Digital Media in Conflict-Prone Societies

By Ivan Sigal
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CIMA Center for International Media Assistance

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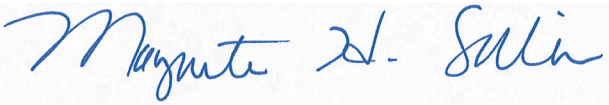
Table of Contents

PREFACE

The Center for International Media Assistance is pleased to publish Digital Media in Conflict-Prone Settings, a thought-provoking paper that we hope will stimulate a lively and sustained discussion among media assistance practitioners. The purpose of this report is to examine the unique conditions under which digital media operate in conflict settings.

CIMA is grateful to Ivan Sigal, an expert on digital media with many years of experience in this field, for his research and insights on this topic. His paper lends itself to analysis and discussion. It represents the personal views of the author and does not necessarily reflect the views of CIMA or its parent organization, the National Endowment for Democracy. Sigal's views and insights should be of interest to a wide range of media assistance advocates. We invite you to read the report, think about the ideas, and share your thoughts by commenting on the report on CIMA's Web site (http://cima.ned.org/reports) or by e-mailing CIMA@ned.org with "Digital Media in Conflict-Prone Settings" in the subject line.



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1. Executive Summary

The complex relationship between media and conflict is longstanding. Traditional mass media have been used to amplify and extend viewpoints and ideologies, to persuade audiences at home, and to influence opposing sides in conflict. However, both media and conflict have changed markedly in recent years. Many 21st-century wars are not only about holding territory, but about gaining public support and achieving legal status in the international arena. Governments seek to hold onto power through persuasion as much as through force. Media are increasingly essential elements of conflict, rather than just functional tools for those fighting. At the same time, newer media technologies have increased communication and information dissemination in the context of conflict. In particular, the growth of citizen media has changed the information space around conflict, providing more people with the tools to record and share their experiences with the rest of the world.

At present, the policy community that considers the role and use of media in conflict-prone settings is just beginning to formulate methodologies and strategies to consider how changes in media technology could affect fundamental issues of political participation and conflict. As a result, many existing media assistance projects in conflict-prone settings reflect a traditional understanding of the relationship between media and conflict. These projects are often viewed through the prisms of state stabilization, sovereignty, rule of law, the creation of modern administrative structures of state control, and civil society support that complements state stabilization efforts.

The shift to digital media and the attendant rise of networked, participatory media is the culmination of a process that has only in the past decade reached a form that we recognize, name, and consciously construct. The rapid spread of digital-based communications and information networks is likely to have an effect on 21st-century wars, which increasingly center on internal conflict, disputed borders of new states, and separatist movements. However, those effects have yet to be seriously analyzed; at present we have mostly anecdotal evidence about the relationship of digital media and modern conflict.

Much violent conflict today takes place in or near civilian populations with access to global information networks, so the information gathered by various parties to conflict may potentially be distributed in real time around the globe. The ability to communicate, and to produce and receive diverse information through participatory media, is part of a struggle within conflict-prone societies between allowing for non-coercive debates and dialogue that focus on endemic weak-state problems and enabling those seeking power to organize for political influence, recruitment, demonstrations, political violence, and terror. The U.S. Air Force has noted that in future wars, "Influence increasingly will be exerted by information more than by bombs."[1]

It is now clear that increased access to information and to the means to produce media has both positive and negative consequences in conflict situations. The question of whether the presence of digital media networks will encourage violence or lead to peaceful solutions may be viewed as a contest between the two possible outcomes. It is possible to build communications architectures that encourage dialogue and nonviolent political solutions. However, it is equally possible for digital media to increase polarization, strengthen biases, and foment violence.

2. Convergences: Digital Media and Conflict

Traditional mass media have long been used to amplify and extend viewpoints and ideologies, to persuade audiences at home, and to influence opposing sides in conflict. International broadcasting on shortwave radio and, later, satellite TV has been considered a key foreign policy tool. Nontraditional media have also played a major role in conflict-prone settings since long before the Internet, from the spread of democratic ideas through *samizdat* in the Soviet Union, to the dissemination of revolutionary Islamist thought in Iran on cassette tape, to the fax revolution of Tiananmen Square. There is an extensive literature of analysis and history that examines the relationship of media to conflict—from propaganda to incitement, and from conflict prevention to post-conflict stabilization and peace-building.[2]

Conflict in the 20th century was often characterized by a persistent lack of access to information, for both participants directly involved in the conflict as well as observers such as reporters, rights groups, and humanitarian agencies. While many conflicts in the 21st century still occur largely out of the public eye, it is becoming more common for war to be conducted in the midst of information abundance. Conflicts in Lebanon in 2006, Pakistan in 2007, Kenya and Georgia in 2008, and Moldova and Iran in 2009 played out in the context of diverse and resilient information sources and networks. In those conflicts, digital media tools were integral to the operations of both activists and combatants, used for organizing and mobilizing forces and demonstrations, and for creating media content in attempts to influence the outcome of conflict.

Governments seek to hold onto power through persuasion as much as through force.

In addition, many 21st century wars are not only about holding territory, but about gaining public support and achieving legal status in the international arena. Governments seek to hold onto power through persuasion as much as through force. Media are increasingly essential elements of conflict, rather than just a functional tool for those fighting. Acts of violence performed in the theater of the public eye can be used in the fight for influence. Violent groups increasingly use media to achieve their goals, and violence itself is also used as a message.

New media technologies have increased communication and information dissemination in the context of conflict. The struggles for authority, support, funding, and international status that accompany conflicts are played out on the field of media. Modern terror organizations design attacks for maximum media exposure in the theater of the real. The rise of cable and satellite TV and their 24-hour news channels, beginning in the late 1980s, ensures real-time access to international events on a global scale, now available throughout much of the world in many languages. The Internet, cellphone networks, and an abundance of media production tools such as digital cameras have expanded the ability of both professional media and citizens to produce and disseminate information in all contexts, including violent conflict.

Insurgencies, states, and non-state parties to civil conflicts have become accustomed to thinking of media as vehicles to support military goals. Media are both a tool for the propagation

Documenting violence with cellphones: Afghanistan

In Afghanistan, a dispute over the precise events surrounding a U.S. air strike on August 22, 2008 in Azizabad, a village near Herat, generated controversy over the U.S. military's use of aerial bombing.[1] Local villagers, backed by the Afghan government and a U.N. report,[2] claimed that more than 90 civilians were killed in the strike, 60 of them children. The U.S. military's initial report claimed that five to seven civilians and 35 insurgents were killed. The dispute roiled Afghanistan for weeks, and both sides used images to make their case. The American investigation was guided by satellite images of grave sites. Locals filmed victims and fresh graves using their cellphones, and later showed those images to the United Nations and to visiting reporters. The New York Times reported that "some military officials have suggested that the villagers fabricated such evidence as grave sites—and, by implication, that other investigators had been duped."[3] Considerable disagreement exists about whether the victims in this case were civilians or combatants, or citizens supporting the insurgency. Regardless of the ultimate conclusion of this dispute, video and other visual documentation by local villagers is an example of citizen media in action in a war zone. It is a key part of the evidentiary chain used by reporters and Human Rights Watch[4] to apply public pressure to compel the United States to moderate its use of aerial force in Afghanistan, and it plays out in domestic Afghan politics, with President Hamid Karzai demanding an end to such strikes as he seeks to assert authority over the country.

[1] Carlotta Gall, "Evidence Points to Civilian Toll in Afghan Raid," New York Times, September 7, 2008, http://www.nytimes.com/2008/09/08/world/asia/08afghan.html?sq=Carlotta%20Gall%20Afghanistan&st=cse&scp=5&pagewanted=all. See also: ""We are definitely not winning the information war, and we have to reverse that," said Brig. Gen. Richard Blanchette, the chief spokesman for NATO forces here." Pamela Constable, "A Modernized Taliban Thrives in Afghanistan," Washington Post, September 20, 2008. http://www.washingtonpost.com/wp-dyn/content/article/2008/09/19/AR2008091903980.html?hpid=topnews.

[2] United Nations Assistance Mission in Afghanistan, "Statement by Special Representative of the Secretary General for Afghanistan, Kai Eide on civilian casualties caused by military operations in Shindand district of Herat province," August 26, 2008, http://www.reliefweb.int/rw/rwb.nsf/db900sid/LSGZ-7HVGG2?OpenDocument.

[3] Gall, "Evidence Points to Civilian Toll in Afghan Raid." The online article contains a link to a cellphone video of the events, as do many other websites: http://video.on.nytimes.com/?fr_story=47d94854dcc7adeb88e5ff727c6f66dd432675ef.

[4] Human Rights Watch, "Troops in Contact: Airstrikes and Civilian Deaths in Afghanistan,", September 8, 2008, http://hrw.org/reports/2008/afghanistan0908/.

of violence, as in the use of local FM radio in Rwanda to promote mass slaughter, and a military target, as in the NATO bombing of Serbia's state broadcaster during the Balkan wars of the 1990s. Digital media technologies have become an integral element in many conflicts, whether through the use of Web sites and e-mail by terror groups for recruitment and coordination or through fundraising and news services for nationalist movements, such as those used by insurgents in Chechnya and Sri Lanka.[3] Digital media networks and applications are increasingly crucial to state efforts in information gathering, surveillance, propaganda, and psychological operations.[4] Citizen activist groups and human rights groups also employ digital media to monitor and report events and amplify their positions.

Despite the use of media to inform, persuade, or propagandize audiences, in most conflict zones lack of information remains a consistent

problem. The existence of media and communications networks in conflict zones, with the tools to record and create media in the hands of many citizens, may increase available information about what occurs in war zones. However, there are significant economic, political and technological factors that mitigate against complete and accurate information about conflicts. Physical danger has always made such reporting difficult, militaries are able to restrict media access to conflict zones and to shut down communications networks, and fewer financial and reporting resources are available to mass media in the developed world due to shifting economics of commercial mass media in the Internet age.

The growth of citizen media has changed the information space around conflict, providing more people with the tools to record and share their experiences with the rest of the world. Citizen media production does not at present precisely replicate the role of mass media, and it remains unclear whether it can or will. Unlike mass media, which can devote considerable resources to serious, long-term reporting on conflict, as well as slant public perceptions of conflict, citizen media have not yet demonstrated the same impact on a mass scale. Rather, their influence and effects are varied and unpredictable.

