

The Potential
and Reality of

Data

Journalism

in Developing Media Markets

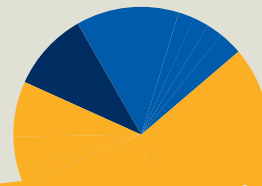


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DATA HAS THE POTENTIAL TO HELP communities understand their biggest challenges – why people become sick or well, why development initiatives succeed or fail, how government actions align with citizens’ priorities. However, most people do not have the skills or inclination to engage with data directly. That’s where data journalists and the open data community come in.

Internews data journalism projects cover a wide range of challenges, from revealing corruption and inequality to promoting accountability and data-driven policy decisions. We have worked across the globe, from Kenya to Afghanistan to Brazil, focusing on issues such as health, elections, conflict, land rights and the environment.

Every day governments, CSOs, and universities release more data related to issues vital to citizens including access to education, jobs and healthcare. In response to this growing supply of data, emerging open data communities around the world are bringing together diverse players from civil society: government officials, scientists, technologists and journalists to understand data, what it means and why it matters. Data journalists are at the center of efforts to transform data into actionable information. Working with others in the open data community, journalists make sense of data in stories that show citizens how social and political issues affect their daily lives and help people can make better decisions. When data journalists are also local, they can be change agents at the community level, ushering in informed democratic debate that is inclusive, lasting and meaningful. At a national level, data driven stories promote accountability and can influence policy decisions in countries with little history of civic engagement.

Data journalists who have capacity to engage with the open data community are able to tap into this new wealth of information and produce unique, analytical, engaging content that consumers cannot find anywhere else. This makes these journalists highly competitive in an increasingly digital media environment. However, in countries where data journalism has the greatest potential for good (the most corrupt, unequal and impoverished) there exist a great range of challenges beyond just training journalists, that need to be addressed in order to create a media landscape in which the production and consumption of data-driven journalism can thrive.



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In the rush to embrace the open government and open data movement, donors have favored activities like boot camps, hackathons and conferences seem to promise a quick and sexy route to instilling data journalism skills. Yet these approaches make the mistake of assuming that the primary barrier to data journalism lies in technology and awareness. Tool-based interventions that focus on teaching software to produce interactive content misunderstand the root problem, which is that in many countries where democracy is underdeveloped, media tend to be fundamentally weak in the area where data journalism can have the most impact: *public service journalism*. Data journalism initiatives therefore need to be designed holistically in ways that strengthen the fundamentals of public journalism practices while simultaneously addressing low levels of data and digital literacy and a host of data access issues.

Transforming the role of journalists in the legacy media from being primarily messengers of breaking news into being change agents for government accountability in a wired world requires an array of interventions to revitalize the watchdog role of independent media. The first ideological hurdle for editors is to embrace a shift from event-based stories to investigating the root cause of an issue in the public's interest. A second challenge is convincing an open data community to coalesce around the notion and principles of public service journalism – which may be in scant supply in their own countries. Finally, there is the significant challenge of overcoming public desensitization to daily scandal and front-page corruption stories and moving towards fostering demand for evidence-based solutions in the media.

Data journalism enthusiasts seeking to train data journalists often overlook the most basic practical challenge to seeding and nurturing a culture of data driven reporting: that is the simple fact that in developing countries, citizens and journalists alike have low levels of data and digital literacy. Consequently, they are often unaccustomed to calculating percentages and rates, have difficulty interpreting data presented in different graphical forms and making assertions based on their findings.

In seeking to train journalists, therefore, it is vital to start with establishing a foundation on which to build data journalism skills: review basic numeracy, introduce digital research tools and practice in identifying and integrating basic statistics into a coherent narrative. Only then does it become possible to assess a journalist's capacity for proceeding to learn, step-by-step, the "hard" technical skills (such as scraping, cleaning, analyzing and visualizing data) that they will need to become truly effective practitioners.

A few key considerations can help predict the success or failure of new data journalism initiatives:

