

CEMAGREF LYON ELECTRONIC LIBRARY: A 3-STEP DEVELOPMENT

By

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Abstract

CEMAGREF is a French institute in agricultural and environmental engineering. CEMAGREF reports to both the Ministry of Education and Research and the Ministry of Agriculture and Fisheries.

Research work is conducted within four scientific departments:

- *Freshwater systems management*
- *Water and environmental engineering*
- *Land management*
- *Agricultural and food engineering*

CEMAGREF has 10 regional centres throughout France.

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Step 1: Intranet Tools For Researchers

First of all, we developed an electronic order form for users to request a document. The request is sent to the librarian's electronic mailbox. From here, the librarian has only to order a copy of the document from another library which holds the document. This system is quick and easy for both customers and librarians to use. It is the first tool researchers have on their desktop; the electronic form almost replaces the paper form. We may create a version for other library partners to enable them to order a copy of a document from us in the same way.

Next, electronic contents of library's journals were made available on our Intranet (listed alphabetically). This means that users can have the contents pages of a journal on their desktop, a few days before the library receives the paper version.

But what are the advantages and the disadvantages of this tool ?

First: changes for librarians

There is no longer paper version of the contents' bulletin. Library staff save both time and a quantity of paper!

At the same time, library staff can provide contents pages of journals for which they have no subscription, and simply order the articles of interest.

What are the disadvantages for librarians? On one hand, the number of customer visits at the documentation centre decreases slightly. On the other hand, we have to train and help customers to use our tools. Finally, librarians have to promote all their new tools.

Second: Changes for users

Users can instantly consult the contents pages of journals provided by the library thanks to a shortcut on their desktop to electronic copies. In addition, alerts can make users aware of the availability of the contents of their favourite journals, even if the library does not have a subscription to these journals. This system is particularly interesting, because users receive tables of contents in their electronic mailbox a few days before the paper version is published. So it is a first step toward scientific current awareness. However, this tool also presents disadvantages. Sometime, users order an article identified in one of these electronic contents pages, but the document is not received by the library until one or two months later (in the worst cases). An other disadvantage is that unless the user has a laptop computer, it is not a portable format, and the information has to be printed out.

Finally, since it is not a push technology, this system needs customers' discipline. If users don't regularly consult electronic contents, they will not be properly informed of the most current information in their field.

In addition, some contents are linked to publishers' web sites. Thus, users could have access to full-text articles from fifteen journals. If they find an interesting article, they could print it rather than photocopying it at the library.

Search engines index tables of contents. As a result, customers can search all the contents pages of the past year using Alta Vista Intranet Search. With this search engine, users can also create their own search profiles by saving search address with their bookmark.

Globally, these new technologies, and tools are well received by users. In particular, links to full-text article are popular. But for most of others customers, time after time, this is an opportunity to learn and use new technologies. The remaining users are those who are not interested in reading contents pages, whether paper or electronic. Providing bibliographies or scientific current awareness is not targeted to them.

These new tools generate new needs. Customers are used to having any articles, contents or anything else the library can provide for them on their desktops quickly. This means that they want more full-text journals, more contents, with more functionalities. But all these services are expensive. It is difficult to get paper and electronic version of a journal unless the electronic versions is free with the paper subscription. The only solution is to form a library consortium. It is a fashionable idea, but probably the most efficient!

To conclude this first step, we must realise that we should no longer presume to know what our users need.

Step 2: Electronic Thesis

Since 1998 in Cemagref Lyon, all new PhD theses have been converted to Adobe PDF format (Portable Document Format). Theses represent the best information pool on a very precise research subject. But a thesis (in paper format) is read on average only 2.3 times in its life. Interestingly, each of our six theses have been downloaded more than fifty times since 1998. So there are two advantages to providing theses on electronic format:

- It offers world-wide advantages to disseminator. It promotes research team work all over the world
- It provides a quick desktop access to hard information

After, libraries are responsible for thesis registration and storage. This is probably why most of ETD (Electronic Thesis and Dissertations) projects are initiated by libraries.

Why choose one format and not another ?

There are three main electronic formats for ETD:

- PDF (Portable Document Format). Nowadays PDF is the most widespread and simple format for electronic document dissemination. Acrobat PDF reader is freely available. But Adobe could decide to sell its reader software. What alternative would be available then? In addition, PDF is a final format, which cannot be converted into another format.
- SGML (Standard Generalized Mark-up Language) is a meta-language that is used for creating languages (for example HTML - HyperText Mark-up Language). Moreover, SGML is an international standard, known as ISO 8879. It is complicated to convert a document to SGML format but the advantage is obvious. SGML documents could be converted into any format such as HTML, PDF and XML. Lots of ETD projects wish to migrate to this format.
- XML (eXtended Mark-up Language) XML is derived from SGML and is the optimum for Internet and multimedia applications.

Theses are converted in one of these formats using the PhD student's wordprocessed files.

Finally, there is the issue of copyright. At Cemagref Lyon, PhD students sign an agreement providing the organisation the right to disseminate their thesis. However, PhD students retain the right to stop dissemination or to change anything in the document (in fact, PhD students only give the rights of dissemination to the organisation).

Step 3: The Era of Electronic Formats?

As well as theses, research reports could be available online. This could be a step to a better access to 'grey literature'.

Every research organisation wants to disseminate its research results all over the world. The simplest way is *via* the Internet. So in parallel with scientific journal articles, researchers' reports could be disseminated *via* the library website. In fact, libraries are experienced in this technical knowledge through ETD projects, for example.

Finally, this knowledge could be used for an on-line journal. Cemagref publishes a technical peer-reviewed journal: *Ingénierie - Eau, Agriculture, Territoires - Engineering in water, agriculture and territories*.

Cemagref plans to give on-line access to its journals, which means librarians' technical knowledge is required. It could help us identify and understand publisher's interests.

Conclusion

The electronic era is imminent. The electronic library is no longer a dream. It is a reality. We have to adapt our habits and our tools to users' needs, and users, step by step, will realise the efficiency of an electronic library. Therefore, they expect us to go further and offer more and more tools. I think the only way to reach this objective is to federate our efforts, and I think this is one aim of any consortium. To finish, I would like to invite you to look at our neighbours, in particular the United Kingdom, where the NESLI (National Electronic Site Licence Initiative) was developed, and which seems to be the most advanced country on this subject.

However this wasn't the subject of this discussion!

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