



# Behind the Scenes: Field-Building for Media Innovation

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

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Prepared by **LFA Group: *Learning for Action*** for **John S. and James L. Knight Foundation**



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# Behind the Scenes: Field-Building for Media Innovation

## I. Introduction

The rapid changes in digital communication technology are compelling news organizations to innovate and think creatively about how information is gathered, shared, and delivered. Staying relevant means that organizations must use a more entrepreneurial approach than they have in the past—they must quickly develop new ideas and make adaptations on a regular basis. Meeting these challenges requires a set of skills and awareness of current issues that many traditional journalists do not possess: a sophisticated understanding of how technology can be leveraged in service of informing the public, and the tools and mindset to change course swiftly when needed. One approach to acquire these capacities is to build the capacity of the journalism field by developing the next generation of news professionals in university settings.

In this context, the Knight News Challenge in 2007 and 2008 awarded grants to four universities that sought to 1) add to the pipeline of young professionals trained at the intersection of computer science, entrepreneurship, and media, and 2) incubate student-led innovations and technologies for news and information. In selecting these grantees, the Knight Foundation chose to support a range of models—a collaboration among multiple schools, new centers at well-established universities, and a program aimed at specifically attracting technology professionals to journalism. A fifth field-building grant was awarded to an organization to compile and provide legal information to citizen journalists.

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 – field-building for media innovation – 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 academic settings are most conducive to training people at the intersection of innovation, computer science and entrepreneurship?
- To what extent can universities develop and field-test new media technologies in community settings?
- To what extent does providing legal information to citizen journalists impact their freedom to report in new ways?

## Overview of Field-Building Projects: 2007-2008

The foundation invested in a total of five field-building projects from 2007-08: two grants to establish academic centers at universities, one collaborative project between six universities, one scholarship program to attract new students to the field of journalism, and one project to provide legal information to citizen journalists. The following table is a summary of the five projects.

	Center For Future Civic Media (MIT)	Citizen Media Law Project	Digital News Academics (Northwestern University)
Grant	<p><b>Winner:</b> MIT</p> <p><b>Grant Amount:</b> \$5,000,000</p> <p><b>Timeframe:</b> 5 Years</p> <p><b>Year Awarded:</b> 2007</p>	<p><b>Winner:</b> Citizen Media Law Project</p> <p><b>Grant Amount:</b> \$250,000</p> <p><b>Timeframe:</b> 2 Years</p> <p><b>Year Awarded:</b> 2007</p>	<p><b>Winner:</b> Northwestern University Medill Journalism School</p> <p><b>Grant Amount:</b> \$639,000</p> <p><b>Timeframe:</b> 3 Years</p> <p><b>Year Awarded:</b> 2007</p>
Idea	<p><b>Innovate civic media tools and practices and test them in communities:</b> Create a center to develop new community news products and become an international resource on civic media</p>	<p><b>Ensure journalists have the freedom to report without being burdened by legal threats:</b> Collect data about legal actions against citizen journalists and create legal guides to help them understand their rights</p>	<p><b>Develop a set of professionals with experience in both computer programming and journalism:</b> Offer journalism school scholarships to experienced programmers</p>
Innovation	<p>Leverage the resources and expertise of the <a href="#">MIT Media Lab</a> and <a href="#">Comparative Media Studies</a> to foster new systems for communities to share, organize, and exchange information, and to test these in communities</p>	<p>Provide specific and individualized information to citizen journalists, who may be innovating in ways that the law has not yet accounted for, or who may not have any legal knowledge or training</p>	<p>Utilize scholarships to attract experienced software programmers to journalism, thereby creating a pipeline of “programmer-journalists” to address an unmet need in the field</p>

*continued*

**Center For Future Civic Media (MIT)**

**Output**

- Engaged 75 students in various classes and projects (as of 05/11)
- Developed 33 student projects/products (according to Center website, 03/11)

**Reach**

- The Center has developed student projects/products that have engaged a number of users and community partners
- Student-led projects have been tested in a range of communities

