a third party to handle marketing and distribution
- **Non-exclusive distribution or syndication** – In the case of syndication, the same content or product is licensed to multiple outlets or markets. One example of a licensor would be Bloomberg (licenses news stories – up to 20 per day – to its subscribers, to use at will, and even creates custom programs which help place content in papers around the world). An example of a licensee would be ProQuest (licenses content from a huge range of primary and secondary source providers). In most cases that we come across, those licensees that pay licence fees or royalties are choosing subscription models to support aggregations of content
- **Reciprocal or ‘free’ licensing** – A content creator (Time Inc., *The Guardian*) may syndicate content to a portal or aggregator (Yahoo!, MSN) where no money changes hands but the content creator benefits from increased traffic (and hopefully ad revenue) from users clicking over from the portal. According to the director of strategy at Time Inc., this kind of arrangement is increasingly the norm on the internet

Whom it suits

- Owners of unique content
- Projects that cannot afford to build the infrastructure to reach core markets
- Projects that have large secondary markets they cannot afford to reach
- Projects with niche tertiary markets they do not have the expertise to develop
- Projects with content that would benefit from being part of a larger aggregation

Examples

- The National Archives (UK) partners with commercial genealogy websites to fund digitisation of important series of archives. The Archives also runs the Licensed Internet Associateship program, which allows corporate partners to undertake the expense of digitising popular archival series and to use the digitised content to create commercial projects which they then take to market⁵²
- The British Library, which is working both with JISC and Gale Cengage on the newspapers digitisation project
- The University of Oxford’s Bodleian Library, which is partnering with ProQuest on the Electronic Ephemera project
- Newspaper syndication services

⁵² There are several measures in place to protect the Archives’ mission. The Archives chooses which series are to be up for bid, thereby making sure that its priorities are met (and allowing the Archives to match popular series with more challenging material around popular themes, such as immigration). The Archives maintains copyright on the digital copy of the file, and assures free access to all its on-site visitors. And the Archives works with the commercial partner to decide business models and delivery mechanisms, and monitors any changes to pricing or access, to guarantee that they are in line with their overall mission of accessibility to the British people. The Archives only allows one ‘LIA’ partner to undertake initial digitisation of records, with subsequent licences re-using deposited digital images of very desirable documents, for use on highly popular genealogy websites and the like.



- Publishers of translation rights

Benefits

- Can significantly expand a project's audience
- Can move projects into environments that require sophisticated technology beyond the scope of a project (such as customising digital content for handheld devices and delivering it to users that prefer to receive information in that form)
- Allows not-for-profits to maintain their day-to-day focus on mission and core competencies
- Can create opportunities for resource creation and enhancement that benefit the project owner, including digitisation, customisation, etc.

Disadvantages/risks

- Inevitably involves loss of control. The third party that is licensing the outputs of the project may well have goals that are very different from the project's goals. For example, a dispute may arise regarding who controls the quality or character of the way the products are offered ('No ads around my content!') or pricing decisions that favour maximising revenues at the expense of mission-driven access. To some extent these risks can be managed though extensive discussion when the parties are first entering into the licence, but no matter how good the agreement or how collaborative the initial relationship, there will always be a fundamental risk of disconnect between the incentives of the parties
- Understanding benefits and advantages often requires sophisticated business modelling to compare the costs and revenues associated with reaching markets directly versus the lower income from royalties. Many not-for-profits do not have financial modelling resources
- Licensing removes project creators from direct contact with their audience

Costs

- Need knowledge of contracts and ability to negotiate. Many of these agreements can be quite complicated
- Need business development capacity to research and contact potential licensors

Questions

- Is the relationship exclusive? If so, in what markets?
- Who controls the product? Is the licensee permitted to make modifications to the project as part of bringing it to market? What is the timeframe and process for approving the final product?
- What revenue models are permitted? What types of advertising are appropriate or allowed in advertising-based models? If a subscription-based model is contemplated, how much control, if any, should there be over pricing?



