

Globalization & Technology Standards: The Case for Expanded U.S. Leadership



ITIF Forum
January 13, 2009



Economic Impact of Technology Standards

- Technology standards directly affect at least 80% of world trade. [United States Congress and OECD]



Standards & Innovation

- **Standards enable innovation by providing a stable platform**
 - On which to build vertical applications
 - For the expansion of existing markets and creation of new markets
 - For propagating innovation across industries



Global Technical Barriers to Trade

- Standards are used as barriers to innovation & trade when
 - Platforms compete
 - Technology is frozen prematurely
 - Regulatory mandates conflict or constrict
 - Global competitors engage in misconduct (e.g., failure of participants to disclose patents reasonably necessary to comply with standard being developed)



A Rich Standards Landscape

[Different tools for different markets]

- **National participation models**
 - Treaty organizations; ISO, IEC, CEN, CENELEC
 - Formality in process
 - One country, one vote
- **Direct participation models**
 - ASTM International, SAE, IEEE, etc.
 - Direct link between technical experts and SDOs
- **Corporate participation models**
 - Consortia and fora
 - Wide range of processes and procedures allows flexibility



Why So Much Global Diversity in Standardization?

- Policy considerations
 - regulators often prefer to work in treaty organizations
- Legal implications
 - for companies, there may be issues related to IPR, perceived market dominance, etc.
- Business strategies
 - national activities vs. international, formal vs. consortia, etc.
- Market dynamics
 - the stage of technology development and market locations influence venue choices as well



Standards Issues Impacting the United States in the Global Market

- U.S. standards system is the most diverse system in the world and relies primarily on the private sector
- Most other nations have a centralized standards system in which the government is the dominant player
- Lack of acceptance by other governments of “multiple paths” to international standards
- Competition at all levels – shifting centers of influence
- Intellectual property rights



Department of Commerce & NIST

- Active engagement in ensuring that the necessary infrastructure is in place to support effective standards development and deployment is central to the mission of the Department and NIST
 - NIST coordinates federal agency use of standards and participation in standards development
 - DOC representatives participate in the US and global standards systems at both technical and policy levels
 - DOC staff address technical barriers to trade in foreign markets



Office of the United States Trade Representative

- Trade Agreements Act of 1979, as amended, provides
 - USTR is responsible for developing, coordinating, and implementing US trade policy with respect to Technical Barriers to Trade (TBT)/standards
 - The Act requires federal agencies in developing their technical regulations not to create unnecessary obstacles to trade
 - The Act also requires agencies to take into consideration relevant international standards and, if appropriate, base technical regulations on those standards



U.S. Interagency Process

- USTR coordinates the interagency process for TBT/ standards issues. USTR consults with other government agencies on trade policy matters through the Trade Policy Review Group (TPRG) and the Trade Policy Staff Committee (TPSC).
- These groups, administered and chaired by USTR and composed of 19 Federal agencies and offices, make up the sub-cabinet level mechanism for developing and coordinating US Government positions on int'l trade issues, including TBT and standards.
- See www.ustr.gov/Who_We_Are/Mission_of_the_USTR.html



World Trade Organization

- USTR represents the United States before the World Trade Organization (WTO), including the Committee on Technical Barriers to Trade.
- In 2008, there were a record 53 technical trade concerns discussed in the Committee.
 - 2/3 were raised by the U.S. and/or the EU.
 - The primary focus of Committee discussion tends to be measures taken by the EU, followed by China.



Major ICT TBT/Standards Issues

- China
 - Information security regulations
 - Systemic issues (e.g., transparency, conformity assessment, participation in technical committees of Chinese standards bodies)
- Systemic
 - Suppliers declaration of conformity (SDoC) vs. 3rd party certification
 - Materials restrictions (e.g., Restrictions on Hazardous Substances (RoHS))



Thoughts & Reflections

- How to deal with regulatory measures that are different (regulatory divergence) but that do not rise to the level of an unnecessary TBT?
- How to advance the ball on TBT Article 5?
- How to reconcile the ICT standards development process with TBT Article 2.4 and a Committee Decision?



