STADIO

# Technology and Society
# TAS152

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# Topic 2
# Ethics in the Information Society

## 2.1 INTRODUCTION

This topic relates to the following module outcome:

- Demonstrate an understanding of the nature of cyberspace and the related ethical challenges to society.

The World Summit on the Information Society (WSIS) held in 2003 and 2005, and a subsequent UNESCO meeting in 2013, highlights the potential of communication technologies to provide access to information and help to promote the development of poorer nations. The growing impact of communication technologies on civil society has highlighted the need to define and implement a set of ethical values that will help to address the ICT-related challenges faced by developing countries. Globethics.net (2018:69) identifies nine core topics that underpin the information society:

- Principles: Ethical values
- Participation: Access to knowledge for all
- People: Community, identity, gender, generation and education
- Profession: Ethics of information professionals
- Privacy: Dignity, data mining and security
- Piracy: Intellectual property and cybercrime
- Protection: Children and young people
- Power: Economic power of technology, media and consumers
- Policy: The ethics of regulation and freedom

Each topic is discussed in detail in the sections that follow

## 2.2 PRINCIPLES: ETHICAL VALUES

### 2.2.1 Global vs contextual ethics

## Prescribed reading

Read Section 3.1 on pages 71-73 of Globethics.net (2018) *Ethics in the information society: The nine P's*.

Global ethics are based on a set of binding values that apply to all cultures and ideologies, political and economic systems. Global ethics are concerned with creating an environment that is supportive of human rights. Examples of global ethics include principles such as the recognition of human dignity, personal freedom and the right to justice. Global ethics may be abused by powerful nations wanting to dominate weaker communities.

Contextual ethics are specialized to the impact of individuals and institutions on social structures within their local cultural, religious, economic or political contexts (Globethics.net, 2018:71-72). Examples of contextual ethics include rules that might be enforced in communities such as schools or ethical values specified by different religions. Contextual ethics might be abused in order to hold on to local political power.

Global ethics can be influenced by contextual ethics. Both global and contextual ethics can be influenced by geo-political trends and superpowers, economic trends, new technologies, shocks, crises, wars, natural disasters and political instrumentalisation of religions (Stückelberger, 2010).

According to Ethical Systems (not dated): "The key to enabling people to be as moral as possible is designing an ethical environment that makes such behaviour easy, automatic and habitual". In the infamous Stanford prison experiment, Dr Philip G. Zimbardo (2021) proved the extent to which humans are influenced to behave unethically when the environment permits. The Stanford prison experiment used regular university students to simulate a prison environment. Students were randomly chosen to act as either a prison guard or prisoner. The prisoners were told to abide by the rules of the prison, and the prison guards were instructed to enforce the rules of the prison. The students who were chosen as prison guards quickly began to emotionally and physically abuse the students who had been chosen as prisoners, despite knowing that they were only partaking in an experiment, and that the students who were prisoners had not actually done anything wrong.

Ethical activities that support positive outcomes should be encouraged. Suggestions for promoting ethical behaviour are as follows:

- Draw attention to moral principles. For example, add a note to a test paper warning students that cheating will not be tolerated.
- Provide examples of ethical behaviour (for example by executives and politicians) in order to promote a culture of honesty.
- If a situation makes it is easier to behave dishonestly rather than honestly, encourage honesty by removing barriers to ethical behaviour. For example, make sure whistleblowing policies are clearly communicated and easy to execute.

### 2.2.2 Fundamental values for knowledge societies

Globethics.net (2018:72-73) identifies seven fundamental values for knowledge societies.

1. Justice/equity based on the dignity and equality of every human being.
2. Freedom of information access and the ability to make decisions.
3. Care and compassion in empathising, respecting and caring for others.
4. Participation in society including participation in decision-making.
5. Sharing of information and knowledge between individuals and within communities.
6. Sustainability as a long-term solution to environmental challenges.
7. Responsibility and accountability for one's own actions.

## Activity

In your opinion, which one of the values listed in Section 2.2.2 is being contravened when disadvantaged students in poorer nations are unable to become digitally literature because they cannot afford to access resources such as computers and the internet?

## 2.3 PARTICIPATION: ACCESS TO KNOWLEDGE FOR ALL

### 2.3.1 Narrowing the digital divide

## Prescribed reading

Read Section 3.2 on pages 73-75 of Globethics.net (2018) *Ethics in the information society: The nine P's*.