- What sort of guaranteed or minimum royalties should be paid? What should be the royalty rate? Are there appropriate arrangements to permit audits to keep everyone honest?
- What are the relative contributions to the project? Who is taking what risks? How long will the licence last?

Further research

- Evaluate the extent of demand for content owners to license content to other entities, either for wider or targeted dissemination, or for preservation
- Identify the key success factors of various licensing models



Model	Description	Success factors	Costs to implement	Risks
Subscription	Access to at least part of content is restricted to subscribers	<ul style="list-style-type: none"> Meets needs of core audience that is significant in size Users willing to pay for content because of uniqueness, timeliness, authenticity, features, or other characteristic Resource adds value through aggregation that is difficult to replicate Users can afford to pay 	<ul style="list-style-type: none"> Access controls Billing/invoicing Sales function Subscriber retention Marketing (though this is necessary for any resource, closed or open) 	<ul style="list-style-type: none"> Limits potential usage and impact
Pay-per-use	Users can 'cherry pick' specific pieces of content or access resource for a short period of time	<ul style="list-style-type: none"> Users are willing to pay for discrete pieces of content Getting pricing right Search engine indexing Existence of large secondary audience 	<ul style="list-style-type: none"> Access controls Online transactions Marketing 	<ul style="list-style-type: none"> Creating barrier to usage Cannibalising subscribers
Contributor pays	Content contributors pay to have their works or collections published online	<ul style="list-style-type: none"> Service offers benefits such as brand, audience, exposure, connection to related content Low cost 	<ul style="list-style-type: none"> Sales function (to content contributors) May need to cover costs of reviewing content that is turned away Tools for ingesting content 	<ul style="list-style-type: none"> As audience grows, costs increase rather than revenues (at least in short term) Difficult to build in funds for long-term costs such as preservation and migration
Host institution support	University provides funds and in-kind contributions to support the project	<ul style="list-style-type: none"> Alignment with goals and mission of institution 	<ul style="list-style-type: none"> Time to build relationships and make case for funding Political capital? 	<ul style="list-style-type: none"> University priorities may change Budgets can get cut
Corporate sponsorship	Non-profit website offers sponsor logo or other marketing feature in exchange for cash or in-kind contribution	<ul style="list-style-type: none"> Understanding interests of potential partners OAR has assets (audience, brand) that are valuable to partner Selecting partners with strong mission, audience, and/or product fit Clear communication of goals and expectations Structure allows flexibility to change terms as environment evolves 	<ul style="list-style-type: none"> Business development time Legal costs of negotiating contracts 	<ul style="list-style-type: none"> Can be complicated and time consuming to create and implement Any negative perceptions of the corporation can have repercussions for the non-profit

Users Pay

Indirect Beneficiaries Pay



Model	Description	Success factors	Costs to implement	Risks
Advertising	<ul style="list-style-type: none"> Display ads are placed on pages throughout a website, in order to convey branding message or promote a product Search ads placed on the site generate revenue for the site publisher when a viewer clicks on them 	<ul style="list-style-type: none"> High traffic and intensity of usage by audience desirable to advertisers Ability to provide data about audience Organisations interested in the site's audience have money to spend on advertising Willingness of the community/ authors to allow ads on the site 	<ul style="list-style-type: none"> Sales function for ad space (or revenue share to ad network) Ad server (though some are available at no cost) Materials to communicate ad rates, demographics and ad sizes to potential advertisers 	<ul style="list-style-type: none"> Direct ad sales can be time-consuming Too little traffic to generate meaningful revenue stream Reducing user trust
Philanthropic funding	<ul style="list-style-type: none"> Can be from individuals, foundations, or government agencies Can be start-up investment in new project, unrestricted operating grants, or restricted to specific programs 	<ul style="list-style-type: none"> Project mission is aligned with mission of granting agencies/ individuals Ability to make a persuasive case that this project is the best use of resources towards advancing that mission 	<ul style="list-style-type: none"> Development capacity Reporting on grants (can be very time consuming!) 	<ul style="list-style-type: none"> Funding agency priorities change
Content licensing	<ul style="list-style-type: none"> Granting one or more outside organisations permission and responsibility for distributing content Sharing in the revenue in the form of royalties 	<ul style="list-style-type: none"> Content of interest to one or more distributors Ability to negotiate favourable licence terms 	<ul style="list-style-type: none"> Legal costs 	<ul style="list-style-type: none"> Limiting future options of what can be done with the content Channel conflict (if content is distributed through multiple channels)