Participatory media, for the purpose of this paper, means forms of media in which the means of production are widely available and content creation is not based on traditional editorial structures. The key difference between networked, participatory media and mass media lies in the fact that the "former audience," as media critic Dan Gillmor famously terms the participants in digital media culture,[5] contributes directly to shaping media content. Citizens, activists, and parties to conflict are not just the subject of media; they are part of the media.[6]

Participatory media enables anyone with a cellphone camera and Internet access to participate in the activity of journalism. This phenomenon creates both new opportunities for information production and a more complex information environment, where we increasingly rely on tools such as search engines, aggregators, and networks of hyperlinks to find accurate information online.

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Participatory media encompass a broad range of media technologies used by citizen media initiatives, nonprofit organizations, and others that create and disseminate information products.[7] These include author-driven "classic" blogs, online-only journals, aggregator Web sites that encourage dispersed individual contributions, photo- and video-sharing sites such as YouTube, collaborative content projects such as Wikipedia, social media Web sites, text messaging systems, and microblogging platforms such as Twitter.

With the decline of traditional media coverage and the inconsistent nature of citizen war reporting, non-media organizations have begun to play the role of information providers in conflict zones. Humanitarian agencies, human

rights and policy advocacy organizations, research institutes and think tanks, nonprofit media organizations, and even militaries now also function as direct providers of information. Many organizations whose work was filtered through mass media now produce their own media. While this primarily occurs in response to the organizations' own objectives, the result is that they supplement humanitarian interventions, monitoring of human rights abuses, and policy activity with blogs and photo stories from staffers, videos, editorials, briefing documents, and multimedia presentations. While these organizations have different objectives and agendas, and different verification systems, all are attempting to establish themselves as known and trusted sources of information coming out of conflict zones.

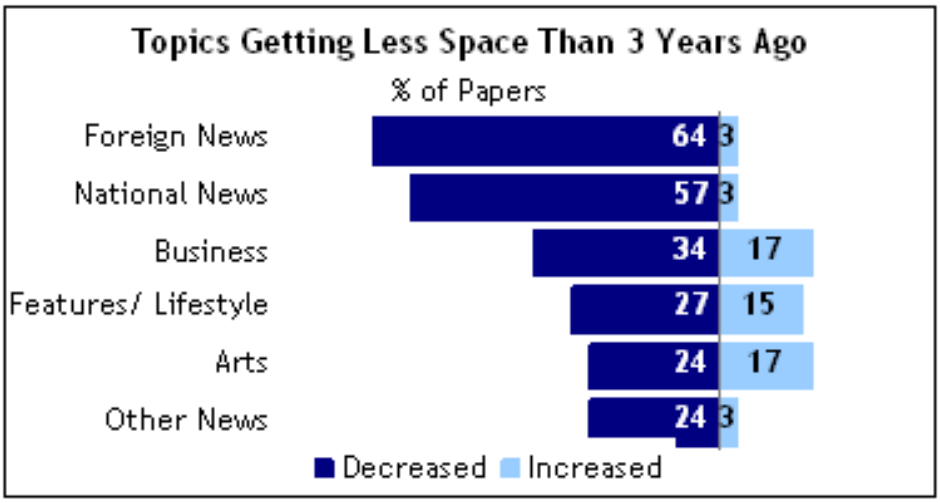
The challenge of verifying the accuracy of reports from conflict zones is compounded by the security risks for professional and citizen media alike. Militaries have long been savvy about the influence of media and information on the conduct of war, and they go to great lengths to control or restrict access to and reporting on conflict zones. Journalists and media outlets are often targets of violence; militaries, insurgents, and terror groups all seek to silence reporting perceived as a threat to their positions. In recent and ongoing conflicts in Kashmir, Sri Lanka, Pakistan, Afghanistan, Tajikistan, Somalia, Sudan, Iraq, and Algeria, journalists have been attacked, abducted, and sometimes killed.[8]

Militaries have long been savvy about the influence of media and information on the conduct of war

Such tensions are particularly acute in civil conflicts, secessionist conflicts, and other situations where the support, or at least acquiescence, of local populations is crucial for military success. Local journalists may be entwined in the conflict personally, by association with their media outlets; through affiliations such as political party, religion, family, language, or ethnicity; or simply by working and producing information in the community where a conflict is occurring. This dynamic reduces the possibilities for balanced and unbiased news reporting, or for the expression of mediating and peace-minded perspectives.

2.1. Media Assistance in Conflict-prone Settings—Frameworks

At present, the policy community that considers the role and use of media in conflict-prone settings is just beginning to formulate a methodology and strategy to consider how changes in media technology could affect fundamental issues of political participation and conflict. While there is a dynamic and growing literature on the implications of information and communication technologies (ICTs) for democracy and governance, humanitarian action, and development,[9] that research is only now being applied in states with violently contested political and social spheres. Likewise, the relationship between violent conflict and media has been frequently researched, and forms the basis for numerous studies, frameworks for analysis, and solutions for post-conflict stabilization and peace building. For the most part, evaluations of media's effect on early warning, conflict, state stability and reconstruction, and post-conflict governance remain rooted in analyses of



Source: "The Changing Newsroom" Journalism.org[27]

traditional media. The following is a simplified version of the prevalent understanding of the past half-century.[10]

- In the context of war, media may propagate intolerance, disinformation and biased information, or may highlight injustices and discrimination in access to political power.
- Messages are sent via mass channels by those in power to a passive, susceptible, and largely undifferentiated audience.
- These messages influence and persuade audiences to support positions, act against opponents, or mobilize for war or mass violence.
- Messages of peace, reconciliation, and unity, together with accurate, impartial information that holds governments accountable for their actions, can support the deterrence or resolution of conflicts or the continuation of peace after conflict.

Media, in this understanding, send information from single sources to large audiences, require substantial resources to run and are regulated by governments in distribution via broadcast licenses, frequency allocation, and international law and production via distinct laws and special rights for journalists. They are strongly conditioned by market forces, subsidies, or government control. War, in this understanding, is primarily interstate or civil conflict fought with recognized combatants, uniformed soldiers, declarations of intent, and broadly acknowledged international laws of war.

Many existing media assistance projects in conflict-prone settings reflect this understanding of the relationship of media and conflict. Funding for such projects comes from the U.S. and European governments, and from multilateral, international, and private foundation sources. These interventions are predominantly designed around strategies to reform, restrict, improve, or increase traditional broadcast media, print outlets, and information sources.[11] In such assistance projects, digital media tools have been employed primarily as part of a support function for traditional media—although this is now beginning to change with recent efforts in Afghanistan and Pakistan that include telecommunications as part of information and communications strategies.[12]

Media assistance projects in conflict settings are often viewed through the prisms of state stabilization, sovereignty, rule of law, the creation of modern administrative structures of state control, and civil society support that complements state stabilization efforts. Funding primarily comes from democracy and governance or transition-focused aid efforts. Donors generally prefer to evaluate these interventions with regard to their impact on the state-building or stabilization agendas—with the assumption that influence over information dissemination and production will have a significant impact on the success of their larger goals.

Donors and policymakers actively debate how much freedom of media and speech should be permitted in post-conflict and stabilization scenarios. In this debate, media are primarily seen as playing a traditional role in regard to their relation to the state.[13] Conflict reporting and peace journalism projects look predominantly to traditional media as well, in practice, analysis, and in evaluation tools.[14] Attempts to demonstrate correlation and correspondence between good governance and media freedoms also mostly rely on measures of traditional media, using fixed assumptions of media and press freedom and openness of the enabling environment for media.[15]

The toolkit available to counter, use, or control traditional media in conflict has been articulated by numerous groups active in the field.[16] Initiatives for such work come from local and international nonprofit media development and peace-building organizations and from international broadcasters, governments, international organizations, and, increasingly, militaries. These organizations have tended to focus on different kinds of initiatives for different phases of conflict, based on the assumption that conflicts tend to have definable stages, with each stage requiring appropriate responses.[17]

The motivations and objectives of these various actors may be at odds with each other, and their strategies may be incompatible. For instance, freedom of expression and media development groups emphasize journalistic integrity, accurate information, and investigative reporting. International organizations tend to focus on strategic communications and messaging strategies. Militaries use strategic communications as well as psy-ops campaigns as part of counter-insurgency efforts. International organizations and local governments sometimes seek to employ censorship and other restrictions on speech. Some donors support many strategies at once in search of a comprehensive and structural approach to communications and information in conflict and post-conflict situations.[18] The many strategies can be distilled to the following:

- Limiting undesirable information—countering or blocking inaccurate information or messages that promote hate and violence

- Expanding positive information—developing information interventions, either internally or from abroad, to provide information, programming, and messages in support of peace

- Building local capacity to perform the first two tasks–working with local media outlets, journalists, civic and rights groups, and government agencies to propagate skills, policies and technical capacity that will enable the production and dissemination of accurate information and the reduction of inaccurate information or violence-inciting messages.

2.2. The Networked Difference

Digital media technology has been a key driver of media growth and diversity in both the developed and developing worlds. As with satellite TV, which fundamentally changed the media landscape in many countries, media systems based on the Internet, cellular phones, and Web 2.0 tools such as social media, blogs, and wikis are having a transformational effect. The unbounded nature of digitally networked media has shaken assumptions about the nature of audience, market dynamics, the relationships between information producers and consumers, and ideas about the scarcity or abundance of information.[19]

This shift to digital media and the attendant rise of networked, participatory media is the culmination of a process that has only in the past decade reached a form that we recognize, name, and consciously construct.[20] Several characteristics of digital media platforms have changed the dynamic of participation in the production and distribution of information:

- Radically reduced cost for person-to-person communication, via Internet, digital and

The importance of human networks: Burma

In the Burmese monks' protests in 2007, journalists, activists, and average citizens usedcellphones and the Internet to report the government crackdown on demonstrations. Despite an Internet penetration rate of only 0.1 percent, or 40,000 users,[1] heavy-handed censorship,[2] and prohibitive tariffs on cellphone ownership, journalists, rights activists, and everyday citizens were able to send a steady stream of images and reports to news organizations and friends outside of Burma, ensuring that the story received media coverage. Burmese exile media groups and international broadcasters were a vital link in the chain that took those reports to an audience around the world and then back into Burma via traditional media: short-wave radio, cassettes, and CDs.[3]

In this case, a combination of elite access tied to local, informal information networks and access to international media outlets, advocacy organizations, and global participatory media projects set up a continuum of information flow from a local to a global level. This did not happen by accident, but was driven by the concerted efforts and resources of media outlets, media support organizations, and rights activists, combined with a repurposing of existing blogs, Web sites, and participatory networks not usually focused on Burma.

