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RECENT DEVELOPMENTS AND RESULTS OF THE EUROPEAN LIBRARIES PROJECT eBOOKS ON DEMAND (EOD), NATIONAL AND UNIVERSITY LIBRARY, SLOVENIA

Abstract: We present recent developments and results of the European EOD project/network, focusing on activities of the National and University Library (NUK), Slovenia. The applied service business model has been very successful and has led to the increase of the EOD membership. A statistical overview of the EOD eBooks orders in NUK is presented as well as the results of orders and user patterns. At the same time, social media approach is creating unprecedented collections of information about endangered cultural heritage, which could not be captured by means of conventional academic methods.

Key words: eBooks, digitization, digital library service, social media, web 2.0, eLearning

1. Introduction

The EOD project evolved from the Digitization on Demand (DOD) project, beginning in October 2006 and finishing at the end of June 2008. Thirteen European libraries from eight countries participated in the project sponsored by the European Commission in the framework of the eTEN (e Trans European Network) programme. It was coordinated by the University Library Innsbruck.¹

In May 2009, thirteen libraries started the four-year project, EOD (eBooks on Demand), funded by the European Commission under the European Culture 2007 programme². This project is based on the results achieved by the DOD project, and is particularly focusing on network enlargement, dissemination and improvements of individual service features. Its three key objectives are:

- to expand the EOD network with new European members
- to take EOD as a best practice model for a European-wide cooperation, to train stakeholders (libraries, museums, or other cultural operators) to run such a multinational cultural service based on state-of-the-art information technologies
- to support intercultural dialogue among readers and users of historical books with the help of web 2.0 technology.

¹ cf: Mühlberger, G., Gstrein, S. *eBooks on Demand (EOD): a European digitization service*, <http://ifl.sagepub.com/content/35/1/35.abstract>, (21.4.2011)

² cf: Klasinc, J., Svoljšak, S., Kavčič – Čolić, A., *Nova storitev v NUK - digitalizacija knjig po naročilu (EOD - E-books on Demand)*, Libraries for the future : development and collaboration : proceedings / Professional Conference of Union of Associations of Slovene Librarians, Bled, October 22–23, 2007

EOD (eBooks on Demand) is a network of European libraries that offers digitization of books on user's request. The service enables customers to order the digitisation of old, rare and precious books, published between 1500 and 1900³, which are in public domain. These books are - due to their age and high value - mostly accessible in library premises only, during certain working hours. Users can obtain EOD books in the form of PDF files or as reprints.⁴ The digitization process includes different scanner technologies accompanied with suitable image manipulation software. eBooks are delivered to the customer, via the EOD service, and they are saved in the digital repository for long-term preservation.

2. EOD digitization workflow in NUK

Digitization workflow begins once a customer's orders are placed via the library on-line catalogue and registered in the ODM (Order Data Manager) software. The orders are first checked for digitization suitability (copyright, physical condition). Those which have been confirmed are then guided throughout the ODM operational tasks.

A 2D manual scanner is used for scanning. The digital files are stored as colour mode TIFF file format images for long term preservation purposes. For further image processing, manipulation and web access, the JPEG 30 or TIFF G4 compression is necessary. Digital image files are in the next stage imported into image manipulation software, where multiple restoration tasks are being performed regarding colour mode, deskewing and cleaning the digital image. Digitally restored images are joined as a batch file in the OCR (Optical Character Recognition) software where the crop and character recognition tasks are carried out. After the OCR processing, some basic corrections to the text are made and the file is saved as a standard PDF file and uploaded to the FTP server for book cover generation. Finally, the eBook is delivered to the customer. The library then stores the uncompressed images and PDF files i.e. eBooks in its digital repository and after six months enables general access through the digital library portal. The described workflow is very similar in other EOD network libraries.

3. Business Model

The main reason for the successful operation of the whole network is its business model, which has been developed in the first DOD project and has been the core of EOD project. In this section we shall describe the applied business model of EOD service. The partners that participate in the project since its beginning in May 2009 are 50% co-financed by the European Commission, thus they have to provide 50% of needed resources by themselves. The project ensures the partial financial coverage of personnel salaries, training costs and travel expenses; however finances should be spent as a part of one of the six project activities (network enlargement, workshops, open days, web 2.0 services, web 2.0 content pieces, dissemination).

