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WP9: Communication and Dissemination

D9.5.3 - Newsletter issue 3

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Introduction

The newsletter is an electronic deliverable that is located at a URL and provides a page of news with links. Thus it can only be properly and fully viewed online. This document uses screen shots to give an overview of the deliverable which can be found in full at:

<http://www.opaals.org/website/newsletters/2008-08-20/index.htm>



the opal

Newsletter of the OPAALS network of excellence

Issue 3 - 20th August 2008

Phase II brings big changes

Editorial

by Neil Rathbone

Evolution and activity



After long and at times difficult negotiations, Phase II of the OPAALS project, which runs from December 2007 to May 2009, has started several months late but has begun with a flood of activity, as well as demonstrating the basic principle of evolution by changing the project in response to a rapidly changing environment for Digital Ecosystems research.

Following the first formal project review, two entirely new Work Packages have been created; tasks, budgets, and partner roles have been changed; plus we have some new partners and a new Commission Project Officer. Having been held back by negotiations, Phase II got underway with a pivotal multi-disciplinary concertation meeting in London, and the open Summer School in Limerick. Partners are now attacking the inter-disciplinary barriers as never before, and doing so in very practical ways, not least of which is the strategy of asking 'stupid questions' of other disciplines that of course turn out not to be so stupid when their probing leads to 'eureka!' moments of enlightenment.

The formal Research Exchanges, and informal individual collaborations are now beginning to bear fruit, while the whole environment for Digital Ecosystems is growing in awareness and participation as exemplified by the IEEE and ERISA events, which bring Digital Ecosystems to a wider audience.

As a research Network of Excellence, OPAALS is growing, both numerically and in terms of its maturity and self-awareness. It is exciting to be at the forefront of a major technological, scientific, and societal change that I believe will eventually go down in history as the phase of the Internet revolution that had the most impact on society.

Hello from the new Project Officer - Dr Florent Frederix

Dear reader,

As the new project officer of OPAALS it is a little too early for me to give a personal appraisal of the work done by the consortium so far. However, the establishment of a multi-disciplinary network of research excellence to develop the science and technology behind Digital Ecosystems is something that can count on my full support. This because I have experienced myself how much academic support for UNIX in the past contributed to today's information society. Not only has the UNIX example shown that this approach unleashed creativity, visible in the format of an almost unlimited functionality compared to other commercial operating systems of that time. This process also educated many more university students in computer science than ever before resulting in a big impact on almost all activities of today's society.

Let me close my welcome with the words that it would be nice if the same could be said about this multi-disciplinary network of research excellence that aims to develop the science and technology behind Digital Ecosystems, 20 years from now.



Florent Frederix

Biographical note

Dr Frederix has an educational background in Electronics, Computer Science and holds a Doctoral degree in Economics.

Before becoming a member of the EU commission in 2001 he spent 20 years in the Information and Telecom industry. During the second half of the 1980ies he was R&D co-ordinator of the team that developed the AESTHEDES computer aided design (CAD) system. This CAD system was named in 1989 by the referential Seybold report "A world leading line art design system". In the 1990ies he joined Alcatel and became research programs manager at the Alcatel Microelectronics business division.

He currently heads the RFID sector in the Networked Enterprise and Radio Frequency Identification unit of the Information Society and Media Directorate-General of the European Commission.

Regions conference headlines Digital Ecosystems



Welsh First Minister Rhodri Morgan addresses 250 regional delegates in Cardiff

Regions ask 'What are Digital Ecosystems?' as they dominate a major European regional economic development conference for the first time.

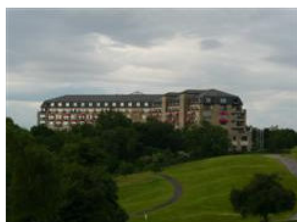
"So what exactly ARE Digital Ecosystems?" was the question on the lips of many regions arriving at their European Regional Information Society Association (eris@) conference in Cardiff, Wales, in June. Digital Ecosystems was the headline attraction and dominated the conference both in terms of presentations and exhibitors, but was relatively new to many delegates.