Additionally, local groups and activists in Burma that previously lacked a public presence gained access to telecommunications and media tools and became visible and influential players on national and global scenes. Longtime Burma-watchers found themselves communicating with groups of activists that appeared to have sprung fully formed out of nowhere.

[1] Internet World Stats, "Burma", http://www.internetworldstats.com/asia.htm#mm. Figure as of March 2008.
[2] Opennet Initiative Burma Report (Berkman Center for Internet & Society, Harvard University, October 12, 2005), http://cyber.law.harvard.edu/newsroom/opennet_burma.
[3] Shawn Crispin, "Burma's Firewall Fighters," The Committee to Protect Journalists, May 7, 2008, http://www.cpj.org/firewallfighters/index.html. "Burmese Protests 2007," GlobalVoices Online, http://globalvoicesonline.org/specialcoverage/burmese-protests-2007/.

Civilian telecommunications and military operations: Georgia

On August 7, 2008, the long-frozen secessionist conflict in Georgia's South Ossetia region ignited. Georgian military shelling of the Ossetian-controlled city of Tskhinvali was followed by a Russian attack on Georgian positions, with Russia eventually driving Georgian forces out of South Ossetia and supporting Ossetian claims to statehood. Despite conclusive control of the territory by the Russians and initial reporting that identified Georgia as the aggressor, Georgia continued to claim that Russia instigated the conflict. Several weeks after the fighting, the Georgian government released intercepts of cellphone calls of Ossetian insurgents that they claimed demonstrate that a Russian armored regiment entered South Ossetia a day before August 7 fighting, in contravention of existing cease-fire agreements.[1]

The incident demonstrates that Ossetian insurgents were using Georgia's civilian communications infrastructure to coordinate their movements, and that the Georgian government was tracking the Ossetians through those networks. Separate reports confirm that the Georgian cellular infrastructure remained functional throughout the conflict, and that both the Georgians and the Ossetians used cellphones to coordinate their movements in the conflict zone.[2]
Russia's attempt to win international support for an independent South Ossetia hinges on its actions being understood as defensive; if Russia is the aggressor, its arguments in the international context are greatly diminished.

[1] C.J. Chivers, "Georgia Offers Fresh Evidence on War's Start," New York Times, September 15, 2008, http://www.nytimes.com/2008/09/16/world/europe/16georgia.html?sq=Georgia%20evidence%20of%20war&st=cse&scp=1&pagewanted=all.
[2] Georgian eyewitnesses of cellphone use as reported to the author during a research trip to Georgia in August and September 2008.

cellular telephony, using applications such as text messaging and voice-over-Internet protocol (VOIP)

- Reduced cost and ease of entry for producers of information with desktop publishing, digital video and photography

- Direct, unmediated links between individuals in peer networks, collectively creating a networked public sphere[21]

- Shifting demographics of information communities beyond traditional nation or state audiences, driven by the transnational nature of Internet, cellphone networks and satellite TV.

The nature of traditional media is also changing, with tools such as blogging, social media, and audience participation increasingly becoming integral elements of journalistic practice.[22] With the maturing of online media, content producers now seek to adapt many different applications, including author-centric blogs, social media platforms, aggregation and mapping tools, wikis, and short-messaging platforms.

The growth of new media platforms has been phenomenal—to the point that they are both directly challenging and becoming adopted by traditional media in much of the developed world and growing quickly in much of the developing world.[23] In the United States, several online outlets now compete with traditional outlets in audience size.[24] The traditional newspaper is considered an endangered species, and predictions of its demise are increasingly common.[25]

The various functions that used to be the exclusive domain of traditional media are being replicated digitally in both the developed and the developing world, as blogs become

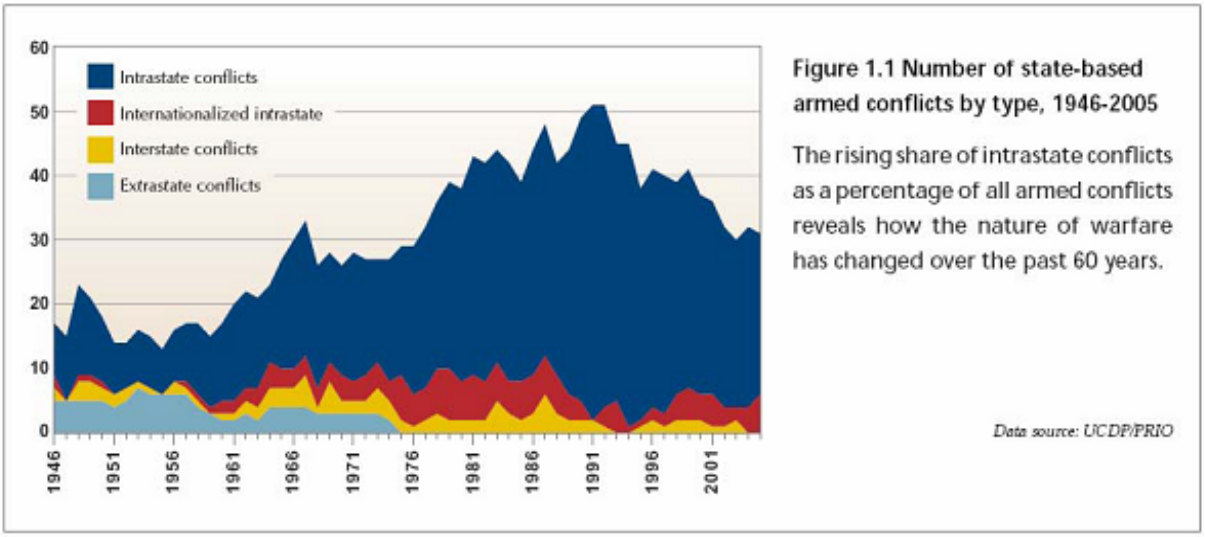
opinion pages, research institutes and watchdog organizations adopt investigative reporting, and specialized online media and communities of all sorts provide content on every subject imaginable.

The decline of the news industry has affected international news coverage. Even as information sources on local and informal levels proliferate, resources devoted to covering international news are rapidly declining. Major news outlets throughout the United States and Europe are cutting back their foreign bureaus, travel budgets, and space for foreign stories. A recent study by the Project for Excellence in Journalism shows that in 64 percent of U.S. newspapers, foreign news had less space in 2008 than in 2005.[26] This trend is mirrored in broadcast news as well.

2.3. New Wars

As with media, the nature of war has undergone significant change in the past few decades. Through World War II, soldiers were the bulk of battlefield casualties, and wars were primarily fought by conventional armies. Since the 1970s, conflict between states has diminished, though certainly not disappeared. There has been a progression of undeclared conflicts, intrastate and civil conflicts that involve irregular fighters and non-state combatants, with fighting occurring in the midst of civilian life, where the majority of victims are noncombatants.[28] The Human Security Report Project's "Human Security Brief 2006"[29] tracks the shift to increased intrastate conflict since World War II.

Wars at the beginning of the 21st century are generally small compared with the world wars of the 20th century, but they affect and displace millions of civilians. For example, in 2003 there were 37 million people displaced by war (internally displaced and refugee), the same number as at the end of WWII.[31] Further, the increase in non-state combatants means a blurring of lines between combatants and victims, such that the terms "refugee warriors" and "belligerent victims" have entered the parlance of military studies.[32] Fighters in such conflicts do not directly represent states, and their status under international obligations regarding the laws of war can be ambiguous. Tactics employed in such wars often target



Number of state-based armed conflicts by type, 1946-2005, Human Security Report Project.[30]

civilians and entire populations rather than opposing military forces, and include mass murder, ethnic cleansing, and asymmetric terror tactics.

From the 1990s, much war, especially in the developing world and Eastern Europe, has been about internal conflict, disputed borders of new states, and separatist movements. Many states, particularly in the developing world, struggle to reach or sustain the Westphalian ideals of inviolable sovereignty and monopolies on violence.[33] The globalization of the weapons trade, chronic weaknesses in governance, and shrinking economic resources among the weak and fragile states of the world have increased the power of non-state actors in violent conflict.

Such conflicts have been given the moniker "new wars," although there is debate as to whether they are fundamentally different from earlier conflicts.[34] Numerous indices and analyses of weak and fragile states point to similar trends of violent conflict never being fully resolved and recurring in cycles, with each cycle increasing the likelihood of further violence in the future.[35] Examples from the last three years include conflicts in Lebanon, Burma, Kenya, Somalia, Pakistan, Afghanistan, Sri Lanka, Congo, and Sudan.

Much violent conflict today takes place in or near civilian populations with access to global information networks.

The changes in the nature of much conflict occurred before many of the changes in digital media technology. The rapid spread of digital-based communications and information networks is likely to have an effect on such conflicts. However, those effects have yet to be seriously analyzed; at present we have mostly anecdotal evidence about the relationship of digital media and modern conflict.

