madri+d Forum

Conference, Jon Crowcroft: The Role of Europe in Internet Governance

5th June, 2008, the madri+d Forum on Communications Technologies was hosted by the Universidad Carlos III de Madrid (UC3M). The conference, “The Role of Europe in Internet Governance”, began with a presentation on the international research institute, IMDEA Networks, and was followed by a speech by Professor Jon Crowcroft, Marconi Professor in Systems Communications at the University of Cambridge.

The Area of Technology Transfer at the UC3M´s Scientific Park and the Madrid Institute for Advanced Studies in Networks (IMDEA Networks) co-organized the forum, as part of the 2008 Forums on Science and Technology. These Forums are a new initiative from the organization madri+d, which forms part of the Department of Education of the Regional Government of Madrid. This particular conference provided a platform for sharing experiences, advances and areas of interest in the field of network communications.

Who is Jon Crowcroft

Jon Crowcroft is the Marconi Professor in Communications Systems at the University of Cambridge Computer Lab, and also a member of the Wolfson College. Until the end of 2001 he was a Professor in the Department of Computer Sciences at University College London (UCL). He graduated from Trinity College, University of Cambridge, in Physics in 1979 and went on to achieve a Masters in Computing in 1981 and a doctorate in 1993, both from UCL. He is a member of the AMC (Association of Computing Machinery); the British Computer Society; IE[ET] (The Institution of Engineering and Technology); the Royal Academy of Engineering and the IEEE (Institute of Electrical and Electronics Engineers).

Professor Jon Crowcroft is currently on Sabbatical with IMDEA Networks. His main research interests are communications and multimedia systems, focusing specifically on the Internet.

What is IMDEA Networks

IMDEA Networks is one of nine Institutes for Advanced Studies created under a new initiative but the Regional Government of Madrid. It is to become a new institutional brand attracting both private and public support to science and directing research towards market demands.

IMDEA Networks strives for excellence in research on network, service and content technologies, which can be launched onto the world market. IMDEA Networks boasts a team of eminent researchers, leading technologies and resources and management and administration team who are dedicated solely to facilitating research. Its Board of Directors comprises of a panel of experts from the field of network technologies, which contributes to the institute's research objectives.

IMDEA Networks relationship with the Scientific Park of the Universidad Carlos III de Madrid (Leganés Tecnológico) enables close collaboration with business and industry in all of its activities.

Arturo Azcorra, Professor of Telematic Engineering at the UC3M and Director of IMDEA Networks presented the objectives and background of the Institute, emphasizing the development of the Future Wireless Internet as the main scientific objective.

Azcorra stressed the significance of the IMDEA initiative in promoting economic development in the region of Madrid, through promoting the transfer of scientific research to the business sector. The traditional separation between the academic sphere and industry has been a continual problem in Europe, which is in contrast to the United States, for example. The objective, to strengthen this relationship, will maintain and advance scientific development and thereby promote economic development.

Azcorra highlighted IMDEA Network's role as "an initiative which aims to be a meeting place" on many levels: a meeting of people, ideas, development and progress. The Institute's work strives to continually transfer scientific discoveries from the academic and research worlds to society. "Our contributions must focus on the production of services and products", said Azcorra. One of the key objectives, therefore, is that the ideas and technologies originating in the laboratories prove themselves in a visible and "real" way, as the solution to citizens' everyday problems through their practical application.

IMDEA Networks wants to create wealth and actively support its researchers' paths to the business sector. "We want to create economic wealth in our own surroundings as we believe that this wealth would generate social wealth", affirmed Azcorra.

The institute has set our a clearly defined collaborations with economic, social, educational and research sectors, which each have a role to play in the development of Science and Technology. IMDEA Networks operates within the research sector, which works in isolation, but understands that "information technology is a decidedly globalized field", and embraces this reality and its diversity with an innovative spirit, to the point of being "disruptive".

Throughout his speech, Azcorra reiterated that the IMDEA Networks team's primary goal is to achieve excellence, a maxim echoed in the objectives declared by the Institute and supported by its strategic development plan.

By working in a team that respects the brilliance of every individual, emphasizes Azcorra, IMDEA Networks is aiming to become a global reference for network research. However, the Institute will not forgo its demand for quality in order to achieve this ambitious goal. "If, in order to achieve the best results we have to progress more slowly, then IMDEA Networks will grow at a slower rate", Azcorra affirmed. The inducement for researchers is the dynamic, open, innovative and international working environment, full of opportunities for both experts and students beginning their professional career or doctorate studies. The only requirement is excellence.

