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Making Public Community Media Accessible

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EXECUTIVE SUMMARY

Early advocates for public, educational, and governmental access media (PEG), categorized here as "public community media," envisioned that it would empower local civic groups through improved meeting coverage.

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Unfortunately, the current reality has come up far short of the original promise. Economically, the technology proved prohibitively costly for civic groups to incorporate into their meetings. Politically, public officials had minimal incentive to make media available to civic groups over whom they didn't have editorial control. The economic and political reasons reinforced each other in that the high cost of making public media available to civic groups, combined with the need for extensive government staff support, gave public officials a compelling excuse and means to exert the editorial control they sought.

Fortunately, new information technology is revolutionizing the economics and politics of meeting media, making it possible to cover face-to-face meetings at negligible cost and without the need for government controlled technical experts. Moreover, meeting participants can be empowered to participate in ways undreamed of by the early public community media advocates.

We can now imagine a world where webcasting a public meeting in a public building is as easy and inexpensive as flipping on a light switch, and where searching the contents of public meetings is as easy and inexpensive as a Google search.

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We are clearly entering a new era of blended meetings, where meetings incorporate both face-to-face and cyberspace components in ways previously impractical or even impossible. However, for the democratic potential of this revolution in meeting technology to be realized, the public policy framework for public community media needs to be dramatically reformed.

So how should public media be redesigned to empower local civic groups? I lay out twelve recommendations:

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1. **Meeting Media Automation.** Community media equipment should be designed to operate on a completely automated basis to eliminate the need for expertise and expensive labor.

2. **Open and Extensible Meeting Software.** The software to control community media equipment should be open and extensible so that additional meeting functionality can easily be added by third parties.

3. **Interactive Meeting Media.** Community meeting media should include not only broadcast TV but also interactive media, including voting devices, Wi-Fi, and flat screen TVs connected to the Internet, with remote participants able to largely replicate the public meeting media experience via the Internet.

4. **Meeting-Friendly Public Spaces.** Library meeting rooms, school auditoriums, and public access facilities should be designed to be meeting-friendly to civic groups.

5. **Building Codes for Public Meeting Rooms.** For government facilities substantially or primarily used for public meetings ("public meeting anchor institutions"), meeting technology should be included in building codes just like requirements for smoke detectors, exit signs, and electrical outlets.

6. **Equity in Access to Meetings.** To level the playing field between those with and without convenient physical access to public meetings, high quality remote access should be available.

7. **Equity in Access to Meeting Equipment.** Civic groups should be able to borrow inexpensive mics and clickers using the same infrastructure that allows citizens to borrow books from libraries.

8. **Web-Centric Meeting Media**. Community meeting media should be web, not cable TV, centric.

9. **Civic Group Control of Meeting Media.** Any government monopoly power on the use of public meeting media should be reduced as much as is feasible.

10. **Checks & Balances Institutions for Meeting Places & Media.** Public community meeting places and media should be implemented by checks & balances institutions.

11. **Public Bodies Covered by State Open Meeting Laws.** State open meeting laws should be revised to include in the definition of public bodies quasi-government bodies such as state mandated advisory groups, commissions, and ad hoc committees.

12. **Federal Government Public Meetings.** Although this essay focuses on local public media, the same principles apply to federal public media.

The Emergence and Growth of Public Community Media

In 1971, the Sloan Commission Report on the public policy implications of the emerging media of cable TV proposed a public community media system for the U.S. that would, in part, strengthen civil society. The Report used New York City to illustrate the need to empower parents with new technology-based community building tools:

> The opportunity for those with issues and grievances to expose them progressively to larger and larger audiences is of particular significance…. Dissatisfaction with the operation of the school system is pervasive in New York City, but there has been no way for the community as a whole to examine the roots and the nature of that dissatisfaction, to reach a consensus on the manner in which it can be remedied, and to act upon that consensus…. School board elections attract only a few percent of the voters; the results of the elections can hardly be called representative, and the grievances remain not only unresolved but largely unstated….
>
> Two or more community channels, open to the members of the community for whatever reason, might go a long way toward relieving the pressures that arise where communication is in short supply…. [O]ne would be hard put to find any community… that does not have its internal communications problems, or an urge for cohesiveness that is not met by existing media.[1].

In 1972, in the wake of the Sloan Commission's Report, the Federal Communications Commission (FCC) mandated that all cable systems in the top 100 U.S. television markets provide three local access channels, one each for public, educational, and government use.[2]

In a report accompanying the Cable Act of 1984, the Committee on Energy and Commerce within the U.S. House of Representatives provided the following democratic rationale for public funding of local community media:

[1] Sloan Commission on Cable Communications., *On The Cable: the television of abundance; report* (New York,: McGraw-Hill Book Co., 1971), 125-6.

[2] Cable Television Report and Order, 36 FCC 2d 143, 210 (1972).

> Almost all recent franchise agreements provide for access by local governments, schools, and non-profit and community groups over so-called "PEG" (public, educational, and governmental) channels. Public access channels are often the video equivalent of the speaker's soap box or the electronic parallel to the printed leaflet. They provide groups and individuals who generally have not had access to the electronic media with the opportunity to become sources of information in the electronic marketplace of ideas. PEG channels also contribute to an informed citizenry by bringing local schools into the home, and by showing the public local government at work.[3]

Neither the private C-SPAN nor public PEG models for covering unedited public affairs meetings has delivered the type of meeting coverage envisaged by the early public community media advocates.