2.4. Digital Media in Weak and Fragile States

Despite their political and economic instability, most countries on the various lists of weak and fragile states have rapid rates of growth for mobile phone access, and moderate rates of growth for Internet access. Information tools are increasingly ubiquitous and cheap, while traditional communications and information networks are often highly regulated and relatively slow to develop. Modernizing developing-world states such as Sri Lanka, Pakistan, Nepal, China, and North African countries have had rapidly developing digital media sectors and cellular phone networks for several years. The fastest-growing cellphone market is Africa, averaging over 50 percent growth per year. Even the poorest African states have made rapid inroads in cellular telephony penetration.[36]

Across Asia, cellphone use is growing by more than 30 percent per year. As cellular networks and handsets increasingly have computing and Internet functionality, cellphones are rapidly becoming the equivalent of the personal computer for the developing world and are increasingly discussed as the technology that will bridge the digital divide.[37] Internet access is also growing rapidly—more than 10 percent per year in China, for instance.
While every country has different penetration

rates, economies of scale and decreasing cost mean that increases in access should continue to be robust.[38] Digital-divide issues remain,[39] as do problems with language access, regulatory restrictions, and censorship. Technologists and high-tech companies have begun to tackle the question of the design of low-cost ICT tools for the developing world, recognizing that technology transfer requires considered design for different economies and needs.[40] The broader trend of increased communications and information access is clear. In 2008, there were roughly 1.5 billion Internet users, and 3 billion cellphone users.[41] This trend is broadly expected to continue, and there are active debates regarding when the developing world will approach tipping points in connectivity, both for content consumption and content creation.[42]

In contemporary conflict-prone countries, increasing information and communications access is also generally the norm. The two countries at the top of many failed states indices, Somalia and Afghanistan, both have functional and growing digital communications sectors. Somalia has five separate cellphone carriers.[43] Afghanistan had four cellular networks and an estimated 580,000 Internet users in 2008.[44] Other developing-world countries with endemic conflict have similar statistics. Conflict can be both an obstacle and a motivator for increased communications access. The factors in play that influence growth or stagnation are complex and, as yet, little researched and poorly understood in terms of effects. In some cases, such as Burma, punitive regulations suppress growth. In other cases, such as Sri Lanka, the fact of conflict likely motivates increased access and is supplemented by the interests of diaspora communities who bring external resources. At the same time, communications infrastructure in the conflict zones of north and east Sri Lanka are much less well developed than in peaceful areas, and people actually in conflict zones are isolated, with less-developed communications infrastructure than the rest of the island. There are also development, regulatory, and investment issues that affect countries' access to digital media independent of conflict.[45]

Access to networks does not, of course, guarantee a vibrant, well-funded participatory and online media sphere. Business models for online media remain mostly exploratory, and the field is still very much in stages of experimentation and innovation, with many start-ups and many failures. In developing countries, Internet-based media struggle to find valid revenue models and have smaller online populations, fewer advertisers, and a smaller pool of technical talent than in the developed world. While there are many innovative and energetic online communities and projects in the developing world, success depends on finding the right formula of participation, audience, content, volunteer or civic engagement, and resources.[46]

2.5. Citizen Media and Citizen Insurgents

The spread of digital media networks and communication tools for citizens to countries with chronic violence and endemic weak governance is notable and important. Much violent conflict today takes place in or near civilian populations with access to global information networks. Soldiers in conflict zones record their own actions. Cellphones with cameras allow citizens—whether bystanders, victims, or sympathizers—to record and create journalism, and practice *sousveillance*—the recording of an activity from the participant's perspective.[46] Insurgents use video of their own acts for publicity and recruitment purposes. Security agencies employ public cameras that can identify license plates from great distances, and satellite imaging can be precise enough to

identify individuals. Most importantly, all of the information gathered by these various actors may potentially be distributed in real time, around the globe.

The use of existing information and communications infrastructure by non-state actors in conflict demonstrates that the rising tide of information and communications access involves more than just abstract numbers. The culture around the new media technologies of linking and sharing information from local to global levels is growing. Information that moves through these networks can have a real impact on the course and outcome of conflict in an age when war is not only about holding territory, but about gaining public support and achieving legal status in the international arena.

Violent acts are increasingly committed with the expectation that they will be amplified, whether by those committing the act, for example through videotaping a kidnapping and killing and posting it on the Web, or by being aired on other networks—news media, blogs, and social media. Terror groups use the Internet not only for amplification of messages but for other, instrumental uses—including organizing, recruiting, sharing knowledge, expanding networks and raising funds.[48]

The ability to communicate, and to produce and receive diverse information through participatory media, is part of a struggle within conflict-prone societies to either allow for non-coercive debates and dialogue that focus on endemic weak-state problems, or equally, enable those seeking power to organize for political influence, recruitment, demonstrations, political violence, and terror. The actual process of mobilizing constituencies is nuanced and complicated. It is often the case, for instance, that belligerents will be as concerned with mobilizing their own constituents as with persuading opponents.

This idea is concisely captured by *Air Force 2025,* the U.S. Air Force report on the future of warfare: "Influence increasingly will be exerted by information more than by bombs."[49] Because states—especially weak states—do not fully maintain power by force, they need to maintain it through other influences: observation and persuasion. This is also true for insurgencies, terror groups, and citizen movements that choose nonviolent means.[50]

3. Frameworks for Media and Conflict in the Digital Age

The discord between citizens creating and disseminating media and governments aspiring to restrict, censor, and influence in conflict situations reflects the tension between informal, fast-moving information and community networks and the formal hierarchies of state power. New information networks link people together through non-state, citizen-oriented communities, challenging the concept of a ruling authority able to control and direct information flows amongst its citizens.

It is now clear that increased access to information and to the means to produce media has both positive and negative consequences in conflict situations. The question as to whether the presence of digital media networks will encourage violence or lead to peaceful solutions may be viewed as a contest. It is possible to build communications architectures that encourage dialogue and nonviolent political solutions. However, it is equally possible for digital media to increase polarization, strengthen biases, and foment violence.

Of course, violent acts witnessed, recorded, or documented after the fact do not automatically become available to the public. Technological change may increase information access in theory, but there are numerous ways to keep images and information from reaching wide distribution. These include:

- Legal, regulatory and extralegal restrictions of Internet, cellular, and broadcast media, including various kinds of censorship
- Control of physical space where violence is taking place
- Shutting down of communications and media infrastructure
- Cyberattacks on Web sites and Internet service providers
- Misinformation campaigns[51]
- Physical attacks on or harassment of those seeking to gather or disseminate information–digital media may be as vulnerable as traditional media.[52]

The political and technological questions of control and access to digital media networks exist on both national and global levels. Openness, privacy, and local control are technological and regulatory choices, not inevitable architectures. Primary concerns include:

- Who has the means to create and access information, including public access to government documents, laws about surveillance, wiretapping, and privacy of personal data?
- How do monitoring, censorship, and circumvention technologies evolve, and who uses them?
- Will there be structural changes to current communications networks that will restrict their open and generative character?

Policymakers looking to the use of media in conflict prevention and peace-building situations are only beginning to consider digital media as tools. The argument has been that many poor countries did not have a mass level of

digital media access hence community radio, international and U.N. broadcasting, and poster campaigns and newsletters were more likely to have impact. While those methods are still relevant, it is also clear that the presence of Internet and cellphones, even at a low penetration rate, can have a large effect on the flow of information in many countries.[53] There is a strong logic for integrating digital media tools into such efforts, and considering how their use differs from more traditional media technologies.

Blending the tools of traditional media with new media in the developing world is on the rise. One example is the use of FM radio to relay information from blogs and other online-only sources, linking communities with little access to elite digital media. Participatory media are proliferating in conflict zones, such as Iraq, and even exist in stateless regions. While Internet penetration remains low in much of the developing world, there is a growing movement to design Internet and telephony services for developing-world needs.[54]

The technology to access information is only one part of the story—what constitutes information is itself highly contested.

Increasingly, there is a convergence in the function of information providers, including news outlets, human rights research groups, participatory media projects, political analyses, and humanitarian organizations. Digital media technologies allow all of them to communicate directly with audiences, and thus we find bloggers providing news, humanitarian organizations providing editorials, freedom of expression groups reporting on access restrictions, human rights observers covering the front lines, and Wikipedia as both a news source and a platform for active debate over war. This convergence is especially evident in conflict zones because access to the actual conflict is still often highly restricted. Impartial, independent reporting from front lines remains rare where fighting occurs in restricted fields of military activity, rather than in the midst of civilian populations. The challenge remains obtaining accurate, reliable, first-hand accounts of fighting, and documentation of disappearances, kidnappings, beatings, and other forms of political violence and harassment.

The technology to access information is only one part of the story—what constitutes information is itself highly contested. The fight over content, spin, language, and interpretation rages across the information spectrum. Escalating from edit wars[55] on Wikipedia, hate speech on blogs, and attacks and incitement in newspaper editorials to physical attacks, intimidation, and murder, war seems to move seamlessly from information space to the real world.

3.1. Characteristics of Digital Media in Conflict

Recommendations to support independent, pluralistic, and sustainable media in post-conflict scenarios come at a time when the current business models that support existing media are under serious challenge around the world. Yet development strategies still often aim for an ideal media structure, as reflected in the target measures used by donors, such as

Freedom House's analysis of Internet freedom and the Media Sustainability Index produced by the International Research & Exchanges Board (IREX).[56] Such top-down practices, driven by theories of political and policy role of media, increasingly do not reflect the dynamic, unstable, and disruptive nature of present-day media. This dynamic has repercussions for donors and policy-makers who consider shaping and control of media part of their mandate.

Following is a set of characteristics that are designed to help describe the relationship of digital media technologies to conflict. Together, they point to a revised framework for analysis to understand how media and conflict interact.

Each characteristic is followed by a set of recommendations for working with digital media in conflict-prone societies**.** These recommendations are meant to be flexible enough to be adapted as the uses of digital media technologies change. They are intended to update and expand the frameworks and approaches taken by policymakers, governments, international organizations, media assistance groups, media-focused conflict-prevention and peace-building projects, and citizen media projects.

3.1.1. Complexity, Diversity, and Unpredictability

Conflicts in the 21st century are increasingly occurring in the midst of robust, diverse, redundant, and hard-to-control information networks and devices, and an increasing diversity of voices, interest groups, monitors, and analysts.

Digital media networks and communications channels are dynamic in form and substance, with rapidly changing media technologies, shifting economic underpinnings, changes to information and communications markets, a

Mapping conflict online: Kenya

During the conflict in Kenya in January 2008 over disputed election results, bloggers and Web-native media outlets complemented the reporting of newspapers, TV, and radio stations. When the Kenyan government restricted mass media coverage of the conflict by forbidding live broadcasts, citizen reporting filled the gaps and provided different perspectives.[1] Additionally, messages and information went out on a massive scale through peer-to-peer networks such as e-mail and SMS messaging. These messages included both eyewitness accounts of violence and calls from parties to the conflict urging others to join them.[2] A group of Kenyan bloggers set up a Web site called Ushahidi.com ("witness") that allowed anyone with a cellphone to send a text message about an incident of violence or harassment.[3] The bloggers created an *ad hoc* verification system of incidents and then mapped the incidents onto a Google Earth mashup, complete with a timeline of events – the effect of which was to put the violence in context and make much of it more comprehensible .[4]

[1] "The Kenyan 2007 elections and their aftermath: the role of media and communication," *Policy Briefing #1* (BBC World Service Trust, April 2008), http://downloads.bbc.co.uk/worldservice/trust/pdf/kenya_policy_briefing_08.pdf. Ivan Sigal, "Kenyan Media and the Futility of Restrictions," *Burning Bridge*, June 5, 2008, http://ivonotes.wordpress.com/2008/06/05/kenyan-media-and-the-futility-of-restrictions/.

