

OTA: Congress' Misunderstood Organ of Reason

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PROLOGUE

The difficulty of providing policy-makers with sufficient, quality, technical advice is a problem with ancient roots that was of particular interest to the founding fathers (Bimber 1996, ix). The topic has received attention from uncountable authors yet we struggle with it to this today. It is not for want of information that Congress fails to act expeditiously or rationally on so many issues (Bimber 1996, 1). Indeed Congress has access to too much information of dubious quality. So much so that “members do not have time to read,” while “staff have time to read but not to think” (Bimber 1996, 35). Congress needs someone who has time to think, and can help members to “navigate the turbulent seas of special interests” (Coates 1995, 322), someone tuned to its particular needs (Coates 1995, 322; Norman 1977).

Politicians tend to ask “unanswerable” questions (Bimber 1996, 77), and grace is necessary in guiding them towards firmer ground. The timeliness of information is also a concern. Without direct control of a data provider, Congress is subject to the whims of the researcher, even though the policy stream flows on. Traditionally, the availability of adequate analytical support has been occasional, at best (Morgan 2004, 308A). Yet it has become more important in modern times due to the complexity of contemporary society, as well as the increasing number of intersections between technology and facets of everyday life. A cursory listing of the areas technology impacts is included at the bottom of Figure 1.

Concerns over the side-effects of technology deployment give rise to important questions about the role of government: Is it enough to address the plentiful concerns of the here and now, or should efforts be made to prognosticate and develop “future-proof” policies? These and other issues—among them recurring themes of efficiency (redundancy) and equity as discussed in Stone (2002, 39-60), including access to request new studies (rank-based), turf wars over subject areas (boundaries of the item), and opportunities to influence policy (competition); such as by misapplying market concepts to science—surround the history of the defunct Office of Technology Assessment (OTA).

Timeline

- 1960s Congress and the administration butt heads over the supersonic transport and anti-ballistic missile defense; SST and ABM respectively (Blair 1994; Kunkle 1965).
- 1963 The House Committee on Science and Astronautics forms a Subcommittee on Science, Research and Development chaired by Emilio Daddario. The Subcommittee begins a series of hearings, and later commissions reports, on the forms of technical advice Congress requires (Bimber 1996, 27; Kunkle 1995).
- Senator Edward Bartlett introduces a bill to establish a “Congressional Office of Science and Technology,” but it never makes it out of committee (Kunkle 1995).
- 1966 The Subcommittee releases a preliminary report and continues to hold discussions (Bimber 1996, 27).
- 1970 Daddario's attempt to attach a rider to the Legislative Reorganization Act of 1970—which renamed the Legislative Reference Service arm of the Library of Congress the Congressional Research Service (CRS)—that would create an Office of Technology Assessment fails because of fears that its oversight structure passes too much control of the new agency to the executive branch (Bimber 1996, 27).
- 1972 Shepherded by Rep. John Davis, a modified version of the enabling legislation, the Technology Assessment Act, passes (Bimber 1996, 27-28; Kunkle 1995).
- 1973 OTA is included in the '74 budget (Bimber 1996, 29). Daddario is appointed director.
- 1974 The OTA opens for business as Nixon leaves the White House (Bimber 1996, 29).
- 1975 The first chairman of TAAB—Caltech president Harold Brown—resigns, criticizing the OTA for failing to live up to its potential and the aspirations many held for it, instead squandering its resources on trivialities. (Boffey 1976, 213; Norman 1977).
- 1976 A report by the House Commission on Information and Facilities echoes Brown's earlier criticism, as well as noting concerns of abuses by TAB. TAB have been interfering with OTA staffing through the infamous “Rule 12.” The report is also apologetic acknowledging OTA's relative youth and the difficulty of its mission (Boffey 1976, 214). At the same time, many were voicing concerns about TAB members' abuse of the Agency as virtual extensions of their own staff (Bimber 1996, 53).