**Impact**

- Several promising projects launched to meet information needs of communities
- Creation of a new methodology for developing civic media based on understanding community needs
- Creation of a teaching program in the new field of civic media

- Coordinating entities from different disciplines within a university requires significant preparation and launch time
- There are countless configurations for community information systems that have yet to be developed

**Citizen Media Law Project**

**Output**

- Published 779 entries in an online database detailing legal actions against citizen journalists (10/09)
- Published 835 blog entries (4/11)
- Completed 15 state specific legal guides, with content totaling 563 pages of information

**Reach**

- 82,000 average unique monthly visitors to CMLP's website (as of April 2011)

**Impact**

- CMLP has been part of several legal cases that were resolved on behalf of independent journalists
- Expanded the base of stakeholders who are helping address legal issues related to citizen journalism

- Even with good legal information, journalists still need individualized legal advice
- Being associated with a major university (Harvard) has helped provide entrée into media and technology communities

**Digital News Academics (Northwestern University)**

**Output**

- 10 students have been admitted with a Knight scholarship, 9 have graduated

**Reach**

- Not applicable

**Impact**

- 7 of the 9 graduates are currently working in journalism
- 1 graduate working at the Chicago Tribune was named the Tribune's Employee of the Year

- Finding the right people for the scholarships is a challenge
- Graduates appear to be in high demand in the job market, indicating a place in the field for journalists with these skills

	Digital News Incubators	Knight Center for Digital Media Entrepreneurship (ASU)
Grant	<p><b>Winner:</b> Seven U.S. Universities, led by Ithaca College</p> <p><b>Grant Amount:</b> \$230,000</p> <p><b>Timeframe:</b> 2 Years</p> <p><b>Year Awarded:</b> 2007</p>	<p><b>Winner:</b> Arizona State University</p> <p><b>Grant Amount:</b> \$552,000</p> <p><b>Timeframe:</b> 3 Years</p> <p><b>Year Awarded:</b> 2007</p>
Idea	<p><b>Bring the energy and creativity of ideas generated in academia to the journalism field:</b> Create “incubators” at 7 academic institutions to foster creative thinking about solutions to digital news problems and partner with newsrooms to implement ideas</p>	<p><b>Combine teaching about innovation and journalism:</b> Support the development of media entrepreneurship and the creation of new digital media products through the establishment of an academic center</p>
Innovation	<p>Develop strategies to transfer innovation from journalism schools to newsrooms, leveraging the creative process of universities</p>	<p>Provide students with the opportunity and the resources to explore and execute innovative ideas related to media</p>
Output / Reach / Impact	<p><b>Output</b></p> <ul style="list-style-type: none"> <li>• 7 schools collaborated on 3 projects, involving approximately 50 students and faculty combined</li> </ul> <p><b>Reach</b></p> <ul style="list-style-type: none"> <li>• The 3 projects were presented to 250 journalists at the 2007 Online News Association meeting</li> </ul> <p><b>Impact</b></p> <ul style="list-style-type: none"> <li>• One student project (Tandem) became the basis for a 2008 Michigan State class on community blogging</li> <li>• A second student project (Vox Pop) was implemented by Kansas State in 2010</li> <li>• Collaboration between the universities continued through the end of the grant period, but has since dissolved</li> </ul>	<p><b>Output</b></p> <ul style="list-style-type: none"> <li>• 60 students per year, both graduate and undergraduate, participate in one of two classes offered by the Center</li> </ul> <p><b>Reach</b></p> <ul style="list-style-type: none"> <li>• 34 innovative digital media projects have been created by students involved in the program</li> <li>• 263 unique monthly visits to program website between July 2009 and June 2010</li> </ul> <p><b>Impact</b></p> <ul style="list-style-type: none"> <li>• 2 student projects from the center (City Circles [Daily Phoenix] and City Seed) have won Knight News Challenge grants</li> <li>• Other universities looking to create similar centers or curricula at their schools have reached out to <a href="#">ASU</a> for guidance</li> </ul>
Lessons	<ul style="list-style-type: none"> <li>• Universities were successful at developing and generating ideas, but challenged to execute them due to capacity constraints</li> <li>• Faculty and students had limited experience in entrepreneurial collaboration and new media design</li> </ul>	<ul style="list-style-type: none"> <li>• Bringing together students from different departments within the universities results in a rich experience for the students, whereby they are exposed to new technologies and ideas</li> <li>• Curriculum and program content need to be continually evaluated for relevance and adapted to rapid changes in the field</li> <li>• Ensure that Center staff understand both programming and entrepreneurship</li> </ul>

