
Digitally Networked Technology in Kenya's 2007–2008 Post-Election Crisis

By Joshua Goldstein and Juliana Rotich



ABSTRACT

Written largely through the lens of rich nations, scholars have developed theories about how digital technology affects democracy. However, primarily due to a paucity of evidence, these theories have excluded the experience of Sub-Saharan Africa, where meaningful access to digital tools is only beginning to emerge, but where the struggles between failed state and functioning democracy are profound. Using the lens of the 2007–2008 Kenyan presidential election crisis, this case study illustrates how digitally networked technologies, specifically mobile phones and the Internet, were a catalyst to both predatory behavior such as ethnic-based mob violence and to civic behavior such as citizen journalism and human rights campaigns. The paper concludes with the notion that while digital tools can help promote transparency and keep perpetrators from facing impunity, they can also increase the ease of promoting hate speech and ethnic divisions.

THE INTERNET & DEMOCRACY PROJECT

This case study is part of a series produced by the Internet and Democracy Project, a research initiative at the Berkman Center for Internet & Society, that investigates the impact of the Internet on civic engagement and democratic processes. More information on the Internet and Democracy Project can be found at <http://cyber.law.harvard.edu/research/internetdemocracy>.

The project's initial case studies focused on three of the most frequently cited examples of the Internet's influence on democracy. The first case looked at the user-generated news and its impact on the 2002 elections in South Korea. The second documented the role of technology in Ukraine's Orange Revolution. The third analyzed the network composition and content of the Iranian Blogosphere.

Fall 2008 will see the release of a second set of cases which broaden the scope of our research and examine some more recent and less well-known parts of the research landscape. This includes two cases on the role of the Internet and technology in the 2007 civic crises of Burma's Saffron Revolution and post-election violence in Kenya. Urs Gasser's three part work examines the role of technology in Switzerland's advanced, direct democracy. Following our research on the Iranian blogosphere are two cases on the Arabic and Russian blogospheres.

The objective of these case studies is to write a narrative description of the events and the technology used in each case, to draw initial conclusions about the actual impact of technology on democratic events and processes, and to identify questions for further research.

INTRODUCTION

On January 1, 2008, as word spread throughout Kenya that incumbent presidential candidate Mwai Kibaki had rigged the recent presidential election, text messages urging violence spread across the country and tribal and politically motivated attacks were perpetrated throughout Kenya. By January 9, as the violence escalated out of control in the Kibera slums in Nairobi and the towns of Kisumu, Kakamega, Eldoret, and Naivasha in the Rift Valley, a group of Kenyans in Nairobi and the diaspora launched Ushahidi, an online campaign to draw local and global attention to the violence taking place in their country. Within weeks they had documented in detail hundreds of incidents of violence that would have otherwise gone unreported, and received hundreds of thousands of site visits from around the world, sparking increased global media attention.

Both of these anecdotes illustrate what Yochai Benkler calls the 'networked public sphere,' the notion that our information environment is characterized by both the potential for many-to-many communications (instead of just one-to-one or one-to-many), and the near elimination of the cost of communication.¹ These anecdotes also represent opposite impulses on a continuum described by political scientist Larry Diamond.² On one side of this continuum is the 'predatory society,' where behavior is driven by cynical, opportunistic and often violent norms. On the other hand is the 'civil society,' where behavior is driven by the norms of toleration, accountability, and equality.

This paper is largely descriptive, but also has a normative element. First, as an early cut at history, this paper attempts to describe the way technology was utilized in the aftermath of the Kenyan election. Specifically, this paper describes three important ways that Kenyans used new technology to coordinate action: SMS campaigns to promote violence, blogs to challenge mainstream media narratives, and online campaigns to promote awareness of human rights violations.

AFRICA'S FRAGILE DEMOCRACIES

In Africa, the reverberations from the fall of the Berlin Wall were felt acutely. Starting with the National

Conference of Benin in 1989, more than twenty African countries made some transition to democracy, specifically by changing their constitution to allow broad political participation. This is enormous progress since before 1989 only three countries, Botswana, Mauritius, and the Gambia, were considered democracies, while most were controlled by dictators.

