

Trends in Norwegian scholarly publishing

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Abstract

From 2005-2006, scholarly publishing, including e-publishing, becomes one of several criteria used by The Ministry of Education and Science in financing research in Norwegian universities and colleges. Based on qualitative methodology and critical case sampling of recent Norwegian policy documents and reports, combined with typical case sampling of articles on e-publishing 2000-2005, especially from *D-Lib magazine* (Patton, 2002; Hawkins, 2001), the article discusses trends in Norwegian scholarly publishing. Key issues include institutional self archiving repositories, OA, online peer-review systems, DRM, author payment, information ethics and institutional and governmental policies on e-publishing. The article concludes that increased institutional and governmental commitment to e-publishing are necessary, especially government willingness to adequately finance The Norwegian Digital Library.

1 E-Norway

With 59% of the population online, Norway enjoys the 5th highest rate of online users in Europe, only passed by Iceland (79%), Sweden (69%), Denmark (63%) and the Netherlands (61%) (ClickZ Stats, 2005). At Oslo University, the library in 2004 decided that electronic journals, not printed journals, were to be prioritised in collection development. At the Norwegian Research Council, all research grant applications must now be presented in PDF format. All incoming print post is digitized and the archive is now 100% electronic. Yet the emergence of e-Norway is delayed by insufficient government financing of a long-planned Norwegian Digital Library (Norwegian Archive, Library and Museum Authority, 2005).

Odlyzko (1997) argued that electronic publication would eventually dominate scholarly publishing, once the “inertia” of the publishing business and “perverse” economic incentives were overcome. Later Montgomery & King (2002) wrote of a fundamental paradigm shift in describing the successful and cost saving shift from print to electronic journal collections at Drexel University, a view later upheld by others (Schonfeld, R.C.; King, D.; Okerson, A.; Gifford Fenton, E. , 2004). It has also been noticed in Norway’s 6 universities, 5 specialized university institutions, 25 university colleges and 2 art schools that scholarly publishing is changing due to the Open Access Initiative (Wilson, 2004; Glance, Kerr & Reid, 2004; Harnad, 2005), and that learning can be enhanced by promoting the use of e-journals (Colvin & Keene, 2004). Collection development in Norway’s 336 academic, research and special libraries is increasingly marked by electronic journals. While in 2003 the physical collections of these libraries grew by a slight +2%, electronic collections increased by +30% (Statistics Norway, 2005a). Few Norwegian libraries have gone, or plan to go, e-only. The transition from the hybrid to the digital library is being hampered not only by inadequate government financing of The Norwegian Digital Library, but also by the “perversity” that e-only subscriptions (but not print subscriptions) pay 25% VAT (Hunstad, 2005). As for e-publishing, most Norwegian universities currently have embryonic systems of net-based publishing based on institutional self archiving, and the university colleges are cautiously following suit. As elsewhere, the serials crisis has secured many OA adherents, in academia and public life. Although there are presently only 3 Norwegian institutional members of the OA Institutional Archives Registry, the number may increase as a result of new criteria and incentives for scholarly publishing.

2 Documenting Norwegian scholarly publishing

There has long been a recognition in Norway that existing national and institutional systems of documenting Norwegian scholarly publishing are inadequate (Sivertsen, 2003). In a recent background report prepared for an OECD thematic review of Norwegian tertiary education, The Ministry of Education and Research provides a

whole range of statistics – but nothing on the volume and quality of scholarly publishing (Ministry of Education and Research, 2005a). The Norwegian Research Council usually quotes publications and citations mostly from the 8,700 full-text e-journals indexed in the Thomson ISI Web of Science, although there are today around 24,000 refereed, full-text e-journals in the world (Harnad, 2005). The reliance on ISI is not only motivated by the excellent quality of ISI services (Thomson ISI, 2004) and that many Norwegian researchers publish in ISI-indexed journals, but in some measure must also be ascribed to methodological “convenience sampling” (Patton 2002, p. 241-242) due to documentation inadequacies in Norway.

In 2003, the Norwegian Ministry of Education and Science (MES) commissioned The Norwegian Council for Higher Education (NCHE) to remedy this situation and prepare a study on a new national system for the documentation of scientific publishing by Norwegian researchers, to be based on bibliographic data and authority registers. The NCHE appointed both an expert (policy) committee and a technical follow-up committee for the assignment, and the present author served as member of the former committee. In the NCHE study (Norwegian Council for Higher Education, 2004), several recommendations are made:

To qualify as scientific, a publication must: a) present new insight, b) be in a form that allows the results to be verified or used in new research, c) be in a language and have a distribution making it accessible to the majority of interested researchers and d) be in a peer-reviewed publishing canal (journal, series, book, website).

