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Ground Truth from the Grassroots

Innovations Case Discussion:
Map Kibera

The projects run by Erica Hagen and Mikel Maron, Map Kibera and GroundTruth Initiative, have been properly lauded as new media projects. But their greater accomplishment lies in executing media projects in a way that is both modern and ancient: by working through community.

The history of media development is littered with big, ambitious projects that are incubated in the United States and delivered "in a box" to developing countries, ready for assembly without consultation with the recipients and without adjustment to the realities on the ground. American graduate students return from the field with tales to tell: shipments of computers whose plugs didn't fit the outlets, Internet connections that were instantly monopolized by teenage boys looking for porn, flash-ridden websites that take hours to download for users without broadband.

The commercially driven tech culture in the United States is currently undergoing a reexamination by educators and social critics. Is more, faster media always better? How do we match the powerful new tools to the actual needs of society without losing sight of our goals?[1]

Our traditional framework for media technology deserves even closer scrutiny when extended to developing countries. Information is vital to life, as vital as food. Each culture uses the same nutrients but in many different forms, depending on the local culture and environment. The same is true of information: positive results can come in many forms, depending on the situation.

In 2009, Erica Hagen and Mikel Maron launched their media project in Kibera, a sprawling, impoverished district of Nairobi, Kenya, that has become a regular

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stop on the international aid itinerary. Maron had already made a contribution to the field through his work with OpenStreetMap, which enlists local collaborators to help create and populate digital maps to serve their communities and thus help advance social and economic development. Hagen (whom I'm proud to claim as a former student) brought other unique talents to the table. She is a fine writer and, even more importantly, an excellent listener who brings genuine curiosity to all she does. I'm particularly fascinated by her work in the Lava Collective, which practices a dance form called "contact improvisation."[2] There is no fixed choreography or plot. Dancers launch movements from different parts of the stage and adjust their steps to each other's motions. For the audience, the effect is like watching gorgeous atomic particles moving through a dream.

It occurred to me that creative collaboration shares some qualities with dance, and with a media project that evolves in partnership with a local community.

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Neither can function under a "top-down" approach, both require active listening and respect for all participants, and both achieve outcomes that were unimaginable when the exercise began.

In Kibera, Hagen and Maron set out to match media tools to the specific needs of the community, and they trusted the people of Kibera to understand their own needs better than anyone else. One of the many beauties of their projects, Map Kibera and GroundTruth Initiative, is the way they bring a grand idea full circle. One of their building blocks is the Ushahidi mapping platform, which was created by developers in Nairobi only three years ago in response to the need to chart election-related violence. Since then, this open-source platform has spread around the world and ignited the imaginations of countless intersecting technological and advocacy communities. (This winter it popped up on my computer screen as a way to help New Yorkers dig each other out of a blizzard.)

Nairobi has become a celebrated incubator for digital media. At first glance, this might seem counterintuitive. As of 2009, cell phone penetration in Kenya reached 19.3 million, ranking it 41st in the world, but the country had fewer than four million Internet users out of a total population of 40 million.[3] The CIA World Factbook has more discouraging words for other aspects of the national communication system: "The inadequate, fixed-line telephone system is small and inefficient; trunks are primarily microwave radio relay; business data commonly transferred by a very small aperture terminal (VSAT) system."[4]

So how has Nairobi become an international engine for innovation? The answer appears to lie in the people and in the unusual openness of Nairobi's tech community, which is listening to community efforts to define need and letting

those efforts serve as the engines of creativity. Meanwhile, community partnership seems to be built into the very DNA of the projects.

THE POWER TO MAP

This philosophy was central to the development of Map Kibera and GroundTruth Initiative. As Hagen points out, maps of Kibera existed before their project, but they were charted by outsiders who didn't always follow the same criteria that residents would choose. Mapmaking is one of those banal subjects that can become intensely political if examined closely. Under various historical circumstances, maps have started wars, stolen natural resources, and displaced vast populations from their homes. For centuries, the ability to make maps has rested in the hands of those few with the technology to create them and the resources to disseminate them. Now, digital media challenge that informational power structure, much as they have challenged everything from journalism to medicine. This creates the possibility for residents of local communities to create maps that help them leverage representation in other spheres, such as electoral politics and social services.

