

The next decade

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1. "Beam me up, Scotty!"

Who doesn't know these words¹. It is a command to transport persons from one place to another by dissolving the person into a collection of molecules in one place and rebuilding that person molecule by molecule in another. At least that is what it looked like to me when watching the science fiction series *Star Trek* in the late sixties, the early days of IFIP. This kind of transport of a person is not (yet) possible, therefore real science fiction. But many things that were science fiction when they were first described by novelists, visionaries and scientists have become reality, just think about the books of Jules Verne, the work of Leonardo da Vinci and many others. Although it is not physically possible, virtually we have even gone further already. Not only can we be "transported" bit by bit to another place anywhere in the world (provided technology is available) but we can also be multiplied.

In this contribution to the IFIP 50th anniversary jubilee book I will give you my personal view on the challenges and opportunities for IFIP in the next decade. I have started the chapter with a science fiction series. Not because IFIP is science fiction but because IFIP's basis is science and because the unimaginable features and possibilities of fiction often become reality much quicker than one can imagine. And also because it raises questions that need to be addressed.

2. Advancement of Technology

We have all seen and experienced that since the early days of computing, and the above described era of the sixties is part of these early days, technological developments take place in an ever increasing pace. IFIP is pre-eminently an organization that is not only keeping up with these developments but is on the leading edge of them, as a federation and through its member societies. I am not worried that this will change in the next ten years. A strong point of IFIP is the technical quality of the work done by its volunteers in the Technical Committees and Working Groups. Therefore, meeting the first strategic aim² that "*IFIP provides a global platform to advance technologies for information and knowledge societies*" will continue to be achieved. That does not mean that we can lean back contented and stop looking for improvements. There should be a natural attitude and motivation to periodically evaluate whether the goals and quality levels that we want to achieve are still achieved. Before you know it you are too late in reversing a negative trend and as we

¹ "Beam me up, Scotty!" is a catch phrase from the science fiction television series *Star Trek*. It comes from the command Captain Kirk gives his chief engineer, Montgomery "Scotty" Scott, when he needs to be transported back to the Starship Enterprise. http://en.wikipedia.org/wiki/Beam_me_up,_Scotty

² Strategy 2007 – 2012 (approved by GA 2007). IFIP provides a global platform to: - Advance technologies for information and knowledge societies; - Disseminate high quality information; - Advance professionalism in ICT; - Promote social responsibility in the application of ICT; - Promote digital equity.

all know, reputation arrives on foot but departs on horseback. And we cannot afford that, our reputation is one of our major assets.

3. Dissemination of information

The second strategic aim that *"IFIP provides a global platform to disseminate high quality information"* is a more difficult one if we look at the ambition and the trends. We are disseminating a lot of knowledge by means of the proceedings of our events. And we should continue to do so. But we want to achieve more. The ambition to make the knowledge gathered in the many IFIP events available at least at an affordable price or perhaps even free to read for a wide audience is facing hurdles such as the financial model for achieving this and mechanisms for guaranteeing the quality of the content. Also the constraints of the academic system worldwide that requires students and scientists to publish their work in journals and proceedings of a certain standing (measured in a number of ways) is not helping quick steps forward. It would be a brave step of those with accepted conference papers but also with journal type papers and white papers to help IFIP in adding actual content to the digital library. And it would be a major accomplishment if this content could be made available free to read for the individual members of all IFIP member societies. It will take a change in the cost and income model but I believe this can be achieved in the next ten years and consider this as a big opportunity for IFIP to make a difference. This strategic aim of IFIP has also a very strong relation with the aim to bridge the digital divide.

4. Professionalism

Our personal and business lives heavily depend on computer based systems and therefore on the competence and professionalism of those who design, build, implement and manage those systems. How can IFIP with its background and solid basis in the academic world contribute to the advancement of professionalism in ICT? With the International Professional Practice Partnership (IP3) a major step has been taken towards the goal that *"IFIP provides a global platform to advance professionalism in ICT"*. The following are often mentioned as the elements of a professional: - demonstrated mastery of a core body of specialized knowledge; - demonstrated competence; - commitment to life long learning; - high level of responsibility and autonomy; - code for ethical behaviour; - personal integrity; - accountability. Because of the differences in background, history, culture and legal environments, it is not easy to create a common view and approach with the IFIP member societies and to achieve a globally accepted standard that allows stakeholders to recognize and acknowledge a minimum level of professionalism. A lot has been accomplished already by what has been done so far. IP3 accredits the certification that is achieved as doing what it says it does. This is already useful to employers. Nevertheless more steps need to be taken and this topic is a typical example of a "two steps forward, one step back" process. The challenge for the next decade will be to continue taking enough steps forward.

5. Social responsibility

The ever faster technological developments raise new questions and challenges, more of a non-technical nature than of technical nature. Although IFIP is already addressing many of these questions, I would like to see even more attention for the consequences of ICT developments and a more prominent role in addressing policy makers with our analyses and position statements.

