Die (wissenschaftliche) Herkunft der Tagungsteilnehmer und die präsentierten Themenstellungen zwischen techniksoziologischer Theorie, Technikfolgenabschätzung und ethischen Implikationen reflektierten die interfakultative Komplexität des Tagungsthemas. Handlungsbedarf wurde sowohl im Hinblick auf analytische Konzepte als auch deren empirischer Überprüfung festgestellt. Und, darin waren sich alle einig, die Zeit drängt, wenn es darum gehen soll, die informatisierte Durchdringung „der Gesellschaft“ sozial zu gestalten.

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Government ePolicies – the Need for Evaluation

Workshop "The Role of Government in Promoting Electronic Business" Berlin, March 3-4, 2005

Conference report by Brigitte Preissl, DIW, and Arnd Weber, ITAS

The German Institute for Economic Research (Deutsches Institut für Wirtschaftsforschung – DIW, Berlin) conducted a workshop on the role of government in promoting electronic business. In this article, we report about presentations addressing *government policies*, as the speakers provided an interesting overview pointing to a need for more evaluations. The presentations covered issues of governmental actions in the field, such as the funding of research projects and of education and training, the provision of tax subsidies, and the support for digital signatures. For lack of space, the presentations on e-business, security, and digital rights management are not dealt with here.

The presentation by *Hannes Selhofer (empirica) on "Quantitative targets for e-business policies: lessons learned and conclusions"* reflected the European Commission's approach to promote e-business. Over the past few years, the Commission has set a framework for the planning of policy measures by defining targets for the diffusion of e-business applications. These targets were promoted as a sort of 'benchmark' to be reached within a certain period of time. The type of benchmarking conducted within "eEurope" was a result of this approach. However, already at the very beginning of the campaigns, the attempt to achieve policy goals by defining them as concrete targets met considerable criticism. In the course of the process all the difficulties and challenges that are common to such measurement exercises became evident.

The discussion with the audience revealed considerable scepticism with regard to the particular benchmarking tool used in the eEurope programme. Apparently, the Commission has revised its approach in the meantime. One of the main critical questions was whether the measures taken were actually responsible for the diffusion of e-business or whether the enterprises concerned would have engaged in e-business anyway. Although policy makers run a risk that data will reveal that targets have not been met, Selhofer argued that policies should be based on quantitative targets.

Thorsten Wichmann (Berlecon Research) presented *"E-business policies: a comparison of the German and UK approaches"*. The experiences in the two countries reflect the different approaches to e-business policy pursued in the UK and Germany. While the UK approach was centralistic and put a strong emphasis on marketing, the German policy measures did not show a coherent master plan and strong marketing but made use of many institutions close to the enterprises. The British Department of Trade and Industry's programme "UK Online for Business" ensured that the message of the policy makers was heard by enterprises. It also did not leave much doubt for enterprises where to find information. In contrast, in Germany many different policy measures by different entities made the messages fuzzy and difficult to hear. The difference of the two policy approaches also shows in the way project progress was monitored and reacted to: while in the UK achievement of targets was checked every year, and targets were modified accordingly, in Germany new projects were started without evaluating the impact of the old ones in a consistent and coherent way. On the other hand some e-business measures by the German Federal Ministry for Economics and Labour, such as the e-business competence centres, were designed to be close to the target groups by embracing existing institutions such as the Chambers of Commerce (Handelskammern).

The bottom line was that neither the UK nor the German approach was clearly better, but there was much to learn from each other.

Anne Huguenin (French Ministry of Economy, Finance and Industry) gave a presentation about *"E-business support in France"*. The French approach to supporting e-business consists of different components, such as the program UCIP (Collective Use of Internet by SME) for promoting universal access, as well as tax refunds and direct subsidies. In France, most e-business applications are essentially still based on the use of EDI-standards (Electronic Data Interchange). eEurope statistics demonstrate the relative lag of French firms in ICT adoption. This situation has resulted in many projects to support e-business diffusion. Apart from these projects, specific incentives have been implemented, such as a tax refund of 20 % of expenditures for IT. Tax refunds for ICT-related research are being discussed.

The discussion concentrated on the surprisingly low diffusion of e-business in France. If SMEs only move 'if they have to', this might suggest that there is no strong need to increase the use of ICT. It may also be asked why France has not suffered from a decline in competitiveness due to a considerably lower use of ICT facilities than other European countries. This open question sheds doubt on the assumption of a close link between extensive use of e-business and related ICT tools on the one hand and competitiveness on the other.

Helmut Drüke, Capgemini (Germany), dealt with *"Opportunities and limits of state funding of e-government"*. In this presentation e-government was perceived as a comprehensive modernisation of all political administrative activity. Efficiency gains and better services were promised. At least some of these expectations have already been or are likely to be disappointed. Some features seem crucial in order to fully exploit the potential of egovernment:

1. There needs to be a critical mass of services that have to be provided electronically for the impact to be strong enough to lead to savings.
2. Avoiding a digital divide.
3. Problems of security and the legally binding character of the transactions have to be resolved.

