Going Public: Digital Tools for Public Media

Excerpt 1 of 7: Assessment of the Knight News Challenge, 2007-2008

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I. Introduction

Across the United States, organizations devoted to news in the public interest – old and new, public and private – are grappling with the new digital age. The technologies that are disrupting existing systems also offer the promise of improving them. Digital tools can reduce costs, improve efficiency, and allow for greater volume and dynamism of content, connectivity and community. The participatory nature of digital media has the potential to transform how news organizations interact with their audiences.

In general, two major barriers have held public media back from full engagement with digital tools. First, transitioning to digital platforms often requires resources and staff expertise. Many public media organizations have found it difficult to reorganize internally to provide those resources. In the United States, one initial notion was that government or foundations must provide the additional funds for traditional public broadcasting to transform. In recent years, however, some of the leading traditional public broadcasters have started to realign priorities to take greater charge of their future. The second barrier is cultural. Digital platforms open the door to more citizen-generated content and direction, and longtime public broadcasters can find it difficult to make the "frame shift" associated with migrating to platforms that potentially mean less top-down control.

In this context, the Knight News Challenge awarded grants in 2007 and 2008 to three experimental efforts that sought to develop tools that could be used anywhere, but to specifically test them in public media environments, in the hopes of offering inspirational models.

This report was completed as part of an interim review of the Knight News Challenge focused on the early winners (2007-2008). The project cluster – digital tools for public media – that serves as the organizing principle for this report was created through the process of conducting data analysis for the interim assessment; this category was not an organizing principle for the contest when it first launched. This report is based on: a review of project reports, websites and other materials; key informant interviews with winners, key partners and field experts; and facilitated review and structured reflection with Knight Foundation staff.

Key Learning Questions

- What are the most promising practices for the employment of digital tools to improve news and information flows, audience size or community engagement?

- What are some of the barriers to the use of digital tools, and can they be lowered to promote uptake?

- Are there special lessons that might apply to public media outlets – traditional public broadcasters or new nonprofit news organizations – when it comes to use of the new tools?

Overview of Digital Tools for Public Media Projects: 2007-2008

The foundation invested in a total of three digital tools for public media projects in 2007-08: two software development projects aimed at providing tools others could adopt and one website development project for a single public radio station aimed at transforming its relationship with its audience. The following table offers a summary of the three projects.

	Radio Engage / Radio Drupal	Taking Radio Out of the Box	Open Media Project (Tools for Public Access Television)
Grant	**Winner:** Margaret Rosas **Grant Amount:** $327,000 **Timeframe:** 1 Year **Year Awarded:** 2008	**Winner:** WNYC **Grant Amount:** $600,000 **Timeframe:** 3 Years **Year Awarded:** 2007	**Winner:** Tony Shawcross (Open Media Foundation) **Grant Amount:** $380,400 **Timeframe:** 2 Years **Year Awarded:** 2008
Idea	**Help public radio stations build audience through interactive websites:** Create an open source software program to facilitate the creation of interactive multimedia websites, ultimately helping public radio stations better serve their communities.	**Engage New Yorkers around their passion for arts and culture using an interactive website:** Using multi-platform content, social networking, and audience interaction to create a noncommercial culture platform built around users' interest in art, music, food, photography, and other facets of culture.	**Increase cooperation and resource-sharing among public access and community-based television:** Implement and develop a set of Drupal modules to help automate workflows, engage users in greater control of stations, increase online presence, and cooperate as a network of locally-focused, user-driven community media centers.
Innovation	Most public radio stations have small newsrooms, if they have newsrooms at all. Providing accessible, open source software can help public radio enrich the listener experience with existing resources.	Public radio has historically been run through the traditional assembly-line mass media model, with a linear, top-down structure. Providing ample mechanisms for user engagement can both deepen the listener experience and result in new content creation and presentation.	Public access television stations generally have small audiences and are struggling to remain relevant; providing back-end software to increase efficiency and promote resource-sharing would help community-based television make the leap into the digital technology era.

