
Distinguishing right from wrong: proposed ethical principles for the development of national information policiesⁱ

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Abstract

Information policy formulation is not only a matter of politics and policies. In this article it is argued that national information policies are also about ethics and that the moral complexities and challenges associated with the development of national information policies should be taken into consideration. As such it is a matter of social justice. A brief overview of the scope and nature of national information policies is provided. It is also argued that ethical reasoning should not be confused with laws or customs and that sound ethical reasoning is needed to address the ethical complexities associated with the design of national information policies. A set of ethical principles is proposed that can be used as guidelines for the development of national information policies.

Introduction

National information policy formulation is important for any country but it is not only a matter of politics and policies. It is an imperative that the moral complexities and challenges associated with the development of national information policies be taken into consideration. For example, it is important to understand what it means to claim the right of access to information, or what is implied by the role and responsibility of the state in the regulation and distribution of information products and services in society. The development of national information policies is interwoven with ethical issues and challenges and those who are responsible for the design and implementation of national information policies need to have a clear understanding that their assignment has an important ethical dimension. In short: the development and implementation of national information policies is also a matter of social justice.

The purpose of this article is not only to highlight the importance of the ethical dimension of national information policies, but also to propose a set of ethical principles, based on social justice, that can be used as guidelines in the design of these policies.

This article is structured as follows: The first part focuses on a brief description of the nature and scope of national information policies. Following this overview we elaborate on the ethical issues associated with the development of national information policies. In the third part of the paper we discuss the socio-economic and political reality that provides the context for an understanding and interpretation of the ethical issues. It is also important to understand the complexities of information when it comes to an ethical discourse dealing with national information policies. This forms the next part of the paper. Following this we propose a set of ethical principles that can be used as guidelines in the design of national information policies.

National information policies: scope and definitions

According to Sengupta (1987:82) a national information policy is “a set of decisions taken by a government, through appropriate laws and regulations, to orient the harmonious development of information transfer activities, in order to satisfy the information needs of a country.” Duran (1991:153) defines a national information policy as:

“A set of interrelated principles, laws, guidelines, rules, regulations, and procedures guiding the oversight and management of the information life-cycle: the production, collection, distribution/dissemination, retrieval and retirement of information. Information policy also embraces access to, and the use of information.”

A national information policy therefore encompasses a wide scope of activities on the part of a government in collaboration with other stake holders to support information-related development. Approaches to information policy differ from country to country based on a variety of factors such as stage of economic development and historical context. This is because policy makers need to recognise the realities and challenges inherent in their contexts and address the needs of, amongst others, those who are illiterate and those who live in rural areas. As a result information policies should be “flexible, dynamic and responsive to changing circumstances” (Rowlands 2001:14-15). Rowlands (2001) also points out the dual nature of information policy: events can be shaped through proactive information policy but reactive information policy is in response to events.

Information and knowledge play an important role in all economies, to such an extent that a separate and distinct sector of the economy, the ‘information sector’, has been recognized as far back as the early 1960’s. When the information and knowledge sector becomes dominant, one can speak of a knowledge economy (Gornitzka and Langfelt 2008). A true understanding of, and measurement of the information and knowledge sector is important when planning and formulating a national information policy (Braman 1998, 2007). The information and knowledge sector is seen as an important component in an economy in terms of stimulating growth and development. It is developed and measured at macro-economic level, that is national rather than at organisational or individual level. In order to stimulate the information and knowledge sector, amongst others, adjustments within an economy are required.

Although it is both the public and private sectors that are able to make structural adjustments in an economy at macro-economic level, it is important to note that, if a government does not interfere in information and knowledge sector development the outcome will tend to be favourable only to a small section of the population (Braman 2008). National information policy planning and development is therefore needed for the government to be able to implement fair structural adjustments and measure and monitor the progress thereof. Rowlands (2001) discusses three hierarchical levels of information policy. These are:

- Infrastructural policies that apply across society and affect the information and knowledge sector both directly and indirectly, such as telecommunications. Suitable infrastructure offers the potential for leapfrogging some development obstacles, can address universal access obligation and aid community development by putting in place the minimum infrastructure so that those on the global periphery and in remote rural areas have the opportunity for participation in the global information economy. Suitable infrastructure is also a prerequisite for progress in other areas as outlined below.
- Horizontal information policies apply across society and affect the information sector both directly and indirectly, for example, tariffs and pricing as well as freedom of access to information.
- Vertical information policies apply to a specific part of the information sector for specific applications, for example, in education, health, or tourism.

