

***PANDORA'S BOX:***

**A CAUTIONARY TALE  
FOR THE  
CYBERINFRASTRUCTURE**

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# THE POTENTIAL

- Sort of like an “Internet on Steroids”
  - Planned, not Random
  - Designed for Cross-Cultural, Cross Discipline Knowledge Delivery
- Based on Lofty Goals
  - Sharing, Education
  - Rational Commercialization
  - Coherent Belief Set

*BUT...*

# BUT...

- It is all built on Standardization and Standards
- Standardization and standards based on:
  - Industrialization and its requirement for interoperable systems
    - Railroads needed standardized time & rail gauges
    - Commerce needed ways to transfer goods
    - Users needed reliability
- Current ICT Standardization system built for large, industrial users
  - Slow and expensive
- The world is now “post-industrialist” - **Oops!**

# Pandora's Box Opens

- Belief: Our global ICT standardization system is defective
- SDOs haven't evolved; consortia are narrowly focused and vulnerable; IP benefits are skewed;
  - Have-nots (individuals, companies, and nations) are increasingly marginalized
  - Participation and acceptance are shrinking
  - Balkanization means we lose benefits of integration, interoperability, predictability and innovation
- Standardization no longer facilitates trade
  - Not predictable, not inclusive, not open
  - Use to block, rather than as a creative force and solution

# *Back to the BASICS*

**What is standardization all about?**

# The First Step - Attributes

- Standards Are “Impure Public Goods”
  - They are held in the public trust
  - They have governmental approbation
  - Governmental action necessary when private sector fails
- Standardization should have as its goal the better integration of all aspects of society
- It is not about technology, law, trade, or policy separately – it is about cooperation to improve everyone, not about competition to improve “me”

# The Second Step - Education

- Standards Are An Art-Form
  - They aren't taught ~~at all~~ widely (carrying capacity?)
  - They are not taught to engineers or marketeers (or even – thankfully - lawyers!)
  - They are assumed to “be there” when things are made
  - There is nowhere that I know of that has a list of all SSOs
    - CEN/ISSS and 79 Brinkburn come close, but...
  - They are ignored by “Management Consultants”
    - Bolin Group, Global Inventures, Updegrove are exceptions
- Policy Makers mostly have only National Standards Bodies for help

# The Third Step - Policy

- Standards Are (or Should Be) a Social and Industrial Policy Tool
- China is using them for Industrial policy
  - Creation of an arena that encourages innovation but is centralized
- Europe uses them for Social policy
  - FP 7 Initiative, NESSI initiative
- CEN/CENELEC/ETSI used to unify Europe
  - Vienna Agreements
- The US uses them to...?

# A Modest Proposal

We need a complete reboot of the global IT standardization system to make the cyberinfrastructure work

- *Restore IT to its proper role as an industry enabler*
- *Make IT standardization assume its proper role as a market unifier and co-operation builder*
- *The build out of the cyberinfrastructure offers that opportunity*

# Releasing Hope

**“It is not enough that you should understand about applied science. Concern for the man himself and his fate must always form the chief interest of all technical endeavors; concern for the great unsolved problems of the organization of labor and the distribution of goods in order that the creations of our minds shall be a blessing and not a curse.”**

Albert Einstein

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