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	Radio Engage / Radio Drupal	**Taking Radio Out of the Box**	**Open Media Project (Tools for Public Access Television)**
Output / Reach / Impact	**Output** • Trained 19 public radio personnel on Radio Drupal • Prototype for open source code has been developed but was not released on Drupal.org **Reach** • 1 public radio station (KALW) built a website based on Radio Drupal **Impact** • Adoption of Radio Drupal by KALW enabled the station to increase unique monthly visitors to its website from 3,000 to 16,000	**Output** • Built new, interactive website • Formulated partnerships with 19 arts and culture organizations **Reach** • 8,949 followers of the culture portal on Twitter • An increase from 23,800 to 80,000 unique monthly visitors to the culture portal website between January of 2010 and May of 2011 • An increase of annual podcast downloads from 7 million in 2007 to 35 million in 2010 **Impact** • Supported WNYC's transformation regarding programming and audience building • Citizen participation in a significant number of activities and meet-ups organized by WNYC	**Output** • Rebuilt open source Drupal software from Denver Open Media so it could be adopted by other non-commercial television stations • Engaged seven community-based media outlets in a beta test of the software **Reach** • Drupal software downloaded by 200 organizations • Pilot tested at seven sites **Impact** • Beta-testing stations remain in contact with each other and continue to develop the software • While three stations are currently running the software, the project is far from achieving a level of uptake required to generate the collaboration envisioned
Lessons	• Many public radio stations have no capacity or desire to provide online content; leadership must ensure successful integration • It is extremely difficult to implement Drupal at radio stations that don't have the technical staff to support it • Limited understanding of the public radio field on the part of grantee hindered progress	• More interactive projects, and ones tied to major events, tend to generate better participation • In a culturally rich environment, an all-encompassing "culture portal" may not be practical: difficult choices must be made about where to focus • Broadcast platforms should be leveraged to promote engagement through digital platforms. Projects are not as successful when pursued independently	• New technology needs user-centric design: when few non-commercial television stations have the capacity to implement a system, efforts to streamline and simplify may be required • The Open Media Project envisioned a model it was not able to implement with the marketing resource constraints it faced • Significant resources are required for testing and evaluation; this was not accomplished for this project due to budget constraints, and success was limited as a result

II. Grant Implementation, Reach and Impact

All three of the funded projects followed vastly different trajectories. Taking Radio Out of the Box contributed to important shifts in WNYC's programming and audience building. Both Radio Engage and Open Media Project succeeded in developing open source code that is available for adoption, but struggled to successfully integrate the project in a small subset of the public media outlets they initially targeted.

Radio Engage / Radio Drupal

Before Radio Engage came onto the scene in 2008, public radio stations that wanted to enhance the media content and interactivity of their websites often worked with Public Interactive, which had products tailored for public radio. Radio Drupal was intended to serve as a free alternative to Public Interactive, based on the assumption that many public radio stations were looking for more flexible software.

Upon receiving the Knight News Challenge grant, Radio Engage quickly went to work developing the code and establishing a relationship with its first proposed implementation site, KUSP of Santa Cruz, CA. Despite initially expressing interest in Radio Engage, the collaboration began to break down when KUSP saw an initial version of the website. Grantee Margaret Rosas said the station was skeptical about the notion of adapting radio programming to a website. Rosas attempted to meet this challenge by investing a significant amount of time in training KUSP staff and leadership in both the concept of a web-based Content Management System as well as the upkeep required to manage the Drupal-based code. In the end, however, that did not work.

Meanwhile, a second implementation site, KALW of San Francisco, CA, welcomed the Drupal product. Staffed by a collaborative and web-savvy team, KALW liked the experimental nature of the approach and saw the potential of a more interactive web platform. Rosas was able to incorporate many of the training modules and lessons learned from her experience with KUSP into her work with the KALW team.

While the project aspired to install Radio Engage in 20 public radio stations, the unexpectedly high level of project resources expended in developing the code and working intensively with KUSP resulted in the project falling far short of its original goal. While other public radio stations have expressed an interest in the Radio Engage code, KALW is the only to have successfully implemented to date.

Its impact for KALW has been significant: their website traffic has increased from 3,000 unique visitors per month to 16,000, and has been the subject of media coverage and online discussion.

> *"Radio Engage revolutionized our news operation. It has allowed us to reach many new audiences, with blogs and podcasts and posting all of our stories online. We've become a leader in how to grow a small news operation and take it digital."*
>
> **Holly Kernan**
> KALW, user of Radio

While she was CEO of NPR, Vivian Schiller remarked that "tiny KALW has been a leader in the online space by redesigning its news site, revamping its newsroom, and recruiting citizen volunteers to help fuel an expanded online presence in the Bay Area." The KALW news team also was recognized for its accomplishments by receiving an award from the Society of Professional Journalists.

During the course of the project, the Radio Engage concept has gained some attention in the public radio world. As a part of the grant agreement, Radio Engage designed and hosted Public Media Camp which drew both a local and national audience, including key figures in public radio, and directly preceded a decision by National Public Radio and PBS to launch a nationwide series of Public Radio Camps.