In 1979, C-SPAN was launched. Financed by the cable industry and focused on national public affairs, it would include extensive, unedited coverage of civic group meetings, such as the expert panels with audience discussion regularly hosted by think tanks, educational institutions, and advocacy groups.[4] A handful of states would subsequently develop C-SPAN-like services, covering meetings of not only legislatures but civic groups.[5]

In 1993, The Report of the Twentieth Century Fund Task Force on Public Television acknowledged the growth of public community media while recognizing that it had fallen short on its coverage of civic activities:

> [O]ne role in particular should be of paramount importance to all public stations: They should be a vital force in involving and engaging the public in local, statewide, and national civic affairs. In this regard, it is noteworthy that very few communities have yet made good use of the . . . PEG channels. . . . The cable industry is rightly proud of its sponsorship of the national C-SPAN channels, but there are still very few local C-SPAN-type operations in this country, despite the obvious need for coverage of town meetings, city councils, school boards, open meetings with officials and elected representatives, and other civic activities.[6]

Not much has changed since the Twentieth Century Fund Report in regard to unedited public affairs meeting coverage. Neither the private C-SPAN nor public PEG models for covering unedited public affairs meetings has delivered the type of local meeting coverage envisaged by the early public community media advocates. A major underlying reason is that both models are labor intensive and therefore uneconomical. The labor intensive C-SPAN/private model assumes there are huge economies of scale. And the labor intensive PEG/public model assumes there is

[3] U.S. House of Representatives, Report 98-934, August 1, 1984, p. 30

[4] Stephen E. Frantzich and John Sullivan, *The C-span revolution* (Norman: University of Oklahoma Press, 1996).

[5] Steven Waldman, "The Information Needs of Communities: The changing media landscape in a broadband age," Washington, DC: FCC, 2011, June, 176-9.

[6] *Quality Time?: The Report of the Twentieth Century Fund Task Force on Public Television*, (New York: Twentieth Century Fund Press, 1993), 152.

gargantuan public funding. Neither assumption is realistic at the local level of government.

Amount Spent on Public Community Media

Over the decades, the amount spent on PEG has been notoriously difficult to estimate, in part because of the thousands of communities with cable franchise agreements, the lack of consensus about what PEG is, and the typically ambiguous accounting for PEG expenditures. PEG expenditures are like the PR budgets of local governments. They may be large, but they are rarely bundled together and clearly labeled in public budget presentations.

Despite the fact that the FCC administers the PEG statutes contained in the Communications Act of 1934, it collects no national statistics on PEG and primarily relies on the anecdotal data provided by self-interested parties. In its June 2011 report on PEG, the FCC provided no national statistics on PEG expenditures, although it reported anecdotal evidence that funding for PEG operations had declined in recent years.[7] No mention was made of PEG capital funding.

If we make the dubious assumption that fees labeled PEG equal expenditures on PEG services, PEG expenditures may be significantly larger than expenditures on public broadcast TV and radio. If this were true, it would be remarkable because public broadcast media at the national and state levels of government have received far more press and scholarly attention than at the community level of government. Free Press estimates the annual government subsidy to public broadcast TV and radio at $1.35/person, or about $400 million.[8]

To contrast the relative magnitude of the two types of public media funding, consider taxpayer contributions to the Maryland Public Broadcasting Commission (MPBC) and Montgomery County's PEG operating and capital budget. MPBC is the federal licensee for all broadcasting stations operated by Maryland Public Television, including six broadcast licenses. It subsidizes public radio and TV programming, maintains a website with original materials, and provides educational materials to public schools. In FY2011 it received $8.65 million from state funds and $2.08 million from federal funds for a total of $10.73 million of government funds.[9] In addition, it received $15.28 million in non-government funds, including voluntary and corporate contributions. Montgomery County is located in Maryland and had a 2010 population

[7] Steven Waldmen, "The Information Needs of Communities," 170-5.

[8] S. Derek Turner et al., "Changing Media: Public Interest Policies for the Digital Age," (Washington, DC: Free Press, 2009), 221. Cited also in Joshua Breitbart et al., "Full Spectrum Community Media: Expanding Public Access to Communications Infrastructure," (Washington, DC: Alliance for Community Media with New America Foundation, 2011), 17. No comprehensive figure has been tallied for PEG access across the thousands of local communities that have it, but see J.H. Snider, "The Growth of Government Access TV " in *Annual Meeting of the Midwest Political Science Association* (Chicago, Illinois 1998).

[9] "Maryland Public Broadcasting Commission," State of Maryland, http://www.msa.md.gov/msa/mdmanual/25ind/html/60pubbb.html.

of 971,777, 16.8 percent of Maryland's 2010 population of 5,773,552.[10] Its FY2011 PEG budget includes $2.11 million for PEG operating expenditures and $3.48 million for PEG capital expenditures, for a total of $5.59 million.[11] Unlike MPBC, there is no category for voluntary or corporate contributions. Adjusted for population, Montgomery County's PEG budget would be $33.21 million, more than three times larger than MPBC's.

Clearly, the amount spent by any one public broadcast TV or radio station is likely to dwarf the amount spent by any one local public community media outlet. But the sheer number of communities in the U.S. (the U.S. Census tallies 89,476 local governments and public school systems in the United States)[12] spreads PEG expenditures across a far wider base.