Indirect Beneficiaries Pay

Conclusions

As long as this report is, it only scratches the surface of the information pertaining to sustainability that could be valuable to not-for-profit OARs

As long as this report is, it only scratches the surface of the information pertaining to sustainability that could be valuable to not-for-profit OARs. One of the biggest challenges we have faced in conducting this work has been to try to develop a structure to help simplify the complexity of the information. We hope that the framework begun in this report sheds light on the nature of the sustainability challenge, while also pointing a path toward ways that we could provide even more helpful information. We look forward to our meeting on April 10, and indeed in a continuing dialogue with the JISC, the Strategic Content Alliance, and other important constituents to craft an approach to this important topic that will prove valuable for those interested in the long-term availability of not-for-profit online academic resources.

Appendix A: Ithaka Framework for Sustainable Not-For-Profit Innovation

One of Ithaka's primary objectives is to help not-for-profit initiatives succeed. We pursue that objective by incubating promising entities to help them develop sustainable organisational models, and by providing research and consulting services to projects pursuing similar objectives. Leadership at Ithaka previously have been involved with JSTOR and ARTstor, and therefore have more than a decade working to developing working not-for-profit business models that can operate effectively in the networked environment. Through this work, there are a set of principles and processes that we believe help promote successful not-for-profit innovation. This Framework for Sustainable Not-For-Profit Innovation helps guide us in our work. To maximise the likelihood of success of any entrepreneurial initiative, the entity must:

- Clearly define the charitable mission of the effort
- Separate or protect the innovative enterprise from the existing organisation
- Hire a great leader, often from outside the organisation
- Establish an advisory or governance board with outsiders
- Establish an advisory/governance process
- Allow the leader the flexibility to adjust
- Provide/secure sufficient capital
- Develop a viable economic model, matching value generated to sources of support
- Communicate effectively and aggressively the value of the enterprise to constituents and stakeholders

Point 1: Clearly define the charitable mission of the effort

Defining the mission for a new initiative, whether is at the scale of a project or intended to become a new organisation, is an absolutely critical first step toward success for a not-for-profit effort. The mission must be defined beyond just a one or two sentence broad statement of the larger mission of the organisation. It must



also set out a well-defined and realistic set of objectives that can connect strategic and operational decisions to the mission. In for-profit organisations, decisions can be made through a quantifiable financial modelling exercise where expected return on investment of a set of options can be calculated and compared. The approach taken is usually the one that maximises risk-adjusted return for shareholders. In a not-for-profit organisation, investments must be evaluated based on their potential 'return on mission'. This type of return is not easily measured and is therefore very difficult to use as a basis for prioritising among options. It fundamentally requires a qualitative assessment. Without a very clearly defined mission and a connected set of objectives, it is extremely difficult, and sometimes impossible, to decide between a number of compelling possible initiatives. In a not-for-profit organisation, everything can feel like a 'must do'.

Every strategic process to define the mission and objectives of an organisation should start with a blank slate and emphasise the demand side of the mission. Everything should be questioned and nothing should be pre-determined. Why do we exist and what impact do we intend to have? Who has a need for the services we can offer? With the advent of digital and networking technologies, the potential for projects and organisations to serve not only more people, but more kinds of constituents, is potentially enormous. But pursuing too many different constituencies with the limited resources available to the organisation could overwhelm the organisation in terms of both scale and scope. There is a need for focus.