## II. Grant Implementation, Reach and Impact

Four of the funded projects have met their initial goals and continue to operate. The fifth project – Digital News Incubators – faced significant implementation challenges and did not continue to operate past the two-year grant period. When these projects were launched in 2007, relatively few were linking media innovation to training in academic settings or providing legal information to citizen journalists. These projects filled in some important gaps, especially at the intersection of journalism, computer science and entrepreneurship. In retrospect, they are creating a pool of new professionals who conceive of the role of innovation and technology in media in a contemporary way: they understand the importance of entrepreneurship in journalism and the need to quickly adapt to emerging technological trends. CMLP's work has allowed journalists to receive much needed information and advice should they run into legal issues.

### Center for Future Civic Media, MIT

The [Center for Future Civic Media \(C4\)](#) was established in 2007 as a partnership between two departments at MIT: the Media Lab and Comparative Media Studies (CMS). MIT's C4 is a research and testing center dedicated to investing in, testing, and disseminating new community news technologies and practices. While it receives in-kind support from the university, its sole source of external funding remains the \$5 million Knight News Challenge grant. After the first year, the Director of the CMS program left, leaving only the Media Lab to run MIT's C4 for an interim period. Since then, two senior faculty members from CMS have become involved and C4 has improved under the leadership of Chris Csikszentmihalyi.

Since its inception, MIT's C4 has sought to have an impact on three levels: students, communities, and the broader media field. It works to educate students, develop specific projects to meet community needs, and define a new field of civic media. Due to the large size of its investment, Knight Foundation commissioned a separate external evaluation of MIT's C4 that was led by John Palfrey in partnership with MIT. The external evaluation report completed in June 2011<sup>1</sup> summarizes C4's accomplishments as follows: "1) the development of new methodologies in the emerging field of civic media; 2) the creation of a teaching program in this new field that is attracting top-flight graduate students to MIT; 3) several promising and important projects that are rooted in meeting the information needs of specific communities as far away as Juarez, Mexico and as close by as Boston, MA; and 4) convening the field through an annual conference at MIT, and other periodic events." The report notes that while the Center has made strong efforts to engage various technical communities in incubating student projects, one shortcoming has been the limited scholarship on the Center's experiments, including efforts to codify lessons learned from individual projects.

Although it is early to assess the long-term impact of some of the student projects developed by the center, the

external evaluation indicates that a handful of projects in particular show great promise to help community members receive and use information in new ways. Examples include:

- **Grassroots Mapping:** a project that enables citizens to learn a simple mapping technique. This project has demonstrated that for a little over \$100, communities can create their own images that are up-to-date and have much greater resolution than those used by web mapping services. Residents in the Gulf region used this technology to document how the BP oil spill affected their coastline on a weekly basis. [Grassroots Mapping](#) has been reused locally on four continents.
- **Sourcemap:** a social network developed around supply chains that allows citizens to collaboratively research and discover how and where the products they buy have been made. [Sourcemap](#) has reconnected consumers with the communities that create and source materials and products. The Sourcemap team is currently adapting the tool for use by NGOs and civic groups to promote advocacy, and for journalists to use in investigative reporting. Sourcemap has been recreated by two communities in the UK, Sussex County and Highlands and Islands, as a way to track and promote local supply chains for breweries and bed and breakfasts. The project has also partnered with [Stonyfield Farm](#), an organic yoghurt maker in the US.
- **Hero Reports:** an initiative that enables citizens in Juarez, Mexico to tell positive stories about things happening in their communities. In its first six months of operation, [Hero Reports](#) generated over 700 such citizen-generated stories, and media from El Paso, Texas and Mexico City have covered the campaign. An active team on the ground in Juarez and an intensive advertising campaign featuring billboards and posters of iconic pop-culture figures contributed to its success. It has demonstrated that web sites can be sustainable sources for positive news in a community, even in a city in civic crisis like Juarez. The initiative was also recently launched in Kazakhstan and set to start in Monterrey and Tijuana.

