Preface

Over a decade ago, The Honourable Lloyd Axworthy, the then Minister for Foreign Affairs for Canada, wrote in *Human Rights and the Internet* (Hick et al., 2000) that information and communications technology (ICT) had enormous potential to move the human rights agenda forward. He noted that the world had already glimpsed the possibilities and had begun to take some first, small steps, and that with further imagination and ingenuity the technology would be transformed into the new millennium's talking stick. The intervening years have seen plenty of the innovation that Lloyd Axworthy had hoped for, and as a result ICTs have helped enormously to move the promotion and protection of human rights forward. They have transformed the capacity of the human rights community to highlight human rights abuse and to advocate for causes and victims of oppression. They have made it easier to access and share information, to facilitate human rights data aggregation and analysis, to offer new tactical approaches to campaigning, and to precipitate real-world activities ranging from local demonstrations to intergovernmental agency lobbying. They have enabled global participation, and given local actors international visibility.

Human Rights and Information Communication Technologies: Trends and Consequences of Use provides a current examination of policy, practice, and theory relating to human rights and information, communications, and technology. The only previous comprehensive book on the topic, *Human Rights and the Internet*, is now more than 10 years old. Others have dealt with some elements of the subject matter, but have tended to focus on specific issues rather than the global picture. This volume provides the first comprehensive review of the topic and the exponential changes that have occurred through the last decade.

THE POTENTIAL OF ICTS FOR THE HUMAN RIGHTS COMMUNITY

In 2000 there was no YouTube for video sharing. Social networking with Facebook or Twitter was still half a decade away, blogging had not yet become mainstream, web mashups were non-existent, and wireless devices were still only emerging technologies. The World Wide Web was still relatively young at that time, and was all about read-only content and hyperlinked Web pages designed to be read by humans. The bursting of the dot com bubble in 2001 led many people to believe that this Web was overhyped, but organisations like O'Reilly Media (formerly O'Reilly & Associates) had a different view. They recognised that the Web was becoming more important than ever, with exciting new applications and sites popping up with surprising regularity (O'Reilly, 2005). To highlight these innovations they organised a conference in 2004 at which the term Web 2.0 was born (see Musser et al., 2006).

Web 2.0 applications that facilitate participatory online information sharing and collaboration have transformed the human rights community. Blogging in particular has become a vitally important tool for individuals and organisations that want to keep the public or the human rights community informed about human rights issues. Very often, the first people to present evidence of human rights violations publicly nowadays are "front-line" bloggers who are either witnessing and documenting the violations themselves or posting someone else's information. Aggregation bloggers like Global Voices Online (http://globalvoicesonline.org) amplify this information in a manner that makes it more accessible. International human rights NGOs and libraries also publish and translate selected blogs, and sometimes editorialise what they consider to be the "good sources" (Collins, 2007).

The value of Twitter, Facebook, YouTube, and other social media tools of the Web 2.0 era was demonstrated during the pro-democracy protests in Iran in June 2009 and in the Arab Spring uprisings in Tunisia and Egypt in January 2011. Real-time reports on what was happening on the streets went out on these social networks, as did calls to rally. Poignant images of suffering – a video recording of the death of Neda Agha-Soltan who was shot on her way to the election protests in Iran, or photographs of Mohamed Bouazizi, a street vendor who burned himself to death to protest at harassment by the Tunisian authorities - were seen by millions of people around the world.

Today the Web is used by large groups of people to create collective work whose value far exceeds that provided by any of the individual participants. In 2009, Tim O'Reilly and John Battelle wrote that it

... is no longer a collection of static pages of HTML that describe something in the world. Increasingly, the Web is the world—everything and everyone in the world casts an "information shadow," an aura of data which, when captured and processed intelligently, offers extraordinary opportunity and mind-bending implications (O'Reilly and Battelle, 2009).

