What's the Score?: News Games

Excerpt 6 of 7: Assessment of the Knight News Challenge, 2007-2008

What's the Score?: News Games

I. Introduction

For journalists, educators and advocates who believe in the value of an informed and engaged citizenry, the potential for digital games to enhance audience interaction with news and information is compelling. While traditional print and broadcast news decline in popularity, computer and video games continue their rise and are now firmly entrenched in the US as a widely adopted pastime. More than two-thirds of American households play electronic games and, despite stereotypes, 40 percent of players are women, as well as one in four people over the age of 50.[1] Wide-scale adoption coincides with the ongoing development of more deeply interactive user experiences, expanding the potential applications of electronic games. Now in a dominant position among commercial entertainment media, digital media games are increasingly recognized as a powerful way to share information, communicate ideas and build community.

In this context, the Knight News Challenge in 2007 and 2008 awarded grants to three experimental efforts that sought to use electronic games to create interactive ways for individuals to access news and information and build citizen engagement around important issues. The foundation chose to support a range of practical applications, hoping to produce lessons for the field, and possibly models that could be replicated. Together with its grantees, Knight hoped to better understand the viability of gaming to drive news objectives.

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 – news games – 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 does it take to implement news games successfully?

- Can games be shown to drive user knowledge and civic participation?

- What are the barriers preventing newsrooms from using games, and can those barriers be lowered to make gaming a more viable strategy for the industry and field?

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[1] Source: Entertainment Software Association (www.theesa.com/facts).

Overview of News Games Projects: 2007-2008

The foundation invested in three news games projects in 2007-2008: two game development projects run by university journalism programs, and one gaming project at a news organization. Of the three, one was an applied research effort intended to shape future game development, while two were real-world applications seeking to reach and demonstrate effectiveness within discrete communities. The following table is a summary of the three projects.

	New York News Games	Oakland Jazz & Blues Clubs	Playing The News
Grant	**Winner:** Gotham Gazette **Grant Amount:** $250,000 **Timeframe:** 2 Years **Year Awarded:** 2007	**Winner:** U.C. Berkeley School of Journalism **Grant Amount:** $60,000 **Timeframe:** 1 Year **Year Awarded:** 2007	**Winner:** U. Minn. School of Journalism **Grant Amount:** $250,000 **Timeframe:** 2 Years **Year Awarded:** 2007
Idea	**Use entertainment to support explanatory journalism:** Create a series of games about pressing local policy matters to inform and engage the readership of New York's Gotham Gazette	**Promote cross-generational interaction and cultural pride while educating young people:** Create an experiential game to bring users of all ages into the bygone 1940s and 50s jazz scene in Oakland, California	**Create a proven, replicable news game model:** Develop, test and identify a successful prototype news game format; build an easy-to-use and cost-effective front-end games-creation tool
Innovation	Innovative use of games to advance explanatory journalism developed through a process expected to produce a model that other news organizations could easily replicate	Demonstrate the ability for a game to engage a defined locality around a historical topic, educate young people, and create cross-generational interaction	Use of applied research to test end-user experience, as well as the creation of a practical and freely available tool for making news games
Output / Reach / Impact	**Output** (as of 06/11) • Launched 5 games over 3 years covering: city budget, waste management, ballot-qualifications process, energy consumption **Reach** (as of 02/11) • Garbage (11/07): 9,114 • Balance (02/09): 2,893* • Budget Maze (05/08): 3,725* • Bump (07/09): 1,650* • Switch (09/09): 1,439* * Views are likely undercounted due to a missing tag on the game page. **Impact** • Games/source code adapted by a handful of other news organizations and public agencies	**Output** • Built and released "Saving 7th Street: The Oakland Jazz & Blues Clubs Video Game" (7/2008) **Reach** (as of 02/11) • Game downloaded 246 times to date **Impact** • Positive testing with youths and older adult users • The game ultimately was not used by a significant number of people; time and resources for marketing and outreach were limited.	**Output** • Built and rigorously tested 2 game prototypes, with control groups to compare user satisfaction and understanding versus traditional formats **Reach** • Not applicable [games not released; instead tested as part of research effort] **Impact** • Both game prototypes tested poorly in comparison with a "topic cluster" website approach • An alternative "Topic Tiles" game was released in 2011

New York News Games	**Oakland Jazz & Blues Clubs**	**Playing The News**

Lessons

New York News Games
- Steep learning curve to manage integration of 3 functions: content development (journalism), game design (user experience) and technical game development (programming)
- Open source requirements created challenges for game development
- Games can have long shelf-life