- ▶ **COMMITMENT TO JOURNALISM AS A PUBLIC SERVICE.** Often balanced, purposeful and objective reporting is rare in countries with a weak history of independent journalism. To succeed in data journalism, journalists must have a demonstrated commitment to covering social, political and economic issues from multiple angles. In media environments where the definition of journalism is merely to report the news as it happens, or worse, to report the news according to political or economic alliances, journalists are typically unfamiliar with the principles and practices of public service journalism. They do not have the orientation, critical thinking skills or drive required to process and transform data sets into information that citizens need to know to engage with their governments.
- ▶ **AVAILABILITY OF DATA.** Due to widespread distrust of government data, data sources must include international bodies, local think tanks, universities and civic hacking groups for both verification and richer locally relevant content. In many countries, CSOs have begun to build open data portals to aggregate and curate relevant data and are looking for ways to get the data to citizens.
- ▶ **MEETING INFORMATION DEMAND.** Data availability must align with issues and questions important to the public in order to answer those questions, help foster conversations, end mudslinging and encourage evidence-based decision-making. If no access to information law exists to facilitate access to this type of data, journalists may end up with skills but without the data to cover issues that matter. In the case of Afghanistan, the dearth of publically available government data and a weak access to information law passed in 2014 is partially compensated by large quantities of donor data produced on topics ranging from health and education to economics and gender equality. The more experience journalists have with data, the more frequently they push for better implementation of a new law.
- ▶ **STABLE MEDIA MARKET.** In under-resourced media markets where journalists are expected to churn out dozens of stories a week, it is simply not feasible to bring the practice of data journalism to scale in mainstream newsrooms. The most effective data journalism programs involve sustained training over a period of months. However, media outlets in many countries cannot afford to lose a reporter for that amount of time. Though many off-the-shelf data visualization tools can boost audience numbers and grow digital skills, true data journalism for accountability requires time and resources. This means not just training events, but intensive follow-up when journalists return to the newsroom.

The Internews Approach

EXPERIENCE HAS TAUGHT us that successful data journalism interventions require long-term investment and a holistic approach to growing data journalists as an essential component of broader open data efforts. Internews believes that essential skills for high-impact data journalism include identifying public interest story angles in data; scrutinizing data sets for evidence of mismanagement and marginalization; and developing strong narratives from data to ensure the public understands the underlying issues. By harnessing the resources of open data communities to address citizens need for information, we increase the demand for more and better data and thus more directly link open data to its goal of better governance.

To achieve this goal, we employ a long-term approach that encompasses not only training in-depth reporting and data skills, but also harnesses the support of data scientists and developers, provides one-on-one editing and mentoring, plus production support and dissemination of participants' products in the open data community. We build the capacity of local journalists to access, clean, analyze and transform data into information that informs their communities. This capacity building includes using human-driven narrative and appropriate visualizations to present the data in ways that make complex issues comprehensible at the community level.

Key highlights of the Internews approach include:



INCLUSIVITY — bringing together everyone in the open data community who has an interest in data to work together, including journalists, civil society organizations, government officials, editors and technology experts.



INNOVATION — fostering creative solutions and collaboration through intensive workshops, data labs, competitions, seed funding, awards and fellowships.



ADAPTABILITY — recognizing that learning data skills is a long-term process that requires sustained training and support from either media owners or close collaboration with the wider open data community to succeed.



ACCESSIBILITY — identifying where and how citizens get their news and information and utilizing those trusted information channels instead of, for example, creating an interactive visualization or news app that reach only an elite wired audience.



PURPOSE — committing to public service journalism so journalists have the skills to identify key challenges facing their communities, gather data to measure the scope and root of social and political issues, and distill findings into a strong, concise narrative.



PROFITABILITY — ensuring that as breaking news increasingly shifts to social media, media houses shift to the production of in-depth content including data-driven explanatory or solution journalism that audiences are willing to pay for. Data not only speeds up and enriches regular reporting but also raises the overall output of quality content that puts today's news stories in context.

Data Journalism in Myanmar's Emerging Open Data Community



INTERNEWS EXPERIENCE in training journalists in data journalism in Myanmar offers an excellent country case study through which to understand the broad global challenges involved in unlocking the potential of this new journalistic field. It has also allowed Internews to distill an initial set of best practice guidelines for those who seek to fund, design or implement data journalism projects in Myanmar or elsewhere.

Beginning in August 2015, the U.S. Embassy in Rangoon's Public Affairs Office supported a series of workshops for journalists, civil society actors and technologists (developers and graphic designers) to learn data analysis, storytelling and visualization skills. The workshops were specifically aimed to equip the participants with these skills with a view to encourage the development of data visualizations, news articles and campaigns that cover issues related to Myanmar landmark 2015 general elections. Trainees from media and civil society produced a total of 41 data-driven stories with visualizations and 12 advocacy publications covering topics ranging from the numbers of voters and MPs affected by flooding and conflict to the challenges of tax evasion and land registration.

Myanmar offers a unique opportunity to plant the seed of data journalism amidst a flood of change: a nascent democracy, a glut of new media outlets, an emerging civic hacking community and a politically engaged generation of youth. Yet the realities facing Myanmar going forward require circumspection, realism and careful planning when setting expectations for progress in this new field.

