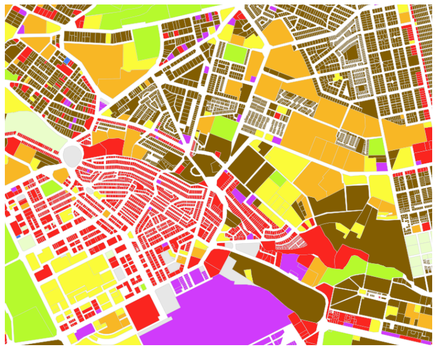
Sense-making Representation of a Technology-Enabled Society

The SeRTES proposal addresses three main challenges in providing an understanding of the information ecosystem that is emerging as IT provision becomes ubiquitous – massively distributed, accessible from every conceivable device, and indispensable to society's infrastructure, business society's infrastructure, business processes, and culture.

Project Key Points

- EPSRC funded project with the aim of achieving academic outputs (publications) and other impact
- Duration: 9 months (7 investigator + project coordinator, 6 institutions), 6 months (2 PDRFs) total = £205,006
- As part of the OpenQwaq, EPSRC Creative Greenhouse initiative
- Expected to be risky, work not done commercially, but rigorous theoretically, foundation for further work
- The various disciplinary perspectives of the research team will be applied to provide a multi-layered analysis

From a dialectogram of a weekend developed by Mitch Miller for the project



Challenge 1: Making sense of the ecosystem that is enabled by technology

The ecosystem can be perceived in terms of its technological, social, and economic constructs. These constructs interact with one another in both visible and invisible ways. The challenge to SeRTES is a need to investigate and visualise the democratic, efficient representation mechanisms both for the entities and structures (both logical and physical) that constitute the ecosystem and their interactions. These representations must be both natural and meaningful.

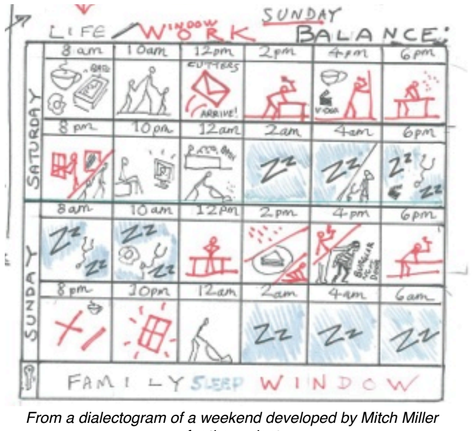
Challenge 2: Building-in different representational perspectives

From the point of view the usability, sustainability, and resilience (we might say 'stewardship') of the ecosystem, the concepts we care about – such as identity, trust, security, performance, reliability of transactions, etc. – exist in each of the layers, and changes in any one layer will, typically, affect properties in other layers. The challenge of SeRTES is to understand, analyse, and identify ways to represent them as 'uniformly' and as 'fairly' as possible to facilitate understanding.

Challenge 3: Level of Abstraction

There is also a challenge to understand the inherent tension between the need to abstract and the need to be concrete. Ultimately, we must develop an approach capable of mapping and representing the richly diverse collection of inter-related concepts that confuse businesses, designers, implementers and users. This challenges us to build more detailed representations for specific perspectives whilst maintaining a sufficiently high-level of abstraction for the transferability of knowledge, experience, and techniques.

The SeRTES project sees its research as a seed-corn project and expects to seek more funding to add to the richness of the representation and develop a network of studies complementing this project.



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AIMS OF THE PROJECT: SeRTES aims to provide a set of requirements/specification of a visualisation to show scenarios, 'the whole' rather than 'the parts', how issues in a technological enabled society are dynamically related i.e. how entities, individuals, institutions, laws, and risks dynamically interact within the virtual realm. So, use a selection of representational methods to articulate the complex web of connections that are involved as we interact with many of the apparently benign services that are available at our finger tips.