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# Information ethics in Africa: curriculum design and implementation

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## Abstract

*In 2007 a group of academics from different countries established a network known as the Africa Network on Information Ethics (ANIE). Aimed at addressing the under-representation of academics from Africa on information ethics web sites and at international conferences, ANIE committed itself to raising awareness of and stimulating research on information ethics issues by means of conferences and workshops across the African continent. Informing this commitment was the notion that activities on information ethics matters should focus on "changes in the relationship between people and the world due to information communications technology" (Capurro 2008:1163). These networking activities contributed to the creation of the Africa Centre of Excellence for Information Ethics (ACEIE) in May 2012. The dual brief of the ACEIE was to conduct research on information ethics issues in Africa, and to develop an information ethics curriculum for Africa that could be piloted at selected higher education institutions on the continent. This article starts with a description of the background to and rationale for the development of such an information ethics curriculum. Following the description is a summary of Curriculum Framework components and an explanation of the different ways in which institutions could use the Framework in the design and implementation of their own curriculum offerings. The article concludes with an indication of the contribution that the development and implementation of the Information Ethics*

*Framework and associated curriculum offerings could make to research in the field of Information Ethics and the development of Africa as a globally competitive information and knowledge society.*

**Keywords:** Information ethics, information ethics curricula, curriculum design Africa, curriculum implementation Africa

## Introduction

Access to information is a basic human right in nation-state constitutions internationally. The extent to which people can exercise this right has grown dramatically due to the development and availability of highly sophisticated information communications technology (ICT). Ironically, the ease with which information can be accessed and disseminated by means of technological developments increasingly poses a threat to another human right, namely that of privacy. ICT users do not always respect the privacy of others, with malpractices such as hacking, identity theft, cyber bullying, et cetera occurring more and more frequently. The frequency of malpractices such as these, according to Floridi (2006:4), could probably be ascribed to the fact that legislation on information-related matters has not kept up with the pace at which ICT has developed. UNESCO (2009: 31-33, Sections [x and xi]), too, warns against the dangers inherent in the free flow of information in the absence of accountability and ethical standards (UNESCO, 2009, Section [i]). It therefore urges nation states to regulate access to and use of information and information communications technology (Section [xiii]).

There might, however, be another reason for the change in people's behaviour. Easier access to the Internet and, by implication, exposure to value systems other than the ones with which people grew up, could change their perceptions of what is or is not moral or permissible. Should this be the case, it might well be time to initiate debates on "moral questions relating to the ... generation, gathering, organization, storage, retrieval and use" (Britz and Buchanan 2010) of information. It was for this purpose, amongst others, that a group of international academics in the fields of information technology, philosophy and politics attending a conference on information ethics in Pretoria, South Africa, in 2007, decided to form what is now known as the Africa Network on Information Ethics (ANIE).

Aimed primarily at addressing the under-representation of academics from Africa on information ethics web sites and international conferences, and to contribute to the development of Africa as a macro information and knowledge society, ANIE committed itself to raising awareness of and stimulating research on information ethics issues by means of networking, workshops and

publications. In addition, although many higher education institutions in Africa were already addressing some of the ethical issues related to the use of information and ICT, none of these institutions had at that time introduced a field of study focusing specifically on information ethics. Such a field of study, according to Capurro (2008: 1163), should be “descriptive and emancipatory”, dealing as it does with changes in the relationship between people and the world due to information and communications technology . Information ethics could therefore be regarded as “a branch of applied ethics that studies what is morally good or bad, specifically in the handling of information, and the information age” (Le Sueur, Hommes and Bester 2013: 70).

While ethical issues were addressed in subjects and/or fields of study such as Library and Information Studies, Journalism, Communication Studies, Information Sciences, Law, and Health Sciences, the academic year levels at which this happened and the credits allocated to these components differed widely across institutions. Moreover, there was little evidence that information ethics issues were studied or researched at Master’s and Doctoral levels. The Curriculum Framework for Information Ethics in Africa described in this article is therefore not presented as a replacement of existing university programmes. Rather, it is meant to enhance and/or add to what is already in place. Its function is not to prescribe content that should be taught in specific disciplines but to highlight topical issues, and to suggest possible content and outcomes regarded as critical to the development of globally competitive but ethical African information and knowledge societies.