We are now in the era of Web 3.0, which is all about personalisation, intelligent searching, and the Semantic Web. The latter links up information on a global scale and has the potential to provide powerful data organisation and query capabilities. These enable machines to understand the meaning of information on the Web through the addition of machine-readable metadata about pages and how they are related to each other. Resources can be aggregated, shared, and accessed from many different places, and users can choose the appropriate presentation for the tasks they need to accomplish (Hendler and Golbeck, 2008). As a result we are crossing into what Gruber (2008) calls a new learning paradigm which offers a qualitative change in the way people think of interacting on the web. With Web 2.0, interaction treats the Web as an information source and we learn by browsing, searching, and monitoring it. But with Web 3.0

"the web will be understood as an active human-computer system, and we will learn by telling it what we are interested in, asking it what we collectively know, and using it to apply our collective knowledge to address our collective needs." (Gruber, 2008, p.12)

An important factor in achieving this is to be able to draw on domain knowledge in areas where searches are difficult (Hendler and Golbeck, 2008). One of the key challenges, therefore, for the human rights community, is to bring human rights experts, information scientists, and technologists together in order to ensure that the necessary semantic linkages exists between the vast array of human rights-related information that is being published online.

THE OTHER SIDE OF THE COIN

In *The Net Delusion*, Evgeny Morozov argues that "Internet freedom" is an illusion and that technology has failed to help protect people's rights. He claims that new media will not bring democracy and freedom, but the entrenchment of authoritarian regimes (Morozov, 2011).

There are plenty of reasons why human rights workers and activists often struggle to take advantage of ICTs. For a start, some places are socially, economically or politically unfavourable for their usage. This may be a consequence of the digital divide, a concept that reflects inequalities derived from the digital environment but which is also linked to other socio-economic inequities (Barzilai-Nahon et al., 2009). It may also be because their government takes action to deny activists and human rights defenders, and even unhappy citizens, access to ICT-enabled communications channels. Take Burma in 2007 for example. The Internet was initially used to spread news of a revolt by Buddhist monks, and to inform the world about the brutal response by the ruling military junta. But because Burmese bloggers and citizen journalists were so effective in spreading news of the revolt internationally the government took drastic action. It controlled the only ISPs in the country and was therefore able to shut them down, thereby severing the flow of information in and out of the country via the Internet. Richard Hayman summarised the effect as follows:

At the beginning of the revolution, information communication technology (ICT) and Internet connections helped prevent abuses; once disconnected, images and documentation no longer escaped, and so the junta was able to continue its attack without international oversight. The revolution ended, and little has changed in the country (Hayman, 2009, p.50)

Inequalities exist throughout society on both global and local levels, and technologies like the Internet can amplify them rather than eliminate them (Manji et al., 2000; Agre, 2002). While people living in the Global North may feel they are part of a global networked society, with the ability to broadcast at any time to an ever-increasing audience, almost 70% of the world's population do not yet have access to the Internet (Internet World Stats, 2011). And of the 30% that do have access, not everybody can create their own content. This could be because of unreliable connectivity, inadequate fulfilment of the right to education, social stratifications and inequalities, language, or other barriers to Internet adoption and appropriation. For human rights defenders who draw attention to the illicit actions of a state there are additional difficulties. Political censorship and surveillance are commonplace across the world, as can be seen from the reports of international non-governmental organisations (NGOs) like Reporters without Borders and Human Rights Watch. As a result, human rights workers can put themselves or others at risk by posting information online. Human rights defenders generally take precautions, like using encryption and anonymous web surfing tools to prevent surveillance. But governmental efforts to control the Internet are becoming more subtle, flexible, and offensive in character (Deibert and Rohozinski, 2010). As a case in point, the Association for Women's Rights in Development (AWID) reported recently that it is becoming increasingly evident that women human rights defenders using ICTs for activism and advocacy are facing challenges in both their personal and public spaces (Tolmay, 2011). They say

The widespread use of ICTs to defend human and women's rights is cause for concern for repressive governments who are complicit in routinely violating these rights. Attempts by authorities to constrain WHRDs [women human rights defenders] from using ICTs to their full potential take a range of forms,

including interference with Internet services, use of legal restrictions, email surveillance and monitoring, computer confiscation, virus and spyware attacks as well as harassment, intimidation and reprisals (Tolmay, 2011)