Rosas also developed a self-sustaining Drupal training program for public radio staff called Hope Foundry, where customers pay for the production of a website and receive free training for two staff as a part of the package.

Taking Radio Out of the Box

WNYC has the largest regional public radio audience in the United States and is one of the country's oldest public radio stations. Taking Radio Out of the Box represented an effort to re-imagine WNYC's relationship with the public by building a web platform based on digital, interactive media.

WNYC's initial project work was focused on testing cultural engagement around several disciplines (e.g., photography and music) and the development of a new Content Management System using the open source platform

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Django, which, besides being consistent with their values around transparency, enabled WNYC to capture pieces of open source code developed by others and modify it for their own use. The result was an "online cultural portal" on the WNYC website that consisted of the following features: Books and Ideas; Dance; Design and Architecture; Film; Food; Music Performance; Theater; and Visual Arts. Each feature incorporated some combination of on-air interviews, videos, in-studio and live performance coverage, audience interaction (largely based on social networking tools), and partner collaborations. A complete version of the website was rolled out on November 30, 2010.

A major implementation challenge lay in making decisions about where to focus the project's energy. In its quest to avoid being another "omnibus cultural resource" for New York City, WNYC was challenged to avoid taking on too much. WNYC built off of existing resources and programming ideas, deciding along the way about what to keep, drop, or modify based on what was playing well with their audiences. WNYC found it challenging to develop partnerships with cultural institutions. WNYC also recognized early on that it would need to invest a significant amount of energy in training staff internally on both the principles and operation of interactive platforms, as well as into figuring out how new digital content connected to their programming across the rest of the station. These capacity issues were significant, with the project implementation taking much longer than anticipated.

To date, Taking Radio Out of the Box has been relatively successful and a valuable learning experience for this leading public broadcaster. In addition to producing the range of digital content it set out to develop, WNYC established partnerships with 19 cultural institutions – nine more than were targeted in the grant proposal – for the purpose of featuring their products and giving listeners an opportunity to interact directly with the City's cultural resources.

An important achievement of WNYC's Cultural Portal is that it created several new vehicles for stimulating audience interaction and direct experience with cultural resources that would not have otherwise taken place. A Twitter tour of the Whitney Museum of American Art generated both excitement by participants (reflected in the ripple effect of Tweets and re-Tweets that continued days after the event) and coverage by other media outlets (including the New York Times). It also resulted in expanded reach of the event, in that a brand new audience – friends, relatives, and associates of those who participated in the Twitter tour – were exposed to the art exhibition.

WNYC's Cultural Portal also is increasing the citizen-generated content available to audience members, in effect beginning to help change WNYC from a one-way producer of information into a two-way facilitator. Techniques to achieve this range from crowdsourcing cultural content (embodied by the "You Better Sit Down: Tales from My Parents' Divorce" project) to soliciting and featuring stories on talented New Yorkers through a project called "Know

Your Neighbor." These approaches echo trends that are becoming commonplace on the Internet but have been slow to penetrate the public media establishment.

In terms of audience engagement, unique monthly visitors to the culture portal portion of the WNYC website doubled from 23,800 in January 2010 to 51,000 in January 2011. WNYC is developing evaluation tools related to engagement in the various components of the cultural portal website, however, as of this report, data is only available in a few instances; for example, the Culture Club, which marries online and in-person interactions, has 300 people on its listserv. Also, 8,949 people follow the cultural portal on Twitter, nearly 500 of whom joined in the weeks following a high-profile multi-media event covering the Whitney Museum of Art's Biennial art exhibition. In general, increases in user engagement have been less than sheer audience growth.

More significant is what WNYC learned about digital transformation. Digital capacity increases have helped the organization become a different place digitally than where it started in 2007. The WNYC web audience now exceeds more than 1 million unique visitors per month and several of the engagement and content and production strategies introduced in the cultural portal project are now standard operating procedures.

Open Media Project

Public access television remains a critical resource for the public on two counts. First, it is by definition non-commercial and community-driven, enabling it – in theory – to generate programming that is truly connected and beneficial to the community. Second, public access television is accessible to populations that do not – and may not for some time still – have broadband Internet access. Yet, like much of traditional media, public access television faces significant challenges; though it produces large amounts of programming, its audiences remain relatively small and many of its processes predate the rise of the digital age.

