Towards Open Access in Europe

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I am very honoured to have been asked to speak here today about European developments of Open Access. I will be speaking a lot about publishers, because the recent discussion in the EU is all about publishers, but before I begin I would like to say, first, I am a publisher myself, in a very small publishing department of an Academy of Sciences, and second, even when I generalize, I know that there are just as many differences between publishers as between researchers.

When the debate on Open Access had been going on for ten years or so, the European Commission finally stepped in 2006, when they commissioned a study on the *Economic and Technical Evolution of the Scientific Publication Markets in Europe* (European Commission 2006). Recently a group of Open Access advocates turned one of the recommendations of this report, to mandate deposit of publications resulting from EU-funded research in open repositories, into a petition which by March 1 2007 had been signed by 23,000 individuals and organizations (DEFF et al. 2007). The publishing industry responded with a declaration of their own, which, in line with the tradition that milestones in Open Access start with B, they called the Brussels Declaration (International Association of STM publishers 2007). Here we are in Bern, so ….In the same week the EU published a communication on scientific information in the digital age (European Commission 2007).

The study published in 2006 is a 100-page document written by economists and information specialists that deals primarily with the market of science publishing and European-level policies to improve access to scientific publications. It sets out to investigate whether the existing system for academic publishing is an open and competitive market which can also be entered by new players.

There are some elaborate calculations from which the authors conclude that for-profit publishers charge on average 3 times as much as not-for-profit publisher for a journal of comparable age, domain and citation count. They conclude that the price of journals is not related to production costs, but goes up with its quality, as expressed in citation counts .The price is determined by the value attached to the journal by readers, the more popular the more expensive (European Commission 2006, p.41). As has often been said: some journals are so important that libraries cannot cancel them, they must pay whatever price the publisher asks, and this puts publishers in a comfortable position.

The report also discusses bundling and licensing of subscriptions to consortia, and the 'lock-in' effect this has. Bundling arrangements on the whole result in more access to more journals for a relatively low price per journal, *but* libraries end up paying for journals they do not really want and have to enter into longterm contracts taking up a large part of their budgets for several years, with little real possibility of cancelling subscriptions. Generally, Big Deals appear to work in the favour of large publishers and leave little room in library budgets for smaller publishers and new

publishing undertakings. It strengthens the market position of big publishers and stands in the way of fair competition.

There is a lot more in this report on access, innovation, VAT[1], preservation of electronic journals etc, but I would like to leave that aside for the moment. Quite frankly, the report does not present that many new insights for someone not particularly interested in economic theory. The UK House of Commons Science and Technology Committee in 2004 already came to similar conclusions about the peculiarities of the publishing market and the negative effects of bundling. They published a long report on this, that makes fascinating reading, with very outspoken comments and numerous quotes from representatives from publishing and the academic world whom the committee interviewed (in fact, the complete transcripts of these interviews are available) (House of Commons Science and Technology Committee 2004).

This EU report is much less inspired by direct observation and involvement, but it does present new calculations, which have of course been immediately challenged by publishers, who have claimed that the analysis is flawed, and the comparisons are between apples and pears (see 'Summary of responses',European Commission 2006). True or not, it is hard to refute the general conclusion that the big publishers enjoy considerable market power. Some might say we've known that all along. But now authors commissioned by the EU have shown on the basis of models from economic theory that publishers have *such* strong advantages in the market that the system will not be immediately threatened if access is improved by deposit in open archives. There are no economic arguments to oppose this, in fact the position of the different parties would be more balanced if libraries had more choice. Hence their recommendation A1, which was subsequently taken up in the petition and suggests the following actions:

> (i) Establish a European policy mandating published articles arising from EC-funded research to be available after a given time period in open access archives, and
> (ii) Explore with Member States and with European research and academic associations whether and how such policies and open repositories could be implemented. (DEFF et al. 2007, p.11)