[2] Joshua Goldstein and Juliana Rotich, "Digitally Networked Technology in Kenya's 2007-2008 Post-Election Crisis," *Internet & Democracy Case Study Series* (Berkman Center for Internet & Society, Harvard University, September 2008), http://cyber.law.harvard.edu/sites/cyber.law.harvard.edu/files/Goldstein&Rotich_Digitally_Networked_Technology_Kenyas_Crisis.pdf.pdf.

[3] See http://www.ushahidi.com/.

[4] The project later won the Knight-Batten Innovation Special Distinction Award, and Ushahidi is building its platform to map and record conflicts in other places.

Using digital media to organize protest: Pakistan

Cyber-conflict is often intimately linked to real-world conflict. The use of participatory media is also changing the way that terror acts and peaceful demonstrations alike are executed. Activists and terror groups not only operate with the knowledge that their actions will be amplified by media, but are also using digital media technologies to organize events and create media content about them. For instance, the Pakistani protest movement in 2007 against then-President Pervez Mush-arraf used cell networks and blogs to organize demonstrations. Mass media, blogs such as *The Emergency Times,*[1] and SMS messages amplified both the fact of demonstrations and their issues. Pakistani bloggers and activists created a handbook to instruct others on how to use digital media to organize. Titled *The Emergency Telegraph*, it identifies itself as a "booklet that hopes to fill in the vacuum created by the media blackout in Pakistan."[2] The handbook includes media contacts, tips for using digital media tools, and advice for safe communications, as well as advice about how to deal with tear gas and arrests.

[1] *The Emergency Times* blog can be found at http://pakistanmartiallaw.blogspot.com/.
[2] A copy of the booklet is available at http://www.globalvoicesonline.org/wp-content/uploads/2007/11/edition_1_rev2_high2.pdf.

huge increase in potential media producers and participants, and contests for control of the underlying networks. Media applications are likely to be unstable and quickly obsolete.

The sources of information about conflict have diversified beyond traditional news outlets and press offices. Humanitarian organizations, advocacy and rights groups, research institutes, nonprofit organizations, citizens' initiatives, and individual observers all produce and distribute information that increasingly takes on some of the roles of traditional news media, although often with different objectives and varying evidentiary standards.

Parties to conflict, whether developed-world militaries or small insurgencies, also increasingly act as direct providers of information, whether through military-run news services or psychological operations. They regard both the architecture of information production and distribution, and information itself, as part of their operational toolkit in fighting wars.

Recommendations:

- The norm of digital media is new tools, new terms, disruptive technology, experimentation, and redundancy that supplement and mesh with traditional media. Strategies should regard the dynamism of change in media technologies and resulting disruptions as a core element in planning.

- Models of engagement with the media that are based on experience may not be the most useful guidelines for approaching present and future conflicts. Frameworks and tools of analysis need to take into account the dynamic and shifting nature of media; those that do not are likely to lose their relevance.

- At the same time, predictions about the shape of future media should be approached with caution. Few of the changes that occurred in social and participatory media in the past 10 years were foreseen. In three years, the discussion may be about entirely new tools and networks.

- Currently, traditional media have at best tentative business models for the new media environment. While traditional media will likely continue to have a great deal of influence in news and information, they will only succeed by adapting new digital media technologies and network practices to their models, through a process of innovation and experimentation. The conflict prevention and peace-building field should adopt the same approach of experimentation, innovation, and flexibility with approaches to media.

- Complicated problems can require complicated solutions. Simple formulas that attempt to deal with all conflicts with a rigid framework or set of prescribed ideas are likely to fail. At the same time, digital media projects may not have established audiences and participants, and a higher rate of failure should be expected.

3.1.2. Control and Openness

Contests for control of information will be critical in the context of conflict. As the world becomes more information rich, it will be increasingly difficult for states, insurgencies, and other contenders for power in conflicts to dominate information content for populations under their authority and maintain closed, isolated societies.

The future design of developed-world information networks and their underlying regulatory structures, including issues such as new Web technologies, network neutrality, and mobile access to the Internet will greatly influence network design and tools for information access in weak and fragile states.

In active conflict, digital media applications will have more success in escaping control than old media, in the short term. However, digital media can be shut down too, and also provide states with powerful tools for surveillance and monitoring. These same applications provide states with tools to propagate their own discourse virally.

Recent attempts to restrict information flows in conflict, such as in Kenya in 2008 or Pakistan in 2007, simply encourage people to find alternative paths. Digital media information communities will not wait for states and international actors to determine political positions and stabilization strategies in conflict. While restrictions on media will continue to be possible in isolated pockets of the world, such strategies will increasingly be the exception. This is true even in most poor and fragile states.

There is no longer a clear separation between media development in individual countries and the global, networked media.

Efforts to punitively bar hate speech by shutting live broadcasts, restricting ethnic media, shutting media outlets, or otherwise controlling access to media end up hurting civil discourse as much as, if not more than, violent discourse.[57] Closing down entire cellular networks or Internet access affects not just mass media but also commerce, governance, and systems vital for the functioning of complex technology-based societies. Additionally, people violently resisting government control—especially weak governments—will be persistent in ignoring

such regulations, especially in dynamic conflict and media environments. They are likely to have the resources and the ability to find information and communications solutions and overcome attempts to restrict. Off-the grid networks, encrypted and proxy servers, and other tools available in the cat-and-mouse game of privacy versus surveillance allow the anonymity and flexibility to evade control

.

Recommendations:

- Command-and-control approaches to media are likely to fail in a networked, participatory media environment. Attempts to either restrict or dominate media flows are counterproductive in many cases, as people everywhere increasingly have diverse options for creating, receiving, and sharing information. Policy should focus on ensuring quality information and a plurality of perspectives rather than on restriction.

- Debates over whether to allow more or less media in conflict and post-conflict environments should be refocused. Increasingly, less is not an option. While there are many tools for monitoring, censoring, and removing Web-based information sources, they are not generally successful in stopping all online speech.

- Good policy will ensure that there are multiple diverse paths for civil discourse. If openness is a value that supports greater access to civic discourse and accurate information, then good policy will support the creation of open networks. Such networks will facilitate projects that concentrate on accuracy and transparency of information, that build secure, resilient and trusted networks of participants over time, and that focus on the physical security of those trying to preserve space for accurate information and civil discourse. It may be difficult to stop speech inciting violence or hate, but it is possible to provide alternatives.

- Parties to conflict, influential states, and the international community may find digital media threatening, especially in contexts of conflict mediation, peacekeeping, and post-conflict stabilization. States have great power to set ground rules for access, infrastructure, tariffs, and regulations, and to apply censorship, surveillance, and monitoring. They have the potential to restrict use and access to digital media on a large scale, by shutting Internet and cellular access. These strategies may dampen networked media use, but they do not conclusively stop it. Their application also has serious negative policy repercussions for freedom of expression, and interrupts commerce, development and governance, as the Internet and telecommunications are so intertwined with all aspects of modern life.

Parties to conflict may find digital media threatening, especially in contexts of conflict mediation, peace-keeping, and post-conflict stabilization.

3.1.3. Connections and Networks

There is no longer a clear separation between media development in individual countries and the global, networked media. Policy decisions

that affect digital media in the developed world have a large effect on much of the developing world. Local media outlets around the world increasingly have access to international news sources, whether through wire service feeds or international broadcasting such as the BBC. At the same time, local journalists with appropriate language skills often work part time for those same international agencies. Satellite broadcasting brings hundreds of global television channels to viewers around the world. Local news in many countries is also easily supplemented by access to information available through search engines and news and blog aggregators, as well as through diaspora information networks. This lack of separation is true for both policy and regulatory issues and for media networks and content.

Policy and regulatory issues. The Internet has been designed and maintained primarily by the United States; there are a few other states or international organizations with the power to shape the Internet, such as the European Union and, increasingly, China. Changes to the architecture of the Internet are primarily contingent upon decisions made in the United States and Europe. Small and weak states in conflict currently have limited ability to affect the Internet beyond their borders, but how the Internet is used does have the possibility of affecting the course of conflict.[58] For these countries, there may be neither norms nor legal mechanisms to foster dialogue or online comity; or rules and enforcement may be draconian, especially when one side in conflict is a state.

Media networks and content. The distributed nature of the Internet, widespread use of English as a global language, and wired diaspora networks mean that reporting of conflict is increasingly done from a local perspective. Local reporters work for local media outlets that can be accessed globally, and for international wire services with multinational audiences. Local bloggers, activists, citizen journalists, and think tanks, working for their own Internet-based outlets, are filtered by global search and aggregation tools for widespread distribution.[59] Parties in conflict create their own diverse media outlets, as do peacebuilding agencies, whether grass-roots international organizations or donors.

Content on digital networks easily spreads beyond the original target community. Two recent cases are the "Koran in the toilet" incident that sparked riots in Pakistan and Afghanistan, and the Danish cartoons depicting the Prophet Mohammed. Content aggregators, translation tools, and the Internet create global reach for local or community-specific information. Groups that thought they were talking only to themselves find they have a larger audience. This is not necessarily hate speech or incitement—intentional, targeted language—but a result both of incidental conflict among world views, language usage, and discourses, and of interest groups that intentionally seek to bridge discourses.

Recommendations:

- Networked media require different policy approaches with regard to state boundaries. Information and communications development policies that focus exclusively on nation-states neglect the regional and global nature of networked media, and of the impact of international satellite television.

- Project design should be prepared for the fact that conflict can be sparked by the spread of information beyond traditional audiences. Digital media tools and technology change quickly and provide tremendous opportunities for access, but human culture and social organization are

more resistant. Out of this friction come both opportunities for new information networks and new paths for rumor and incitement.

3.1.4. Digital Solutions and Human Problems

Technological change is moving faster than human and social organization. Digital media technologies are disruptive and present challenges to more traditional organizational forms that have great resilience. Existing social organizations retain power, even though new media technologies offer opportunities to conceive of different bases for social relations. Pakistani political parties and the Tamil ethnic diaspora use digital media to strengthen their networks, even as individuals within those groups take on polymorphous identities and use the Internet to represent themselves as something different.

Social norms may be changing, but even with increased ties and contacts outside of traditional information sources (community, school, vocation, religion, etc.), contextual, local news and information remain vital. What we want to know is frequently a function of where we live, what we do, what we need, whom we know.