The political importance of new media is also reflected in the number of bloggers arrested around the world for exposing corruption or human rights violations, for posting comments about political figures or public policy, or for using online fora to organise or cover social protest. These arrests tend to increase during times of political uncertainty, such as around general elections or during large scale protests (Howard and World Information Access Project, 2008), and in many cases they can lead to lengthy prison sentences. At the end of 2010 Reporters Without Borders had records of 112 bloggers, webmasters, cyber-dissidents, and other netizens imprisoned around the world, some of which were sentenced to over ten years in prison (Reporters Without Borders, 2011). The majority of these were in China, but they also included cases from Vietnam, Iran, Syria, Saudi Arabia, Burma, Egypt, and other countries.

Governments are also pushing back through the development of techniques designed to control what people read, view, and discuss (Karlekar and Cook, 2009). China, for example, has a sophisticated system to restrict citizens' ability to disseminate and access information online but they are not alone in their efforts at censorship. Internet filtering takes place in at least forty states worldwide, with the offenders predominantly clustered in three regions: East Asia; the Middle East, and North Africa; and central Asia (Zittrain and Palfrey, 2008). In many of these countries, the Internet is under state control, with the authorities in places like Thailand, Saudi Arabia, and Uzbekistan proactively engaging in blocking websites and blogs, and in the surveillance of online expression (Reporters Without Borders, 2009). Even in democratic countries like the US, UK, Brazil, and Turkey, Internet freedom is increasingly undermined by content control mechanisms, opaque filtering procedures, and expanding surveillance (Deibert et al., 2008; Karlekar and Cook, 2009). In the UK and the US it is now permissible, for example, for the authorities to request all kinds of personal and private information, with anti-terrorism legislation being used to restrict the freedom of speech of people who question or oppose government policy. In the case of the US there are a number of laws that support Internet surveillance. There is the Communications Assistance for Law Enforcement Act (CALEA) which requires phone companies and Internet Service Providers (ISPs) to facilitate government wiretapping of telephone and Internet communications. There is also the Patriot Act, which in the wake of 9/11, broadened the scope of government surveillance of all types of electronic communications without requiring warrants (Chen, 2010). Several European countries are also working on steps to control the Internet. As a case in point, the French government approved a bill in 2010 that allowed police and security forces to use clandestinely installed software to spy on private computers (Simons, 2010). Although the government said the intention was to improve security for ordinary citizens by setting out a framework for the operations of law enforcement agencies working to combat illegal downloading and child pornography, civil rights activists saw it as an exercise in censorship and surveillance.

Jennifer Radloff, a senior project coordinator at the Association for Progressive Communications (APC)'s Women's Network Support Programme summed up the double-edged nature of ICTs for human rights quite well when she said, "The tools that we use to communicate, share and create change are the same tools that the state and anti-progressive forces can use to track, trace and target us" (Radloff in Tolmay, 2011).

ICTS' ROLE IN HUMAN RIGHTS ABUSE

As Radloff noted, the features that make ICTs an effective tool for the promotion and protection of human rights also make them useful in the exploitation of people and the violation of human rights. One area in particular that has been adversely affected by their proliferation is personal information privacy. This started to become one of the most critical issues in the emerging information society as far back as the mid 1990s (Milberg et al., 1995). Since then, online social networking – an environment in which "gossip, harassment, hacking, phishing, data mining, and (ab)use of personal data by third parties are a reality" (Debatin et al., 2009) - has significantly increased the threats to users, particularly those that are young or not computer literate. So too has the use of biometrically enabled identity cards. With these, information may be gathered without permission or knowledge or without explicitly defining the purpose for which it is required. It can be used for a variety of purposes other than that which it was originally acquired; it can be shared without explicit permission. It can even be used to track people across multiple databases to amalgamate information for surveillance or social control (Smith, 2011).