Yet the struggle between the dictatorship and democracy is far from settled in much of Africa. Dictatorship looms large in obvious places like Zimbabwe, where Robert Mugabe has ignored elections and caused hyperinflation of over one million percent per year, but also in less obvious countries such as Uganda, where Yoweri Museveni has extended the constitution to allow himself to run for a third term.

Even in the very countries where the predatory impulse is gaining ground, the civic impulse has seen progress. In Zimbabwe, for example, SW Radio Africa, which bills itself as the 'Independent Voice of Zimbabwe,' has actively challenged the Mugabe regime. In Uganda, Andrew Mwenda, a prominent journalist, has launched the *Independent*, a newspaper that provides an alternative to media outlets held closely by the government.

In Africa's struggle between democracy and dictatorship, does digital technology matter? The short answer is that there is not enough data to answer this question. Mobile phones and the Internet have simply not been around long enough in Africa. However, incidents like the crisis in Kenya provide a flash of insight into the emerging power of these tools. Additionally, theorists such as Yochai Benkler provide useful language to help us begin to understand the place of these tools in society. Benkler's notion of the networked public sphere describes two ways that digital technologies enable different kinds of communication than their analog antecedents. Benkler writes, "The first element is the shift from a hub-and-spoke architecture with unidirectional links to the end points in the mass media, to distributed architecture with multidirectional connections among all nodes in the networked information environment. The second is the practical elimination of communications costs as a barrier to speaking across associational boundaries."³

In other words, digital technologies are tools that, in addition to allowing communication in the traditional one-to-one fashion, also allow us to become our own broadcasters and reach large numbers of people in unprecedented ways at trivial cost. Viewed through the lens of this theoretical framework, the remainder of this paper is an attempt to understand how digital technology played a role in a moment where the predatory and the civic impulses of Kenya collided violently.

MIRRORS OF VIOLENCE

As Kenyans waited for the results of the December 27, 2007 presidential election, observers noticed Orange Democratic Movement (ODM) candidate Raila Odinga's lead of over one million votes strangely morph into a small margin of victory for the incumbent Mwai Kibaki.⁴ Suspicions and tensions grew until December 30, when the Election Commission declared Kibaki the winner at the Kenyatta International Conference Centre. Following the announcement, the Ministry of Security ordered the suspension of all live broadcasts, and the country erupted into violence. Clashes between protestors and police were worst in the Kibera slums of Nairobi, and in the ODM-dominated towns of Kisumu and later Naivasha in the Rift Valley. The violence following the election left one thousand dead and five hundred thousand displaced.⁵

To a significant extent, the post-election riots were the latest embodiment of long-standing grievances of those in Kenya's Rift Valley. Following Kenya's independence from Great Britain, much of the best land went to Kenyatta's Kikuyu ethnic group, instead of the groups to whom it belonged before the British arrived.⁶ This continued under Daniel Arap Moi, who designed 'settlement schemes' that distributed land to connected political elites instead of those with historical ties to the land. Particularly since the 1991 reinstatement of multi-party politics in Kenya, the Rift Valley has faced repeated violence with each election cycle. University of Oxford scholar David Anderson estimates that, "... according to satellite mapping of the violence in the Rift Valley, 95 percent of the recent clashes in that area have occurred on land affected by these [settlement] schemes."⁷

Much of the violence in this region is motivated by *majimboism*, which is a Swahili term referring to the aspiration of a type of federalism composed of semi-independent regions organized by ethnic group. To many in the Rift Valley, however *majimboism* legitimizes violence against Kikuyu's who are seen as encroaching on the ancestral land of other ethnic groups.⁸