This was one of the first major EU regional development events where Digital Ecosystems was the major theme, and predictably there was some confusion, and not only among delegates, as to what Digital Ecosystems are and are not. While it is frustrating from our more technical perspective to see the terminology mis-understood, or even downright hijacked, this is a good indicator of growth and the esteem in which DE is now held. There was a strong sense of a growing regional awareness of DE as a major economic development tool, and understandably everyone wants a piece of the action. From new consultancy companies to Microsoft, exhibitors were showing their DE offerings. From online communities to deprived localities, presenters sought to attach their message to the DE train that was so evidently getting up steam.

The conference took place in the up-market golf resort of 'Celtic manor' where it was efficiently organised and included an exhibition area. More than 250 delegates heard almost 40 speakers during the two days. Specific DE cluster projects were shown and Peardrop and Transform had their own parallel sessions. There were also special sessions on e-crime and broadband roll-out.

About ERISA - eris@ is the major European regional network association committed to supporting members' regional economic and social development through the tools of the information society and ICT-based innovation. As such it is a valuable partner in spreading awareness and linking development with end users.

See the eris@ conference [website](#)



The large and impressive venue



Delegates enjoy a bus tour



ERISA CEO Gareth Hughes

News

Rome conference proceedings published

As the last newsletter went to press, preparations were underway for the first OPAALS public conference. Held in Rome in November, the event drew a wide cross-section of presenters from OPAALS and beyond, and more than 20 papers were presented during the two-day event. As this was only the third occasion that the OPAALS participants had met each other since the kick-off meeting and General Meeting of March 2007, the atmosphere was one of an exploratory workshop, often revealing details of a partner's work for the first time, and describing much work that was still in progress.

The output of the conference was a deliverable that gives an explanation of Digital Ecosystems plus the full technical conference proceedings. You can see it [here](#).



The first OPAALS conference

Summer School now available on video



Brian Fitzgerald welcomes delegates to the University of Limerick

The two-day OPAALS Summer School was held in Limerick, Ireland in June. Hosted by OPAALS partner University of Limerick on their very attractive greenfield campus, the good weather and social programme added a relaxed holiday feel to what was also an intensive dialogue between the disciplines.

Questions and challenges were much more frequent than in more formalised events, and these initiated lively dialogue that contributed greatly to inter-disciplinary understanding. With a touch of foresight, UL arranged for the sessions to be videoed, so you can replay the entire event, including the discussion sessions. The only censored part being Gary Gaughan's impromptu Irish Dancing during the evening social.



Paolo Dini opens the proceedings



The entire event was videoed by the University

Subjects covered include:

- *The Construction of Order*
- *Mathematical models of autopoiesis*
- *P2P Networks, Computer Models and Social Science*
- *Online Conferencing*
- *Associative Systems, Language & Power*
- *Transaction Models*
- *Systems Theory & Autopoiesis: Strengths & Weaknesses*
- *Trust, Identity and Accountability*
- *DE and Regional Development: The Hard Facts, Policies, & Economic Models*
- *OSS 2.0 and Open-Sourcing*



Summer school venue

See the complete programme and videos [here](#).

Feature Article

From Facebook and Flickr, to Social networks of SMEs, journal article sets the style

The journal eStrategies, which is aimed at those responsible for shaping organisational ICT policies, recently featured an exemplary article on Digital Ecosystems written by Robin Mansell and Paolo Dini of LSE.



This article is unusual in that it has to appeal to readers who are not technicians, or entrepreneurs, but are technically literate and business savvy. It does this by beginning from known territory, with "A transformation of the web from a distributed and interconnected information repository to a platform for social networking and content sharing is underway - Web 2.0". It then goes on to relate DE to business needs by saying "The characteristics of SME business transactions indicate the need for an open infrastructure that is interoperable and allows enterprises to move freely in the market, avoiding lock-in arising from market failure, information asymmetries, uncertainty and high risk." Finally it concludes with the money message - "The expected benefit is that these firms will contribute more effectively to a dynamic marketplace and to sustainable economic growth in Europe".