The FCC cites a figure of 5,000 PEG channels in the United States, compared to 368 public TV stations and 934 public radio stations.

The FCC cites a figure of 5,000 PEG channels in the United States,[13] compared to 368 public TV stations and 934 public radio stations.[14] The PEG influx began in 1972, when the FCC mandated, as previously noted, that all cable TV franchise agreements in the top 100 cable TV markets in the U.S. provide at least three PEG channels.[15]

PEG funding is divided into two major categories: operating and capital expenditures. Operating expenditures come out of a share of the $2.7 billion/year that cable companies pay in franchise fees, which are usually 5 percent of cable TV revenues (the congressionally mandated ceiling on such fees). In some communities, such as those in the state of Vermont, the full 5 percent has typically been allocated to PEG. But in most communities, it is under 1 percent. And what is spent is often not broken out by function. Running an educational or governmental access TV station is likely to be only a part of someone's job and not budgeted separately from that job. Moreover, it is often unclear where PEG and non-PEG job functions, such as information technology and public relations, are separate.

Increasingly, as PEG operating expenditures decline, PEG capital expenditures, negotiated as part of a franchise agreement, may be becoming the larger PEG expenditure. If nothing else, they tend to be more visible than PEG operating expenditures, because whereas PEG operating expenditures tend to come out of a community's general fund (whose source is listed as a "Franchise Fee" on monthly cable bills), its PEG capital expenditures tend to come out of a special fund (whose source is listed as a "PEG Fee" on monthly cable TV bills). Unlike operating expenditures with their federally mandated 5 percent ceiling, there is no federal ceiling on capital expenditures. And again, the FCC compiles no figures. One reason may be that many capital expenditures, such as installing an optical fiber link to a

[10] "Maryland at a Glance," State of Maryland, http://www.msa.md.gov/msa/mdmanual/01glance/html/pop.html.
[11] Montgomery County Council, "FY 2011 Cable Communications Plan," (Montgomery County: Montogery County Government, 2010).
[12] U.S. Census Bureau, 2007 Census of Governments.
[13] Steven Waldman, "The Information Needs of Communities," 170.
[14] "170 Million Americans for Public Broadcasting: The Numbers," http://170millionamericans.org/numbers.
[15] "Cable Television Report and Order," ed. Federal Communications Commission (1972).

library, school, or other government facility, may be an in-kind rather than cash expenditure. Often, the cable company operates PEG facilities on its own premises and with its own staff. There is also disagreement as to what constitutes a legitimate PEG expenditure. For example, I-NETs, which connect government facilities together with high speed Internet service, may be funded under the category of "PEG Fee" on a cable TV bill. I-NETs do enhance PEG, but they also have many other functions.

Regardless of the specific amount spent on PEG, it may be said that PEG funding is widespread yet often as opaque as government PR budgets.

Types of Public Community Media

Public community media can be divided into civic and non-civic subject matter, where civic public community media is defined as government subsidized municipal media that facilitates group actions to identify and address issues of public concern. An example of non-civic programming would be coverage of a student sports event. An example of civic programming would be coverage of a political candidate's debate at a local school auditorium, community center, or library.

Government subsidized civic media can be further subdivided by the type of group covered: government, quasi-government, or non-profit. An example of a government group is a county council; an example of a quasi-government group is a citizen advisory group mandated by a branch of government (often not the local branch of government it advises), but not covered under open meeting laws; and an example of a non-profit group is a group of community associations that discuss and recommend policies on local land use issues.

Currently, government groups (often called "public bodies") receive the vast majority of public media coverage. But this should not imply that more than a small fraction of such groups receive such coverage. A municipality may have dozens of such groups, such as an ethics commission, charter revision commission, housing commission, and pension oversight commission, that are never covered. Nor should coverage of a particular group, such as a town council, imply that more than a small fraction of its meetings required to be held in public, including public work sessions of the entire group or committee meetings of a subset of the group, are covered.

However, in comparison to quasi-government and civic groups, government groups, especially those composed of elected officials, are well covered. Without in any way suggesting that current coverage of government groups is adequate or even remotely close to being adequate, I focus here on public community media for the hundreds of thousands of quasi-government and private non-profit civic groups that rely on public buildings to convene their meetings. In the vast majority of cases, public community media has not been made available to these groups to use in conjunction with their designated public meeting spaces. The lack of civic media for quasi-government groups is especially noteworthy because they are often supposed to bring democratic legitimacy to a government body's decision making process.

Such civic groups often take on the functions of the local newspaper, including

providing information to citizens about local political candidates, the actions of local government officials, and pressing public policy debates. Indeed, civic meetings may be led by community leaders who have more integrity and relevant journalistic knowledge than local professional journalists and do a more thorough and objective job of hard news reporting on behalf of the community—just not in a newspaper or blogger format.

Fortunately, new information technology... can drastically [reduce] the variable costs for civic groups to use public community media.

According to a Brookings Institution survey, 42 percent of Americans directly rely on local community groups to get information about their local schools.[16] In addition, many more indirectly rely on these community groups via the family, family, journalists, and other opinion leaders who directly or indirectly rely on them and pass on their information within their communities.

