At first glance, the connection between human dignity and technology is a tenuous one. We strive to see ourselves as autonomous subjects, uncontrolled by the everyday technology around us. Often technology is promoted as being the very basis for increased freedom. Access to the Internet is increasingly seen as the basis for democratic participation, mobile telephone technology is marketed as increasing our freedom and mobility, and social media are presented as a cornerstone for access to knowledge and the antidote to the authoritarian state. Therefore, personal technology, or access to the Internet, has come to symbolize a democratic cornerstone: a realm wherein the individual may engage in public discourse and access information vital to personal development and necessary for true democratic participation. This is particularly true for most of the digital technology that has come to dominate much of the public discourse: for example, the mobile phone, the Internet and social networks.

In recognition of its role in freedom of expression, individual autonomy and development and recognizing its value in social participation and democratic participation, a discussion has arisen as to whether access to the Internet should be made into a right: whether states have the responsibility to guarantee that Internet access is broadly available. Several countries have enacted measures to protect individuals' access to the Internet (Lucchi 2011).

This freedom is, however, under attack by a wide range of factors (marketing, peer pressure, the digitalization of everyday services and the choice to remain outside the digital realm) which create the risk that our autonomy is infringed upon rather than supported by technology.

As convenience encourages the adoption of technology, it increasingly pervades our daily lives and creates fresh concerns about the ways in which many of our core values are affected. Mobile phones allow us to communicate in a way that is not limited by location, but they also raise surveillance concerns; the Internet is the greatest tool for accessing human knowledge but also the source of an unfathomable amount of offensive material; social networks free us from the shackles of time and space in developing human relationships, but also change the very nature of concepts such as friendship, stalking and privacy.

Freedom of expression is recognized as a key component in a democratic society. Without the ability to spread information, others would not be able
to participate freely in these ideas and arguments thus hampering personal
development and the dignity of individuals and creating an adverse effect on
democratic growth.

Our ability to practise the right to freedom of expression depends upon
our access to communications technology. Without the technological ability to
spread information, the fundamental right to free expression is moot. Therefore,
in order to ensure human dignity, and the human rights which safeguard it, it is vital (1) to understand the technology we rely on, (2) to recognize the
legal, economic, social and technological controls placed in technology, and
(3) to ultimately ensure that technology, for the most part, serves to promote
human dignity. This chapter focuses on the ways in which individuals’ freedom
of speech is impacted by the economic and social goals of those who provide us
with our technology.

Every modern democracy maintains rules ensuring citizens’ rights to com-
 municate. These rights are often philosophically grounded, and include not
only the right to disseminate but also the right to seek out information. The
right to freedom of communication can be understood as grounded in three
motivations (Schauer 1982): freedom of communication is necessary for arriv-
ing at the truth, it is fundamental for democracy and it is fundamental for
self-fulfilment.

For the main part of our history, efficient information transfer has been
hampered by space and time. The advent of writing worked to overcome these
barriers to an extent, but the ability to spread information was still limited
by the speed at which information could be transmitted. Innovations such
as the printing press and the telegraph revolutionized the communications
infrastructure by enabling messages to be sent at a fraction of the time and cost –
and the development of radio, telephone and television of the past century now
enable real time communication. Each of these innovations has created a need
for a reappraisal of the values protected by our human rights conventions to
ensure human rights are not weakened through technological development.

However, these earlier communications networks were controlled at the point
of access. The right to communicate has always been hampered by the practical
ability to do so. In a sense, individuals’ abilities to veritably communicate with
mass audiences have made the right of communication largely into a moot
point. Recent decades have, once again, seen radical advances in communi-
cations technology. The dissemination of Internet access in general and the
World Wide Web in particular have enabled the potential for individual mass
communication.

Viewed from the perspective of freedom of expression, this latter innovation
creates an interesting tension. How should states react when well-established,
but inoperable rights suddenly become actionable? When the physical limi-
tations to communication are alleviated, are we still prepared to accept the
freedom to access and spread information as a fundamental human right?
The Internet revolution

Today, we tend to accept the Internet, and the World Wide Web, as an ‘invention’. However, in reality, this is a convenient fiction as it is the cumulative result of a series of technical, social and economic developments which have led us to the point where we think nothing of calling across an ocean to talk, to use our telephones to browse the Internet or to post information on a social network.