The ways in which ICTs now contribute directly and indirectly to the abuse of children is an area of major concern. The prevalence of child pornography (or child abuse images as advocacy organisations like Save the Children prefer to call it) has increased massively over the last decade as a result of the emergence of the Internet as a mass consumer technology. This makes it easier to access, disseminate, and sell the material (Calcetas-Santos, 2001). As a result there has been a shift from small scale 'amateur' production of images, exchanged by and between collectors, to the distribution of images on a huge scale by members of organised crime for financial benefit (Carr & Hilton, 2010). New technologies also increase the opportunities available to predators by allowing them to stalk, recruit, and exploit children anywhere in the world through chat rooms, blogs, and other online applications (Human Rights Council, 2009), and even to organise into communities.

Identifying and locating the children who are abused for the production of child pornography is a major challenge for law enforcement and other child protection agencies. Painstaking assessment of the information within an image can lead to the identification of an abused child (Save the Children, 2006), but this takes time and technical expertise. Protective legal measures are also required, and as Dillon (2008) notes in her discussion of child sex trafficking, this has implications for culture and education as well as regulation of Internet pornography.

Indeed the role of the Internet in human trafficking in general is quite troubling. In 2008 the UN estimated that about 2.5 million people from 127 countries were trafficked to 137 countries for purposes such as forced labour, sexual exploitation, the removal of organs or body parts, forced marriage, child adoption, and begging (United Nations, 2008). The vast majority of trafficking victims (around 80%) are women and girls, and of these, the majority are trafficked for purposes of sexual exploitation (Jones, 2010). For traffickers, the Internet provides a convenient and anonymous way to contact and recruit victims, to communicate with other traffickers, to advertise trafficked women, and to identify markets (Maltzahn, 2005; Sykiotou, 2007). Online employment agencies, particularly those ostensibly seeking fashion or artists' models, as well as marriage agencies, can be used to lure victims, as can publically accessible chat-rooms and other seemingly innocent websites (Jones, 2010). Websites are also used to advertise brothels and other services, sometimes with pictures of women displayed without their knowledge or consent. This is a violation of the women's right to privacy and is exploitative, as are other practices of distributing and selling of female images online.

On the positive side, it is worth remembering that the Internet is also a useful tool in the prevention of trafficking and the protection of trafficked victims. The Internet has been used by NGOs to provide education, information, and support to women going abroad, and to policymakers and others trying to combat trafficking. And in many cases the rapid transfer of information between groups has helped find women and children who have disappeared abroad.

The distribution of material that is hostile to racial and religious groups over the Internet is another area for concern. Even though this has been sent by mail and distributed on streets all over the world for years, the advent of the Internet has made it accessible to people who would previously not have come in contact with it. Just as information from human rights organisations can be distributed to millions of people at the push of a button, so can racist and xenophobic propaganda. The Internet is a powerful tool for extremist groups seeking an international audience or wishing to link up with other extremist groups. But research conducted by Joseph A. Schafer in 2002 indicated that although the Internet is likely to increase the efficiency of these groups by providing faster and more reliable modes of internal communication, it may not be a more effective means of recruiting new followers (Schafer, 2002). The Internet does little to increase the size of extremist groups, although it may be a powerful tool to increase the allegiance of those who are already committed to their ideologies.

It is important to note here that the issue of freedom of opinion and expression in relation to hate speech is disputed. Cyber-libertarians such as Starr (2004) and advocates of free speech argue against censorship, claiming that more speech is the best antidote. However human rights advocates would argue that since hate speech is racist, endangers minorities (ethnic groups, homosexuals, and others), and violates international human rights principles, it should be eliminated. Europe has tended towards prohibiting Internet hate speech over the years. When the Council of Europe was adopting a measure to criminalise it in 2002 it noted that

The emergence of international communication networks like the Internet provide certain persons with modern and powerful means to support racism and xenophobia and enables them to disseminate easily and widely expressions containing such ideas (Council of Europe, 2002)

Hate speech is generally protected as free speech in the United States however, with measures to restrict it seen as dangerous trends in censorship or ineffective action against elusive agents of hate.