Robin Mansell It is a good example for all OPAALS researchers of how to write for a sophisticated, but less technical audience. See the full article [here](#) (pdf)

news by work package

WP1 Automata Theory and Autopoiesis

Second year sees two mega-deliverables

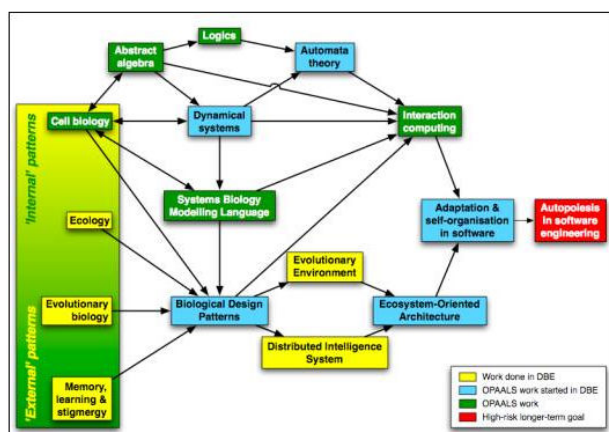
Paolo Dini

A long time ago, in 2003, in the first few pages of the DBE proposal text, we wrote the following:

The Digital Business Ecosystem (DBE) project aims to provide an open-source distributed environment that can support the spontaneous evolution and composition of software services, components, and applications. We believe there is much to be gained from basing the complex and distributed software technology that the DBE will require on design principles and theoretical models derived from the physical and biological sciences. ... The emulation in software of the apparently simple mechanism of evolution requires an in-depth understanding of the structural principles and dynamical processes upon which it is based and a strategy for translating these principles and processes from physical and biological systems to information systems.

These statements described only half of the problem addressed by the DBE and OPAALS projects, the mechanical or 'non-human' part. WP1 is still chiefly concerned with this part.

In the second year of OPAALS WP1 has focussed on the production of two 'mega-deliverables', D1.1 and D1.2, in which progress towards the solution of the problem as stated above is beginning to be seen in the form of ideas and formalisms that transcend computer science and software engineering as we understand them today.



Overview of WP1 in OPAALS and beyond

The role of dynamical systems started to be described in the DBE project. In OPAALS, D1.1 reviews the DBE EvE architecture and reports on a fair bit of abstract algebra, which is important to lay the foundations for an innovative approach at bio-computing. D1.2 contains a broad-ranging context-setting introductory chapter, three chapters on cell and evolutionary biology, one chapter on mathematical systems biology, a chapter on autopoiesis in the social sciences, and a preliminary synthetic chapter on our current view of the structure of (associative) autopoietic digital ecosystems. The 'Associative' part will be explored in greater depth in D12.1. The figure above (taken from D1.1) summarises our current understanding of the areas of research needed to achieve the goals we set in 2003.

WP2 Automatic Code Generation From Models

Focus on prototyping

by Thomas Heistracher

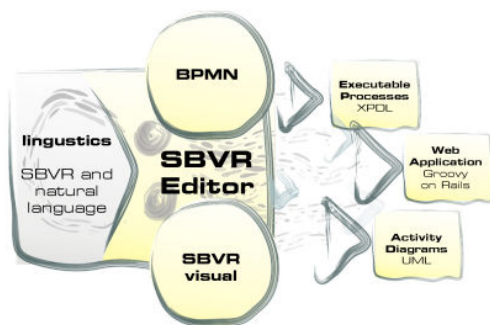
The automatic creation of executable components and workflows from specifications in natural language is the scope of WP2. In the past year, the focus of research was on prototyping of various scenarios of code structure and workflow generation as well as the implementation of a web-based SBVR-editor component.

The first real-world application examples for workflows were extended and developed towards a service-based architecture. The most promising candidate for code structure generation was prototyped as SBVR-transformation to stub code based on the Grails platform. These prototypes can be seen as first proof-of-concepts towards generation of workflow behaviour at runtime out of declarative SBVR-models.

In parallel, activities were conducted in the area of user interfaces by adding a natural-language to SBVR processing component – which utilizes algorithms from the linguistic group from partner UniKassel – and by extending it via the integration of WordNet.

