

# Important issues for Open Standards Government Policy



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# Trends in ICT infrastructure development

- Huge installed base of proprietary systems – huge migrating costs
- Sky-rocketing maintenance and development costs of ICT – traditional procurement not feasible
- An objective to have frequently updated, flexible, yet reliable applications pool based on open standards and open source software
- Governments need to take an active role in fostering ICT infrastructure for equal access to and an even distribution of knowledge among citizens and businesses, as well as ensuring security of the ICT infrastructure

# Open Standards Policy Dilemma for the Danish Government

- ***To be, or not to be?***
  - In order to avoid undesirable consequences in the development of national ICT infrastructures, the governments are looking for ways to minimize ambiguity associated with future technology development trajectories
- **If to be, then when and what?**
  - The goal of technology policy-makers is to provide a predictive assessment of technology development. But how to predict, without having experience from similar past projects?

# Launching OStEA project to aid Danish policy makers

- How did OStEA come about and what did we do?
  - Aiming to aid decision makers by identifying the wide range of interests held by different stakeholders and providing a relative assessment of importance and urgency of forces driving standards and standardization
  - Much of existing research focuses on (technical) issues of interoperability (Enterprise Architecture)
  - Political focus is almost always on the producers of ICT and on administrations, not on the citizens or end-users
  - $2 * \frac{1}{2} = \frac{1}{2}$  ?
  - The timing and the set-up of the project ([www.cbs.dk/OStEA](http://www.cbs.dk/OStEA)):
    - Sense-making
    - Literature review
    - ICT architecture study
    - The Delphi study

# Issues pertaining to standardization and policy-making

- Economics of standards:
  - A broad category including, but not limited to network economics, switching costs, R&D investments, and investment risk management through standardization.
- Public good and compliance:
  - Governance of ICT infrastructure and services through specifying the degree of compliance (recommendation, mandate) to government supported standards by different stakeholders (vendors, government organizations as end-users).

# Issues pertaining to standardization and policy-making

- Syntax and semantics:
  - Semantic and syntax interoperability problems in establishing data and process exchange on the national level, and between the nation states.
- One-stop service experience:
  - Establishing real-time integration of information across vertical and horizontal layers of public sector's agencies to satisfy the growing demands of end-users for one-stop information access.

# Issues pertaining to standardization and policy-making

- Assessment of technical maturity of standards:
  - Whether the interoperability, conflicting interests of stakeholders, and ICT architecture- related issues should be decided upon only when mature international (open) standards are available.
- Future-proof:
  - Control over standards specifications vis-à-vis government agencies' and citizens' power to force vendors assure data accessibility and version control of the software/data formats.

# Issues pertaining to standardization and policy-making

- Goals of participation:
  - Should the government be active in monitoring emerging standardization in early state in order to ensure coherence and compliance with existing ICT policies and open standards.
- Accessibility:
  - The perceived need for developing e-services based on concepts of simplicity, transparency, user-friendliness, and security to promote trust in public administration.

# The Delphi Survey

- The Delphi survey followed the sense-making (identification of general issues) and literature review (identification of specific issues) to validate and enhance the findings from the two other studies
- To find out to what extent the nine issues should be taken into consideration by decision makers in developing ICT governing policies
- Difficult (impossible?) to find experts competent in all nine issues

# The Delphi Method

- The Delphi method for forecasting by obtaining expert opinions and moving them towards consensus through feedback mechanisms
- Especially suitable in situations when decision makers are challenged by uncertainty due to the novelty of undertaking
- Conducted as a series of linked questionnaires with feedback mechanisms – asking the respondents to re-evaluate their responses based on the summarized results
- Feedback and anonymity – two irreducible elements of the Delphi method
- When the issues are diverse and complex, obtaining reasons for dis-sensus is more important than obtaining a consensus
- Discovering desirability of the future states, as well as likelihood for achieving these states within a certain period of time

# Barriers: Economics of Standards

- Ten out of the total 13 experts' responses share the view that this is an important issue
- The majority of experts believe that governments cannot control the economic models via policy, hence implementation of such policies is unlikely
- Governments have no resources nor expertise to get involved
- Economic issues lie outside the scope of EU policy interests, left to the private industry and market regulation
- The issue must be considered differently. It should not be focused on the costs of standards or standardization. Instead the cost-control policy should be “the same or less than before for the ever increasing number of services.” Outsourcing is the solution

# Barriers: Public good and compliance

- Eight out of the total 13 experts' responses share the view that this is an important issue
- Governments will continue to work with those issues on a spotty basis, but no comprehensive initiative is likely to emerge
- Governments have no powers nor means to enforce compliance (save cases where except anti-trust legislation can apply)
- A government organization would have a difficulty arguing or recognizing what standard represents public good