ABOUT THIS BOOK

In the last decade, the human rights agenda has been broadened to encompass areas such as corporate accountability, development and climate change. Human rights based approaches have been widely adopted in the development field, with increased attention being given to poverty as a human right. Furthermore, human rights advocates and activists all over the world have embraced economic, social, and cultural rights and have worked towards their fulfilment by governments. Meanwhile, efforts to ensure the protection of civil and political rights around the world are still ongoing - Amnesty International's 2011 report documented restrictions on free speech in at least 89 countries, cases of prisoners of conscience in at least 48 countries, torture and other ill-treatment in at least 98 countries, unfair trials in at least 54 countries, and thousands of human rights defenders around the world who were threatened, imprisoned, tortured, and killed (Amnesty International, 2011).

There has also been an increased globalisation of the international human rights norms and standards that help to protect people from abuse and injustice in recent times. Communication, facilitated by ICTs, has catalyzed and intensified this globalisation by combining an increase in technical capacity and volume, a shift in the distribution of capabilities, a diversification of channels, and an expansion of content (Brysk, 2002).

In this context it is difficult to give adequate coverage to the trends and consequences of ICT usage on human rights in one book. Our approach, therefore, is to bring together a range of perspectives from practitioners and academics in order to provide a diverse set of insights into the application and use of ICTs in the world of human rights. It is divided into four sections, each of which contains informative and thought provoking chapters from contributors.

The first section of the book sets the scene by addressing a number of key trends and issues relating to ICTs and human rights. In Chapter 1, Judith Dueck and Michael Rempel examine current technological issues faced by human rights organisations including web security, the Semantic Web and social media. Given the extent to which intergovernmental agencies, governments, and NGOs are now using ICTs to collect, organise, and disseminate human rights information, this is an area of vital importance. Dueck and Rempel show us that today's technological wonderland is filled with promises, delights and dangers and that the human rights community must continue to proactively explore it for solutions that help the human rights cause.

One issue discussed by Dueck and Rempel which is of particular importance to human rights advocacy organisations is that of metadata or "data about data." This is a set of structured data or content types that characterise an information object – for example a human rights violation, video testimony from a witness, or a report outlining the situation in a particular country. Metadata can be used to compile data from multiple databases, thus creating a more complete picture. Developing a useful metadata system for the human rights community could have tremendous impact, as it would enable the use of different data sets to discover and report patterns of abuse.

Freedom of expression and the right to privacy need to be balanced in an open society, according to Rolf H. Weber in Chapter 2. He takes a historical look at the frameworks adopted to support global civil society's participation in the information society, and looks at the current potential of ICT policies to enable it to use digital communications in ways that lead to better realisation of human rights. Weber suggests a number of interesting ways in which policies could be used to achieve this, including measures to improve the enjoyment of economic and social rights, the removal of trade barriers, and the realisation of an enforceable right to development.

The right to development has been controversial since its adoption by the UN General Assembly in 1986 (Greenstein & Esterhuysen, 2006), and its normative content remains relatively opaque (Green & Randolph, 2010). As a result there is a lack of clarity relating to the specific duties incumbent on states and other actors. Nonetheless there is widespread agreement that the systematic integration of ICTs into all aspects of development policy is required. As Green and Randolph note,

Without giving priority at the national and global levels to the need to integrate information and communication considerations in development, we run the risk of missing out on the important contribution these can make to the development process (Green & Randolph, 2006, p.299)

Weber notes that ICTs allow civil society to more actively participate in discourses by exchanging information, which in turn strengthens freedom of expression and other fundamental rights. He suggests that if private companies are not able or willing to offer services (for example in sparsely populated geographical areas), the state might have to consider granting subsidies to the private sector. However in Chapter 3 Brian J. Bowe, Robin Blom, and Eric Freedman show how states and Western technology companies often straddle the border between free information dissemination and censorship. They consider recent events in Iran, Egypt, Singapore, and China to discuss how information and social network corporations facilitate dissent. All four countries have been identified as having severe impediments to freedom of expression, but Iran and Egypt have seen the rise of some organised opposition movements despite the controls on media expression. On the other hand, China and Singapore offer useful case studies on the economic dimensions of the balance between participating in the global networked society and controlling citizen expression. Bowe et al.'s well researched contribution considers how financial and economic factors lead to more moderate views of Internet use in those countries, and examines the ongoing struggles between maintaining openness and crackdowns.