Oakland Jazz & Blues Clubs
- High cost to license music, images
- Heavy promotion in media did not translate into use
- Educational game design and distribution requirements differ from those of news-oriented games
- Strategic marketing/distribution partners are critical

Playing The News
- Topic and game format need to align
- Quiz games tested better than "experiential" games

II. Grant Implementation, Reach and Impact

A high rate of failure is standard in gaming. Investments in news games, and expectations for their success need to be calibrated accordingly. Industry observer Suzanne Seggerman, co-founder of Games for Change, says to "expect 90% failure." The three 2007-2008 news games projects funded through the News Challenge experienced challenges in the project implementation phase that caused setbacks and incurred unexpected costs. Developing a compelling news games design proved particularly difficult. In the end, these projects had varying degrees of success in developing news games that engaged a meaningful user base. Ultimately, these projects must be viewed as early efforts to explore a new area, most of which are destined to fall short but offer opportunities for learning.

New York News Games

New York News Games created five of the six games it had committed to building. They tackled a variety of topics, including the city budget, garbage and waste management, the ballot-qualifications process, and energy consumption. The nonprofit news organization that created the New York News Games, the Gotham Gazette, previously had experimented with games. This project, however, was designed to be more content-rich—tackling difficult policy issues in ways that would communicate nuance and complexity—and therefore required increased focus on the underlying reporting. The paper's journalists were called on to support the effort more than had been anticipated. However, the project struggled to manage the integration of three functions necessary to develop games: development of content (journalism), game design (user experience) and technical game development (programming).

Knight Foundation's requirement that games be built on an open source platform meant the grantee could not work with many of the most common software resources used by game developers (e.g., Adobe Flash) and narrowed the pool of gaming professionals who could support the project initially. However, Knight Foundation, in response to these challenges, amended its open source requirements for the Gotham Gazette midway through the project, which allowed the Gazette to trim back the budget on subsequent games and reach out to more programmers. Also, due to budget limitations, the Gotham Gazette made the decision to release the games without beta-testing, instead building expertise through trial and error as successive games were developed.

In terms of usage, none of the games have had significant reach. Even the game with the greatest number of players to date, Garbage (a simple decision tree game that allows players to make choices about how to handle waste management issues in New York City) has enjoyed only moderate success with a total of 9,114 players as of this publication.

There does appear to be some correlation between usage and the length of time the games have been active: the oldest game (Garbage) was released in late 2007 and over the next three years had 9,114 players; the most recent

> *"A game has a lot of moving parts, and you need one person to bring all those parts together. At the beginning we saw it more as a technical issue. We had our technical person [manage game development] but that was a mistake. It was a journalistic endeavor, and should have been a journalist [overseeing development]."*
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> **Gail Robinson**
> Editor in Chief, Gotham Gazette

game (Switch, on the topic of energy consumption) has had 1,439 players in slightly more than one year. Yet it also seems likely that certain topics or approaches to topics were inherently more appealing to users. In the case of the Garbage game, waste management in New York City is a directly experienced concern for the average reader, and also appears to be a topic of increasing interest, as concerns about the environment move to the forefront of citizen's consciousness. "Around Earth Day, we always promote the Garbage game," says Gotham Gazette's Editor-in-Chief Gail Robinson.

Additionally, certain game types seemed to engage users more than others. While two games tackled the budget, the Budget Maze game, which was about the process of passing the budget, to date has generated nearly 40 percent more plays than Balance, which focused on budget content. Robinson hypothesizes, "Games are more successful when they actually let you do policy rather than when they test your knowledge. With the garbage game, it is definitely about policy. 'If I were a Commissioner, would I put trash on barges?' With the budget, trying to get a program funded seemed like policy, but it was really about knowledge. The budget spending and cutting game got more traction. I think that people like doing that...People like power and control, and they like to play somebody they are not."

With the limited information available for this assessment, it is not possible to know or attribute industry- or community-level impacts to these products. For example, whether or not the 9,114 people who played the Garbage game came away more knowledgeable than they would have been without the game; if they took any action based on this new knowledge; or if they are more engaged with community issues generally than they were before they played the game remain untested hypotheses. However, as Robinson reports, "The project left us more convinced than ever that games, done well, are a good way to engage readers on complicated policy questions and add to their appreciation of the complexities of those issues."

In a few instances, public agencies and newsrooms in other regions have replicated or linked to some of the games: the city's Department of Sanitation put a link on their site to the garbage game, and the *Newark Star Ledger* used the source code on the budget game. (Dissemination was not a focus of the grantee's work, and was not closely monitored by Gotham Gazette.)