# Barriers: Syntax and semantics

- The majority of experts agree on the importance of the issue
- Technically, syntax and semantics is noted not to be a complex issue – XML can be used as a solution. However, implementation of control mechanisms requires coordination and negotiation
- when XML is used, diligence is needed by government to assure that a viable core of XML and other standards are established to avoid in-advertant or deliberate deviations

# Barriers: One stop service experience

- No dominant expert opinion on the importance of the issue
- Administrations' favor for the 'central portal' model of one-stop service delivery – these solutions are often proprietary, cosmetic 'shells' for which there is no driver towards standardization
- The government's ability to make changes is minimal
- Protecting user privacy makes such approaches unlawful under EU privacy directive
- “Disaster projects” in U.K.: following this model is doomed never to become anything else than monstrous projects which fail

# Barriers: Technical maturity

- Perceived to be important
- Governments should monitor standards and implement them in conjunction with the private sector
- Implementing such policy would put government into a position of being dependent on the availability of “mature” international standards
- “Who judges maturity?” – technical maturity is “easy to state, hard to define.” Is it when a standard is old or is it when the technology is no longer interesting, or is it after the market has settled?
- Technical maturity is said to be a secondary problem in formulating standardization policies: standards will only be relevant as long as the technology they relate to is relevant

# Barriers: Future-proof

- No dominant opinion on the importance of the issue
- The issue of future-proof is related to (backwards) compatibility of data and media
- The diminishing technological quality of standards, which inadvertently reduces the longevity of the standards that the professional community can develop
- “How do governments 'force'?” – as long as it is in the economic interest of a vendor to use unique formats, they'll find a way to sell incompatible solutions to the government
- One can't future proof during a period of rapid technological change
- Government will play a role here as a large consumer, but beyond that they are likely to do more damage than good
- Does a government have a choice of not buying products “that the governmental users want”?
- The importance of the installed base, not only that of hardware, but most importantly decades of installed base data

# Barriers: Goals of participation

- Most experts side on the little importance of the issue
- Administrations should monitor and define grey areas, common interests where market fails to get agreement. So it is not problem of type of standards or lack of them, but defining sectors of implementation, setting priorities and scopes
- Active participation in standardization would require the government to acquire the competence, skill, will, and money. Not the least, they'd have to join any of the hundreds of consortia that really make the standards in the ICT sector, and coordinate internally and severally
- It is better for the governments to be followers than leaders

# Barriers: Accessibility

- The issue gathers the weight of opinions stressing the importance and timeliness of accessibility
- We tend to overestimate the degree to which various actors and bodies will access government services electronically: virtually no citizen-oriented services other than forms, licenses or taxation can be delivered on-line
- Will only work if small focused public services are deployed and adopted with trust and simplicity
- Bottom-up push is predicted to materialize, as user frustration over services in-accessibility may reach a sufficiently high volume if government does take action within the next 5 years
- User frustration may be avoided, as issue of accessibility is probably the area in which governments are most active and even successful, mostly through outsourcing

# Barriers: IPRs

- Eleven out of 13 expert opinions give high importance to the issue of IPRs
- A peculiar divergence of reasons for this importance among the opinions voiced
- Governments must be aware of the pitfalls IP can bring to the national ICT development – there is no single test for RAND or FRAND that is culturally and nationally neutral
- IPR is the secret tool of vendors to manipulate the standards process – the process can be easily manipulated to exclude competition
- In the realm of short life cycles of technology in the ICT domain, IPRs are unsustainable and mean nothing more than nasty little monopolies
- Open source could be a way to get around them, but if the legal principles don't change 'open' won't mean anything
- Experts are sceptic with regard to the very capability of government to attempt the change – IPRs are the holy grail of standards manipulation, industry will fight for a long time before they yield to any IPR policies, much less one that is in the public interest
- Coordination at an international level between administrations may improve the situation. Without cooperation, many administrations will continue to 'give away' their IPRs on public-funded ICT development, either through poor contracts or lack of attention to the management of ICT assets

# Summary

- There is a great diversity of views on each of the nine surveyed issues
- The importance and relevance of the nine issues offered for the survey is perceived in general higher than the likelihood of taking those issues under direct policy control within the next 5 year
- The study was profiled by the Danish government
- On June 2, 2006 The Danish Parliament unanimously adopted a decision requiring the government to ensure that use of software in the public sector is based upon open standards. The decision necessitates the government no later than January 1, 2008 adopt and maintain a set of open standards, which may serve as an inspiration for all other public authorities
- The study referred to in standardization blogs across the Atlantics...
- ... so, maybe the joke was not a joke after all?

Thank you!