In addition to activities already mentioned, ANIE arranged meetings with a wide range of persons who had sufficient influence to act as advocates for its mission. Partnerships were subsequently formed with UNESCO, with a number of universities locally and internationally, and with the Department of Communication in South Africa. In 2012 the Department of Communication entered into a formal agreement with the University of Pretoria to establish the Africa Centre of Excellence for Information Ethics (ACEIE). Its brief was to conduct and facilitate research on information ethics issues globally and locally, and to co-ordinate activities which would enhance the awareness and knowledge of all those who could help to promote the ethical use of information. Directed by this brief, the ACEIE set itself two objectives, namely (a) to conduct stakeholder workshops on information ethics in South Africa and other African countries; and (b) to develop a curriculum on information ethics for Africa that would be piloted and eventually implemented at higher education institutions across Africa.

As a wider range of ICT users became involved in ANIE activities, it became clear that not only students at higher education institutions, but also government officials, information practitioners and the broader public needed information about the ethical dimensions of information-related matters. Programmes on information ethics therefore have to accommodate a wide range of ICT users whose needs will be determined by the contexts in which they operate. The ACEIE, in consultation with ANIE members, therefore decided that rather than designing a prescriptive, one size fits all curriculum suitable for higher education institutions only, it would design a curriculum framework which could serve as model for the development of a range of context-appropriate information ethics curriculum offerings. Such offerings could include short courses, stand-alone modules or units, themes or components forming part of existing subjects or programmes or even full-length academic programmes. It is this curriculum framework and the ways in which it could be manipulated to suit particular contexts and purposes that is described in the rest of this article.

## Framework development

Since curriculum development is a social activity taking place in “socialised contexts” (Ornstein and Hunkins 1993: 33), the culture and values of those for whom the curriculum is designed have to be respected at all stages of its development. This is the premise on which the development and design of the IE Curriculum Framework for Africa rests. Consequently, the principles informing the design of the framework reflect an eclectic mix of theoretical and philosophical points of view on curriculum matters. The two key principles which directed the framework development process emerged from this mix. They are (a) that the framework should be responsive to the cultural and philosophical diversity characterising the African continent; and (b) that curriculum design and implementation processes should, in line with the African principle of Ubuntu, be inclusive and consensus-based.

With these two principles as points of departure, the first step in the development of the curriculum framework for information ethics in Africa was consultation - at conferences, seminars and workshops on information ethics across Africa (Bester and Bothma 2013: 12). Delegates included academics, students, government officials, and representatives from non-governmental organizations locally and internationally.

Subsequent development was both iterative and participatory: iterative in the sense that the results of each development stage not only fed into subsequent stages but were also subjected to critical reflection by stakeholder bodies and institutions (Malan and Bester 2014: 15); participatory in the sense that persons and/or groups interested in eventually using the framework as a curriculum

model were actively involved in the development process. It was at workshops and conferences that the idea of an IE curriculum was first mentioned. It was also there that the criteria for its development were formulated, and the themes and issues to be addressed were proposed and where workshop participants committed themselves to the creation of awareness and the stimulation of debates on information ethics issues in their own constituencies. In so doing, they not only became co-developers and, by implication, co-owners of the Information Ethics Curriculum Framework but also acquired the basic knowledge and skills they would need to design and implement their own context-appropriate information ethics curriculum offerings.

## Framework design

Given the dual aim of the ANIE initiative, namely to stimulate research on and raise awareness of information ethics issues, the framework consists of two parts, one focusing on under-graduate teaching and learning, the other on post-graduate learning and research (see Figure 1).

