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**TEACHING AND LEARNING OF INFORMATION ETHICS IN LIBRARY AND  
INFORMATION SCIENCE DEPARTMENTS/SCHOOLS IN SOUTH AFRICA**

**BY**

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## Declaration

I, the undersigned, hereby declare that this dissertation, entitled “*Teaching and Learning of Information Ethics in Library and Information Science Departments/Schools in South Africa*”, is my own original work and has never been submitted to any University for the award of any degree. All the sources used have been acknowledged in the form of references.

Author Signature .....

First Supervisor Signature.....

Second Supervisor Signature .....

### **Dedication**

I hereby dedicate this study to my two wonderful kids (Siphokazi and Siphamandla) who I hope will derive strength and courage from this endeavor to aspire for greater things. I also wish to dedicate this project to the staff members of the Department of Library and Information Science at the University of Zululand, especially my supervisors. Finally, this project is dedicated to my family for their continued patience.

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You have all been wonderful.

I give glory to the Almighty for what I have and will become.

## **Abstract**

This study investigated the nature and level of information ethics education in Library and Information Science Departments in South Africa. The study was carried out using both qualitative and quantitative methods through a survey and content analysis. All 12 LIS Departments in South Africa were targeted. Within these departments, the departments' Heads, lecturers teaching the module, and the course outlines/study guides of information ethics modules formed the target population. Data was collected via questionnaires that were emailed to the Heads of the various LIS Departments, who were also requested to forward a separate set of questionnaires to the lecturers teaching information ethics modules. Departments that offered information ethics modules were also requested to forward the study materials of their modules (i.e. their study guides) for content analysis. Of the twelve LIS Departments, responses were received from only seven. These were departments from the Universities of Zululand, Pretoria, Cape Town, South Africa, KwaZulu Natal, the Western Cape, and the Durban University of Technology. Study guides for content analyses were received from the three LIS Departments that offered information ethics as a full stand-alone module. These were the LIS Departments at the Universities of Zululand, Pretoria and South Africa. The results of the study indicate that in most LIS Departments, information ethics was taught in the content of other modules and not as a stand-alone module. In the LIS Departments that offered a stand-alone information ethics module, the module was only first offered in 2<sup>nd</sup> year, the rationale being that at this level, students are senior enough to appreciate information ethics. It was also found that the stand-alone information ethics modules were only offered by LIS Departments. Furthermore, only one lecturer from the University of South Africa had a background in both Library and Information Science and Philosophy; the rest of the lecturers in the LIS Departments had backgrounds only in Library and Information Science. The study also found that in terms of the units covered in information ethics modules, there was quite a bit of diversity, with each LIS Department offering its own version of information ethics. However, issues of intellectual property, copyright and privacy were covered across the board. The study acknowledges the ethical dilemmas facing information professionals and recommends that information ethics be made a major component of LIS education and training, in which case it would be offered as a full stand-alone module.

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## **Chapter One: Introduction and Background**

### **1.1. Conceptual Setting**

This study investigated information ethics education in Library and Information Science (LIS) Departments or Schools in South Africa, and sought to gain an insight into who teaches information ethics modules in the country, within institutions, and in terms of areas of knowledge and expertise. The study further sought to gain an insight into what is taught in information ethics modules, and when and how these modules are taught in their respective institutions. Few can argue that in the course of building the information and knowledge society of the present/future, we have come to deal with a tremendous increase in the quantity and diversity of information. This condition has also arisen from new information technologies that supply new, almost unlimited possibilities in the creation, processing, storage, retrieval and dissemination of information. The flood of information now constitutes a substrate of the information market, wherein information becomes a commodity (Babik, 2006:1). In turn, this situation has become a source of many problems related to the right selection of information, information management and ethical responsibility on the part of information-process participants.

According to Stahl (2008:1), if we are truly living in the early stages of what has been termed the information society, then clearly ethical concerns with regard to information are of central importance. Consequently, there has been growing interest in issues that deal with information ethics. The term 'information ethics', according to Kadu (2007:2), Babik (2006:3) and Froehlich (2004), was first coined by Robert Hauptman, the founder of the *Journal of Information Ethics*, and Rafael Capurro in his 1988 article on "Informationethos und Informationethik". Since then, the field has evolved as a discipline in Library and Information Science. However it has, over the years, been embraced by many other disciplines (Froehlich, 2004:1). Froehlich observes that information ethics can now be seen as a confluence of the ethical concerns of media, journalism, LIS, computer ethics, management information systems, business, and the Internet.

According to Adam (2005), information ethics is the field that investigates the ethical issues arising from the development and application of information technologies. It provides a critical framework for considering moral issues concerning information privacy, moral agency (e.g. whether artificial

agents are moral), new environmental issues (especially how agents should behave in the infosphere), and problems arising from the life-cycle (creation, collection, recording, distribution, processing, etc) of information, especially ownership and copyright in view of the digital divide. For Babik (nd:4), information ethics concerns all human activity related to information, i.e. our relationship with information, what we do with information, or how we generate, process, and distribute it in the form of new technologies and innovations, which contain a lot of processed information. Babik further posits that information ethics is a comprehensive discipline that connects descriptive ethics with normative and applied ethics. As a descriptive theory, it focuses on the influence of power structures on the information attitudes and traditions of various cultures in various times, e.g. on the development of ethical values related to information transfer and processing in the global information society, and ethical conflicts related to the use of new information technologies and making information available. As a normative theory, ethics determines the standards of professional conduct and behavior in today's global information dispensation.

