

ON THE BUSINESS OF STANDARDS- POLICY, POLITICS, AND STASIS

or

PAVANE FOR A DEAD PROCESS

WHY PAVANE FOR A DEAD PROCESS?

- The pavane suited the new more sober Spanish-influenced courtly manners of 16th century Italy
- The step used in the pavane survives in the hesitation step sometimes used in weddings.
- While Standards Developing Organizations (SDOs) have been treading the stately pavane, corporations have moved on to modern dances that require fewer musicians, are faster paced, and are generally more satisfying to the participants.

IMPORTANT CAVEATS

- My experience base is Information Technology Standardization strategy and practice
- I am an embedded, empowered, and occasionally neutral observer of standardization
- I see standards as significant change agents which are used to change market dynamics
- This presentation is my opinion, and does **not** represent the opinion of Adobe Systems, Inc., my employer

UNDERLYING THEMES

- Standards are one of the hallmarks of an industrialized society.
- As a society becomes increasingly complex standards (norms) can be used to ensure all parts to fit together and interoperate
- This leads to a virtuous cycle for continued growth and integration
- The art of creating standards is known as standardization, and is used as both a control mechanism and change agent

THE REALITY OF STANDARDIZATION

- Standardization is one method of controlling a market – politically, economically, technically
- Is a powerful tool, largely unappreciated
- Rarely mentioned in academic or business literature
- Standards are invisible when successful, damned when they're not
- This allows different views of standardization

THREE VIEWS OF STANDARDIZATION

- If Standardization is a Social Policy Tool:
 - Are standards a government grant?
 - Are they “Impure Public Goods”?
 - Should they be used to balance and manage society?
- If Standardization is a Public Policy Tool:
 - Can standards be used to create, develop, and regulate markets?
 - Can they set Industry and Trade Policy?
 - Can they be used to protect and encourage indigenous industry?
- If standardization is a Business Management Tool:
 - Can standards allow structured market control and development?
 - Can they provide one way of managing change?
 - Can they be used to legally control a market?

As SOCIAL POLICY TOOLS

- What is the legal basis for standards?
 - Are they a form of “competition limiting” activity?
 - Is there some legal theory that underlies their existence?
 - Are they a governmental grant?
- Are standards “Impure Public Goods”?
 - Have some characteristics of a “club good”
 - Appear to have some public good component because of the exclusive nature of a national body standard (government grant of exclusivity in publication)
- Have tremendous social path dependency issues

As GOVERNMENTAL POLICY TOOLS

- Industrial Policy Creator
 - A procurement requirement for suppliers
 - (ISO 9000 or equivalent certification)
 - A tool for building indigenous industry
 - US's DARPA (TCP/IP) and China's MOST (EUHT)
- Standardization is a major tool of industry policy
 - Mandatory or optional use and enforcement level of standards
 - Food, agriculture, pharmaceuticals, safety, health, privacy
 - How standards can be created and deployed
 - Intellectual Property Regimes that are “encouraged”
- Use of standardization to advance specific interest
 - ICANN, ITU, the IETF and Internet Governance

AS MANAGEMENT TOOLS

- Standards help to control and manage a market
 - Allow the producers a way to adjust and adopt expectations
 - Limit or encourage possible future disruptive choices (creation/destruction of path dependencies)
 - Provide a “Neutral Third Party Agency”
- Are an area of competition between companies
 - Venue shopping, organization creation, lobbying activities
- SSOs are themselves businesses
 - Need to stay alive and attract “investors”
 - Usually staffed by “association management” professionals

PRACTICAL EXAMPLES

- Privacy (W3C's Do Not Track)
 - Social: Need a “Only track me if I like it” Bit
 - Economic: “Tracking/analytics make the web free”
 - Political: Tracking “good people” is an outrage
 - Technically: Bits are morally neutral
- Cybersecurity
 - Social: Security is not my responsibility
 - Economic: Compromise vs. need to interoperate
 - Political: Protect “good data”; access “bad data”
 - Technical: Negative Standardization

PRACTICAL EXAMPLES

- Cloud Standards
 - Social: Ease of use vs. loss of control
 - Economic: Rates, fees, service, reliability
 - Political: Cross border data transmission
 - Legal: Liability for fraud, loss, data compromise
 - Technical: Complexities of growth, security, ...
 - Management: Infrastructure or add-on

AND HERE A BIFURCATION OCCURS

- The State of Standardization Education
 - Issues and problems with formal education in standardization
- The State of Standardization in Practice
 - What's happening as a result of the lack of education

STANDARDS BELIEFS

- Permit/encourage competition
 - Allow legitimate “cooperative competition”
 - Permit innovation but within constraints
- Preclude government intervention
- Act as “heritage repository”
- Standards system provides structure
- Allow limited immunity from anti-trust

STANDARDS BELIEFS

- Reduce cost to providers and customers
 - Common components allow prices to drop
 - Consumers have increased choice
- Increase efficiency
- Allow sharing of technology
 - Encourage technology transfer
 - Open markets
- Users Value Standardization