The currently proposed architecture is planned to be service-based and to provide the possibility to dynamically add additional functionality. The benefit of this approach is (i) the independence of the underlying software infrastructure and (ii) the aspect that the effort for migration is foreseeable.

The research results so far were incorporated into D2.2 – Automatic code structure and workflow generation from natural language models – which integrated work and efforts from several partners.



Sepiax overview (see also www.sepiax.org)

WP3 Autopoietic P2P Networks

What, not How: from Sterile to Generative

by Paul Krause

Good progress continues to be made in WP3 on the development of support for collaborative business transactions amongst SMEs, and the associated underlying Peer-to-Peer Network. In addition, a focus is emerging on the “front-end” of the service request-response chain. Current practice is to use a predefined Business Process to identify how to respond to a particular service request. The problem with this is that although a “virtual organisation” may in principle have the resources to respond to a novel service request, they will not actually be able to respond to the service request unless a business process has been predefined.

In contrast, the OPAALS is to use a “declarative” approach to specifying both what the consumer requires, and what each resource in the collective pool of resources from the SMEs provides. When a consumer makes a request, a service response is then dynamically generated from the pool of resources. It is possible that more than one response is possible that will satisfy the consumer’s requirement. In which case, the consumer may select their preferred response, which will then be passed on to the OPAALS transaction manager to deliver the required outcome.

WP4 Distributed Accountability Identity And Trust

This WP has now been incorporated into WP12

WP5 Integration With DE Infrastructure

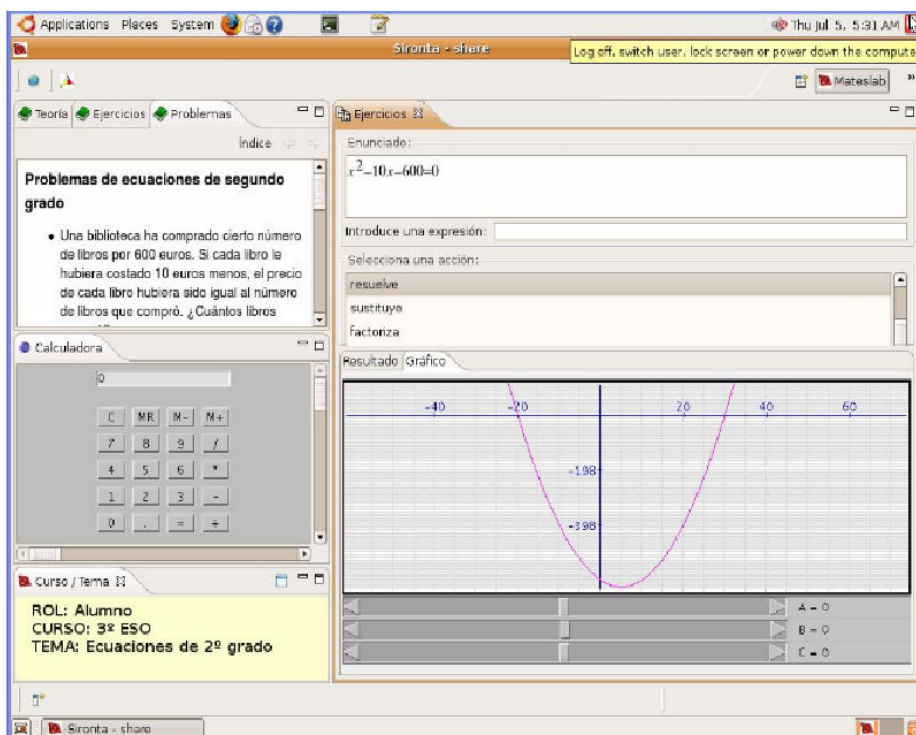
Easing installation and maintenance

by Jesús E. Gabaldón

A great deal of re-engineering work has been done during the second year in order to integrate the ServENT into the OKS Desktop, also including the integration of new services and applications. The appearance and usability, as well as the overall performance of the Desktop, have also been significantly improved.