Kibera was an audacious setting for a mapping experiment. In fact, the area had been "overmapped" by the traditional aid agenda. Like other cities from Phnom Penh to Chichicastenango, Kibera had become a magnet for international aid. In Hagen's words, it is "saturated with international NGOs, community-based organizations, and faith-based groups." This has locked the local population in the crosshairs of the objectified foreign gaze, and Kiberans don't like it. Hagen points out that residents complain of the negative picture of their community generated by news organizations, a grievance that is repeated by marginalized societies around the world. Their homes are used to illustrate what my one-time BBC documentary team used to call "grinding pov"—a relentless cliché composed of grabbed video footage and interviews, whose resentful subjects never get to ask a question in return.

But the founders of Map Kibera and GroundTruth Initiative understood that most people love their homes and their communities, even as they share the desire to improve them. The challenge was to give them the tools to represent themselves, on their own terms, to the outside world. The enterprise began with literally "putting Kibera on the map" by locating Kiberans' own frames of reference.

Hagen and Maron arrived in Kibera with the seed of an idea, but implementing it required constant adaptation to the community and the environment. Although they had hired a local "fixer" to help with logistics, they had to let him go within the first week because of his incompetence, leaving them to coordinate all of the logistics themselves. In reviewing their initial steps, one can see that building the right local relationships was far more critical than obtaining the most advanced technology. The team's first step was to establish partnerships with three key organizations, two of them local and the third working on a national level to develop resources to promote transparency and governance.

The next step was to recruit 13 young people, 5 women and 8 men aged 19 to 34, one person from each village. The selection criteria emphasized having the motivation to learn and support community development and required only basic familiarity with computers; again, they stressed community ties far more than advanced technical skills. In preparing their teams to begin mapping, Hagen and Maron avoided imposing templates and menus, instead asking their team to note "points of interest" without telling them what those points might be. As it turned out, the young Kiberans' points of interest included clinics, toilets, water points, NGO offices, electric lights, and some businesses. These were entered into an OpenStreetMap application.

The next phase involved youth from Nairobi who had professional geographical information system (GIS) skills. They brought Flip cameras to the enterprise to begin adding multimedia components. Hagen and Maron had to readjust their expectations again when they learned that Kibera residents were resistant to being filmed—perhaps worn down by too many BBC crews seeking "grinding pov." The documentary function of cameras was then transformed into a participatory process, in which the youth recorded their own teams' mapping activities.

According to Hagen, "Sustainability and community impact were clearly much greater challenges than the map production had ever been." Within the Kibera community, the Internet was initially perceived not as a participatory tool for change but as a way to seek top-down information and chat with friends.

"OLD" MEDIA HAS ITS PLACE

One way the team created an inclusive environment was by using hybrid media. This is an essential point. Many media projects have foundered because those implementing them are wedded to a new technology, but the people they're trying to reach inhabit a different media landscape. However, other efforts have paired legacy media (i.e., pre-digital print and broadcast formats) with digital media and multiplied the utility of both. One example of this is Zimbabwe's FreedomFone, which provides radio programming through cell phone delivery systems at no cost to recipients.

Hagen and Maron went back to basics by including a very old technology: paper. The teams made paper printouts of the map to post around the community, and members of the community could then participate by drawing and writing on the maps. Their additions were later integrated into the digital platform—a perfect hybrid between paper and digital. This approach is particularly interesting because it addressed the alienating effect that digital media can have on different generations. Young people tend to be early adopters, while less tech-adept elders can feel both left out of the process and dethroned from positions of authority. Any community-based information project should take this dynamic into account and approach it with respect and sensitivity.