VIRAL HATRED

Unavailable during earlier upheavals, mobile phones made hateful and violent messages easier and cheaper to transmit during the latest surge of violence. On January 1, 2008, Kenyans started to receive frightening text messages that urged readers to express their frustrations with the election outcome by attacking other ethnic groups. One such message reads, "Fellow Kenyans, the Kikuyu's have stolen our children's future...we must deal with them in a way they understand...violence." In reaction, another reads, "No more innocent Kikuyu blood will be shed. We will slaughter them right here in the capital city. For justice, compile a list of Luo's you know...we will give you numbers to text this information."⁹

Mass SMS tools are remarkably useful for organizing this type of explicit, systematic, and publicly organized campaign of mob violence. Human Rights Watch quotes a community organizer in Kalenjin as saying, "... if there is any sign that Kibaki is wining, they war should break... They said the first step is to burn the Kikuyu homes in the village, then we will go to Turbo town, [and] after finishing Turbo they we organize to go to Eldoret... They were coaching the young people how to go on to war [sic]."¹⁰

These messages are part of a troubling trend in East Africa. In April 2007, three Ugandans died in Kampala when violent acts were organized via SMS to protest the Government of Uganda's sale of the Mabira Forest to Kakira Sugar Works.¹¹

While further investigation into this subject is needed, it is worth noting that there are signs that those who attempted to seek *majimboism* through targeted violence largely achieved their goals. Human Rights Watch reports that:

The events of the first months of 2008 have dramatically altered the ethnic makeup of many parts of Kenya. Scores of communities across the Rift Valley, including most of Eldoret itself, are no longer home to any Kikuyu residents. The rural areas outside of Naivasha, Nakuru, and Molo are similarly emptying of Kikuyu while Kalenjin and Luo are leaving the urban areas. In Central Province, few non-Kikuyu remain. The slums of Mathare, Kibera and others in Nairobi have been carved into enclaves where vigilantes from one ethnic group or another patrol 'their' areas.¹²

However, since SMS, unlike radio, is a multi-directional tool, there is also hope that voices of moderation can make themselves heard. In 1994 in Rwanda, radio was used to mobilize the genocide, and moderate voices were unable to respond.¹³ In Kenya, as hateful messages extended their reach into the Kenyan population, Michael Joseph, the CEO of Safaricom, Kenya's largest mobile phone provider, was approached by a government official who was considering shutting down the SMS system. Joseph convinced the government not to shut down the SMS system, and instead to allow SMS providers to send out messages of peace and calm, which Safaricom did to all nine million of its customers.

Further, it is quite easy for governments and companies to identify and track individuals that promote hate speech. In the aftermath of the violence, contact information for over one thousand seven hundred individuals who allegedly promoted mob violence was forwarded to the Government of Kenya.¹⁴ While Kenya does not yet have an applicable law to prosecute SMS-based hate speech, a debate has already begun in Parliament to create such a law.¹⁵

In Kenya, as in the rest of Africa, SMS is the most widely used digital application. Yet a similar tension between predatory and civic speech existed on online bulletin boards. The leading Kenyan online community, Mashada, became overwhelmed with divisive and hostile messages. By the end of January 2008, the moderators decided to shut down the site, recognizing that civil discourse was rapidly becoming impossible. However, a few days later,

Mashada's site administrator David Kobia launched I Have No Tribe, a site explicitly centered on constructive dialogue among Kenyans. As Ethan Zuckerman writes:

[I Have No Tribe] showed posts from Kenyans around the country and around the world wrestling with the statement, "I have no tribe... I am Kenyan." Kobia redirected the Mashada site to the new site, and it rapidly filled with comments - combative as well as supportive, as well poems and prayers. Kobia reopened [Mashada] on February 14th, having elegantly demonstrated that one possible response to destructive speech online is to encourage constructive speech.

The examples of SMS and online bulletin boards illustrate the tension inherent in new many-to-many digital communications tools. In the Kenyan context, this architecture is a new space where the predatory impulse to deepen existing cultural divides meets head on the civic impulse for constructive and healing dialogue.