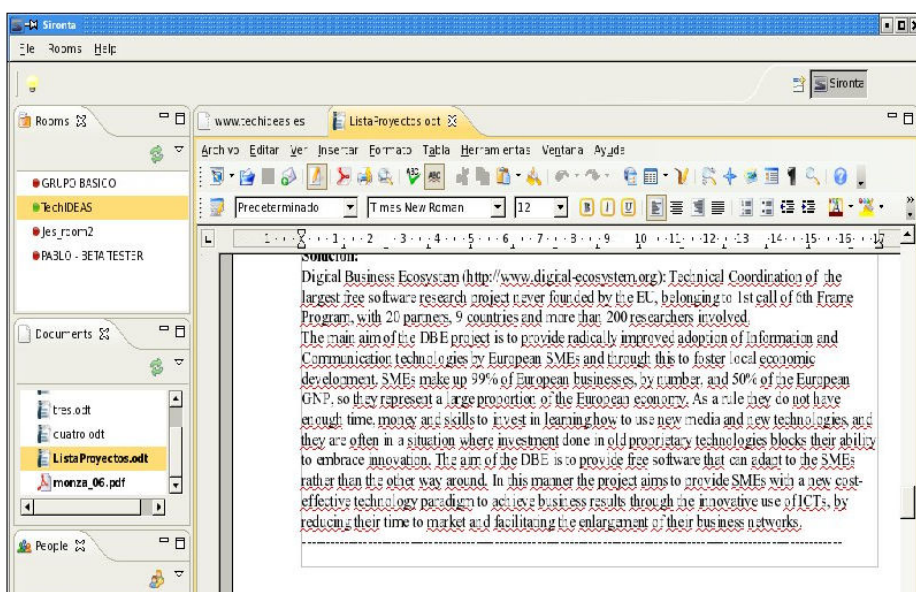
The re-engineering of the Desktop will definitely ease the installation and maintenance of the ServENT. The latter will be more easily deployed on different platforms, including Windows, Mac and Unix/Linux.

At the same time Techideas will keep on supporting companies and regions setting up their own Digital Ecosystem (DE) infrastructure, not only in the context of the OPAALS Project, but also as a Coordinator of the DEN4DEK Thematic Network, launched in June 2008 <http://www.den4dek.org> with the objective of establishing a European Network of Digital Ecosystems. As a technical partner, Techideas is fully committed with these goals by developing the OKS Desktop, which is most powerful tool for knowledge sharing within the DE Network.



Screenshot of the OKS Desktop showing a collaborative application developed to teach mathematics at primary and secondary schools.

It includes an algebraic equation solver, shared file repositories, etc.



WP6 Socio-Economic Constructivism And Language

Reconciling social and computational challenges

by Frauke Zeller

The importance of language/communication and its role as an intermediating connecting point between the different currents of the social science domain and the computer science domain have been crystallized during the formation of the OPAALS community. The tasks in WP6 therefore have a strong integrative impetus, focusing mostly on language and its computational aspects and challenges, but also taking into account the social dimension.

One example for the integrative and incrementally inter-dependent work conducted in WP6 is the aspect of domain specific languages. In Phase I, the different forms and patterns of discourse organisation in epistemic cultures were discussed in T6.1, where language was depicted as a vehicle for knowledge construction and dissemination, affected by the challenge of the different domain specific languages regarding the development of an interdisciplinary dialogue.

Task T6.2 started in Phase I then with a linguistic and computational discussion of metaphors, representing one example of the complexity of natural language. Metaphors are not only part of our daily-life communication behaviour they also permeate experts' communication patterns, i.e. the communication set of different research and institutional domains.

In Phase II and also Year II, the work conducted on metaphors is being continued, and another domain specific aspect is being added by addressing the semantic level for dynamic service composition in the field of business negotiation and contractual automatised processes in the Digital Ecosystems in task T6.8. The semantic level of natural language is also addressed in task T6.9, focussing on multilingual semantics in open knowledge systems.

One of the important aspects of research within the WP6 is the development of a theoretical model of language change and variation in Digital Ecosystem that directly supports the work/design/development of such systems by giving a profound understanding of the underlying forces and processes (task T6.6).