THE STATE OF STANDARDS IN THE US

- Heavy focus on the process of standards creation (openness, balance, etc...)
- Heavy focus on standards as procurement devices (OMB A 119, European procurement directives, WTO TBT)
- Heavy focus on economics of standards (band wagon effect, path dependency..)
- Heavy belief in “Standards for Standards sake”
- **Standardization** seems to be ignored

THE HEART OF THE PROBLEM

- Standardization is not a discipline- in the US
- It is not taught in most schools - in the US
 - When it is, it is seen as an adjunct of a technical discipline
- We don't fund research about standardization
 - And when we do, it's research based on SDO activities
- Portrayal of standards in most standards education courses is about process, not results
- Most US participants are “home schooled”

THE RESULTS OF THE PROBLEM

- Because they're not taught in the US, they're considered unimportant
- Because they're considered unimportant, they are given little attention
- Because they're given little attention, they tend to be seen as drab and boring
- What we need is **The Standardizer's Dilemma: The Revolutionary Book That Will Make You A Successful Entrepreneur**

THE PRACTICE OF STANDARDIZATION

- The Internet/World Wide Web changed ICT standardization
 - Increased pace of innovation and change
 - Standards participant company size changed
 - IPR rules changed
 - Privacy and security disappeared
 - National body relevance declined
- Standards Industry response was to:
 - Increase process rules and structure
 - Increase lobbying efforts to preserve status of SDOs

REALITY CHECK

Process Based Definition of Six Major Types of SSOs

“Legitimate Organizations”

- Trade Associations, ca. 1890 (Subsumed under the US National body in the United States)
- National Formal Organizations, ca. 1900
- International Formal Organizations, ca. 1850 – 1945

Unrecognized by ISO, IEC, WTO, and most governments

- Consortia, ca. 1985
- Alliances, ca. 1995
- Possibly Open Source

Includes W3C, IETF, ECMA, OASIS, Blu-ray, DVD Forum and about **700** more standards producing organizations¹

Formal Standards practice has not kept up with the needs of society or the market

¹According to data provided in NIST Special Publication 806, Standards Activities of Organizations in the United States (1996 Edition; edited by Robert B. Toth), there are more than 93,000 standards produced and nearly 700 organizations. **Data shown is as of 1996; newer statistics are not available**

AS A RESULT

- Current standardization system in the US is failing
 - SDO's haven't evolved significantly
 - “Have nots” are increasing marginalized
 - Participation in and acceptance of standards are shrinking
- Balkanization is occurring
 - More arguments, less interoperability
 - Growth in proprietary solutions
- Standardization no longer facilitates trade
 - Not predictable, not open, not inclusive
 - Has become a blocking force
- The system **will** change – one way or another

THE WINDS OF CHANGE

- The National Cooperative Research Act of 1984 (P.L. 98-462) was a **revolutionary** approach
 - Changed the antitrust laws by allowing joint research ventures an exemption from treble damages
 - Intended to allow companies to collaborate on R&D – not on standards
 - Amended in 1993 (and again 2004) by the National Cooperative Research and Production Act (NCRPA, P.L. 103-42) to include SSOs
- Opened up the floodgates for new standardization activities – called consortia

THE WINDS OF CHANGE

- US Congress made consortia legitimate
- The US rode the consortia wave in ICT
 - Over 85% of ICT standards are consortia created
- ANSI and OMB A 119 make SDOs primary
- “ANSI should continue to reach out to standards developing organizations and consortia not under the ANSI framework to promote its programs, principles, and tools ...”
- The IETF (David Clark)
 - We reject: kings, presidents and voting.
 - We believe in: rough consensus and running code

THE WINDS OF CHANGE

- Starting in the early 2000 time frame, the U.S. hectored China to “open their standards processes up”
- WAPI was roundly defeated in JTC1
- Chinese were reminded of their WTO TBT obligations – again and again
- China listened – and began to study **standardization**, not just standards

