

# Usability in Croatian OPACs

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**Introduction:** The primary purpose of OPACs is satisfying users' information needs and providing a successful information retrieval process. In order to fulfil this purpose, it is recommended that libraries adjust and develop their OPACs to the increasingly demanding user needs and changes in the information environment in order to provide better interaction with users and a seamless searching process. With conducting usability tests of their OPACs, libraries can get useful results and analysis whether their OPACs are user - oriented. The research described in this paper aims to emphasize the importance of usability testing. Usability tests were conducted on the research sample consisting of 5 Croatian OPACs, using the heuristic evaluation usability method. The instrument of the research is a specified criteria catalogue BibEval, created by Cheval team at the Swiss Institute for Information Research (SII), and it is used in a form of an interactive web application created for usability evaluation and designing of library online services.

**Theoretical framework:** The main focus of this research is usability, defined as the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use (International Organization for Standardization, 1998). Usability is the main area of research of Human-computer interaction (HCI), a discipline concerned with the design, evaluation and implementation of interactive computing systems for human use and with the study of major phenomena surrounding them (Hewett et al., 1996). Usability evaluation can be set in two main approaches: empirical and analytical. Empirical methods involve testing with users, while analytical (usability inspection methods) are conducted by HCI experts (PlantakVukovac, 2012.). For this research, a heuristic inspection evaluation method was conducted, as it was easily contextualized within the goals of this research, that is, to find usability problems on user interface.

**Research questions:** The goal of this research is to test usability of 5 Croatian OPACs with the following research questions:

- 1 What are usability problems of OPACs from the research sample?
- 2 Do OPACs meet the criteria of usability from the research instrument?
- 3 Are OPACs user-oriented?
- 4 What is the difference in usability of OPACs from the research sample?

**Methodology:** The purpose of this research can be placed on a general level, emphasizing the importance of conducting usability tests of any kind of product which includes human-computer interaction, and on more specific level, upon which the motivation for conducting this research is based, that is, according to literature review, the lack of usability research in Croatia. The usability of library OPACs reflects the extent to which they are oriented to users

during their interaction. The research method used is the Usability Inspection Method–heuristic evaluation, and it is recommended that 3-5 evaluators conduct usability tests (Nielsen, 1995.; Nielsen, 2012.; Cheval). Since there was only one evaluator conducting this usability evaluation, this research is defined as a pilot study, which will give preliminary results of the heuristic evaluation. The research sample consists of 5 Croatian libraries, using different library OPACs and integrated library systems: University of Zadar Library (Crolist-Vero), University of Zagreb Faculty of Humanities and Social Sciences Library (Koha), City Library Metel Ožegović, Varaždin (Metelwin) and Zagreb City Libraries (Zaki).

The instrument of this research is criteria catalogue BibEval, which can be used free of charge and is available in English and German (Weinhold, Bekavac and Hamann, 2014.). We have chosen the option *only catalogue* in the instrument of the research and the 4 sectors we wanted to conduct usability test on: *information and communication* (covers all aspects of information dissemination and user support), *search and explore the collections* (includes all functionalities related to searching, browsing and accessing the library’s collection(s)), *personalization and communication* (contains all features that allow users to adjust the settings of the online service to their individual preferences) and *user participation* (encompasses all functions that enable users to participate in the processes of creating, exchanging and sharing information). (Figure 1.) and following components to be evaluated. (Table 1.) (Weinhold, Bekavac and Hamann, 2014.).