The digital divide refers to an inequality of access to digital media and technology (Van Dijk, 2020). Individuals on one side of the digital divide can accept the development of new technologies, adopt, and use communication/information technologies and subsequently participate in society because of those technologies. Individuals on the other side of the digital divide are unable to accept, adopt and use new technologies, and are subsequently excluded from participating in society. The digital divide is particularly pronounced in countries like South Africa where there is a considerable difference between the poorest and wealthiest members of the population.

During the COVID-19 pandemic because of social distancing measures and lockdowns, primary, secondary, and tertiary students were forced to make use of remote learning, instead of contact learning. As a result of the digital divide, many students lacked access to the physical resources (i.e. laptops, internet connection) required for remote learning. The lack of access further leads to an absence of digital literacy, meaning the students that were given resources, might not have been adequately trained in how to use them. Both lack of access and digital literacy, have been shown to severely impede the efficacy of remote learning (Nkoala, 2023).

The right to education includes the right to information, knowledge and communication (Globethics.net, 2018:73). In disadvantaged communities, access to these resources may be constrained by a number of factors, such as a lack of access to computing facilities; the impact of low bandwidth availability for people wanting to access online courses and materials; and the relatively high cost of publications such as textbooks and academic journals.

Pazzenese (2020) states that "the surest way to get the industry to act more responsibly is to prepare the next generation of tech leaders and workers to think more ethically about the work they'll be doing". The article describes a teaching program that embeds philosophical concepts within the computer science courses offered at Harvard. Their "Embedded Ethics" course teaches students how to identify and analyse ethical issues and how to justify the ethical values that underpin their design choices, equipping them to address ethical concerns related to the application of new technologies (Pazzenese, 2020).

### 2.3.2 Recommendations

Globethics.net (2018:74-75) offers the following recommendations for bridging the digital divide:

- Governments and international organisations should help to provide free and fair access to knowledge for developing countries.
- Governments should provide infrastructure, training and support for open access knowledge repositories.
- Regulators should support the development of regional hubs that index open access repositories.
- Both public and private participants should contribute to the development of open access and open publishing initiatives.

## Activity

Educational institutions in developing countries may be unable to afford the full cost of access to course materials, publications and subscriptions. Working with a partner, describe an alternative payment option (or another form of access) that the publishers of these materials might be willing to consider.

## 2.4 PEOPLE: COMMUNITY, IDENTITY, GENDER, GENERATION AND EDUCATION

### 2.4.1 Six aspects of knowledge societies

## Prescribed reading

Read Section 3.3 on pages 75-77 of Globethics.net (2018) *Ethics in the information society: The nine P's*.

Castelfranchi (2007) defines a knowledge society as '...a society that serves to transform information into resources that allow society to take effective action'. Knowledge societies differ from information societies. Information societies '...only creates and disseminates the raw data'. Globethics.net (2018:75-76) draws attention to six key aspects of knowledge societies:

1. Knowledge societies should be value-based, sharing knowledge for the benefit of individuals, families, communities and nations, while respecting the rights of individuals and their diverse cultures, world views, and economic and political systems.
2. Knowledge societies should be people-centred. Although information and communication technologies (ICTs) are an important driver of development, the purpose of ICTs is to serve the needs of people.
3. Knowledge societies should balance the needs of individuals and communities, and help young adults to build strong identities.
4. Knowledge societies should be education-focused, creating awareness of information ethics and encouraging members of society to view unsubstantiated information through a critical lens.
5. Knowledge societies should be gender-oriented, ensuring that women are represented at all levels of decision-making including decisions that relate to the use of ICTs.
6. Knowledge societies should be generation-sensitive, ensuring that older persons are equipped with basic computer literacy skills that will allow them to participate in online social interactions.

Knowledge Societies are based on four principles (UNESCO, 2012:1-3):

1. Freedom of expression
2. Access to information and knowledge
3. Access to quality education
4. Respect for cultural and linguistic diversity

Freedom of expression and access to information are essential attributes of democracies that are based on respect for human rights. Access to quality education plays a key role by providing citizens with the skills that will be needed to support new technology-based economies. The socio-cultural aspects of knowledge societies are more challenging to define, since they contain embedded knowledge that is linked to past experiences, influences and environmental contexts, which can in turn make a valuable contribution towards new practices that will support future sustainable development (UNESCO, 2012).

