

1. Overall objective (i.e. 'why?'): encourage embedding and take-up of UCA Research Online and UAL Research Online by putting users at the centre of a 'kulturised' MePrints tool; and provide a model that can be used by the wider visual and creative arts community.

2. Summary

- scope user needs prior to designing tool
- test design prior to building tool
- test working version of tool iteratively until version 1.0 can be released to community

3. Programme 1st March - 23rd December 2011 (see details in eNova workpackages document including responsibilities/owners of tasks)

- **March** - define user needs methodology
- **April** - upgrade of EPrints demonstrator service and installation of MePrints
- **April - May** - scope user needs (researchers)
- **June** - write User Needs Analysis Report
- **July** - design of wireframes based on Report; Alpha version of tool in demonstrator service
- **August-September** - testing of tool and production of Beta version
- **October** - testing of Beta version of tool with researchers
- **November-December** - testing of tool, once held for at least one week without major issues - version 1.0 will be released

4. Methodology

For the purposes of this project, the user can be defined as any person affiliated to University for the Creative Arts or University of the Arts London who has, or in the future will be, depositing research in the institutional repository AND who has, or will have, a staff research page profile. Both Repository Managers have a list of existing contacts of researchers that will be used and expanded upon as part of their existing day-to-day advocacy work. This could also be extended to users of the ALTO EPrints instance for teaching and learning at the University of the Arts London, managed by John Casey. Feedback will be sought from the eNova project team as a whole and from the wider Kultur II Group at all stages.

There will be an iterative process taken to informing the design for the tool; user needs will be scoped at the outset of the project and their feedback sought at key stages, on at least two other occasions, in order to inform the design when it is still possible to make changes. Although feedback will be sought from as many researchers as possible during the survey stage it is anticipated that the user testing will involve around five participants in the iterative process, and as far as possible the same users should be involved throughout.

The data gathered will include information about their goals and likes/dislikes, qualitative data, such as 'think aloud' usability testing, information about their behaviour such as workflow, and quantitative data such as using the System Usability Scale after usability testing. Reporting of issues will be in a simple spreadsheet shared by the eNova project team via Google docs, looking at the nature of the issue, the severity (e.g. high if it stops a user completing a task and low if it is just desirable), and the suggested recommendation including who (anonymised) has reported the issue.

It should be noted that the MePrints tool is primarily concerned with the development of two related interfaces: the public interface that is the showcase and all about the visual look and feel; and the workspace that users will access when they login into their staff profile page in order to update their details or deposit research.

5. Code of Ethics

This project will follow the ethical guidelines outlined by the British Educational Research Association (2004).

In particular voluntary informed consent will be obtained from participants; the objectives of the project will be fully explained before engaging the participants; anonymity will be assured and all data

collected will be held securely and where work is undertaken in focus groups, participants will be required to uphold the anonymity and confidentiality of others; any findings will be presented anonymously unless agreed otherwise with the participant; participants will have the right to see any data held for the purpose of the project and will be informed that they have the right to withdraw from the project at any time and without reason.

For the purposes of this project, participants are not considered to be vulnerable in terms of age, intellectual capability or any other criteria. It is not anticipated that the project will cause participants any undue distress or discomfort.

6. Scoping user needs

Users will be invited to one-to-one interviews by the Repository Managers to gather feedback about their needs (environment, goals, behaviour etc); paper and online surveys will be undertaken during interviews and circulated on other occasions as well e.g. handed out at departmental meetings. It is more important to get buy-in from the users to have the same users testing iteratively than to have lots of different users involved at different stages. Repository Managers to make the time commitment clear from the beginning: two one-to-one interviews to be held, one April/May (using short survey, interview and demonstrator/mock-ups) and one in October for testing of the Beta version of the tool; plus feedback sought by email in July on the designs for the tool (screenshots). Repository Managers to emphasise the benefits of the tool to the user, and to encourage engagement by presenting mock-ups including the users details so they can visualise how this could work for them.

6.1. Scoping user needs - survey

Who - prospective MePrints tool users

What - finding out what tools and technology they use already, their goals and aspirations and how they feel about the institutional repository as a place to showcase their work

When - Early April, before Easter holidays

Where - remotely i.e. by email/via hand-delivered paper survey/and during the one-to-one interviews

How - Repository Managers to directly contact individual participants with a short questionnaire, suggested questions:

- Please tell us if you have already deposited in UCA/UAL Research Online? Yes/No/Unsure
- If yes, what did you like/dislike about UCA/UAL Research Online?
- Please tell us if you have a staff research page profile? Yes/No/Unsure
- If yes, what do you like/dislike about the staff research page profile?
- How do you currently showcase your research? e.g. social media (Facebook etc), own website, page on collective website, staff research page profile, UCA/UAL Research Online (various options and 'other')
- What do you like/dislike about these?
- What would make your research life easier?
- Any other comments or feedback?