Point 2: Separate the innovative enterprise from the existing organisation

All organisations are defined by the past. Their mission, strategy, processes, staffing, and culture are all shaped by their experience. When the environment surrounding an organisation changes, and there is a need for the organisation to change, it is almost always very difficult to do so. Organisational inertia exists at high-performing organisations as well as low performing ones. In fact, fundamental change can be even harder in successful organisations because their past success makes them confident about their existing modes of operation. For projects that are launched within established organisations, and that need to innovate, it is essential to take steps to allow the project staff to embrace a new perspective and consider challenges free of the encumbrances of existing practices. Putting in place mechanisms to separate the change agents from the existing environment is highly advisable, especially at the early stages. This does not mean that every new initiative requires a new separate organisation. There are other ways to provide room for the new project. It could mean setting the new initiative up in a separate office space, creating a separate organisational structure, or giving it its own income statement. Staff of the new initiative may operate under a different set of rules, such as performance-based pay and longer work hours.



Separating the new project from its host organisation can also help to ensure accountability and increase the stakes for the staff and leadership involved. The increased stakes focused on a more singular objective are a good thing. Fear of failure, in moderation, is a powerful motivating force.

Point 3: Hire a great leader, often from outside the organisation

Every venture capitalist says that they invest in people, not products. Even the most thoroughly researched business plan and strategy needs adjustment. It is often said that an organisation with a great leader and a bad strategy can survive, but an organisation with a great strategy and a lousy leader cannot. It is the leadership that adapts and adjusts, listens to changing influences and ensures success. The pressure on a leader is even greater in a start-up or transformative process than in stable institutions. In a start-up effort, the leader's vision and ability to motivate provides virtually all forward momentum. A new organisation has no existing momentum. In a transformation the threshold for a successful leader rises even higher, since there is already a trajectory with its own momentum, and the leader must slow it down and redirect it. Experience running stable institutions is helpful, but not necessarily sufficient.

What characteristics are important in the leader of a new non-profit initiative? The leader is going to have to have a very clear sense of the mission and passion for pursuing it. He is going to have to be a strategic thinker, because he is going to have to play a role in establishing the mission and strategic objectives of the enterprise. He is going to have to have extraordinary judgment. There are so many moving parts that sound decisions will need to be made on a daily basis. These decisions are going to have to take into account many different factors while at the same time meshing with the overall direction established by the mission and strategic objectives. He is going to have to be an effective communicator. He will have to communicate important decisions to the board, staff and stakeholders, effectively and persuasively. He will have to act as the chief evangeliser for the new service. He may have to be able to overcome resistance from constituencies that feel threatened by change. He will have to be able to get things done while averting crises. Disenfranchised stakeholders will have to be assuaged. And, the leader will have to have the capabilities to recruit, encourage and retain a cadre of innovative staff and managers. These are the primary set of skills we think are required of the leader. We do not claim this as a comprehensive list, but even this brief list points to the diverse set of capabilities the leader will have to possess.

Point 4: Establish an advisory or governance board with outsiders

In independent organisations, the governance board is that body which takes ultimate responsibility for the organisation. For a not-for-profit organisation, the governance structure must take responsibility both for the financial well-being of the organisation and for the focus on the mission. Independent not-for-profit



organisations are typically governed by a board of trustees. The principles that have been most successful in overseeing independent organisations apply equally to internal start-up initiatives that are not independent but that have been given the kind of autonomy described. These initiatives should establish a board-like advisory committee to fulfil the kinds of duties and obligations that the board provides in the description below.

The relationship between the board (or advisory committee) and the leader of the organisation or project deserves careful consideration. Deep-seated trust between the board (especially its chairman) and the operational leader is imperative; without it the organisation will likely become dysfunctional. There are cases where management attempts to ‘manage’ the governance or advisory board process, providing and withholding information to shape a preferred direction, but this cannot be the choice for a start-up organisation. The engagement of the trustees or committee members in the fundamental vision is a prerequisite. Without their full support, the leader will not be able to execute the vision nearly as effectively.