Because the open and participatory nature of knowledge societies allows them to adapt over time to meet the needs of their constituents, UNESCO (2012:2-3) suggests that "The post-2015 development agenda should be grounded on governments' commitment to freedom of expression, press freedom, and access to information and knowledge". This broad vision can then be translated into

specific goals that are relevant to a particular context, such as improved information literacy, access to ICTs and the application of knowledge policies and practices can be used to support sustainable development projects (UNESCO, 2012).

### 2.4.2 Recommendations

Globethics.net (2018:77) identifies the following recommendations for knowledge societies:

1. Educational institutions should increase their focus on information ethics in the curriculum and ensure that young adults are competent users of the Internet.
2. Educational institutions should monitor the ethical aspects of e-learning, distance learning and massive open online courses (MOOCs).
3. Media providers and educational institutions should increase their efforts to transform and adapt information to meet the needs of a particular group or context.
4. Public and private media institutions should safeguard the cultural and linguistic diversity of their programmes.
5. Women and girls should be encouraged to use ICTs to support their education, development and citizenship and to develop computer and Internet literacy.
6. Educational institutions should participate in the validation and inclusion of indigenous people's values and knowledge.
7. Policy makers should guarantee freedom of expression, avoid moral harm and protect the integrity of individuals.

## Activity

In addition to the digital divide, there also exists a gender divide, meaning that women and girls have significantly less access and opportunity to engage in the knowledge society than men.

What do you think would be the best way to develop the ICT skills of women and girls in order to empower them for future leadership roles? Discuss this question

with a fellow student and then write down the two skills development options that you think would be most effective, giving reasons for your answers.

## 2.5 PROFESSION: ETHICS OF INFORMATION PROFESSIONALS

### 2.5.1 Value-based development and human rights

**Prescribed reading**

Read Section 3.4 on pages 77-79 of Globethics.net (2018) *Ethics in the information society: The nine P's*.

The working conditions of information professionals should be based on ethical values and respect for the integrity of human rights. Content and information professionals must assume responsibility for building a culture of honesty, transparency, independence and integrity, by adhering to professional codes of ethics and resisting pressure to prioritise profit above ethical values. Journalists, teachers, scientists, curriculum developers and other content professionals influence both public and private opinions, and it is essential that they use their communication skills for disseminating accurate information and promoting core ethical values (Globethics.net, 2018:77-78).

The rise of artificial intelligence has given rise to a new set of ethical quandaries that information professionals need to be conscious of. If AI is used to gather, consolidate, process or produce content, certain ethical principles must apply (Metz, 2023). Information professionals should still be required to verify any facts and should disclose the use of AI tools that are used in the course of their work.

Miller (2020:227-244) discusses the right to freedom of communication and the importance of maintaining a free and independent press. He points out that technology-supported information channels are increasingly being used to spread manipulated images, fake news and hate speech, and even to influence election results. This presents an ethical challenge in terms of who should be responsible for identifying and controlling the publication of political propaganda and other biased content that is intended to promote intolerance and may increase the likelihood of conflict.

The question of who must be held responsible for illegal/unethical/unwanted content on digital platforms has been widely debated. The blame can be placed

on one of four parties (Reisach, 2021): users who initially create the content, users who share the content, the digital platform (and the managers thereof) itself or those that provide funding to the digital platform (most often the advertisers). Ideally responsibility should be equally shared amongst all four parties.

In particular, Miller (2020) believes that institutions such as universities, media organisations and research facilities can play an important role by distributing accurate knowledge, via traditional media and within the new territories that exist in cyberspace. This type of intervention is even more essential in light of the fact that media platforms (i.e. Facebook, Twitter) frequently contradict their policies in respect of monitoring and regulating the content that is published online. Media platforms often claim to be 'platforms' rather than publishers and are seldom held liable for illegal content published on their platforms. Miller (2020) advocates the need for a complete redesign of how online content is published and regulated.

Other ways in which content can be verified and regulated is through mechanisms such as account verification. Account verification involves checking that the real-world identity of a user on a digital platform matches their online identity. Mupangavanhu et, al. (2023) examines how South African law caters for protecting consumers against deceptive content online, specifically in cases where content may in fact be covertly advertising without making it clear to the user. It is a legal requirement that online advertisements must be clearly labelled as advertisements, this includes content that is discernably used for marketing purposes as well as content that is indirectly sponsored financially by a company. Mupangavanhu concludes that the Electronic Communications and Transactions Act 25 of 2002 (ECTA), the Consumer Protection Act 68 of 2008 (CPA) needs to be updated to ensure that online content can be adequately regulated and that users can be protected from deceptive content in the form of misleading marketing or advertisements.