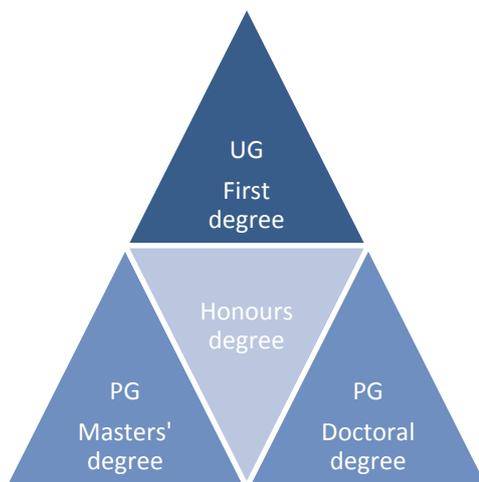


Figure 1: Framework for information ethics in Africa

*Note: The Honours degree has been placed at the centre of the figure to illustrate differences in the current structuring of academic programmes: at some institutions it takes three years to complete the first degree and students then have to do a post-graduate Honours degree prior to enrolling in a Master's programme; at other institutions the first degree takes four years, where-after students may enroll in a Master's programme.*

At both under- and post-graduate levels, the framework has as goal the development of knowledge, skills and attitudes that would result in the responsible and accountable use of information and information communications technology in different contexts and circumstances. in order to

achieve this purpose, the focus of the framework is on the acquisition of conceptual and contextual knowledge as well as on the development of cognitive and practical skills (Capurro 2008: 1165).

An important part of curriculum development is quality control. Assurance of quality is best achieved if those involved in the design and implementation of curriculum offerings reach consensus about the criteria to use during the selection of content, the facilitation of learning, the development of teaching-learning resources and the assessment of student performance. The framework therefore specifies topics and themes that could be used to address important issues in the field of information ethics; suggests various teaching, learning and assessment activities appropriate to the field of information ethics; and provides a list of criteria that could be used in the selection of curriculum content, instructional methods, teaching-learning resources and the assessment of student performance.

The content and activities included in the curriculum framework do not promote a particular theoretical perspective; instead they reflect a mix of perspectives derived from descriptive, emancipatory and philosophical theories. In this sense, according to Capurro (2007), they create opportunities for lecturers/facilitators and students to:

- **Explore** power structures that influence informational and communication attitudes and traditions in different cultures and epochs - the thrust of descriptive theories.
- **Critically reflect** on moral (life world) attitudes and traditions in the information and communications field at personal and collective levels (i.e. including normative aspects of such attitudes and traditions) - the thrust of emancipatory theories.
- **Develop** a philosophical base which integrates diverse disciplines dealing with information technology, thus ensuring the emergence of a holistic view on communication as a human phenomenon - the thrust of philosophy.

Core content at both levels includes key concepts, philosophical perspectives, indigenous knowledge and value systems as well as information ethics issues and themes. Themes focus specifically on information ethics and the law, and the characteristics and development of information and knowledge societies. In all of the themes the emphasis is primarily on the challenges that Africa faces and the opportunities available to overcome such challenges. Students not only have to apply their knowledge and understanding of information ethics in personal, social, academic, business, and career contexts and situations but also have to critically reflect on, analyse and evaluate values, issues, claims and

human behaviour. By implication, students are required to reflect on and debate the relevance and validity of values, traditions, myths, claims and practices, using their own experience as well as relevant literature as frames of reference.

## Information ethics as an undergraduate programme

The undergraduate programme described in the framework consists of five stand-alone units, each with a different focus and purpose (see Figures 2 to 5). All five of the units are purpose-focused and, by implication, outcomes-based. The core theme of each unit serves as basis for the formulation of unit outcomes as well as for the selection and structuring of appropriate learning content, instructional methodology and assessment procedures.

### *Unit 1: Introduction and orientation to information ethics*

The first of the five undergraduate units serves an orientation purpose: it explains what the concept of “information ethics” refers to, introduces students to the notion of information ethics as a field of study, and provides them with a brief overview of the themes that will be dealt with in subsequent units (see Figure 2).