Information professionals play an extremely vital role as participants in the information society, given that their mission includes gathering, processing, distributing and using information (Fallis, 2007). Like lawyers, doctors, and other professionals, they need to carry out their duties in an ethical manner, and like these professionals, they regularly face ethical dilemmas pertaining to information access, privacy, accuracy and intellectual property.

### **1.1.1 Ethical Dilemmas Facing Information Professionals**

Some of the ethical problems faced by information professionals in the library environment, as observed by Fallis (2007:14), include the following:

1. Should they put Internet filters on all the computers in the library?
2. Should they tell law enforcement officers investigating potential terrorists what a particular person has checked out?
3. Should they add books donated by a racist organization to the library collection?
4. Should they allow a homeless person, who happens to smell very bad, to use the library?
5. Should they include Holocaust denial literature in the library collection?
6. Should they charge for specialized information services in a public library?

7. Should they put a warning label on an encyclopedia that contains clearly inaccurate information?

What can be ascertained from these dilemmas is that they are all elements of the issues of information ethics already mentioned, i.e. issues of privacy, accuracy, intellectual property and access. Fallis (2007:12) points out that some of the ethical dilemmas faced by information professionals have come about because of advances in information technology. However, he warns that information ethics is not solely about the problems associated with information technology, rather information technology only forms a small part of information ethics. According to the author, all the problems facing information professionals fall within the scope of information ethics. Despite these challenges, Hannabus (1996:3) maintains that information professionals are still obliged by society to provide accurate and reliable information; maintain a confidential relationship with their clients; observe and encourage respect for the intellectual property rights of information products; and ensure equitable access to information. For Fallis (2007), in order to deal effectively with these ethical dilemmas, information professionals should have a good working knowledge of information ethics. He believes that information ethics should be part of LIS education and training, as this would enable information professionals to safely and ethically take part in information-related activities.

However, despite the importance of the subject in LIS, both Fallis (2007:5) and Smith (2002:1) have observed that there are still relatively few courses or continuous education programmes that focus on ethical issues in Library and Information Science. This on the heels of a study conducted by Buchanan (2004) on information ethics education in American Library Association (ALA) accredited LIS Departments in the United States. The findings of the study indicated that very few of the LIS Departments offered courses/modules on information ethics, and the contents of information ethics was dispersed across other courses/modules.

In South Africa, the LIS curriculum is an area that has been subject to a lot of research over the years, particularly with the growing realization that LIS is in the center of a progressive, dynamic and evolving information society. The study of LIS curricula has been approached from many different perspectives; for example, Ocholla (2000 and 2005) and Synman (2000) focused on the

job market of LIS graduates; Raju (2003) gave an account of the core modules in LIS by obtaining views from LIS graduates, employers and educators; and Raju (2004) again provided clarity between university and technician first level Library and Information Science (LIS) education and training. Ocholla and Bothma (2007) gave a theoretical perspective of the challenges, trends and opportunities of LIS education in Africa, and South Africa in particular. Minishi-Majanja & Ondari-Okemwa, (2007) investigated knowledge management education in LIS Schools in South Africa. The current study is somewhat different from the other studies, in that in order to provide a comprehensive comparison and account of information ethics education among LIS schools in South Africa, the study included the Heads/Chairs of LIS Departments, lecturers teaching information ethics, and the study guides of information ethics modules. Other studies, for example Minishi-Majanja and Ondari-Okemwa's (2007) on knowledge management in LIS, did not include study guides - their accounts only gave limited views from the Heads of Departments.

While notable efforts have been made to study LIS curricula in the country, some gaps still prevail. For example, few studies have focused on the core modules of LIS; most rather focus on the employability of LIS graduates, and not really on what should make up LIS education and training in the country. This is illustrated in two studies by Ocholla (2005, 2000) whose focus was the job market of LIS graduates in South Africa. In the second study, Ocholla (2000) obtained views from employers through a survey in order to review and possibly revise the curriculum of the LIS Department at the University of Zululand. Results of such studies indicate what skills and knowledge are required in the job market and how the curriculum needs to be shaped to meet industry needs. However, in keeping in line with industry requirements, there is a tendency to overlook core modules of LIS. Modules/courses such as information ethics, which are fundamental in LIS education, are often ignored. This study therefore also investigates whether LIS departments in South Africa have succumbed to industry pressure and overlooked the fundamental basics of LIS education and training.

### **1.1.2. Contextual Setting**

According to Ocholla and Bothma (2007:2), most LIS Schools are located within Higher Education Institutions or universities, which ensures that curriculum development and quality control is adequately monitored and evaluated despite or in the presence of national qualification authorities such as the South African Qualification Authority (SAQA). Formal LIS education and training,

according to the two authors, began in South Africa in 1939 at the University of Cape Town, when it was realized that it was necessary to provide skilled paraprofessional labor for the library sector. According to Ocholla and Bothma (2007:2), South Africa has witnessed a drastic reduction in the number of its LIS schools over the last ten years - from eighteen to the current twelve - with further possible closures. The reduction of LIS schools, according to the authors, has been largely caused by transformations in the higher education sector in South Africa, which led to the downsizing of some Higher Education Institutions and the creation of new combined institutions, mainly through mergers and the re-orientation of academic dispensations. Minishi-Manjanja (2004:5) acknowledges that the growth of departments has been steady, with 11% established during each of the periods spanning the 1930s, 1940s, 1950s, 1970s and 1980s. The author further opines that the highest peak was in the 1960s, which saw the establishment of 30% of the LIS Departments. The last 20% were established in the 90s.