### 2.5.2 Recommendations

Globethics.net (2018:78-79) identifies the following recommendations for knowledge societies:

1. Associations and networks of information professionals should ensure that the production and distribution of information and knowledge promotes and strengthens awareness of corresponding ethical codes.

2. Associations and networks of information professionals should develop appropriate codes of ethics for members of the public who produce media content, for example bloggers and photographers.
3. Governments should develop and maintain legal frameworks that support corruption-free and honest journalism.
4. Governments and society should work together to prevent intimidation and other illegal violations of the freedom of expression of information professionals.
5. Governments, content producers and consumers should assume responsibility for ensuring cultural, linguistic and religious diversity.
6. Training institutions for media professionals should include mandatory ethics courses.
7. Training institutions for media professionals should provide training in digital safety for online or offline journalists who may be threatened by those wanting to enforce a different point of view.

## Activity

Together with a fellow student, identify and discuss at least three different ethical issues that you believe should be addressed during the training of online media professionals. List the three issues that you think are most important and explain the reasoning behind your selection.

## 2.6 PRIVACY: DIGNITY, DATA MINING AND SECURITY

### 2.6.1 Balancing privacy rights with community rights

## Prescribed reading

Read Section 3.5 on pages 79-81 of Globethics.net (2018) *Ethics in the information society: The nine P's*.

The United Nations has recognised the protection of privacy as a human right; however, the right to privacy needs to be balanced against open access to information, community rights and security needs. The Internet makes it possible for organisations to track the movements of individuals via their mobile phones,

to hack into online accounts, or to collect individuals' data and analyse it for their own purposes, and governments need to balance the protection of public security against respect for the privacy of individuals. Unfortunately, there is no simple formula that can be applied to resolve this balance, since the policies and regulations imposed by national governments are likely to differ from country to country, or even between different regions within the same country (Globethics.net, 2018:79-81).

Edward Snowden is a key figure in shaping our modern understanding of how the privacy of individuals can be completely disregarded by organisations in the pursuit of security. Edward Snowden was employed by the National Security Agency (NSA), an American government agency that is responsible for conducting (amongst other functions) surveillance in the interest of protecting the American public. In 2013 Snowden leaked classified NSA documents revealing that the NSA has been illegally conducting extremely invasive surveillance at scale using intrusive spyware, most of it targeted at average American citizens and journalists. Snowden acted as a whistleblower, inspired by his own ethical objections. In a recent 2023 interview Snowden states that recent advances in artificial intelligence have contributed to surveillance technologies becoming even more advanced than what he had described in 2013 (MacAskill, 2023).

One of the positive legacies of Snowden's whistleblowing, is increased consciousness regarding data privacy and protection. Cloudian (not dated) defines data privacy as focusing on specifying who is authorised to access particular data, based on policies governing the access to that data. Data privacy allows users to control how much of their data can be shared and who it can be shared with. Data protection applies the restrictions that defined in the relevant data privacy policies and makes it the responsibility of the company handling that data to ensure that it remains private.

Sax (2016:25-31) questions the right of large corporations to compile and analyse large datasets containing personal data to generate useful insights. The insights generated can subsequently be used within their own businesses to increase profits. She points out that large datasets are used for data mining, specifically to search for previously unrecognised relationships between data values. The newly recognised relationships may give rise to valuable insights about possible commercial uses of the underlying data. Sax questions the ethical legitimacy of large organisations' claims to the ownership of these insights. Sax (2016:29-30) argues that the owner of an individual's personal data is the individual who that data relates to, therefore the organisation responsible for

gathering an individual's personal data cannot claim sole ownership of the data and benefits arising from subsequent data analysis and use.

In 2018 the company Cambridge Analytica was revealed to have obtained Facebook data which they subsequently analysed to extract insights regarding the political sentiments of the Facebook user profiles (Confessore, 2018). Although Cambridge Analytica had illegally acquired the Facebook data, users were still alarmed to find that their data was so easily accessible. However, Facebook came away from the scandal largely blameless, as users had consented to their data being gathered and stored when they had initially created a Facebook account.