Tony Shawcross, founder of Deproduction and subsequently the Open Media Foundation (OMF), received a Knight News Challenge grant in 2008 to adapt software initially developed for Denver Open Media – a community-run TV station sponsored by OMF – for the entire landscape of public-access television, in hopes of providing much-needed systemic support. The software being developed by OMF for the Open Media Project is intended to automate internal processes, generate increased user access and participation, and create a platform for sharing resources and content across stations. The ultimate vision for this initiative is to establish websites for a vast number of community-based media entities that can serve as a portal not only to local content, but also to content from hundreds or perhaps thousands of other stations.

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After completing the re-build of the software in the first phase of the project, Shawcross recruited (through a formal application process) six community-based television stations[1] to beta-test the product. The beta-testing sites were to have the open source Drupal modules installed, and were encouraged to follow shared metadata structures and creative commons licensing to enable automated sharing. The effort, however, faltered. The software and the digital capacity of the stations was a mismatch. Some stations also were uncomfortable with the new, user-driven workflow the software was designed to enable. The beta sites struggled to mobilize the staff and financial resources required to maintain the new system or customize the format in a way that met their specific needs. In an effort to address some of these challenges, Shawcross brought many of Drupal's top video and media developers together with the staff from the beta-test sites for an Open Media Camp in Denver in April 2009.

The third phase of the project involved taking the lessons learned from the beta-test implementations and releasing an installation profile incorporating the contributions and lessons learned in the beta-test sites. This process benefited from beta-testers who contributed back to the software in ways that have enhanced its value and utility to the entire community. The resulting Drupal modules have been downloaded by over 200 organizations, and many others have contacted OMF with requests for information and guidance.

The fourth and final phase of the project was intended to facilitate content-sharing among the beta test stations, with the ultimate purpose of facilitating cooperation among stations such that they would begin to behave as a true network, sharing the content and ideas from each station in a way that allowed each to draw on and benefit from the efforts of others in the network. An effective content-sharing solution was built with the support of Archive.org, enabling automated sharing of broadcast-quality content among stations. However, the goal of this phase of the project has not been realized, with Denver Open Media being the only station to fully embrace this Drupal Module. Of the 5,000 shows posted to the "Open Media Project" Archive.org collection, nearly all come from Denver Open Media.

In February 2011, OMF expanded its partnership with Archive.org to provide automated coding for all content associated with the initiative. This development will extend the functionality of the Internet Archive Drupal Module, the final deliverable of the Knight News Challenge grant, to provide complete, automated encoding for any participating community television station.

> *"Developing the code in a manner that makes it useful in diverse environments involves a sacrifice that few organizations have been willing or able to make. It requires investing resources in development that we hope will pay off in the future when partners use and contribute back to the code."*
>
> **Tony Shawcross**
> Open Media Foundation

OMF designed the Open Media Project tools to enable a shift in control to users, minimizing the role of the Public Access Station's staff. Adoption of this user-driven workflow requires a different operating philosophy. While it has been demonstrated that the Open Media Project tools and user-driven model can reduce staffing costs, public media stations are understandably resistant to making such a drastic shift in their staffing. Even those that are forced to shrink staff are not laying off any more than is necessary, and thus are unable to afford adding the new technical staff position(s) required to maintain the automated Drupal systems OMF developed. In Denver, this was only possible because the City forced the closure of the old station, laying off their entire staff such that the station had to start from scratch with a new model. For this reason, OMF concluded that the only way to reach more wide-scale adoption of the tools is to have a fully managed and supported cloud-based option that does not require the kind of radical staffing changes that were made in Denver.

While the achievements of the Open Media Project illustrate the potential of digital tools, it is also important to note that the actual impact of OMF's endeavor to create products for widespread adoption fell short of its initial expectations. Open Media Project struggled to engage the few media organizations it targeted, including those who expressed a direct interest in utilizing the tool. Given that these likely represented the organizations who are most predisposed to embrace the types of user-driven workflows enabled by the tool, expectations should be very limited regarding wide-scale adoption of digital platforms of this nature, especially as it pertains to the objective of promoting collaboration as set forth by the Open Media Project.

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[1] The beta-test sites selected were: Davis Media Access, ACTV Amherst, ChannelAustin, Boston Neighborhood Network, Denver Open Media, and Portland Community Media.

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III. Lessons and Learning Opportunities

The experiences of the three 2007-08 projects that were focused on creating digital tools for public media suggest a number of lessons in terms of project design and how to approach execution.