CROWDSOURCING HUMAN RIGHTS

Within a week of the outbreak of violence in Kenya, a small group of concerned Kenyans, located throughout the diaspora, came together to launch an online campaign called Ushahidi to spread awareness about the violence devastating their country.

Ushahidi is part of a tradition of Kenyan digital civic projects dating back at least to 2006, when Kenyan lawyer Ory Okolloh teamed up with an anonymous blogger known as 'M' to create Mzalendo: Eye on Kenyan Parliament, a Web site dedicated to helping hold Kenyan Members of Parliament (MPs) accountable for their votes.¹⁶

In the tradition of Mzalendo, several groups of concerned Kenyans, both in-country and in the diaspora, gathered in the immediate aftermath of the Kenyan election to launch civic initiatives. These initiatives included fundraising campaigns such as the 'Help Kenyans in Distress' campaign, which leveraged SMS money transfer technology to support the Red Cross. Another notable example is the blog of Joseph Karoki, who wrote about a young boy who

was left crying after his mother was killed in Naivasha. He organized donations for 'Baby Brian,' and kept readers of his blog updated on the progress of one family affected by the violence in Kenya.

Far and away the most prominent and successful digital civic campaign was Ushahidi. On January 2, Ory Okolloh provided the spark for the project:

Google Earth supposedly shows in great detail where the damage is being done on the ground. It occurs to me that it will be useful to keep a record of this, if one is thinking long-term. For the reconciliation process to occur at the local level the truth of what happened will first have to come out. Guys looking to do something - any techies out there willing to do a mashup of where the violence and destruction is occurring using Google Maps?¹⁷

David Kobia and Erik Hersman, two technologists with roots in Kenya, answered the call. Leading a small group of designers, they designed and launched Ushahidi on January 9. Ushahidi is a mashup, a blending of two Internet applications to relay information in a visually compelling way. The design teams combined Google Maps, which allows users to zoom in and view satellite images of Kenya, with a tool for users, via mobile phone or Internet browser, to report incidents of violence on the map, add photos, video, and written content that document where and when violence occurs.

In the tradition of using Google Maps for human rights awareness, Ushahidi follows the Darfur Museum Mapping Initiative, a collaboration of Google Earth and the U.S. Holocaust Museum launched in early 2007. This platform allows the user to view professionally collected photos, video, and written testimony from Darfur, as well as view images of destroyed villages and IDP camps.

An interactive map is a remarkably effective narrative tool for a transnational audience. Tragic violence calls for empathy and action, but it is difficult to feel a connection with a place one cannot imagine. C.J. Menard's famous map of Napoleon's march to Moscow is often hailed as the best

statistical graphic ever made, because it is an emotive visual presentation of the decimation of nearly half a million troops in the frigid Russian winter of 1812.¹⁸ Mashups like Ushahidi do not share Menard's aspiration for statistical accuracy, but they do share his desire to demonstrate to the audience the real human meaning behind numbers.

However, Ushahidi is fundamentally different from the Darfur initiative in an important way. The Ushahidi platform is revolutionary for human rights campaigns in the way that Wikipedia is revolutionary for encyclopedias; they are tools that allow cooperation on a massive scale. Yochai Benkler describes this phenomenon as 'commons-based peer production,' and argues that it has a central place in rethinking economic and social cooperation in a digital age. He writes,

What makes peer-production enterprises work best has been the capacity to harness many people, with many and diverse motivations, towards common goals in concerted effort. While understudied and difficult to predict and manage by comparison to a more simple picture of human motivation as driven by personal wealth maximization, peer production begins to offer a rich texture in which to study the much more varied and multifarious nature of human motivation and effective human action.¹⁹

In the Kenyan context, reporting an act of violence was perhaps the only outlet for frustrated citizens. As Kenyan blogger Daudi Were writes, "We as Kenyans are guilty of having short-term memories. Yesterday's villains are today's heroes. We sweep bad news and difficult decision under the carpet; we do not confront the issues in our society and get shocked when the country erupts as it did two months ago."²⁰