The project also has had unintended positive consequences for the grantee and the industry. "It had a huge impact on the Gotham Gazette internally as an organization," reports Amanda Hickman, who managed the games project for the publication. "[The games project] gave the organization a lot of room to experiment and try things. And ultimately we learned a lot from the process—we learned how to make reporting more vital, and we were encouraged to push past the boundaries of our prior experience to see what works and if people use the tools we give them. The project also helped us to think about and look for ways to measure and assess our impact as a news organization." In the words of Gail Robinson, "The games helped us think about the best ways, beyond narrative prose and links, to present information. While for the past two years this has not included games, it has spurred us to present more news graphics, launch a database and create a new Wiki based sub-site."

The Oakland Jazz & Blues Clubs Video Game

The Oakland Jazz & Blues Clubs Video Game was built by UC Berkeley journalism and information architecture students to preserve the cultural history of Oakland, California's 7th Street, which was home to a thriving jazz and blues music scene in the 1940's and 50's but today is rundown. Journalism students interviewed neighborhood elders, while architecture students produced the audio and designed the game, which was released in the summer of 2008. "We constructed a series of... quests, little things people could do to find out information about 7th Street," explains Paul Grabowicz, Senior Lecturer and Associate Dean at the U.C. Berkeley Graduate School of Journalism, in an interview conducted by NPR on the project.[2]

The original concept was to develop a video simulation of the area in its heyday, but students proposed instead to develop a video game that would be more engaging for young people. As described in the NPR article, "In the game, the user is a musician who comes to 7th Street to play music in the clubs and to seek out a record deal. Along the way, there are a series of tasks to complete....Quests include going to the pawn shop to get money, buying fancy clothes or meeting people who tell you how to get ahead in the music business. Another mission is to jump on stage in a club and jam with a guitar and a saxophone." While young people were in mind as the target audience, the designers also wanted the game to resonate for the older generation. The game was tested and received positive reviews from both older and younger users.

The Oakland Jazz & Blues Clubs game struck a chord with news media and tested well with diverse age groups, but the raw number of people who have played the game is very small. There was early interest from mainstream news media and the project was covered in forums ranging from NPR's "All Things Considered" to *California Magazine, The San Francisco Chronicle, PC World* and others. Yet this exposure ultimately did not translate into the game being played much: according to available data, the game was downloaded only 246 times (suggesting this number of users played the game). While it is difficult to establish a target or expectation for success, one benchmark is the number of middle and high school students in the area who would benefit from learning about the cultural heritage of their home community. Through this lens, no more than 3% of the potential target population was reached.[3]

The grantee believes the game would have been more widely accessed if they had marketed it more aggressively and in particular if they had partnered with schools or other groups connected with young people. In practice, however, and especially during a time of shrinking budgets and cutbacks to core services, schools would likely need financial support to adapt existing curricula by adding a game such as the Oakland Jazz & Blues Clubs.

In addition to reach-related challenges caused by a lack of marketing and not connecting the effort to schools, obtaining free licensing for image and music rights—a requirement specific to the content of this game—ended up requiring much more time expected. According to U.C. Berkeley Professor Paul Grabowicz, "We were able to finally get permissions that kept the costs low, so the expense was not as much of a problem (as time was). That said, cost could easily be a problem with other games if free licensing can't be secured."

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[2] Viewed at http://www.npr.org/templates/story/story.php?storyId=87769207 on May 18, 2011.

[3] According to the California Department of Education, 22,655 middle and high school students attended Oakland Unified School District schools in 2009-10, about one-third of whom (or 7,500) attend a school in East Oakland (the 7th Street area).

The project architects also underestimated the time and expense of creating a sophisticated virtual world video game – both in terms of game development and programming as well as in terms of the time required for conducting the necessary research and reporting. Grabowicz warns, "I'm skeptical about news organizations using this sophisticated virtual world/video game approach to creating news games given the limited resources of most newsrooms. I think more simple games are probably more appropriate and doable for news organizations."

Playing the News

Playing the News was an experimental project developed by the University of Minnesota's School of Journalism to test 1) which of two different approaches to developing a news game was more engaging for users and 2) how the games compared to a set of traditional news story page layouts. The topic of focus for each of the game versions as well as the news story comparisons, was "using ethanol as a fuel" – encouraging users to gather information on the complex energy issue of ethanol as a fuel source. The project architects created a web site and an online survey to compare and analyze the game versions (an "encounter game" format and a "board game" format) and three traditional-style news page designs (a text-based news story, a topic-organized web page, and a short story with various links to additional information).