The second section of the book presents four case studies that explore different consequences of ICT usage for human rights. The first of these from Aziz Douai examines the development and rise of the popular video-sharing website, YouTube, in Arab societies, and describes how video exchange is invigorating the online public sphere's demand for political reform and respect for human rights. Douai looks at videos that succeeded in publicising police corruption and brutality in Egypt and Morocco, and uses these to highlight two strategic roles that YouTube has played in the struggle for democracy and political reform in the Arab world. The first is the re-energising of (cyber) activists demands for political reform and respect for international human rights norms as a result of the global attention that was drawn to their regimes' oppressive practices. The second is the invigorating of public concern and debate regarding human rights issues.

Douai's case studies show that not only have computer users turned to social media services to circumvent government controls on free expression in countries like Egypt (as described by Bowe et al.), they are also using these services to work towards greater respect for human rights and for democratic reform.

Chapter 5 describes a project designed to enable Liberians on three continents to give statements to the Liberian Truth and Reconciliation Commission (LTRC). Eric Wiebelhaus-Brahm describes how the Commission was set up to examine gross human rights violations that occurred during the fourteen years of brutality and violence in Liberia from 1979 to 2003. ICTs proved instrumental in attempts to include the Liberian diaspora in the truth and reconciliation process, and Web 2.0 technologies allowed Liberians to interact with each other and to provide statements to the Commission. However Wiebelhaus-Brahm warns that ICTs are not a panacea for transitional justice processes. While they may increase the efficiency and level of participation, there are still challenges to be overcome in areas like trust, the facilitation of reconciliation between victims and perpetrators, and the acknowledgement of suffering.

José Rodrigues Filho raises some potential negative consequences for human rights in what would typically be seen as a positive area of development, namely e-government in Brazil. He looks at concerns in relation to tax collection and e-voting, and in particular at the misuse of collected information for surveillance purposes. His contribution questions the extent to which ICTs have benefited the democratic process, and highlights ways in which ordinary citizens' right to privacy could be compromised.

While many of the human rights community's concerns in relation to surveillance have been noted already, Rodrigues Filho provides an important reminder that today's surveillance is "a peculiarly ambiguous process in which digital technologies and personal data are fundamentally implicated and meet

in software coding that classifies yet more groups in different ways" (Lyon, 2007, p.5). This is not just a privacy issue; it is also a human rights issue and is recognised as such by the UN Declaration of Human Rights, the International Covenant on Civil and Political Rights and many other international and regional human rights mechanisms.

Chapter 7, by Christopher Wilson and Alexandra Dunn, uses an analysis of a digital activism initiative to examine a proposed approach for the study of ICTs in contentious politics and human rights advocacy. The initiative is the Cairo-based Front to Defend Egyptian Protestors (FDEP), which uses mobile phone and online applications to mobilise support teams for arrested protestors and work towards their release. The research gives us another important insight into the much touted role of ICTs and social media before and during the Arab Spring revolutions. It also helps to advance theoretical and practical understandings of digital activism by proposing an analytical approach to research study design. The approach which applies frames of contingency and hybridity, can improve understanding into how human rights activists strategically combine digital and grounded communications to respond to complex, changing environments.