Media outlets covering conflict have new tools and distribution routes for their journalism, but they face the same physical threats in attempting to cover conflict, as well as increased surveillance by parties to conflict. Journalists working for new media distribution face the same challenges in gathering accurate, well-sourced information. Increasing sources of information does not automatically mean a more diverse news frame.

Participatory media values are not the same as mass media values. Mass media have prized closed hierarchies of information gathering and ownership, brands, expertise, professionalism, and access to information sources. Participatory media prize congruence, accuracy, passion, community, and citizen or amateur participation. These values overlap and merge as mass media build participatory approaches into their portals and products to stay relevant, and some online media take on legacy approaches. Whether such distinctions will remain valid as media systems converge is an open question.

What we want to know is frequently a function of where we live, what we do, what we need, whom we know.

More access to information does not necessarily guarantee trust in alternative information sources, or increase dialogue between communities in conflict. New media applications may also be used to reinforce existing perceptions and harden political positions, recruit combatants and resources. And information access and dialogue does not necessarily address the root causes of conflict, such as disputes over resources, sovereignty, and rights.

Recommendations:

- Policies that articulate digital media networks as either starkly polarizing or as unifying ignore the ambiguous and often multifaceted nature of online and networked communications. The key is to identify projects that respond to specific problems

with a focus on media content, resources, relevance to the real world, and relationships within a given network.

- Existing media should not be ignored. In many places, traditional media will be relevant for many years. Rather, how to integrate different media platforms, and pay attention to technical developments that facilitate convergence should be considered.

- Media literacy in a networked digital environment includes the ability to both consume and create content online. Communities of use may be largely self-generating; projects that seek to engage communities with digital media tools should be aware of existing technological capacities and work with local communities to define their interests and motivations.

3.2 Project Design

Media assistance efforts that focus on conflict present an opportunity to design projects with digital media applications that could encourage more open communities and states, provide alternative viewpoints and venues for dialogue, and reduce control of information. For them to be effective, they need to be perceived as benevolent, impartial, transparent, and trustworthy. Ideally, they would focus on long-term relationships and on information communities that perceive a common value in facts, evidence, commentary, relationships, and accountability—precisely the elements that have driven the success of cooperative online projects such as Wikipedia.

Responsiveness and flexibility from a policy perspective are more easily achieved through the conceptualization of conflict as an ongoing process rather than as a series of discrete stages. Planning for the possibility of future conflict, especially in states where it is endemic, means proactively building networks of both professional journalists and citizen media, designing early warning and incident verification systems, monitoring projects, and making a long-term investment in supporting technical networks, education and media literacy. It also means continued support for the improvement of local media coverage, and resources to support what is most valuable and relevant in traditional journalism—investigative reporting, access to elite opinion-makers, and time and resources for focused beat reporting.

Top-down development of community and user-driven content rarely works. Particular attention should be paid to what is happening at a grass-roots, local level, as a great deal of innovation in the use of digital media tools is driven by users and citizen media projects. Some of the most interesting and innovative projects are coming out of the developing world, as people adopt networks and software applications for their own ends, as in the case of Ushahidi and Groundviews.

Given that nonprofit think tanks, humanitarian groups, and others have become information providers, they should supplement social marketing, public relations campaigns, and media relations with a focus on journalistic standards, reliability, transparency of sourcing, presentation and writing, and timeliness. These organizations need to think in terms of multiple audiences, and as primary, unmediated sources of information for different groups.[60] There is a also a need for targeted, specific digital media interventions that build systems of verification and trust, take advantage of the technical capacities, and find ways to mesh them with participatory media tactics for creating and sharing information.

How conflict drives media – a case study

The quarter-century-long conflict in Sri Lanka, which pitted ethnic Tamil separatists against the country's Sinhalese-dominated government and armed forces, may be indicative of how diversification of information sources will coincide with conflict in the 21st century. While much violent conflict occurs out of the public eye, it is becoming more common for wars to be fought in the midst of information access, even abundance. This is the case in Sri Lanka, which has a highly educated population (with literacy rates exceeding 90 percent[1]), an active civil society, a vocal if partisan media sphere, an influential and well-off diaspora, an active ICT sector, and numerous humanitarian organizations.

The extent of the resources directed to media in Sri Lanka is due not only to the characteristics of the conflict (and the 2004 tsunami) but also to significant state resources, commercial interests, and the savvy and organization of activists. Funding sources include the Sri Lankan state, international aid, diaspora groups, private foundations, and corporate social responsibility efforts. These efforts focus on both traditional and digital media, and early digital media efforts such as Tamilnet led the way for the use of online media for independent voices. Their importance has become evident in the last two years, as they have increasingly become the targets of harassment and close monitoring by the government, as well as extrajudicial attacks.[2]

Sri Lanka has a prominent government broadcaster, SLBC, and numerous private TV and radio stations and newspapers. Mass media are highly centralized, with most broadcasters based in and producing all programming out of the capital, Colombo, including terrestrial and satellite broadcasters. Regional and local media include a number of smaller regional government radio broadcasters and government-owned community radio stations,[3] as well as regional newspapers and inserts. Satellite TV is also popular, especially for Indian programming.

Internet access is growing, though still under 3 percent of the total population. Cellphone subscribers are over 6 million, roughly 30 percent of the population, and currently growing at 2 million per year.[4] However, broadband wireless, 3G cellphone networks, and numerous carriers exist, and Sri Lanka has an active and well-educated ICT sector, including both private groups and the government's Information and Communication Technology Agency, which promotes everything from e-government to rural Internet access points and telecenters.

Sri Lanka has seen the appearance of several interesting new media projects, including the SMS news service Jasmine News Wire and the citizen media Web sites Groundviews and Vikalpa.[5] There are also online versions and SMS text news services of newspapers such as *Virakasari*, and online radio and TV stations such as Thaalam FM and others. Digital media are also used to create early warning systems for information delivery in emergencies. The Peace and Conflict Timeline is a new participatory media project that tracks the war's trajectory.[6]

Sri Lanka also has an active blogging community, as well as Facebook and Twitter groups. Blog aggregators include Kottu and Achcharu.[7] Bloggers include both strong supporters of peace

processes, freedom of information, and civil society activism, and strong pro-government and military blogs, or pro-insurgency sites replete with slander and hate speech.

Additional information and reporting sources in Sri Lanka include active research centers, human rights organizations, and policy analysis organizations. Notable examples include the Centre for Policy Alternatives (CPA), University Teachers for Human Rights (Jaffna), Berghof Centre for Conflict Transformation, and the International Crisis Group. Media development projects work with all sectors of the media, and many have projects that focus on covering the conflict or providing humanitarian information: prominent local and international groups include Ya-TV, the Sri Lanka Press Institute, CPA, UNESCO, FOJO, the Free Media Movement, the International Federation of Journalists (IFJ), and Internews.

Freedom of expression groups closely track censorship, attacks on journalists, and harassment. International sources include Amnesty International's report titled *Silencing Dissent*,[8] a stream of statements by the IFJ, the South Asia Free Media Association, the Committee to Protect Journalists, International Media Support, and Reporters Without Borders. Sri Lankan sources include the Free Media Movement, the citizen journalism Web site Groundviews, and the Sri Lanka Press Institute.

In sum, these outlets, both local and international, constitute extensive, well-conceived, and sometimes well-financed efforts to create or maintain space for dialogue and freedom of expression, as well as efforts to accurately document the war.
Digital media has also been incorporated as specific aspects of strategy by belligerents.[9] Tamilnet, for instance, is not only a source of alternative information, but consciously uses a format and language that follows that of mainstream news services. The effect of this strategy is to both inform and mobilize diaspora and to influence national and international coverage. References to human rights principles are a particular feature that illustrates this approach. Tamilnet's bias is in its selection of stories, not in its rhetoric—which is different from many other conflict-diaspora sources. Much of its strength comes from the discipline of the separatist movement itself. Their networks are extraordinary, and the speed of information beats all others.
This is not just a case of breaking stories because of better access to the rebels' activities, though that is generally a strong factor. It is an application of new media that links with the dynamics and structure of the conflict itself. The positioning is precise: Tamilnet content is not necessarily pro-rebel, although in political impact it may well be. Instead, it is pro-Tamil nationalist, which gives much room for engagement with debate and claims for media legitimacy**.**

The Sri Lankan government seems to have learned from this. Defense.lk is its response, not only as an alternative to Tamilnet, but also dovetailing with repressive measures on conventional media. The government has its version out there, and can use that as part of exerting pressure for conventional media to carry defense.lk stories - or to confirm other stories through its Media Center for National Security. Digital media technologies allow the government to pursue this strategy without having to set up a 'defense' radio station, newspaper, or news service - and to avoid the kind of image such a defense outlet would create. Media freedom advocates would

protest that; they do not protest military websites. The adoption of digital technology allows belligerents to increase and expand information and conflict strategies within existing institutions.

The Sri Lankan example suggests that the exigencies of a conflict spur both media and various nonprofit and civil society groups to fill information gaps, or to find solutions to deal with lack of physical access to conflict zones, political violence, surveillance, and censorship. The notion that conflict leads to entrepreneurial and technological change has been put forth by others. Ted Okada of Microsoft Humanitarian Systems, for instance, describes the work of his unit in conflict and complex humanitarian emergencies as a testing ground for new technologies that have applications both in emergencies and everyday contexts. Software tools such as Groove and collaborations with media outlets to build communications networks, for instance in Afghanistan or during earthquake relief efforts in Kashmir, have resulted.[10]

[1] United Nations Development Programme, "Human development index," *Human Development Report 2007/2008* (New York: Palgrave MacMillan, 2007), http://hdr.undp.org/en/media/hdr_20072008_en_indicator_tables.pdf, 230.
[2] "Mervyn Silva publicly admits to killing Lasantha Wickrematunge and grievously attacking another journalist," Groundviews, July 13, 2009, http://www.groundviews.org/2009/07/13/mervyn-silva-publicly-admits-to-killing-lasantha-wickrematunge-and-grievously-attacking-another-journalist/. This story also provides links to the ongoing saga of the blocking of the online news outlet Lankanewsweb.com.
[3] Examples include Uva community radio, Ruhuna FM in Matara, Pirai FM, in Ampara, and Anoor FM in Puttalam.
[4] "Airtel goes to Sri Lanka," *India Times*, December 28, 2007, http://infotech.indiatimes.com/articleshow/2658484.cms
[5] See Jasmine News Wire, http://www.jnw.lk/english, Groundviews, http://www.groundviews.org, Vikalpa YouTube channel, http://www.youtube.com/vikalpasl.
[6] For more information on the Peace and Conflict Timeline, see http://pact.lk/.
[7] See http://www.kottu.org, http://www.achcharu.org.
[8] See Amnesty International, *Sri Lanka: Silencing Dissent*, February 7, 2008, http://www.amnestyusa.org/document.php?id=ENGASA370012008&lang=e.
[9] Matt Abud, personal correspondence with author, September 2008.
[10] Jon Udell, "A conversation with Ted Okada about the work of Microsoft Humanitarian Systems," *Strategies for Internet Citizens* blog, July 12, 2007, http://blog.jonudell.net/2007/07/12/a-conversation-with-ted-okada-about-the-work-of-microsoft-humanitarian-systems/. Udell quotes Okada: "We've been working with an NGO that was using Groove to negotiate between the Tamil Tigers and the Sinhalese government in Sri Lanka. The two parties wouldn't sit in the same room, but they did agree to use Groove to arbitrate the conflict."