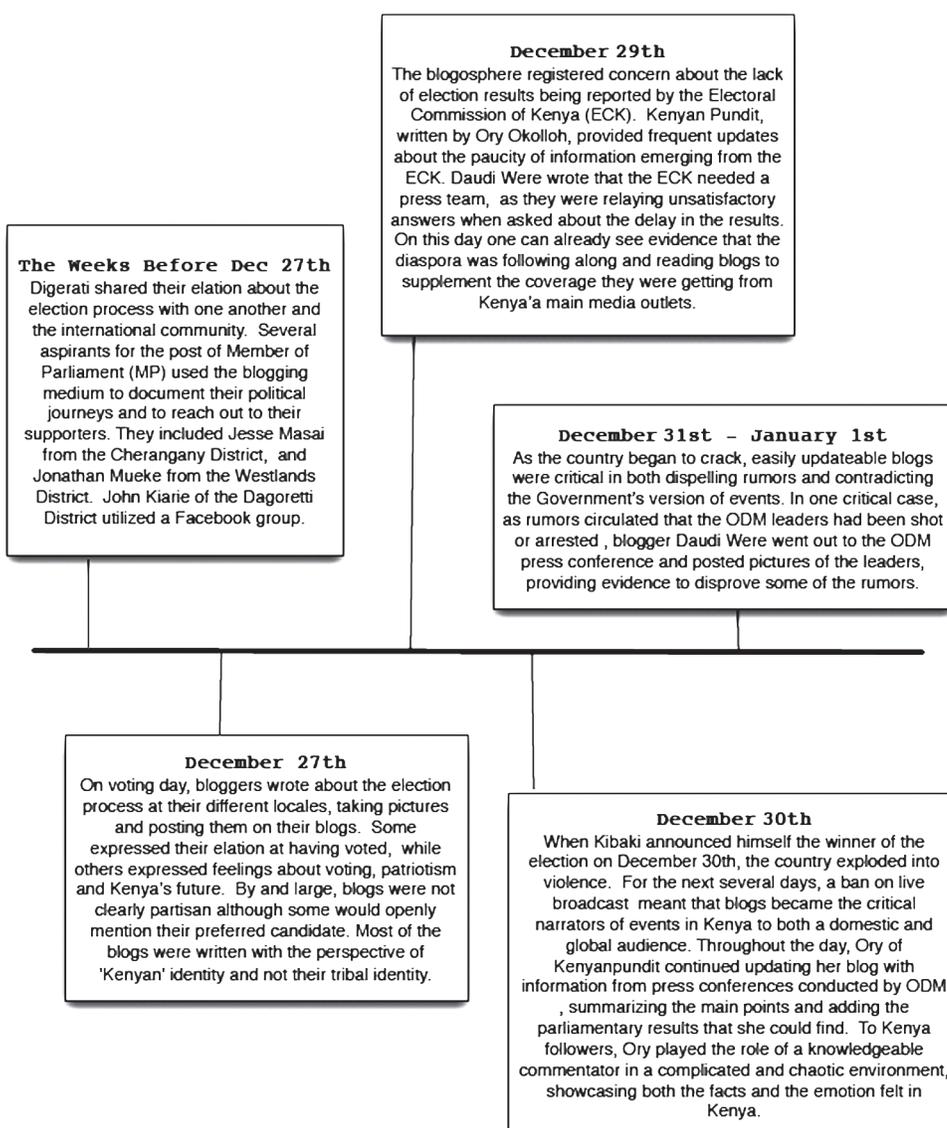
Echoing this sentiment, Herman writes, "Sometimes there is just nothing more you can do than report what you see."²¹ Hersman and Kobia recently launched a new version of the Ushahidi platform for use by activists interested in large scale participation in civic campaigns. The platform is rapidly making an impact in the humanitarian relief community. For example, Patrick Meier, a PhD

candidate at the Fletcher School of Law and Diplomacy at Tufts University, is applying the lessons of Ushahidi to humanitarian early warning systems.