- 1977 Daddario leaves amongst wild speculation fueled by his lack of a “credible public explanation for his departure” (Bimber 1996, 54), although it should have been expected since he was on record as only intending to stay long enough to get OTA up and running (Norman 1977). Soon afterward Vice Chair Rep. Marjorie Holt resigned claiming Senator Kennedy's dominance of TAB (Bimber 1996, 54; Norman 1977). Rep. Olin Teague cited similar concerns (Bimber 1996, 54-55). Finally Senator Schweiker also resigned, but for different reasons, stating that he was too busy (Norman 1977).
- 1979 Jack Gibbons becomes the third director of the OTA, and its last chance at redemption (Kunkle 1995; Mooney 2005). Like his predecessor he proceeds to make many reforms—however his are more palatable—including efforts to increase transparency, and depoliticize the Agency by firing employees whom had previously served as congressional staff (Bimber 1996, 57-58; Kunkle 1995).
- 1980 Inspired by a tome purporting to identify government largesse—*Fat City*—a freshman senator oversteps his authority and attempts to abolish the OTA in what becomes known as the “Mattingly affair.” In '81 He tries again and fails (Bimber 1996, 58-59).
- 1984 Congress finds itself in a situation remarkably similar to the debates surrounding SST and ABM twenty years earlier (Kunkle 1995), however this time it should have the benefit of the OTA. The Agency's analyses were rarely controversial however their work on Reagan's Strategic Defense Initiative (SDI), or “Star Wars,” stands out as the exception that proves the rule. While not unique, the agency's findings were unflattering to the administration's plans and strongly resented by many Republicans (Bimber 1996, 44-45; Kunkle 1995; Mooney 2005, 44)
- 1993 Gibbons leaves the OTA to become Bill Clinton's science advisor (Kunkle 1995).
- 1994 Control of Congress changes hands in the Republican Revolution due in part to Newt Gingrich's “Contract with America” (Mooney 2005, 45).
- 1995 As part of a failed effort to gain support for the Republicans' plans to cut programs throughout government by “starting at home,” OTA's budget is eventually eliminated by the 104th Congress (Bimber 1998, 217-219; Bimber 1996, 77). The attack garnered the obscure agency much publicity, and it was nearly saved after a debacle in the House, but it died in the Senate and Conference (Bimber 1998, 215; Bimber 1996, 75, 77). Attempts were also made to merge it with CRS (Mervis 1995; Morgan 1995). This successful attack on OTA has been dubbed “Reagan's Revenge” (Mooney 2005, 43).

The Agency's doors were set to officially close in October but some staff staid on (unpaid) to aid in distributing expeditiously completed analyses (Raloff 1995), and closing out other projects such as a complete archive of the Agency's public work, The OTA Legacy: 1972-1995 (Bimber 1996, 77; OTA, 1996).

1996 The Institute for Technology Assessment (ITA) is founded by alumni of OTA. The president is Vary Coates, wife of noted futurist Joseph Coates, both of whom were employed in various capacities at OTA throughout its history (GATech 2005).

1998 ITA shuts down after conducting a handful of grant funded studies (ITA 1007).

2001 A workshop is held on improving analytical support for Congress.

Rep. Rush Holt continues his attempts to refund OTA, and Senator Jeff Bingaman successfully pushes for the GAO to begin trial assessment efforts (Morgan 2004, 311A).

2007 Hillary Clinton gives a campaign speech on government reform in April and lists the reestablishment of OTA as the 5th (later 6th) of 10 points (Clinton 2007a; Clinton 2007b).

BIRTH

Most observers credit Representative Emilio Daddario with the creation of the OTA, although many others played a role including Representative John Davis whose advocacy saw the enabling legislation passed after Daddario left Congress (Kunkle 1995; Shapley 1972, 971). However futurist and former OTA staffer Joseph Coates traces its lineage all the way back to Charles Lindbergh (1995, 321): world famous aviator, Representative from Minnesota, and staunch advocate of technology.

Technology Assessment Act of 1972

§ 2. The Congress hereby finds and declares that:

(a) As technology continues to change and expand rapidly, its applications are—

1. large and growing in scale; and
2. increasingly extensive, pervasive, and critical in their impact, beneficial and adverse, on the natural and social environment.

(b) Therefore, it is essential that, to the fullest extent possible, the consequences of technological applications be anticipated, understood, and considered in determination of public policy on existing and emerging national problems.

(c) The Congress further finds that:

1. the Federal agencies presently responsible directly to the Congress¹ are not designed to provide the legislative branch with adequate and timely information, independently developed, relating to the potential impact of technological applications, and
2. the present mechanisms of the Congress do not and are not designed to provide the legislative branch with such information.

(d) Accordingly, it is necessary for the Congress to—

1. equip itself with new and effective means for securing competent, unbiased information concerning the physical, biological, economic, social, and political effects of such applications; and
2. utilize this information, whenever appropriate, as one factor in the legislative assessment of matters pending before the Congress, particularly in those instances where the Federal Government may be called upon to consider support for, or management or regulation of, technological applications.