Endnotes

[1] Jay W. Kelley, "Executive Summary," *Air Force 2025*, 2025 Support Office, Air University (Air University Press, August 1996), http://csat.au.af.mil/2025/e_s.pdf, 3. In the words of the report, *2025* is "a study designed to comply with a directive from the chief of staff of the Air Force to examine the concepts, capabilities, and technologies the United States will require to remain the dominant air and space force in the future." Please note that the views expressed in that report do not reflect the official policy or position of the U.S. Air Force, Department of Defense, or United States government.

[2] Catherine Morris, "Media, Conflict, and Society," *Conflict Transformation and Peacebuilding: A Selected Bibliography* (Peacemakers Trust) http://www.peacemakers.ca/bibliography/bib31media.html. Ross Howard et al., eds., *"Selected Bibliography," The Power of the Media: A Handbook for Peacebuilders* European Centre for Conflict Prevention (Global Partnership for the Prevention of Armed Conflict), http://www.gppac.org/documents/Media_book_nieuw/x2_bibliography.htm, Annex 2.

[3] Gabriel Weimann, "www.terror.net: How Modern Terrorism Uses the Internet," *Special Report 116* (United States Institute of Peace, March 2004), http://www.usip.org/files/resources/sr116.pdf. See, for example, Kavkaz Center, "Russian Reaction," April 21, 2006, http://kavkazcenter.info/eng/content/2006/04/21/4617.shtml.

[4] Note there are both social/cultural and technical aspects to these efforts. See www.virage.com for an example of a company, Autonomy Virage, which is designed to capitalize on security and surveillance needs using new media tools such as translation software, face recognition, remote video, and rich media searches.

[5] Dan Gillmor, "The Former Audience Joins the Party," *We the Media* (Authorama Public Domain Books, 2004) http://www.authorama.com/we-the-media-8.html.

[6] There is an involved debate about the nature and influence of citizen media in public life. Jan Shaffer's "Citizen Media: Fad or the Future of News?" (J-Lab, The Institute for Interactive Journalism, 2007) looks at citizen media in the U.S. and is a good primer: http://www.kcnn.org/research/citizen_media_report.

[7] For a detailed, up-to-date explanation and typology of digital media forms and practice, see Persephone Miel and Robert Faris, "News and Information as Digital Media Come of Age" (Berkman Center for Internet & Society, Harvard University, December 2008), http://cyber.law.harvard.edu/sites/cyber.law.harvard.edu/files/Overview_MR.pdf.

[8] For data on attacks on journalists in conflict zones, see Reporters Sans Frontières, www.rsf.org, the Committee to Protect Journalists, www.cpj.org, and the International Federation of Journalists, www.ifj.org.

[9] For an entry into the ICT for development community, see the Development Gateway, http://www.developmentgateway.org/.

[10] For a comprehensive analysis of the role of media in conflict, and its potential use as a tool for conflict resolution and peace, see Ross Howard, *An Operational Framework for Media and Peacebuilding* (Institute for Media, Policy, and Civil Society, January 2002), http://reliefweb.int/rw/lib.nsf/db900sid/JDAB-5P3HAB/$file/impacs-gender-03.pdf?openelement. For a discussion of media in conflict-prone settings, see Mark Frohardt and Jonathan Temin, "The Use and Abuse of Media in Vulnerable Societies," *Special Report 110* (United States Institute of

Peace, 2003), http://www.usip.org/files/resources/sr110.pdf.

[11] U.S. government and private funding for media development, broadly speaking, reached a total of more than $600 million during the 1990s, and has increased dramatically in recent years due to interventions in Iraq, Afghanistan, and throughout the Middle East. In 2006, the Bush administration requested $1.6 billion for projects focusing on democratic change. Between 2003 and 2005, the U.S. government spent $200 million on media interventions in Iraq alone. See: Ellen Hume, *The Media Missionaries: American Support for Journalism Excellence and Press Freedom Around the Globe*, (John S. and James L. Knight Foundation, 2004), http://www.ellenhume.com/articles/missionaries.pdf; David Rohde, *'All Successful Democracies Need Freedom of Speech': American Efforts to Create a Vibrant Free Press in Iraq and Afghanistan*, Working Paper Series #2005-6 (Joan Shorenstein Center for Press, Politics, and Public Policy, spring 2005), http://www.hks.harvard.edu/presspol/publications/papers/working_papers/2005_06_rohde.pdf, 1. Non-U.S. government funding for media development has been estimated to be up to $1billion per year. See: Lee Becker and Tudor Vlad, *Non-US Funders of Media Assistance Projects* (James M. Cox Center for International Mass Communication Training and Research, University of Georgia, December 15, 2005), 1. These figures do not include funding for international broadcasting efforts such as VOA, RFE/RL, BBC, and Deutsche Welle.

[12] Greg Bruno, *Countering the Taliban's Message in Afghanistan and Pakistan* (Council on Foreign Relations, May 11, 2009), http://www.cfr.org/publication/19257.

[13] James Putzel and Joost van der Zwan, "Why Templates for Media Development do not work in Crisis States," (Crisis States Research Centre, London School of Economics and Political Science, March 2005), http://www.crisisstates.com/download/publicity/crisis_report_low.res.pdf. Ashraf Ghani, Clare Lockhart, and Michael Carnahan, "Closing the Sovereignty Gap: an Approach to State-Building" (Overseas Development Institute, September 2005), http://www.odi.org.uk/resources/download/1819.pdf.

[14] Morris, "Media, Conflict, and Society;" Howard et al., eds., *"Selected Bibliography."*

[15] Daniel Kaufmann, *Media Governance, and Development. Challenging Convention: An Empirical Perspective* (The World Bank Institute), http://www.worldbank.org/wbi/governance/pdf/press_freedom_day_colombo_5_06.pdf. For data, Kaufmann and others rely on indices of media freedom and enabling environments. These indices, from Freedom House, IREX, CPJ, and RSF, still predominantly focus on traditional media. For a discussion of different indices, see Lee Becker, Tudor Vlad, and Nancy Nusser, "Media Freedom: Conceptualizing and Operationalizing the Outcome of Media Democratization" (James M. Cox Center for International Mass Communication Training & Research, University of Georgia, July 2004), http://www.grady.uga.edu/coxcenter/PDFs/Media%20Freedom.pdf.

[16] For a recent, comprehensive study of tools and strategies for approaching media in conflict, see Shira Loewenberg and Bent Norby Bond, eds., *Media in Conflict Prevention and Peacebuilding Strategies* (Deutsche Welle Media Services and Bonn Network, November 2007), http://www.dw-gmf.de/download/Media_In_Conflict_Prevention.pdf.

[17] For a discussion of media and stages of conflict, see Howard, *An Operational Framework for Media and Peacebuilding*. For a discussion

of media and communications strategies in fragile states, see Shanthi Kalathil, with John Langlois and Adam Kaplan, *Towards a New Model: Media and Communication in Post-Conflict and Fragile States* (World Bank, Communications for Governance & Accountability Program, September 2008), http://siteresources.worldbank.org/INTGOVACC/Resources/ComGAPBriefs_Post-Conflict_web0908.pdf.

[18] Ibid.

[19] David Weinberger, *The Web Difference* (Berkman Center for Internet & Society, Harvard University, March 2008), http://cyber.law.harvard.edu/sites/cyber.law.harvard.edu/files/Weinberger_Abundance.pdf.

[20] David Bolter and Richard Grusin, *Remediation: Understanding New Media* (Cambridge, Massachusetts: MIT Press: 2000).

[21] Rebecca Mackinnon, *The World-Wide Conversation: Online participatory media and international news*, Working Paper Series #2004-2 (Joan Shorenstein Center on Press, Politics, and Public Policy, 2004), http://cyber.law.harvard.edu/blogs/gems/techjournalism/WORLDWIDECONVERSATION.pdf, 10. Mackinnon comments that "interactive participatory media … enables citizens in different countries to converse directly with one another—without ever having met each other, and without the mediating help of governments or commercial media;

[22] Ibid., 40-41.

[23] Ibid., 42.

[24] Rates of Internet and cellular phone penetration vary by country based on commercial environment, government investment strategies, and social and economic conditions. As an example. Chinese Internet penetration is much more robust than India's thanks to government investment and tariff rates, the country's increasingly urban character, and literacy rates.

[25] Chris Anderson, *The Long Tail* blog presentation, based on statistics from Technorati, www.technorati.com. See www.thelongtail.com.

[26] See, for example, *The Economist*, "Who Killed the Newspaper?" August 24, 2006, http://www.economist.com/opinion/displayStory.cfm?Story_ID=7830218; and *The Economist*, "More Media, Less News," August 24, 2006, http://www.economist.com/opinion/displaystory.cfm?story_id=7827135.

[27] Journalism.org, "The Changing Newsroom: Changing Content" (Pew Research Center's Project for Excellence in Journalism, July 21, 2008), http://journalism.org/node/11963.

[28] Ibid.