It is unclear whether consent to use a customer's personal data is genuinely 'informed', as it is difficult to determine the competence of the customer who is asked to make that decision. In a study that focused on ethical governance, Arthur and Owen (2019) analysed how a financial services organisation used aggregated and anonymised data to ensure the security and privacy of its clients' data. Initial research involved observation of routine activities, interviews, document reviews and workshops with staff, with a particular focus on employees' perceptions of the importance of ethical values. This was followed by interactions with external stakeholders such as the bank, the Financial Conduct Authority (FCA) and the Advertising Standards Agency (ASA). In addition, the organisation was required to comply with the provisions of the Data Protection Act (DPA), which include "processing data fairly, lawfully and for a specific purpose", while in this case also ensuring information security, customer privacy and data anonymisation. Employees of the company wanted to see the organisation thrive, maintain its positive reputation, and provide opportunities for self-fulfilment, based on an ethos of responsible behaviour (Arthur and Owen, 2019:369-371).

### 2.6.2 Recommendations

Globethics.net (2018:79-81) identifies the following recommendations for governments, organisations and individuals:

1. Governments should enact and enable reasonable privacy safeguards for their citizens, as agreed at meetings of the World Summit on the Information Society (WSIS) held in 2003 and 2005, and at a subsequent WSIS+10 Review Event held in Paris during 2013.
2. Companies that develop software and/or collect data about individuals should pay close attention to business ethics and respect the privacy of individuals.

3. Internet intermediaries should carefully consider the implications of government requests for access to data that has been obtained from organisations or individuals.

## Activity

Desmond (2021) outlines regulations and guidelines affecting the collection and processing of the personal information of South African consumers, based on the Protection of Personal Information Act 4 of 2013 (POPIA).

POPIA embodies eight key principles:

1. Lawful collection: The collection of personal information should be done in a way that is lawful and fair to the subject.
2. Limited use: The information should only be used for the original purpose for which the subject has given consent.
3. Limited processing: Processing of personal information is limited to the uses that the data subject has agreed to.
4. Information quality: The party responsible for collecting the information must ensure that it is complete, accurate and up to date.
5. Transparency: Both the Information Regulator and the data subject must have agreed to the collection of the data.
6. Security: The party collecting the information should take measures to prevent the loss, destruction, damage, exposure or unauthorised processing of the data.
7. Participation: The data subject should be able to access their stored data and correct it if necessary.
8. Compliance with regulation: The party that is responsible for processing personal information must comply with the POPIA requirements.

Consider all the social media platforms (Facebook, Instagram, Whatsapp etc.) and other technology platforms such as Google, Microsoft and more that are currently storing and using your data.

Make a list of all the companies that you believe are currently storing your data in some capacity and then determine (to the best of your ability) whether they adhere to the principles outlined above.

## 2.7 PIRACY: INTELLECTUAL PROPERTY AND CYBERCRIME

### 2.7.1 Digital piracy

**Prescribed reading**

Read Section 3.6 on pages 81-83 of Globethics.net (2018) *Ethics in the information society: The nine P's*.

In cyberspace, 'digital pirates' can steal information from the websites of governments, organisations and individuals, in most cases without the knowledge or consent of the owners of that information. Digital content such as music and books is frequently downloaded without permission or payment. Pirating is often conducted with the use of torrent. Torrent is a communication protocol that allows for data to be shared between users, without the data needing to be uploaded to a central access point (or server) first. Using torrent is particularly attractive for digital piracy, as it allows for faster downloads than other communication protocols such as HTTP or FTP. While torrent itself is not illegal (as it is just a communication protocol) it is the manner in which torrent is used that can result in unethical online behaviour.

"Intellectual property is any product of the human intellect that the law protects from unauthorized use by others" (Legal Information Institute, Cornell Law School; not dated). Although intellectual property laws are intended to prevent the theft of trade secrets and other strategic documents by hackers, such thefts may go undetected for extended periods, since the intellectual property in question will usually have been copied, rather than being physically removed from an organisation's servers (Deloitte Financial Advisory Services LLP; not dated). When this type of theft is identified, forensic specialists will usually be called on to identify the data that has been compromised and attempt to track down the perpetrators of the attack.

Intellectual property laws can have unseen negative consequences, as valuable resources such as textbooks and medicine are also classified as intellectual property. The lack of affordable access to school textbooks presents a challenge for developing countries. UNESCO (2016; updated 2 February 2022) reports that in a survey of 11 developing countries, up to 20% of grade 4 pupils did not have their own textbooks. Textbook shortages affect learners across 22 sub-Saharan countries and create significant barriers to learning. UNESCO is investigating

centralised procurement models that can reduce the cost of textbooks, as well as reducing costs further through private-donor funding.