All member institutions are liable for the membership contribution to be paid yearly by each library of the network, as well as any new library joining the network. The annual membership fee covers the administrative costs of the service; that includes the access to

³ Due to users requests for digitization of books published at the beginning of 20th century, NUK decided to offer digitization of books published until 1945. Before digitizing such orders, the copyrights of each volume are checked individually.

⁴ cf: Svoljšak, S., Klasinc, J. *Vspostavljanje storitve EOD - »E-knjige po naročilu« V NUK: Pregled opravljenega dela po dveh letih delovanja storitve*, http://revija-knjiznica.zbds-zveza.si/Izvodi/K1012/Svoljsak_Klasinc.pdf, (21.4.2011)

ODM (managing orders, statistics...), its maintenance and assistance with the system. After its first thirteen members in 2009, EOD soon expanded its network to thirty members from twelve European countries at the beginning of 2011. The goal of the project is to reach certain self-sustainability after its termination. It was estimated that once the number of institutions reached about 50, the network would sustain its services and administrative tasks with its own incomes, without any additional funding.

The digitization of old books through EOD thus opens up accessibility to rich cultural heritage of many European cultures on the global level, and further deepens mutual collaboration between professional library staff, individuals and nations. Thus, the EOD is a perfect example of good practice model demonstrating successful international communication.

A user will not pay the actual costs such as scanning, image management, OCR and eBook generation, but only a part of it. The charge of the service is attractive for the users and can be compared to the prices of a photocopy or a new printed book on the market. However the advantage of the service is that it offers rare and old books that might not be obtained or can only be borrowed at the libraries. The user might get his personal electronic/reprinted copy of a 500-year-old book for a reasonable price, including OCR.

1.2 Statistical overview. A statistic elaboration and work analysis were carried out illustrating the development of the EOD service in NUK. The number of completed orders during the period between May 2009 and April 2011 was taken into account. They were divided into two subgroups: orders by a publishing year and orders by prices of eBooks. Final results are graphically shown in two diagrams (Figure 1 and 2).

For the evaluation of the EOD's completed orders by a publishing year and the analysis of the results (Figure 1) indicate that three incunabula or early printed book volumes from the sixteenth century were digitized. It is interesting that the Slovenian EOD service hasn't received any digitization requests of a book volumes published in the seventeenth century. However, Slovenian EOD service has digitized seventeen volumes of books from the eighteenth century and additional forty volumes of books from the nineteenth century. The majority of digitized books are eighty-seven volumes published in the earlier twentieth century. This fact reflects the necessity to enable the digitization of more recent twentieth century volumes of books and to consider library users demands regardless of the national copyright law.

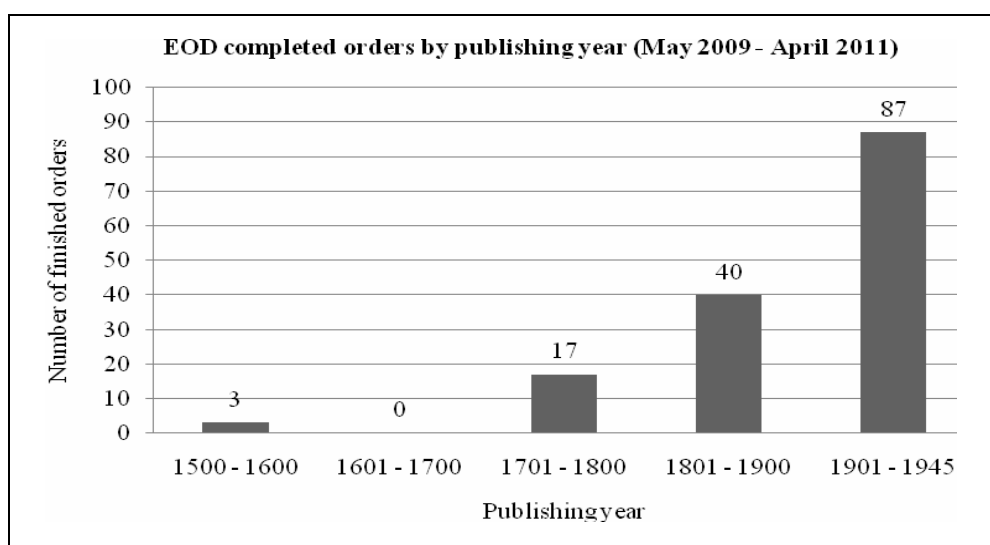


Figure 1: Slovenian EOD service: completed orders by publishing year

The majority of orders were for books of approximately 100 pages (Figure 2). An average price paid by a library user for an eBook is between 10 – 20 Euros, but in general, library users are willing to pay up to 40 Euros for an eBook. The next subgroup represents a small number of library users (mostly scientists and researchers from globally dispersed environments), who have chosen to pay between 40 – 70 Euros for an eBook. The smallest group of library users willing to pay 100 Euros for an eBook is in most cases professors and scientists of the Slovenian Faculty of Arts which produces highly-educated individuals with an open, questioning and progressive approach to the humanities and social sciences.