- **It is difficult for new tools to hold in old media workplace cultures.** Most grantees and stakeholders interviewed as a part of this assessment perceive a reluctance on the part of the public media establishment to embrace digital tools. This is partly attributed to an "old guard" mentality where leaders may simply be stuck in a conventional mindset about how public media should work, and partly to an overall lack of comfort or facility with the tools and practices associated with the digital world. The complexity of open source code, such as Drupal, presented an additional barrier: Margaret Rosas of Radio Engage suggested that using a simpler platform such as Wordpress may have encouraged greater adoption. Tony Shawcross of Open Media Foundation adds that public access television stations have even more limited incentive to evolve because of the sizeable allocations they receive from cable companies. If digital tools are to be adopted on a wide scale in the public media system, certain conservative mindset must be challenged.

- **When designing digital tools for public media, think in terms of simple, focused modules rather than universal platforms.** While the cause of developing a web platform that could be utilized by all – or even a majority – of public media stations is a worthy one, the experiences of Radio Engage and Open Media Project suggest that a more successful approach might be to meet the stations where they are and design to their capacity. In general, the technical and logistical specifications of each station – as well as a perceived need to preserve a sense of individual identity – are far too complex to be accounted for in a standardized platform. Radio Engage's experience with KUSP illustrates this challenge; ultimately, after extensive investments in both conceptual design and training, KUSP elected to adopt just one module of Radio Engage for which they identified a distinct use. Mozilla CEO Mark Surman believes "in general, the web industry is moving away from Drupal in particular and a universal one-size-fits-all approach; where it's working, it's working in very narrow spaces and in a more modular way."

- **Digital media tools should be highly interactive and engaging in nature, and integrated into the rest of a media outlet's content.** In the brief time period since it developed and launched its Cultural Portal, WNYC learned several valuable lessons regarding the nature of digital tools that played well with its audience. In general, it found that its audiences reacted most strongly to intimate, emotionally rich, and interactive experiences that connected with their personal lives and the lives of people around them. Despite the capacity of the Internet to allow people to interact virtually, WNYC also found that the programs involving an in-person component – such as meet-ups or guided tours – generated the greatest involvement and excitement. Connecting digital content to local, current events also increased levels of engagement, as did connecting content to parallel broadcast components to give the experience multiple dimensions.

- **Partnerships with local arts and culture organizations are challenging, but hold much promise.** Due to the local orientation of most public media outlets, connection to other local resources such as arts and cultural organizations can be a powerful vehicle for both providing a strong community context and enriching the content provided online and/or via broadcast. Partnerships established by WNYC with the likes of the Guggenheim and the Brooklyn Art Museum facilitated concrete experiences for their listeners that provided a vital real-life – and community – connection to the content. However, WNYC cited multiple challenges in establishing partnerships. First and foremost, several partners wanted WNYC to produce most or all of the content; this resulted in more significant time investments on the part of WNYC than they had planned for. Second, many partner institutions saw the relationship as an extension of their public relations, essentially pursuing it in hopes that it would translate directly into ticket sales, rather than to deliver a service to the community in a way that is consistent with the orientation of public media. Regardless of these dynamics, WNYC was able to benefit from the partnerships that came to fruition; others would do well to anticipate these potential challenges in order to mitigate them effectively.

- **Designing and implementing code for digital tools is a time-intensive, costly endeavor.** All three projects reported that the level of work required to both design the web platforms and implement them with public media outlets was far greater than they had planned or budgeted for. The implication for those initiating development projects is that they must anticipate the substantial resources and processes required for development, documentation, evaluation, iteration, and training. Grantees found in particular that the individualized needs and specifications of each station were far greater than they had anticipated, challenging the notion that the products they were creating could be easily adopted by users. On the user side, grantees

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noted that, even of the stations that stepped forward with an interest in incorporating digital media tools, none had staff with the availability or capability to manage the technical requirements of the project. These requirements range from migrating all of their data over onto the new system to managing the immense storage that is required for digital media. There is a significant technical learning curve associated with adopting this technology that must be accounted for. One user indicated that it would be valuable to have the option of purchasing a package that included both installation and a level of support that would be sufficient to address all technical issues, while leaving primary control of the tools and features in the hands of the station.

- **Managing digital tools requires work processes that are far different from traditional broadcast media.** WNYC discovered quickly the need for specific work processes to manage their digital media tools that were far different from what they were used to in broadcast media. Specifically, WNYC had to develop editorial processes that allowed for the rapid assessment of the functionality of digital tools being implemented, such that poorly performing tools could be quickly terminated and tools with technical glitches or problematic design features could be quickly improved. WNYC notes that this type of real-time activity can be challenging to integrate into broadcast media organizations that are used to more extended timelines for managing programming. Also, public media organizations need to develop and exercise a specific skill set around convening and activating communities online, including knowing the right "hooks" for stimulating online interaction and appropriately balancing online and face-to-face activity.

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