Some exemplary implications of WP6 are:

- (a) Linguistic concepts for DE: socio-constructivist manifestations in DE.*
- (b) An applied metaphor model (metaphorology) as exemplary approach to harvest the linguistic richness of DE and develop a computable environment for languages and communication in DE.*
- (c) Studying practical and theoretical implication of the evolutionary framework of (formal) languages.*
- (d) Linguistic analysis of textual information.*
- (e) Knowledge visualisation: formal concepts of interpretation logics and interpretation ontologies.*
- (f) Applied community and knowledge dissemination: multilingual semantics in open knowledge systems for agricultural communities of practice.*
- (g) Methodologies for tacit knowledge: analytic and synthetic approaches for integrating tacit knowledge in digital ecosystems.*
- (h) Applied methodologies for dynamic service composition in the field of legal language(s).*

WP7 Community Networks And Digital Ecosystems

This WP has now been incorporated into WP11 and WP12

WP8 Open Source And Open Knowledge

This WP has now been incorporated into WP12

WP9 Communication And Dissemination

Gearing up in phase II

by Neil Rathbone

WP9 aimed to provide only basic activities under Phase I in terms of generic marketing materials and a web site. As the project advances into Phase II and generates research outcomes, the work of WP9 becomes more advanced, more specific, and more integrated, involving a newsletter and collaborative open publishing, as well as liaison with the other Digital Ecosystem cluster projects.

WP9 is also closely linked with WP10, specifically the OKS, which will increasingly provide the primary source of communication and dissemination content. The Web site has been technologically linked to the OKS. This link uses wiki pages within the OKS that hold the page content that is to be published. This means that any appropriately authorised member of the OKS can provide and edit published content within the OKS, that will automatically appear on the web site. While the content is under the control of project participants, the look and feel is determined by the introduction of 'style sheets' that determine the layout of specific types of content. The Web site was also extensively updated to reflect changes and additions to the project. In addition a legal and privacy policy has been drafted, ready for publication. A file repository was created as part of the Web site and other DE cluster projects are being encouraged to upload their public results and deliverables into this enduring common space.

The 'Guigoh' social network and conferencing system was tested and feedback given from the communication viewpoint, and the first external use of a variation of the brand identity was implemented to link OPAALS to the [Evolutionary Environment simulator](#).

New tasks

As a result of Amendment 3 of the Technical Annex, the following tasks were created/transferred in WP9 during month 20.

Dissemination knowledge capture (Task 9.6) - The dissemination of knowledge from a NoE has in itself generated knowledge of a 'how-to' nature. It was decided to capture and publish this knowledge as an additional formal deliverable in month 32.

Network exchange of experience (Task 9.7) - The researcher exchange scheme was transferred to WP9 as it forms a part of communication and dissemination. The first deliverable (9.1) reporting on the exchanges can be read [here](#). (pdf)

OPAALS Community Enlargement (Task 9.8) - This task of enlarging the user community by engaging with regions was transferred to WP9 as regions are more closely connected and aligned with end users than with research.

WP10 Sustainable Community Building

New perspectives on the Open Knowledge Space

by Paolo Dini

In the second year of OPAALS the focus of WP10 moved from social science to computer science, as we were supposed to start building the Open Knowledge Space on top of the digital ecosystem architecture. This work was however delayed by a request from the EC to examine closely and assess from the point of view of social science the current/latest understandings of the DE architecture, which aims to realise a fully web-based approach. This analysis was done as a collaborative effort between social scientists and computer scientists and is reported in D3.6.

In parallel, the TI partner moved forward with Sirona, their downloadable OKS Desktop Java application integrated with the ServENT. The issue is to what extent a web-based approach can fulfil the requirements of a full P2P architecture, vs. the ease of use of a Java app and the challenge of its deployment on different kinds of devices. These points have partly been addressed in D3.6 and partly are still under discussion. As a consequence, the implementation and launch of the OKS, along with its underlying P2P network, are still in the future. We hope to achieve them by the end of Year 3.

