LiU E-Press

Linköping University Electronic Press 2006-01

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Linköping University Electronic Press Activities during 2005

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Related information can be obtained via the following WWW pages:

E-Press Website:	http://www.ep.liu.se/
The author:	http://www.ida.liu.se/~erisa/

1 Summary

Linköping University Electronic Press (E-Press) is an entity within Linköping University whose mission is to publish research articles and other documents of high scientific quality on the Internet. All publications are made in open-access mode.

The year 2005 has been a very active one for the E-Press. Increasing the publication of PhD and licentiate theses has been our first priority. In June we shifted to the new DiVA archive system which has been developed at Uppsala university. Besides providing better service and additional facilities, this has also made it possible to increase the publication of theses from 38 in 2004 to 74 in 2005, even with DiVA only being operational during the second half of the year.

The publication of master's theses has continued with a large volume like in previous years, and 625 M.Sc. theses were published by the E-Press in 2005.

Other types of publication have also been pursued: conference proceedings, one additional electronic journal, and continued efforts for publication of databases.

An international ranking of universities with respect to their web publishing puts Linköping as number 6 in Europe, after Cambridge, Oxford, Edinburgh, Zürich and Helsinki. Although a precise analysis remains to be done, we feel that E-Press activities have contributed in several ways to this position.

The E-Press also operates an externally financed project concerning support of reviewing and editorial activities for a major scientific journal. Information about the E-Press in general can be found at its website, `http://www.ep.liu.se/`. The present report summarizes the results of its activities during 2005.

2 Goals and strategy

The Rector of our university, Mille Millnert, has confirmed and reinforced his support of the E-Press during year 2005, while emphasizing its importance both as a contribution to the system of publication and communication in the world of research, and as means of presenting research achievements in Linköping to society at large.

In 2004 the E-Press Board created a subcommittee for "goals and visions". The report of the subcommittee, which was returned in early 2005, has been endorsed by the Board, and later on by the Executive committee of the University, and it has been used as a guideline for further activities during 2005. The E-Press strategy for 2005, as decided by the Board based on the committee report, specifies two major priorities: to increase the publication of doctorate and licentiate([1]) theses as rapidly as possible, so that all theses are published at the E-Press unless there are specific reasons

[1] The licentiate degree is a Swedish research degree that is in-between the master's and the doctorate degrees.

to the contrary, and to perform the transition to using the DiVA publication platform for E-Press publications.

Other, longer-range priorities include:

- development of so-called “plus services”, that is, services that add to the basic service of electronic publication
- development and use of facilities for multimedia publication
- development of support for electronic publication of databases, and pilot projects where such databases are actually published.

With respect to practical realization, the services provided by the DiVA system are actually essential for the goal of increasing the number of theses being published, and for this reason the work on DiVA conversion has been very important during 2005.

3 Organization

The members of the E-Press board during 2005 have been: *Inger Rosdahl* (chairperson), *Bengt-Erik Eriksson* (vice chairperson), *Per Hultman*, *Björn Kruse*, *Bengt-Göran Martinsson*, and *Marianne Nordlander*

The personnel of the E-Press during 2005 have been as follows:
Director, editor-in-chief: *Erik Sandewall* (20 pc)
Publishing editor: *Peter Berkesand*
Software development and support: *Björn Husberg* (January), *Daniel Bergström* (25-50 pc, whole year)
Administrative assistant: *Bodil Carlsson* (50 pc, January-May), *Anki Rune* (50 pc, May-December)

4 Electronic publishing facilities

The main task of the E-Press is of course to provide electronic publishing facilities and services for our own university. Other activities are subsidiary and will be described in later sections of this report.

4.1 Stock of publications

The total number of *doctorate and licentiate theses* published at the E-Press went up from 138 at the beginning to 2005, to 212 at the end of the year. The following table shows the number of theses during each previous year:

Year	Total	Ph.D.	Lic.
1997	2	2	0
1998	1	1	0
1999	4	4	0
2000	10	4	6
2001	22	15	7

2002	26	11	15
2003	35	24	11
2004	38	27	11
2005	74	51	23

When reading these figures, it is important to notice that the DiVA system was taken in use at the end of June, 2005. The strong increase in publication during 2005 shall therefore be attributed to just half the year, and we expect further rapid increase during 2006, due to the strong endorsement of electronic publication by the Rector and the respective Faculties, combined with the technical availability of the DiVA platform.

The extensive publication of *master's theses* at Linköping university started several years ago, and continued also during year 2005, where the number of such electronically published theses went up from 2223 to 2848.