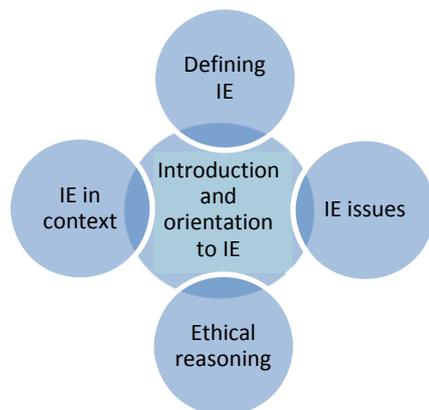


Figure 2: Unit 1

Given its **foundational** nature, the completion of this unit is a pre-requisite for all other units. It does not, however, require an in-depth study of any of the themes mentioned as these will be covered in depth in subsequent units.

Pitched at first year university level, this unit could be offered as part of academic orientation to all first year students and/or as a short course to government officials, information practitioners, other professionals and the

broader public. The primary difference between the two delivery modes would be in the way in which summative assessments are conducted. In the case of university students, summative assessments could take the form of written examinations; practitioners would, however, be required to compile portfolios of evidence which reflect the extent of their knowledge, understanding and skills with regard to information ethics and information ethics issues.

### *Unit 2: Information ethics and philosophy*

Unit 2 explores the relationship between information ethics and philosophy. Its focus is on information ethics as an applied philosophy, that is, on an eclectic range of principles that could motivate students to use information and ICT in morally responsible ways (refer to Figure 3 for the themes covered in this unit).

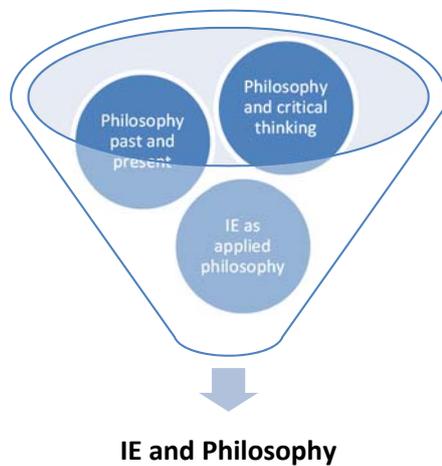


Figure 3: Information ethics and philosophy

The unit could be offered at any academic year level provided that the depth and scope of content offered, and the instructional methodologies used, reflect the prescribed standards of the academic year concerned.

### *Unit 3: Information ethics and the law*

Unit 3, which focuses on the legal dimensions of information ethics, is based on the assumption that students already know what information ethics is (Unit 1) and have acquired the thinking skills necessary to critically engage with information ethics issues (Unit 2). More specifically, it has the development of learners' knowledge and understanding of media and information legislation in their own countries as purpose (refer to Figure 4 for themes covered).

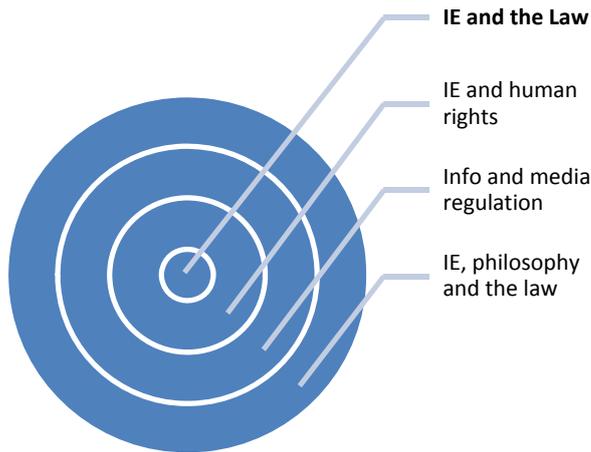


Figure 4: Information ethics and the law

Once learners know and understand what the law says about media and information matters, they should be able to critically reflect not only on the functions served by such legislation in information and knowledge societies; but also on the ways in which these either promote or undermine citizens' human rights. The unit therefore serves as a vehicle for the integration of ethical and legal perspectives on information ethics. This integration is critical to the mastery of content in Unit 4, 'Information Ethics in Africa', and the application of learners' knowledge and understanding of information in different situations and contexts as required in Unit 5, 'Information Ethics in Practice'.

Unit 3 could be offered at any academic year level provided that the depth and scope of content offered and the instructional methodologies used are in accordance with the prescribed standards of the year level concerned. While the content of the unit is regarded as core, and therefore compulsory for university studies, unit outcomes could be adjusted to reflect the appropriate standards for different academic year levels.