Other activities that have begun or are progressing at a good pace within WP10 include the development of a semantically searchable distributed repository, based on the Lucene search engine (led by IITK, WIT, TUT, SURREY); TUT's OKS visualisation work; a collaboration between SUAS, IPTI, and TUT on the visualisation of social networks and of the OKS infrastructure through a porting of SUAS's EveSym to the OKS; a sizable effort in constructing OKS knowledge models and tagging tools (IITK), the development of a DE/OKS Appliance (IITK), a theoretical study of OPAALS interdisciplinary research (UniKassel), and a reflexive empirical study of all the empirical tasks of the project (UniKassel).

There are then two new developments concerning the OKS. Firstly, IPTI will carry forward the task of developing a fully P2P, web-based OKS, in close collaboration with SURREY. Secondly, Anne English, who has been working in the DE community since the beginning of DBE, will start working as an LSE sub-contractor on a new task called "Open Knowledge Space Catalyst", in which she will facilitate the development of the OKS by interacting directly with all (well, most) of the OPAALS researchers and their deliverables. Her role will be to facilitate the knowledge flows and collaboration patterns and opportunities, with an eye to how then all of these will be represented/formalised in the OKS itself. She will oscillate between an analytic role to question the research itself, in order to 're-mediate' it, and a synthetic role to help create representations and to guide the emergence of the interaction design environment of the OKS. Her role will mediate the interactions between social science, computer science, natural science, and design perspectives on the OKS.

WP11 Bridging DE Research to Regional Development and Innovation

New tasks and new partners seek to relate research to the real world

by Lorena Rivera León

WP11 aims to develop a methodology that can bridge the necessarily theoretical deliberations surrounding the concept of Digital Ecosystems with the practical concerns of regional development policy, in the context of the Knowledge Economy. WP11 is the first step towards bridging the gap between the DEs research community and the world of policy-making.

Research activities of WP11 started in Phase II in M19, integrating five research Tasks. The general progress of the first six months of research was to delineate the research agenda and research plans through the description of goals, methodologies, challenges and theoretical frameworks. This first step was particularly important for WP partners since two of them, CAM and NUIM, joined the OPAALS community in Phase II. Integrating the research schemes constituted thus a big challenge, especially because the WP deals with more practical discussions linking economics of development and policy-making with the current discussions of the OPAALS community. The research convergence effort got concretised in D11.1 that integrates a collection of different Milestones produced by each WP partner.

As an overview, WP11 deals with the following research discussions. T11.1 (NUIM) is oriented towards the identification of the potential role that DEs have in the innovation process of SMEs, focussing on the social and spatial structures of collaboration and knowledge flow. T11.2 (CAM) aims to discover whether the European IPR system as it stands inherently fails the firms and if there are alternatives to patents for stimulating innovation in SMEs. T11.3 and T11.4 (IITK) study the question on how to accelerate the knowledge-driven growth model process of collective learning and the knowledge creation processes in agricultural economies; looking firstly at the structures of communication and collaboration among actors in Indian agriculture; and then, on how the OPAALS framework could be applied as a social innovation network. T11.5 aims to develop a Multi-stakeholder policy framework for regional development pivoting first on the development of a methodology for assessing the socio-economic impact of DEs deployments: the Digital Ecosystems Impact Index (DEII).

We are confident that, although full convergence and integration is a long-term objective that will need extensive research exchanges and deeper analyses, WP11 partners are on the right path for fulfilling the overall objectives of the WP.

The following Table summarises the research agendas to be developed in the following months within WP11.

