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## **Changing the Galaxy: on the Transformation of a Printed Journal to an Electronic one - the Case of INSPEL**

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### ***What is INSPEL?***

Let me start by introducing the journal which may not be familiar to everyone. The *International Journal of Special Libraries* INSPEL which now is in its 31<sup>st</sup> year calls itself the "Official Organ of the IFLA Division of Special Libraries". It appears 4 times a year with approximately 300 to 400 pages totally and about 40 to 50 contributions. Hence INSPEL is one of the major publications of IFLA. Its main task is to publish the best papers which have been delivered in the meetings and conferences of the 6 sections belonging to the division (Government Libraries, Social Science Libraries, Geography and Map Libraries, Science and Technology Libraries, Biological and Medical Science Libraries and Art Libraries). Contrary to other "organs" of associations or societies it nearly entirely lacks the "news and information" part of a newsletter because each of the sections is publishing its own.

The Editorial Board essentially consists of the actual chairpersons of the sections in the division. Typesetting, printing and distribution is done with the institutional support of the German Association of Special Libraries (ASpB) at the Berlin Technical University. That is why two representatives of ASpB are also member of the Board. The reviewing process is done with the assistance of each section's standing committee and their respective conference organisers. Mostly the articles are only roughly grouped by sections and themes because either page limitations do not permit to publish all relevant texts of a section in one number or in other cases there are not enough qualitative texts to fill an entire issue. At some occasions a whole issue is devoted to one meeting or topic of a specific section like for instance the sur-place seminar of the Geography and Map Libraries Section on conservation of maps in Moscow.

Before IFLANET came into existence one of INSPELs most important tasks was the mere distribution of the IFLA conference papers relevant to Special Libraries. Another function still remains crucial in the age of globalisation of telecommunications namely the role of a filter and editor of texts in terms of quality control. So it is not just a duplication of the IFLA conference proceedings but an academic journal with a defined source for its articles. (See point 2 in the list of Boyce/Delatrio 1997) On the other hand it publishes not only papers from the main IFLA conferences but also from other activities of the member sections of the Division. The proportion of articles directly submitted and published by INSPEL is rather small and will always be limited because of space reasons.

The journal subscription rate is 80 DEM plus postage which with the actual number of ca. 150 subscriptions world-wide roughly covers the cost of typesetting, printing and distribution. The editorial process itself is not remunerated nor do the authors receive any fee. The most important part of the editorial workload consists of language and manuscript correction. Since IFLA meetings are being hosted by different countries all over the world, the journal is open to a wide range of nationalities who sometimes have only little or no experience in writing academic papers in English. At the beginning INSPEL intended to publish in all official IFLA languages which turned out to be too difficult for technical (typesetting of Cyrillic characters e.g.) and editorial (the Editorial Board should be able to read all texts) reasons. My opinion is that this multilinguality was one of the reasons for a rather low distribution rate world-wide. With the last volumes INSPEL tries to concentrate on English language texts in order to broaden the possible readership in the world.

Generally speaking INSPEL serves the community of Special Libraries in a very broad understanding within and outside IFLA by selecting, editing, sometimes translating and publishing what is being discussed in the IFLA context. By this means it is one of the very few reviews in the world devoted generally to the work of special libraries (cf. Schroeder/Roberson 1995). Having the International Special Librarianship as its topic it has to deal with all the advantages and drawbacks of this rather vague concept. The most important characteristic which differentiates INSPEL from most other library journals is the fact that it recruits authors from all over the world reporting on the situation of Special Libraries in a great range of cultures and settings. Where else can you read about the re-invention of Special Librarianship in former soviet countries or about the information policy of the Chinese Academy of Social Sciences? One of the future goals of INSPEL should be to collect more and more parts of a general picture of Special Librarianship in most countries in the world or at least on all continents.