A trustee or advisory committee member will be far less effective if he does not share the same vision as the organisation or project as a whole, and can in fact be damaging if he attempts to sow discontent or undermine the trajectory being pursued by the leader. Consequently, the selection of the right trustees is a factor that is absolutely critical to the success of any not-for-profit organisation. This is somewhat less true for an advisory committee because responsibility is not vested in the committee. But it is still very important to have engaged, knowledgeable external advice and guidance for new projects.

Point 5: Establish an advisory/governance process

The governance structure is created in order to take ultimate responsibility for the organisation’s finances, mission and strategy. The advisory committee has a similar goal, although as just mentioned, responsibility is not legally invested in the committee. Still, the same processes should be applied. In order to be effective, these groups require a regular and reliable process of reporting. That process must include regular meetings (3–6 times per year). Staff should prepare reports in advance of the meetings that prospectively define goals and objectives in addition to reporting on progress toward meeting previously established objectives. These reports should also include budgets and financial reports on progress made against budget. The reflection and self-assessment that is required to create these reports is, by itself, very helpful discipline that keeps an organisation focused and making progress. Trustee and advisory committee meetings should be organised around these reports, which also will occasionally include strategic papers or other documents for special consideration.



Point 6: Allow the leader the flexibility to adjust

All of the work that is put into building an appropriate governance structure and process for the organisation is designed to maximise transparency and build trust between the board/committee, and the leader and senior staff of the enterprise. In a start-up organisation, assumptions can change, or the environment can change. It is important that the leader develop a level of trust with the board or committee that enables the development of new solutions and approaches. It must also be noted, however, that the leader will not always have the right answer, and that engaging with the board and adjusting the path in light of the board's advice should not be regarded as a failure. If you have populated the board with the right kind of people, their strategic direction can be invaluable to a leader to save him from a terrible mistake.

Point 7: Provide/secure sufficient capital

Typically one of the biggest challenges for not-for-profit start-ups is securing sufficient capital to get established. Most often, funds are provided on a grant basis where projects and budget lines need to be very clearly detailed in advance and where there is little opportunity for adjustment. Management must make plans as a matter of organisational and fiscal discipline, but they must have the opportunity to adjust. There is a balance to be struck. Similarly, one must pursue balance in determining the amount of capital to be provided. There needs to be sufficient capital on hand, and the promise of sufficient resources for the medium term to attract great staff to the project. At the same time, there cannot be so much capital available that it encourages complacency.

Point 8: Develop a viable economic model, matching value generated to sources of support

Considerable effort needs to go into conceptualising a sustainable economic model. In most commercial or service oriented not-for-profits, analysis of the potential demand and revenue generating capacity of users and beneficiaries should be a very important part of the business planning process. Who are the constituents who most value what the organisation has to offer? Are they willing to pay for the services we can provide? If so, how much will they pay, and what total revenue are we likely to be able to generate? This analysis must be conducted regardless of the project. It is not only for projects that pursue a commercial model, say with a subscription database. Even an Open Access project or a national library must ask these same questions, but they must do so in a different way. Who is most interested in supporting the effort? It might be philanthropy, a government agency, or preferably a combination of both. Once identified, reasonable projections of what those agencies might be willing to offer in terms of support



in the future and on a recurring basis is necessary to guide the planning process, and to provide funders with comfort that the investments they are making will have ongoing impact.

As part of this process, special care should be taken to ensure that the scale of support of the beneficiaries is consistent with the value they derive from the services. All possibilities for generating revenue in areas where value is being generated should be considered and projected. Developing a diverse set of revenue streams is the most secure path to achieving ongoing financial sustainability.

Point 9: Communicate effectively and aggressively the value of the enterprise to constituents and stakeholders

Often in not-for-profit organisations there is a sense that developing or providing a service will be enough for it to have impact. Far less attention in the sector is applied to raising awareness of the services – of marketing them – than in the for-profit sector. The fact is that outreach of this kind is no less necessary for the not-for-profit. Developing an effective and clear message about the mission of the enterprise and communicating it effectively to those who can most benefit from it is extremely important.