Task No.	Task Name	Research Design/Methodology	Case-studies/sectors and/or applications
T11.1	Social and spatial structures of collaboration and innovation in the Knowledge Economy	Multiple case-study design as defined by Yin (1993, 2003); concern with context (multiple sources of evidence that can be quantitative or qualitative). Data collection method: "innovation biographies"	Modern Biotechnology and Digital Media sectors in Ireland
T11.2	The role of institutions and IPR schemes in supporting intentional and unintentional knowledge sharing	Grounded Theory Method for Qualitative Analysis	Peterborough environmental industry and the Greater Cambridge knowledge-based cluster
T11.3	The knowledge creation process: structures of communication and collaboration among Actors in Indian agriculture	Grounded Theory Approach	Observations taken from the knowledge management project under NAIP, coupled with frameworks and conceptual variables extracted from literature
T11.4	The Dialectics of an innovation network applying the OPAALS framework in the context of Development	Dialectical inquiry as a method of socio-technical research (derived from the work of Chrchuman, 1971)	Longitudinal ethnographic studies of two parallel models for knowledge acquisition, storage, value addition and dissemination in Agropedia (classical "paid-for" model and "co-creative and contributory" model); in terms of output, outcome and impacts
T11.5	Multi-stakeholder policy framework for regional economic development through Digital Ecosystems	Impact assessment studies through the 'before-after' approach of project impact assessment (1), methods of valuation of tangible and intangible goods from Value Network Analysis (2), and Multiple Account Cost-Benefit Analysis (3).	To be defined

WP12 Socio-economic Models for Digital Ecosystems

Combining WPs and integrating research

by Maha Shaikh

The objective of WP12 is to link the autopoietic ideas emerging from WP1 with the systems theory concepts from WP12 and partially WP6. In this workpackage we focus on socio-economic models with a distinct systems theory flavour. WP12 is a combination of what in Phase I used to be WP7 and WP8, and thus retains its strong emphasis on building a theoretical basis for the social science strand of OPAALS. Most tasks in this workpackage revolve around the application of theoretical ideas to the development of socio-economic models and understandings, with some empirical input, thus leading to a better understanding of both practice and theory.

An integrative workpackage, WP12 brings together diverse but highly linked concepts of community currency, business models, open source business models, inner source adoption by firms, governance of digital ecosystems and the knowledge produced, and how digital business ecosystems build and sustain trust. The tasks in this WP complement each other and the idea is that the research of each will add to the integrating of not only this WP but also show how WP12 and WP11 are connected. Whereas WP12 provides the theoretical basis for the social science strand of OPAALS, WP11 uses those concepts in their practical implementation of socio-economic development policy i.e. what are we going to do in practical terms to achieve the DE vision. Thus WP12 is central to the social science element of OPAALS. The overall progress of WP12 is good. OPAALS meetings at Surrey, LSE and UL (Summer School) were a constructive step towards consolidating the work in this workpackage.

Diary dates:

2nd Project review

Brussels, Belgium, 17 - 18
September 2008

Led by our new Project Officer, Florent Frederix, a revised review panel will assess the OPAALS deliverables and listen to detailed presentations of the project's work. Reviews are important milestones in the project's life, assessing progress against plan and value for money. All OPAALS partners are expected to attend. There will be joint preparation days on the 15th and 16th at the University Foundation Club in Bruxelles (<http://www.universityfoundation.be/en/>). There will also be a working meeting with IPT1 on the 19th as they will be travelling from Brazil.

The 2nd International OPAALS Conference on Digital Ecosystems

Tampere, Finland, 7 - 8
October 2008

The 2nd International Conference on Open Philosophies for Associative Autopoietic Digital Ecosystems (OPAALS) will be organised on 7th and 8th October 2008, in Tampere, Finland. The theme of the conference is Interdisciplinary Digital Ecosystems Research and the associated fields related to Social Science, Computer Science, and Natural Science. The OPAALS 2008 conference is organised by the Hypermedia Laboratory of Tampere University of Technology (TUT), as a partner in the OPAALS Network of Excellence (FP6-034824). The conference is organised in association with the Mindtrek Conference and the W3C Finnish Office. Papers are still invited for the conference. For details see the conference [web site](#)

3rd IEEE International Conference on Digital Ecosystems and Technologies

Istanbul, Turkey, 31 May -3
June 2009

The main conference theme is to strengthen ICT to support different digital ecosystems, especially focusing on cyber engineering and human space computing. It is the study of triangle relationship between industries, human endeavours and advanced ICT. See the conference [web site](#).

Useful links:

[OPAALS Website](#)
[OKS Wiki](#)
[Work Packages](#)
[File repository](#)
