

Contents

EXECUTIVE SUMMARY

1. INTRODUCTION

1.1 Terms of reference

1.2 Stakeholders

2. CURRENT APPROACHES TO HCI **ERROR! BOOKMARK NOT DEFINED.**

2.1 JISC services

2.2 Guidelines for academic web sites

2.3 Types of guidelines

2.4 Research-based web design and usability guidelines

2.5 Guidance for online courses

2.6 User centred design

Error! Bookmark not defined.

3. EVALUATION OF THE GUIDELINES **ERROR! BOOKMARK NOT DEFINED.**

3.1 Overview

Error! Bookmark not defined.

3.2 Academic webmasters

3.3 Requirements

Error! Bookmark not defined.

3.4 Draft guidelines

Error! Bookmark not defined.

4. CONCLUSIONS

4.1 Evaluation results

Error! Bookmark not defined.

4.2 Developing new sets of HCI design principles

4.3 Take up of user centred design methods by JISC services

4.4 Recommendations

Annex A. Academic websites with HCI guidelines

Annex B. Collated guidelines

Annex C. NIH Research-Based Web Design and Usability Guidelines

Annex D. Additional guidelines for online courses

Annex E. Digital library guidelines

Annex F. Personalisation guidelines

Annex G. Portals guidelines

Annex H. Interviews with four webmasters

Annex I. Key usability guidelines for academic web sites

Annex J. Key usability guidelines for online courses

Executive Summary

The objectives of the study were to:

- Identify how HCI Design Principles could assist the relevant users and other stakeholders.
- Analyse existing HCI design principles for their applicability to JISC services and resources.
- Review current practice and directions for the support of learning, teaching and research for the UK and other relevant countries.
- Adapt HCI design principles to JISC services and resources, and document as guidelines.
- Recommend the additional work that would be required to further develop HCI design principles for additional types of service.

A survey of JISC services and other academic institutions around the world showed that few organizations use usability methods or specific HCI design principles, and when guidelines exist they are rarely enforced. The main reason the JISC service providers gave for not using guidelines was pressure of time. It is thus apparent that for guidelines to be effective, they need to be straightforward and easy to understand.

The study therefore developed a concise list of HCI guidelines that cross-references the authoritative new US National Institute of Health Guidelines. Almost everyone who has reviewed the proposed guidelines has welcomed them (although sometimes as material to give to other people rather than to use themselves).

The final set of guidelines for JISC comprises:

- A checklist of 121 guidelines that are most relevant to academic web sites.
- A tailored set of 85 guidelines aimed at people producing online courses.
- Additional guidelines on digital libraries, portals and personalisation.
- Pointers to information on user-centred design.

The study suggests that the main guidelines are widely applicable across most types of web services. The additional guidelines for specific domains primarily interpret or prioritise existing guidelines.

Most people working on JISC resources regarded the use of user centred design and evaluation methods as outside their sphere of expertise, with the exception of one person who has been on a Nielsen-Norman course.

The overall conclusions are:

- The HCI guidelines produced in this study should form the basis for HCI guidance to be adopted and recommended by JISC.

- JISC should in future include usability requirements in its tenders as an incentive for JISC services to employ usability methods and HCI guidelines.
- JISC services should encourage staff to review and adhere to appropriate HCI guidelines.

JISC services without existing usability expertise should either train staff in the use of user centred design methods, or employ a member of staff who is experienced in the methods.