Based on this definition, where all 4 criteria must be met, authority registers have been generated in the form of data bases with 14,022 journals or serials with ISSN numbers (including all ISI-indexed electronic full-text journals) and 472 publishers of scientific titles with ISBN numbers. These have been identified and quality controlled in consultation with relevant Norwegian scientific milieus. An estimated 20% of scientific publication will take place at level 2, i.e. in the most prestigious journals, serials and publishers, as measured through impact factor analysis, and this type of publishing will be weighted higher than at level 1. Differential weighting, it is believed, will prevent changes in publishing patterns, e.g. more articles and fewer monographs.

The MES proposes to introduce in the budget for 2006, a unified system of only 4 indicators to measure research: scholarly publishing, doctoral candidates, financing from the European Union and Norwegian Research Council (Ministry of Education and Research, 2005b).

Some opposition to the new system has emanated from the humanities & arts. Here publishing tradition has been dominated by the printed article and book. Disciplines like history and law where most research is published in Norwegian, have also reacted against publishing in English, which the new system encourages. In the humanities and arts, the ISI Web of Knowledge is little known: among the 8,700 journals, there are three times as many journals in science as in the social sciences and humanities combined. The recommended authority registers will therefore be based on more than 14,000 journals. In comparison, The Thomson ISI Scientific Master Journal List covers presently 13,719 titles, and the ISI Web of knowledge lists 20,000 journals. Based on the “80-20%” Bradford rule, Thomson ISI has selected and indexed 8,700 of these journals, all electronic full-text journals, in its Web of Science list (McVeigh, 2004; Thomson ISI, 2004).

Nonetheless, the authority registers are meant to be dynamic, i.e. journals and publishers can be changed based on nomination procedures through relevant professional committees. Bibliometric analysis indicates that the authority registers span almost 95% of the outlets where Norwegian researchers publish (Sivertsen, 2003, p.85). When a Norwegian researcher registers his/her results in the most widely used institutional system (FRIDA), these are verified against bibliographic data and authority registers. Only entries that are authenticated will be accepted as scientific publications.

Among possible pitfalls, co-authorship will complicate matters and necessitate a distribution of credits among several authors and perhaps also institutions. Author addresses and institutional affiliation(s) must be part of the bibliographic data. Who is “Norwegian” depends not on citizenship but author address given in the original data when the publication is first registered. When operative, the system must be seen as legitimate by the research community, simulations are needed to visualize budgetary consequences, so implementation must take place in a predictable manner. The transparency of the system to commercial publishers and vendors makes it vulnerable to price hikes. There is also concern with information ethics: what about journals and publishers which are excluded from the authority registers as non-scientific? (Vaagan & Koehler, 2005; Vaagan, 2005).

To assess how the new system may influence Norwegian scholarly OA publishing, the following non-exhaustive list of perceived critical factors will be commented on: institutional self archiving repositories and OA publishing, online peer-review systems, DRM, author payment, information ethics and institutional and governmental policies on e-publishing.

3 Institutional repositories and OA publishing

Harnad (2005) defines OA as "immediate, permanent, free online access to the full text of all refereed research journal articles (2,5 million articles a year, published in 24,000 refereed journals, across all disciplines, languages and nations)". OA involves 4 channels: a) electronic, refereed scientific periodicals; b) research-specific archive (e-print) servers; c) institutional repositories of individual universities and d) self-posting on author's home pages (Björk, 2004), of which first 3 are considered in this article. According to the Directory of Open Access Journals, Norway only has 3 member institutions while Belgium has 5, including Université Catholique de Louvain (Directory of Open Access Journals, 2005). OA now comprises a variety of repositories, search engines, reference linking and harvesting systems, e.g. BioMed Central, PubMed Central, FreeMedicalJournals.com, Public Library of Science, SciX, LOCKSS, arXiv, OAI-PMH, CrossRef, OAIster. Yet although there are success stories like *First Monday*, half the OA journals that have been started are gone. Subscription-based commercial journals continue to dominate. Yet among the 8,700 journals on the Thomson ISI Web of Science list, 239 are OA journals (Thomson ISI, 2004), and proponents of OA argue that OA articles are cited 3,36 times more than articles in commercial journals (Harnad & Brody, 2004).

Net-based publishing based on institutional self archiving and repositories in Norwegian universities and university colleges is so far limited. As elsewhere, digitization of older, physical collections is only starting up (Astle & Muir 2002), and a Norwegian Digital Library is only in its infancy. Oslo University in 2003 initiated a policy designed to switch all publication from paper to electronic formats by 2007. Dissertations, BA and MA theses, serials, reports, monographs and videos will be available electronically, coordinated with international initiatives (Hagen, Dobratz & Schirmbacher, 2003). One hopes that researchers will deposit copies of articles published in scholarly journals. In time this may aggregate into an institutional OA repository also of scholarly publications - possibly also to the appearance of institutional e-journals. Many Norwegian libraries want more OA involvement (Hunstad, 2005). Björk (2004) argues that institutional repositories can be both primary channels (e.g. for Ph.D. dissertations) and secondary channels, but that secondary publication requires changes, e.g. financial reward for depositing metadata in research base plus uploading of PDF copy. The Romeo project concluded that self-archiving is a realistic approach for academics, that 71% of publishers accept some form of self archiving, and that IPR issues can be overcome (Gadd, Oppenheim & Proberts, 2003).