Promoting social responsibility in the development and use of information and communication technologies is an activity society expects from a body like ours and that is why we added this to our strategic aims: *"IFIP provides a global platform to promote social responsibility in the application of ICT"*. This requires an effort to go beyond national interests and established practices because these are often sensitive issues. Think about international legal frameworks with regards to data protection, freedom of information and privacy. IFIP can also contribute more to promoting awareness of ethical issues, of public understanding of ICT and of accessibility of ICT. I hope we can manage this, it would mean that IFIP can add great value to the work already done in the technological areas.

6. Digital equity

In the previous decade (2001 – 2010) IFIP has strongly increased its attention and contribution to digital equity by starting more activities aimed at emerging and developing countries. An obvious example is the World IT Forum (WITFOR) but there are definitely also other activities that have contributed to successfully achieving the goal that *"IFIP provides a global platform to promote digital equity"*. In these activities we have seen a strong participation of governments, policy makers and industry which has a good public relations effect on the other activities of IFIP as well. And these other, scientific activities are a pre-condition to be able to contribute to achieving digital equity. Also the involvement of larger UN bodies such as UNESCO and ITU are beneficial to the exposure of IFIP and the possibilities for stronger cooperation between IFIP and these bodies to achieve a number of goals. I am convinced that IFIP can further build upon and expand the success of these activities in the next decade and have a visible, strong contribution to achieving the Millennium Development Goals as set by the United Nations to be achieved in 2015. Besides emerging and developing countries, digital equity issues in developed countries can be problems that should not be overlooked and these deserve our attention as well. The major factor that limits IFIPs possibilities are the resources that are necessary to continue all these activities. Resources not only in terms of money, which is always an important element, but even more in terms of the number of volunteers having the time and motivation to contribute to these achievements.

7. Opportunities and challenges

In the previous chapters I have addressed some opportunities for IFIP along the lines of the strategic aims. In summary the major opportunities are:

- Organizing top class scientific events that nobody wants to miss;
- Providing easy and cheap access to the knowledge of these and other events in a digital library;
- Contributing to increasing the professionalism of the ICT professions;

- Analysing and providing policy statements on social responsibility;
- Having an acknowledged contribution to achieving the Millennium Development Goals.

IFIP faces some challenges in order to take full benefit from these opportunities. I will highlight a few of these.

The still increasing speed of technological developments has also resulted in a tremendous change in the social behaviour of people and in the way of communicating with each other. In order not to be outdated, surpassed and ignored by the younger generations, this requires a change in attitude towards accepting / adopting technology and behaviour. One obvious example of both elements is the use of mobile phones. As a train commuter since nearly two decades now, I have personally experienced the birth, childhood and maturity (?) of the use of a mobile phone in a public space. From very few, very cautious, almost non-disturbing conversations to a situation where discussing openly and loudly (very) private matters is no longer considered impolite (at least by most) and tolerated (by the rest).

How does this relate to IFIP? Not only persons but also organizations have to accept, adapt and adopt such changes. In the early years of IFIP's existence meeting physically was the best way to build up a professional network. Adapting to changes in technology could be done at a moderate pace since these changes took place in a moderate pace. Changes in the organization of IFIP therefore could also take some time. Nowadays many other means of communication such as e-mail, twitter and facebook exist to build up professional (and social) networks. Technology changes go much faster than 50 years ago. In order to survive in the next decade, IFIP has to become faster and more flexible in its responding to developments and its ways of communicating.

IFIP's ambitious strategic objectives could be perceived as competitive with the activities of its member societies and therefore conflicting with their interests. It is by no means IFIP's intention to start a competition or to harm the interests of its members. Achieving a strong brand name is in the interest of IFIP itself and of its members. This can only be accomplished in cooperation between the technical bodies and the member societies and between the member societies. The concern that I have for the next decade is that this cooperation will suffer from the many problems IFIP and most of the member societies face: increasingly difficult market circumstances, competition by other organizations (for instance in the conference market), membership issues (decrease in numbers, change in attitude and expectations), lack of volunteers. IFIP should seek to further increase the cooperation and try to improve the mechanisms to get active representatives and volunteers in order to stimulate a greater involvement in its activities.

These are two of the major challenges. I will not elaborate on some others but include them in the following summary. The list of challenges that affect all opportunities in the next decade includes:

- Reacting quicker to both technological and social developments, among others with respect to the organizational structure;
- Realizing a greater flexibility with respect to stopping / starting activities;
- Promoting a positive attitude towards changes: seizing opportunities rather than defending old habits and memories from the past;
- Crossing boundaries between technical areas and finding a way to address application areas;
- Encouraging more active participation by representatives and volunteers.

8. “ICT: the final frontier”

I started this reflection on IFIP in the next decade with Star Trek and I will finish with it. To paraphrase Captain Kirk on the purpose of his starship³, I would like to set the purpose of IFIP for the next decade as follows:

ICT: the final frontier. These are the voyages of IFIP. Its ten-year mission: to explore strange new technologies, to seek out new applications and new contributions to improve quality of life, to boldly realize what no man has realized ever before.

I look forward to continue being part of the IFIP community that will make every effort to fulfil its mission.

³ William Shatner's voice-over introduction during each episode's opening credits stated the starship's purpose: “*Space: the final frontier. These are the voyages of the starship Enterprise. Its five-year mission: to explore strange new worlds, to seek out new life and new civilizations, to boldly go where no man has gone before.*”