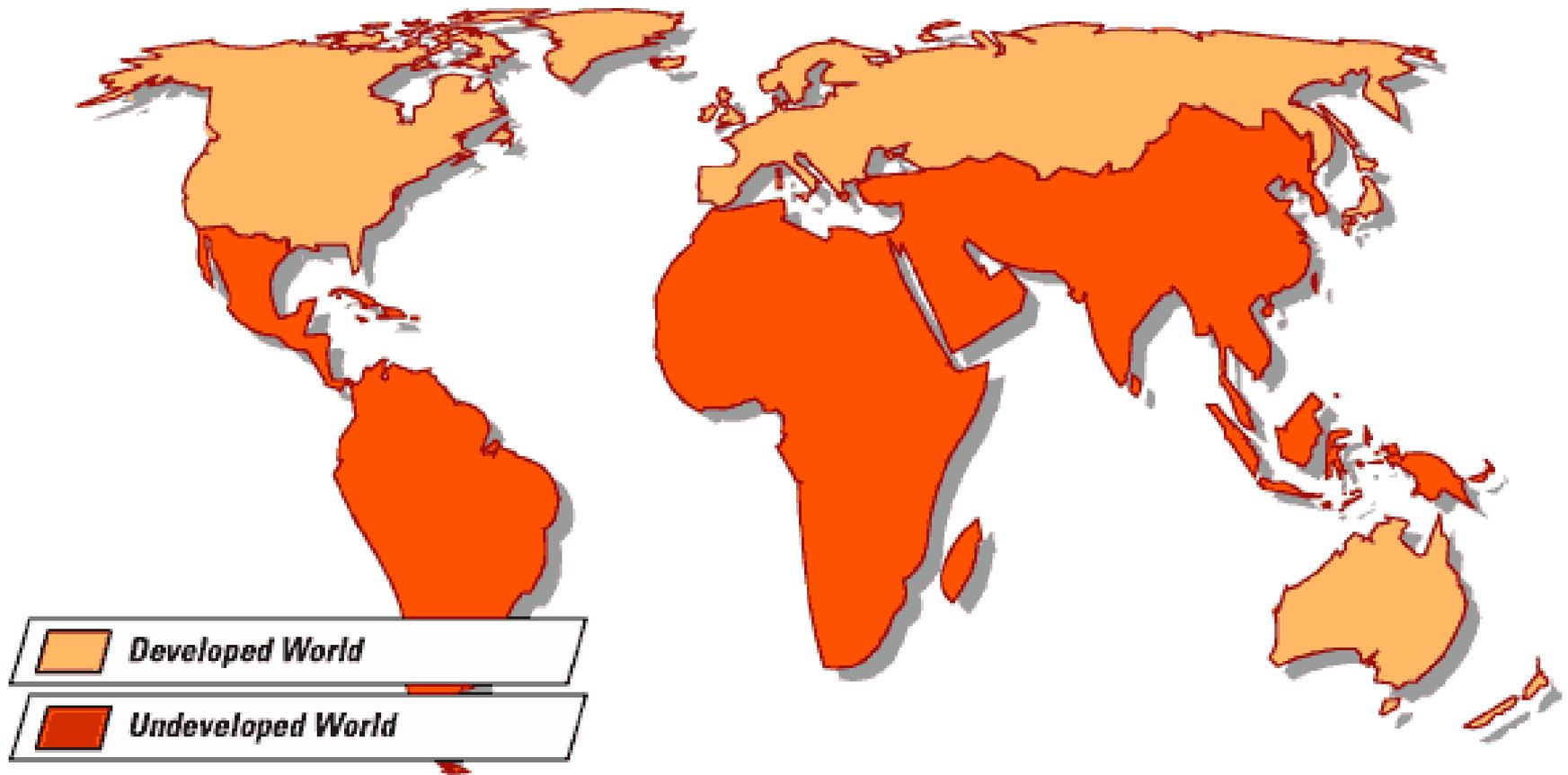
THE WINDS OF CHANGE

- China has learned –
 - Holds the Secretary General of the ITU
 - Has 10% of the IETF Nom-Com membership
 - Has tremendous reach in ITC standards
- “China is increasingly writing its own rules, and reinventing globalization in its own image, jettisoning many of the norms and conventions used by the US and Europe...” (French, *China’s Second Continent*)
- And now - the Chinese are re-writing their national standardization regime

THE WINDS OF CHANGE

- The new regime may go live in summer, 2015
- It appears that:
 - The government will create and make only safety, health and environmental protection standards mandatory
 - All other standardization is to be accomplished by “Social Organizations”
- The Chinese are writing the equivalent of the NCRPA for China and are probably willing to export their new regime

CHINA'S EXPORT STANDARDS REGIME



A POSSIBLE WAY FORWARD

- NCRPA was a case of revolutionary *public side intervention*
 - Was US industrial policy framed to allow the private sector to take some action
 - Reduced risk for the private sector in product development
 - Allowed a different way to do business (sharing risk)
- Private side exploited it just as the older standardization system became inefficient

CAN THE US REGAIN THE LEAD?

- Without education it won't
- As the US moves to increased globalization, the ability to set a standardization regime becomes vital
 - It's lead or follow – there's no “get out of the way” any more
 - The current regime has been failing for 30 years
- *Global Standards: 1992* proposed a set of solutions

A START TO A SOLUTION?

- Move away from vagueness of “openness, balance, lack of dominance, due process, consensus”
- Legislate new and clear rules for all Standards Organizations for “American National Standards”:
- Ignore each separate process and focus on the output specs of SSOs
- Incentivize (with anti-trust liability mitigation) use of rules for all standards organizations
- Make it quick and easy for SMEs to start an activity
- And above all – change OMB A-119 to legitimize these new entities

“We can't solve problems by using the same kind of thinking we used when we created them.”

Albert Einstein

COMMENTS?

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