Types of Meetings

Meetings of civic groups can be divided into face-to-face, cyberspace, and blended, which incorporate elements of both face-to-face and cyberspace. The vast majority of the literature on how the internet and other new information technology is or could empower civic groups focuses on pure cyberspace solutions.[17] But for the foreseeable future, it is likely that face-to-face meetings, especially at a local level, will retain advantages, if only because many people feel a need to occasionally get out of their homes and make physical connections with their neighbors. There is therefore a need to blend the advantages of face-to-face meetings with the advantages of new information technologies to come up with a meeting alloy that has more favorable properties than its face-to-face and cyberspace components.

The original vision of public community media was of a blend combining a face-to-face meeting with broadcast TV distribution. Unlike many current and popular visions of public community media, the vision here retains a blend—but one with a much, much richer blend of cyberspace components.

Public K-12 schools have come to recognize the advantage of blended as opposed to pure face-to-face or cyberspace learning.[18] In addition to simple videoconferencing and lecture style videoconferencing, the blend may include elements such as interactive white boards, handheld polling devices, and context sensitive software applications. Such rich blends point to the future of public community media.

The Challenge

The central challenge in designing a public community media system to empower

[16] Darrell M. West, Grover J. Whitehurst, and E.J. Dionne, "Americans Want More Coverage of Teacher Performance and Student Achievement," (Washington, DC: Brookings, 2011).
[17] E.g., see Clay Shirky, *Here comes everybody: How digital networks transform our ability to gather and cooperate* (New York: Penguin Press, 2008).
[18] Jonathan Schorr and Deborah McGriff, "Future Schools: Blending face-to-face and online learning," *Education Next* 11, no. 3 (2011).

civic groups is this: how can one provide desperately needed public subsidies to civic groups, such as access to public meeting rooms, without allowing excessive government control over the content?

Fortunately, new information technology allows this problem to be at least partially solved in ways that couldn't have even been conceived in the 1970s. It can do this by drastically reducing the variable costs for civic groups to use public community media. This reduces the role of public officials in media production and distribution, which also reduces the points of leverage public officials have to exert editorial control over civic groups.

For this to happen, public media must be built into the design of public meeting rooms in such a way that civic groups are not dependent on the expertise of public officials to use the media, and the marginal cost of their using the media is negligible and thus affordable.

Consider this vision of public community media. The leader of a local civic group uses the meeting room of his local library to convene. He enters the meeting room with his laptop connected to the library's Wi-Fi system, which is connected to the A/V equipment in the meeting room. He uses his browser to select a meeting template for his meeting. The meeting template tells the room equipment the type of meeting format, including the layout of the room, he'll be using. It also connects to many external modules, including an electronic Robert's Rules of Order, online polling software, an automatic generator of meeting minutes, a service for streaming video, and an email pre- and post-meeting notification service. No government employees are needed to operate the meeting equipment. When the meeting starts, the leader turns it on, and when it ends, he turns it off. In between, he focuses on the substance of the meeting, not the media in which it is conveyed. After the meeting, anyone can access an easily searchable record of it online.

This new public community media model doesn't preclude the continued existence of the current model, but it does suggest a dramatically different allocation of public resources. For the private sector, Harvard Business School Professor Clayton Christianson and his colleague Michael Horn call such dramatic shifts in resource allocation "disruptive innovation," which they define as "the process by which products and services that were once so expensive, complicated, inaccessible, and inconvenient that only a small fraction of people could access them, are transformed into simpler, more accessible and convenient forms that are also, ultimately, lower in cost."[19] Unfortunately, the process of disruptive innovation is even harder to implement in the public than private sector.

Case Study: Anne Arundel County, Maryland

During the 2010-2011 school year, I served as Chair of the Countywide Citizen

[19] Clayton M. Christensen and Michael B. Horn, "Colleges in Crisis," Harvard Magazine, July-August 2011, p. 41.

Advisory Committee (CAC) in Anne Arundel County, Maryland (population: 538,000). Of more than 14,000 public schools in the United States, Anne Arundel is one of the fifty largest, serving 75,500 K-12 students.

The Countywide CAC represents the 121 public schools in Anne Arundel County and consists of a representative from the local CAC in each school. The Countywide CAC is a state mandated, quasi-governmental institution designed to give parents a voice in public school policymaking, especially important in a county such as Anne Arundel with an appointed school board.

In addition to the CAC system, the public school system convenes dozens of ad hoc advisory committees, with community representatives advising on such issues as the school calendar, math curriculum, and student health and wellness.[20] These are separate from the dozens of boards and commissions created by the County government and subject to the requirements of Maryland's Open Meetings Act.

The Anne Arundel County ordinance enabling public community media includes the following boilerplate language: "The County intends to ensure that PEG access facilities are managed in the public interest and that programming using public access channels is open to all residents and available for all forms of public expression, community information, and debate of public issues."[21]

Anne Arundel County's 156,902 cable TV subscribers contribute $1.85 million/year to public community media from a 98 cents/month fee labeled "PEG fee" on the monthly bill of every local broadband service provider, including Comcast and Verizon.[22] The PEG fee includes only capital, not operating, costs. Although the fee is labeled "PEG," it in fact covers information technology capital expenditures that may have little to do with such programming. Most notably, the PEG fee also finances the building of the County's I-NET, which connects government buildings, such as schools, libraries, and police stations, to an ultra high-speed Internet backbone.