Appendix B: Bibliography

- Alterman, Eric. 'Out of Print: The death and life of the American newspaper.' *The New Yorker*, March 31 2008.
- Anand, Bharat and Sophie Hood. *Schibsted* (Cambridge, MA: Harvard Business School, 2007).
- Anderson, Chris. *The Long Tail: Why the Future of Business is Selling Less of More* (New York: Hyperion, 2006).
- Anderson, Chris. 'Free! Why \$0.00 is the Future of Business.' *Wired Magazine*, 6.03 (February 25 2008). Available online at www.wired.com/techbiz/it/magazine/16-03/ff_free.
- Andreasen, Alan R. 'Profits for Non-profits: Find a Corporate Partner.' *Harvard Business Review*, November/December 1996.
- Andreasen, Alan R. and Philip Kotler. *Strategic Marketing for Non-profit Organizations* (Upper Saddle River, NJ: Prentice Hall, 2003).
- Austin, James. *The Collaboration Challenge: How Non-profits and Businesses Succeed Through Strategic Alliances* (San Francisco: Jossey Bass Publishers, 2000).
- Bishoff, Liz and Nancy Allen. *Business Planning for Cultural Heritage Institutions: A framework and resource guide to assist cultural heritage institutions with business planning for sustainability of digital asset management programs* (Washington, DC: Council on Library and Information Resources, 2004).
- Borrell Associates. *Digital Edge Report: Best Practices Report: How Leading Newspaper Sites Manage Sales* (Williamsburg, VA: Borrell Associates, July 2007).
- Borrell Associates. *Digital Edge Report: Newspapers' Online Operations: Performance Report 2006* (Williamsburg, VA: Borrell Associates, October 2007).
- Borrell Associates. *Benchmarking Newspaper Online Revenues: International Survey* (executive summary) (Williamsburg, VA: Borrell Associates, 2007).
- Bradley, Stephen P. and Nancy Bartlett. *Where to Get your News and Information: The Digital Disruption* (Cambridge, MA: Harvard Business School, 2007).
- Bruner, Rick E. and Marissa Gluck. *Best Practices for Optimizing Web Advertising Effectiveness*, May 2006. Available online at www.doubleclick.com/insight/pdfs/dc_bpwp_0605.pdf.



- Campbell, Kelly and Betsy Haley. *Business Planning for Non-profits: What it is and why it matters* (Boston: Bridgespan Group, 2006).
- Christensen, Clayton M. *The Innovator's Dilemma* (New York: Collins Business Essentials, 2006).
- Community Wealth Ventures. *Powering Social Change: Lessons on Community Wealth Generation for Non-profit Sustainability* (Washington DC: Community Wealth Ventures, 2003).
- Drucker, Peter F. *The Drucker Foundation Self-Assessment Tool, Participant Workbook* (San Francisco: Jossey Bass, 1998).
Also see: *The Drucker Foundation Self-Assessment Tool: Process Guide*, by Gary J. Stern.
- Drucker, Peter F., *Managing the Non-profit Organization: Principles and Practices* (New York: Harper Collins Business, 2005).
- Ernst & Young. 'The Future of National Newspapers: So much more than print,' March 2008. Available online at [www.ey.com/Global/assets.nsf/UK/ME_by_numbers/\\$file/Media_and_Entertainment_by_numbers.pdf](http://www.ey.com/Global/assets.nsf/UK/ME_by_numbers/$file/Media_and_Entertainment_by_numbers.pdf).
- Foster, William and Jeffrey Bradach. 'Should Non-profits Seek Profits?' *Harvard Business Review*, February 2005.
- Foster, William and Gail Fine. 'How Non-profits Get Really Big.' *Stanford Social Innovation Review*, Spring 2007.
Available online at www.ssireview.org/site/printer/how_non-profits_get_really_big.
- Foster, William, Ben Dixon, and Matt Hochstetler. *Funding: Patterns and Guideposts in the Non-profit Sector* (Boston: Bridgespan Group, 2003).
- Foster, William, Ben Dixon, and Matt Hochstetler. 'In Search of Sustainable Funding: Is Diversity of Sources Really the Answer?' *The Non-profit Quarterly*, Spring 2007, pp 26–29.
- Glenn, David. 'The (Josh) Marshall Plan: Break news, connect the dots, stay small.' *Columbia Journalism Review*, September/October 2007.
- Gray, Stephen T. *Newspaper Next 2.0: Making the Leap Beyond 'Newspaper Companies'* (Reston, VA: American Press Institute, 2008). Available online at www.newspapernext.org.
- Harley, Diane, et al. *Use and Users of Digital Resources. A Focus on Undergraduate Education in the Humanities and Social Sciences*. (Berkeley: Center for Studies in Higher Education, University of California, Berkeley, 2006). Available online at <http://digitalresourcestudy.berkeley.edu>.
- Hirschorn, Michael. 'The Pleasure Principle: Newspapers should try giving readers what they want, not just what editors think they need.' *The Atlantic*, December 2007. Available online at www.theatlantic.com/doc/200712/newspaper.
- Holahan, Catherine. 'The Promise of Online Display Ads.' *BusinessWeek*, May 1 2007. Available online at www.businessweek.com/technology/content/apr2007/tc20070430_987177.htm.
- Innosight, LLC and the American Press Institute. *Newspaper Next: Blueprint for Transformation*, (Reston, VA: American Press Institute, 2006). Available online at www.newspapernext.org.
- Kelly, Kevin. 'Better than Free,' *The Technium* blog, January 31 2008. Available online at www.kk.org/thetechnium/archives/2008/01/better_than_fre.php.



