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Oxford e-Social Science Project

Building Virtual Research Environments and User Engagement

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E·S·R·C ECONOMIC & SOCIAL RESEARCH COUNCIL

Project outline

- Part of OeSS study of ethical, social and institutional aspects of e-Research
- VREs embed e-research tools and technologies in higher education institutions
- User engagement
- Strategies and challenges
- Preliminary findings
- Detailed interviews with project managers, requirements engineers, potential users

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Requirements and VREs

- Complex challenging domain
  - wide range of disciplines and of professional expertise
    - different types of knowledge, professional and disciplinary
    - ‘know how’ and knowledge in use
  - different forms of collaboration
    - intra- and inter-disciplinary
    - remote and co-present
    - synchronous and asynchronous
    - existing and emerging communities
  - Broad range of participants/stakeholders involved
    - Academic, corporate, clinical, technical

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Strategies 1

- Functional wish list
- Users are engaged in the development of the wish lis
- Issues:
  - Getting users to describe functionalities of a non-existent and unfamiliar system
  - Imagining what is possible and maintaining realism
  - Matching features to the list
  - Evaluating whether wishes have been met

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Strategies 2

- Participatory user communities
  - Continuous evaluation by users throughout development
  - Iterative design and development cycle
  - Ethnographic observations of users in their work using technologies developed
  - Broader reflection on researchers' practices
  - Depends on existing user communities, or potential user communities identified from the outset

Securing engagement (1)

- Creating a user community
- Identifying the right people to involve
- Involving them appropriately: novices / champions
- Revealing barriers

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Securing engagement (2)

- Potential barriers to collaboration
  - Attitudes to ‘data’: caretakers / owners
  - Sharing vs publishing
  - Scholarly activity
  - Reward structures
  - Employment and career paths

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Supporting Engagement (1)

- Heterogeneous forms of collaboration and research practices
  - Academics and non-academics, specialists and non-specialists
    - Work processes
    - Organisational structures
    - Work flows, division of labour and expertise
    - Example: introducing hand-held PCs into field work

Supporting Engagement (2)

- Multidisciplinarity
  - Diverse *specific* research practices
  - Understanding and supporting these
  - Example: computational and mathematical biologists and technologies to support them
  - Supporting vocabularies and terminologies to enable researchers to engage with material in the environment in terms of their own skills base (but also allowing them to communicate with others)

Managing the relationship with users

- Maintaining realistic expectations
- Avoiding overloading users
- Securing and supporting trust

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Practical Outcomes

- User group involvement from the inception of the project and throughout the development process
- Make use of major research events to secure user engagement
- Conduct envisioning workshops and designing user experiences.
- Understand the context of work
- Understand the broader social and institutional setting of research

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Continuing study

- Trust
- Communication
- Ethical aspects
- Institutional embedding

  - Capturing practice vs changing practice
  - Supporting or creating users
  - Academic and socio-political dimensions

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