Looking at a general description of the functions of an academic journal as described for instance by Fytton Rowland (1997) one can state that the print version of INSPEL serves them all well even being a rather small journal in terms of distribution. It disseminates information (1) all over the world at least by the means of the interlibrary loan systems in most regions of the world since its subscriptions distribute very widely. The reviewing and the editing process guarantee a high standard quality control (2) and the fact that most of the subscriptions go to libraries warrants the archival function (3) as long as these institutions pay attention to it. The recognition of authors (4) still

lies in the print publication itself as long as every potential reader is able to access the article by the way of interlibrary loan or through personal offprints from the author.

**Functions of an academic journal:**

1. Dissemination of information
2. Quality control
3. Canonical archive
4. Recognition of authors

*Source: Rowland 1997*

### ***The Electronic Edge***

With the propagation of network based telecommunication and the new publishing tools within the Internet one can at least question function n° 1. Is the print distribution still a convenient medium for the dissemination of information? The growth of the overall number of electronic journals seems to confirm that we are facing a general change of the scientific communication process (Boyce/Dalterio 1996). Especially in the last two years the number of mere e-journals or electronic versions of academic journals has increased so considerably that one can say that it has gained a firm place in the scientific communication and information business. Starting with the natural sciences (esp. the physics with their famous Los Alamos e-print server) the electronic distribution of scientific texts is now common practice. One can speculate from the indications of the latest edition of the *Directory of Electronic Journals, Newsletters and Academic Discussion Lists* that in 1997 the proportion of academic journals being or going electronic may reach 5 to 10% of the total production of academic journals world-wide. Considering the fact that the directory does not mention all the enterprises undertaken either by individuals or commercial publishing houses to present a *parallel* electronic version of the journal one may even come to a much higher proportion of academic journals being online. Whether or not the paradigm change will effect the complete scientific publishing process immediately and to what extent may be disputable (cf. Sosteric 1996; Rowland 1997; Harnad 1997). A fact is that the new communication channels do exist and more and more scientists will want to use them. Having this in mind it was just a natural decision to offer an electronic version of INSPEL too.

In the era before Internet and esp. before IFLANET - I don't know if you remember - it was sometimes very difficult to obtain papers delivered at IFLA meetings when you did not get the conference "booklets". In some countries you had to address your request for a copy of a paper at some national depository point where you had to pay a considerable sum for each paper processing. With IFLANET this has dramatically changed so that one can say that IFLANET plays both the role of a pre-print server for IFLA and of a distribution centre for copies after the conference. This means for the print version of INSPEL that function number 1 (world-wide distribution of IFLA papers) would not work any more if the number of papers not represented in IFLANET (e.g. the workshop papers or papers from pre-seminars or other external sur-place

meetings) was not big enough. Yet the other functions of an academic journal remain valid despite other new distribution media.

Because of the particular international readership of INSPEL there will still be the need for a printed distribution of information at least for a certain time. One of the main objectives of IFLA is indeed to serve the whole library community. Of course this means in our times providing the information as well to the "information poor". I presume it will take quite a number of years until everyone in the world can be served with copies from INSPEL via electronic distribution. Think of the famous "last mile problem" - all of you certainly already have suffered from - which indicates that it is always easy to connect a whole country to new telecommunication systems but the last few meters to reach the enduser may be un-surmountable. Especially for so-called third-world countries (from which a big proportion of our subscriptions come) this may be an important argument for upholding the print version for a certain and perhaps much longer period of time.

As often discussed with the coming of electronic journals (cf. Norek 1997) function n° 3 for an academic journal: establishing a "canonical archive" may be in danger. Unless the problem of archiving electronic publications in general will be solved, the libraries have to be aware of their crucial archival role in scientific communication. Either they continue to subscribe to even small journals (often not so expensive) or they will invent some procedure to archive electronic texts in order to keep them accessible even in a distant future. In fact this is a special aspect of the long running "access vs. ownership" debate which has not yet come so much into mind. Neither the Editors (i.e. the IFLA division of Special Libraries) nor the Editor-in-chief or the publisher can guarantee long term archiving of all electronic issues of INSPEL. Unless this problem is solved, there has to be a print version of the journal.