Meier is developing a tool called the Humanitarian Sensor Web, which allows community leaders and service providers like the World Food Program to coordinate their efforts in emergency humanitarian situations. Further, the Sensor

Web aims to serve as a source of collective intelligence, with a map-based database of places and events, which will help those who are responding to a current crisis or planning for future security or humanitarian relief efforts. While these tools are still in an experimental stage, Ushahidi has significantly lowered the costs of participating in a global civic campaign from anywhere on the planet with only a mobile phone signal.

The Kenyan Blogosphere, December 2008



CITIZEN VOICES

Just as human rights activists used digital tools to amplify their voice and lower their cost of operations, so too did citizen journalists, who used blogs to challenge the narrative presented by mainstream Kenyan media and the government.²² The notion that citizen journalists are changing the media landscape in rich countries with ubiquitous Internet access is now well understood. However, the power and influence of bloggers is particularly noteworthy in Kenya, where less than 5 percent of Kenyans have regular Internet access.²³ Kenyan bloggers became a critical part of the national conversation, starting during the three day ban on live broadcasts, when the web traffic from within Kenya shot through the roof. The influence ballooned further when radio broadcasters began to read influential bloggers over the airwaves, helping them reach not 5 percent, but 95 percent of the Kenya population.

It is important to note that Kenya has perhaps the richest blogging tradition in sub-Saharan Africa. The first Kenyan blogger, Daudi Were, launched his personal blog, *Mental Acrobatics*, in March 2003.²⁴ Starting in 2004, the community began to grow rapidly among digitally connected Kenyans, who self-organized into blog rings that serve as online directories. Most prominently, the Kenyan Blogs Webring,²⁵ currently tracks eight hundred blogs with a popular aggregator called KenyaUnlimited, which is administered by Were. While the cost of connectivity limits blogging to the Kenyan elite, there was one notable exception that provided a window into life in rural Kenya. Kachumbari, known online as 'Kenyan Villager,' provided the perspective of a Kenyan living in a rural setting until 2006 when he was killed in a tragic hit-and-run accident.²⁶

When the Government of Kenya declared a ban on live news coverage on December 30, 2007, Kenyan bloggers became indispensable in their role as citizen journalists. As press critic Jay Rosen writes, citizen journalists are:

. . . the people formerly known as the audience [who] *were* on the receiving end of a media system that ran one way, in a broadcasting pattern, with high entry fees and a few firms competing to speak very loudly while the rest of the population listened in isolation from one another— and who *today* are not in a situation like that *at all*. . . . The people formerly

known as the audience are simply the public made realer, less fictional, more able, less predictable.²⁷

Blogs challenged the government's version of the events as they unfolded. A striking example of this challenge occurs on January 1, when the Kenyan government issued a statement titled 'Violence in Kenya Does Not Mean the Country is Burning.' According to that statement, "The population directly affected by the violence is less than 3 percent of the Kenyan population. The police are containing the affected areas where there is violence. Kenya is not burning and not at the throes of any division. . . ."²⁸

In sharp contrast, on the same day the blogger 'M' posted pictures of burned out stalls and estimated the death toll from violence at around one hundred forty. He reported that exact numbers were difficult to ascertain because heavily armed guards surrounded the Nairobi city mortuary.²⁹ This information was not available in mainstream Kenyan media. Although there were newscasts, the information was not timely. Coupled with the live broadcast ban, many were not able to keep up with event. With blogs, there was a free flow of information, with some bloggers scooping the mainstream Kenyan media. An example of bloggers leading news coverage was Joseph Karoki's blog, which on January 2 posted news about Ugandan forces entering Kenya's western province of Nyanza. Local press did not publish this story until January 7. This suggests blogs had begun to fill the gap in coverage created by local media that were not reporting violence or deaths due to government pressure.³⁰