Ocholla and Bothma (2007:2) observe that in the past, most departments were simply called Departments of Library Science/Library Studies or Librarianship. In the eighties, many departments changed their names to the Department of Library and Information Science/Studies. The nineties again saw many departments change their names, this time to Information Science/Studies. There are exceptions, for example the University of Johannesburg changed its department's name to the Department of Information and Knowledge Management.

Typically, LIS schools formed part of the Faculty of Humanities or Social Sciences. This is usually still the case. However and again to divulge the changes in focus, departments have moved to other faculties or schools. For instance, according to Ocholla and Bothma (2007:2), the LIS programmes at the University of Cape Town are offered by the Centre for Information Literacy in the Centre for Higher Education Development. In the University of Johannesburg, the department forms part of the Faculty of Management. At the University of Pretoria, the department is a member of the School of Information Technology (with Computer Science and Informatics - Information Systems). These changes all reflect the changing information landscape and the changing focus areas of the departments.

There are two dominant learning models for Library and Information Science qualification in South Africa, viz. the undergraduate model and the post-graduate diploma model (Ocholla and Bothma, 2007:3). The undergraduate model is the most common model followed in South Africa. The undergraduate degree consists of three or four years of study, in which topics from the broad field of Library and Information Science are combined with a number of compulsory or elective courses from other disciplines. This can then be followed by an Honours degree (1 year), during which students specialize in topics in Library and Information Science. In the post-graduate model, students are expected to obtain any general degree as an admission requirement to the post-graduate diploma in Library and Information Science. The post-graduate diploma is then followed by an Honours degree. This model is followed by the Universities of Cape Town and KwaZulu-Natal.

## **1.2. Problem Statement**

Academic institutions, and within them Library and Information Science departments, have the responsibility to educate students on the ethical use of information. They should describe and clarify issues related to the ethical use of information, such as plagiarism, copyright, intellectual property, privacy, responsible use, bias and the unique aspects of these issues and others. However, according to Smith (2002:1) and Fallis (2007:5), given the importance of information ethics in the evolving information society, there are still relatively few courses or programmes focusing on ethical issues in Library and Information Science. Today, the complexities of the global environment present issues of access, intellectual property, privacy, security and human rights that demand critical ethical reflection and dialogue across the boundaries of geography, language and culture.

It is imperative for the LIS discipline to take responsibility for addressing and centralizing the concepts and skills that accompany the issues related to the ethical use of information. It is their responsibility to create the ethical framework for students so that they can safely and expertly take part in the processing of information. However, it is assumed that this ethical framework is not created and instilled by many Library and Information Science departments. It is with regard to this, therefore, that the researcher aimed to establish whether this ethical framework is created and instilled by Library and Information Science Departments in South Africa.

Not much research has been conducted on information ethics education in Library and Information Science in South Africa. A study worth noting, one by Ocholla (2008) on information ethics education in Africa. Although Ocholla's study is useful in demystifying information ethics education in Africa, there were some areas the study did not cover. For example, the study does not really depict what is happening on the ground; rather, it presents the views of LIS experts on the continent about information ethics education in LIS. The study did not apply content analysis to establish what is being taught in information ethics modules and did not include lecturers who teach information ethics. This study aimed to gain a more holistic understanding of information ethics education in LIS, and thus included the Heads of LIS Departments, the lecturers teaching information ethics, and the study guides of information ethics modules.

### **1.3. Aim of the Study**

The aim of the study was to investigate and compare the teaching and learning of information ethics in LIS Departments/Schools in South Africa.

### **1.4. Objectives**

- To investigate the curriculum presence of information ethics modules in Library and Information Science in South Africa
- To find out who teaches information ethics modules in terms of academic departments
- To determine the level(s) at which information ethics modules are offered in LIS departments or schools in South Africa
- To establish what is being taught in information ethics modules in terms of content
- To determine the teaching methods of information ethics modules in LIS Departments or Schools in South Africa
- To determine the challenges in the teaching and learning of information ethics in LIS Departments or Schools in South Africa

### **1.5. Research Questions**

1. Are there information ethics courses offered in the Departments of Library and Information Science in South Africa?

2. Who, in terms of academic departments and areas of knowledge and expertise, teaches information ethics modules?
3. At which study level are information ethics modules offered in LIS Departments?
4. What is covered in terms of module content in information ethics modules?
5. What are the teaching methods used to teach information ethics modules in LIS Departments?
6. What are the challenges of information ethics education in LIS Departments in South Africa?
7. How are these challenges overcome?

Questions 1, 3, 6 and 7 are addressed in Chapters 4 - 6, while questions 2, 4 and 5 are covered in Chapters 2, 4, 5 and 6.

### **1.6. Significance of the study**

The researcher believes that information ethics is a fundamental component of Library and Information Science education and training given the ethical dilemmas facing information professionals. Hence, the study investigates whether Library and Information Science Departments in South Africa have succumbed to industry pressure in designing their curricula and overlooked the core modules in LIS education.