The process of strategically and systematically gathering quantitative or qualitative human rights data builds a strong platform for advocacy, as it provides evidence with which to challenge governments' human rights reporting and performance. This documentation process includes several steps: (i) determining what information is needed and establishing means for acquiring it; (ii) recording the discovered information and storing it in appropriate containers, or collecting already-existing documents containing the needed information; (iii) organising the documents to make them more accessible; and (iv) providing the documents to users who need the information. There are many types of human rights data that can be collected. These include reports of human rights violations; testimonies, monitoring indicators (which are particularly helpful for discrimination and ongoing oppression); legal investigations and government data; archives of repressive regimes that may contain important information; newspapers; documented human rights interventions; anthropological research data; ecological studies; and real-time data (New Tactics in Human Rights, 2010).

The third section of the book presents three different perspectives on how ICTs can help the human rights community to collect, record, and make effective use of this human rights data. In the first of these, Jessica Heinzelman and Patrick Meier look at how ICTs provide new opportunities for crowdsourcing as a means of human rights monitoring (defined by Guzman & Verstappen (2003) as the close observation of a situation or case). They note that to ensure credibility, human rights monitoring has historically been conducted through highly controlled organisational structures that face mounting challenges in terms of capacity, cost, and access. ICTs provide new opportunities to overcome some of these challenges through crowdsourcing. However this technique raises new challenges of verification and information overload that have made some human rights professionals sceptical of their utility. Heinzelman and Meier explore whether the efficiencies gained through an open call for monitoring and reporting human rights abuses provides a net gain for human rights monitoring, and they analyze the opportunities and challenges that new and traditional methods pose for verifying crowdsourced human rights reporting.

In Chapter 9, Ann Harrison of the Benetech Human Rights Data Analysis Group (HRDAG) looks at the use of statistics about political violence from multiple data sources, and describes methodologies that HRDAG analysts have developed to ensure that statistical human rights claims are transparently and demonstrably true. HRDAG collects and preserves human rights data, together with local partners, and helps NGOs and other human rights organisations to accurately interpret quantitative findings. As

Harrison's contribution demonstrates, the collection and analysis of data can be based on the coding of existing qualitative data on human rights abuses and their subsequent analysis via multiple systems estimation or random sample surveys.

Qualitative information – like the recorded testimony of a survivor of torture – is a very rich and important source of information in relation to patterns of human rights abuse. Asher et al. (2008) explain that

The history of the analysis of qualitative human rights violations begins with the local NGO within their own countries. Traditionally ... these stories would then be passed on to international NGOs, which would make them available to governmental organisations such as the United Nations, who would then exert pressure on that country's government to improve the situation. At the onset of the Truth and Reconciliation Commissions, such qualitative data was deemed one of the more useful of the truth-seeking tools available, and many TRCs sponsored data collection efforts of their own (Asher et al., 2008, p.18)

While Wiebelhaus-Brahm provided an assessment of how ICTs were used to collect qualitative statements directly by the Liberian Truth and Reconciliation Commission, Harrison's contribution provides a valuable insight into how, in an effort to defend the accuracy of human rights data and account for mass atrocities witnessed by thousands or tens of thousands of people, truth commissions and other groups have turned to scientists to clarify history.

Tanya Notley and Stephanie Hankey of Tactical Technology Collective take us back to the start of the human rights documentation chain to examine digital privacy threats and the implications for human rights defenders in greater depth. They note that it is not possible to remove digital risks completely or perhaps even substantially, even with the support of digital security experts from the private and NGO sectors. The best strategy for protection, they say, is to educate human rights defenders about the kinds of risks that exist so as to enable them to better manage and reduce these risks. In this way human rights defenders can develop creative approaches to make the most of the digital tools and resources available to them, given the limits and constraints that surround them.

While many of the traditional approaches to documenting human rights violations have been used primarily in relation to civil and political rights, the human rights community is now strengthening its focus on the documentation of economic, social, and cultural (ESC) rights. There are three broad categories of violations of these rights (New Tactics in Human Rights, 2010). These are state violations resulting from government actions, policies, and legislation; violations related to patterns of discrimination; and violations related to the state's failure to fulfill minimum core obligations of enumerated rights.