As the work continued, the mapping was combined with experiments with citizen journalism to offer a vision of the community's self-representation. Again, the

approaches taken were subject to trial and error. The group experimented with RSS feeds ("really simple syndication," or email-based notifications) and Wordpress blogs with some success, but an attempt at using an SMS platform was less fruitful. A citizen video news project took shape through a new website, kiber-anewsnetwork.org, with information directed both to other Kenyans and to the outside world. The local news soon began to serve as an antidote to the Western media's "hell-hole" narrative of the past.

The project began to have an impact on the participants' sense of self. The identity of the project's local partners suddenly shifted from poorly educated slum dwellers to that of the creators and purveyors of something valuable to society. Mapmaking in particular was regarded as supplying "something missing that is seen as a basic entitlement: to exist on a map."

The project participants decided early on that their news products should be curated. Kenyans had been burned by exploitative news coverage in the past, notably in the 2007–2008 elections, when traditional media fed the flames of electoral violence. So at the same time the participants were experimenting with new forms of citizen journalism, they suggested using an old-fashioned but proven mechanism—having a trustworthy editorial board to validate worthy content.

At this point, the audience for the Voice of Kibera lies predominantly outside the country. The greatest number of visitors are from the United States, followed by Great Britain, Kenya, and Germany; it reaches 83 countries in all. It will be extremely interesting to see how this audience evolves with time.

Map Kibera and GroundTruth Initiative were initiated by two people who belong to a broader global community working in media technology and development, and their core ideas resonate in its echo chamber. Over the past few years, top-down "development-think" has been challenged in several arenas, including the international humanitarian community, which brings assistance to victims of natural and man-made disasters. In the past, this work conformed to traditional charity models, sometimes with negative results.[5] Many aid projects depend on harvesting data from research "subjects" rather than engaging them in dialogue, thus consigning local populations to passive roles as victims and aid recipients. Another problem confronted was the notion among some indigenous peoples that being photographed steals their souls. This problem was addressed by photographers who made the commitment to immerse themselves in the communities they were documenting and to earn the peoples' trust by living among them, listening to them, and making them partners in the documentation process.[6]

A recent parallel to this process arose in 2009, when a group of international humanitarian and development organizations formed a working group called Communicating with Disaster Affected Communities. When the Haiti earthquake hit in January 2010, the consortium took measures to engage Haitians as active partners in the relief effort, especially in the media and communications spheres. It is no coincidence that many new digital tools—especially the Ushahidi mapping platform—were prominent in this effort.[7] The overall philosophy was based on the principle that the most effective individuals in rescue and relief efforts are often

members of the affected population themselves as they reach out to friends, family, and neighbors. Therefore they should be recognized as partners in relief efforts instead of recipients of charity, and their local knowledge should be appreciated as an invaluable and irreplaceable resource.

In fact, harnessing local knowledge to guide local policymaking is the core democratic principle at stake. Erica Hagen has been on the road recently, attending conferences and collecting ideas for new initiatives, but Map Kibera is off and running—as Hagen reports, "I'm even finding it hard to follow my own project from afar!" Map Kibera has taken on its own momentum, and perhaps this is the greatest single marker of its success.

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1. For example, the 2010 Kaiser Family Foundation study reported that young Americans between the ages of 8 and 18 spend an average of 7.5 hours a day on digital devices. It noted a close correction between the heaviest users and poor grades. See http://www.nytimes.com/2010/01/20/education/20wired.html.
2. See http://lava-dance.blogspot.com/.
3. Not surprisingly, no one had (or has) a proximate sense of Kibera's population. Hagen's educated guess is 250,000, but she reports that other estimates (some with their own agendas) range from 170,070 to 1.5 million.
4. CIA World Factbook.
5. For example, some aid workers have reported that flooding an area with surplus food relief after a catastrophe can depress local agricultural markets and limit farmers' ability to regain their livelihoods and sense of self-worth.
6. Gordon Parks, Walker Evans, and Margaret Morton have been practitioners of this approach.
7. See http://www.knightfoundation.org/news/press_room/ knight_press_releases/detail.dot?id=37700.