These are of importance because issues such as the creation of equal opportunities to enable participation, affordability of information and access to information needed to address basic human needs are addressed. It is unfortunate that many developing countries only emphasise infrastructure policy development in their information policy, whilst neglecting the necessary accompanying human capacity development and creation, exchange and dissemination of information content as articulated by Rowlands (IDRC 2001). Information policies need to address the development – and retention – of information and communication technology (ICT) skills to support policy implementation by, amongst others, encouraging broader participation in ICT and research on ICT-specific policy formulation and implementation. The development of human capacity can increase the ability to generate and disseminate local content for socio-economic development; for example, information on appropriate farming methods to optimise yields and weather data to establish the optimal time for planting. Furthermore, attention must be paid to policy to ensure the right to communicate and to express opinions and ideas, to share information freely whilst protecting intellectual property rights and privacy, and to inform people of these information-related rights as well as mechanisms to address violations thereof.

Ultimately countries intent on pursuing the successful development of an integrated national information policy need to develop mechanisms to ensure a high level of collaboration from all relevant government departments as well as the multitude of stakeholders impacted by and impacting on policy. Failure to do so presents a major stumbling block as has been the case in many countries (IDRC 2001). In the absence of a national information policy, departmental or

sectoral policies are often developed to address specific needs. Once disparate departmental and sectoral information policies become entrenched it can be difficult to integrate these into the broader national information policy. As the IDRC (2001:4) cogently states: “although international assistance and technical cooperation may be available to developing countries, what is most needed is a national vision, underpinned by coherent strategies and actions at the national level.”

National information policy: ethics matters

More than 20 years ago Mchombu and Miti reported that progress in formulating national information policies in Eastern and Southern Africa has been minimal. Constraints identified at that time included a "narrow definition of information, lack of policy evaluation, and [an] inability to tackle sensitive issues" (Mchombu and Miti 1992:234). Much has changed since 1992, but in many cases African governments (and other governments around the world) are still faced with the same sensitive issues. Many of these are of an ethical nature such as the lack of transparency, and political and other forms of censorship. They extend to efforts to ensure the rightful protection of citizens' right to access government held information, the right to communicate and to express opinions and ideas, and the right to share information freely whilst protecting intellectual property rights.

A major shift that aggravated these ethical challenges has been the introduction and wide spread use of modern information and communication technologies (ICT). Not only did these change the information landscape (including the very notion of how we understand 'information'), but they brought about a change in the focus of national information policy development, accompanied by even more complex, sensitive and challenging ethical questions. These are not new ethical issues but are 'new' in the sense that these questions are now articulated within a new context – that of a digital information-based world that impacts nearly all aspects of human activities. For example, 'access to information' is no longer limited to the notion of gaining access to the ideas held by others. Access to information today means the ability to access a website and to buy an electronic airline ticket or to cast an electronic vote or to transfer money from one account to another. It has become an economic, political and societal activity. 'Access to information' has become 'access that enables participation'. It is no longer an individual information-based right (the right to gain access to the ideas of others), but it has become a socio-economic right.

Governments officials and other stakeholders involved in the formulation and implementation of a national information policy are indeed challenged on many fronts. On the one hand, they need fully to understand the changing nature of information and accommodate, from a policy perspective, the rapid change and development of new digital technologies as exemplified by the introduction of 3-D printing (Anderson 2012) and the emerging field of ‘big data’ (Mayer-Schönberger and Cukier 2013). On the other hand, and for us more importantly, it is a moral imperative that much closer attention be paid to the emerging ethical issues that we listed in the previous paragraphs. These ethical issues do not only impact the implementation of a national information policy, but they touch the very heart of our basic rights – such as our right to know, our right to privacy, our right of freedom of expression and our right to participate in a meaningful manner in the different socio-economical and political activities of the society in which we live. The ethical dimensions of a national information policy can therefore be articulated as a matter of social justice – because it deals, from a societal perspective, with matters relating to our dignity, autonomy and rights – in the words of Lotter (2000:191) “...the scope of justice concerns any aspect of human life where people’s lives can be harmed, their dignity be violated or their development be constrained”. Miller (1991) correctly argues that “... a central element of any theory of justice will be an account of the basic rights of citizens” (1999:13).

