E- collaboration in research projects promoted by the European Commission

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Abstract

The present review traces a brief chronological history of the digital collaboration communitarian programs, defined as e-collaboration or e-work by the European Commission. DG Information Society coordinates and manages the research and innovation programs at European level. Its information agency, CORDIS, the role to monitor and to evaluates the best proposals of this sector The Framework Program represents the principal instrument of the DG to test purpose information society policies. Digital collaboration was one of the selected theme within the Work Program over the last few years together with the promotion of an information and technology society from 2002 – 2006 policies. Some of the projects with innovative transferability features were acknowledged by the DG Information Society as good practices and they will receive a particular attention in the present review to highlight the objectives and activities financed by the European Commission on digital collaboration.

The topic of digital collaboration at European level was introduced in policies favoring scientific innovation, within the Sixth Framework Program (2002-2006). The Information Society Technologies (IST) priority of the Sixth Framework Program has the aim to investigate the boundary of digital collaboration and to verifyits usefulness, giving rise to a number of projects in the field of e-collaboration.

But what does the term e-collaboration mean for the European Commission and specifically for the DG Information Society which directs these research sectors? At the start of the year 2000, e-collaboration was still an unexplored territory at European level. The Commission came to focus on the theme of collaborative work dimensions because it considered network cooperation a

way of "nurturing creativity and valorizing European diversity and believed this to be an instrument to raise the innovation levels in Europe"[1] as declared by the scientific officer of the "new work environment" Unit Prof. Isidro Laso of the DG Information Society, during the conference on *R&S Challenges for Collaborative Work Dimensions* held in Brussels in June 2003. This conference analyzed and discussed digital collaboration through single initiatives promoted by private enterprises chosen by the European Community as the first experiments on digital collaboration. According to the European Commission (EC), the principal element that promotes network collaboration is accessibility, or rather, the effort to simplify for all the access and use of the Web. Easy access in this first phase, means having the possibility to use Internet at reduced costs and through fast (not only wireless) technologies. As a matter of fact, the definition of accessibility in the sector of Information and Communication Technologies (ICT)[2] evolved only in 2005. But until then, according to the EC, digital collaboration was nurtured through easy access to the Network. A greater number of people meeting on the Network would mean greater possibilities to create conditions for collaboration. The other aspect that determines policies and theoretic levels for European strategies is the fact that the Commission wishes to focus its own efforts not so much on innovative technologies, that are advancing rapidly and which can be managed more efficiently by enterprises, but rather, on future technologies and forecasting activities. There is the conviction on European level, that e-collaboration cannot be nurtured by technological progress alone, but through diffused accessibility to the Network and by stimulating private enterprises to participate in the advancement of informatics instruments. The Commission's task lies in defining what is intended by digital collaboration and the modalities to be used in order to implement and to promote it.

The European concept of private individuals taking greater interest in experimenting digital collaboration through relevant experiments for the creation of new link-ups and communication networks, was in this phase widely supported, as the speeches given at the June 2003 Convention demonstrate. To underline the importance accessibility holds for the European Commission, we are highlighting among other projects, the experience of a telephone company in the promotion of wireless communications: the Wireless & Satellite Network SA (WSN) which in 2000 - 2003 financed wireless access to the Internet for the entire city of Zamora in Spain (a few kilometers from Madrid). Beyond the benefits this project gave to the single community of Zamora, in this first programming phase referring to the question about what digital collaboration

1 http://cordis.europa.eu/fetch?CALLER=EN_NEWS&ACTION=D&DOC=1&CAT=NEWS&QUERY=011f13315648:e277:7bc6005b&RCN=20487 (like all the other urls in the other footnotes, this was checked on December 10, 2008).