The revolutionary factor is found in the level of access to global communications that we have today. This access is not limited to the ability to consume information produced and presented by others but the, relatively novel, ability to produce and disseminate our own material. This shift in personal technology has revolutionized personal habits, business models and therefore naturally affects politics and our understanding of freedom of expression.

The 1990s was the early period of popular Internet access and it was during this phase that discussions about the ability and desirability of regulating the Internet began. The early discussions were split between those who felt that the technology needed to be regulated and those who thought it could – and should – not be regulated. John Perry Barlow (1996) published A Declaration of the Independence of Cyberspace, arguing that governments had no legitimacy to govern the Internet, David Johnson and David Post (1996) argued that territorially based law-making and enforcement was inadequate for a global communications medium, and Lawrence Lessig (1999) explained that in a world made up of computer code it was the programmer, not the legislator that held the power.

Limiting speech rights in democratic states

To be clear, countries’ attitudes towards the Internet are not uniformly positive. Although this chapter focuses on the question of limiting freedom of expression in liberal democracies, it is important to note that several countries claim the right and ability to censor online information. The organization Reporters Without Borders publishes an annual ‘Enemies of the Internet’ report, in which they list countries and levels of Internet suppression. In their latest 2012 report, the ‘enemies list’ included Bahrain, Belarus, Burma, China, Cuba, Iran, North Korea, Saudi Arabia, Syria, Turkmenistan, Uzbekistan and Vietnam. These states combine content filtering with access restrictions and maintain tight control over the Internet as a whole.

States have also been involved in monitoring and limiting access to social networking sites. In preparation for the 20th anniversary of the 1989 Tiananmen Square protests, China blocked access to several sites. Blocking access to social media is not uncommon. The largest social network (Facebook) has sparked concern and has been blocked in a wide range of states for longer or shorter periods. This list includes a range of countries as diverse as Syria (Oweis 2007),
to the United Kingdom (Booth, Laville and Malik 2011). For the most part, the blocking of social media is part of a larger strategy to control online information. An additional point of conflict is that even in democratic states the attitude towards freedom of expression is not uniform. The Anglo-American legal systems have a marked preference for the ‘marketplace of ideas’ metaphor, which encourages almost all communication with the understanding that the stronger ideas will triumph over the weaker. Civil law systems prefer a moderated version of the marketplace where a range of expressions are not protected by free speech. Naturally, in a global communications infrastructure, these differences create tensions as illustrated by the LICRA v. Yahoo! case. In this case, the Internet service provider Yahoo! maintained online auction sites which could be accessed globally. Among the items on auction were Nazi memorabilia. Article R645-1 of the French Criminal Code prohibits the public wearing or exhibiting of uniforms, insignias and emblems which ‘recall those used’ by organizations declared illegal in application of Article 9 of the Nuremberg Statute, or by a person found guilty of crimes against humanity. The case illustrates national variations in freedom of expression and the tensions brought about by a global communications infrastructure. This case brought into focus the question of the locus of activities on servers accessible via the Internet and the competency of national courts to enforce national legislation on online actions.

The rise of walled gardens

At the turn of the millennium, the technology discussion began to focus on the concepts of user-generated media, web2.0 and social media. The appearance of these showed that a change was occurring among Internet users: they not only consumed information created by organizations, but also began to create material themselves. The primary motor for this discussion was the increased popularity of blogs and blogging as a communications tool.