- Kluth, Andreas. 'Survey: New Media.' *The Economist*, April 20 2006. Available online at www.economist.com/surveys/displaystory.cfm?story_id=6794156.
- Letts, Christine, William Ryan and Allen Grossman. 'Virtuous Capital: What Foundations Can Learn from Venture Capitalists.' *Harvard Business Review*, March–April 1997, pp 36–44.
- Liew, Jeremy. 'Three ways to build an online media business to \$50m in revenue.' *Lightspeed Venture Partners* blog, February 26 2007. Available online at <http://lsvp.wordpress.com/2007/02/26/three-ways-to-build-an-online-media-business-to-50m-in-revenue>.
- Massarsky, Cynthia W. and Samantha L. Beinhacker. *Enterprising Non-profits: Revenue Generation in the Non-profit Sector*. (New Haven: Yale School of Management – Goldman Sachs Foundation Partnership of Non-profit Ventures, 2002). Available online at www.ventures.yale.edu/docs/Enterprising_Non-profits.pdf.
- McGrath, Rita Gunther and Thomas Keil. 'The Value Captor's Process: Getting the Most out of Your New Business Ventures.' *Harvard Business Review*, May 2007, pp 128–136.
- McLeish, Barry J. *Successful Marketing Strategies for Non-profit Organizations* (Hoboken, NJ: John Wiley, 1995).
- Moon, Youngme. *Google Advertising* (Cambridge: Harvard Business School, revised October 11 2007).
- Newspaper Association of America. *Digital Edge Report: On Site: How Two Smaller Newspapers Energised Their Web Strategies* (Arlington, VA: Newspaper Association of America, August 1 2007). Available online at www.naa.org/~media/4A8A69D8F1E9497BBB3E24481A856453.ashx.
- Newspaper Association of America. *Digital Edge Report: Smart Strategies: A Fresh Look at Marketing for Online Newspapers* (Arlington, VA: Newspaper Association of America, 2007).
- NSDL, Sustainability Standing Committee: Position, Progress & Plans, NSDL Annual Meeting Poster, 2003.
- Open Society Institute. *Guide to Business Planning for Launching a New Open Access Journal*, (New York: Open Society Institute, 2003). Available online at www.soros.org/openaccess/oajguides/business_planning.pdf.
- Outing, Steve and Rusty Coats. 'To Charge or not to Charge? Searching for the Holy Grail of Revenue Models for News Sites.' *Poynter Online*, updated April 2002. Available online at www.poynter.org/content/content_view.asp?id=11174.
- Pérez-Peña, Richard. 'Paper Cuts: An Industry Imperiled by Falling Profits and Shrinking Ads.' *The New York Times*, February 7 2008. Available online at www.nytimes.com/2008/02/07/business/media/07paper.html.
- Pew Research Center for the People and the Press and the Project for Excellence in Journalism. *The Web: Alarming, Appealing, and a Challenge to Journalistic Values* (Washington, DC: Project for Excellence in Journalism, March 17 2008). Available online at www.stateofthenewsmedia.org/2008/Journalist%20report%202008.pdf.
- Prahalad, C.K. and Gary Hamel. 'The Core Competence of the Corporation.' *Harvard Business Review*, May/June 1990, pp 79–91.
- The Project for Excellence in Journalism. *The State of the News Media 2008: An Annual Report on American Journalism* (Washington, DC: Project for Excellence in Journalism, March 2008). Available online at www.stateofthenewsmedia.org/2008.