The County also receives a 5 percent franchise fee from the cable company but doesn't match these funds with any PEG operating expenses. The salaries and other expenditures of staff that produce and distribute its public, educational, and governmental TV come out of various departments, such as print, video, web, technical, and emergency services, who have a broader range of information and technology responsibilities.

The Countywide CAC meets monthly in the large meeting room used by the

[20] Often the public participation is fake in the sense that, while adding democratic legitimacy and thus providing political cover for the school board and administrators, the community representatives are not either actually representative or taken seriously. Creating a publicly accessible meeting record would help deter such fakery. See J.H. Snider, "Detering Fake Public Participation," *International Journal of Public Participation* 4, no. 1 (2010).

[21] Snider, J.H., "Independent Board Should Regulate PEG Access," Capital, July 26, 2003.

[22] "Comments of Anne Arundel and Montgomery Counties, Maryland, and the Cities of Boston, Massachusetts, and Laredo, Texas in the Matter of Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming, MB Docket No. 07-269," (Washington, DC: FCC, 2011, June 11), 21-2.

Board of Education. The room includes about a million dollars worth of TV equipment, including five HD quality robotic cameras, high quality lighting, and high quality audio. That equipment is linked to a remote TV studio in the same building with an additional quarter million dollars worth of equipment.

The meeting room is connected to a 20 gbps Internet backbone, also created with money collected under the County's public community media ordinance. Most of the public buildings in the County where civic groups meet, including the County's 15 local public library branches and 121 public schools, are also connected to this ultra high-speed network (more than a thousand times faster than typical residential broadband speeds of about 5 to 15 mbps). In addition, public community media funding is used to fund a webcasting infrastructure, mostly used for internal government communications and for surveillance of the public.

When I tried to use the school system's community media and other technological resources to enhance the communications of the Countywide CAC, I ran up against these obstacles:

All the fancy TV equipment was unusable, largely because using it required expensive and highly skilled labor and access to a remote room controlled by school system staff.

Even if the TV equipment was usable, no provision was made for webcasting the meetings, let alone using modern software to automatically integrate meeting agendas with video, which is now viewed as essential for making meeting content meaningfully accessible.

When the Countywide CAC tried to bypass the County's community media system by using its own inexpensive video equipment (e.g., the video camera in an iPhone), the school system would not allow its personnel to provide information to the Countywide CAC because of the risk that a controversial remark would be recorded (most Countywide CAC meetings include a school administrator talking about some aspect of the school system). Paradoxically, there may have been fewer objections to video coverage when the County controlled its production, distribution, and archiving.

When I tried to find someone trained at the County's $1 million public access facility to volunteer to record Countywide CAC meetings and air them on the County's public access channel, I found no takers: the local meet-up group of film producers had no interest in covering civic meetings. Given the prominent claims by advocates of funding for public access centers that training in video production is a vital community service that enhances civic engagement and citizen journalism,[23] I found this lack of interest remarkable.

The public Internet access in the board room, made available via Wi-Fi, was tightly controlled in such a way as to discourage civic use. For example, not only were school staff and students restricted from using social media sites (such as Facebook, Twitter, and LinkedIn) but so were parents meeting as part of civic groups,

[23] E.g., see Steven Waldman, "The Information Needs of Communities," 174.

even when the civic groups used those media for their own communication. The school system reserved the right to monitor all communications over its network, including private email, just as it does with its own employees. Access to the network required use of passwords that changed daily via computer algorithm, were poorly disclosed or only made available on request, and were impossible for a human being to remember (such as the 10 digit password b@^~ZWf %$#). In addition, there was no public disclosure of any of these policies when parents signed in to the network.

In the previous several years, the school system had spent more than $400,000 on thousands of clickers, including at least one set of clickers for each school. Clickers allow teachers to survey their students via a simple wireless keypad (smartphones and laptops may also function as clickers but are not used in the public schools). In the current test-based school environment, clickers can be very efficient in processing test results and giving students immediate feedback. Yet when, as the head of a state-mandated civic association, I tried to borrow a set of clickers in the school system's headquarters, I was told I couldn't do so. In a civic context, clickers are especially valuable as a way for parents to vote anonymously on public policy issues. Since school staff closely monitored the Countywide CAC, some parents felt intimidated when voting unless provided with a secret ballot. This intimidation was reflected in the large discrepancy between what parents would say to me in private versus public about school policies. Although traditional paper methods could be used to provide a secret ballot, they are very inefficient and impractical when large numbers of votes must be counted and time is precious.

The school system, county government, and court system had invested in more than a thousand video surveillance cameras. Hundreds of these cameras had robotically controlled pan, tilt, and zoom operated via the County's I-NET. Applications included surveillance within more than a hundred school and other County buildings, traffic monitoring at more than 30 outdoor locations, surveillance inside and outside school buses (every school bus had an internal surveillance camera and all buses were in the process of adding a second camera for adjacent external surveillance), surveillance outside police cars, surveillance in the downtown area, and videoconferencing for training and internal communications. School headquarters was practically crawling with video cameras, yet had no cameras built into its public meeting room that the Countywide CAC could use.

Recommendations

In the ideal public meeting environment, producing and distributing high quality and easily accessible meeting media would be as easy and affordable as turning on the meeting room's light switch. While completely realizing such a vision may not be possible in the foreseeable future, reducing by orders of magnitude the marginal cost of using public media within public facilities is already readily feasible.

