

# Usability Evaluation of the WWW.HR site

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## 1. Introduction

The quality of a Web site is based on its usability. International standards define usability as the extent to which a product can be used by specified users to achieve goals with effectiveness, efficiency and satisfaction in a specified context of use [1]. Jakob Nielsen, one of the leading experts in the field of usability, identified five usability aspects: learnability, efficiency of use, memorability, few and non-catastrophic errors and subjective satisfaction [2].

In order to evaluate usability, a set of data gathering procedures related to the interaction between the end user and the site has to be applied. The collected data may be subjective (eg. user satisfaction) or objective (eg. task completion time). The data has to be analysed in order to establish whether the site satisfies the principles of usability. As a result, proposals for usability improvements may be given.

Three types of usability evaluation methods are usability testing methods, usability inspection methods and usability inquiry methods. This paper describes the usability evaluation of one of the oldest Croatian Web sites – WWW.HR.

## 2. Case Study

The WWW.HR site has been serving as an entry point into Croatian Web space since February 1994. It consists of two basic services: homepage of the Republic of Croatia, providing information about the country and the directory of Croatian Web servers [3].

The site is being redesigned and new functional enhancements added on a yearly basis. In order to find out what users think about the site, usability inquiry has been conducted, using questionnaire method. Questionnaire is a written list of questions which is distributed to users, who fill them in. Their responses are being collected and analysed to find out the extent of user's satisfaction with the product or service. This method is quick, many users can be inquired in short period of time and is easy to conduct. Its main disadvantage is that answers in questionnaires are not always reliable, since they reflect only the user's reaction as the user perceives the situation (eg. about time measurement or the frequency of using the product).

The questionnaire used in this evaluation is divided in two sections. The first section collects users' demographic characteristics (age, sex, education degree...), their skills related to computer and Internet usage and their experience in using the WWW.HR site.

The second section contains questions used for site evaluation. The participants are asked to evaluate the extent of their agreement with statements about the site, on a scale from 1 to 5. The statements are further divided in four sections:

- site in general – the section consists of 14 statements related to site's overall appearance, content organization, attractiveness, ease of use etc;
- Facts about Croatia – the section includes 8 statements related to the quality of information about Croatia;

- Web directory – the section gives 8 statements related to how easy it is to find information in the directory, how appropriate the hierarchical categorization of the directory is, and how understandable the descriptions of submitted sites are. Additional 5 statements are intended for users who had experience with submitting new sites to the directory.
- Search – the section contains 7 statements related to search mechanism and is used to evaluate user's satisfaction with search results.

At the end, the questionnaire allows the participants to add their comments and suggestions about the site or the questionnaire itself.

### 3. Results and conclusion

The evaluation was conducted during August and September 2005 using written questionnaires and online, on the WWW.HR site. Overall, 195 participants participated in the questionnaire.

The collected results show that the site is easy to use (36,21% fully agree, 45,40% partially agree). The main problem is that users don't use the site to search for Croatian Web sites (13,22% fully agree, 25,29% partially agree).

There are a few other conclusions:

- text is easy to read (32,95% fully agree, 48,55% partially agree),
- navigation is understandable (30,59% fully agree, 47,65% partially agree),
- content is credible and up to date (29,65% fully agree, 44,77% partially agree),
- catalog is well organized (28,99% fully agree, 40,83% partially agree),
- download is quick (40,23% fully agree, 41,38% partially agree),
- menu is understandable and easy to use (37,57% fully agree, 46,24% partially agree),
- it is easy to register sites to catalog (43,10% fully agree, 32,76% partially agree).

Some of the identified shortcomings include:

- users don't use special services, (33,14% fully agree, 29,07% partially agree),
- site is not attractive (10,98% fully agree, 20,23% partially agree),
- users think that some multimedia services would contribute to it's attractiveness (37,93% fully agree, 27,01% partially agree),
- users don't use search guidelines (47,30% fully agree, 25,69% partially agree).

The results which were obtained during this evaluation will be used in the forthcoming process of restructuring the WWW.HR site.

### 4. Literature

1. ISO 9241-11. Ergonomic Requirements for office work with visual display terminals (VDTs) – Part 11: Guidance on usability, 1997.
2. Jakob Nielsen on Usability and Web Design, <http://www.useit.com>
3. Gordan Gledec, Igor Ljubi "How users search WWW.HR directory", CARNet Users Conference 2004.
4. U.S. Department of Health and Human Services: Usability, <http://www.usability.gov>
5. Usable Web, <http://www.usableweb.com>