Scoping e-Infrastructure Usage: Interim Report

Michael Fraser *December 2007*

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2 Executive Summary

eIUS is an applied research project funded under the JISC e-Infrastructure programme with a remit to create a detailed picture of e-Infrastructure usage across UK academic research and, through actively publicising successful and inspiring use, facilitate an overall increase in take-up. This report positions and scopes the eIUS project in relation to existing initiatives and outlines a fieldwork methodology now intended to be rolled out across the UK.

1. e-Infrastructure, in the context of UK academic research, takes a broad meaning embracing a large number of information and communication technology (ICT) genres and support services. eIUS concerns itself with UK researcher interactions with technologies that support this research and, for the most part, considers only those ICTs that are supported, networked, specific to research, and applicable to more than one individual or research group.

2. The term ‘use case’, in the context of eIUS, is taken to refer to a semi-structured story or scenario showing how researchers today can use e-Infrastructure to achieve specific research goals. It differs from its use in a software engineering context because it is not concerned with the intended user interactions with a future to-be-constructed system, but rather with the totality of e-Infrastructure services as they exist today.

3. eIUS differs from previous work in that it seeks to obtain detailed information on researcher behaviour at the ‘coal-face’ rather than indirectly through the accounts of e-Infrastructure service providers. eIUS is also almost unique in that its intention to provide explicit traceability from the use cases all the way back to the evidence collected through interviews and observational studies.

4. Having considered and evaluated a number of different sampling approaches, the project team believes that the best approach for uncovering usage examples and securing the involvement of active UK researchers is through existing e-Infrastructure services. The project team does, however, also recognise the need to dedicate ongoing effort to systematic desk research and to securing the participation of well-connected individuals, to uncover the use of new, emerging and less-well-known services, and services whose development has fallen outside conventional funding programmes.

5. The project team intends to explore the use of more proactive approaches for engaging the so-called ‘quiet’ users who do not normally respond to conventional calls for participation and to make use of snowball sampling - asking informants who else they know using e-Infrastructure - as another strategy for obtaining a broad and relevant evidence base.

6. In order to facilitate an increase in e-Infrastructure take-up by UK researchers, the project team recognises the need to focus on finding successful and inspiring usage examples that have considerable potential for transferability both within and outside the research domain they originated.

7. Carrying out debriefings at the end of the researcher interviews has proved highly effective in terms of refining the methodology during the pilot study. Asking researchers why they decided to participate has revealed a number of motivating factors that will help the project to effectively market its activities to new researchers in the next phases. These factors include publicity, reflecting on and sharing research methodologies, goodwill (or 'giving something back'), networking, highlighting service problems or issues, representing a specific community need, and empathy with the point of view of the service provider.

8. The project team has found that the level of detail obtained through relatively short interviews with researchers is often insufficient to construct scenarios based on the interview data alone; there is normally a need to carry out additional desk research and to create sequences of events providing an overall structure for the use cases. Elements of invention can be minimised through involving the informants in the development of use cases and by asking them to validate the use cases in terms of their believability.

9. The project has developed a working format for the use cases, illustrated by four prototype use cases presented in Appendix A. The team does, however, reserve judgement on a number of editorial considerations that will remain under review in the subsequent phases of the project, and be a topic of discussion at the project’s forthcoming community engagement workshops.

3 Read full report

- The full report, "Scoping e-Infrastructure Usage: an interim report" is available for download as a PDF document.