- ▶ **DATA AVAILABILITY.** There is no freedom of information law in Myanmar, and access to government officials and the military is inconsistent. Due to Myanmar's historic isolation, even data on basic development indicators, nearly ubiquitous in the rest of the world, is largely unavailable— including on crucial issues such as health and education. Unfortunately, most government ministries and CSOs have very low levels of data literacy and very little awareness of how data could enhance their work. Despite the relative lack of public data, substantive data collection work done by a local UN affiliated organization called the Myanmar Information Management Unit (MIMU), has yielded standardizing datasets on the humanitarian and development sectors since 2007.

- ▶ Recently, three notable efforts from the government, CSO and tech community speak to the promise of more data in the future. [Mohinga.info](#) is the government's development aid portal designed to enable the people of Myanmar to better see the impact that aid activities have in their communities. The [Open Myanmar Initiative](#) is a CSO data project to track the participation and effectiveness of every parliamentarian. [Phandeeyar](#), a new technology hub in Myanmar, has collaborated with [Open Development Mekong](#), a regional open data portal, to launch an open data portal for Myanmar that will aggregate data that is publicly available in the country. It is designed to be not merely a repository of data, but will also feature data driven stories to communicate and contextualize the publicly available data. While these are all promising new initiatives, more data is needed for long-term data journalism initiatives to succeed.
- ▶ **MEETING INFORMATION DEMAND.** Data on more sensitive issues such as the national budget and government revenue, the lucrative extractive industry sector and even basic ethnic and religious demographic data remain unavailable. Projects specifically targeted at improving governance and accountability and addressing the public's grievances about widespread corruption present

a major challenge. [Mae Pay Soh](#) is a project that digitalized and open-sourced the candidate list for the last elections, and held a hackathon for civic hackers to make voter education apps that used the candidate data. Incubated by Phandeeyar, The Asia Foundation and several other CSOs and technology groups, this unique collaboration between civic hackers and CSOs opened up a crucial election process that would otherwise have been completely opaque. However, this kind of collaboration is a rare exception. Even CSOs with data collection activities in the election period often seemed uncertain about why they were collecting the data and what they would use it for, other than to include in a report to funders. Any in depth investigation of topical issues needs to start with educating CSOs about data collection and having them collaborate with civic hackers, coders with a public service commitment, to advocate for greater access to information.

- ▶ **WEAK JOURNALISM CAPACITY.** This is a fundamental obstacle to the effective use of data journalism in Myanmar. In this nascent independent media environment, even the basics of balance, beat reporting, cultivating sources and journalistic ethics are weak and require greater fundamental investment in basic journalism education in the country. Due to Myanmar's lack of contact with the outside world and its linguistic

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isolation, very few journalists there are familiar with quality journalism from other countries, so they lack the foundation to identify an important issue, collect information from a variety of sources and distill that information into a coherent narrative. Despite this reality, many of the younger generation of journalists are eager to acquire new skills to stay competitive in a saturated market. The best journalists are usually quite busy trying to improve their communities through journalism. In countries like Myanmar where data journalism is a complete unknown, it is challenge to get the right people to participate.

- ▶ **CHANGING MEDIA INDUSTRY.** With over three hundred media outlets across Myanmar, there are currently more journalists and media outlets than the market can sustain long-term. Additionally, with the skyrocketing level of smartphone penetration, the digital transition is happening sooner than expected. Several media houses, notably 7 Day Daily and Myanmar Now, are embracing this change and have invested in more digital content. The vast majority of media houses are either unaware of, are uninterested in and do not have the resources to invest in integrating data journalism into the news cycle.

- ▶ **MEASURING CITIZEN RESPONSE.** Exposure to more data-driven content on issues such as public services could raise data literacy and grow the demand for more in-depth investigative reporting in a country where hopes are high for citizen engagement in the democratic process. According to an Asia Foundation poll, young people are the most politically active segment of the population in Myanmar, which is an excellent reason to produce more data-driven content on politics. With the current lack of metrics around media consumption, it is difficult to calibrate content based on audience response and provide citizens the content they need to engage productively in shaping their future government. In an intensely competitive market, evidence-based, data-driven content could make business sense and bring media closer to their audience, but only if audience metrics are known. From a governance perspective, the more citizens are engaged in consuming data, the more engaged they will become in deciding how public services are distributed and how donor funding is allocated.