¹ The General Accounting Office and the Congressional Research Service.

The enabling legislation seems to make the purpose of the OTA quite clear yet since its passage there have been many different interpretations of the agency's intended and actual role in the policy process, as well as to the factors leading to its creation. Some of the confusion concerning OTA's role is due to the "ambiguity" of the act (Boffey 1976), and some stems from the creative salesmanship which was necessary to pass the act (Blair 1994). Whereas differences of opinion regarding the creation of OTA can be attributed to insightful retrospective examination and creative revisionism (Bimber 1996, 27; Blair 1994; Kunkle 1995; Nader 2006). While this confusion allowed for various criticisms of the agency during its lifetime, it was not a significant factor in OTA's eventual demise.

The primary alternative *raison d'être* put forth is that the OTA was an attempt to restore the balance of power amongst the branches of the federal government and in particular to rebuff an imperial presidency (Bimber 1996, 40-42; Blair 1994; Coates 1995). An interesting, subtle variation is put forth by Kunkle (1995) who suggests that the impetus to create OTA can be linked to a desire to better manage the nation's rapidly increasing science and technology budget.

LIFE

The Office of Technology Assessment conducted a range of analyses on a broad array of topics, see Figure 1 above, and at times even performed such "basic" tasks as feasibility studies and literature reviews. This range of functions irked some, as did its balance of in-house vs. contract work, which shifted to the former over time (Boffey 1976). OTA's operations included levels of public involvement which would have generally fallen fairly low on Arnstein's "Ladder of Citizen Participation," although in one case as many as 15,000 people contributed to a study (Houghton 1995). TAAC was intentionally limited to avoid capture of the agency (Kunkle 1995). Also noteworthy is the fact that "[OTA did] not seek consensus from the [public advisory] panel because most often if there were a possible consensus decision or course of action, OTA probably wouldn't have been asked to do the study in the first place." (Blair 1994)

DEATH

How was this agency, which managed to overcome adversity in its early stages to become such a nearly universally respected institution, dispatched so readily? Surely Congress must have good cause.

Let's make the case for abolishing OTA.

Good, now that being done, let's consider its purpose and performance. (Coates 1995)

While often plagued with criticism for veering off its mandate in some way or another, these contortions were generally in response to pressures from its constituency. As such, even an early observer remarked, "All of these spats mask the central question about OTA: is it performing useful functions, and is it having any impact on congressional operations?"

(Norman 1977) We shall revisit the latter question later, but on the first point Norman proceeds to take note of the praise showered on the OTA by Congress via the press. Since then the message reported by others has largely remained the same (Bimber 1996). Further indirect evidence of OTA's utility can be seen in the international technology assessment movement it has spawned; dozens of countries have made attempts to clone the OTA itself (Houghton 1995). Bimber (1996, 93) however takes a slightly different perspective, making the stark claim that on the most basic level OTA must be judged a failure since it was unable to survive. He then proceeds to soften the blow by adding additional dimensions to the tally: technical quality of expertise (excellent) and our previously bookmarked topic, its effect on policy.

In 1977 Norman wrote, "there are few issues on which OTA can claim to have had decisive influence." Twenty years later, Bimber seemed to have repeated Norman's findings more forcefully, "it is impossible to identify a single bill where an OTA study was clearly decisive to the outcome—as measured in votes." (1996, 36) Of course, it turns out that last phrase is key. Several scholars (Bimber 1996, 38; Rosina Bierbaum as cited in Mooney 2005, 44; Morgan 1995) have pointed out that the reason it is so hard to measure the impact of OTA is that it tended to work in the early, unrecorded stages of policy, helping to establish a consensus framework.

There are other means of gauging OTA's wide-ranging impact as well. Representative Amo Houghton listed many of them in a set of remarks he entered into the *Congressional Record* in memoriam of the OTA (1995). Rep. Houghton noted that OTA reports were frequently best-sellers at the Government Printing Office; several of them were in high enough demand that commercial publishers reprinted them. Dozens of reports were distinguished with awards from the National Association of Government Communicators and the American Library Association's Government Documents Round Table, while others were lauded as "landmark" or "definitive" and cited frequently. Finally, there are a few documented instances of a clear policy benefit from OTA's work (Susman 1996, 154). In particular, it is said to have saved the federal government \$360-370 million dollars in a review of a Social Security Administration plan to procure computers; more than a century's operating budget for the Agency (Bimber 1996, 42; Mooney 2005, 48).