[29] Eric Hobsbawm, *On Empire: America, War, and Global Supremacy* (New York: Pantheon Books, 2008), 15-19: "Only 5 percent of those who died in World War I were civilians; in World War II the figure increased to 66 percent. It is generally supposed that 80 to 90 percent of those affected by war today are civilians." For similar data, see also Thomas G. Weiss and Peter J. Hoffman, "The Fog of Humanitarianism," *Journal of Intervention and Statebuilding*, Vol. 1, Issue 1, March 2007, http://www.informaworld.com/smpp/content~content=a770797370~db=jour~order=page, 47-65: "In the new wars of the 1990s, however, fatalities of combatants to non-combatants were 1:9. Moreover, this proportion of civilian-to-soldier fatalities was widespread; this dynamic of new wars was found in 90 percent of all conflicts in the decade."

[30] Human Security Report Project, "Figure 1.1, Number of state-based armed conflicts by type,

1946-2005," *Human Security Brief 2006*, http://www.humansecuritybrief.info/2006.
Human Security Centre, "Figure 1.1," *The Human Security Brief 2006*, http://www.humansecuritybrief.info/2006/figures/Figure1.1.pdf.

[31] Hobsbawm, *On Empire*, 48.

[32] Weiss and Hoffman. "The Fog of Humanitarianism." A "refugee warrior" is someone who takes on refugee status, and then becomes part of a militia, likely organized out of or near official refugee camps.

[33] Hobsbawm, *On Empire*, 27. See also Ashraf Ghani and Clare Lockhart, *Fixing Failed States* (New York: Oxford University Press, 2008); as well as numerous articles available at the Centre for the Study of Civil War, PRIO, http://www.prio.no/CSCW/.

[34] Weiss and Hoffman. "The Fog of Humanitarianism." See also Mary Kaldor, *New and Old Wars: Organized Violence in a Global Era* (Stanford, CA: Stanford University Press, 1999).

[35] See Susan E. Rice and Stewart Patrick, *Index of State Weakness in the Developing World* (Washington, D.C.: The Brookings Institution, 2008), http://www.brookings.edu/reports/2008/02_weak_states_index.aspx; World Bank, *The LICUS Index*, http://www.worldbank.org/ieg/licus/licus06_map.html; State Failure: The Political Instability Task Force "Internal Wars and Failures of Governance, 1955-2007" (George Mason University), http://globalpolicy.gmu.edu/pitf/; Minorities at Risk, "The Minorities at Risk Project" (University of Maryland), http://www.cidcm.umd.edu/mar/; Hobsbawm, *On Empire*; Ghani and Lockhart, *Fixing Failed States*; Paul Collier, *The Bottom Billion,* (New York: Oxford University Press, 2008).

[36] *BusinessWeek*, "Upwardly Mobile in Africa," September 24, 2007, http://www.businessweek.com/magazine/content/07_39/b4051054.htm.

[37] Mark Dean, "Mobile Phone, Not PC, Bridges Digital Gap," m-Govworld, http://www.mgovworld.org/topstory/mobile-phone-not-pc-bridges-digital-gap.

[38] Kas Kalba, "The Adoption of Mobile Phones in Emerging Markets: Global Diffusion and Rural Challenge," *International Journal of Communication*, 2 (2008), http://ijoc.org/ojs/index.php/ijoc/article/viewFile/216/179, 631-661.

[39] See numerous digital divide initiatives, such as Digital Divide.org, http://www.digitaldivide.org/dd/index.html; the 50x15 initiative, http://www.50x15.com/en-us/default.aspx?si=1; and the Digital World Forum, http://www.digitalworldforum.eu/.

[40] James F. Moore, "The Second Superpower Rears Its Beautiful Head" (Berkman Center for Internet & Society, Harvard University, http://extremedemocracy.com/chapters/Chapter%20Two-Moore.pdf; Ethan Zuckerman, "Making Room for the Third World in the Second Superpower" (Berkman Center, March 2, 2004), http://h2odev.law.harvard.edu/ezuckerman/sstw.html.

[41] 50x15 initiative, "Can the Digital Divide be Eliminated?" http://50x15.com/en-us/internet_usage.aspx; Kalba, "The Adoption of Mobile Phones in Emerging Markets," 2.

[42] Gaurav Mishra, "Growth in Media Penetration of Social Media Usage in BRIC Countries," *How Global Values Shape Communications Technologies* (Blog), https://digitalcommons.georgetown.edu/blogs/isdyahoofellow/growth-in-social-media-usage-penetration-in-bric-countries;. David Lazer, *Complexity and Social*

Networks Blog (The Institute for Quantitative Social Science, Harvard University), http://www.iq.harvard.edu/blog/netgov/2007/01/mobile_phones_in_the_developing_world_part_2.html; International Telecommunication Union, "Global Trends in Telecommunications," http://www.itu.int/itunews/manager/display.asp?lang=en&year=2007&issue=07&ipage=Telecom-trends&ext=html.

[43] *Cellular-News*, "Telecoms Flourish in Strife-Torn Somalia," April 15, 2008, http://www.cellular-news.com/story/30532.php. A large diaspora, and no government or regulatory regime, has in the short term meant low rates and fast roll-out of new networks.

[44] Internet World Stats, "Afghanistan," http://www.internetworldstats.com/asia/af.htm. Note the Opennet Initiative reports a much lower Internet penetration of just 30,000 users, based on the International Telecommunication Union's World Telecommunication Indicators of 2006, http://opennet.net/research/profiles/afghanistan#footnote5_3y8loqb. According to the Afghan Ministry of Communications and Information Technology, Afghanistan's Internet access has primarily been via VSAT connections, but an optical fiber Internet backbone covering over 3000 km is being constructed to provide broadband Internet and digital telephony: http://www.mcit.gov.af/Documents/RunningProjects/Fiber.pdf.

[45] Note that conflict can be both a driver of increased communications, such as the servicing of diaspora communities, and decreased access, as with Afghanistan under the Taliban.

[46] See, for example, *El Faro*, http://www.elfaro.net. *El Faro*, the oldest and sole online-only newspaper in El Salvador, faces an ongoing struggle to maintain a steady stream of revenue after nearly a decade of operation. Carlos Dada (editor, *El Faro*), interview with the author, March 2008.

[47] "Sousveillance" is defined as inverse surveillance—the recording of an activity from the participant's perspective. It typically entails a small portable or wearable recording device. See Steve Mann, Jason Nolan, and Barry Wellman, "Sousveillance: Inventing and Using Wearable Computing Devices for Data Collection in Surveillance Environments," *Surveillance & Society* 1, no. 3, http://wearcam.org/sousveillance.pdf, 331-355.

[48] Gabriel Weimann, Terror on the Internet: The New Arena, The New Challenges (Washington D.C.: U.S. Institute of Peace Press, 2006).

[49] Kelley, *Air Force 2025*.

[50] "2025" comments further on the future of warfare: "In 2025 most major battles among advanced postindustrial societies may not be to capture territory…More than likely, the major battles among these societies will occur in space or cyberspace. Those who can control the flow of information will be advantaged. It is not information itself which is important but the architecture of and infrastructure for its collection, processing, and distribution which will be critical." Kelley, *Air Force 2025*, 8.

[51] Misinformation and disinformation on the Internet is difficult to track quantitatively. A column in *Advertising Age* reports that "19% of the 252 chief marketing officers and marketing directors [in the U.S.] surveyed said their organizations had bought advertising in return for a news story." If the U.S. online media market, with strong codes of ethics and professionalism has been penetrated by corruption to this extent, developing world countries are likely to be much worse. See Michael Bush, "Just So You Know, No One Paid for This Article," *Advertis-*

ing Age (August 4, 2008), http://adage.com/abstract.php?article_id=130079.

[52] There are, however, differences. Traditional media are likely to have more resources to protect their journalists on the battlefield or in court; at the same time, citizens and other nontraditional reporters using digital media are more likely to make use of anonymity or pseudonymity to shield themselves from post-publication repercussions.

[53] While not proven empirically, some variation of the two-step flow theory of information influence appears to be at work. See Paul F. Lazarsfeld, Bernard Berelson, and Hazel Gaudet, *The People's Choice: How the Voter Makes Up His Mind in a Presidential Campaign* (New York: Columbia University Press, 1994); and Gabriel Weimann, "Is There a Two-step Flow of Agenda Setting?" *International Journal of Public Opinion*, 6, no. 4 (1994): 323.

[54] For an example of such services, see Kubatana.net's Freedom Fone project http://www.kubatana.net/html/ff/ff_cont.asp.

[55] See The Sri Lanka Reconciliation page on Wikipedia for an example of edit wars: http://en.wikipedia.org/wiki/Wikipedia:WikiProject_Sri_Lanka_Reconciliation.

[56] See IREX's Media Sustainability Index, http://www.irex.org/msi/index.asp.

[57] Here the author is not referring to codes of conduct for journalists or other projects that support civil discourse. Such projects can be useful in the right context, though they have little effect on non-professional communications and information providers, or parties to conflict. Additionally, the value of restricting broadcast communications as a tool to control hate speech may be over-emphasized. Hate speech is generally most devastating when tied to state authority that gives people impunity to act, as in the Rwandan genocide. See Sandra Coliver, ed., *Striking a Balance: Hate Speech, Freedom of Expression and Non-Discrimination* (London: Article 19, International Centre Against Censorship, 1992); and Coliver, *Broadcasting Genocide: Censorship, Propaganda & State-Sponsored Violence in Rwanda 1990-1994* (London: Article 19, 1996).

[58] Blocking and filtering of specific Web sites can disrupt global access, as was the case with Pakistan's block of YouTube in 2008. BBC News, "Pakistan Lifts the Ban on YouTube," February 28, 2008, http://news.bbc.co.uk/2/hi/technology/7262071.stm.

[59] "The means of filtering data are being produced within the networked information economy using peer production and the coordinate patterns of nonproprietary production more generally … offer[s] a genuinely distinct approach toward presenting autonomous individuals with a choice." Yochai Benkler, *The Wealth of Networks* (New Haven: Yale University Press, 2006), http://cyber.law.harvard.edu/wealth_of_networks/Download_PDFs_of_the_book, 171-72.

[60] Increasingly, they are. The Center For Global Communication Studies (CGCS) at the Annenberg School for Communication at the University of Pennsylvania and the Stanhope Centre for Communication Policy Research have held two workshops in 2008 and 2009 on the theme of the "changing roles that NGOs now play in gathering, packaging, and delivering international news," at which humanitarian and human rights organizations discuss options for unmediated contact with audiences and the use of digital media tools. Stanhope Centre, *NGOs as Gatekeepers* (September 19, 2008), http://sharepoint.asc.upenn.edu/sites/ngo/default.aspx.

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