As Weber notes in Chapter 2, the impact that ICTs have on the enjoyment of economic and social rights is highly context specific, with regulatory frameworks and market competitiveness having a substantial influence. Even more crucially, being on the wrong side of one of the many digital divides that exist globally precludes billions of people from taking advantage of the opportunities the Internet and other ICTs present. Inequalities relating to ICT access and use can only be understood in combination with other socio-economic inequalities. Nonetheless, the lack of access to ICTs implies the existence of discrimination, and can be seen as adding to human rights violations such as discrimination against vulnerable groups (Zarrehparver, 2006).

It is important, therefore, to critically examine contexts in which the use of ICT impacts on the enjoyment of ESC rights. Consequently, the fourth and final section of the book focuses on these and on the implications of ICT usage for potentially vulnerable groups in society. In the first chapter of the

section, Minna Strömberg-Jakka examines the use of ICTs to gain access to social rights as human rights in Finland, a country with one of the highest Internet penetration rates in the world (Internet World Stats, 2011). Her research, which looks at online social service consultation, indicates that inequalities can be created between service users, and highlights how issues such as officials' education, linguistic matters, and cultural habits need to be taken into account.

According to the World Health Organisation there exists a hidden burden of stigma and discrimination faced by people with mental disorders. In both low- and high-income countries, stigmatisation of people with mental disorders has persisted throughout history, manifested by stereotyping, fear, embarrassment, anger, and rejection or avoidance (World Health Organisation, 2005). They say that violations of basic human rights and freedoms, and denial of civil, political, economic, social, and cultural rights to those suffering from mental disorders, are a common occurrence around the world, both within institutions and in the community. In terms of human rights, this is therefore an area of growing concern. Mental illness ranks fourth of the 10 leading causes of disability in the world and is expected to approach second place by 2020 (Zolnierek, 2008). In this context Jenny Martin and Elspeth McKay's contribution exploring the use of ICTs in post-secondary education to provide opportunities for students with mental health difficulties is important. They outline strategies afforded by ICT tools for helping students with mental illness to optimise their chances of success, and argue for the need to design appropriate instructional ICT strategies to support students experiencing mental illness to remain engaged with their studies.

Women all over the world strive to have access to information and to engage in communication that will improve their livelihoods and help them to achieve their human rights. This can be a difficult challenge for them however, especially in developing countries. Odame (2005) says there are systemic gender biases in ICTs and their applications, and as a result women are far more likely than men to experience discrimination in the information society. Nonetheless

Women are not giving up on ICTs. On the contrary, even resource-poor and non-literate women and their organizations are aware of the power of information technologies and communication processes and, if given the opportunity to do so, will use them to advance their basic needs and strategic interests. (Odame, 2005, p.13)

Cristina Ionescu takes up this issue in Chapter 13, asking whether women have equal rights and opportunities to access and use ICTs. She concludes that in this changing era, new ICTs in fact represent a cardinal instrument for social transformation, enabling and empowering women to become controllers of information.

In the final chapter, Shane O'Hanlon looks at the impact of ICT usage on the right to access to healthcare. He says that misuse of health information technology - which is generally viewed as improving the overall quality, safety, and efficiency of a health delivery system (Chaudhury et al., 2006) - can result in violations of human rights. In particular, the right to privacy can be eroded by inappropriate protections which still exist in some health systems. In his contribution he describes the rights framework in healthcare, analyses legal provisions for protection of health data, considers why such protections are necessary, and outlines examples of rights violations.

The chapters in this final section show that the consequences of ICT usage for economic and social rights are varied. On the one hand they can empower women, and support people with mental illnesses to continue to enjoy access to education. On the other, they raise concerns over the security of personal

health data, and equitable access to social assistance services. Together with the other contributions to *Human Rights and Information Communication Technologies: Trends and Consequences of Use* they demonstrate that the ubiquitous nature of ICTs means that government policies, private sector investment, and civil society innovation can all impact on human rights. This trend will continue, with both positive and negative consequences.

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