

New patterns of scholarly communication

Abstract of project, funded by German Research Association: New models for access and distribution for scientific information - <http://www.epublications.de>

Since several years librarians and library-associations are pointing out growing problems, which are unabeling them to perform the task and the resonsibility, they have for supplying scientific and scholarly communication. The escalation of prices for journals and refererence materials especially on the STM-Field, the regression of purchasing power of library budgets or of the institutional budgets for the local supply with scientific information and the very restricted (print-oriented) terms of contracting licences, which don't really allow to purchase under aspects of specific demand and usage – these influences are the drivers of a competition, libraries and/or research institutions won't gain, but the real losers are the scientists themselves to all appearances.

To improve their market position libraries and academic institutions founded consortia for purchasing licenses; this happened in Europe, in the United States and in many countires all over the world. By their strategy the consortia try to influence the increase of costs by contracting licenses to lower prices – lower than the prices would be, if every institution would contract for itself.

On the market you aware two models of pricing in general:

- (1) a certain percentage related to the costs for printed subscriptions in the consortia as an additional price – in average 10 – 15% of the amount of deliverd print-subscriptions;
- (2) a calculation, which is based on the FTE-numbers of the contracting institutions.

The advantage of the additional price for the electronic license is the enlargement of the institutional portfolio yet, which provides its members with electronic ressources: (a) by the so called cross access to all the subscribed journals within a consortia or (b) by the option of additional access to the complete portfolio of an e-journal-publisher.

In spite of these different kind of use and the related added values the structural crisis of scholarly communication is obvious. In fact the consortial strategies try to cure symptoms of a disease, but not the disease itself. For strengthening the authors and/or the institutions, they are belonging to, the legal terms for digital publications and fitting business models are not effectively established.

To bring science back to the scientists modern technology is playing a fundamental role: Production and duplication of electronic material can happen without any diminutions and restrictions from a purely technical view, distribution and access are possible at every time and everywhere in the world. Considering these possibilities the initiatives of publishers, who prioritize new technologies for their work, have to be called attention for pilots of further developments on this field. Actually we observe four different tendencies:

(a) *New business-model*

The new business model for scientific publishing is characterized by open access to online-journals and articles for private and institutional use. Production, peer- reviewing and distribution are funded by article-charges. The author keeps all his rights of further utilization. Very impressive examples are the online-publishers: BioMedCentral, New Journal of Physics, PloS Biology, PloS Medicine und Molecular Diversity Preservation International Foundation.

(b) *Institutional and/or disciplinary repositories*

In Europe and in the United States universities and research institutions are building up so called institutional and/or disciplinary repositories, where electronic materials of the institution and/or disciplines are stored and archived. These OAI-Repositories cover preprints, working-papers, e-learning-contents, thesis etc. – good examples are SHERPA, eScholarship, DARE. In some cases these activities are installed in combination with a specific work-flow-processing for electronic work. More and more institutional repositories are growing in indicators for competition and quality of academic institutions. For their success the specific networking with disciplinary communities is a basic task.

(c) *New cooperations and joint ventures*

Especially in the United States some academic and scientific societies apprehended the advantages and chances of new cooperations. For publishing materials they implemented joint-ventures with libraries and university publishers. In addition special agencies were created, who support authors and editors with consultancy in the fields of production, distribution, marketing, financial management etc. Examples are the successful activities of HighWirePress, ProjectMuse, BioOne.

(d) *Reduced prices*

The Scholarly Publishing & Academic Resources Coalition (SPARC) is establishing about 10 scientific journals in a head-to-head-competiton with journals of traditional publishers, whose pricing level is to regard as very high. This initiative aims to slow down the increase of prices for journal-contents by establishing new labels. In the consequence scientists are called for publishing their contents in this new journals and for working as reviewers.

In the moment none of the mentioned initiatives is a weighty competitor on the e-journal-market. They gain experiences with new models and patterns for scholarly communication. Whether these activities and tendencies are successful, is depending on good acceptance and encouraging feed-back of the scientific community. For this a valid peer-reviewing (via Internet) and agreed ways of citation indexing are regarded as key-factors. To establish repositories and to improve the academic environments, the german council of university presidents and principals is claiming for, is another key-factor, which enables scientists and academic institutions to strength their position as the producer of content. In this respect general legal terms are needed, which updates the position of academic institutions and universities – e. g. additional or further utilization of contents!