

Collaborative, Open, Mobile: A Thematic Exploration of Best Practices at the Forefront of Digital Journalism

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Based on interviews with 72 data journalists, web developers, interactive graphics editors, and project managers in leading digital newsrooms around the world, this paper spotlights common processes, workflows, and tools used in the creation of stories. Beset by cyclical and secular market pressures and presented with a dizzying array of new technologies for news gathering, publishing, and distribution, news media has undergone a sustained period of upheaval. These interviews, conducted through the Storybench project at Northeastern University's School of Journalism, offer a uniquely comprehensive and up-to-date snapshot of news production and design practices. They also suggest that three key areas of emphasis have begun to emerge from the tumult. These include: highly networked, team-based collaboration; an ethos of open-source sharing, both within and between newsrooms; and mobile-driven story presentation.

INTRODUCTION

Beset by secular market pressures and presented with a dizzying array of new technologies for news-gathering, publishing, and distribution, news media outlets have undergone a sustained period of upheaval. The tools, techniques, and approaches involved in data journalism and digital storytelling remain diverse and continue to evolve, and they are often highly specific to the particular journalistic outlet, story or task involved. One of the substantial challenges, and indeed barriers to entry, for professionals, teachers, and students is trying to under-

stand what is important to know in order to advance their skills in a targeted way. Simply put, the field can seem overwhelming in the multiplicity of options, running from different workflow processes to programming languages and applications.

There remains a need, therefore, to update and consolidate knowledge of industry patterns as the field evolves and a rough consensus forms around certain procedures and takes hold across a range of newsrooms and affiliated media institutions. This knowledge is instrumental not only for practitioners attempting to learn from one another but

for journalism educators and students involved in training for this field.

As Fink and Anderson [1] have noted, certain “enabling factors” – the size and resources of news organizations, for example, as well as constraints such as the lack of time, funding, and tools – can influence and shape the practices and operating principles of, for example, data journalists.¹ The process of gathering meaningful data, analyzing it, then developing this output into a compelling editorial product requires extensive labor resources and specialized, often scarce, intellectual capital. Such resource demands and constraints are indeed factors across all areas of digital journalism practice.

All this presents a challenge to anyone attempting to generalize a set of emergent “best practices.” However, our survey of current news practices revealed several developments that are lowering the barrier to entry faced by smaller outlets. First, important conferences such as those run by Investigative Reporters & Editors (IRE), NICAR, and SRC CON continue to make it easier for journalists to map out and learn certain fundamental skills. The propagation of this knowledge is creating a positive feedback loop that further accelerates the dissemination of specialized skills and knowledge. Second, an increased adherence to “open source” norms and practices means that both the tools and the knowledge required to produce high-quality digital journalism are freely available. Finally, even the commercial software and hardware required have seen dramatic declines in price.

A review of the relevant literature reveals a range of valuable efforts to identify and categorize the tools, platforms, and practices that will persist after the digital dust settles. Howard and others have usefully attempted to articulate both “pathways to the profession” and “tools of the trade,”^[2] while Lewis and Usher have also helped illuminate emerging journalistic values as they relate to open-source technologies and studied the dynamics and meaning of informal professional development networks in this space.^[3] Certain other key dimensions are also being mapped out, with Coddington, for example, looking at the overall “quantitative turn” in journalistic approaches^[4] and Cairo articulating

best practices for visual conceptualization, display, and engagement.^[5] With respect to journalism education, Hewett has noted various institutional constraints on curricular innovation;^[6] and Brousard has explored important technical and campus infrastructure challenges in the teaching of computational/data journalism.^[7]

However, current newsroom routines and workflows at the intersection of data-oriented reporting and design/visualization – how stories are “built,” so to speak, from beginning to end – merit more empirical study. While other fields such as computer science/engineering and information design have been analyzing news visualizations and products as objects of their own disciplinary study,^[8] the field of journalism studies has not consistently or comprehensively mapped or analyzed this emerging space in terms of professional routines, which are continuing to be reshaped by ever new technologies and always evolving norms.

With this research need in mind, this paper unpacks certain aspects of digital journalism as articulated by leading practitioners. Such a thematic exploration and analysis can reveal some common components and areas of consensus around skills and newsroom routines and operations. These are clustered together in three broad categories— collaborative, team-based news production; an ethos of open-source sharing, both within and between newsrooms; and the transition of “digital-first” newsrooms into “mobile-first” newsrooms. These broad categories are intended to help inform both practitioners and educators seeking a deeper understanding of the best practices and core competencies in contemporary journalism.