Certain other types of publications are in the E-Press reportoire since several years, although in much smaller numbers. Two *conference proceedings* were published in 2005, adding to the 14 proceedings volumes from earlier years. One *electronic journal* was added, the Journal of Ageing and Later Life, whose first issue is in its review stage. Many but not all review decisions have been taken, and the first issue will appear in early 2006. Several electronic journals that started earlier have unfortunately shown little activity during 2005.

Electronic publication of *individual research articles* has continued at a low rate. A new series of articles in mathematics was started and has published 7 articles; other series have typically published one or two articles. Looking back at earlier years, the largest volumes of individually published articles have occurred in the context of an electronic journal where articles were formally published *before* the review process and before being accepted for a journal. The journal in question, ETAI, used that arrangement in order to have an entirely open review process, with almost no confidentiality restrictions. We expect to put additional efforts into the topic of electronic journals during 2006.

4.2 Transition to the DiVA system

The E-Press website has previously been operated by UNIT, the University's computation service. Following a decision in 2004 to join the DiVA consortium at Uppsala university, there has been a large effort during 2005 to participate in the specification of extensions to DiVA and for the conversion of our own stock of publications. The main changeover was in June of 2005, when new contributions of doctorate, licentiate, and master's theses to LiU E-Press started to go into DiVA instead of the old system. Earlier master's theses had then already been transferred to DiVA. Earlier doctorate theses have been transferred during the second half of 2005([2]). Licentiate theses, finally, are being transferred in the beginning of 2006 ([3]). For doctorate and licentiate theses the transfer requires a non-negligible amount of manual editing of bibliographic metadata for each publication.

[2] This task was completed in January, 2006.

[3] This task was completed in Febrary, 2006.

The old software system for E-Press had been developed and extended in-house and at UNIT over a number of years. The use of the new DiVA system provides a number of advantages, in terms of reliability, cost savings, use of standardized metadata, and possibilities for future development. At the same time, however, Linköping E-Press has been able to provide a number of proposals and requests for improvements to the DiVA system, exactly because we have been operating for a number of years and through the experience that the old system has given us. These extensions and improvements have been implemented by the DiVA group in Uppsala, and our proposals have been given the highest priorities in the rankings made jointly by the member universities in the consortium.

The transfer of our body of scientific journals and conference proceedings, and of individual research articles to the DiVA system will wait a bit longer, awaiting the implementation of further facilities that are not yet available in DiVA.

Linköping E-Press is represented in the DiVA consortium by Peter Berkesand. We organized the DiVA consortium meeting in October, and we have participated actively in its work.

4.3 Delivery network

Just like there is a big difference between preparing a dinner for a small number of private guests and a dinner for a large meeting, there is also a big difference between putting small numbers or large numbers of publications on-line in a reliable and effective fashion. For the large numbers of master's theses that we handle already, and the increasingly large numbers of doctorate and licentiate theses that we also handle and will handle, it is necessary to have an adequate software system whereby authors can upload their publications in self-service mode. This is not enough, however, it is also imperative to have a network of persons that can assist the authors in this respect.

For the master's theses, this network consists of dedicated contact persons in the administration of each participating department. The contacts with these contact persons is a high priority for the E-Press since their role is essential for the proper functioning of the delivery process.

For the doctorate and licentiate theses, it has been important to also build up the contacts with the university's four faculties. These contacts have developed considerably during 2005, through the actions of the E-Press Board members and in other ways, and this has been an important factor in the rapid increase of published doctorate and licentiate theses during 2005.

4.4 Multimedia publications

Although the graphical appearance of electronically published works is usually the same as for the traditional, paper-based ones, it is evident that electronic publication makes it possible to use new media forms, such as color print, speech, and video in the published documents. In particular, one may choose to consider speech or video recordings as publications in themselves, but also to attach brief such recordings to conventional documents as a kind of illustrations. LiU E-Press is eager to provide the necessary facilities for such multimedia publications. In an earlier year, we have in particular published one Ph.D. thesis that reports on new software techniques for search in image databases, and where a demonstration version of the system in question can be visited from the E-Press website. During the present year, we have a suite of publications that were presented both in written and spoken form, using sound recordings of the presentations of the work.

4.5 Databases

Research databases are built and used in many areas of research, in fields as diverse as history, medicine, biology, or astronomy. The results of such research consists not only of the research articles that report findings that are obtained from the databases; the databases themselves can also be considered as results from the research, and it is important to have methods whereby such databases are made available to continued research in reliable ways. Many of the principles of conventional research publication carry over to the dissemination of research databases, such as the respect for authorship, the free access to research results, and the need for quality assurance including the documentation of original source.

