

OECD Ministerial on the Future of the Internet Economy

Leslie Daigle's participation in the Interactive Panel of Experts, 18 June 2008

It is said that “Those who cannot remember the past are doomed to repeat it.” In the case of the Internet, we should consider ourselves fortunate to repeat it, but that can only come from understanding the important lessons from the past.

Looking around this convention hall, and indeed throughout Korea and the rest of the world, we see plenty of evidence that creativity and innovation in technology advancement are alive and well. These physical manifestations of technical wonder will continue to amaze and astound us users for decades to come.

However, looking forward over the next ten years at the specific technical growth that will impact the Internet as the substrate of the so-called “Internet economy”, there are three key areas of technical development that deserve special attention: scaling, trust, and multilingualism.

“Scaling” can include everything from ensuring continued global addressing with a routing infrastructure can keep up, to supporting the many different uses and expectations of the applications and services, cultures and industries, supported by the Internet itself.

“Trust” encompasses the many facets of information sharing and security, identity and accountability required to provide an environment in which we can carry out our electronic lives with the confidence we enjoy in the physical world.

“Multilingualism” – providing support for multiple languages in an environment striving for uniformity, is a huge challenge. And yet, it is only the tip of the iceberg – as we need to support the very different needs and desires of the people speaking each language to provide an Internet that works for this whole planet, or successful localization without losing the value of integrated internationalization.

While those certainly sound like challenges (and they are!), it is important also to remember that:

- none of them can be address unilaterally – the Internet is an ecosystem, and as such it must evolve collaboratively.
- none of them can be tackled in the abstract – or else we have a science project, not an operational network supporting our real world economy. Instead, solutions in those areas will evolve as specific needs drive invention.

To get a grasp on where those drivers might come from, let's start by putting ourselves back to the timeframe of the last OECD ministerial, ten years ago:

- E-commerce was nascent and not uniformly embraced
- Consumer broadband was just beginning to penetrate markets
- "Convergence" of voice and data networks was still a theory

At that time, which of the following economically impactful Internet application and service developments would you have predicted?

1/ That you could walk into a Internet café on the other side of the world and use a computer to **call home**, reliably and cheaply.

2/ That one of the most successful companies in the world was based on a search engine and that most of its public services were completely free.

4/ That private individuals would be able to establish their voice with as much reach and impact as established news agencies.

5/ That private individuals would be able to establish their own micro-boutiques, selling goods to a global market

6/ That out-sourcing, off-shoring and round-the-clock development shops would become a business reality.

Even if they were predicted, the scope, impact and importance were merely postulations at the time.

How, then, did Skype, Google, blogs, eBay, etc come about?

They were not mandated or developed by single organized bodies of genius thinkers. Rather, each was built upon the particular vision of some very driven person or persons, who had the ability and freedom to develop, deploy and establish their service. They proved by doing, often starting out by trying to meet some narrow personal need, not knowing that a large portion of the planet would have the same need. This is creativity, convergence and confidence in reality.

What was it about the Internet that supported their development? Continued commitment to an open Internet technology platform; organic, competitive development of Internet service provision models; collaborative development and responsibility for the well being of the global Internet. Crystallized in an official Memorandum, this is one of the key messages representatives of the Internet technical community have presented to ministers in the opening session of this conference.

What made some succeed and others fail? The answer is generally only possible with hindsight. A common ingredient to these success stories is spontaneous acceptance by ordinary users who were respected by being offered freedom of choice and flexibility. There are great risks from centralized decision-making, undue

interference, and short-term policy constraints. The walled gardens – the systems that eliminate choice or dictate user experience – tend to fail. Attempts to jam existing business models into cyberspace also often fail.

The real world drivers are a lot harder to predict over the span of 10 years. Someone said to me the other day “But, things are much more fixed now than they were a decade ago, can’t we just project from here?” Although I appreciate economists look for fixed indicators from which they can build trends, if you fix the Internet in its evolution, you would perhaps be better able to develop accurate projections, but you would effectively kill the very essence of the Internet that has been its power: constant change is here to stay.

This is indeed manageable through continued evolution of the collaborative effort that coordinates the Internet’s resources and develops its operational and technical standards. Through the past decade, we have seen those institutions grow and evolve – in number and in scale. They have had to lead stakeholders through discussions to resolve some of the trickier issues related to fair and open development of protocols, allocation of resources, and setting of operational policy. The root zone is still a manageable size; domain names are readily obtainable; they are no longer constrained uniquely to ASCII characters; and we haven’t yet run out of IPv4 addresses.

Certainly, as the Internet becomes more and more multilingual, it will become more multi-cultural, making it more exciting, more unpredictable. It will also have to remain open to innovation or the potential will be lost. That’s complicated by the fact this kind of openness is not necessarily natural for all cultures.

The required focus, then, is on continuing to allow the common and open, collaborative Internet development, so as not to preclude the things for which we will be thankful a decade from now.

Where does all this lead us?:

1/ The future of the Internet depends on continued collaboratively engineered and operated, robust technical infrastructure, including continued global addressing through IPv6.

2/ We (for it is a collective responsibility) must not let passing issues drive reactions that will close down the paths to the Internet's real potential.

3/ The Internet's importance in our economies will only increase as we successfully incorporate infrastructures for security, trust and identity in ways that are consistent with the overall principles of Internet architecture.

4/ The Internet provides technology building blocks upon which the global networking experience is based. To bring the next billion people "on-line", we need to consider

what they need from the experience, and how to match that against the technical possibilities to support them.

The breakthrough of networking technology that sparked this phenomenon was the breaking down of physical barriers between networks and establishing common protocols to share information across the diverse local network computing environments. The challenge for regulators today is to break through barriers similarly, retaining their local control while supporting creativity and individual possibilities. Ensuring that all voices are heard and that all processes are open and transparent is the only way to steer this course. Hence, the necessity to recognize today that the open and decentralized nature of the Internet is fundamental for it to continue being a platform for innovation.