The evidence reviewed here from a thematic perspective suggests at least the beginnings of a kind of sea-change, from a news industry that was competitive and siloed to one inclined toward sharing, cooperation, and transparency. The traditional newsroom was often in thrall to a culture forged when every major American city had multiple newspapers; the winner got the scoop, and everyone else shared the prize for last place. The emergent culture is more accustomed to battling market pressures and bewildering technological changes. In this scenario, people tend to believe a rising tide

lifts all boats because it generally does.

METHODS

Over the course of three years, Storybench.org, a project run by Northeastern University's School of Journalism and its Media Innovation graduate program and funded in part by the Knight Foundation[9], has performed and documented 72 interviews with data journalists, web developers, interactive graphics editors, and project managers in leading digital newsrooms around the world. These interviews, conducted from 2014 to 2017, corresponded with the release of new journalism projects, graphics, stories, news apps or other media products that came to the attention of the Storybench editors as particularly intriguing or impressive efforts to advance digital and data-driven storytelling. The interviews aimed to unpack the techniques, thinking, and applications behind the news products in question. The interviews were intended both as "how-to's" and as case studies in the practice of contemporary digital journalism, graphics, and interactives; they sought to reveal the technical dimensions of the projects in question while also probing at the makers' philosophies behind the production.

The newsrooms surveyed included: Wall Street Journal, New York Times, Washington Post, BuzzFeed, Vox, Financial Times, Los Angeles Times, Australian Broadcasting Corporation, Bloomberg News, Boston Globe, PBS NewsHour, Quartz, Berliner Morgenpost, Seattle Times, Al Jazeera, Center for Public Integrity, Mother Jones, The Texas Tribune, the Associated Press, WBEZ, WNYC, WBUR, Mono magazine, Localore, Pictoline, Dadviz, Corriere della Serra, Portland Press Herald, and The Guardian (see Table 1.)

Reviewing these interviews in aggregate, we coded recurring areas of emphasis as they related to best practices in digital publishing, such as: common obstacles overcome (e.g., how to make responsive charts in JavaScript); techniques learned, adopted and disseminated to others passed on (e.g., Juicer for pulling in social media feeds); digital tools and frameworks that are being adopted (e.g., the stylesheet language SASS); and the makeup of successful interdepartmental collaborations (e.g.,

a veteran editor working with a digital graphic designer.)

We then clustered these recurring themes into some broad categories with the idea of providing a general guide to what is actually going on in newsrooms at the present moment. Of course, the results are derived from a non-probability sample of industry practice. But by studying the practices and philosophies of some leading practitioners, we can begin to arrive at some loosely defined, but nevertheless discernible categories of routines and procedures that suggest important shifts in professional norms.

RESULTS

Based on the interviews analyzed, three recurring themes emerged. Of course, not all of the issues and areas of concern surfaced in any given interview, but the sample was large enough to identify common patterns, which are explicated in the following sections.

Collaborative, team-based story-building

There is a legend in journalism that the key to digital success is hiring a newsroom unicorn: an individual with a multifaceted skillset who is equally exceptional at reporting, programming, shooting video, and designing graphics. In practice, this model is seldom a reality; a far more collaborative and distributed workflow characterized the digital projects featured in the 72 Storybench interviews studied for this paper.

Successful digital newsrooms employ talented people with diverse skillsets and, perhaps more important, construct collaborative environments in which these players can work together as a team. The traditional newsroom Balkanized production into departments—design, photo, research, city, sports, classes—and organized the prevailing workflow according to Taylorist principles in which ideas and always moved in one direction on a kind of information assembly line. By contrast, the successful digital newsrooms revealed in our Storybench survey allow nimble, multifaceted teams to self-organize, coming together organically

to produce an editorial product, then gathering up into new configurations according to the dynamic needs presented by both world events and editorial discretion.

This fits with what Hermida and Young have identified as “a new degree of networked collaboration.”[10] There is generally an identified “project lead” to coordinate the process, but the creative drive relies on practices borrowed from disciplines like design: brainstorming, human-centered design, iteration, collaboration, rapid prototyping, user testing, and an open process that doesn’t shut out ideas or personnel.