I would expect a report of this kind to pay more attention to branding, as a mechanism that drives up prices. In publishing branding works in two ways: for subscribers a prestigeous journal is attractive because it will provide a good selection of high-quality articles. At the same time the reputation of the journal reflects on the authors that manage to get their articles published in it. Peer review has a lot to do with branding, and leads to a somewhat unusual situation in that academics, in their roles of authors, reviewers and journal editors, cooperate with the publisher in building and maintaining a brand, the journal name. Because different parties all have an interest in boosting the reputation of a journal, the position of top journals is unassailable. But those who benefit –the authors and readers- are not the ones that pay –the libraries-, and this makes the market for academic publishing an atypical market, or, as some would say: a dysfunctional one.

But not everybody. The Brussels declaration of the STM publishers lists 10 points, and the first of these is:

> The mission of publishers is to maximise the dissemination of knowledge through economically self-sustaining business models. We are committed to change and

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[1] Different VAT rates apply to electronic and printed materials (even when it concerns the same content), rates differ over countries, and in some EU countries –but not all- libraries can claim restitution of VAT paid for information products. This makes VAT an issue for pricing and competititon.

innovation that will make science more effective. We support academic freedom: authors should be free to choose where they publish in a healthy, undistorted free market (International Association of STM publishers 2007).

They stress their central role in the peer review process and warn that open deposit of accepted manuscripts will destabilize subscription revenues and undermine the peer review system. Not only do they directly contradict the conclusions of the EU report about their strong market position, to suggest that peer review could not exist without publishers is also overdoing it a bit – the academics who **do** it are after all not usually on the publishers' payroll.

The *Communication on Scientific Information in the Digital Age* the EU published in the same week deals with three topics: (a) access to the published literature, (b) access to research data and (c) preservation of digital materials (European Commission 2007). It takes the position that intiatives are needed to widen access to journal articles and research data produced with public funding. It introduces the possibility of funding of publishing costs of researchers, also in Open Access journals, in the new Framework Programme. This is a great step forward as it may inspire other funding agents that have not yet explicity stated they will do so to follow suit. It also announces a 50 million euros investment in infrastructure of digital repositories, as well as 25 million for research on digital preservation and 10 million for interoperability and multilingual access. It announces further studies and policy development of business models, VAT, and the economics of digital preservation. But deposit of materials in open repositories is not taken beyond the stage of experiment.

The Communication emphasizes the importance of the publishing industry, spelling out there are 780 scientific journal publishers in the EU that produce half of the world's 1.4 million articles a year and employ 36,000 people. It stresses their investments in information technologies, and states that 'technological change offers tremendous opportunities for Europe's scientific publishers'.

I don't think 'tremendous opportunities for Europe's scientific publishers' is exactly what the 23,000 people that signed the petition had in mind. They rather see technological change as a tremendous opportunity *to improve the system of scholarly communication.* But it is doubtful that the impetus for the latter will come from government and EU bodies as long as they are entrenched in a view of science publishing as a market.

Whether there is an access problem or not depends on the position one takes. In their Brussels statement the publishers claim that access has been increasing considerably over the past years – they speak of 'a massive rise in scholarly access to the literature' -and a majority of researchers think so too: in 2004 in a survey by Ciber among almost 4,000 academic authors worldwide, 76% said access to the current journals literature was a lot or a little easier than 5 years before, and this percentage was similar for all geographic areas (Rowlands, Nicholas, and Huntingdon 2004, p.18).

But why should we be discussing how much access is enough –which for the EU Commissioner Viviane Reding is apparently the question, judging by her closing speech at the conference on scientific publishing mid-February in Brussels, which had for a subtitle: 'how accessible should publicly funded research be?' (Reding 2007). To argue about the degree of access we need only diverts from the essential point: that we can have universal and immediate access from anywhere in the world 24 hours a day now that we have the internet –which was invented to facilitate the exchange of information between scientists. Why should we stay with a model for scholarly

communication developed to handle practical restrictions in a world of print when these restrictions no longer exist? Why rely on a commercial system for disseminating information that is built on limiting access to results of research funded by public money to those who can afford the subscriptions? A system that excludes researchers in less privileged circumstances and anyone outside the network of academic libraries?