<sup>1</sup> Palfrey, J. and Bracey, C. *Review of the MIT Center for Future Civic Media*. June, 2011.

MIT is where the term “free software” was coined, and C4 has embraced open methods in its work. A number of C4 open source projects have been “forked,” “branched,” and reused and reintegrated into other projects. Additionally, data generated by C4 projects are often available in the public domain, either through web APIs or as “raw” data. For example, the data sets for Grassroots Mapping and initiatives such as [WellWatch](#), a community tool for people living with gas extraction, can be publicly accessed. In many instances, C4 projects involve civic volunteers or a community social movement for their content and maintenance, as is the case in projects like Hero Reports and [BetweenTheBars](#), a blogging platform for prisoners that makes it easy for individuals to blog on standard postal mail that is then scanned, uploaded and made available on the web.

Importantly, the Center has created its own methodology for developing civic media projects. The method starts with listening to a specific community to understand its information needs and working with community members to develop a vision of how technology can best address the issues. The C4 team then designs, develops, and applies technologies to the identified community needs. This approach is innovative, and different from the MIT Media Lab’s usual approach, because it starts with the community needs, instead of with specific technologies or scientific concepts. MIT’s C4 also is contributing to the advancement of the field of media innovation. The center hosts an annual conference which showcases projects, shares learning among institutions, and helps to establish a community in a new and growing field.

## **Citizen Media Law Project (Citizen Journalist Resources)**

The [Citizen Media Law Project \(CMLP\)](#) is intended to ensure that citizen journalists have the freedom to report without being burdened by lawsuits that may not be legitimate in the first place. While there are organizations and resources that protect the general rights of journalists, little specific information or individualized support exists for independent journalists, many of whom are innovating in ways that the law has not yet accounted for. CMLP has three main areas of activity:

- 1) Study and provide information about legal issues as they relate to nontraditional, experimental journalism that is the hallmark of the digital media age.
- 2) Serve as a knowledge development hub for the primary audience of citizen journalists. Provide information to other groups including, lawyers of all types, law professors, legal clinic staff, media experts, software developers, and others who are players in the digital media revolution to enhance their thinking about these issues and evolve their ideas.

- 3) Promote the expertise and participation of the legal field broadly in legal issues related to new media; and build a community and a network to understand and address the emerging issues for the purpose of supporting citizen journalists.

CMLP has met the goals of the News Challenge grant and achieved a sustained impact in the field. The project developed a web-based national database detailing lawsuits and other legal actions against citizen journalists engaging in online speech and a series of state-specific legal guides that cover the 15 most populous states and the District of Columbia. It also has produced a series of podcasts, and partnered with other organizations to produce an interactive online course on legal issues for citizen journalists. A new initiative that arose from CMLP’s Knight News Challenge project, the [Online Media Legal Network \(OMLN\)](#), provides individual legal assistance to citizen journalists.<sup>2</sup> This project has attracted 300 requests for legal assistance, and currently has 160 law firm and law school clinic members representing 36 states. In the 15 months after the service launched, the OMLN helped 125 clients on 249 legal matters. OMLN also produces a weekly newsletter that has 400 subscribers.

CMLP is seeking to produce a legal environment that is conducive to the success of citizen journalists and has achieved several notable outcomes. It has been a part of two influential legal cases that were resolved on behalf of independent journalism: successfully opposing an injunction to shut down the [wikileaks.org](#) website and the dismissal of a libel lawsuit filed against [ibrattleboro.com](#). In both instances, CMLP was instrumental in bringing attention to the cases through blogging, following the case in its online database, and offering direct legal assistance to journalists. Because the US legal system is built on precedent, these and other legal victories are contributing to a legal environment that is more supportive of citizen journalists.