One example is The Boston Globe’s Pulitzer Prize finalist “Chasing Bayla,” which had a team comprising a reporter, an editor, a photo editor, a video editor, and a developer in addition to a project manager with enough fluency to communicate effectively with all teammates to leverage the best each medium had to contribute. Laura Amico, “Chasing Bayla”’s project lead, is fond of using a mission statement to organize her team: “That way the reporter and the developer can trust one another because they have the same mission even though they ‘speak’ different languages.”[11]The Wall Street Journal’s “How Trump Happened,” which visualized large amounts of polling data and involved a politics editor, graphics editor and a news app developer, and The Center for Public Integrity’s “Unequal Risk,” where editors, reporters and coders worked together to visualize government data and in-depth interviews on workplace chemicals and cancer risk, demonstrate these project management practices and are examples of multidisciplinary teams at work. [12]

These patterns suggest that educators, students and professionals looking to gain skills and experience in data, design, visualization and interactive journalism production would be well served to consider the inextricably social nature of the workflow. They might strongly identify positions in the chain of what might be called “networked story-building” where they want to contribute.

The new open-source ethos

The data journalists, web developers, and interactive graphics editors currently employed in the world’s leading digital newsrooms tend to subscribe to an altruistic ethos not unlike the one shared by the open-source software movement. Although many times these journalistic outlets find themselves competing for the same story, the tools and knowledge required for reporting infrastructure, web development and newsroom workflow tend to be shared across organizations. The wheel does not have to be reinvented every time. One open-sourced census map, for example, can help the next newsroom build a better one. As Peter Aldhous, a data journalist at BuzzFeed News told Storybench: “We can stand on the shoulders of great developers and programmers. That’s a really nice thing about open-source tools.”[13] As much as this spirit enables information sharing between newsrooms, it also allows individual journalists like Aldhous to set up a code base where upon they can layer new modifications to produce multiple stories and iterations without starting from scratch.

At conferences such as those held by NICAR and SRCCON, specialized workshops held around the world, and websites such as Source, from the Knight-Mozilla OpenNews project, Nieman Journalism Lab, and Storybench, leading digital journalists come together and openly share best practices, step-by-step instructions for building news projects, and freely available repositories of the latest tools used to build digital storytelling projects, news apps and newsroom tools. Github, an online repository system for software and web code, has revolutionized the way these people share knowledge and collaborate, in spite of the rivalries their newsrooms may have had.

The altruistic and collaborative spirit inherent in this open-source digital journalism community is exemplified in some ways by the very willingness of interviewees to share code and tools with Storybench, which serves as a conduit and forum for connecting with the wider community. Examples include the sharing of code from The Guardian’s real-time interactive on primary election results, the Wall Street Journal’s “The Unraveling of Tom Hayes,” and the Seattle Times’ Oso landslide in-

teractive.[14] Among the most revealing and characteristic examples of newsroom generosity on Storybench have been the tutorials voluntarily written by the Wall Street Journal's Roger Kenny on three-dimensional data visualization and by George LeVines on branding and installing Chartbuilder, an open-source graphing tool itself.[15]

One shining example of open-sourced code libraries and collaboration between newsrooms is the sharing and iterations of Data-driven documents, or D3, which not only visualize data, but can also analyze and manipulate it. D3 is one of the most versatile script libraries employed by newsrooms. Unlike visualization software like Tableau, D3 is transparent and accessible through a web browser's document object model (DOM), allowing for simple manipulation, modification and debugging.[16] Newsroom designers and developers are sharing D3 code and best practices.

"A little D3 goes a long way," Jeremy Scott Diamond, a developer with Bloomberg News, told Storybench editors, extolling the versatility of the JavaScript library.[17] Coupled with scalable vector graphics, or SVG, digital newsrooms have made D3 the gold standard for visualizing linear, non-linear, and multi-dimensional data using hundreds of D3 visualization packages. D3's open-source nature has allowed journalists, developers, designers and researchers to contribute code and expand the number of packages available. (See D3js.org for examples.) Other JavaScript visualization libraries used in newsrooms include Highcharts, Leaflet, Sigma, NVD3 and Gephi. While many programming languages tend to become obsolete in the space of a few years, for students and journalists wanting to become adept at custom data visualization in the digital newsroom, D3 has evolved into a kind of gold standard.

There are of course running discussions about whether or not all journalists should learn to code. [18] Setting aside the desirability or need for uniform training, it is certainly useful to know that training in JavaScript libraries, specifically D3, will serve journalists who want to visualize data for their stories well into the future.

Mobile-focused ideation

A final recurring theme, and one that likely portends the future in this space, is the impact of mobile devices at a level more fundamental than just customization and repurposing of news content. Design-centered thinking is inherent in mobile-centered design.