In the House of Commons inquiry representatives from publishers claimed that anyone could access the content of their journals through public libraries, and a representative of Wiley is quoted as saying 'Speak to people in the medical profession, and they will say the last thing they want are people who may have illnesses reading this information, marching into surgeries and asking things'. The authors of the report emphasize that, on the contrary, it benefits society if the public should take in interest in the finding of scientists and that 'it is not for either publishers or academics to decide who should, and who should not, be allowed to read scientific journal articles' (House of Commons Science and Technology Committee 2004, p.25). In an article on citation of Open Access articles, Eysenbach not only finds these have a citation advantage as compared to articles in subscription-based journals, but also suggests they will be consulted more by groups outside the narrow confines of the academic subdiscipline, by researchers working in related fields as well as users who are not researchers, such as policy makers, consumers and journalists (Eysenbach 2006). One may consider it a matter of principle that the public should have access to results of research they pay for through taxes, but there may well be a societal advantage as well, in that these results are more likely to inform policy and practice if groups that typically do not subscribe to specialist journals run into the relevant information these contain when searching the web.

Open Access is not just a response to a frustrating pricing system but aims to liberate scholarly communication by using the full potential of the new environment. High prices are, after all, not the cause but a symptom of a publishing system in decline. How can a model be 'economically self-sustaining' when it is so heavily subsidized - by researchers who pay page charges, who prepare camera-ready copy or electronic files to lower production costs, and most of all by the unpaid work of authors and reviewers and board members and editors. The survey by Ciber makes the wild guesstimate that academics invested 2,000 person years of voluntary effort in maintaining the quality of the journal system in 2003 (Rowlands, Nicholas, and Huntingdon 2004, p.9). As systems for evaluation and research assessment depend heavily on published output, the academic world has been prepared to support this model of mutual dependency, because it offers them important benefits.

That the model worked is not because it is an economically self-sustaining model or because we have a free, healthy, open market, but because all parties wanted it to work . Now some see tremendous opportunities for something different and better, and they want things to change.

If one considers the amount of public money that is involved in the maintenance of the present system, it is legimate to expect governments and the EU to take action. But this may be asking too much. In the House of Commons report we read: 'We were dismayed that the Government showed so little concern about where public money ended up'. (p.32) In the end their recommendations were not taken over by government. The insistence of the EU to approach scientific publishing in market terms and the restraint in taking a position that may aggravate the publishing industry suggest a similar outcome.

It may seem extremely promising that the EU aims to invest 50 million euros in the repository infrastructure in Europe, but this amount pales in the light of the 300 million Elsevier alone

invested in its journal platform. Publishers have been looking ahead and have seen that the way to go is aggregation of large amounts of information. They have put their cards on a one-stop service that combines new publications, digital versions of older publications, crosslinks to other publications. They invest in powerful search engines like Scirus, they digitize back volumes, they collect usage statistics and citations counts. They have the vision and the resources and expertise to develop services that researchers want and need. But they also control the rights to all this information.

A couple of years ago Donald Waters sketched a possible future of the information world:

> (1) libraries will not own the publications that form the scholarly record; (2) libraries will not own the archive of the scholarly record; and (3) publishers will charge whatever the market can bear for data-mining services because they control all the underlying resources. In other words, if universities and libraries fail to act responsibly and soon in creating archives of electronic journals and other scholarly resources, and publishers act instead, the way will be clear for them to complete a massive transfer of wealth and control over the scholarly record (Waters 2005, p.4).