### **1.7. Scope and Limitations**

The study only focused on information ethics education in Library and Information Science Departments, targeting Heads of Departments (HODs), lecturers, and information ethics study guides. It is undeniable that we are all participants in the information age and thus metaphorically, drivers on the information superhighway. However, because of time limitations, the study excluded participants from other disciplines. Seeing that LIS Departments in the country are dispersed, a decision to use mailed questionnaires seemed logical, even though mailed questionnaires are notorious for yielding low response rates. Some of the LIS Departments had no dedicated websites; as a result it proved cumbersome to obtain the contact details of some of the study's participants. However, efforts were still made to make contact with all the departments.

### **1.8. Structure of Dissertation**

#### **Chapter One: Introduction and Background**

Chapter one conceptualizes and contextualizes the research problem, i.e. information ethics education in Departments of Library and Information Science. It gives an insight into what this study sets to achieve (the aim) and the tools used to achieve this aim. The chapter also provides the significance of the study as well as the study's scope and limitations.

### **Chapter Two: Literature Review**

This chapter reviews literature on information ethics education in Library and Information Science. The review is based on the premise that we build on what others have done, instead of finding ourselves reinventing the wheel. Both local and global literature was reviewed in the form of books, journal articles and Internet sources - mainly online databases such as SABINET, Emerald, EBSCO and others.

### **Chapter Three: Research Methodology**

Chapter three provides an insight into how the study was carried out. As other authors have argued, the principle of good research is based on the fact that the researcher should describe, in sufficient detail, the procedural design of the study to enable others to replicate the study and confirm the validity and reliability of the findings.

### **Chapter Four: Data Presentation and Analysis**

The aim of this chapter is to present and provide the analysis of the data collected from the respondents, in this case the Heads of LIS Departments, lecturers teaching information ethics modules/courses, and information ethics study guides.

### **Chapter Five: Discussion of Findings**

This chapter discusses the major findings of the study in order to show whether or not they successfully addressed the research questions.

### **Chapter Six: Summary, Recommendations and Conclusion**

Chapter six provides the summary, conclusion and recommendations of the study. Recommendations were made based on the study's findings.

## **Appendices**

### **References**

#### **1.9. Definition of Terms**

**Ethics:** A set of principles and values that govern behavior according to the notion of morality.

**Information:** Data that has been processed to add or create meaning, and hopefully, knowledge.

**Morals:** The accepted standards of right and wrong that are usually applied to human behavior.

**Information Society:** A society in which information becomes the main product or is essential to other products; recognizing that an organization's success depends on their ability to exploit information, and most workers depend on information flow to perform their jobs. In practice, information is heavily dependent on computerized processes and the Internet.

**Module:** A specific and discrete learning segment that leads to the achievement of stated learning objectives.

**Course:** A coherent programme of study leading to a named qualification/award. Includes degrees, diplomas and certificates.

### **Summary**

In conclusion, this chapter has contextualized and conceptualized the research problem, in this case information ethics education in Library and Information Science Departments or Schools in South Africa. The chapter has laid the foundation for the rest of the paper by defining the research problem and highlighted the ethical dilemmas facing information professionals. (The aim of the study was presented to outline what the study aspired to achieve, as were the objectives (tools to achieve this aim) and the specific research questions that the study set out to answer. The parameters of the study were also discussed in terms of the study's scope, both geographically and through its subject coverage, followed by the envisaged challenges in terms of limitations; the next chapter presents the literature review of the research problem.

## **Chapter Two: Literature Review**

### **2.1 Introduction**

This chapter reviews literature on the subject of information ethics, particularly the teaching and learning of information ethics in Library and Information Science Departments. A literature review is viewed by Taylor and Procter (2005:3) as an account of what has been published on a topic by accredited scholars and researchers. For Leedy and Ormrod (2005:64), a review describes theoretical perspectives and previous research findings that deal with the problem at hand. The authors suggest that the function of a literature review is to look at what others have done in similar studies/research, although not necessarily in areas identical to one's own line of investigation. The premise of the literature review is that we should build on what others have done instead of potentially re-inventing the wheel. The chapter begins by describing the ethical dilemmas faced by information professionals and explaining the consequent need for information ethics education in Library and Information Science. This is followed by suggestions in literature with regards to the following:

- What should be taught in an information ethics module in terms of a module's content?
- Who should learn information ethics?
- Who should teach information ethics in LIS?
- What are the best-suited methods to teach information ethics?
- At what study level should information ethics be taught?
- What are the challenges associated with information ethics education in Departments of Library and Information Science?

### **2.2. What are ethics?**

A lot of definitions lend themselves to the term 'ethics'. The word 'ethics', according to Sembok, (2003) is commonly used to refer to the whole domain of morality and moral philosophy. This domain essentially deals with values, practices, virtues and principles that distinguish what is right from what is wrong. It is a normative field because it describes what one should do or abstain from doing. For Orme and Ashton (2003:2), ethics is about fairness and deciding what is right or wrong and defining the practices and rules that underpin responsible conduct between individuals and groups. Guralnik in Smith (2005) defines ethics as a study of standards of conduct and moral

judgments. He reiterates the assertion that ethical codes refer to the principles of right or wrong that are accepted by an individual or a social group. Roland and Heyllyer (1996:7), on the other hand, opine that the term 'ethics' refers to a system of moral principles that govern the conduct of members of a group. They further suggest that the ethical code of conduct views human behavior from a philosophical stand point by stressing objectively defined, but essentially idealistic, standard (laws) of right or wrong, good/bad, virtue/vice, etc. Wojtzak (2000) defines ethics as the branch of philosophy that deals with distinctions between right or wrong and the moral consequences of human actions. Sembok (2003:5) adds that ethics are moral standards that help guide behavior and are grounded in the notion of responsibility (i.e. as free moral agents, individuals, organizations and societies are responsible for the actions they take) and accountability (individuals, organizations and societies should be held accountable for the consequences of their actions). In most societies, a system of laws codifies the most significant ethical standards and provides a mechanism for holding people, organizations or governments accountable.