Playing the News ran into an early implementation problem with a contracted game development company that had to be fired after one year of missed deadlines and other performance issues. They got back on course, and developed and tested two different game prototypes: one built as an "experiential" journey through a virtual environment and one quiz-based, both focused on the topic of ethanol as a fuel. Because the primary strategy of this project was to obtain hard data that would then be used to shape development of an effective, replicable game prototype, applied research was the foundation of the effort. The team followed a rigorous protocol that included control groups: research subjects were surveyed and then randomly assigned to one of five online interactions, two of which were the games, one a traditional news story, one an abstract of the longer story, and the last an informational website organized in topic clusters with links to related articles and factoids.

"An easy to use front-end game building tool is much more elusive than we had anticipated. This is the reason why news games continue to be unique efforts with high development costs rather than being more widely deployed."

Playing the News Final Grant Report

To rate and compare the ability of each approach to engage users, all methodologies focused on a single topic thought to be seen as "boring" or "dry" by most people (in this case, ethanol). Researchers did eye-tracking studies and assessed understanding of the topic pre- and post-exposure.

Both game prototypes tested poorly in comparison with a "topic cluster" website approach. Users spent more time reading and gathering information on the more traditional website approaches than they did playing either of the news game formats.

The team was surprised to learn that the topic-cluster approach was most successful. Based on this finding, they decided to discontinue their prior gaming approach and refocus on models for "news curating." Subsequently, they have gone on to develop a tool to create a game they call "Topic Tiles" that plays off of the topic-cluster concept. This utility, made available at no cost to news organizations and other groups, was released in early 2011.

Meanwhile, the University of Minnesota's Institute for New Media Studies has shared their research findings with the industry. The games project also has led to stronger connections between the Institute for New Media Studies and the international news gaming movement, including brainstorming and informal collaboration with game developers and journalists from the U.S., Canada, Denmark, the Netherlands, and France.

III. Lessons and Learning Opportunities

The three 2007-2008 news games projects have revealed more about what does not work and what is not sustainable than about what does; yet the insights generated about game design and implementation are still valuable.

- **Producing High-Quality Games requires a rare combination of specific talents and skills.** All three grantees reported steep learning curves for their game design and programming partners, and many experienced significant implementation difficulties as a result. Games for Change co-founder Suzanne Seggerman puts it bluntly: "Don't ever make a game without a real game designer." The specific challenge is that successful game development requires the integration of journalism (content development), game design (user experience), and technical development (programming). These are each distinct skill sets, and all must connect and form a true collaboration. Furthermore, track record is an important predictor of success in the world of game design.

- **Game development costs and planning were underestimated.** Producing high quality games involves heavy information development requirements (content producing), which grantees found to be more extensive and comprehensive than traditional reporting. These ongoing costs limit "replicability;" each new game is not necessarily significantly cheaper to build, because it requires new reporting, not just programming. Gotham Gazette editor Gail Robinson says, "Given our small operation, we had hoped to come up with a way to produce games at a reasonable cost. While we did some interesting and relevant games, the project took a lot of resources. It remains very challenging for a small site with a modest budget to produce high quality games."

- **Games can have a long shelf-life—as long as their topic remains relevant and content is maintained up to date.** One of the upsides of the games strategy is that, after the initial programming is completed and the technical platform is developed, old information can be exchanged for new relatively easily. However, of course, the general topic and specific content must remain relevant and up to date to generate a "long tail" of use.

- **Open source requirements can carry significant costs and affect implementation.** Knight Foundation's requirement that all News Challenge grantees use open source code posed a unique challenge for news games projects. With Adobe Flash as the state of the art, the projects lost time and expended more resources than expected finding programmers who could design games using open source code. "Finding programmers who would do this in anything other than Flash was difficult," reports Playing the News project director Nora Paul. "The games lost a lot of playability—'gaminess.'"

- **Having a well-developed distribution and marketing strategy is key.** Grantees struggled with marketing the games successfully once they were developed. This issue posed a particular challenge for the Oakland Jazz & Blues Clubs project, though it affected each project to some degree. Budgets already were stretched thin in the game design and development processes, leaving little to no resources for marketing efforts. Social issue gaming expert Suzanne Seggerman believes games should be created as elements that contribute to larger campaigns, rather than as one-off products expected to stand on their own. Games need large platforms (e.g., Facebook) or partners with strong marketing muscle, (e.g., MTV, *The New York Times*). Marketing, however, is not enough. The game has to be compelling and users have to know about it. Educational games (as opposed to true news games) need partners with large youth audiences to act as channels. A related concern: news game builders hoping for adoption by traditional media must consider what motivates newsrooms—including, for example, length of time users spend on a site (which is important to advertisers). In this context, "stickiness" becomes a critical metric.