As news audiences are shifting to mobile devices, so too are design standards. In fact, the Pew Research Center's "State of the News Media 2016" report surveyed 40 digital-native news sites and found that for 38 of them, more visitors came from mobile devices than from desktops.[19] With more readers accessing news sites from tablets and cell-phones, mobile-focused and responsive design have become a priority in the digital newsroom. Likewise, collaboration between newsroom developers and the editorial department, where mobile design is considered in tandem with coverage, is beginning to flourish.

Storybench interviews have revealed several instances where mobile design frames the journalistic process itself. "Mobile was the driving idea behind [the story]," said New York Times designer Matt Ruby, who helped plan -- and shared editorial control over -- reporter Emily Reub's mobile-first, flip-book-style article on New York City's tapwater.[20] Many other media producers have also described how the philosophy of "mobile-first" is redefining the production of journalism, and reshaping the way news producers think about stories.[21]

This represents a new and important phase in the industry's development, and one that scholars have yet to analyze fully. For example, Westlund's "Model of Journalism" in a mobile context puts forward a multidimensional schema, running from repurposing to customization and humans to technology. [22] To this we might add the dimension of ideation -- a further iteration of mobile news practice whereby stories are conceived of and executed as what might be called "mobile native." There has been a fair amount of attention to what has been called "mojo," or mobile journalism, news practices, but this new conceptual turn in newsrooms demands more research, particularly relating to how new functionality and affordances are driving the

editorial process in a more fundamental way.

It is worth noting here that, despite worries that mobile will diminish the range of stories, design constraints may actually represent strengths for journalism, whereby screen size, touch and swipe functions, faster load times, and improved browser technology can be leveraged to frame digital storytelling in refreshing new ways. Newsrooms are employing nimble web design frameworks, lightweight “minified” code libraries, and versatile design markup languages like CSS and SASS to more effectively display stories on mobile.

CONCLUSIONS

Journalism in the digital age has always presented a conundrum: The industry has struggled to adapt to secular trends that are eroding its most fundamental business model; and yet the same technological innovations that engendered catastrophic revenue declines have led to startling advances in the actual day-to-day practice of journalism. Unfortunately, our focus on the former has often eclipsed our understanding of the latter.

This effect was greatly compounded by the sheer plurality of new platforms, programming languages, tools, and approaches that have characterized the last ten years. What our source material—the Storybench interviews—reveals is that all the tumult produced by both economic disruption and rapid technological change is now crystallizing into a new set of “standard operating procedures,” three of which we detail in the paper above. Some of these—the rise of an open source ethos, for instance—are more philosophical and cultural in nature. Others, like the adaptation of editorial products for mobile consumption, are more pragmatic and technological in nature. Either way the bottom line is good news for those who work in journalism, as well as those who would study it—the inchoate has given rise to discernible form.

The three categories, or areas of emphasis, mapped out here – team-based collaboration; open-source mentality and operations;; and mobile-driven ideation – are intended as a practical guide for understanding an evolving field and where it may be

heading. The synthesis presented here is intended, to some extent, to demystify and clarify. Of course, the categories do not encompass all dimensions of computational/data journalism or related visualization/interactive development as practiced in professional newsrooms. But seeing these areas of emphasis more clearly and distinctly is important, as certain routines and workflows in this field differ substantially from those embedded in traditional reporting and editing practice.

Further research might look more systematically at the data cleaning and statistical analysis-related aspects of contemporary journalism, where tools such as the programming languages R and Python, Excel, and OpenRefine might feature more prominently. Doig and others have articulated the new possibilities for doing “social science on deadline”[23]; the ways in which this is being attempted analytically in practice, from the perspective of routines and workflows, would be useful. Another promising research opportunity might examine how various institutions of journalism education have adapted to the same emerging practices we identify above. This is of special interest to us, as Storybench itself is an editorial outlet created by the faculty and students within the Media Innovation program of Northeastern University’s School of Journalism. One goal of the Media Innovation program was to transform traditional journalistic pedagogy to the rapid changes occurring in the professional sphere; another was to create venues, like Storybench, through which those changes might be studied. While much work remains, we are encouraged by early steps.