If you doubt the feasibility of such a vision, consider how, in just the last few years, YouTube has revolutionized the cost and accessibility of posting video online;

smartphones have radically reduced the cost of communicating via video from any place at any time; mobile phones with Bluetooth ear attachments have made inexpensive wireless mics attached to the Internet pervasive; Microsoft's Kinect has made it affordable for computers and video devices to track individual human beings as they move around a room; and video sensors have become more common in some public buildings than insects. Fifteen years ago even the most simple one-to-one videoconferencing necessitated the use of skilled technicians, transmission costs higher than $1/minute, and dedicated equipment sold by companies such as Tandberg and Polycom. Now, with Skype, a broadband Internet connection, and the audio/video equipment built into most laptops, decent videoconferencing is as convenient and affordable as surfing the web.

So how should public media be redesigned to empower local civic groups? One day face-to-face meetings may be done away with altogether and with that the need for public meeting places (although as long as humans continue to have human needs, including physically connecting with others, that scenario remains doubtful for highly local meetings). Meanwhile, for the emerging age of blended meetings—meetings that combine both physical and cyberspace components—here are twelve recommendations:

1. **Meeting Media Automation.** Community media equipment should be designed to operate on a completely automated basis to eliminate the need for expertise and expensive labor. For example, small robotic cameras with the ability to tilt, pan, and zoom should be securely built into meeting room walls and able to automatically focus on the current speaker (e.g., the speaker currently using his mic or a speaker tracked with a Kinect-like motion detector). Similarly, built-in lighting should be automatically adjusted when the cameras are in use. All the software to control the system should be made available via a standard Internet browser and easy-to-use interface. With the recent completion of the HTML5 standard, a universal, open software language that gives Internet browsers much the same flexibility as programming languages used for apps on Apple and Android smartphones, this should be easier to do than ever before.

2. **Open and Extensible Meeting Software.** The software to control community media equipment should be open and extensible so that additional meeting functionality can easily be added by third parties. Examples of third party modules could include Robert's Rules of Order; electronic polling software; audio/video editing software; streaming to the web; and automatically generated minutes, closed captioning, foreign language translations, and lower thirds (the text that identifiers the name and affiliation of a speaker on the lower third of the screen). The software should also be free or very inexpensive. Examples of such open and extensible software, albeit not designed as a public meeting platform, include Drupal and Wordpress. Non-

profit foundations should consider funding such platforms for the meetings of civic groups.

3. **Interactive Meeting Media.** Community meeting media should include not only one way passive media, such as broadcast and cable TV, but also interactive media, such as voting devices and WiFi. A flat screen TV connected to the Internet should be able to instantly show voting results and other information useful to both those physically present at the meeting and those participating remotely. Remote participants should no longer be second class participants, only able to view but not communicate; they should have the same participatory options as those physically present.

Community meeting media should include not only broadcast TV but also interactive media, including voting devices, Wi-Fi, and flat screen TVs connected to the Internet.

4. **Meeting-Friendly Public Spaces.** Library meeting rooms, school auditoriums, and public access facilities should be designed to be meeting-friendly to civic groups. This includes not only media but also physical spaces. For example, Anne Arundel County has a $1 million public access facility with no room for an audience. In addition, the facility includes no public Internet access in the studio, and very difficult to use equipment that requires extensive training and a certificate of expertise to use. Libraries and school auditoriums are similarly poorly designed for community access.

5. **Building Codes for Public Meeting Rooms.** For government facilities substantially or primarily used for public meetings ("public meeting anchor institutions"), meeting technology should be included in building codes just like requirements for smoke detectors, exit signs, and electrical outlets. Such anchor institutions include K-12 public schools, community centers, community colleges, public libraries, PEG centers, and municipal and school headquarters. In an age when public buildings have ubiquitous built-in video surveillance, and high definition TV cameras are built into consumer smart phones for a few dollars, building Internet-accessible cameras into the walls of public meeting rooms should not be overly burdensome. Similarly, Internet access, good lighting, and flat screen wall monitors should be part of the building code for public meeting rooms. The major concern should be preventing video cameras or other built-in, Internet-connected sensors from being surreptitiously used when the public has a reasonable expectation of privacy.

6. **Equity in Access to Meetings.** To level the playing field between those with and without convenient physical access to public meetings, high quality remote access should be available. For example, this would provide a parent with a 90 minute drive from a meeting room and young kids, comparable meeting access to one five minutes away and with older, self-sufficient kids. To the extent that remote access becomes primary, the physical meeting room,

like a library, serves to level the playing field for people who may not have all the necessary information technology in their homes.

7. **Equity in Access to Meeting Equipment.** Civic groups should be able to borrow inexpensive mics and clickers using the same infrastructure that allows citizens to borrow books from libraries. Insofar as civic group members already possess smartphones, laptops, and earpieces/mics that can duplicate this functionality, such borrowing would be unnecessary.