Social justice not only creates a collective consciousness with regards to social injustices (such as unequal access to information or the violation of our right to freedom of expression), but it acts also as a positive virtue because it contributes to the development of mutual respect and recognition of human dignity thereby creating a sustainable environment within which to live. As a social virtue it sets out important principles that can be used in the development and implementation of a fair national information policy that will ensure the equitable treatment of all people.

The ideal and the real world of national information policy development: some ‘ethical and information complexities’

In the previous section we argued that the development of a national information policy occurs within the context of complex and vexing ethical questions and is therefore a matter of social justice. The question then becomes: How do we translate this moral imperative (a national information policy is a matter of social justice) into a practical reality that can make a difference, not

only in the formulation of a national information policy, but also in the implementation thereof?

When discussing the development of a national information policy through an ethical lens it is important to first get a clear understanding of the socio-economic realities and how these interplay with moral values and ethical reasoning in the development of such a policy. Lyotard (1985) cautioned us against 'moral idealism' and he argued that the application of moral values in real life situations should not become just another grand narrative with no meaningful impact. The problem is that ethicists sometimes have the inclination to reason from a position of how the world should or ought to look like and this can create a tension between 'moral idealism' and 'socio-economic realism'. Ethical reasoning should for example take into consideration the fact that not all people will be able to have free or affordable access to all information needed to address their basic human needs.

Ethical reasoning is also sometimes confused with our customs, laws and social conventions - the so-called problem of pseudo-ethics, or as Paul and Elder (2006:9) refer to it: 'the sociocentric counterfeits of ethical reasoning'. For information policy designers it is important to distinguish ethical reasoning from other domains of thinking such as religion, law, politics and social conventions. Many religious practices are unethical and laws are not always ethically justifiable. What is illegal may not be an ethical issue and what is unethical may be legal. It is therefore essential to clearly articulate that moral tools, in particular social justice, should not be based on or be used in support of a specific political or economic ideology nor should they be based on a particular social convention. All of us, including those responsible for the development of information policies, are to a certain extent socially conditioned. Not only do we need to be aware of this fact, but we need to learn and be open to critique and to change these social norms. Ethical judgments must trump social conventions. Van Dijk (2006) in his discussion of the digital divide powerfully illustrates how social conventions, in this case the stratification of society into different levels of power, can determine the control and distribution of information. Throughout human history many information injustices, including political and religious oppression by means of among other censorship, have been perpetrated as a result of social conventions which were wrongfully interpreted and presented as ethical imperatives. Consider the history of political censorship in apartheid South Africa where the majority of the population was not allowed to freely express their political aspirations and ideas. This information discrimination and violation of the basic rights of people

was morally defended and justified as a struggle against communism and the preservation of Christianity.

The development of intellectual property regimes (IPR) over the last decade also offers a good example of how economic and political domains of thinking got convoluted with ethical reasoning. The development of stricter intellectual property regimes in specifically the USA has made access to and use of information – which are two key conditions for people to exercise their basic rights – more difficult. When lobbyists use economic arguments, sometimes even presented as moral arguments (justice based on merit) in support of stricter IPR legislation the original moral foundation of IPR regimes, namely to achieve a balance between providing incentives for creators and owners of information and the same time the preserving of the information commons seems to be neglected. Sound ethical reasoning will be needed in the design and development of national information policies to ensure that this ideological conflict between those who see information as a commodity to be sold to consumers versus those who see information as a common good that must be available in an open marketplace for users is balanced.

Those putting forward moral arguments in support of an information policy should therefore not romanticize the idea of a perfect ‘information world’, but should certainly reflect critically on the core moral values underlying the social conventions, economic processes and political decision-making that regulate the production, distribution and use of information in a society, and ensure that they are adhered to. It must be borne in mind that in today’s global marketplace it is to a large degree the so-called free market forces that determine and control the production, distribution and use of information. Ethics on the other hand plays a normative role to ensure fairness in these economic processes and political decision-making. It is in many cases impossible for ethical imperatives to radically change or alter the way in which the free market regulates the economic realities of information production and distribution processes by supply and demand with the accompanying uneven distribution of certain products and services. For those involved in the writing of national information policies it should not lead to ethical skepticism or even ‘ethical fatalism’. Ethical norms do play an essential role when it comes to formulation of national policies including information policies. Thompson (1991), in his work on moral economy, argues that in economic systems (he particularly referred to the British system) an ethical tension exists between equality (in terms of human rights) and inequality (in terms of advantages that economic systems offer certain persons and groups). Rawls (1973:65) accommodates this tension between equality and inequality in the different socio-economic and political

spheres in his second principle of social justice. According to him, “Social and economic inequalities are to be arranged so that they are both a) reasonably expected to be to everyone’s advantage, and b) attached to positions and offices open to all”.