2 European Commission (2005), Communication on eAccessibility. COM425 Brussels

is for the European Commission, it found its answer in the fact that a greater number of people accessed the network, thus fulfilling one of the basic requirements in creating the conditions for future collaborations between internet users. To ensure not only the involvement of the private sector in guiding and supporting the empowerment of digital collaboration, the EC decided to promote the participation of Public Institutions in network accessing procedures, making them the first beneficiaries of the wireless network. Through University research centers, facilitation was also extended to all those who through research have to direct their own studies towards the conceptualization and creation of systems and applications in support of e-collaboration. The research group assigned by the Commission itself with the task of analyzing the essential prerequisites for effective network collaboration affirmed that digital collaboration between entities cannot be achieved only by strengthening the infrastructures and communications systems. The e-collaboration research team through Jonathan Sage, IBM expert in charge of guiding communitarian work programs, speaks of the possible risks that may arise from contributions to digital collaboration only through the creation of new portals and instruments for knowledge management. The underlying risk consists in failing to achieve effective results because the needs and expectations of single citizens have been overlooked or omitted[3]. Because of this, the EC encourages local institutions to participate in the Research Programs, and become the mouthpiece for transparent communications with their own populations by focusing on the potentials of ICT in administrating and handling their own institutions. This is how the specific measures of the IST program started, dedicated to electronic Government[4] that aims at improving the visibility of services offered by the Public Administration through the network, and supplying public sites with opportunities and free access to the network for personal use.[5] According to the EC, the other fundamental aspect of the Framework Program (2004-2006) is digital collaboration between Scientific Institutions (University Research Centers) and private enterprises. To this end, it publicly announced a series of programs in which the basic requirement for the creation of project partnerships is the participation of private enterprises. Above all, the consortiums of the Seventh Framework Program (2007-2013) composed mostly of research centers and private enterprises, investigated the methods and instruments necessary for the implementation of effective digital collaboration. From the first phase of the European Program where digital collaboration was promoted exclusi-

3 http://ec.europa.eu/information_society/activities/atwork/hot_news/eventspages/2003_06_infodayapplications/index_en.htm

4 Council Decision 2002/835/EC (2002) "Integrating and strengthening the European Research Area" (2002-2006) Official Journal L 294 of 29.10.2002, Brussels.

5 http://cordis.europa.eu/fp6/projects.htm (checked on December 10, 2008).

vely through the strengthening of infrastructures and innovative technologies, to the birth of specific financing channels dedicated to scientific research in the technological field, e-collaboration is now considered a work method and necessary prerequisite for research in the sector of New Technologies.

Some of the financed projects in the Research Management Program

The projects of the Sixth Framework Program for the years 2000-2002 and especially the IST dimension, had the objective of "developing the future generation of collaborative environments, enhancing creativity and increasing innovativeness and production aimed at encouraging spontaneous collaboration between different individuals in virtual and *knowledge-rich* work places." Those invited to participate were from both the private and public sectors, but very few private enterprises committed themselves to the research work program or managed to take part in the studies and works of the Universities and Research Centers. The first project chosen in this review is an example of the existing network between University Research Centers at European level. The GEANT project started in 2000 and ended in March 2005. In reality the project is still active and growing today through other communitarian financing. One of the project objectives[6] that gave life to the GEANT network is: fast and easy communication between network centers, because of data transfer protocols adopted by each member partner. The network's first experimentation stage (2000-2002) resulted in a consortium of 26 partners which brought about exchange between researchers and teachers for an initial period, through the use of learning and updating platforms and the use of human resources with research mobility contracts. The promoter of the project is a nonprofit group, DANTE (Delivery of Advanced Network Technology to Europe), based in Cambridge University. The project is currently financed by the Sixth Framework Program and has widened its network to Research Centers and Universities not adhering to European Programs intended for developing countries. Likewise, the ALICE project, a member of the GEANT partnership with DANTE consortium as coordinator, provided for the constitution of a network in Latin American countries, to promote university research and reduce digital divide. The source of financing is always communitarian but of a different nature, for the benefit of international cooperation[7]. ALICE's project site shows the map of easy and fast connections for 12 Latin American countries[8].