CMLP also has expanded the base of stakeholders who are paying attention to and addressing legal issues related to citizen journalism. This has been achieved through a heavy presence at conferences and events for lawyers, technology professionals, journalists, and students, and through intensive media outreach that has generated coverage by [The New York Times](#), [Time Magazine](#), [Christian Science Monitor](#), [The Guardian](#), the [Los Angeles Times](#), [The Boston Globe](#), and the [Chicago Tribune](#). CMLP has helped bring into prominence several key areas for citizen journalism legal defense, action and reforms that were previously under the radar, such as business formation and tax issues. The project has also received very positive feedback from citizen journalist clients, who through formal and informal feedback to CMLP (a contact form on the website and feedback solicited from specific users) cite a crucial combination of practical and emotional support in helping them resolve legal issues.

<sup>2</sup> This project grew out of needs identified during the development of the database and legal guides. It was not part of the original Knight News Challenge grant. While CMLP received a subsequent grant from Knight to support the early development of the legal assistance network, no Knight News Challenge funds have been used for this service.

## Digital News Academics, Northwestern University

Digital News Academics was conceptualized by Northwestern University's Medill School of Journalism professor Rich Gordon as a way to attract people with software programming experience and technology expertise into the field of journalism. The Knight News Challenge grant provided money to support full or partial scholarships for nine computer students to complete a Master of Science degree from the Medill journalism program. A tenth scholarship winner will enroll in June 2011. Medill did not change its curriculum to accommodate these students; rather, the goal was to expose scholarship recipients to a traditional journalism curriculum and encourage them to develop a final capstone project that incorporates both technology and journalism.

Nine students have graduated to date, of whom seven have found jobs either in news organizations or in start-ups in the technology and media industry. The other two graduates finished their coursework in December 2010 and had not yet found permanent employment as of April, 2011. Among all of the Knight Scholarship graduates, Brian Boyer is perhaps considered to be the most successful by Medill staff. After graduation, he was hired to launch and run the Chicago Tribune's news applications team, which Boyer describes as "helping reporters to dig through data, building news applications for the public to use, and putting information online with custom built content management systems". Boyer and his team (which includes another Knight Scholarship graduate, Ryan Mark) have received accolades from inside and outside the Tribune for their innovative ways to deliver information to the community. Boyer's team won the inaugural Gannett Foundation Award for Digital Innovation in Watchdog Journalism in 2010, which recognizes papers that creatively use digital tools in the role of community watchdog. Their boss, Bill Adey, says the team has "showed other journalists how to make their stories better and how the Tribune can be more useful online," and Boyer was the Chicago Tribune winner of the Outstanding Tribune Employee Award for 2010, presented by the Chicago Tribune Media Group for developing and leading the Tribune's News Applications team. In addition to their content work, the news applications team plays an important leadership role in the community of "programmer-journalists," maintaining a website about its work (<http://blog.apps.chicagotribune.com/>), sharing code, and speaking regularly at conferences.

Another Knight Scholarship student, Nick Allen, has co-founded (and currently co-owns) a startup company called Narrative Science that automates the production of 'templated' stories from data. This tool emerged from the prototype software tool "Stats Monkey" that generates

*"My career path has changed dramatically and enormously [because of the Knight Scholarship]. I feel like I have hit a stride. I had been looking for a more socially conscious way to use my [programming] skills."*

**Brian Boyer**

Knight Scholarship Recipient, Digital News Academics Program at Northwestern University

baseball game stories from box scores and play-by-play information.

An unintended outcome of the scholarships has been that other students in the program benefit by having Knight Scholarship students in their courses because they bring proficiency in technology and a new way of thinking. Northwestern has not collected any data on how Knight Scholarship students have affected other students at Medill, but anecdotally Rich Gordon reports that other students' concept of journalism and what is possible through technology has been "broadened" by the inclusion of Knight Scholarship students in the classroom.