This is a bleak scenario, but not an unlikely one. Waters points to the role of other giant content aggregators, such as Google, Yahoo and Microsoft, and indicates the variety of new services that will need to be developed for scholarly use of digital resources. He is especially concerned about the scholarly archive that the library used to be but no longer is, now that journal content is licensed instead of bought. But also in science publishing, added value lies increasingly in filtering, ordering, tagging and analysing what has been published, to create an information environment that users can efficiently access and that provides information about use. But do publishers indeed need exclusive ownership of content to develop such services, instead of just the access to content? For if publishers can license information to libraries, rather than selling it to them, then surely authors can do the same to publishers. Yes, of course, if content is freely available also to other parties, they may also use their expertise to develop services, like libraries could do for instance. But companies that are strong players in a free and healthy market can hardly be afraid of a little competition. And besides, in Waters' view there is simply too much to do, at various levels of specialization, to worry that activities of either libraries or publishers might become irrelevant.

In this process of change, whatever the direction it will take, the academic world holds the key, not only the authors, but also the referees, members of editorial boards, journal editors, members of evaluation committees, of academies, boards members and committees of research councils, and readers. In spite of the 23,000 signatures, the main obstacle in this process is that still too many researchers are barely involved or badly informed. Younger researchers in Asia and Eastern Europe have made the issue more of a priority, there are differences over disciplines, and on the whole interest is growing (Rowlands and Nicholas 2005). But still: 71% of the respondents in a study by JISC in 2005 did not know whether their university has a repository (*JISC Disciplinary Differences Report* 2005, p.56), and many of them do not know their copyright position or take no interest in copyright (p.50) The Ciber report comments 'authors' views on copyright may be characterised as a mixture of indifference, ignorance (…) and principled resentment aimed primarily at commercial publishers (…)'(Rowlands, Nicholas, and Huntingdon 2004, p.15). And yet rights are where it all starts.

A more recent survey of institutional repositories in the US by the MIRACLE project shows that in repositories that are fully operational faculty are the main contributors of materials in only a

third of the cases. Repositories are not very large: 50% contained less than 1,000 digital documents, and only 20% more than 5,000. They mainly contain dissertations and working papers, with journal articles coming third only, although respondents come mostly from research libraries. Filling the repository seems to fall to the library or administrative staff, and some of them are not confident that researchers will actively participate without mandates for obligatory deposit in institutional repositories (Markey et al. 2007, p.53).

But why should researchers wait for others to tell them what to do? Why should academic authors let themselves be tempted to follow the rules set by an industry and government bodies that think of publishing in terms of markets and property rights? What does that have to do with the research community anyway? Why not create new rules, for the new digital environment? Sharing of research results, peer review, self-governing through professional organizations -all these indicate that academic communities function according to very different principles, as a commons, a group responsible for management of resources they build together.

The internet now makes it possible for self-regulating communities of all kinds to run projects on the web, not only the developers of open source software and wikipedia, but many others that successfully work together in creating information resources, without any market incentive. Social practices and market relationships that developed for information fixed in physical formats are now being challenged all over the place. Companies may respond by developing more sophisticated methods for copyright protection, but meanwhile online communities that want to decide themselves about distribution of their work are growing (Bollier 2006). In such internet communities users are also producers, the joint project is created by peer-to-peer exchange and review, and the rules are made by the group itself. This is a way of working that has always existed in the academic world and on which the present publishing system is already heavily dependent.

When publishers say that 'authors should be free to choose where they publish in a healthy, undistorted free market' they are wrong. 'Authors should be free to choose where to publish'. Period. There is also a world outside the market. Authors are equally free to create their own information commons and bypass the market system. Publishers cannot force them to play in their chosen field, the market, and however strong their market power, they cannot reach beyond that in a world where their rules do not apply.

The move towards Open Access in Europe depends on academic communities shaping the publishing environment they want, with or without commercial publishers, Open Access journals, repositories, subsidies or author-pays models. We need more involvement and initiatives, experiments and inspiring examples, and the support of universities and funding agents. Publishers *will* have have a role in this, no doubt, for the valuable services they have to offer. And if researchers want to change things, publishers will adapt to survive. That's how it works in a free, healthy market.

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