Due to this inequality in production and distribution of information in the marketplace it is important, based on the second principle of Rawls, to highlight the role and responsibility of the state as an instrument of power (Huber 1983). Following this Rawlsian principle we argue that the state has a moral obligation to ensure that where unfair inequalities in the production and distribution of information in market place occur – for example in intellectual property regimes, it be regulated in such a manner that it does not disadvantage poor and underprivileged people and/or communities. This moral obligation toward the poor and underrepresented in our opinion a key justification for states to develop national information policies.

We therefore make the argument that it is not only important for governments to develop national information policies, but also an imperative that these policies be based on skilled ethical reasoning. Those officials and stakeholders that are assigned to design and eventually formulate a national information policy need to ensure that it is firmly rooted in core moral values such as social justice and human freedom and that it reflects and protects our basic information rights.

The complexity of information – ethical implications

The development and implementation of a national information policy is furthermore complicated by the very nature of information and the rapid change of information technology. Information has many unique characteristics which makes it rather challenging, not only in the way it is used and defined in a national information policy document, but also with regards to ethical reasoning. We highlight a number of these characteristics.

Information is instrumental to all human activities

Because we interact with our world through information (via our senses) information has an ‘instrumental value’ – it is instrumental in all human activities, ranging from gathering information on where to find food to searching for information on the web about economic indicators or a weather forecast. We therefore need information not only to survive, but also to improve our capacity to make better informed decisions and to enhance our quality of life.

As such, certain categories of information can be valued as a common good that benefits all – for example education, health information and information held by the state (De Waal et al. 2001:525). This instrumental role of information justifies the argument that access to certain categories of information needs to be regarded as a basic human right and is for this reason closely associated with social justice – in particular as it relates to the question of who should have access to which information. An information policy should recognize this instrumental value of information and will need to determine those categories of information that meet the criteria of a basic right.

The two spheres of information

Apart from having a “common good value”, information also has a competitive value and it can give a “knower” or an “information owner” a competitive edge because he/she might have access to and the use of a scarce resource (information) that is needed to make important decisions that will impact a person’s livelihood (Lor and Britz 2005). In this sense information, just as any other commodity in the marketplace, can be subjected to the economic laws of demand and supply. It is furthermore possible to create an artificial scarcity by means of intellectual property regimes and other forms of economic regulations. This can lead to the unequal and uneven distribution on information products and services in the marketplace, as well as the creation of information monopolies. The price sensitive sector of the population can therefore be excluded from access to important information. For information policy designers this competitive value of information raises some challenging ethical questions regarding the fair protection, promotion, distribution as well as accessibility of essential information in the marketplace.

It is also possible that the same information product and or service can have two types of value. An information product or service which was created within the domain of the ‘common good’, can end up in the marketplace where it suddenly has a competitive value due to amongst other intellectual property rights and other economic regulations allowing information industries to turn information products and services into a profit (Lor and Britz 2005). Information products and services that inhabit both these two different spheres, each with its own value system, can make the application of social justice within the context of information policy development complex and difficult.

Information as a merit good

Information products and services can also be treated as a merit good because there are in many instances societal benefits in the provision of certain categories of information in the marketplace benefiting society beyond the benefits to the individual. In other words, an information product or service can, apart from its value to the individual who accessed and used the specific information product or service, have a value for other people. Public libraries and educational institutions serve as prime examples, and the policy that underpins education and libraries with public funding reflects this view of information as a merit good (Leister and Koehler 2003:166). The positive externalities created by the provision of public education and public libraries are considered sufficient reason to warrant public support, (by means of taxes) for both, because it will lead to a more skilled and productive workforce.