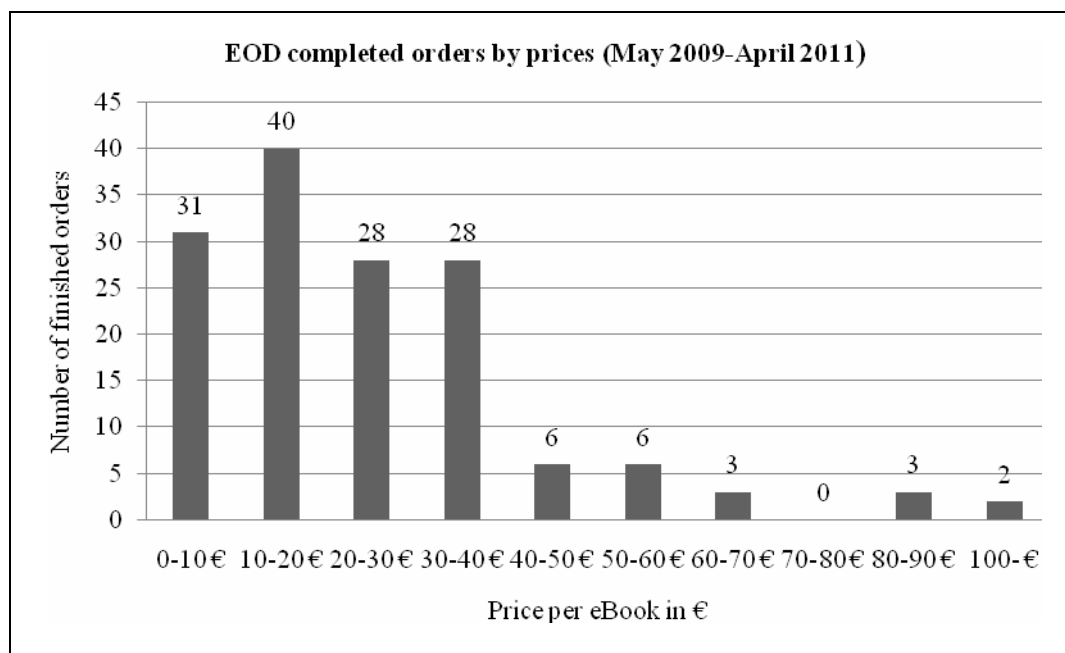


Figure 2: Slovenian EOD service: Completed orders by price

Analysis of EOD eBook orders by the price paid for each delivered eBook during the above mentioned periods, shows that the majority of orders (28%) range from 10 to 20€, and 86% of orders were for the production of eBooks at the cost between 8, 5⁵ and 40€ and that only for 14% of orders more than 40€ had to be paid. NUK received two more expensive orders between 100€ and 200€.

These results indicate that an average user is willing to pay approximately the same price as for a standard new book in a bookshop. Considering this statement, it might be concluded that eBooks are not attractive for the users; however it should be taken into account that a received electronic version of a book is only available in a library, usually limited to the library use. It can't be bought anywhere.

2. New goals, features and services

The enlargement of the EOD network was one of the objectives indicated in the contract agreement of the EOD project. Apart from digitization on demand, the new service, POD (print on demand), began in 2009. It is available in some of the member libraries, including NUK. Joint catalogue and search engine is being developed for the EOD network member

⁵ The lowest price for order is actually 8,5€, it is the minimum charged for any placed order without OCR up to 50 pages, and if OCR is included, the lowest price for any order up to 50 pages is 10.00€

libraries. Another objective of the project is the support of intercultural dialogue among users with the help of social networks and web 2.0 technology which is rapidly becoming more mainstream and is currently being used for customers' communication and project network dissemination. In the near future, the QR (Quick Response) code will be applied to all of the EOD printed material.