The twenty-first century saw the launch of projects such as the encyclopaedia Wikipedia (2001), social networks such as LinkedIn (2003) and Facebook (2004), video sharing sites such as YouTube (2005) and micro blogging applications such as Twitter (2006). That year also saw the launch of the iPhone and the increased dominance of iTunes as a marketplace. Taken together, this was heralded as a revolution in communications, and in 2006 Time chose the social media user as its Person of the Year. Naturally, the barriers of time and space had been removed much earlier but this communication came about in the

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1 This has its origins in John Stuart Mill and in Justice Oliver Wendell Holmes’ dissent in Abrams v. United States, 250 US 616, 624 (1919).
ability of ordinary people to access the network and to participate in mass communication, not as consumers but as senders of information. In other words, information dissemination was no longer exclusive.

The phenomenal growth and dissemination of the early World Wide Web was due not only to its technological makeup but also to its fundamental principle of openness. When Tim Berners-Lee created the necessary protocols, he laid the foundations for its openness both in not limiting it through technological measures, but also in the way he announced it in 1991 without implementing licensing schemes or securing legal property rights. However, this openness also enabled the creation of so-called ‘walled gardens’ within the open Internet. The walled garden is a metaphor describing systems where service providers create closed online environments where they maintain control over applications, content and media. Access to these walled gardens is regulated through licensing where the service provider is able to limit the users rights. Tim Berners-Lee’s openness has enabled the implementation of Walled gardens and he has regularly voiced his concern over the ways in which data is collected and presented in ways that are detrimental to the users (Katz 2012).

Personalization and bubbles

One of the biggest assets of walled gardens is their ability to collect and analyze huge amounts of user data, which is primarily used to create better marketing systems and through this generate revenue for the service providers. The fundamental principle is based on the idea that service providers such as Google and Facebook are able to learn a great deal about individual users through the information that is required (login data, email addresses), offered freely (online searches, links users click on) and analysis of large quantities of data. This data collection serves two main purposes: first, to tailor the online experience to the individuals’ preferences, and, second, to sell this information to third parties.

Personalization began as a positive goal where each user would have the ability to tailor flows of information to suit his or her individual tastes. Nicholas Negroponte (1996) referred to this as the creation of the ‘daily me’. However critics soon pointed to the detrimental effects of this kind of personalization. Cass Sunstein (2001) pointed out that, by choosing only information we agree with, we limit the questioning of established ideas and stifle the public debate. David Weinberger (2004) warned that such systems would create echo chambers: ‘Internet spaces where like-minded people listen only to those people who already agree with them’.

This echo chamber effect is multiplied when service providers actively implement personalization strategies, as they tend to prioritize the information they deem fitting for the user’s profile. Commenting on the personalization trend, Eric Schmidt, the former CEO of Google, has said ‘It will be very hard for people to watch or consume something that has not in some sense been
tailored for them’ (quoted in Jenkins 2012). And Mark Zuckerberg, Chairman and CEO of Facebook, stated: ‘A squirrel dying in front of your house may be more relevant to your interests right now than people dying in Africa’ (quoted in Pariser 2011). While these positions may be technically correct, taken from a freedom-of-expression and access point of view they are highly problematic – in particular when these are the views of the information providers.

The drive towards personalization is problematic since the Internet service providers such as Google and Facebook are not providing their users with unbiased information. Google attempts to provide the user with the most interesting search results for that particular person; Facebook prioritizes status updates from a selection of the user’s friends. In either case, the service provider has made a choice as to which information the individual user needs to see and what information she does not need to see. This lack of unbiased information is compounded by the user’s beliefs that technology is inherently neutral and has no political goals of its own (Winner 1985).

Searching for the term ‘information’ on Google returns 11,070,000,000 hits in 0.24 seconds. The choice of which results to show is based on algorithms weighted by what Google thinks the user is looking for. This is not a neutral ranking. Nor is the flow of information produced by a user’s Facebook friends displayed neutrally; it is a selection decided upon by Facebook, based on their understanding of what that user is looking for. In effect, Facebook picks the most suitable individuals from your friends and effectively filters out information from the friends it deems to be unsuitable. There are several other companies treating user data in this way; the ones described above are rather the rule than the exception. Both Google and Facebook have argued that what they are doing is necessary in order to provide a better service, and that it would be impossible or useless to present all information equally. Also should any real criticism arise from users the companies are quick to point out that they are not a public service, users freely choose to use their services at no cost, and users are free to leave at any time. While the first two arguments are true, services such as these are rapidly becoming fundamental to modern communications and in many cases opting out is not a veritable option – opting out is equal to choosing not to communicate.