8. **Web-Centric Meeting Media.** Community meeting media should be web-centric, allowing not only interaction during meetings but also convenient access to meeting information before and after meetings. Broadband penetration via wires or wireless is now higher in Anne Arundel County than cable TV. Fewer than 70 percent of citizens subscribe to local cable TV (as opposed to, say, satellite TV or web TV), and whereas the libraries provide free Internet access to citizens, they provide no similar cable TV access. Thanks to the proliferation of Internet-connected computers, video game machines, and smartphones, Americans now have access to more web-centric devices at more times of the day than traditional local cable TV devices. Since web TV is accessible at anytime and anywhere and can more easily be searched for specific content, it is an inherently more versatile platform. Passive media such as cable TV also give government officials, including government PR staff, undue control over access to meeting information, which has led them to be highly resistant to moving to web-based meeting media. For example, with the current cable TV based system, citizens must ask a public official for access to an archival recording of a meeting and in doing so identify themselves. Receiving a copy of a controversial incident at a public meeting may take months and involve considerable expense, if it is forthcoming at all, and the public official who has the exclusive right to fulfill the request is likely to assume that the requester is up to no good and convey this information to other public officials who can do the requester harm. The consequence is that public officials have a means and motive to seek retribution. Recognizing this, citizens become intimidated from utilizing their right as citizens to access public meeting information.[24]

9. **Civic Group Control of Meeting Media.** Any government monopoly power on the use of public community meeting media should be reduced as much as is feasible. This may be best accomplished by embedding such media in the design of public meeting spaces, thus eliminating the need to grant control to government technical and editorial experts. When a group signs up to use a government facility for a meeting, media should be bundled with the spaces,

[24] J.H. Snider, "The Impact of Government Access TV: in Annual Meeting of the Midwest Political Science Association (Chicago, Illinois 1998).

light, electrical outlets, and other features of the room. If a group wants professionals to control the robotic cameras, it should be able to choose which professionals (including those as far away as India), not have to rely on the local government's communication workers (often those affiliated with the local government's PR staff).

Public community meeting places and media should be implemented by checks & balances institutions.

10. **Checks & Balances Institutions for Meeting Places & Media.** Public community meeting places and media should be implemented by checks & balances institutions. Elected officials, government PR staffs, and other high level government officials will likely be opposed to empowering civic groups because of fear that the empowered groups could serve as a platform for opponents. In addition, any public policy proposal that involves automating and outsourcing local community media production will be unlikely to win the support of community media staff and their trade associations. Given these incentive problems, meeting spaces and media should be implemented by checks & balances institutions. A checks and balances institution is context sensitive. For a local school system, such institutions may include the federal government, the state government, and independent local bodies such as a library run by an independent board. For example, state legislatures are responsible for the open meeting laws that local public bodies must follow. A blanket requirement that the meetings of all local public bodies be webcast and archived online seems increasingly reasonable. One way is to simply update state open meeting and public records laws that already cover local government meetings. States could also impose public meeting room requirements on local public buildings subsidized with state money and require those rooms to be made available to the quasi-government advisory bodies that it mandates to hold local governments accountable. Similarly, at the federal level, the FCC could impose public meeting room requirements as a condition for schools and libraries to receive the billions of dollars each year from the e-rate fund, which is used to connect public buildings to the Internet and is akin to a PEG fee. Where possible, meeting rooms should be located at the neighborhood level (e.g., the local elementary school auditorium or local library branch) rather than a regional level (e.g., a distant public access center or central library).

11. **Public Bodies Covered by State Open Meeting Laws.** State open meeting laws should be revised to include in the definition of public bodies quasi-government bodies such as state mandated advisory groups, commissions, and ad hoc committees. Any public body covered by a state open meeting law should not be able to arrest or otherwise remove for disorderly conduct anyone attempting to record a meeting covered by such a law. Such practices, which are widespread (even the U.S. Congress bans recording devices in public committee markup meetings), make a mockery of open meeting laws

and the protestations of government officials that they conduct the people's business in open.[25]

12. **Federal Government Public Meetings.** Although this essay focuses on local public media, the same principles apply to federal public media. This includes the meetings of the executive branch as well as the legislative branch. The Administrative Procedures Act, the Government in the Sunshine Act, and the Federal Advisory Act all need to be rewritten. Consider federal advisory committees. More than 1,000 federal advisory committees are already required to hold their meetings in public. But the meeting rooms they operate in are no better designed for low cost coverage than those of local governments. For example, on May 25, 2011, the head of the National Telecommunications and Information Administration claimed that his federal advisory committee on spectrum management, which oversees hundreds of billions of dollars worth of public spectrum assets and incurs costs of approximately $100,000/year, couldn't be webcast because the cost of doing so was approximately $6,000/year or $300/hour (the committee meets for about 20 hours/year). The cost of covering such Federal advisory committees should be reduced by orders of magnitude.

    Consider, too, ex parte meetings. Every year tens of thousands of ex parte meetings are held at federal agencies, a summary of which must be publicly disclosed by the meeting participants. An ex parte meeting is a presentation to a federal official by one or more lobbyists concerning a rulemaking. All such meetings should be held and recorded in certified, media-friendly public meeting rooms.

Conclusion

Unfortunately, the First Amendment and civic friendly vision of public community media outlined here is too often diametrically opposed to current practice, which in reality if not pretense seems designed from the ground up to discriminate against civic groups while bending over backwards (discreetly) for government PR. Moving to a First Amendment, civic friendly public community media system—that is, recapturing the original 1970s vision—cannot be done overnight, even if there were the political will to make it happen. Much if not all of the old community media infrastructure, despite the billions of dollars of public money spent on it, is, as a practical matter, worthless for empowering civic groups.