What becomes clear in speaking with news producers across the current landscape is that this emerging group within the journalism community frequently builds on the work of others, from the sharing of code and the complex workflow of multi-person news teams to the collective improvement of design elements and tools. For journalism professionals trying to manage and innovate at the intersection of design and data, as well for teachers and students engaged in preparing for professional success, it is vital to acknowledge and grasp the networked nature of work done in this space – and the core patterns that may increasingly characterize such journalistic work in the future.

For generations, journalists working in newsrooms, particularly at print outlets, have often operated in relative isolation, mostly reporting alone and submitting copy to perhaps one editor. Broadcast outlets have, by contrast, often required extensive teams of reporters, editors, producers, and technicians to build a story. In creating online news products through teamwork, the digital newsroom of today may in some respects look increasingly like the broadcast model. However, what may ultimately distinguish this new paradigm is the degree to which open-source code and cross-institutional sharing and learning permeate the storytelling process.

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Outlet	Project	People Interviewed	URL
Al Jazeera	Al Jazeera newsroom vision	2	http://www.storybench.org/how-aljazeera-plans-its-interactive-storytelling-projects/
Al Jazeera	Gamifying a story on Syrian hackers	1	http://www.storybench.org/four-tips-on-gamifying-journalism-from-al-jazeeras-juliana-ruhfus/
Associated Press	360 video of Chelsea bombing	1	http://www.storybench.org/how-the-ap-experimented-with-360-video-after-the-chelsea-bombing-in-nyc/
Australian Broadcasting Corporation	How your phone tracks your every move	1	http://www.storybench.org/behind-the-scenes-of-the-australian-broadcasting-corporations-cellphone-tracking-interactive/
Berliner Morgenpost	Berlin's bus of big differences	1	http://www.storybench.org/berliner-morgenposts-interactive-bus-ride-through-berlin/
Bloomberg News	Hillary Clinton's Debt to Feminism	2	http://www.storybench.org/bloomberg-built-timeline-juxtaposing-hillary-clintons-milestones-feminist-movement-turning-points/
Bloomberg News	How Red Meat Joined the 478 Other Things That Might Give You Cancer	1	http://www.storybench.org/how-we-built-an-interactive-graphic-using-carcinogen-data-from-the-w-h-o/
BuzzFeed	Buzzfeed newsroom vision	1	http://www.storybench.org/using-buzzfeeds-listicle-format-tell-stories-maps-charts/
Corriere della Serra	Outsourced design work	1	http://www.storybench.org/how-a-design-agency-is-teaming-up-with-an-italian-newspaper-to-visualize-journalism/
Dadaviz	Dadaviz newsroom vision	1	http://www.storybench.org/how-dadaviz-is-bringing-you-the-news-visually/
Localore	Finding America	3	http://www.storybench.org/localore-debuts-an-digital-open-notebook-for-its-reporting-project-findingamerica/
Medium	Ghost Boat	2	http://www.storybench.org/searching-boat-243-passengers-vanished/
Mono magazine	Mono newsroom vision	1	http://www.storybench.org/a-digital-long-form-experiment-in-slovakia/
Mother Jones	The Donald Trump insult generator	1	http://www.storybench.org/mother-jones-built-donald-trump-insult-generator/

PBS NewsHour	Broken Justice: Stopping the Revolving Prison Door	2	http://ochre.is/inspiration/when-the-video-is-saved-for-desert/
Pictoline	Pictoline newsroom vision	1	http://www.storybench.org/pictoline-optimizing-visual-news-social-sharing/
Portland Press Herald	Mayday: Gulf of Maine in Distress	2	http://ochre.is/inspiration/mayday-a-call-for-help/
ProPublica	Telling the Story of Segregation, Then and Now	2	http://www.storybench.org/telling-story-segregation-now/
Quartz	The In Crowd	1	http://www.storybench.org/yanofsky-mines-instagram-for-sources-in-network-of-fashionistas/
Scientific American	Infographics desk	1	http://www.storybench.org/how-scientific-american-makes-its-infographics/
Texas Tribune	Tracking early voting turnout	1	http://www.storybench.org/how-the-texas-tribune-is-tracking-record-breaking-early-turnouts-state-wide/
The Boston Globe	The Boston Bombing Trial	1	http://www.storybench.org/boston-globe-launches-interactive-cards-and-podcast-for-bombing-trial/
The Boston Globe	Chasing Bayla	1	http://www.storybench.org/laura-amico-takes-us-under-the-hood-of-chasing-bayla/
The Center for Public Integrity	Unequal Risk	2	http://www.storybench.org/how-cpi-journalists-visualized-cancer-risk-from-workplace-chemicals/
The Center for Public Integrity	Tracking TV ads in the 2016 presidential race	1	http://www.storybench.org/center-public-integrity-tracking-tv-ads-2016-presidential-race/
The Economist	Publishing the Espresso app	1	http://www.storybench.org/economists-espresso-app-goes-beyond-headlines-provide-daily-shot-news-analysis/
The Financial Times	Invasive species: the battle to beat the bugs	1	http://www.storybench.org/how-the-financial-times-built-a-story-on-invasive-insects-that-buzzed-with-interactivity/
The Guardian	Track primary election results live	3	http://www.storybench.org/how-the-guardian-used-pixel-art-election-results/
The L.A. Times	Mapping new buildings near freeways	1	http://www.storybench.org/how-the-l-a-times-mapped-freeways-and-pollution/
The New York Times	How New York Gets Its Water	2	http://www.storybench.org/how-the-new-york-times-used-illustrations-to-look-at-how-nyc-gets-its-drinking-water/