Medill's greatest challenge has been finding appropriate recipients of the scholarship. Rich Gordon notes that the ideal candidate is "someone with strong tech skills who might not ever have considered working in journalism." Gordon has tried various methods to advertise the scholarship including blogging, banner ads, pitching the idea to tech user groups in the Chicago area, and promoting it on Medill's own website. Given that the ideal scholarship recipient may not have journalism school on their radar when considering professional next steps, marketing and recruitment will need to be a continuing focus for the scholarship program. One strategy Gordon is pursuing is the establishment of a dual undergraduate degree in journalism and computer science in order to broaden the pool of potentially interested candidates.

While the original grant from Knight will allow them to provide partial scholarship assistance to approximately two more students, the school has not yet found another funding source to continue to offer scholarships once the Knight News Challenge funding is exhausted.

## Digital News Incubators

Digital News Incubators was a collaboration among seven U.S. universities to foster new thinking about digital news problems and design original news applications. The

<sup>4</sup> The beta-test sites selected were: Davis Media Access, ACTV Amherst, ChannelAustin, Boston Neighborhood Network, Denver Open Media, and Portland Community Media.

project included students and communications school faculty from [Ithaca College](#), [Kansas State](#), [Michigan State](#), [St. Michael's College](#), [Western Kentucky](#), [University of Kansas](#), and [University of Nevada, Las Vegas](#). The first phase brought participants from all institutions together to work collaboratively in developing innovative applications that tested new approaches to community news. Three of those projects were presented at the October 2007 [Online News Association](#) meeting: 1) Tandem, a Drupal-based community blogging site; 2) Vox Pop, an email application embedded in news stories to provide easy and direct messaging from readers to newsmakers; and 3) Locker Talker, a Flash application designed to provide a safe online community space to middle-school students through the local newsroom.

The second phase assigned responsibility for execution of the news projects to three of the schools. Each was to work with a local news organization to execute one of the projects. Students and faculty at Michigan State worked with [The Detroit News](#) on the Tandem project, which became the platform for a 2008 Michigan State course in community blogging that engaged students from four local colleges and universities. [The Manhattan Mercury](#) worked with Kansas State on Vox Pop project but it was not developed and implemented until fall 2010, after the close of the grant period; since then, it has been used as the basis of the newspaper's political coverage, and an analysis of the project will be published in the [Online Journal of Communication and Media Technologies](#).<sup>3</sup> The third project stalled after the [Houston Chronicle](#) determined that it did not have the staffing or capacity to support it, and it was never implemented.

The Digital News Incubators program revealed several important lessons, including: the degree to which journalism faculty and students had limited experience with the processes of entrepreneurial collaboration or new media design; the challenges associated with multi-site project execution and coordination; and the lack of staff capacity and time among newsrooms (who were struggling with their own market challenges at the time) to engage in entrepreneurial projects with students. These difficulties led the universities to dissolve the collaboration after the close of the grant period, and while Vox Pop continues to operate at Kansas State, the Digital News Incubators program itself does not exist anymore.

## **Knight Center for Digital Media Entrepreneurship, ASU**

[The Knight Center for Digital Media Entrepreneurship](#) at ASU was launched in 2007 with the Knight News Challenge grant representing a substantial portion of its initial funding. (The Center also received a \$533,000 grant

from the [Ewing Marion Kauffman Foundation](#) to match the Knight funds). The Center strives to contribute to the field of digital media by "immersing interdisciplinary students in a rigorous lab instruction environment and equipping them with the latest digital media tools." Since its inception, it has developed a curriculum that involves both formal coursework and independent studies in Digital Media Entrepreneurship. After learning the core concepts of entrepreneurship, students create digital media products focused on geographic communities. The Center estimates that about 60 graduate and undergraduate students per year are involved in either the class or an independent study. These students come from a variety of departments and schools within the university to participate in the Center, representing a multi-disciplinary approach to learning. To support students and the development of their projects, the Center established three dedicated positions: a Director, an Entrepreneur in Residence, and a part-time Web Developer. Associate Dean Kristin Gilger believes these faculty and staff provide students with the right combination of business savvy and technical expertise to effectively support them.