For these reasons it will be natural to extend E-Press activities in the direction of publishing research databases. During 2005 it has been necessary to give higher priority to the topics of DiVA and publication of theses, but some results have anyway been achieved for databases as well. In particular, a medical-historical database was made available on the E-Press website in January, 2006, showing documents that in various ways pertain to the medical and social situation in Sweden during the latest 250 years. The next one in line will be a comprehensive bibliographic database for documents pertaining to the Göta Canal, a waterway connecting the North sea and the Baltic sea across Sweden, constructed in the early 19th century. This database contains almost 9000 citations for books, 2900 newspaper and journal articles, and 50 citations for maps. Further databases are being prepared and are likely to become available during the first half of 2006. They can be visited at the E-press database site at `http://pub.ep.liu.se/`

Most of the databases that are currently published by the E-Press, or are being prepared for publication, consist of historical data from national or regional archives. We benefit from the cooperation with the ArkivData organization in the city of Norrköping, which provides us with data entry services for such historical records.

5 Information facilities for the AIJD

Besides the information facilities for our own university, the E-Press also provides administrative and IT service to one major international journal on a contract basis. The journal in question, *Artificial Intelligence*, is published by Elsevier, under a contract with the AIJD (Artificial Intelligence Journal Division [of the IJCAI organization]) where the AIJD delivers the contents to Elsevier under a contract. The AIJD in turn has contracted with the E-Press to provide the journal's editors-in-chief with the administrative and IT services that they need for their contacts with authors and for the peer-review process, against payment of actual costs. Among the E-Press personnel, Anki Rune and Daniel Bergström are employed for working with this "external project".

Having this contract is valuable for the E-Press since it gives us important insights into the workings of the review process, and an opportunity to develop sophisticated software support for this process. We are presently using a software system called JARSS (Journal Article Reviewing Support System) that was developed by Björn Husberg and Erik Sandewall in 2003-2004, and where considerable additional development has been made by Daniel Bergström during 2005. The system is a reimplementation from scratch, based on our working experience of a previous JESS system that was developed a few years earlier.

JARSS is considerably more advanced than other systems that are often used elsewhere for this purpose. A major reason for the difference is that Erik Sandewall, who did the initial design, is also one of the two Editors-in-chief of the journal, so that the design is based on a direct understanding of the actual needs of the editorial and review chain. The close integration with the actual administrative support the journal, through Anki Rune, has also been vary valuable. Although the JARSS system was built for the needs of one particular journal, it has attracted interest elsewhere. The DiVA project plans to design a journal module in the DiVA system based on the JARSS design, and has obtained funding from KB (the National Library) for this.

The facilities that are provided to the AIJD include not only IT services, but also administrative support.

6 Computer operations

The E-Press computer systems have the following structure:

- A separate local area network (LAN) used by E-Press personnel, containing standard facilities such as a file server for internal use
- One computer hosting the webserver for local parts of the main E-Press website, `www.ep.liu.se`
- A group of a few computers for special services which are accessed via `pub.ep.liu.se`
- A separate system for the services provided to the AIJD

The services on `www.ep.liu.se` were previously provided at UNIT, the University's computing service. Afte the switch to DiVA, large parts of this website are provided by the DiVA system in Uppsala, but we still need a small facility at home for special types of publications that can not yet be accomodated by the DiVA system.

The use of a separate `pub.ep.liu.se` system is because some of the "special services" need their own software in the server. We wish to separate them from the core parts of the E-Press server system for security reasons. A similar reason applies for having an entirely separate system for the AIJD.

7 External contacts

We wish to acknowledge the good cooperation with the following entities in the areas that have been described above:

- the Kungl. biblioteket (the Swedish National Library), in particular as the organizer of the SVEP programme;
- the DiVA project group at Uppsala university;
- the other participants in the SVEP programme and the DiVA consortium;
- the ArkivData organization

We also wish to acknowledge the good cooperation with the following entities within Linköping university:

- The University library, which is the administrating agent for the E-Press operations and with which we have a range of common interests
- The External relations division of the University administration
- UNIT, the University computation service
- LiU-Tryck, the University's reproduction and print facility

A list of meetings outside the university where E-Press personnel have participated is shown in the Annex.

Annex: Visits, meetings, and external lectures

The division for legal deposit (pliktleveranser) of the KB (National library) visited the E-Press on May 16.

The E-Press hosted the main DiVA project meeting on October 13.

Several groups from other universities have visited the E-Press during the year: Chalmers university (March 7) and Luleå technical university (May 10).

Erik Sandewall gave an invited lecture on electronic publishing at the faculty meeting (fakultetskollegium) of the Royal Institute of Technology (KTH) on November 22.

Peter Berkesand attended the following meetings:

- The ELPUB 2005 conference in Leuven on June 8-10.
- DiVA project meetings for the project as a whole and for the working group for the subproject "Editorial workflow system for scientific publications".
- He also gave a seminar at the KB (National library) on October 18.

Visits to departments and groups within the university in order to discuss various aspects are a recurrent part of our activities.