The New York Times	Inside Death Row	2	http://www.storybench.org/how-the-new-york-times-used-comics-to-illustrate-stories-of-death-row/
The New York Times	Illuminating North Korea and In Flight	1	http://www.storybench.org/hood-nytimes-interactive-stories-illuminating-north-korea-flight/
The New York Times	How Ebola Roared Back	1	http://www.storybench.org/under-the-hood-ebola-coverage-at-the-new-york-times-graphics-department/
The New York Times	2014 Olympic Winter Games coverage	2	http://www.storybench.org/how-the-new-york-times-planned-its-coverage-of-the-2014-sochi-olympics/
The New York Times	Greenland is melting away	1	http://www.storybench.org/how-the-nyts-derek-watkins-designed-greenland-is-melting-away/
The New York Times	Asian-Americans responding to racism	1	http://www.storybench.org/how-did-the-new-york-times-tell-stories-about-asian-americans-response-to-racism/
The Seattle Times	Building toward disaster	1	http://www.storybench.org/the-seattle-times-interactive-of-the-oso-landslide-one-year-on/
The Wall Street Journal	The Unraveling of Tom Hayes	1	http://www.storybench.org/wall-street-journal-built-series-artful-animations-investigative-series/
The Wall Street Journal	Blue Feed, Red Feed	1	http://www.storybench.org/wsj-simulated-liberal-facebook-conservative-facebook-side-side/
The Wall Street Journal	How Trump Happened	3	http://www.storybench.org/how-the-wall-street-journal-visualized-the-issues-that-split-the-republican-vote/
The Wall Street Journal	Is the Nasdaq in Another Bubble?	3	http://www.storybench.org/why-the-wsj-used-a-virtual-roller-coaster-ride-to-bring-stock-prices-to-life/
The Wall Street Journal	Mapping the Bacteria in New York's Subways	1	http://www.storybench.org/how-bacteria-in-new-york-citys-subways-brought-scientists-and-journalists-together/
The Wall Street Journal	Visualizing Trump's conflicts of interest	2	http://www.storybench.org/how-the-wall-street-journal-visualized-the-500-conflicts-of-interest-of-the-trumps/
The Washington Post	Mapping America's infrastructure	1	http://www.storybench.org/tim-meko-visualized-americas-vast-web-pipelines-railroads-electricity/

The Washington Post	Defy Death	1	http://www.storybench.org/under-the-hood-of-the-washington-post-game-defy-death/
Vox	How Vox mapped snow accumulation	1	http://www.storybench.org/winter-vox-mapped-snow-accumulation-u-s/
Vox	In 2015, 468 people died from mass shootings	1	http://www.storybench.org/how-vox-built-a-calendar-marking-every-mass-shooting-in-2015/
Vox	Vox newsroom vision	2	http://www.storybench.org/how-vox-media-teaches-user-centered-design/
WBEZ	Battle Flag storytelling project	1	http://www.storybench.org/radio-producer-filmmaker-made-interactive-documentary-confederate-battle-flag/
WBUR	The Boston Bombing Trial	1	http://www.storybench.org/boston-globe-launches-interactive-cards-and-podcast-for-bombing-trial/
WNYC	Mapping NYC's speeding tickets	1	http://www.storybench.org/wnyc-analyzes-traffic-tickets-to-find-speed-cameras/
WNYC	WNYC newsroom vision	1	http://www.storybench.org/meet-your-maker-noah-velt-mans-newsroom-is-his-sandbox/

Notes

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