Ethical principles for the development of a national information policy

In this article we made the argument that national information policies have a very important ethical dimension, not only because of the instrumental value of information, but also because it impacts the well being, basic rights and dignity of people. As such we made the case that it is a matter of social justice, and that those who are responsible for the drafting of a national information policy need to be cognizant of this underlying ethical theme. They should therefore incorporate a set of ethical principles in the design of a national information policy. Based on social justice we recommend the following principles:

Principle 1: The equal right of access to essential information that is required to develop and to exercise other basic rights

This principle is based on the notion that all people are of equal value, irrespective of their status in society, and on the fact that people have certain basic human rights. As such it is an expression of justice as recognition according to which no negative discrimination based on among others race, gender, religion or economic status may occur with regard to access to essential information needed to satisfy basic human needs and to enable basic rights such as the right to be educated, to freedom and the right to live (Britz 2004, 2007). Reflecting Rawls's first principle of social justice (1971), this right of freedom of access to essential information (in other words: information as a common good that is needed to exercise our basic rights) may not be affected by, or

compromised for, any greater economic and or socio-political gain. It is also a positive right and corresponds with the duty and obligation of a society, and more specifically the state and key information stakeholders, to ensure that essential information is available, affordable and accessible. This right, which is articulated in this principle and a reflection of the instrumental value of information, is thus considered fundamental and inalienable and as such should form the cornerstone of any national information policy.

Principle 2: Access to essential information should also imply the accessibility and benefit thereof

This ethical principle is necessary since access to information does not necessarily imply the accessibility nor the effective and correct use thereof. If the South African government should, for example, decide that information created by the government should be made available in electronic format only, this would mean that many citizens might not be able to exercise their right of access to government information because of their inability to access the web and/or a lack of access to digital devices allowing access to digital information (Britz 2007). In this scenario we would argue for example, based on distributive justice, that the state and the key stakeholders that are co-responsible for a national information policy, have a responsibility to ensure that it is also accessible by other means, such as the radio, telephone services and printed media.

However, as we have illustrated in the abovementioned example, accessibility to essential information alone is not enough. Essential information as a common good is instrumental to human development, decision making and in the creation of human well-being (Britz et al. 2013). As such people must be able to also benefit from the information that they have access to. In other words, people need to be empowered to read and write and think critically, so that information can be used for its intended purpose. Educated people are also beneficial to society at large because the sharing of knowledge has a value for others (see our discussion on information as a merit good). Based on justice as enablement, which as a form of justice guides the process allowing human development that will enable self-determination (Young 1990), we make the case that a national information policy should enunciate clearly the need for access to schools, support for public libraries as well as information literacy programs.

Principle 3: Access to information should imply an equal opportunity to participate in a meaningful manner in the different socio-economic and political activities

A national information policy can no longer be limited to the ‘traditional’ information issues such as access and intellectual property rights. Digitization has embedded information in nearly every socio-economic activity. As such a national information policy should incorporate in its development and application the new paradigm shift towards the digital economy which is driven by an advanced form of global capitalism. Access to and use of information is no longer limited to the more traditional understanding of freedom of expression or freedom to hold opinions without interference and to seek, receive and impart information and ideas – a right understood primarily as an intellectual and individual right. In the era of this new ‘digital information’ paradigm and of globalization the right of access to information has become one of the most important social and economic rights, and access to digital information has become in most cases a precondition for participation in the various socio-economic and political activities of a modern society – for example e-banking, e-health and online shopping.

From a social justice perspective – more specifically participatory justice which argues for the creation of equal opportunities (Bedford-Strohm 1993) – we propose this ethical principle as a moral imperative for a society to create an information infrastructure that will allow people an equal opportunity to participate in a meaningful manner in the different socio-economic digital activities. Modern information technologies (such as affordable mobile devices) make this a practical possibility, the moral imperative serves as the motivation and a national information policy provides the vehicle for the codification thereof. Examples include the provision of free internet access in public libraries and the subsidization of mobile devices for poor communities that will allow them to access their health records via smart phones.

Principle 4: The right to communicate should be adopted to enable equitable and meaningful participation in a global dialogue

It is furthermore important that national information policies should incorporate, what we phrase as ‘the right to communicate’. Based on justice as recognition (Lotter 2000), people should have a right to share their views in an equal manner, and to have the equal opportunity to learn from others around the world. This implies, in our opinion, the establishment of a global and equal communication platform to address global agenda items such as human

trafficking, war, poverty, economic and political injustices as well as environmental issues including climate change – in short: the establishment of a universal right to communicate that should form part of a national information policy (Britz 2007).