2.1. Increase in membership. Starting with 13 members in 2009, EOD soon began to expand its network. It has been constantly growing and at present its network comprises 30 member libraries and archives from twelve countries: Germany, Austria, France, Portugal, Switzerland, Estonia, Hungary, Slovakia, Czech Republic, Denmark, Sweden and Slovenia. At the beginning of the project it was estimated that after the end of the project in April 2013, the network would be able function on its own, without the sponsorship of the European Commission, on condition that would have about 50 partner members. The expanding of the network is very important especially for the users. By increasing its membership, users will be offered a much bigger selection of contents. For instance, NUK users would be very interested in having access to the service in other libraries from the south-eastern region.

2.2. POD (Print on Demand) service. An EOD reprint (Figure 3) is the paper version of an EOD eBook. It is a "real" book in the form of a trade paper book with a specially designed cover and an ISBN number. The per page price for print on demand is currently lower than price of photocopying and it gives users a chance to get the reprint of ordered eBooks in printed, original format, in facsimile form. As soon as a library user wants a reprint version in addition to the eBook, the images are centrally prepared and transmitted to Booksurge (subsidiary of Amazon) with the metadata and an ISBN number. Booksurge prints the book by using the electro-photographic digital printing technique and sends it via standard mail directly to the customer. The POD ordered books are then stored at Amazon.com and can be at any time ordered from there as reprints⁶.

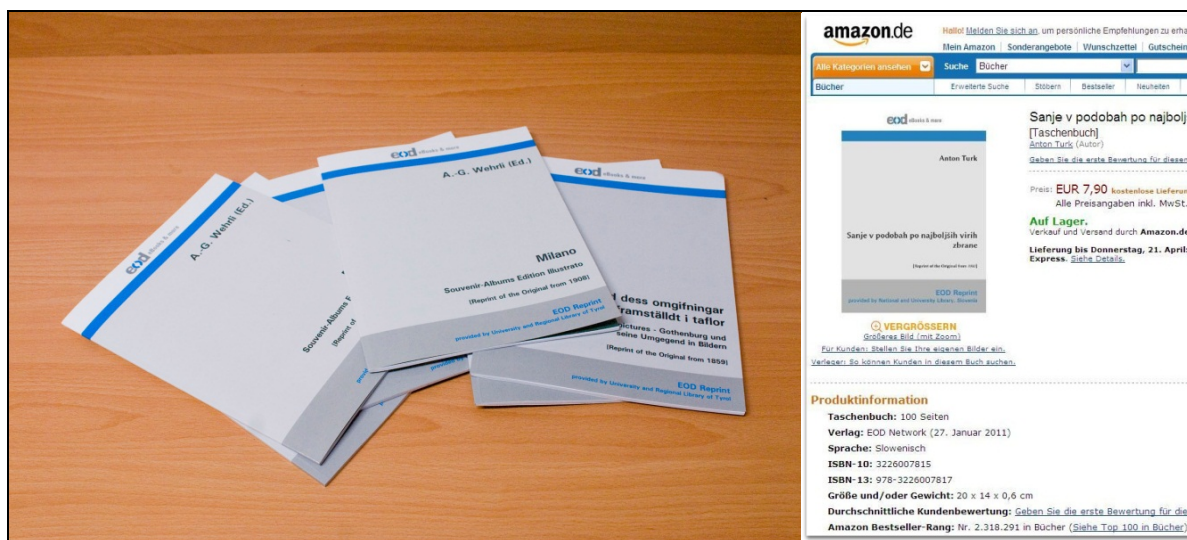


Figure 3: EOD Print on Demand books; EOD books on Amazon

2.3 EOD Network union catalogue. Federated search in all partners' catalogues and search engine of the EOD partner libraries were developed, so that users could easily search and find

⁶ cf: Blatnik, A., Brumen, M., *A eBooks on Demand from European Libraries*, Book of Abstracts : 5th International symposium on Novelties in Graphisc, Ljubljana, 27 – 29 May 2010

target results simultaneously in all catalogues of the EOD member institutions (Figure 4). The users can order an EOD book directly from the partners' catalogues from any EOD member library, no matter in which country the library is situated and what language people speak there. Since ordering, production and delivery of EOD eBooks is done online, and in requested language of a partner country, it is not relevant from where the user gets the demanded book. The joint catalogue enables users an easy searching through catalogues of more than 30 libraries, they rapidly receive many results, too.