A Knight Foundation report on the information needs of communities in a democracy got the rhetoric right: "The United States stands at what could be the

[25] John Kelly and Mike DeBonis, "2 Reporters Handcuffed, Removed from Taxicab Commission Meeting," Washington Post, June 22, 2011.

beginning of a democratic renaissance, enabled by innovative social practices and powerful technologies...."[26] The Knight Foundation has also recognized the information gap at the lowest levels of government, such as school boards: "The information explosion has brought us a world in which great details of faraway coups and disasters are available at the touch of a button, yet an understanding of local school board issues evades us."[27]

However, its concrete public policy recommendation concerning public community media sadly amounted to no more than this: "Push for the inclusion of public, educational, and government cable channels in the basic cable package offered by any cable service operator."[28] Knight Foundation grantees, in conjunction with the trade association representing public community media staff, have subsequently elaborated on this negligible vision.[29] But they have not wrestled with the practical obstacles that have long prevented the realization of the original democratic vision of using public community media to empower civic groups.

In early June 2011, following in the footsteps of the Knight Foundation report, the FCC released a major report, "The Information Needs of Communities," which included brief chapters on "Public, Educational, and Governmental Access Channels" and "C-SPAN and State Public Affairs Networks." No fundamental change in the model for community public media was recommended. But in the context of this issue paper, its strong support for more unedited, CSPAN-like coverage of state and local public affairs is noteworthy, even if it offered no compelling mechanism by which this goal might be realized.[30] In May 2011, a bipartisan group of legislators in the U.S. House of Representatives introduced the Community Access Preservation Act (HR 1746), primarily seeking to stem the tide of PEG operating budget cutbacks.

Unfortunately, merely tinkering with the old public community media vision isn't going to get us where we need to go. The time is long overdue to bring public community media into the 21st century. This will be a decades-long effort, but it should begin now.

[26] Knight Commission on the Information Needs of Communities in a Democracy, "Information Communities: Sustaining Democracy in the Digital Age," (Washington, DC: Aspen Institute, 2009), 62.
[27] Knight Foundation, "Community Information Toolkit: Building Stronger Communities Through Information Exchange," (Miami: Knight Foundation, 2011), 3.
[28] Knight Commission on the Information Needs of Communities in a Democracy, "Information Communities: Sustaining Democracy in the Digital Age," 80.
[29] Breitbart et al., "Full Spectrum Community Media: Expanding Public Access to Communications Infrastructure."
[30] Steven Waldman, "The Information Needs of Communities," 170-9.

References

"170 Million Americans for Public Broadcasting: The Numbers." http://170millionamericans.org/numbers.

Breitbart, Joshua, Tom Glaisyer, Bincy Ninan, and James Losey. "Full Spectrum Community Media: Expanding Public Access to Communications Infrastructure." Washington, DC: Alliance for Community Media with New America Foundation, 2011.

"Cable Television Report and Order." edited by Federal Communications Commission, 1972.

"Comments of Anne Arundel and Montgomery Counties, Maryland, and the Cities of Boston, Massachusetts, and Laredo, Texas in the Matter of Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming, Mb Docket No. 07-269." Washington, DC: FCC, 2011, June 11.

Frantzich, Stephen E., and John Sullivan. *The C-Span Revolution*. Norman: University of Oklahoma Press, 1996.

Jonathan Schorr, and Deborah McGriff. "Future Schools: Blending Face-to-Face and Online Learning." *Education Next* 11, no. 3 (2011).

Knight Commission on the Information Needs of Communities in a Democracy. "Information Communities: Sustaining Democracy in the Digital Age." Washington, DC: Aspen Institute, 2009.

Knight Foundation. "Community Information Toolkit: Building Stronger Communities through Information Exchange." Miami: Knight Foundation, 2011.

"Maryland at a Glance." State of Maryland, http://www.msa.md.gov/msa/mdmanual/01glance/html/pop.html.

"Maryland Public Broadcasting Commission." State of Maryland, http://www.msa.md.gov/msa/mdmanual/25ind/html/60pubbb.html.

Montgomery County Council. "FY 2011 Cable Communications Plan." Montgomery County: Montogery County Government, 2010.

Quality Time?: The Report of the Twentieth Century Fund Task Force on Public Television. New York: Twentieth Century Fund Press, 1993.

Shirky, Clay. *Here Comes Everybody: How Digital Networks Transform Our Ability to Gather and Cooperate*. New York: Penguin Press, 2008.

Sloan Commission on Cable Communications. *On the Cable: The Television of Abundance; Report*. New York,: McGraw-Hill Book Co., 1971.

Snider, J.H. "Detering Fake Public Participation." *International Journal of Public Participation* 4, no. 1 (2010): 89-103.

Snider, J.H. "The Impact of Government Access TV." In *Annual Meeting of the Midwest Political Science Association*. Chicago, Illinois 1998.

Snider, J.H. "The Growth of Government Access TV." In *Annual Meeting of the Midwest Political Science Association* (Chicago, Illinois 1998).

Turner, S. Derek , Victor Pickard, Josh Stearns, Craig Aaron, and Josh Silver. "Changing Media: Public Interest Policies for the Digital Age." Washington, DC: Free Press, 2009.

Waldman, Steven. "The Information Needs of Communities: The Changing Media Landscape in a Broadband Age." Washington, DC: FCC, 2011, June.

West, Darrell M., Grover J. Whitehurst, and E.J. Dionne. "Americans Want More Coverage of Teacher Performance and Student Achievement." Washington, DC: Brookings, 2011.

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