#### *Unit 4: Information ethics in Africa*

As indicated in the background description of the curriculum framework, the focus of the curriculum as a whole is on the development of Africa in terms of information ethics. While the African focus is implicitly addressed in the other units; in terms of the use of information communications technology, values and human rights, as well as on media and communications legislation, this unit focuses explicitly on Africa and the needs of the continent – context, value systems, challenges and opportunities in the field of information ethics (see Figure 5 for themes).

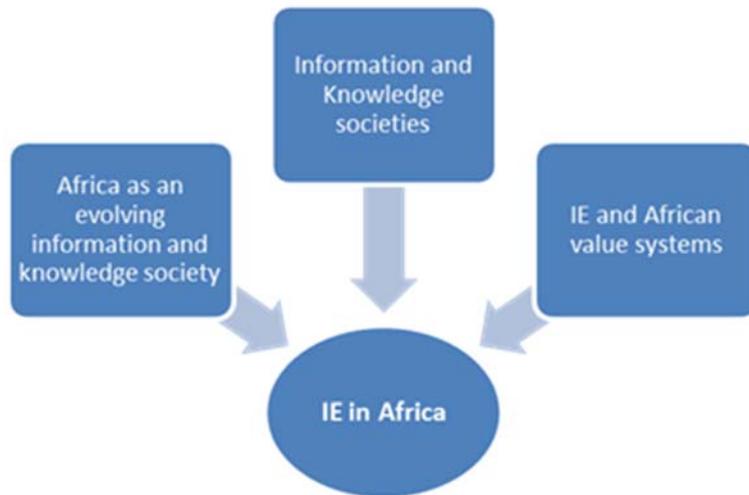


Figure 5: Information ethics in Africa

As it stands, this unit is aimed at fourth year university students and university lecturers participating in this project. It could, with slight adaptations, also be offered to training facilitators, government officials and information practitioners with the requisite academic background, workplace experience, or expertise in African affairs.

### *Unit 5: Information ethics in context*

Informed by the assumption that students have already acquired the knowledge, understanding and skills described in the first four units, the fifth and final unit gives students the opportunity to apply their knowledge and understanding of information ethics issues and the information life cycle to different contexts and situations. More specifically, the expectation is that students will use their understanding of ethics and the law as the basis for decision-making and the use of information communications technology, in general and in specific contexts.

While the outcomes for Unit 5 are the same irrespective of the disciplinary/work context in which application occurs, the actual content and delivery mode should ideally be determined by a team consisting of academics and/or experts in the discipline or career field concerned. In the case of university students, application could be integrated into existing programmes, if and where relevant, at any or all academic year levels. In the case of practitioners, application could happen in the workplace from the start (i.e. while they are busy with the first unit) - supervisors or line managers could either assess their ability to apply knowledge, understanding and skills gained by observing them in the course of their daily work, and/or they could require those concerned to compile portfolios of evidence on completion of the unit.

## Information ethics as a postgraduate programme

The premise on which the conceptualization of a post-graduate framework was based was the assumption that the emphasis of all post-graduate studies is on research. Post-graduate programmes take different forms: sometimes they consist of course-work only; sometimes of a combination of coursework and guided research; and, at doctoral level, usually of independent, or sometimes, supervised, research.

Informed by the differences in the programmes offered by different universities on the African continent, the framework includes generic proposals for the design of Honours, Masters' and Doctoral programmes without prescribing structure or time of delivery mode. The idea is that universities could use the proposals on postgraduate programmes as primarily guidelines for the design of their own postgraduate programmes.

Since information ethics is not currently offered as a programme in its own right at any university, students at Honours or Coursework Master's levels who are interested in information ethics issues would probably have to do so within the context of their undergraduate disciplinary studies. They would, however, need an additional knowledge base, that of information ethics, if they intended to focus on information ethics issues in their own area/s of specialisation. The framework suggests that the units in the undergraduate curriculum framework could be used as basis for the development of an Honours and/or coursework Masters module/programme on information ethics. The topics and themes in these units could be studied in greater depth and/or approached from different angles, with the focus being on analysis and evaluation rather than merely on the acquisition of knowledge and understanding.