Based on the above, there appears to be no single, universal definition of the word "ethics". Smith (2005:8) opines that the diverse definitions suggest that the term may mean different things to different people; can be determined via different methods; and may reflect different perspectives (e.g. social systems and cultural norms). The author nonetheless acknowledges that all these definitions have common threads - right and wrong, virtue and vice, and morality - supposedly expressed in systems or standards of codes or individually held morals. Nozick in Smith (2005) does hazard to suggest, however, that while it may seem daunting or even impossible to develop a universally agreed upon definition of ethics, the following criterion may be used: "An ethic is the most weighty principles or values concerning interpersonal relation (or relations of self and others, including self and animals or self and environment) that mandate behavior that may be opposed to ones desires of the moment, where these principles or values are not backed solely (or predominantly) by the consideration that other people will punish you if you deviate". Ethical theory and moral practice originally refer to human behavior, but in order to act morally (in this behavior) from an ethical point of view, one needs information. This information constitutes the factual state of affairs and also the normative evaluation of the facts. It is thus worth noting that information is a necessary precondition of morality and ethics.

### **2.2.1 Purpose of ethics**

According to Pojman in Beekun (1996), although it is argued that ethics is central to our lives, what is it supposed to achieve? Generally put, ethics aims to promote human good. What would our world be without rules of any kind? Arguably, things would fall apart and there would be chaos and wars. The rules of society that have been developed are such that if most individuals follow them, at least most of the time, they will flourish. These rules may impose restrictions on freedom, but were established in order to promote greater good.

Pojman proposes the following purposes of ethics:

1. To keep society from falling apart
2. To ameliorate human suffering
3. To promote human flourishing
4. To resolve conflicts of interest in just and orderly ways
5. To assign praise and blame, reward and punishment, and guilt

### **2.2.3 Factors affecting ethics**

What is considered ethical behaviour may depend on the factors that define and affect ethical behaviour. Beekun (1996) identifies the following five factors affecting ethics.

#### **2.2.3.1 Organizational factor**

An organization can affect or influence participants' behaviour. One of the key sources of organizational influence is the degree to which the organization's leader endorses ethical conduct. This conduct can be communicated through a code of ethics, policy statements, speeches, publications, etc. This is usually the case in a library or any information environment where information professionals would be guided by a professional code of ethics. These codes make claims about which actions information professionals should take and under what circumstances. They emphasize respect for intellectual property, human dignity, and equitable access to information, among other factors. This study investigates whether these ethical principles are emphasized in LIS education and training in the country as this would affect students' adherence to these principles.

### **2.2.3.2 Individual factor**

Individuals have different values. Values affecting one's behavior include stages of moral development, personal values and mores, family influences, peer influences and life experiences. Such factors would undoubtedly affect one's respect for intellectual property rights and any other applicable piece of legislation and ethical framework relating to information.

### **2.2.3.3 Personal values and personality**

An individual's values and morals will influence his/her ethical standards. A person who stresses honesty will behave very differently from one who does not respect other people's property or privacy.

### **2.2.3.4 Family influence**

This factor is based on the fact that individuals start to form ethical standards from when they are children. This means that children have to be nurtured at an early age in order to respect or adhere to ethical standards. When contextualized according to the research problem, it can be said that LIS education should aim to sensitize students at early stages to respect ethical standards with respect to information.

## **2.3 Ethical Theories**

According to Fallis (2007:6), ethical theories make claims about what actions people should or should not take. In other words, they provide a basis upon which to distinguish between right and wrong actions. As a result, these theories can be used to justify particular courses of action. Different ethical theories provide different criteria for distinguishing between actions that are right and actions that are wrong. According to Fallis (2007:6), these theories can be roughly divided into four main types, i.e. consequences, duties, rights or virtues.

### **2.3.1 Consequence based theory**

According to Fallis (2007), in a consequence-based theory, what distinguishes right actions from wrong actions is that they (right actions) have better consequences. He further maintains that in order to do the right thing, we should perform actions that have good consequences. In defining consequentialism, Shatarevyan (2006:7) shares Fallis' view, arguing that our task as moral agents is

to increase overall value/happiness - every time we commit an act, the resulting outcome of our action should be ranked in terms of the value/happiness that it elicits. Because we want an increase in value, the moral action is the one that produces the greatest good. Fallis (2007) states that the main example of a consequence-based theory is *utilitarianism*. He observes that according to utilitarianism, goodness is measured in terms of the amount of happiness in the world. Thus, the right action is the one that maximizes overall happiness. The author believes that consequence-based theories can be applied to some areas of information ethics. He cites Mill's 1859 argument for intellectual freedom and against censorship where Mills argues that we are more likely to acquire true beliefs if there is no censorship, and that acquiring true beliefs tends to increase overall happiness. Consequence-based theories can easily be applied to other issues in information ethics as well. Hettinger in Fallis (2007) has offered a utilitarian argument for respecting intellectual property rights. The basic idea is that if intellectual property rights are not respected, authors will not be able to recover the costs of producing intellectual material in the first place. As a result, they may not be willing to create (and supply libraries with) more intellectual property, which would clearly be a bad consequence.