According to Drüke the actual significance of digital signatures for e-government is challenged, as – on average – every citizen only has to provide 2.8 signatures on government documents per year.

Ruby Dholakia (RITIM University of Rhode Island, USA) reported about *"B2C e-commerce & tax codes: implications and effects of government policies"*. In the United States commercial transactions are subject to a sales tax which is levied by the federal states. Over the years this tax covered an ever larger share of total state revenue. The items to be taxed as well as the tax rates differ considerably between states. Remote sales are taxed according to the 'nexus' principle, i.e., they are only taxed if the seller has a substantial presence in the state of the purchase. In October 1998 a sales tax moratorium was pronounced for e-commerce transactions. The arguments put forward in favour of this decision were: infant industry protection and the disproportionate cost of levying the tax. Today the e-commerce industry is not an 'infant' any more, and justifications of the tax advantages are not convincing.

Rolf Hochreiter (German Federal Ministry of Economics and Labour) presented *"E-business policy in Germany: political rationale"*. Hochreiter stated that the Ministry's e-business activities comprise three related fields: the legal framework, infrastructure, and education and training. Apart from demonstration projects, the Ministry concentrates on spreading information and advice. The relevance of some fields was challenged in the discussion. For example, digital signatures are of no importance for issuing passports, as such signatures have to be made twice every ten years, whereas online provision of VAT forms is already mandatory. In Germany, e-business policies have never been evaluated systematically, with the exception of some digital signature projects, but they have provided contradictory results.

Arnd Weber (ITAS), and *Uta Wehn de Montalvo (TNO-ICT, The Netherlands)*, presented the paper *"Bread, Broadband and the Benchmarking of eEurope in EU Candidate Countries"*. They discussed the appropriateness of benchmarking exercises undertaken under the eEurope Action Plan. The presentation concluded that data gathering needs to be more thoroughly prepared. Policy measures should be based on a critical assessment of the priorities in spending strategies. In a situation of tight budgets and huge development tasks ahead for the New Member States and the Candidate Countries, broadband access competes with education, road construction, tax reductions, etc. Therefore, benchmarking should take into account effects on the Lisbon objectives. When introducing new policies, an assessment of such effects is needed, followed by monitoring the effects, and subsequent revision of policies if necessary.

The title of *Stuart Macdonald's (University of Sheffield, UK)* presentation was *"Government promotion of electronic business: a cynic's perspective"*. He deplored the lack of critical research on the impact of ICT. The over-estimation of the benefits of ICT leads policy makers to support any expansion of ICT use regardless of its actual usefulness. Research results that hint at poor efficiency gains, massive over-investment, and a decline in product and service quality are ignored. The paper was based on the analysis of a consultancy report which was supposed to evaluate Australian ICT policy programmes. A series of flaws in the report was presented which all had the effect of over-emphasising the benefits and success of the programme and of downplaying the problems involved. It was then shown that this is no isolated phenomenon.

Conclusions

The lack of critical approaches might be explained by the fact that policy makers might not be interested in a critical review as the demonstration of missed objectives is a risk for themselves. It seems a good point in time now –when many policy programmes go beyond their first round – to develop measures for policy evaluation. Launching successful e-governance initiatives is becoming more important than ever in the light of the competition from Asian countries and the integration of 170 million comparatively poor people in the New Member States and in the Candidate Countries. Policy evaluations would help to concentrate policies on those issues where they are most effective and most in line with more general policy goals, such as growth and employment.

References

For the forthcoming workshop proceedings, please contact Brigitte Preissl (bpreissl@diw.de).

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NanoEthics Conference

University of South Carolina, Columbia, SC, USA, March 2-5, 2005

Conference report by Christopher Coenen, Parliamentary Office of Technology Assessment at the German Parliament (TAB)

At the beginning of this decade, a gap opened between the rapid progress being made in nanotechnology and the research into its ethical, legal, and social implications (Mnyusiwalla et al. 2003). This was followed by the emergence of an international community of nanoscience and nanotechnology scholars – with the University of South Carolina as one of its focal points (http://nsts.nano.sc.edu/) – and a growing body of literature on these aspects of research (Baird et al. 2004; Schummer 2004). There is also increasing interest in ethical and related issues arising from the "convergence" of new technologies, in which nanotechnology is deemed to play a crucial role. The US "NBIC" initiative on the convergence of nanotechnology, biotechnology, information technology, and cognitive science (Roco, Bainbridge 2002; Roco, Montemagno 2004) has attracted a remarkable degree of attention, while arousing irritation in Europe and the US itself (cf. Coenen et al. 2004). The thematic relevance of technological convergence has created a platform for debate on nanotechnology in terms of a "forum for exploring the future impact of all science and engineering" (Khushf 2004).

The program of the „NanoEthics" conference at the University of Columbia reflected these recent developments in the debate: In the conference announcement nanotechnology was characterized as "the basis for a convergence of the physical and life sciences" with the potential to transform virtually all areas of human life, and likely to be associated with both great benefits and great risks. The goal of the conference was thus to explore the ethical and legal issues raised by nanotechnology and the larger conver-