4 Online peer-review

Some academic resistance to scholarly e-publishing was based on the view that papers in e-journals were not adequately refereed (Feather & Sturges, 2003, p. 176-177). This problem is subsiding with the emergence of several innovative online peer review systems. Yet peer-review carries a cost: OA does not mean that the author gives away work for free: content is exchanged for peer review, quality labelling, marketing and dissemination (Björk, 2004). The Public Library of Science's PLoS Biology from October 2003 is an OA model which will charge authors and institutions for publishing their papers, to cover costs including "rigorous" peer review (Bence & Oppenheimer 2004, p.355-356).

5 Digital rights management

All known preservation methods of printed materials involve copying. Many unresolved issues remain regarding long term access to copyrighted and licensed material in libraries and with publishers (Ayre & Muir, 2004). It must also be remembered that not all OA materials are Public Domain or Open Source (Wilson, 2003; Gance, Kerr & Reid 2004; Klang, 2005). Digital rights management is therefore crucial to solving the difficult balancing between private ownership versus public access (Janella 2001; Coyle 2004; Vaagan & Koehler, 2005). The very term "right" is ambiguous, and we need to understand a broad "rights" landscape embracing the IPR rights of owners and users of intellectual property (Coyle 2004). The Norwegian Parliament in April 2005 accepted revisions in the existing law on intellectual property rights in order to comply with the EU IPR Directive on the enforcement of intellectual and industrial property rights. Yet Electronic Frontier Norway opposes the law, calling it collective theft from Norwegian consumers, and claiming that the law legalizes restrictive technology and removes consumers' rights to make copies from one format. Many academics agree.

6 Author payment

Kaser (2000), observing that free information is an illusion, distinguishes between two models: pay-for-use and pay-to-produce. Noting that publishing history illustrates the use of both models, long before the Internet, he notes the paradox that we are willing to pay monthly subscription for access to the Internet but still want OA. The serials crisis and the OAI have crystallized two camps: subscription-based versus open access publication (Van de Sompel, Payette, Erickson, Lagoze & Warner (2004). From the publishers point of view e-publishing poses other challenges than traditional paper-based subscriptions sales mainly to academic libraries. Wilson (2004) notes the need to develop business models to recover costs because no matter what future models may prevail in scholarly publishing, someone has to foot the bill. The shift to licence-based annual subscriptions allowing registered users access to content for a limited period, has motivated publishers and agents to develop a variety of pricing models (Hardy, Oppenheim & Rubbert, 2002; King 2004), not least since the bottom line is difficult to assess (Montgomery & King, 2002; Holmström 2004ab). OA author payment models should, if we accept the arguments of King (2004), include also commercial publishers.

7 Information ethics

The relevancy of information ethics is evident when one considers the level of support for Electronic Frontier Norway (EFN) and for the philosophies of the Free Software Foundation and Open Source Initiative (Klang, 2005). In 2003 Norwegian courts threw out a case brought against a Norwegian hacker by the US DVD and motion picture industry (Vaagan & Koehler, 2005). Looking ahead, Van de Sompel, Payette, Erickson, Lagoze & Warner (2004) address the need for a next-generation system of scholarly communication, proposing the development of information models, process models and related protocols to enable interoperability between existing repositories, information stores and services. But will this also benefit consumers on the “wrong” side of the digital gap? (Capurro, 2004; Klang, 2005; Vaagan & Koehler, 2005; Vaagan, 2005).

8 Institutional and government policies on e-publishing

As noted and for reasons stated earlier, few Norwegian libraries have gone (or plan to go) e-only. Harnad & Brody (2004) argue that universities must act: “The sooner universities extend their existing publish-or-perish policies to require also providing OA for all those published articles, the sooner the entire research community will enjoy the benefits of maximizing its research impact by maximizing user access to its research output”

What can universities do? Björk (2004) concludes that the choice of business model is crucial. OA journals and institutional repositories have few legal problems for the time being, but once parallel non-commercial e-publishing threatens commercial journals sales, copyright issues will be a main problem. IT-infrastructure can be a barrier because OA journals vary from static HTML to database-driven systems, and are often vulnerable and person-dependent. Only Biomed Central and Public Library of Science have been purchased by outside companies. Institutional repositories can opt for several IT-strategies, e.g. a national collaboration platform, as in Norway, in the shape of co-operation among universities and university colleges. This is certainly one of several prerequisites for developing The Norwegian Digital Library.

9 Conclusion

Introducing scholarly publishing as a criterion in financing research in Norwegian universities and colleges will no doubt affect scholarly publishing, including OA e-publishing, but it is still too early to say how. The future and shape of OA e-publishing in Norway relies on key issues such as advances in institutional OA repositories, online peer-review systems, DRM, author payment, information ethics, institutional and governmental policies on e-publishing, and not least government readiness to adequately finance The Norwegian Digital Library.

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