Recommendations to Accelerate Myanmar's Open Data Movement

▶ **INVEST IN GOVERNMENT CAPACITY TO COLLECT AND PUBLISH DATA** and educate relevant officials on the role of open data in a democratic society. Investing in data collection and publication is important but equally important is educating those bodies on data-driven decision-making and the role they play in that process. Often, despite the existence of open data laws, individual government bodies jealously guard their data. If the nascent open data space is to be protected, there is a vital need to educate civil servants about why open data is in the public interest, and how they themselves can harness the power of data to improve their own public service delivery. These skills will also help the government honor their own commitments and participate more fully in global good governance projects like the Open Governance Partnership and the Extractive Industries Transparency Initiative, both of which hold participating countries to their commitments to make more data publically available.

▶ **EDUCATE CSOS ABOUT THE LINKAGES BETWEEN ADVOCACY AND OPEN DATA.** Many CSOs in Myanmar are still struggling to get off the ground: formulate a mission, prioritize activities and serve their clients. The vital role of civil society in the development of Myanmar will be hugely strengthened by enhanced data skills to identify and solve problems for the people they serve. This is a critical opportunity to enhance data literacy in small organizations and to improve their

ability to access and collect the data for effective advocacy materials.

▶ **INTEGRATE DATA JOURNALISM INTO DEVELOPMENT PROJECTS.** Development funding for initiatives such as human rights, democracy and governance, humanitarian aid, health and education should have an open data component and by extension, a data journalism component to ensure that the information is reaching citizens. Already in Myanmar, several donor-funded initiatives are funding data collection, including around elections, without any clear strategy to reporting findings back to anyone except the donor. Citizen demand for data will not increase only when people are exposed to data driven narratives that they feel to be relevant to their quality of life.

▶ **EDUCATE PUBLISHERS AND EDITORS ABOUT BUSINESS MODELS FOR DIGITAL MEDIA.** Financial sustainability training should cover both data-driven audience metrics and data journalism as a valuable asset in the face of digital convergence. Western models for making the transition from breaking news to in-depth reporting can inform content and media redesign in Myanmar.

- ▶ **CREATE A CORE CADRE OF PUBLIC SERVICE ORIENTED INDEPENDENT MEDIA** that collaborate actively with the open data community. Initially, activities may focus on Yangon-based journalists who will have easier access to activities, mentors and data. The adoption of data journalism by mainstream media may be accelerated and made less onerous by selecting CSOs and tech groups who are most active in the open data space to collaborate with and support journalists.
- ▶ **PROVIDE CONCRETE INCENTIVES TO ENGAGE IN THE OPEN DATA COMMUNITY.** Reporting grants, mentoring and cross-border partnerships are all excellent forms of support that can help journalists continue to produce data journalism after a training workshop or other intervention, and encourage CSOs to work with media to disseminate their findings.
- ▶ **DESIGN, IMPLEMENT AND EVALUATE A VARIETY OF DATA JOURNALISM CAPACITY BUILDING ACTIVITIES** for long-term impact including:
 - A 6-week fulltime Data News Lab model in which participants drawn from media, CSOs and tech communities can split their time between learning and production in a simulated newsroom environment. This activity is designed to instill basic data journalism skills and provide publication opportunities in a controlled environment.
 - An in-house training model designed to establish a permanent data desk within media outlets who have committed to integrating data journalism into the newsroom (7 Day, Myanmar Now). This activity grows a full data team within a newsroom, enabling each member to specialize in specific technical skills and establish processes for working together in the future.
 - A one-year part-time fellowship that selects Myanmar's strongest journalists to participate and offset the financial burden on the media houses they come from either by offering grants to the journalists or their media houses to participate. Civic hackers may be enlisted from a local tech hub to provide support to journalists between fellowship activities, consisting of monthly workshops and mentoring.
 - A program to integrate data journalism into the university communications curriculum through development of a course curriculum, training for faculty from other disciplines including statistics and computer science and the integration of trained data journalists as adjunct professors.
 - Once a cadre of data journalists evidences basic capacities, support the development of more extensive data journalism initiatives, such as partnerships with CSOs for fact checking, parliamentary monitoring and public service tracking.

Examples

CASE STUDIES

KENYA

AN INCUBATOR FOR DATA JOURNALISM

An intensive five-month data journalism fellowship competitively selected Kenyan journalists, a graphic designer and a developer into the Internews Kenya data desk for fulltime training and production support, which resulted in the publication and broadcast of five investigative pieces with wide ranging policy impact. [Robbing the Poor](#), a weeklong front-page expose by Paul Wafula of the Standard used data to quantify corruption in the poverty safety net program in Kenya that led to an overhaul of the system by government and the donors funding the program. Another example is the [Change for Health](#) series, an investigation of per-capita County spending on healthcare, published by *The Standard* in Kenya, which prompted several county administrations to contact the journalist for further data and advice on developing a health budget for the following fiscal year. “[When the sun sets in Turkana; Hunger stakes and stripes in the North](#)” the lead news story on NTV revealed diverting funds from emergency food aid to food security programs could end the problem for good and led to the passage of a more effective aid strategy. Following the Internews in Kenya data journalism program, several staff and former fellows founded [Newsplex](#) at the Daily Nation, the first data journalism desk in East Africa. This story offers clear proof that open data has the potential to drive positive social and political change. However, getting to this degree of effectiveness and impact is not easy. The success in Kenya was possible due to the creation of an integrated online and offline approach for training and community building.