**Memory: the dark side of data**

Our technological ability to collect, analyze, store and access data has the potential to enable increased participation in civil society and therefore could become a major element in the democratic debate. However, as discussed above, the privatization of the web provides a false sense of participation in open public debate. Advanced web technology’s ability to collect, store and retrieve information has also created new types of problems, found for instance in the discussion on the ‘right to forget’ or the ‘right to be forgotten’ (Mayer-Schonberger 2009; Bernal 2011). In essence, the argument is that individuals’ past mistakes should
be left in the past, in particular when facts may be presented in a misleading or unduly harsh fashion. Take, for example, the problem of the Spanish doctor.

In 1991, one of Spain’s leading newspapers, *El Pais*, published an article about a plastic surgeon, Dr Guidotti Russo, accused of malpractice. The charges were eventually dropped and everything could have been forgotten had it not been for the web. With the digitalization of newspaper articles and the effectiveness of search engines, Dr Russo is once again harmed by the past. When searching for information about Dr Russo on Google, the *El Pais* article about being accused of malpractice appears prominently, while news of his innocence is not to be found. In 2011, Dr Guidotti Russo asked the Spanish courts to compel Google to remove the offending article from their search results. He is not asking for the removal of the article from the *El Pais* database. The difference is interesting as each of the removals may be construed as varying levels of censorship. By removing the article from the newspaper, it becomes totally unavailable; by removing it from Google it becomes relatively non-discoverable.

Recently, these types of cases have been surfacing, and a discussion concerning the right to be forgotten has arisen, and proposals have been made to include such a right in legislation. While it is easy to see the damage arising from technology, attempts to amend online information may be more agreeable to civil law than to the Anglo-American tradition.

**Smartphones and apps**

The public debate is not being stifled, as it was in the past, by imprimitur and censorship, but rather by the limitations applied to our ability to choose whom we communicate with and the constant surveillance being applied to our digital communications.

Even though the tension between the increased potential to access and participate in an open and free public debate and the limitations of walled gardens has been recognized, there are further problems to be faced in the future of web-based communications. Once again, the chokehold is applied to the root of our communications infrastructure. Since the launch of the iPhone in 2007, the demand for and the use of smartphones has rapidly increased. Since then, these devices have been developed further to include tablet computers, and, seen collectively, they are rapidly changing the ways in which the user accesses information.

From the perspective of freedom of expression, the problem with smartphones and tablets is that access to Internet-based information is more focused on applications (‘apps’) on the devices. These apps are designed to carry out specific tasks, often connected to a specific source of information, and bring with them two specific information problems. First, the apps are often used

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to collect data about the users much in the same way as the walled gardens discussed above. Second, the app market is a more or less controlled environment. The apps not only control the flows of information but also often have limitations placed on them by the device controller. The result is that we are moving further away from the open web and back into a system of controlled environments.

Therefore, the technological infrastructure of modern communication carries with it an inherent paradox: we are more than ever able to communicate with others while, at the same time, the communications of ordinary individuals have never been subjected to the levels of control, monitoring and analysis as we face today. Through this increased control and manipulation of technology the potential beneficial effects on human dignity are subverted and there is a growing need to view the regulation of technology from a human rights perspective.

Conclusion

The advanced technological communications infrastructure available to many in developed countries has the potential to enable individuals to record and transmit ideas at a lower cost and to a wider audience than ever before in history. As such, the Internet, social media and our mobile devices could be seen as vital tools in ensuring human development and as an important element in the protection of human rights and dignity. However, in order to fulfil this potential, these technologies must be prevented from being turned into advanced infrastructures of surveillance and control. This chapter has pointed to the ways in which technology with freedom-enhancing potential can be used to serve the interests of small groups rather than the protection and development of human rights – unless legal safeguards are enacted to ensure the rights to technology include rights to use them without excessive corporate surveillance and control.

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