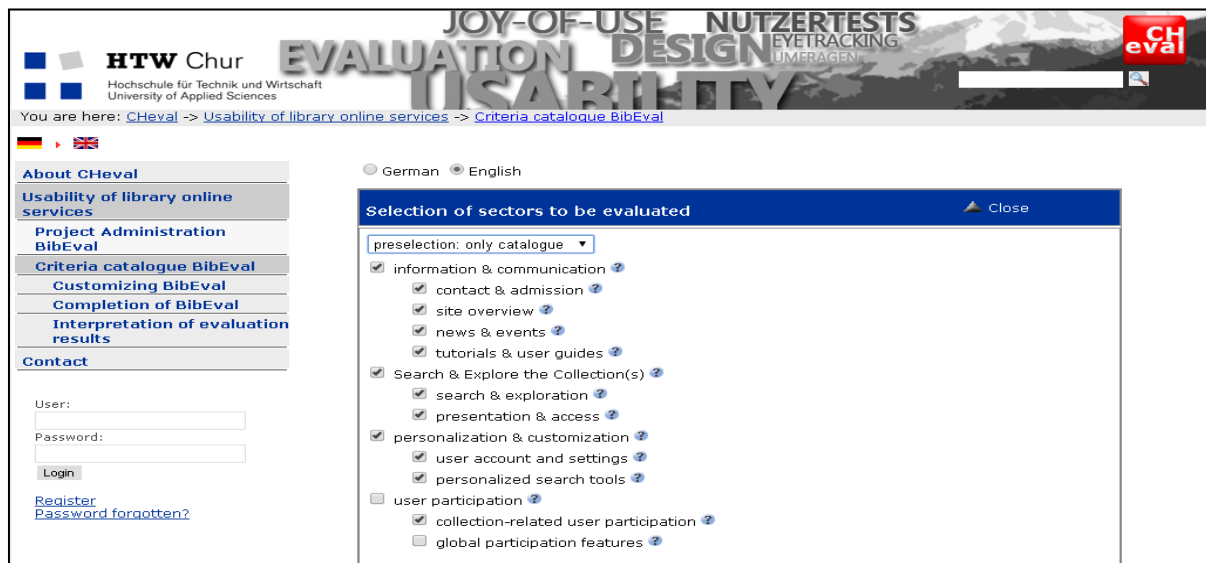


Figure 1. Overview and structure of BibEval (Cheval, 2009-2015)

Components	criteria for evaluation
Contact and admission	Contact form
Site overview	Glossary
News and events	News and newsletter
Tutorials and user guides	FAQs
Search and exploration	online tutorials
	Simple search
	Advanced search
	Input options
	Assisting features
Presentation and access	Browsing
	Search help
	Result list (presentation)
	Detail view (presentation)
	Result list (manipulation)
	Access to physical objects
	Access to digital objects

User account and settings	User account
	Personalized start pages
Personalized search forms	Personalized search tools
	Personalized selection of e-journals
	My literature list / object
	My search queries / alerts
Collection-related user participation	Recommender services
	Comments and reviews
	Social tagging / folksonomy

**Table 1. Components and criteria to be evaluated – Bibeval (Cheval, 2009-2015)**

After this customization, BibEval offered 228 questions to be analysed by giving ratings (*not applicable, no usability problem, minor usability problem, moderate usability problem, severe usability problem and not implemented though required*), based on Nielsen's severity ratings, slightly adapted (Weinhold, Bekavac and Hamann, 2014.). By giving ratings, we conducted the usability test with the heuristic evaluation method. For the purpose of this research, criteria catalogue BibEval (section *only catalogue*) was translated to the Croatian language.

**Research results:** The results of the usability study imply that all OPACs from the research sample indicate **usability problems** primarily in the sector *personalization and customization*, and *user participation*, except OPAC Koha, which indicates positive results in the sector *user participation*. OPACs Crolist and Metelwin indicate usability problems in the sector *information and communication*, while Crolist and Vero in the sector *search and explore the collections*. The results imply that all OPACs didn't meet **the criteria of usability** from the research instrument in the sectors *personalization and customization* and *user participation*, with the exception of OPAC Koha, which indicated positive results in the sector *user participation*. Based on the criteria of usability, the results imply that there is room for improvement in the terms of **user-orientation**, as it is mostly emphasized in these 2 sectors. The results of usability study imply that OPACs Zaki and Koha indicated positive results in the sector *information and communication*, while OPACs Crolist and Vero indicate usability problems in the sector *search and explore the collections*. The preliminary results of the usability study imply that there are **differences** in usability of OPACs, as OPAC Crolist indicated a range of usability problems in all 4 sectors the usability study was conducted on. OPAC Koha indicated positive heuristic evaluation results in the sector *user participation*, while OPAC Zaki indicated positive results in the sectors *information and communication* and *search and explore the collections*. From a usability perspective, the results suggest improvements of OPACs.

**Conclusion:** It is recommended that libraries in Croatia improve development strategy of their OPACs in order to follow the changes in the information environment. According to the studied literature, usability tests on this research sample and using BibEval as an instrument of the research have never been conducted in Croatia, which makes this pilot study interesting in terms of testing the instrument of research and the results obtained, which gives basis for further research.

Keywords: Usability, Heuristic evaluation, BibEval, OPAC, Croatia.

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### **Author's CV**

**Nikolina Peša Pavlović** graduated in 2009 at the Department of English Language and Literature and the Department of Sociology, University of Zadar. She graduated at the Department of Information Sciences, University of Zadar in October 2014. From March 2015 she has been working as guest teacher at the Department of Information Sciences, University of Zadar. From March 2015 she has been working as an apprentice at Zadar City Library. She is a member of the European Student Chapter of ASIST.

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