6.2. Scoping user needs - one-to-one interviews

Who - prospective MePrints tool users

What - finding out what tools and technology they use already, their goals and aspirations and how they feel about the institutional repository as a place to showcase their work, drilling down into more depth about their work processes and day-to-day environment and workflow

When - before the end of May in order to feed into the User Needs Analysis Report which will be written up during June

Where - visit users in their workspace i.e. studios or office, specifically to understand the environment they will be using the tool in

How - Repository Managers each to arrange one-to-one interviews with users/champions; minimum three users each, maximum five users each, i.e. 6-10 in total. During the interview users to complete and discuss the questionnaire including any issues arising, in particular to show websites and visuals they like the look of (Repository Managers to ask 'why' and record this). There should be discussion of how they feel about the institutional repository and staff profile pages. Repository Managers to show

them the MePrints demonstrator¹ and screenshots of mock-ups to discuss what content they would like on the screen and what 'words' would they use (terminology).

It may be useful to use a quantitative method such as the Microsoft usability desirability toolkit² in defining how they feel about the institutional repository; the toolkit is a list of words that users select to express what they think.

Repository Managers to establish buy-in with users in order to encourage them to be involved throughout the process; they will have profile pages before everyone else but in return they need to test and provide feedback. Any problems with buy-in and user engagement can be reported as findings of the User Needs Analysis Report with suggestions for improvements. It would be fantastic to uncover what the real issues are e.g. do they want to enhance their reputation, save time, get more funding, get cited, make connections, collaborate with others? They could be surveyed for this but it might be more transparent and genuine if done face-to-face on a one-to-one basis.

7. Design and testing of wireframes

Who - prospective MePrints tool users, eNova project team, Kultur II Group

What - solicit feedback on design for 'kulturised' MePrints tool prior to building it

When - July

Where - circulate design for modified MePrints tool via email for feedback

How - VADS Software Developer to use User Needs Analysis Report to inform design for wireframes, these could be done on paper or mocked up in an image editor, but it may also be useful to try a simple HTML editor such as Axure RP³ to create a more interactive but still basic prototype.

8. Production and testing of Alpha version

Who - eNova project team, Kultur II Group

What - primarily testing functionality and accessibility

When - July

Where - testing remotely via EPrints demonstrator by eNova project team, and inviting feedback from users and wider Kultur II Group

How - testing of the Alpha version without users by VADS Software Developer including: page validation⁴, accessibility and browser independence (based on common browsers used such as Firefox 3, IE 6+, Google Chrome, Safari), and testing functionality with and without JavaScript and CSS enabled.

9. Production and testing of Beta version

Who - prospective MePrints tool users, eNova project team, Kultur II Group

What - primarily testing functionality and accessibility but also overall look and feel, use of terminology

When - Beta version of tool should be released by the end of September in order for testing to occur during October

Where - ideally in their workplace environment, also remotely by accessing EPrints demonstrator service online

How - with previous participants re-do one-to-one interviews or invite users to an event in order to receive feedback on Beta version, gather quantitative data using the System Usability Scale⁵ and qualitative data using 'think aloud' usability testing with predefined tasks to complete.

¹ MePrints demonstrator service is available here: <http://allaboutme.eprints.org/>

² See the table of words in Figure 2:

<http://www.microsoft.com/usability/uepostings/desirabilitytoolkit.doc>

³ A free 30 day trial is available here: <http://www.axure.com/default.aspx>

⁴ Validation tools are available from: <http://www.w3.org/QA/Tools/>

⁵ <http://meiert.com/en/blog/20070423/revitalizing-sus-the-system-usability-scale/>

10. Production of version 1.0

Who - prospective MePrints tool users, eNova project team, Kultur II Group

What - testing Beta version of 'kulturised' MePrints tool

When - November until version 1.0 has been held for at least one week without major issues

Where - remotely by accessing EPrints demonstrator service

How - by creating test accounts, entering data, uploading items, repetition of previous tests as required or appropriate

References

- British Educational Research Association (2004) Revised Ethical Guidelines for Educational Research. <http://www.bera.ac.uk/files/guidelines/ethica1.pdf> (8 March 2011).
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- Kultur. 2007-2009. User Analysis documents available from: <http://kultur.eprints.org/documents.htm> (8 March 2011)
- useit.com: Jakob Nielsen's Website. Why You Only Need to Test with 5 Users <http://www.useit.com/alertbox/20000319.html> (8 March 2011)
- Pure Usability. 2010. Understanding User-Centred Design. A JISC workshop held at Brettenham House, London on 30th November 2010.
- Web Accessibility Initiative <http://www.w3.org/WAI/> (8 March 2011)