An additional module that deals with information ethics research should however be included in Honours or Masters' coursework programmes. Since information ethics is both inter-disciplinary and issue-oriented in nature, the research module should expose students to different theoretical paradigms and research methodologies which could be merged into a methodology suited to their own research interest at doctoral level.

Framework recommendations for Research Masters' and doctoral programmes are based on the notion that Masters' and Doctoral research differ in purpose, depth and scope. Research for Masters' degrees is mostly aimed at developing and demonstrating students' ability to use theoretical or conceptual frameworks to summarise, critically analyse and empirically investigate existing academic

positions on a particular topic or problem. Their dissertations serve as a reflection of their ability to conduct independent research which results in the development of knowledge at fairly advanced levels. Students conducting research for a doctoral thesis must, however, use their research findings as basis for the development of a new theory or model.

In either case, in terms of the framework, students might, in addition to the reviewing of literature on their topic of interest, also have to conduct an indepth study of the issues and themes included in the undergraduate information ethics curriculum framework. This proviso is waived if they have already been exposed to information ethics – either as part of their academic specialisation/s or in another form.

## **Design and implementation of institutional curriculum offerings**

Informing the design and implementation of institutional information ethics curricula is the assumption that there is a direct correlation between the effectiveness of curriculum implementation and the appropriateness of the curriculum design for the context in which it is implemented. It could therefore be inferred that those responsible for curriculum implementation should also be the ones responsible for curriculum design. It is on the basis of this premise that institutionally-specific curriculum design is devolved to the institutions and/or organisations opting to be part of the ‘Information Ethics in Africa Project’. In shifting the responsibility for the design of context-specific curricula to those who would also be responsible for its implementation, the ACEIE hopes to minimise the gap that often occurs between the “ideal” curriculum (the paper version) and the “actual” curriculum (the one eventually being taught in classrooms).

An important step in the design of institutional and/or workplace information ethics is the analysis of context, target group, institutional protocols, academic, human and financial resources. Most importantly curriculum designers should, before commencing with the design process, determine the pressures for action, both for and against the proposed curriculum, whether these are generated from within or from without the institution or organisation concerned. This includes getting a sense of the perceptions, expectations and judgments of those who will be responsible for managing and supporting the curriculum roll-out and implementation, either through teaching the content or through involvement in various curriculum activities.

Having completed their analysis, designers could use the units described in the Curriculum Framework as basis for their own curriculum offerings. They are at

liberty to decide whether or not they want to offer all the units, in the same or in a different sequence, as a fully-fledged information ethics programme or as individual stand-alone short courses. Alternatively, they could decide to combine two or more units, or integrate unit themes into existing programmes or subjects. They could, for example, decide that:

- It would be more appropriate for their students to acquire knowledge on information ethics and the law before they focus on information ethics and philosophy.
- Combining the units on philosophy and law respectively would create more opportunities for learners (students or practitioners) to reflect on information ethics issues from both perspectives simultaneously. The legal and philosophical knowledge and insights gained from these theoretical discussions could then be applied to students' fields of specialization at any or all academic year levels, with specific reference to the regulation of information processes in particular career fields and/or to the analysis of relevant professional codes of conduct. In the case of practitioners, application would take place in their work context, in relation to work-related information ethics or procedures.
- It would be more effective to study their own country's media and information legislation before embarking on a philosophical discussion of information ethics.
- The generic philosophical and legal perspectives on information ethics in Units 2 and 3 could be better addressed in terms of African and/or workplace contexts and/or in the context of university students' academic specialisations.
- Opportunities for students to apply their knowledge and understanding of information ethics issues should be created from the start of the programme. Should this be the case, cross-disciplinary integration would take place throughout the entire programme, with Unit 5 (Application) disappearing as a separate unit but featuring as application exercises in all subject areas and at all year levels. In this case, the focus could well be on the regulation of information processes in specific career fields and/or the analysis of relevant professional codes of conduct. Required applications should, however, be aligned to the unit content that preceded the application exercise – for example, critical discussion of legal issues following the acquisition of legal knowledge and understanding. In addition, the kind of application required should be aligned to the academic and/or practical standards applicable at the different year levels of the subject concerned.