Shatarevyan (2006:7) applied consequentialism to collection development. The idea was to determine if consequentialism can be used to justify the actions of a collection manager. She argued that according to consequentialism, discarding or weeding library materials is ethical if the end result is positive. She suggested that discarding or weeding keeps book collections current, creates room on the shelves for new titles, assures that patrons are receiving the most current information possible, removes damaged materials from the stacks, and eliminates multiple entries for a particular title in the computer files. Her argument was that if these goals are achieved, then a consequentialist view of discarding library materials is ethical. However, there are several problems with this view. Because this theory relies on the results or consequences of an action, how does one hold an argument if the intended consequences do not materialize? Or if the means of achieving the consequence are unethical? And worse yet, who is in a position to judge whether an outcome is the best possible consequence, simply good or even bad? The American Library Association advocates intellectual freedom. Every individual has the right to read, write, and think whatever he or she wishes. But can we honestly say that what everyone reads, writes and thinks will always lead to the

right thought and right speech in all cases? It is in this instance that consequentialism breaks down, because ultimately we must defend freedom of thought and expression.

### **2.3.2 Duty based theories**

Fallis (2007:7) points out that consequence is not all that matters in determining the right thing to do. He believes that there are ethical duties that human beings must obey regardless of their consequences. For example, human beings arguably have a duty not to kill innocent people or to lie, even if doing so would have good consequences. The most influential duty-based theory was developed by Immanuel Kant (Fallis, 2007). According to Kant, the basis for right action is the categorical imperative that states that “I should never act except in such a way that I can also will that my maxim should become a universal law”. It follows from the examples above that lying is wrong. If everybody lied, then no one would trust anybody else and there would be no point in lying. Thus the maxim “lie wherever it is to your advantage” would not work as a universal law. Kant gives other versions of the categorical imperative that actually provide more straightforward guidelines for identifying right actions. He states that one should: “Act in such a way that he/she treats humanity whether in her/his own person or in the person of another, always at the same time as an end and never simply as a means”. In other words, one should not use other people in order to achieve one’s goals.

According to Fallis (2007:8), a more recent and more user-friendly duty-based theory was developed by W. D. Ross. Unlike Kant, he does not try to distinguish between right actions and wrong actions using a single unified principle. Ross instead presents a whole list of duties that are each supposed to be followed from our moral intuition. This list includes the duty to keep our promises; to distribute goods fairly (justice); to improve the lot of others with respect to virtue, intelligence and happiness (beneficence); and to avoid injury to others. Fallis believes that the duties of justice are important in the case of library and information professionals. Ross’s list of duties is not intended to be exhaustive. As a result, Fallis believes that there should be additional duties (possibly a duty to provide access to information) that are directly relevant to information professionals.

### **2.3.3 Rights Based Theories**

According to Fallis (2007:5), some theorists believe that the goodness of an act is based on the rights that human beings have. The most influential rights based theory was developed by John Locke.

### **2.3.4 Virtue Based Theories**

Fallis (2007:10) explains that according to a virtue-based theory, the right thing is determined by the virtues that human beings ought to have, and thus the right thing to do is what a virtuous person would do in the same circumstances. This theory is concerned with character and virtue, and not act or duty. It postulates that good people will naturally do the right thing.

## **2.4 Ethics in LIS**

Ethical principles for information professionals are illustrated in a number of typologies in LIS literature. For example, Hauptman's (2002) ethical principles for librarianship include professionalism, access services, selection and technical services, censorship, reference services and computers, consulting, and information brokering. Smith's typology of the principles discussed in information ethics literature include privacy, ownership (property), access, accuracy, security, and democracy (as cited in Vaagan, 2003). Mason's (1986) typology consists of privacy, accuracy, property and accessibility (PAPA). Froehlich (1997) proposed three main areas of focus, namely information production (copyright, moral rights, fair use, public lending rights, and related issues); information collection (issues of quality control and censorship); and information retrieval and dissemination (access, privacy, and confidentiality). Prior to [Froehlich's] condensed typology, Rubin and Froehlich (1996) had suggested nine areas of ethical concerns, i.e. selection and censorship, privacy, reference, intellectual property rights, administration, access, technology, loyalties, and social issues. Based on these nine areas, Koehler and Pemberton (2000) proposed six major elements relevant to information professionals' codes of ethics: concern with the rights and privileges of patrons; selection, access, professional practices and relationships; responsibilities to employers; and social and legal responsibilities. Finally, Gorman (2000) suggested eight foundational values for librarianship: stewardship, service, intellectual freedom, rationalism, literacy and learning, equity of access, privacy, and democracy. Hauptman (2002) claimed that

generally, these values are discussed in conferences and in literature, but they are not often implemented or respected in practice.