Further, Blogs became a critical source of information for Kenyans in Nairobi and the diaspora. Rumors spread via SMS were dispelled via an online dialogue that took place on blogs and in the comments section of blogs.³¹ Most notably, the blogger Kenyanpundit played the role of a knowledgeable commentator in a complicated and chaotic environment, showcasing both the facts and the emotion felt in Kenya. This excerpt from her post after Mwai Kibaki was declared the winner of the elections captures the shock and the sadness at the turn of events. She wrote,

It is a sad day for Kenya when [Election Commissioner] Kivuitu is cracking jokes at the State House swearing in ceremony while

lives are being lost for people who could care less (10 people already dead in Kisii, 2 dead in Kakamega, at least one in Kisumu).

It is a sad day for Kenya when Kibaki who pledged to be a one-term president and is only president because Raila said Kibaki Tosha can now not be bigger than himself and his cronies. It is a sad day for Kenya when a cabal that has been in power since independence still controls the countries [sic] destiny.

It is a sad day for Kenya when millions of first time young voters have had their voice ignored - how do you tell these people that their vote matters in 2012? It is a sad day for Kenya that Kenyans will no longer trust the one avenue they have - the ballot box. It is a sad day in Kenya that the democracy that has been painfully and slowly nurtured since 1992 has been damaged in one day. It is a sad day.³²

When Kenyapundit allowed readers to submit posts about the events taking place in the country, that blog became a collective outlet of expression for Kenyans.

CONCLUSION

To many in the developed world, the 'networked public sphere' connotes the potential for a more plentiful public discourse, increased transparency, and positive cooperation of all kinds. Throughout sub-Saharan Africa, where artificial borders and legacies of ethnic strife have yet to solidify many countries into nations, the narrative is more complicated. This paper has shown that, in the Kenyan context, whether aspiring to promote an ethnic-based hate crime or a global human rights campaign, the Internet and mobile phones have lowered the barriers to participation and increased opportunities for many-to-many communication. Clay Shirky gets to the heart of the matter: "The current change, in one sentence, is this: most of the barriers to group action have collapsed, and without those barriers, we are free to explore new ways of gathering together and getting things done."³³ As the ubiquity of digital communication increases in Africa, we will no doubt see the struggle between predatory violence and civil society continue.