Because many people living in developing countries struggle to afford basic medicines, product development partnerships (PDPs) are seen as a practical option for reducing the cost of drugs (Stevens and Huys, 2017). Although drug manufacturers are seldom willing to reduce the prices of their drugs and thus reduce their profits, exceptions have been made in the form of drug donations to under-developed countries, usually after the products in question have been on the market for at least 10 years (Stevens and Huys, 2017). This strategy, combined with the development of public-private partnerships between local Departments of Health and rural clinics, is helping local healthcare workers to provide more effective service delivery.

### 2.7.2 Recommendations

Globethics.net (2018:83) identifies the following recommendations for managing the intellectual property interests of large organisations and business owners, while at the same time providing affordable access to essential resources for citizens of poorer nations and third world countries.

1. The World Intellectual Property Organization (WIPO) together with other international organisations should ensure that copyright enforcement is based on transparent and accountable processes.
2. Governments and other actors should participate in the development of a balanced legal system that will protect access to intellectual property while providing access to information for those who are most in need.
3. The World Summit on the Information Society (WSIS) should support the relaxation of restrictions on patents in order to make affordable copies of products such as drugs available to those who are most in need.
4. The World Summit on the Information Society (WSIS) review process should draw attention to the need to formalise the legal right of individuals or organisations to own digital materials and to bequeath or transfer their ownership to others.

## Activity

Many information resources such as journal articles and textbooks are not freely available to access online, they require users to either purchase a subscription or make a payment that is often equal to the price of purchasing a physical copy.

Students from third-world countries such as South Africa are often unable to afford to access these resources legally and are forced to resort to illegal piracy to obtain access to journals and textbooks.

Consider whether this behaviour is ethical and write down your opinions with reference to global and contextual ethics.

## 2.8 PROTECTION: CHILDREN AND YOUNG PEOPLE

### 2.8.1 Online risks faced by children and other Internet users

## Prescribed reading

Read Section 3.7 on pages 83-85 of Globethics.net (2018) *Ethics in the information society: The nine P's*.

Children and young adults in a digital world are often unaware of the online risks they are exposed to, including the invasion of their privacy, cyberbullying, sexual exploitation, and gaming addictions. Strategies need to be developed that educate children and young adults about ICT-related risks and provides them with tools to counteract these risks (Globethics.net, 2018:83-84). Digital literacy in particular has been shown to reduce the amount of online risk (Purnama et al., 2021).

Livingstone et al. (2021) proposes classifying online risks to children into four categories:

1. Being exposed to harmful content (i.e. violent or explicit content).
2. Contact with other users online leading to harmful experiences (i.e. sexual grooming).
3. Witnessing or participating in harmful conduct online (i.e. perpetrating hateful rhetoric)
4. Having their data be gathered and used in an undesirable manner (i.e. used for advertising purposes).

Online risk can be mitigated by requiring explicit consent to be given before personal information can be shared, with a corresponding right of withdrawal of such consent after it has been given. Formal measures can be invoked to support the rights of children and young adults, such as the Convention on the Rights of the Child which was adopted and ratified by the UN General Assembly in November 1989 (Convention on the Rights of the Child, 1989:1-15).

Internet addiction among high school students is of concern as excessive Internet use has been associated with poor academic performance. Çelik (2016) evaluated the effectiveness of a training programme intended to develop students' awareness of their Internet usage, academic motivation and how they used their time. The training included the development of time management skills. Addiction scores were recorded pre-test, post-test, and six months after testing, using the Problematic Internet Use Scale (PIUS). Students attended weekly sessions of between 90 and 120 minutes. Data analysis revealed that the post-test addiction scores was significantly lower, a difference that was maintained throughout the six-month follow-up period.

### 2.8.2 Recommendations

Globethics.net (2018:83-85) identifies the following recommendations for protecting the rights of children and young people in respect of access to information, freedom of expression, privacy and non-discrimination.

1. Internet and social networking providers should ensure the availability of comprehensible and accessible privacy mechanisms.
2. Governments and international organisations should support global research into the use of ICTs by children and young adults.
3. National authorities should ensure that law enforcement agencies are equipped to deal with cyber-based criminality including the exploitation and abuse of children.

## Activity

Consider how you first engaged with online space as a child and the risks you might have encountered. Suggest three pieces of advice to parents who have children between the ages of 5 and 10 regarding online safety. (For additional supporting information, refer to Chapter 2 in: UNICEF Office of Research. 2018. *Policy guide on children and digital connectivity*.)