Froehlich (1997) focused on the obligations of library and information professionals to themselves, to their organizations, and to “the larger environment within which information professionals work: (a) social responsibility; (b) obligations between professionals and clients and third parties; (c) obligations between professionals and systems; (d) obligations to the profession; (e) obligations to community or cultural standards”. Froehlich also claimed that within these obligations are sets of values that support and articulate them. He stressed that the interpretation, application, implementation, and prioritization of such principles may vary from culture to culture and from one nation to another.

The International Federation of Library Associations and Institutions (IFLA) [2008] proposed its own core ethical principles for Library and Information Science professions, recognizing them as: (1) The endorsement of the principles of freedom of access to information, ideas and works of imagination and freedom of expression embodied in Article 19 of the Universal Declaration of Human Rights; (2) The belief that people, communities and organizations need universal and equitable access to information, ideas, and works of imagination for their social, educational, cultural, democratic and economic well-being; (3) The conviction that the delivery of high quality library and information services helps guarantee equitable access; and (4) The commitment to enabling all members of the federation to engage in and benefit from its activities without regard to citizenship, disability, ethnic origin, gender, geographical location, language, political philosophy, race or religion.

What transpires from these values is that information professionals should operate within accepted ethical frameworks. There are, however, concerns with the harmonization of these values/ethics. It is on such grounds that Froehlich (1997), for example, realized the need for an ethical framework for the activities of librarians and information professionals as well as the need to delineate shared values for library and information professionals worldwide, particularly with the onset of globalization, the growth of national and international electronic networks, and the growing number of professionals.

## **2.5. Information Ethics**

While information ethics has grown over the years as a discipline in Library and Information Science, the field or phrase has evolved and been embraced by many other disciplines (Froehlich, 2004:1). Froehlich observes that information ethics can now be seen as a confluence of the ethical concerns of Media, Journalism, Library and Information Science, Computer Ethics, Management Information Systems, Business, and the Internet. As mentioned earlier, this study looks at information ethics as a discipline in Library and Information Science. Adam (1999) explains that information ethics deals with, among other things, the respect given to information when it is generated, processed, transferred, and most importantly, when it is used. He continues to say that information ethics is said to provide a critical framework for considering moral issues concerning information privacy, moral agency, and new environmental issues (particularly how agents should behave in the infosphere, or problems arising from the life cycle - creation, collection, recording, distribution, processing, etc - of information, especially ownership and copyright). From this, it can be deduced that information ethics functions within the following contexts: privacy, intellectual property, accessibility, censorship, security, and intellectual freedom.

Chuang and Chen (1999:3) believe that information ethics is an aspect of a much larger philosophy, known as social ethics. They suggest that this deals with the moral conduct of information users based on their responsibility and accountability. Chuang and Chen (1993:4) opine that as free moral agents, individuals and organizations ought to be responsible for the actions they take, and societies should be held accountable for the consequences of their actions.

According to Fallis (2007:8), information ethics is concerned with the question of who should have access to what information. He states that core issues of information ethics include intellectual freedom, equitable access to information, information privacy, and intellectual property. Fallis believes that some of the ethical dilemmas faced by information professionals have arisen due to advances in information technology. Even those ethical dilemmas that involve new information technology (e.g. whether to use Internet filters) are clearly special cases of much broader issues in

information ethics (such as intellectual freedom). He believes that the ethics of information technology (computer ethics) is only a small part of information ethics.

### **2.6. Ethical issues in Information Production**

For Babik (2006), the ethical problems of information gathering are related to censorship and selection. The author explains that censorship is the purposeful exclusion of information from circulation based on decisions which are justified by religious, political, moral or other reasons, while information selection is related to the choice of information in accordance with the objectives of a given organization. Selection procedures may comply with the interests of a particular social group. In both cases (of censorship and information selection), ethical balance is lost. The fundamental ethical problem stems from determining the boundaries of intellectual freedom (Babik, 2006). Ethical problems are also associated with information production, in particular with intellectual property and copyright protection. Presently, the author stresses that there is a contradiction between property-right protection on the part of authors and publishers on the one hand and the so-called active-right to information, or the postulate of universal access to information, on the other hand. With such issues in mind, further dilemmas come to the fore, such as whether information should be treated as property, or what is morally and ethically more important: the idea of knowledge sharing, creation and availability, or the idea of the individual author's property protection.

### **2.7 Ethical Issues of Information Collection**

Ethical questions concerning the collection and classification of information are related to censorship and control. Cultural and moral traditions also play an important role concerning, for instance, what is considered offensive. Capuro (2005:26) draws a distinction between censorship and selection. He explains that censorship means the active exclusion of information based on religious, political, moral or other grounds. Selection consists of the activity of choosing information according to the objectives of an organization. The main ethical question in this field may be formulated as follows: Are there limits to intellectual freedom?

### **2.8 Ethical Aspects of Information Access**

According to Capuro (2005:32), ethical questions concerning information access and dissemination are related to problems of public access as well as to the right to communicate. The question of access can be studied from the point of view of an individual and/or society. Individuals and groups are interested in free and equal access to information as well as free communication. Information is in many cases a product of work and has an economic value that should be protected. The question is then what kind of information should be free of charge? The problem of user education is also linked to this question. The question of access concerns the notion of creating equal opportunities of access for nations or groups of nations and closing the gap between the information rich and the information poor. The right to information, i.e. the right to read and write in the information society, should be considered a fundamental human right. The question of referencing/brokerage services can be studied with regard to institutionalized services as well as to end users. Ethical conflicts may arise regarding, for instance, the right to confidentiality and to protect life. Organizations may ask information professionals to break confidentiality. Information professionals are supposed to inform their users about the limits of their sources and methods. There is also the question of misinformation (or information malpractice) that can cause great (economic) damage to users. All these issues face information professionals, since they are the ones involved with information production, dissemination, storage, processing and use.