AFGHANISTAN

SOME SUCCESS UNDER DIFFICULT CIRCUMSTANCES

In Afghanistan, journalists have participated in a series of four workshops and small grants program focused on data to improve the quality of election, health and economic reporting. Trainees from Nai, a journalism association, Paykn an investigative journalism outlet and Pajhwok, a nation-wide wire service, have explored public service data through analysis and visualizations. Trainee Rohullah Armaan Darwesh from the Payk Investigative Journalism Centre produced [a report on the rising cost of weapons](#) in the build up to the April elections. Darwesh utilized his new skills to visualize the 30% rise in gun prices and the importance of security as an election issue for Afghans. Several months later, following a second workshop, he produced a [report on the failure of the opium eradication program](#) in Afghanistan. Both topics had been covered by the international press but had failed to influence the political conversation within Afghanistan due to the lack of coverage by the Afghan media. Stories by Pajhwok journalists have addressed the failure of the peace process in [Huge expenses on Afghan peace effort achieve little gains](#) and Afghan’s dismal economic outlook in [Afghanistan’s growing trade deficit rings alarm bells](#), which focuses on corruption as the major disincentive to investment in the country.

LATIN AMERICA

CROSS-BORDER INVESTIGATION REVEALS TRANSNATIONAL REACH OF ORGANIZED CRIME

Under a USAID-funded regional project, Internews established the “*Collaborative Investigative Reporting Project in Latin America*.” Journalists from independent online media outlets in Colombia, Mexico, El Salvador, and Guatemala worked with Internews and InSightCrime to produce regional multimedia investigation stories on the human rights impact of organized crime. The two-part cross-border series drew attention to the plight of people fleeing violence and coercion from Colombia, those taken into slavery by drug lords in Mexico, and women sold into the sex trade in El Salvador, among other issues. Journalists from Verdad Abierta in Colombia, Animal Politico in Mexico, Plaza Publica in Guatemala, and El Faro in El Salvador participated. Internews’ project “*The Mafia’s Shadow in the Americas*” explored the impact of organized crime in Latin America through cross-border investigations. The project included reporting from deserted villages in Mexico to document overnight flights of hundreds of families, from abandoned and graffitied houses in San Salvador to determine which gang was dominant at the time, and from haunting massacre sites in Petén, Guatemala to uncover how agro-industrials collude with local and international armed actors to gain territory. Each outlet offered a wider array of multimedia data-driven content on its own site. [Animal Político](#) featured a video and infographic for displacement in each of three regions of Mexico that

they investigated, for example, while [Verdad Abierta](#) in Colombia developed an interactive Flash presentation. The project was a finalist for the Daniel Pearl Award for Outstanding International Investigative Reporting and for the Gabriel Garcia Marquez award for innovative reporting. The Colombia coverage won the Simon Bolivar Prize for Investigative Reporting. [Research](#) into the cross-border collaborative reporting model, published by the University of Porto, outlines data-driven recommendations for future collaborations.



“The hype around open data has frequently led practitioners to gloss over challenges with no real metrics for impact of data journalism interventions. Years later, poorly designed, short-term, high-cost interventions are still failing to deliver sustainable impact in promising emerging open data environments like Myanmar.

If investment in data journalism in Myanmar is to be truly effective in developing this key pillar of open governance, a more nuanced understanding is needed of general trends in data journalism education, as well as of the governance, open data and media environment in the country. Truly strategic approaches that aim for lasting impact will need to situate themselves more thoughtfully in the broader media and data landscapes of the country, and be more realistic about the levels of time and investment required for this complex development exercise to bear fruit.

The process begins with the journalists, training them on data literacy basics and laying the groundwork for more balanced, purposeful and objective reporting in countries with a weak history of independent journalism but with donor money already pouring into data collection. A second step is to link journalists with members of the open data community so they have access to these data sets. Finally, publishers and editors must be educated to understand that data journalism can be a valuable asset in the face of digital convergence. In our experience, only when these three elements begin to work in concert, real and lasting progress will be achieved.”

Eva Constantaras: Internews Data Journalism Trainer