- Rappa, Michael. 'Business models on the Web.' *Managing the Digital Enterprise* site, part 5, updated March 16 2008. Available online at <http://digitalenterprise.org/models/models.html>.
- Rushkoff, Douglas. *Get Back in the Box: Innovation from the Inside Out* (New York: Harper Collins, 2005).
- Savary, Miklos. *Market Segmentation, Target Market Selection, and Positioning* (Cambridge, MA: Harvard Business School, April 17 2006).
- Steiger, Paul E. 'Read All About It: How newspapers got into such a fix, and where they go from here.' *The Wall Street Journal*, December 29 2007. Available online at <http://online.wsj.com/article/SB119888825411356705.html>.
- Trimble, Chris. *New York Times Digital Case Study* (Hanover, NH: Tuck School of Business at Dartmouth College, 2007).
- Weisbrod, Burton A. (ed.) *To Profit or Not to Profit: The Commercial Transformation of the Non-profit Sector* (Cambridge, UK: Cambridge University Press, 1998).
- World Association of Newspapers. 'New Revenue Strategies.' *Shaping the Future of the Newspaper: Analyzing Strategic Developments and Opportunities in the Press Industry*, 5:1, June 2006.
- World Association of Newspapers. 'ACAP Answers Its critics,' January 28 2008. Available online at www.wan-press.org/print.php3?id_article=16256. Also see: www.the-acap.org.

Appendix C: Interviewees

Eliot Pierce, Vice President, Strategy and Operations, NYTimes.com

James Bennet, Editor, The Atlantic and TheAtlantic.com

Randy Bennett, Vice President, Audience and New Business Development, Newspaper Association of America

Alastair Cotton, Sales Director, Europe, Middle East and Africa, Bloomberg News

Ben Edwards, Publisher, Economist.com

Dan Gillmor, Director, Knight Center for Digital Media Entrepreneurship, Arizona State University's Walter Cronkite School of Journalism and Mass Communication and director of the Center for Citizen Media.

Colin Hughes, Managing Director, GuardianProfessional

Ruth Jones, Head of Product Development, The British Library

Caroline Kimbell, Business Development Manager, The National Archives (UK)

Andreas Kluth, Journalist, The Economist

Christine Lawrence, Grants Manager, The National Archives (UK)

Scott Lubeck, General Manager, Newsstand (www.libredigital.com)

Uri Nodelman, Senior Editor, *Stanford Encyclopedia of Philosophy*

Kenneth M. Price, Project Co-Director, The Walt Whitman Archives

Edouard Tavernier, Head of Strategy for Global Practice Management, LexisNexis

Jonathan Young, Right Media

Edward N. Zalta, Principal Editor, *Stanford Encyclopedia of Philosophy*



Sustainability and Revenue Models for Online Academic Resources

An Ithaka Report

This document is available in alternative formats. For more information: www.jisc.ac.uk/contentalliance

Further information about JISC:

Web: www.jisc.ac.uk

Email: info@jisc.ac.uk

Tel: +44 (0)117 331 0789