## 2.9 POWER: ECONOMIC POWER OF TECHNOLOGY, MEDIA AND CONSUMERS

### 2.9.1 The complexity of modern value chains

## Prescribed reading

Read Section 3.8 on pages 85-87 of Globethics.net (2018) *Ethics in the information society: The nine P's*.

Many industries participate in supply chains that produce, process, disseminate, control and archive information and knowledge. Information and knowledge can influence human behaviour, ideologies, world views, cultures and politics; therefore, regulatory frameworks are needed to ensure the ethical responsibilities of governments, lawmakers, politicians, organisations, investors and consumers. These frameworks play an important role in ensuring that power is managed with responsibility and accountability (Globethics.net, 2018:85-86). The profit that may be realised from the production and dissemination of knowledge should not be a goal in itself. Consumers have the right to select information and knowledge products based on their own needs and the price they can afford, and the profits that result from educational investments should be used to support the delivery of knowledge services to consumers (Globethics.net, 2018:86).

Aschendbrand, Proctor and Trebilcock (2018) explored the gap between theory and practice in relation to the management of ethical supply chains. They report that although most organisations claim to have supplier compliance initiatives, "very few of those organisations actually audit their suppliers' performance" (Aschendbrand *et al.*, 2018). The focus of supply chain management has shifted from cost efficiency to a quest for strategic advantage. This presents a dilemma for supply chain managers: consumers expect suppliers to create and distribute products in ways that are socially, ethically and environmentally acceptable; yet a survey conducted by the Supply and Value Chain Center at Loyola University found that 46% of respondents believed that responsible supply chain management would result in increased costs. Aschendbrand *et al*. (2018) disagree with this perception and recommend the use of supply chain mapping to uncover areas where the cost of transporting goods could be reduced, or wastage could recycled.

Apple, Google, Dell, Microsoft and Tesla have repeatedly been accused of human rights violations pertaining to their supply chain, in particular their procurement of cobalt (Kelly, 2019). Cobalt is an essential component of the rechargeable batteries used in most modern electronics including laptops, phones and electric vehicles. Cobalt is mined extensively in the Democratic Republic of Congo. The

working conditions of workers in Congo are described as "modern slavery" (Gross, 2023) as they are renumerated barely enough to survive, are not provided with adequate safety equipment when handling the highly toxic cobalt and the lack of regulation has also led to instances of child labour.

### 2.9.3 Recommendations

Globethics.net (2018:87) identifies the following recommendations for sharing political and economic power with others in order to benefit people and society and make a positive contribution towards public governance.

1. Investors should apply socially responsible investment standards (SRIs) to all ICT-related investments.
2. Media creators, owners and distributors should ensure that their ICT strategies are based on ethical values and should take responsibility for how the media they produce affects specific sectors of society.
3. Politicians and other regulators should base media regulations on the values of freedom, equal access and participation, respect for diversity and sustainable development.
4. Both producers and consumers of information and knowledge content should use their power to promote the ethical use of such content.

## Activity

Do you agree that it would be easier to establish an ethical supply chain in a sub-Saharan country like South Africa as opposed to a country like America? State your opinion as well as reasons for your opinion.

## 2.10 POLICY: THE ETHICS OF REGULATION AND FREEDOM

### 2.10.1 Ethical challenges related to the use of ICTs

## Prescribed reading

Read Section 3.9 on pages 87-89 of Globethics.net (2018) *Ethics in the information society: The nine P's*.

Technological development, ethical standards and regulatory frameworks have important roles to play in supporting freedom of expression, freedom of association, and the right to receive and impart information. At the same time, several practical challenges need to be addressed, such as the provision of access to information (including local content), capacity building and linguistic diversity. From a global perspective, potential conflict may arise in situations where governments and transnational corporations have differing views on the legitimacy of media content (Globethics.net, 2018:87-88).

Excessive regulation often leads to users simply finding different ways to interact online. An example is use of the Tor browser, that allows users to access the darkweb. The darkweb is entirely separate from the regular cyberspace most users are acquainted with. The darkweb exists on a separate network that uses advanced encryption to ensure users can remain anonymous. The anonymity on the darkweb has led to a lack of regulation and a high degree of freedom. The anonymity fascilitated by the darkweb has attained a bad reputation as it is exploited by criminals to easily trade illicit materials such as weapons. The darkweb is however also used for benign reasons by everyday people in countries where freedom of speech and access to the regular web is heavily regulated or restricted entirely.

