

PERSPECTIVE FROM THE WORLD SOCIETY MODELLER (S-GAIA) CONSORTIUM

Background

S-GAIA is a Flagship Proposal submitted to FET as part of the FuturICT socio-technical workstream. The proposal is for a ubiquitous toolset to be available to everyone, everywhere, every day, to handle social engagement meaningfully within the overall context of society, its individuals, groups, businesses, enterprises, professional and governmental institutions (including the Future Internet(s) of People, Things and Services (IoPTS) etc. The paradigm of S-GAIA is that the above social context is a complex system of interacting entities. The processing of these is an essential requirement of the future internet. There is probably no data that exists outside of a social context and that context defines its *meaning and use*. The science behind this applied research is complexity science, computational socio-economics, and meta-modelling across the systems of the world. The applied ICT social-complexity platform is called Metaloger.

The EFII Website under its banner “Europe must act” emphasises the dimension of EFII as a *societal* challenge. The perspective of S-GAIA is to define this not primarily as an information issue, but one of how society conceives of information, instantiates it within the social context in all its dimensions, and then applies it to support new social meaning, decision, and action, i.e. *purposeful behaviour*.

We wish to introduce this perspective to EFII with a view to defining how it can become a core new layer of Internet functionality, protocol and technological realisation. Potentially S-GAIA would envisage Future Internet as its primary societal delivery platform and infrastructure, and require a corresponding commitment from EFII to process ‘society’ as a complex adaptive system. S-GAIA is about user "application pull", total societal involvement, specifically total societal interconnectedness. The S-GAIA Consortium foresees a fundamental cooperation with the EFII to develop the global infrastructure for delivery of the S-GAIA World Society Modeller toolset.

Response to Specific Questions

The issues and open questions to be addressed during the Workshop include:

- (1) What use case and scenario in your area would you consider the most appropriate and representative one for large-scale experimentation with the Future Internet platform to be built starting from 2013 (please refer to the documents referred to on the above websites for inspiration)?
 - (a) User-driven social engagement via hierarchies of active (meta) models of purposeful decision and action, i.e. modelled society, themselves a complex adaptive system
- (2) What innovative Internet functionality and technologies would you consider important for your suggested use case and scenario (e.g. context awareness, sensor networks, advanced real time processing capabilities handling huge volume of data, ad hoc service composition and mash-up, managed broadband connectivity and services, embedded media support for interfaces easing the interpretation of processed contextual data, etc.)?
 - (a) All the above via ubiquitous inter-connected evolutionary models of society-in-use
- (3) Which of the identified functionalities would you expect the Future Internet core technology platform to deliver to support your and other usage area scenarios?
 - (a) This is to be further explored in discussions through the workshop, but likely close cooperation on the whole system of transport of social driven data (but not the specific user material, models, live data etc). In our vision the Metaloger infrastructure for processing socially enacted data would be part of every organisation, enterprise, and individuals systems repertoire
 - (b) The core requirement of Metaloger is to process the complex dynamics of the social interactions. These are potentially exponential which itself requires meaningful management

- (c) The outcome is an interconnected social world applying, in a practical way, the new science of computational socio-geonomics.
- (4) What kind of experimentation environment would you consider necessary for broad large scale testing of the platform to be developed in your use area? What would be needed to experiment new services and applications cutting across use areas (services and application mash-up) and building a new services and application ecosystem around the prototype implementations of the platform?
 - (a) The experiment will involve Metaloger plug-ins to any or all enterprise systems to enable complex interactions across disparate systems to be brought into focus. They will reveal: opportunities, threats, and governance implications arising from patterns of complex dynamics. These will be at every level of individual and enterprise social behaviour up to that of the global world ecology. Society must support the new paradigm of global interaction.
 - (b) The society models would probably be a layer of coordination *above* that of e.g. IoS, i.e. the directing functionality for most of the *socially driven* Internet
 - (c) There are huge implications for the handling, storage, retention and invocation of data; essentially data exists in multiple forms according to the specific social enactment at a point in time and across space. Those abstract dimensions are examples of an entire system of abstract values causing *social dynamics*.
- (5) How do you see the potential role of your organisation in the FI-PPP, in the context of Usage areas taking a prominent role in the Initiative, to ensure an appropriate application driven approach?
 - (a) The S-GAIA Consortium envisages deep and total involvement to develop the vision of a ubiquitous society toolset, and its realisation, and then support EFII in trialling/testing/implementing the socio-technical solution
 - (b) All subjects 1-5 would need a partnership approach to attain a workable, viable, and society empowering result
 - (c) S-GAIA is already cooperating with the Event Processing Technical Society (EPTS) an initiative working on definition of standards for complex event processing.

Conclusions

We envisage the EFII becoming a Partner in S-GAIA Consortium (the modality to be worked out). We consider the draft manifesto of S-GAIA fits with that of EFII:

1. The whole ethos of S-GAIA is one of openness empowerment, engagement and a new kind of society *engineering* taking that word in its fundamental sense as *the science of transforming power into work*. S-GAIA seeks societal approval to re-engineering its approach to our world ecology
2. Our vision is that this will transform society and herald a new Kondratiev shift called the *social ecology world*
3. The new paradigm of *socially enacted information* will liberate and involve society in being part of the new world ecology
4. Everyone, all our institutions, applications, and purposes in life will cooperate to manage the total global dynamics of this world through involvement with and purposeful sharing of responsibility in this quest – essential to the survival of mankind.
5. The global dimension is *Governance*. This is the top level of all social dynamics, part of the overall complex adaptive system we call *society*.

We look forward to this cooperation and working together. We see this as a federation of interested parties along a similar model to society and Flagship research generally.