Center for American Progress

New Tools for Old Traumas

Using 21st Century Technologies to Combat Human Rights Atrocities

Sarah K. Dreier and William F. Schulz   October 2009

Introduction and summary

Steady increases in technological sophistication over the past 10 to 20 years have helped millions of people come a bit closer to realizing social and economic rights such as the rights to food, clothing, housing, and medical care. These technological advances are also having a major impact on the struggle for civil and political rights.

The rapid expansion of computing and Internet capacities, for example, has increased information flows, making them more sophisticated, faster, and cheaper than ever before. That in turn has allowed governments, activists, and citizens to gather unprecedented amounts of information about human rights violations and disseminate it widely—and instantly—around the globe. Cell phones with photo capabilities convey images of human rights violations at a moment's notice. Internet social networking tools enable activists to connect with one another and with sympathetic audiences to build worldwide networks for change. Electronic data analysis tools allow for vast amounts of information about human rights crimes to be collected and analyzed, helping legal teams verify and synthesize evidence that would otherwise be too scattered and voluminous to be useful in a court of law. Satellite imagery is now so precise that it can reveal damage to individual village infrastructures at meter-scale resolution. And advanced DNA forensic techniques can help identify hitherto anonymous victims hidden in mass graves.

Yet there are still significant barriers for using many of these technologies to promote a human rights agenda. One is simply that many actors lack necessary access to the existing tools. Satellite imagery is expensive and logistically difficult for human rights organizations to come by. Authoritarian regimes around the world continue to restrict comprehensive Internet service, block cell phone service, and prohibit cryptography software that would safeguard reports of abuses and protect the identities of witnesses who provide that politically sensitive information. There is still a notable "digital divide" between privileged countries and the developing world, leaving huge expanses without reliable Internet or cell phone service infrastructures.[5] And U.S. government agencies are not well organized to utilize these technologies themselves for human rights purposes or to help NGOs or local communities do so.

There are several key steps the U.S. government can take to encourage the application of new technologies to stop human rights abuses, including:

- The White House Office of Science and Technology Policy can sponsor an initiative on technology and human rights.
- The President's Council of Advisors on Science and Technology can incorporate human rights commitments into its agenda.
- Appropriate government agencies can facilitate new public-private partnerships between federal agencies and corporations to advance human rights.
- Congress and the administration can increase funding for scientific research and technology development that link to human rights.
- The National Science Foundation can require human rights Impact Statements in appropriate NSF grant proposals.

There are also a host of specific things that the U.S. government, companies, and NGOs can do to bolster and expand existing applications of science and technology in the human rights arena.

Satellite imagery: High-resolution satellite images provide evidence of destroyed villages, mass graves, and secret prison camps. Advocates and international legal institutions can use these images to place political and legal pressure on regimes responsible for such crimes. The U.S. government can increase the effectiveness of satellite imagery to document abuses by updating publicly available mapping databases, increasing NGO access to commercial satellite imagery, and strengthening cross-agency partnerships.

Databases and document management: Advanced database software systems allow victims, activists, and local NGOs around the world to upload copious amounts of data that document human rights abuses securely and then sort and analyze it to quantify broad trends that are meaningful in a court of law. The United States can help make these tools more readily available to local actors by placing international pressure on authoritarian regimes to lift restrictions on cryptography.

Medical forensics: DNA and other medical forensic techniques can provide essential information about the identities and causes of death of victims of human rights crimes. The U.S. government can support important fact-finding efforts around the world by committing not to obstruct such inquiries—and, indeed, to help advance them—no matter who is the perpetrator

Social networking and other information and communication technologies: Cell phones, laptops, and Internet social networking tools have become essential vehicles for advancing free speech, reporting human rights abuses, and distributing health care and

other life-sustaining information. The U.S. government and U.S. businesses can dedicate resources to increasing wireless communication coverage and access to electronics hardware and software around the world. The U.S. government can also support U.S.-based Internet service providers in resisting censorship practices in authoritarian regimes.

As new technologies are discovered, new human rights applications will emerge. If the U.S. government is to be the global human rights leader its citizens want it to be, it will need to insure that human rights are a principal beneficiary of the development of cutting-edge innovations.

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