Jon Crowcroft, Marconi Professor of Networked Systems the University of Cambridge Computer Laboratory led the conference "The Role of Europe in Internet Governance", a topical subject for all those interested in the past, present and future of the Internet. He focused his speech on the search for a technical and “ungoverned” solution to problems rising from the rapid growth in the demand for this type of communication. As an expert researcher, Crowcroft expressed his view that this tool could be accessed by the planet’s entire population, but he also emphasized the need to depoliticize its regulation. “The governance of the internet is politicized and is not neutral”, he affirmed, although the situation in Europe is more favorable that that in the United States.

Cultural and economic factors are also causes of the current state of limited Internet access around the world. The principal factor is the inflated price of technological deployment, for example wiring. Also, the unfair distribution of technical means, due to the economic power of the richest country, which previously accessed such technologies and now are reluctant to share them, is a contributory factor. In contrast, the user focuses his interest more on the content that they can access and less on the technologies that facilitate their use. In this way, the users carry out international transactions on the web involving goods and services. “Since 2001, the internet has grown principally in service value: p2p, online games, social networks, etc.”

Crowcroft made it very clear that behind our habitual use of the internet there are political forces at work, as well as intense research. The technology which is currently in use (IPv4) has fundamental limitations owing to its origins. These were not anticipated by its creators, who did not expect that it would reach such extraordinary usage levels. Due to these questions, many doubts have arisen concerning the governability of the following spaces: addresses, names, protocols and services. The last two do not pose grave problems, according to Crowcroft. The diversity in the services space, for example, has provoked competition that is benefiting the user. For instance, they now enjoy the option to choose between different providers and prices. In this case the market regulates and promotes development through user demand: speed, band width, wireless connection, etc.

On the other hand, according to Crowcroft, the addresses and the names are limited and require short term solutions. In two years there will be no more available addresses (URL), which will have a massive impact on the world’s developing regions that are only now being incorporated into the web. This shortage is fuelling ever more interest in controlling and “governing” addresses. There is of course IPv6, which would solve the problem. However, its implementation and compatibility would incur an economic price too great for those very countries which currently lack address space. Crowcroft’s proposal is to carry out a global auction of these addresses, which, when rented or sold, would generate income to finance the technological change, the upgrade to IPv6. For example, the addresses could be rented to a region, only to be used during that region’s daytime hours.

In terms of the restrictions to using names when registering websites, this could and should be resolved, according to Crowcroft. For example, “Apple” or “Macdonalds”, which have brought law suits against those who have tried to use the same name for their website, should not have been able to register the name space. For Crowcroft, this situation should be avoided: “The multiplicity of naming spaces is very easy to accommodate”. However, the “simplistic” focus of those who “govern” the internet impedes efforts to resolve problems such as this, which need not become problems in the first place.”

Crowcroft emphasized that if there were to exist a valid technological solution for any situation involving a “conflict” over access to one of the four governing spaces (address, name, protocol or service) then the mere fact that it exists should guarantee it’s application. From a scientific point of view, those taking decisions that are restrictive for the user cannot have a detached role, such as politicians or lawyers. “In terms of the governance of the Internet”, said Crowcroft, “the problem is that the lawyers and rule-makers have taken all the power”.

During his speech, Crowcroft insisted on the need to facilitate the use, maintenance and growth of the internet, applying practical solutions and distancing itself from the political forces that

currently control it, “so long as everything works well”. Intervention in the internet should only take place in order to promote a more egalitarian space, be that for economic motives or otherwise. For example, access to the public is currently restricted in many areas of the world. However, as Jon reminded us, the expansion of the internet works like a market and as such must wait for the market to regulate itself without the need for regulation, although it does not always work that way.

After the Conference there was a question and answer session, moderated by Arturo Azcorra. As short-term innovative solutions are required immediately, the need was highlighted for an open debate on these. One thing researchers can do is work to share technical solutions and to avoid the politicization of the Internet and merely situational analysis.

The 2008 madri+d Forums for Science and Technology organize a series of themed conferences and seminars that provide a meeting space for the diffusion of science and technology being developed in the Madrid region. June’s Forum has been focused on communication technologies and in November will tackle the subject of information technologies. More information is available at:
http://www.madrimasd.org/informacionidi/agenda/foros-mimasd/programa/default.asp#