Overall, the Center has found its stride in terms of the format and structure of the program, the number of students it engages per year, and the specific faculty members assigned to lead it. The Center creates six to twelve digital media products per year, works closely with the [Cronkite School's New Media Innovation Lab](#) to turn ideas into products, and strives to serve as a model for interdisciplinary teaching. Surveys completed by students, faculty indicated that the Center's classes have generally received positive course evaluations.

Staff and faculty from the Center also have served as advisors to other academic institutions that are looking to start similar programs at their school. The Center has been contacted by the [University of Texas-Austin](#) and [Tecnológico de Monterrey in Mexico](#), schools that are interested in learning from ASU's experience in launching and successfully running an academic program in digital media entrepreneurship.

The Center has though faced some challenges along the way as part of what Gilger describes as an "evolutionary learning process". The core syllabus has been completely re-designed as a part of the Center's ongoing self-evaluation, adding a blogging requirement (students are to develop expertise in some aspect of digital or social media or entrepreneurship and blog about their experience) and assembling a "technology toolkit" comprised of web hosting, mobile, iPhone, and virtual reality applications to enable students to build on existing technology and code. However, reaching a "balance between the chaos of inventing and the structure of an academic setting" remains an ongoing tension. Professors have found that

<sup>3</sup> Dr. Sam Chege Mwangi, "A Lesson Before Dying: Embracing Innovations for Community Engagement as a Survival Strategy for Media in Crisis," *The Online Journal of Communication and Media Technologies*, Volume (1), Issue (3), July 2011.

teaching entrepreneurship means embracing failure in student projects and coursework. Not all students thrive in this type of learning environment and some find they prefer more traditional classes.

***“Teaching students to think like entrepreneurs means embracing failure, letting them learn things the hard way. Some students embrace it and they can experiment and fail. And other students come in and want more clarity—it might take them half a semester to get comfortable.”***

**Kristin Gilger**

Associate Dean, Cronkite School of Journalism

The long-term sustainability and success of many of the student projects that come out of the Center is not yet clear. While students are at the Center they develop prototypes for their projects and it is not the intention or goal of ASU to look at the long-term viability of student success.

However, two of the projects that were conceptualized by students at the center, [City Circles](#)/Daily Phoenix (a stop-by-stop information platform for the Phoenix-area light rail community that leverages Google Maps and Twitter) and Blimee (aggregates and delivers to users hyperlocal news and promotions) have continued after their student leads graduated; both projects were officially launched and are in the process of being re-developed. City Circles and [City Seed](#) (another ASU project) have also won Knight News Challenge grants in recent years, an indication that competitive, innovative ideas are coming out of students at the Center. Many students are also currently seeking funding to take their ideas to the next stage of development.

## Cluster Impact

Jeff Jarvis, Associate Professor and Director of the [Tow-Knight Center for Entrepreneurial Journalism](#) at CUNY provides a field-level perspective on the collective impact the four grants to student programs may have had on the field. He describes “a better tolerance for the role that innovation should play in journalism,” noting that in 2007 “you could count the people teaching entrepreneurial journalism on one hand.” He also cautions, though, that he does not think these programs are the sole reason for the change, but rather that they are contributing to and are a part of a field-wide shift. He believes that “sheer desperation has hit the industry” and journalism professors at many schools now recognize they can help journalism to embrace innovation. Indeed over the past four years, with traditional journalism models under strain, universities have become more interested in media innovation and entrepreneurial journalism programs.

***“The general level of understanding and acceptance that software developers can help create the future of journalism has increased dramatically. In 2007 it was kind of a wacky idea, and now it is mainstream. I know we contributed to it, but it would be hard to define our role. I feel comfortable saying that we have contributed to the evolution of thinking in the space.”***

**Rich Gordon**

Director of Digital Innovation, Medill School of Journalism

### III. Lessons and Learning Opportunities

The five 2007-2008 field-building projects reveal valuable lessons about what the industry needs from the next generation of professionals, the challenges in supporting young journalists, and what is needed to provide legal information and support to citizen journalists.