### 2.10.2 Balancing Internet regulation and freedom

Transparent, informed and democratic debate is needed to ensure that access to information and knowledge is protected at both national and international levels. A balance also needs to be struck between an unregulated Internet which is at risk of perpetuating current unequal levels of information access, and a more regulated Internet that may prioritise economic and commercial goals above issues such as equity of access (Globethics.net, 2018:88).

Although new technologies facilitate online access to information, that is of little benefit to speakers of indigenous and minority languages or the illiterate; and the closure of physical resources such as libraries exacerbates the problem (UNESCO, 2021). Existing policy frameworks will need to be adapted so as to address these challenges, in support of the following aims (UNESCO, 2021):

- Protect and promote the right of access to education.
- Develop and improve monitoring and reporting tools to assist countries in tracking their progress on improving access to education.
- Strengthen the Information For All Programme (IFAP), in particular the policies affecting information and knowledge.

- Foster multilingualism and linguistic diversity, including the provision of support for indigenous languages.
- Promote inclusive solutions for empowering persons with disabilities.
- Campaign for open access to scientific information and data in order to provide equal access to knowledge and build local intellectual capacity.

### 2.10.3 Recommendations

Globethics.net (2018:89) identifies the following recommendations for ensuring that regulatory measures support freedom of expression, freedom of association (including by means of ICTs) and the right to share information through any media form and across national boundaries.

1. The United Nations (UN) should reaffirm the Universal Declaration of Human Rights, including the right of freedom of expression and association, and the right to communicate information through any media form and across national boundaries.
2. The UN should develop policies that will balance the regulation and freedom of the cybersphere, with a particular focus on human rights and the Internet.
3. International regulatory bodies for the information society should employ a multi-stakeholder approach to monitor the activities of transnational corporations and to address existing inequalities in Internet access.

## Activity

Do you think that regulating Internet access would make it easier for citizens of developing countries to locate and access information online? Briefly explain your reasoning in a note to yourself.

# Summary

Global ethics (such as the right to freedom and justice) apply to all cultures and ideologies; while contextual ethics reflect the role of local cultural, economic and political practices within a particular environment. However, in disadvantaged communities, the 'digital divide' may limit or prevent access to resources ranging from school textbooks to computing resources. To address this, governments

and other organisations should participate in the provision of relevant ICT infrastructure, training and access to information. The development of 'knowledge societies' helps to ensure that the informational needs of the local population are met, while at the same time serving as an important driver of development.

Because the developers of online content have the power to influence public opinion, it is essential that they adhere to appropriate codes of ethics while at the same time balancing individuals' rights to privacy against their right to access information. Many organisations have compiled large datasets containing personal information about their customers, which is then used for purposes such as targeted marketing; in many cases without the customer's explicit consent and without having appropriate security policies in place. Universities and media organisations can play an important role by distributing accurate knowledge online, thus counteracting the spread of fake news and hate speech via the Internet.

The theft of digital content is a growing concern, and is difficult to detect because the material in question is usually copied without the original version being affected. For developing countries, the provision of legitimate educational materials is also a problem, since local ICT infrastructure is likely to be inadequate and the cost of printed textbooks is often prohibitive. However, in the medical sphere, several drug manufacturers have agreed to distribute their products to under-developed countries at a reduced cost. Strategies also need to be developed that will educate children and young adults about ICT-related risks.

Many different organisations are involved in the supply chains that transform raw materials into manufactured goods, ensure that they are packaged so as to minimise the risk of damage during shipping, distribute them to regional centres in different countries and then transport them to their final destinations. However, the cost-efficiency of the various stages within this process are seldom audited and possible opportunities for cost-reduction should be investigated.

Finally, global policies should be formulated that will promote the right to education, support for indigenous languages, appropriate assistance for people with disabilities and open access to knowledge and information that will help to build local intellectual capacity.

# Self-Assessment Questions

Write an essay of approximately 350-450 words based on each of the topics outlined below:

- Harvard professors Barbara Grosz and Alison Simmons collaborated in the development of a teaching program that would embed philosophical and ethical concepts within the computer science courses that were being offered at Harvard (Pazzenese, 2020). Discuss the potential benefits and drawbacks of this approach.
- Discuss the concept of an 'ethical supply chain', including issues such as (for example) the employment of child labour in third world countries; responsible management of natural resources; productive recycling of waste materials; the adoption of proactive rather than reactive ethical practices; and other relevant corporate social responsibility initiatives.

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