What we argue for is not new. In 2003 Cees Hamelink, the well-known Dutch scholar in Communication Science, articulated the need for such a universal communication right at the first World Summit on the Information Society that took place in Geneva. He correctly pointed out that we should move beyond “information and knowledge societies” towards “communication societies”. As he put it: “Globalisation without dialogue becomes homogenisation and hegemony. Localisation without dialogue becomes fragmentation and isolation” (Hamelink 2003:3). The fact of the matter is that digital technologies, in particular social media, have created such a global communication platform that made a global interactive dialogue possible and allowed for more and effective inter- and cross- culture communication opportunities.

The right to communicate is also closely related to the debate about who owns and controls the information marketplace and the call for a ‘right to the Internet’. Based on this principle we argue that a national information policy needs to guarantee the creation of a media environment that is independent and of a diverse nature, guaranteeing the right of the public to express their opinions in a free and open manner and to receive information from a variety of sources and, in the word of Habermas (1989), to maintain an open public sphere. Calabrese (2005) correctly argues that the right to communicate should move beyond the traditional information rights such as intellectual property rights and focus on norms and social responsibility.

Principle 5: Allowing inequality in the distribution of information if it contributes to the improvement of marginalized communities

We have made the point earlier that part of the complexity of ethical arguments relates to the fact that we are confronted with social and economic inequalities. The application and interpretation of social justice does not imply absolute social nor economic equality – a fact that information policy designers need to accommodate in information policy development. People differ from another, and so do socio-political contexts as well as individual circumstances and economic models. Some people are more affluent and can afford for example a monthly payment for broadband access and while others are poor, marginalized and even illiterate, thereby being denied access in many cases to essential information needed to make a living.

Earlier we pointed out that information has a competitive value because creators of information products and services, as well as those stakeholders who are involved in the value-adding and distribution of these products and services, in most cases get compensated for their work. This can contribute to ‘information inequalities’ in societies. Information has truly become a tradable commodity, thereby creating a wider gap between those who own and control information and those who need access thereto (Lor and Britz 2007). Moral philosophers such as Rawls (1971) and economist like Sen (1993) recognize these differences between individuals and societies as well as the differences between socio-political and economic contexts. Rawls states for example in his second principle of justice that inequality between people is permissible if it is not to the disadvantage of the poor, but contributes to improving their situation (1971). From an information ethics perspective we interpret this Rawlsian principle of social justice, which is based on acquired rights, that certain information inequalities can be justified and accommodated in the development of a national information policy. We explain this justification in the following paragraphs.

The distribution according to acquired rights, as a basis for justification for information inequalities, is based on justice as reciprocity according to which those who are involved in the generation, value adding and distribution of information products and services can be compensated fairly (Buitter-Hamel 1998). This reflects the basic principle of distributive justice according to which individuals must get what is due them. This form of justice therefore requires that society – in this case the state and information stakeholders – must put in place effective mechanisms, for example, fair national information policies and intellectual property right legislation, allowing for the rightful protection of this economic interest.

However, as we have argued earlier, information inhabits two spheres, each with its own value system. One is in the so-called free market driven by capitalism and from which people can be excluded. The other is in the domain of the common good from which people should not be excluded from. There are therefore certain important preconditions that must regulate this form of information inequality and which should be articulated clearly in a national information policy. Rawls articulates this very well in his second principle. He describes it as follows (1971:65): “All social values – liberty and opportunity, income and wealth, and the bases for self-respect – are to be distributed equally unless an unequal distribution of any, or all, of these values is to everyone’s advantage”. This simply implies that, while accommodating the right to ownership of information products and services as well as the ability to economically gain from the ownership and distribution thereof, a policy should

not lead to the exclusion of access to essential information needed for human development and human well-being.

Conclusion

In this article we have argued that national information policy formulation is not only a matter of politics and policies. It is also about ethics. The moral complexities and challenges associated with the development of national information policies need to be taken into consideration. As such it is a matter of social justice. A brief overview of the scope and nature of national information policies has been provided. It was also argued that ethical reasoning should not be confused with laws or customs and that sound ethical reasoning is needed to address the ethical complexities associated with the design of national information policies. A set of ethical principles is proposed that can be used as guidelines for the development of national information policies.

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