Why then, was this "self-imposed lobotomy" pursued? A bogus cost-cutting measure as cheap publicity ploy (Bimber 1998, 217-219) in their attempts to balance the budget. Of course, had they really wished to signal solidarity they would have gone after something that would not affect the quality of government, like their own paychecks. "When you have \$200 million to cut out of the budget, you look everywhere...Still, the Republicans appear to be looking everywhere else first" (Rep. Connie Mack as cited in Salant 1995).

On the other hand, OTA was an easy target because the budget was small (Bimber 1996, 77) as was its unevenly distributed constituency, committee chairmen. In the best of times it was hardly recognized by regular congressmen (Bimber 1998, 209; Morgan 2004, 309A; Susman 1996, 155) and so was particularly hard hit by the churn of bodies (Herdman as cited in Raffol 1995). "The problem is that it's science. And science is not sex. Science needs a protector in Congress, it can't make it on it's own." (Mervis 1995, 268)

REBIRTH

Ever since Congress dismantled the Office of Technology Assessment there have been cries for its reestablishment from many corners of society: liberals to neoconservatives (Mooney 2005, 42-43), politicians and pundits to scientists (Clinton 2007a; Morgan 2004; Nader 2006). There are still a few outspoken naysayers though, particularly libertarians such as Patrick Michaels of the Cato Institute (Triplett 2004). Michaels has the gall to liken the OTA's reports to Master theses, and suggests that our government should instead rely upon students to conduct analyses for free (or rather "pay for the privilege") because they can be placed online for easy access.

One obstacle to restoring the OTA, or a similar agency has been that somebody/ies would have to eat crow; not a politician's strong suit. However it's now possible that there's been enough turnover since 1995, particularly with the recent ceding of the majority to the Democrats, that it's fallen out of institutional memory (Teich as cited in Sternstein 2007). Meanwhile efforts have been to add assessment capabilities to the GAO (Morgan 2004, 311A; Sternstein 2007) despite its failings as a poor match. The GAO is the anti-thesis of the OTA: a large, backwards-looking, number-crunching bureaucracy (Mosher as cited in Bimber 1996, 88; Coates 1995, 323; Mooney 2005, 47).

During an April 2007 speech at a Princeton University colloquium titled, "From Passion to Politics: What Moves People to Take Action," New York State Gov. Eliot Spitzer admitted that the world changes more by technology than by politics. He added that emotions can obscure facts and that political discourse requires an agreed-upon set of facts before policy can be rationally discussed. Unfortunately, politicizing scientific facts has never been more prevalent. (Kahn 2007)

One can only hope that restoring the OTA, and once again having Congress served by its humble and obedient servant, such trends might be reversed.

LESSONS LEARNED

I selected this topic due to my interest in the diffusion of technology, and specifically my interest in promoting the adoption of best management practices—also known as technology transfer—to eliminate material and energy waste. In my naiveté I thought that it a shame that the OTA had been disbanded since it sounded like the perfect organization to assess technology and promote diffusion policies. I had not realized that on Capitol Hill technocracy is considered a four letter word, nor that Congress might not be open to being spoon-fed on matters it otherwise has no attention for.

Through my research I have learned more about just what the OTA did, provide neutral analyses as background to inform political debate, and how remarkable its success was. Its amazing that such an influential agency remained in relative obscurity—outside of academia and D.C.—for so long. The variety and fervor of its supporters to this day is also quite surprising. Alas, I was continuously revolted by the scurrilous politics involved. For instance, at no point during the 1995 efforts to dismantle the OTA did anyone seriously question its utility over the preceding dozen years. The resulting “self-imposed lobotomy” over one millionth of the budget (Bimber 1998, 202, 212) left other nations, and myself, aghast (Mooney 2005, 45).

SOURCES

The situation has not much changed since Bimber wrote “almost no scholarly literature on the political logic of the agency's function in the legislature” (1996, 8). While I was able to amass a respectable library of sources, and there remains another dozen or so readily available to tap, many of the pieces are news columns or editorials. Furthermore, much of the available material seems to be from “the usual suspects:” former OTA staff, advocates for restoring the agency, or a small group of academics interested in the field who tend to write several papers with similar content. Much of the variety in quality pieces I relied upon were from *The OTA Legacy*, and I do have some concerns about selection bias.