The other functions of an academic journal, namely "quality control" and "recognition of authors" remain untouched if the general editorial procedures stay the same in the electronic environment.

### ***Going online***

The decision to publish an electronic version of INSPEL was easily taken, the decision to keep the print version alive as long as possible too. We considered the possibility that going electronic would "kill" the print edition and hence INSPEL at all because at least typesetting is not subsidised by any affiliated institution. But several reported experiences (cf. Norek 1997) from other journals encouraged us to go online however.

Even without the own electronic competition we saw subscription rates already going down while printing costs were rushing up. Therefore an electronic edition could eventually be a last resort if it was already functioning. The question was only to choose the technical formats and procedures. With the help of IFLANET and some easy HTML editor the first issue was quickly online, looked quite well and quickly solicited positive attention by some readers. Problems arose with the next issue when the easy translation to HTML code was no longer possible because of graphics and an exotic word-processing format. With the aid of a project grant from IFLA some

investigation has been done. Other formats often used for electronic journals like Latex, TIFF or BMP presented nearly the same inconveniences as already experienced, and finally we were searching for a publishing tool which could easily be used within the existing typesetting and editing procedures based on MS WORD. Compared to most solutions HTML was still one of the favourites. If only post-editing could be reduced.

Finally the tool chosen was Adobe Acrobat's "portable data format" (PDF) which not only could be smoothly integrated in the existing typesetting process but appeared to have several other advantages for electronic publishing (MacColl 1997). At the same moment when the camera ready copy of each article is printed out on the high resolution laser-printer an "Internet-ready" PDF-copy is "printed" electronically with Acrobat Writer on the same computer. The only additional work which has to be done for the electronic publication is uploading these files on the web-server and linking them on some home- or entry-page for each issue.

The main advantage of Acrobat is that it can easily handle graphics and pictures as well as tables and other typographic difficulties (e.g. accents). Unlike other ordinary picture formats it is not a simple image version of a printout but remains searchable text. It conserves exactly the page layout so that the person who has downloaded the electronic version of an article may eventually not be able to distinguish between an ordinary Xerox-Copy from a printed version and the printout of the PDF-file. This is to me one of the major arguments for choosing Acrobat because it means also conserving page-wise citability of an article like in the traditional Gutenberg Galaxy. Still another important point is the possibility to lock up a PDF-file against unauthorised changing. It has often been said that one never knows what one gets out of the Internet. Acrobat avoids installing some complicated authentication mechanism and nevertheless warrants for the authenticity of the text.

A new feature from the electronic world which convinced with the HTML version is the possibility of linking references or other external material in hypertext manner. It would have been desirable to include this post-Gutenberg element in the electronic version of INSPEL and indeed this is also possible with Acrobat necessitating only little post-editing. But that could be accepted since this is really adding value (MacColl 1997 is not right saying that this feature is still limited). With the so-called Acrobat Exchange you can easily add proper hyperlinks which are correctly handled by the latest versions of the common browsers.

### ***Marketing Consequences***

Varian (1996) unintentionally suggests an analogy with the pricing strategy in book publishing business where the hardcover comes some time before the paperback which is much less expensive so that those people who really want and need the book on time will purchase the hardcover version and will not wait for the paperback edition. Publishing practice of academic journals is just the opposite: mostly the electronic version is available first: sometimes long before the print version is out. But in fact the publishing strategy of the book business could solve some of the problems faced by the publishers of existing traditional print journal wanting to go online. They could

differentiate their market by the timeliness of delivery but very few do so. With INSPEL the electronic publication of an issue is also some time before print delivery because the classical printing process and the postal distribution of the printed issues still takes most of the time. It would have been possible to wait a certain amount of time until uploading the articles in order to conserve, as Varian suggests, the value of greater timeliness for the printed version. But as you may easily admit Library and Information Science is not among those Natural Sciences where every week counts in the publication process.