- The development of African information and knowledge societies would be best served if the generic philosophical and legal themes were integrated into the unit dealing with African issues.
- The unit on Information Ethics in Africa should precede the units on philosophy and law, using it as basis for the discussion of philosophical principles and legal requirements.

These choices are entirely in the hands of institutional and workplace curriculum designers as they are the ones who will have to account for the impact that the curriculum has on students' use of information and information communications technology. The only provisos are that, regardless of the design decisions taken, all the themes included in the framework should be addressed; teaching-learning activities should promote students' ability to explore, describe, analyse and evaluate information ethics issues; and assessment of student performance should reflect the activities used in the teaching and learning process. More specifically, the content selected should develop students' conceptual and contextual knowledge while the teaching and learning activities should develop their cognitive and practical skills. Together, the content and activities selected should enable students to attain the outcomes and academic standards concerned.

Time to be spent on each unit is not specified in the framework. The time required to complete a unit would be determined by the maturity and academic levels of the learners targeted; the context in which teaching and learning will take place; the purpose (study or work-related) to be served by the unit; and the way in which the original unit (i.e. the one in the framework) is restructured or adapted (as a short course, as an element of other units, etc.).

For the same reasons teaching/learning resources are not prescribed either. Journal articles and other academic texts are critical to higher learning, whereas workbooks and simplified readers are more appropriate to career-oriented or social training sessions. Case studies and moral dilemma scenarios are appropriate to both, but need to be contextualised in terms of the needs and academic readiness levels of the target group. While these are not prescribed, the range of ACEIE readers and workbooks (available in hard copy as well as on the ACEIE web site) provide useful information on information ethics issues and could initially be used as teaching-learning resources.

## Information ethics research

As indicated in the introduction to this paper, ANIE has committed itself to the creation of awareness on information ethics issues and the promotion of research in the field of information ethics. We contend that both the

development of the Information Ethics Curriculum Framework as well as the subsequent design and implementation of information ethics curriculum offerings at higher education institutions are contributing to the attainment of these two ANIE goals. The attendance of stakeholders from across the societal spectrum and their willingness to participate in and/or support the development of information ethics curriculum offerings indicates an emerging awareness of the importance of information ethics issues. Conference reports and workshop participants' feedback have already generated a wealth of research data on information ethics challenges and opportunities in Africa.

The framework development process generated valuable data on consultation, partnerships, and participatory development processes. The insight gained from the analysis of this data will be further enriched by feedback on institutional and workplace curriculum design and implementation processes. There will be specific reference to the factors that ease or complicate curriculum implementation in different contexts, and the impact that information ethics offerings had on students who completed one or more information ethics units or short courses.

## Conclusion

The development of the Information Ethics Curriculum Framework for Africa has been an enriching experience. Not only has it connected academic and government officials in Africa with one another, but also academics in the field of information ethics from various countries. The hospitality, enthusiasm, and commitment to the promotion of information ethics in Africa shown by all conference and workshop participants augur well for the development of African knowledge and information societies.

We believe that the 'Curriculum Framework for Information Ethics in Africa', in whichever form it is implemented, will contribute to this development as well as to the capacity of participating universities to formally teach information ethics and related matters to an African audience in support of the UNESCO Strategic Objective 9. Support for this project, and research on issues raised in the curriculum, will not only enhance the implementation and roll-out of information ethics offerings at universities and academic institutions in Africa, but could also motivate academics to create a greater awareness of the need for ethical guidelines in society as a whole.

We trust that the project will directly and indirectly also address the need for empowerment in all sectors of information and knowledge societies – primarily through policies and investment in information and communications technology infrastructure, equipment and training. Empowerment initiatives could include

community forum discussions, workshops, train-the-trainer events, et cetera. Training could take place within formal or informal environments and may include short courses and qualifications for information and knowledge practitioners. Initiatives such as these could be launched by academics and/or students in conjunction with other stakeholders and interested parties.

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