- **Current students are a good target audience for changing attitudes about innovation and technology in the field.** It is clear that attitudes towards technology and digital media must change within traditional newsrooms. Students are generally open to new ideas, imaginative, and not yet limited by professional career constraints. In this way, they are an ideal target audience for teaching innovative ideas. While not every student who participates in a Knight-funded program will go on to a career in journalism, these programs can help to identify those students who have a passion for new media and entrepreneurial journalism. Investments in this space can expect that several graduates of these programs will be “big wins” and go on to make waves in the field, such as Brian Boyer has done.
- **Finding the right people to teach and participate in innovative university programs is challenging.** The Medill School of Journalism reports that finding students with the right technological background is its single greatest challenge, and that marketing the program to students who may not be even considering a journalism program is difficult. Digital News Incubators failed in part because it could not recruit professors who were comfortable in the kind of innovative environment that the project was seeking to nurture. Furthermore, MIT’s C4 and the Knight Center for Digital Media Entrepreneurship both struggled before settling on a core staff to participate in their centers. For universities to maximize the potential role in ensuring the pipeline of future media professionals has the right mix of skills to deal with the future information needs of communities, they will need to become more adept at finding the right people to both lead the programs and learn from them.
- **Teaching innovation requires constant adaptation.** What is innovative one year is, by definition, not innovative the next; thus, universities must constantly stay on top of trends and have an effective process in place for revising their curriculum and course offerings. This is a recognized challenge for these universities and they are doing it to varying degrees of success. The Knight Center for Digital Media Entrepreneurship described “blowing up” their syllabus once already in the past four years to keep their program current and relevant. This takes significantly more time and effort for professors and administrators than traditional academic programs.
- **Projects with student programs could better leverage their alumni for marketing and evaluation purposes.** Alumni of funded programs represent an important potential data source and marketing tool. Universities could do more to collect information from graduates about what topics and training they found most valuable in their academic experience, and use this feedback to improve the experience for current students. While many of the programs know what jobs their graduates take, the programs currently do not systematically survey alumni over multiple years for program feedback and improvement purposes. Additionally, alumni who have had a positive educational experience can serve as an important channel for attracting new students to the program and raise the visibility of these programs to perhaps secure new sources of funding. Universities that do not capitalize on their alumni base may be missing important opportunities in these areas.
- **Long-term sustainability is unknown for most of the university grants.** To the extent that Knight envisioned these grants as seed funding, and hoped that projects would figure out formulas for long-term sustainability during the course of the grant period, most of the projects have not succeeded in this regard. The sole source of funding for MIT’s C4 and the Knight Scholarship at Medill is their Knight News Challenge grant. The exception is ASU – it recently received confirmation of financial support from the [Scripps Howard Foundation](#) starting in 2012. While it seems feasible that the other universities could identify new sources of grant funding, this has not yet happened. Rich Gordon hopes that the successes of current Medill graduates will make the case to the field about why his program is so vital to journalism and that news organizations will eventually help to sponsor the scholarship.

*“I believe it is my job to turn out disrupters. That is a conflict with traditional journalism and journalism schools need to figure out what their role is.”*

**Jeff Jarvis**  
CUNY School of Journalism

- **Despite a wealth of legal information available, citizen journalists still need individualized assistance.** While CMLP's initial approach was based on education and training, it recognized that citizen journalists most need individualized legal advice. This adjustment led to the development of a new entity, the Online Legal Media Network, which recruits a network of lawyers to provide pro bono support for citizen journalists. CMLP emphasizes that a deep understanding of the dynamics of the law – and the media industry – in the context of such a rapidly evolving field has been instrumental to its success. Other legal assistance organizations, such as the [Reporters Committee for Freedom of the Press](#), also are retooling their approach to make their resources valuable to younger, more independent digital and citizen journalists.