Closing the Standardization Gap

- *To what extent will the standardization gap (unequal access and use of technology) between developed and developing countries impact development of global technology standards?*
- ITU *Global Standards Symposium* concerning ICT standardization gap (October 2008).
- Golden opportunity for the United States and the ICT Industry.



NGO Diversity

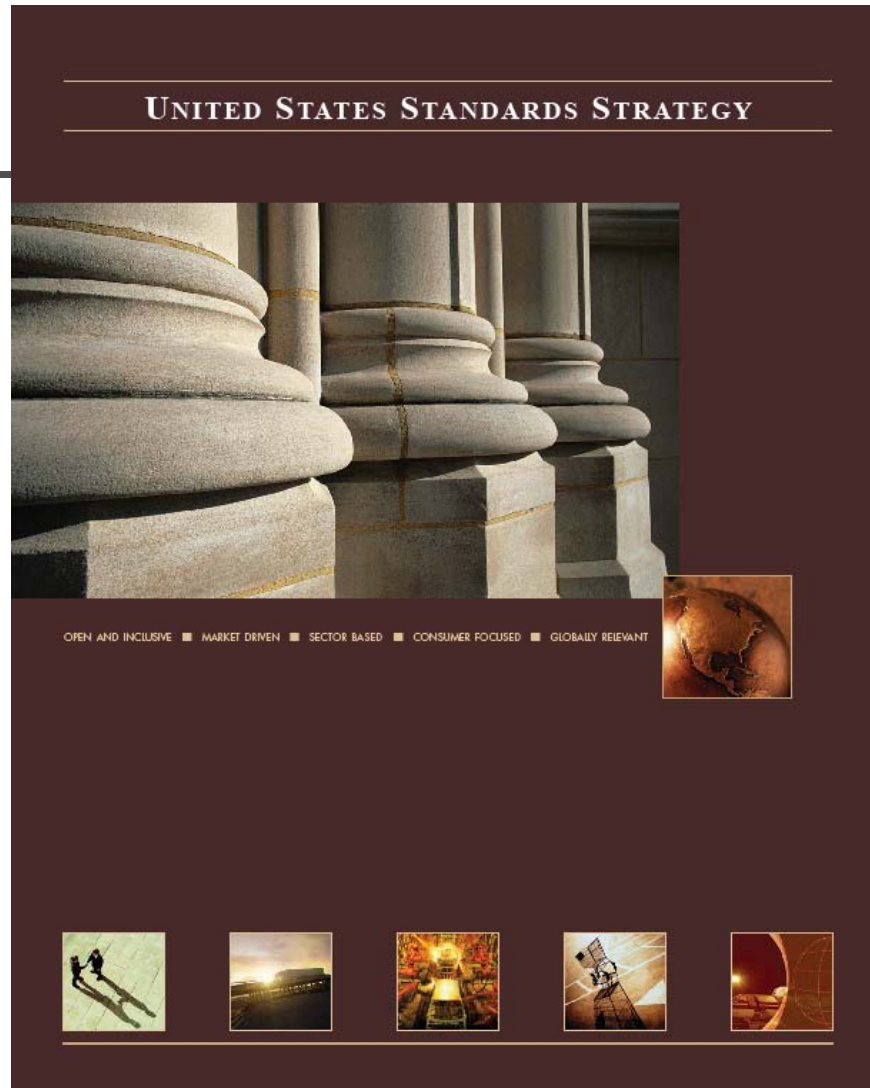
- *To what extent will the diversity of non-governmental (NGO) standards groups increase or decrease in the foreseeable future?*
- An estimated 850 NGO standards groups exist in the world today.
 - United States (600)
 - Rest of the World (250)
- Prognosis: diversity of NGO standards groups will increase in the foreseeable future.



Educating the Next Generation of Standards Experts

- *If the United States fails to train and educate the next generation of standards experts, what will be the competitive impact on the United States in the global marketplace?*
- It is estimated approximately 50% of U.S. standards experts will retire in the next five years.
- *“The Biggest Issue”* (David Brooks, The New York Times, July 29, 2008)
- Prognosis: the competitive global position of some U.S. companies and industries will become increasingly problematic.

United States Standards Strategy



The U.S. Standards Strategy is supported by a broad consensus of interested parties, e.g., standards development organizations, corporations, government agencies, and academic representatives.



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