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Collaboration Support for Virtual Research Communities

...and what this might mean in an A&H context

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(Changing) Patterns of Research Work

- E-Research is a naturally collaborative activity, collaboration has always been part of the e-Science vision
- Trend from individual to community-based work and to multiple contexts:
 - across organisational boundaries
 - across disciplinary boundaries
 - across national boundaries
- Dynamic, *ad-hoc* collaborations getting more important
- Collaboration is *part and parcel* of research work, not a separate activity (perhaps more than ever)

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Virtual Research Environments

- A VRE is an *integrated* set of (online) tools, systems and processes interoperating to facilitate or enhance the research process within and beyond institutional boundaries.
- a.k.a.: science gateways, cyberenvironments, collaboratories
- Integrates e-Research tools into a wider work environment supporting the day-to-day activities of researchers
- Support for collaboration is an essential part of a VRE

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Virtual Organisations and Communities

- OSI report on Virtual Research Communities makes distinction between:
 - Virtual organisations as addressable entities
 - Virtual communities as *ad-hoc* collaboration
- This recognises that there may be different needs
 - emerging from different forms of social organisation of research
 - may exist at the same time and are overlapping
- <http://www.nesc.ac.uk/documents/OSI/vrc.pdf>

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Collaboration Support: where are we today?

- Tools are installed in different contexts and do not integrate across these - your wiki or mine?
- Integration only statically in portals - your portal or mine?
- A lot of work involved in negotiating tool use and use practices
- Collaboration tools and research applications are often separate and, again, integrated only superficially in portals
- Consequence: lack of support for *ad-hoc* and seamless collaboration

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CWE - Collaborative Work Environments

- Dynamic, *ad-hoc* cooperation & community support
- Seamless and 'invisible' (or seen-but-unnoticed)
- Crossing organisational & national boundaries
- Beyond Usability – Investigating Cooperativity

- Experiences and approaches from various projects, e.g. MOSAIC & COMIST with the AMI@Work Communities and the ECOSPACE integrated project

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ECOSPACE Objectives

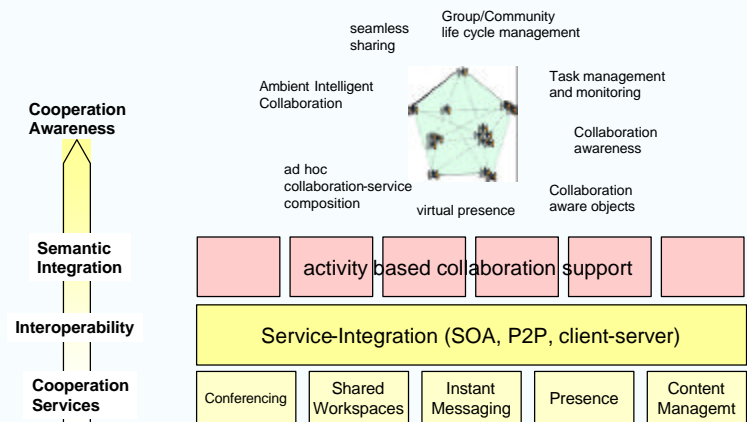
1. Innovative working paradigms through research and understanding of eProfessional work and organisation.
2. A reference architecture and interoperability concepts for the user-centric integration of collaboration tools
3. Upperware services to ensure seamless and instant collaboration among knowledge workers in group forming networks, beyond organisational boundaries.
4. New collaboration aware tools that reduce the complexity of collaboration in dynamic work environments and which enable users for creative and knowledge intensive tasks.
5. Involving Users at all stages through an Experience and Application Research approach and three Living Labs.

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Interoperability and semantic integration will lead to an activity based collaboration support



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Aside: Web 2.0

- Current, popular web 2.0 sites are often not good examples as they do not tend to integrate well, often for commercial reasons (e.g. MySpace blocking Youtube videos)
- Popular project management tool Basecamp: even using the same service, I need separate logins for each context I work in.
- Web 2.0 solves simple problems using simple means. Grid technologies aim to solve complex problems - using overly sophisticated means?

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VRE & CWE

- Aim is to integrate work done in the VRE and CWE communities - opportunities exist in these areas:
- Conceptual
 - How we understand work as a collaborative activity
 - Growing body of work on observation and explication of collaborative activities
- Methodological
 - How we design collaborative systems for local practices embedded in multiple, wider contexts
 - Practical approaches to managing user-designer relations
- Technological
 - Collaboration “upperware”
 - A technical deliverable

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Supporting Collaboration in the Arts & Humanities

- Drawing on the example of archaeology:
 - Expertise often geographically distributed and only limited opportunity to meet 'on site'
 - Opportunities of digitisation and cross-referencing
- Introduction of a VRE in this context may disrupt established work patterns and thereby jeopardise quality control

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Conceptual Issues to Think and Talk About

- Is this a question of HCI, a wider issue about the working division of labour or one of training?
- What's the adequate concept - virtual organisation or virtual community? Or both?
- How best to understand work practices in A&H?
- How do they differ between different kinds of research in this area? Can we treat A&H as one field?
- How to tie in with discussions of research practice already going on?

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Methodology: Designing for Collaboration in A&H

- OSI report: “it is important to realise that attempts to bolt on ‘usability’ after technical development are doomed to failure.”
- Methodological questions: How to elicit and formulate requirements and come up with design implications?
 - A&H-informatics = new form of hybrid needed?
 - direct involvement of designers in the setting, co-realising information technology - ‘embedding’?
 - What experiences do we have with different approaches?

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Technology

- Can e-A&H simply build on generic functionality or are there unique needs that make this impossible?
- What would a collaboration “upperware” for e-A&H look like?

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A Bit of Advertising: Workshop on VREs an CWEs

- Invitation to the Workshop on Virtual Research Environments and Collaborative Work Environments
- at the e-Science Institute, Edinburgh 23rd - 24th of May
- organised by the e-Science Institute Research Theme on Adoption of e-Research Technologies, the National Centre for e-Social Science and Fraunhofer FIT
- <http://www.nesc.ac.uk/esi/events/768/>

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