FURTHER READING

Kunkle

Morgan, G.M., and Jon Peha. 2003. *Science and technology advice for Congress*.
Washington, DC: Resources for the Future.

Morgan 2005

REFERENCES

Behney, C. *Untitled*. Personal email. 25 November 2007.

Bimber, B. 1996. *The Politics of Expertise: The rise and fall of the Office of Technology Assessment*. Albany, NY: State University of New York Press.

Bimber, B. 1998. The Death of an Agency: OTA and Trophy Hunting in U.S. Budget Policy. *Policy Studies Review* 15(2):202-225.

Blair, P.D. Technology Assessment: Current trends and the myth of a formula. Adapted from plenary remarks. Bergen, Norway. International Association of Technology Assessment and Forecasting Institutions. May 2, 1994. In ‡

Boffey, P. M. Office of Technology Assessment: Bad marks on its first report cards. *Science* 193(4249):213-215.

Clinton, H. 2007. Remarks on Government Reform. Manchester, NH: Saint Anselm Institute of Politics, April 13, 2007. <http://www.hillaryclinton.com/news/speech/view/?id=1445> (accessed December 8, 2007).

Clinton, H. A Comprehensive to Reform Government. HillaryClinton.com. <http://www.hillaryclinton.com/feature/realplan/> (accessed December 8, 2007).

Coates, J. F. 1995. Technology Assessment: Here today, gone tomorrow. *Technological Forecasting and Social Change* 49(3):321-323.

GA Tech. Inventory of the Joseph F. and Vary T. Coates Papers, 1969-2004 (bulk 1975-1998). <http://www.library.gatech.edu/archives/finding-aids/display/xsl/MS175> (accessed December 3, 2007).

House Representative Amo Houghton extension of remarks [In Memoriam: The Office of Technology Assessment, 1972-95](#), 104th Cong., 1st sess., Congressional Record, (28 September 1995), :E1868-1870

ITA. Current ITA Projects. ITA Home page. <http://web.archive.org/web/19980127074612/http://www.mtppi.org/ita/projects.htm> (accessed December 4, 2007).

- Kahn, L. H. 2007. Bring back the Office of Technology Assessment. *The Bulletin Online*.
<http://thebulletin.org/columns/laura-kahn/20070521.html> (accessed December 3, 2007).
- Kunkle, G. C. 1995. New challenge or the past revisited? *Technology in Society* 17(2):175-196.
In ‡
- madnessism. 2006. Tee Shirt Vector Template. deviantART. <http://madnessism.deviantart.com/art/Tee-Shirt-Vector-Template-39773099> (accessed on November 25, 2007).
- Mervis, J. House saves, kills, then saves OTA. *Science* 268(5219):1842.
- Morgan, M. G. 1995. How the Congressional Office of Technology Assessment—small and excellent—was killed in the frenzy of government downsizing. *Pittsburgh Post-Gazette*, August 2. In ‡
- Morgan, M. G. 2004. The U.S. Congress needs advice about Science and Technology. *Environmental Science and Technology* 38(16):306A-312A.
- Mooney, C. 2005. Requiem for an office. *Bulletin of the Atomic Scientists* 61(5):40-49.
- Nader, R. 2006. It's time to reinstate the Office of Technology Assessment. *Common Dreams NewsCenter*, April 27. <http://www.commondreams.org/views06/0427-28.htm> (accessed December 3, 2007).
- Norman, C. 1977. O.T.A. caught in partisan crossfire. *Technology Review*. October/November.
In ‡
- Raloff, J. 1995. OTA dies, but its analyses will live on. *Science News* 148(15):228.
- Salant, J. D. 1995. The Budget: More Hill Cutbacks Coming; Support Services Eyed. CQ Weekly, 11 February.
- Sternstein, A. 2007. Government Operations: GAO might take on some old Technology Office tasks. *Technology Daily*. June 12.
- Stone, D. 2002. *Policy Paradox: The art of political decision making*. New York: W. W. Norton & Company Inc.
- Susman, E. 1996. Demise of the OTA. *Environmental Health Perspectives* 104(2):154-155.
- Triplett, W. 2004. Science and Politics: Is political manipulation getting worse? *The CQ Researcher* 14(28):661-684
- ‡ U.S. Congress, Office of Technology Assessment. 1996. *The OTA Legacy: 1972-1995*.
<http://www.princeton.edu/~ota/>