ENDNOTES

- ¹ Yochai Benkler, *Wealth of Networks: How Social Production Transforms Markets and Freedom* (New Haven: Yale, 2006).
- ² Larry Diamond, "Civic Communities and Predatory Societies," delivered at "Culture Matters: A Forum on Business, Education, and Training Professionals," Washington D.C. 2001.
- ³ Benkler, *Wealth of Networks*, 212.
- ⁴ Kenyans for Peace with Truth and Justice, "Countdown to Deception: 30 Hours that Destroyed Kenya", *Kenya National Commission on Human Rights* (January 17, 2008) http://www.knchr.org/dmdocuments/KPTJ_Final_Press_Release.pdf.
- ⁵ "Ballots to Bullets: Organized Political Violence and Kenya's Crisis of Government", *Human Rights Watch* (March 2008), <http://hrw.org/reports/2008/kenya0308/kenya0308web.pdf>.
- ⁶ "Unjust Enrichment: The Making of Land Grabbing Millionaires," *Kenya National Commission on Human Rights*, (2006), 1.
- ⁷ "Ballots to Bullets: Organized Political Violence and Kenya's Crisis of Government," *Human Rights Watch* (March 2008), <http://hrw.org/reports/2008/kenya0308/kenya0308web.pdf>, 13.
- ⁸ See, for example, David Anderson, "Majimboism: the troubled history of an idea," in Daniel Branch & Nic Cheeseman (eds), *Our Turn to Eat! Politics in Kenya since 1950* (Berlin: Lit Verlag, 2008).
- ⁹ Ofeibea Quist-Arcton, "Text Messages Used To Incite Violence in Kenya," *NPR News*, <http://www.npr.org/templates/story/story.php?storyId=19188853>.
- ¹⁰ "Ballots to Bullets: Organized Political Violence and Kenya's Crisis of Government", *Human Rights Watch* (March 2008), <http://hrw.org/reports/2008/kenya0308/kenya0308web.pdf>, 37.
- ¹¹ See, for example, <http://inanafricanminute.blogspot.com/2007/04/dark-side-of-mobilization.html>.
- ¹² "Ballots to Bullets," *Human Rights Watch*, 56
- ¹³ Make Text Not War, Humanitarian.info, <http://www.humanitarian.info/2008/04/24/make-text-not-war/>.
- ¹⁴ Tim Querengesser, "Hate Speech SMS Offenders Already Tracked," *The Nation* (March 1 2008) <http://allafrica.com/stories/200802291070.html>.
- ¹⁵ Rebecca Wanjiku, Kenya Moves to Thwart Mobile Phone Crimes, *The Standard*, (May 16, 2006), <http://www.thestandard.com/news/2008/05/16/kenya-moves-thwart-mobile-phone-crimes>.
- ¹⁶ About Page, Mzalendo: Eye on Parliament, <http://www.mzalendo.com/about/>.
- ¹⁷ Update Jan 3 11:00PM, Kenya Pundit, <http://www.kenyanpundit.com/2008/01/03/update-jan-3-445-1100-pm/>.
- ¹⁸ C.J. Menard's Map of Napoleon's March of 1812, Donoho Design Group, <http://www.ddg.com/LIS/InfoDesignF96/Kelvin/Napoleon/map.html>.
- ¹⁹ Yochai Benkler and Helen Nissenbaum, "Commons-based Peer Production and Virtue," *The Journal of Political Philosophy*: Volume 14, Number 4, 403.
- ²⁰ Mental Acrobatics, <http://www.mentalacrobatics.com/think/>.
- ²¹ Mapping Zimbabwe's Election Breaches, White African, <http://whiteafrican.com/?p=957>.
- ²² This section explicitly addresses how the blogosphere affected the narrative

within Kenya. Others are extensively studying how news source from the developing world are shaping developed world narratives. See, for example, Ethan Zuckerman, "Global Attention Profiles- A Working Paper First Steps Towards a Quantitative Approach to the Study of Media Attention", *Harvard's Berkman Center for Internet and Society Working Paper Series* (July 31st, 2003), http://cyber.law.harvard.edu/publications/2003/Global_Attention_Profiles.

²³ Internet penetration is notoriously difficult to measure in Africa, where the majority of Internet users have shared access, primarily through Internet cafes. While publicly available figures put access at 1.5%, this only refers to broadband subscriptions, which account for a tiny percentage of access.

²⁴ Ferocious in Battle, Magnanimous in Victory, Mental Acrobatics, <http://www.mentalacrobatics.com/think/archives/2003/03>.

²⁵ Kenya Blogs Webring, Kenya Unlimited, <http://www.kenyaunlimited.com/kenyan-blogs-webring/>.

²⁶ Rest in Peace Kenyan Villager, My Heart's in Accra, <http://www.ethanzuckerman.com/blog/2006/10/19/rest-in-peace-kenyan-villager>.

²⁷ Jay Rosen, "The People Formerly Known as the Audience," *Press Think*, September 17th, 2007. http://journalism.nyu.edu/pubzone/weblogs/pressthink/2006/06/27/ppl_frmr.html#more (accessed August 9th, 2007).

²⁸ Violence in Kenya Does Not Mean Country is Burning, Office of Public Communications, Republic of Kenya, <http://www.communication.go.ke/media.asp?id=488>.

²⁹ Election Aftermath, Thinker's Room, <http://www.thinkersroom.com/blog/2008/01/elections-aftermath/>.

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³³ Clay Shirky, "Here Comes Everybody: The Power of Organizing Without Organizations" (New York: Penguin, February 2008), 22.