So, the decision to have a parallel publication at the same time raises the question of how the electronic version will be paid for. Rowland (1997) points out that there will always be need for professional staff for administrative and subeditorial duties and "hence cannot be free, unless subsidised". As demonstrated above the extra cost for the electronic version is rather minimal. More important though is the potential substitute effect for the print version and its subscriptions when the electronic version will be free. Since the electronic publication process depends on the typesetting of the print version this will be the crucial point to observe and eventually to be compensated. And typesetting costs reach at least a third of the total expenditures from which printing and distribution costs can in fact only be deducted when there is no print version at all. As you all know: the first copies to print are as expensive as the next hundred. Therefore it is obvious that the electronic version cannot be without any income even if it does not really cost much at the moment.

First we considered several strategies of limiting access to the files by distributing pre-paid passwords to subscribers. But this turned out to be very time-consuming and technically not a trivial problem. Besides, we observed at the same time the interesting changes of the publishing policy of a related journal. *First Monday* ([www.firstmonday.dk](http://www.firstmonday.dk)) the "peer review journal on the Internet" edited by Ed Valauskas and published by the renowned Munksgaard publishing house started 1996 entirely from scratch announcing that it will be an electronic subscription journal at the beginning of 1997. Therefore every reader had to sign up and was given a password although if it remained free. My personal experience was that in order to check new issues of the journal I had to sign up several times because I simply forgot my password. Perhaps this was one of the reasons which made Munksgaard change the policy from a subscription based to a sponsored journal. (In fact they are still seeking sponsors!)

This was also the tentative model chosen for INSPEL with some important differences. We are not only seeking sponsors or advertisers paid by number of hits of their link integrated in the home-page. This area of the electronic market is yet too uncertain and not so well established that it could represent a firm source of revenue. Possible advertisers are still not yet experienced with this new marketing tool as are those offering advertising space in the Internet. The problem for an academic journal is mainly the fact that electronic ads are based on actual contacts with a potential client (hits) whereas traditional advertising is based on an overall estimation of the distribution of a medium. When in an electronic journal the publication is mostly split in the smallest distinguishable items i.e. the articles, placing ads on the normal pages would constitute a bias too difficult to estimate or calculate beforehand. On the other hand space on the home-page and the entry pages of each issue is limited. This

problem is solved by most of the commercial players in the Internet by offering time slices for ads which now only appear for a limited time on the web-page exchanged after a few seconds by another advertiser.

We will try for INSPEL a combination of print and electronic advertisements benefiting thus for a certain time from the existence of parallel print and electronic publication, whereas the print version in fact attracts traditional advertisers and the electronic one the innovators. Until now there has not been any advertising in INSPEL at all so that there is a fair chance to generate new income. In this context we will profit also from the technical capabilities of Acrobat which allows us to distribute advertisement also electronically even if it is disseminated throughout the whole issue. The selling argument for these advertisements will be "your ad will be seen in print and in the Internet - immediately and even after a long time". It is intended that the person who is doing the PDF-editing and the web publicity for the electronic version will also be responsible for the acquisition of advertisements and thus in a first run will finance his or her job by this activity. Later on, when the print income is going down further this source of income either has reached a point to finance the whole journal (esp. typesetting) or the model does not work at all. In this case a completely different solution has to be searched for.

### ***Future requirements***

As Odlyzko (1997) points out electronic journals not only have the opportunity to offer additional service features for their readers but even have the obligation to add scientific value to their publication. The value adding process which normally is integrated in the publishing business where different players are responsible for distribution, marketing, indexing, access and retrieval etc. of a given document, with an electronic publication it is just in the hand of one e-publisher. Further consequences of going online have not yet been checked for INSPEL but I am sure that there will be a lot of new tasks to be looked for.

One of the next steps may certainly be the formal establishment of metadata for each of the articles now present in the net. When indexing is done there will be of course new need for more sophisticated retrieval of articles and searching in the texts, the journal will evolve to a database or any other information system the technical future will hold for us. This will be the moment to leave the Gutenberg Galaxy. Meanwhile I invite you to observe the developments of the new INSPEL at: <http://www.fh-potsdam.de/~IFLA/INSPEL/> .

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