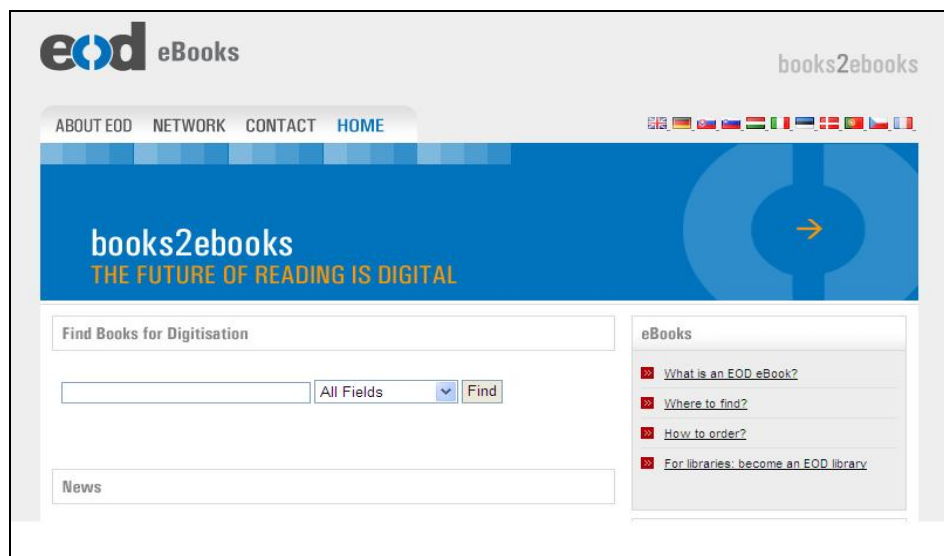


Figure 4: EOD union catalogue interface

2.4. Web 2.0. Virtual environments provide the possibility of collaboration, knowledge sharing and data exchange among geographically dispersed project members, library users and scientists. These technologies are correlated to the levels of productivity. EOD member institutions tried out and evaluated some of the web 2.0 platforms (LibraryThing, Wikipedia, Goodreads), aimed at book lovers and readers. Among these Wikipedia was recognized as the most suitable for reaching out to the users and customers with EOD information and eBooks titles. Later activities were focused on presenting EOD on local (national) Wikipedia sites and connecting titles of the books presented on Wikipedia with their electronic versions, if they exist.

To actively connect with readers and users, communication through the EOD Facebook pages of singular libraries was established. Facebook helps EOD to spread awareness about its project, services and current activities. NUK publishes cover pages and sample scans of the scanned books and photos from promotional activities.

With other web based social channels like LinkedIn and numerous other platforms, EOD connects with other global professionals, professional groups and digitization projects in the field, such as libraries, archives, scanner developers, IT and similar professionals.

2.5 eLearning. The National Library of Slovenia has recently registered a Moodle (Modular Object Oriented Dynamic Learning Environment) account, a socio-technically appropriate tool that is built on open-source software and is available without restrictive license. Implementations are provided for typical data management system such as relational databases and shared file systems. The system addresses both the needs of the community and creates opportunities for new scholarly and scientific understanding. Moodle does not create the con-

tent, instead it is a resource and an environment through which students, teachers and scientists can create additional opportunities for dialog, exchange of ideas and workflows that could help streamline multiple interests.⁷ Moodle is used as a platform middleware for the library departments' tutorials, questions regarding the digitization issues and the EOD customers' service. The administrator posts EOD courses and lessons regarding digitization, ordering and payment processes into the Moodle platform, where they can be accessed by registered users.

3. Conclusion

EOD service solutions encourage the use of eBooks and also helps preserve the cultural heritage materials collected by the community itself. The number of EOD member institutions is still growing and is expected to reach at least 50 in the next couple of years. Libraries make a lot of effort and invent new services, like print-on-demand, which offers reprints for comparable prices to photocopying, but for bound books in facsimile form. The data and related metadata of produced EOD books must be properly deposited in a dedicated, sustainable repository, and when possible published. Support for long-term preservation and the improvement of the interoperability of preservation packages with various leading trusted digital repositories is highly relevant.

Use of Web 2.0 is mostly aimed at completely open sharing. This way »social media« enables the creation of multimedia collections, transcriptions and annotations, which digital libraries and public archives now seek to preserve as unique and irreplaceable resources for posterity, and to make them available for scholars and science. With the active use of new media and eLearning tools, library users face a wider array of choices in communicating internally and externally with the library departments or its personnel.

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⁷ cf: Arobba, B., McGrath E. R., Futrelle, J., Craig B. A., *A Community-Based Social Media Approach for Preserving Endangered Languages and Culture*, <http://conway.isri.cmu.edu/hicss2011-sci-workshop/aroba-hicss-transforming.pdf>