Scientific and Technical Information for Congress: Isn't Wikipedia Enough?

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Main Observations

- OTA was closed down in 1995, just as the Web and email were beginning to revolutionize information access and communications
- The Web has since led to upheavals in the roles, operations and economics of a host of "intermediary" institutions
  - Newspapers, magazines, TV, other mainstream media
  - Libraries, specialized information services
  - Congressional support agencies (CRS, CBO, GAO)
  - Experts in general
- The Web, email, and cellular telephony have given new life to the concept of social networks and real meaning to the promise of the "wisdom of crowds"

The Questions for This Paper

- How might the new world of all-the-time, everywhere, and nearly free information access and networked communications affect a "New OTA"?
- Would such an organization be able to add value to policymaking in the 21st century?

Congressional Needs for "Scientific and Technical Information"

- Congressional policymaking functions
  - Authorization, appropriation, oversight, investigation, advise and consent, foresight
- Policy making for S&T vs S&T in policy making
- Settled scientific "facts" are not usually in significant dispute in policy making
- Congress more urgently seeks S&T information when:
  - Facts are in dispute and uncertainties are large
  - Projections into the future influence views on issues
- Congress typically delegates policy making to regulatory agencies when large volumes of scientific or other facts and information must be considered to make frequent, similar policy decisions

Meeting the Congressional Need for Scientific "Facts"

- "Facts" have to do with what is or what can be predicted reliably and with little controversy
- Members and staff routinely go to trusted sources for factual information
  - Executive branch agencies
  - Publications
  - Interest group experts
  - Lobbyists
  - Constituents, including individual scientists
  - Congressional Research Service
- The Web is an increasingly convenient and potentially useful source of factual information

But Web Resources for S&T "Facts" Have Limitations

- Most sites do not meet standard scientific processes for determining reliability of presented facts (e.g., peer review, replicability, full citations to sources)
- Many sites are built on untested and/or biased personal views and are difficult to validate. Accountability is very limited.
- A few sites use transparent processes for ensuring reliability (e.g., Wikipedia)

S&T Facts Can be in Doubt When:

- A scientific consensus has not emerged, so uncertainties are large
- Interest groups emphasize plausible extremes within the bounds of uncertainty and do not agree on the facts,
- Models used to make predictions about the future of society are not robust (usually true)
- Policy makers choose to ignore or mischaracterize S&T information that does not support their preferences

Meeting the Congressional Need for S&T Information When Facts are In Doubt

- Traditional Methods
  - Hold hearings with experts and/or interest groups
  - Mandate studies by the executive branch
  - Create a special commission
  - Mandate a study by the National Research Council or other esteemed expert group
- OTA Method
  - Create a study environment in which relevant interests must make and defend their best cases
- Science court

How OTA Obtained S&T Info

- Asked its own expert staff and consultants
- Set up project advisory panels with expert members from interest groups
- Contracted-out support studies to consulting firms, think tanks, etc.
- Held focused workshops
- Obtained expert and interest group reviews of work documents prior to release
- Circulated draft materials for comment
- Tried occasional experiments to encourage public participation

Value Added by OTA

- Created objective, thorough descriptive reports on the state of development of a technology and associated socio-technical systems
- Developed defensible scenarios as frameworks for anticipating the future uses and consequences of uses of a technology
- Provided state-of-the-art reviews of these issues with uncertainties identified, analyzed, and reduced in many cases.
- The same work products were of high value to the public as well as the Congress.

Value added to OTA by its sponsorship by Congress

- Congress asked challenging questions
- Congress provided the money
- Congressional oversight via the Technology Assessment Board minimized political bias in OTA reports
- Expectation that OTA reports would influence Congressional policy making created an incentive for interests to cooperate

Congressional Sponsorship of OTA also Created Challenges

- The original OTA vision of looking ahead to the unanticipated, negative consequences of technology applications was difficult because review and oversight discouraged “speculation”
- Demand for balance encouraged “even handed” discussions rather than firm conclusions
- Controlled production, review and release discouraged public participation

Expertise and Democratic Decision Making

- Technical and other expertise fits awkwardly in a democracy
- By contrast, expertise finds a comfortable place in a republic
- Federalist 10 tells us:
  - That democracies devolve into despotism
  - That the task of the representative body in a republic is to cool popular enthusiasms and to expand the consideration of issues
- An expert body like OTA is more suited to a republic than a democracy
- Representative bodies around the world create OTA-like bodies
- An OTA is even more suited to a legislature that is separate from the executive

Web 2.0 and OTA Supports and Tensions

- New media can help an OTA do its work by facilitating communication, outreach, feedback, report drafting, "fact" gathering, administrative activity
- Crowd-sourcing could be used to gather impressions, uncover unusual perspectives, test reactions
- Conferencing tools could be used to facilitate dialogue among interests, making identification of consensus and disagreement more efficient
- But, the anonymity of Web 2.0 tools seems to enable imprudent and divisive communication and may undermine emergence of trust
- Using Web 2.0 tools to facilitate input and dialogue may weaken the ability of organized interests to represent constituencies effectively
- It is not clear what the net result will be

Beyond S&T Info for Congress

- The new web has impacts on public policy making well beyond Congress
- The Obama campaign made extensive use of the new web to reach voters and supporters directly
- The Obama administration continues to experiment with using such tools to govern
- We need to know a great deal more about the impacts and effectiveness of employing "democratizing" tools in governing our republic

More Research is Needed!