Within the scope of the Sixth Framework Program, in the sector of scientific research (biology, earth science, and renewable energy) a project called Euindiagrid[9] was created by a network of 500 organizations, among which were

6 http://www.geant.net/ (checked on December 10, 2008).

7 http://alice.dante.net/

8 http://alice.dante.net/server/show/nav.1098

9 http://www.euindiagrid.eu/

Public Institutions, Research Centers and Industries belonging to a vast area of the Asian Continent (India). The project aimed at putting Public Institutions in contact with private parties, and is a first example of the attempt to speed up and simplify dialogue between public enterprises and universities. The project practically created a "consortium" which, through the network (represented by partnerships in adopted communications systems), carries on an exchange between industry and research, allowing researchers of Research Centers and Universities in Europe and Industries of Asian countries to work together on common projects. The project is now underway and in February 2009 held an international meeting on the theme, "Digital Repository"[10] organized by ESA Italia.

In the music industry and for socio-cultural aims, the MULIMOB11 project financed by the Sixth Framework Program, established a network of individuals involved in teaching music and foreign languages, companies of the record industry, major communication companies and cellular phone providers, to promote the learning of European languages and cultures through music. The project and its highly innovative objectives ended in 2005. In this project digital collaboration was presented only at a level of cooperation among individuals, partners and the common use of portals and communication instruments for the production and diffusion of ideas. The site (http://www.mulimob.org/demouk.swf) displayed the software produced for the project.

The repository gave access to information resources on musical events, biography of artists, detailed information on music types with specifications on where concerts are held, and upcoming musical events. The project site was presented in three languages and used a series of published resource material. The objectives of the MULIMOB were wide-ranged and innovative, whereas the results seemed to reach a limited level of innovativeness and were confined to the local reality of the leading party which promoted the project. Nonetheless, this was a good attempt to implement collaboration between public and private institutions in the field of production, and the archiving and diffusion of musical products in digital form.

As we saw in the Sixth Framework Program, e-collaboration was a way of creating synergy between universities and research centers and at a second stage, tried to create collaboration between research institutions and private enterprises: the potentials of digital collaboration were at this stage limited to a level of mere exchange of communications. In the Seventh Framework Program, digital collaboration acquired a level of operational collaboration mostly addressing the creation of communications systems, data archiving and information delivery to allow a greater degree of experimentation with

10 http://www.congrex.nl/08M16/

11 http://www.mulimob.org/index.php

the consequential collaboration between parties with financed projects. The medical/sanitary research sector in the seventh program is one of the biggest sectors that applied for participation. This is the case of the E-lico[12] project, financed in the seventh program. The project belonged to the unit dedicated to "semantic intelligence and content" in the "collaboration" axis of the subprogram, its primary goal being the construction of partnerships among parties of the same sector, but of different geographic areas. The partners making up the E-lico project's main resources are six European countries (France, Switzerland, Greece, Finland, England, and Germany) represented by private firms, mostly faculties of medicine of local universities, and Research Centers. The project's objective is to create a virtual laboratory prioritized for interdisciplinary collaboration between researchers, technicians and experts of the sector. While the project targets the construction of a database to be used on the network for scientific research purposes in the field of medicine, on the other hand, it also targets the construction of innovative technologies to support medical research itself.

Conclusions

The chronological outline of this review has shown us that the term "e-collaboration" at levels of communitarian financing programs came into being with the Sixth Framework Program and especially with the IST subprogram. The development of the term "digital collaboration" was strongly conditioned by network accessibility. Because of this, at the start of the sixth program, e-collaboration was synonymous to communications and relationships between individuals. The prerequisites for such collaborations were defined only at a second stage, and focused on consortiums with the presence of public institutions and private enterprises as essential partners. Finally, at the Seventh Framework Program digital collaboration became not only a means of communicating, but a system for the management and sharing of knowledge among entities of different natures but united by a common purpose.

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12 http://www.e-lico.eu/

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