## **2.9 Issues of Information Ethics**

Information ethics has been broadly subdivided by Holmer (2000:2) and Eining and Lee (1997:4) into four fields, namely access, intellectual property, privacy, and accuracy.

### **2.9.1 Privacy**

Privacy is generally acknowledged to be moral or good (Weckert & Adeney, 1997), but there is less agreement on what exactly it is, or why it is valuable (Shostack & Syverson, 2004). Historically, privacy concerns date back to the ancient Greeks (Rotenberg, 1998). However, the term 'privacy' only gained legal recognition towards the end of the nineteenth century (Sipior & Ward, 1995) when the most widely spread definition - "the right to be let alone" - was coined by Warren and Brandeis [affirmed by Stahl, 2007]. This definition is still used today (Britz, 1999; Velasquez, 1998). Privacy can refer to the control of information, social control (Culnan, 1993), perceptions and psychological states (Velasquez, 1998), rights and obligations, personal curiosity, and social

structures. What is probably beyond doubt is that the current interest in privacy is related to the use of information and communication technology, which includes computing and telecommunications technologies.

Access to private and personal information poses serious ethical questions with regard to the right to privacy. In order to understand the nature of these ethical questions, it is important to define the nature of privacy. Britz (1996:98) emphasizes the concept of solitude, and defines privacy as the right to be left alone. Parent (as cited by Doss and Loui in Holmer, 2000:2), however, is of the opinion that this definition of privacy is inadequate. He feels that the right to be left alone is not sufficient, as there are many other ways to annoy, harass, or harm someone that have nothing to do with privacy (in the context of being left alone). Parent in Holmer (2000:2) thus proposes a new definition: "Privacy is the condition of not having made public undocumented, unpublished, factual, personal knowledge that most people would not want publicized". According to Doss and Loui in Holmer (2000), privacy has three separate elements, namely secrecy, anonymity and solitude. He explains that secrecy requires limits on the disclosure of personal information. Anonymity is the absence of unwanted information, and solitude refers to the lack of close physical proximity to others. Mason in Eining and Lee (1997:20) identifies two issues that threaten privacy, i.e. the growth of information technology and the increased value of information in decision-making processes. Mason and Lee believe that while current IT allows companies and governments to collect large amounts of information on individuals, the speed of retrieval and the transmission of this information threatens information security. Information is also increasingly valuable to policy makers - they covet it, even if acquiring it invades other's privacy. The two authors assert that ethical concerns arise from the need to balance the requirements for information for decision-making with concerns for the privacy of individuals. According to Eining and Lee (1997:23), questions that arise from the issue of privacy include, among others: What information should one be required to divulge about one's self to others, and under what conditions? And what information should one be able to keep strictly to one's self?

### **2.9.2 Access**

Eining and Lee (1997:6) state that access is concerned with the ability to obtain information that is available. They further explain that access requires both the physical technology and the skills

necessary to use that technology. Britz and Ackerman (2006) are of the opinion that ethical issues of access to information center on the individual right to have access to certain categories of information. The authors believe that the right of access is regarded as an instrumental human right as it allows a person to exercise his or her own basic human right to information. They further explain that this right of access to information is recognized and judicially protected by most democratic societies. In South Africa, the right of access to information is protected by the constitution of the Republic of South Africa (Act 108 of 1996). However, this right is violated when people are precluded access to information which is of value to them. It is worth noting that advances in IT have increased the amount of information available for decision-making, but these advances have not ensured that everyone has equal access to this resource (Eining and Lee, 1997:6). The authors believe that the skills and equipment required for access are often costly and not necessarily universally affordable. Power ultimately lies in the hands of people that have access to information and the ability to use that information; the lack of access to information invariably results in inequality.

### **2.9.3 Accuracy**

The Oxford English Dictionary in Holmer (2000:3) defines accuracy as a concern with the truth. An inaccurate message that does not confirm or even attempt to confirm the truth therefore has the potential to cause serious ethical and legal problems. It is undeniable that information has the capacity to unfavorably complicate people's lives, especially when the information upon which lives depend is inaccurate (Mason, 1986). Inaccurate information poses problems for people because they can often be misled in an insurmountable number of ways, and the risks here are not just epistemic (Fallis, 2004). People use the information that they have or receive to make practical decisions. If people are misled by inaccurate information, the net result could be serious harm to their finances (Fowler et al., 2001) or their health (Kiley, 2002). Kiley notes that while some people may be too credulous, others may be too skeptical. Thus, because they are worried about being misled, some people may fail to believe accurate information that would have been beneficial or of help to them. Fallis (2004) posits that the mere fact that an information source contains some amount of inaccurate information is not necessarily a problem - as long as people can distinguish accurate from inaccurate information, they will not be misled. Unfortunately, it can often be very difficult for people to identify inaccurate information (Cerf, 2002). For example, with the latest

Web development software, almost anyone can publish very professional-looking websites. As Silberg et al. (1997) point out, the Internet “is a medium in which anyone with a computer can serve simultaneously as author, editor, and publisher and can fill any or all of these roles anonymously if he or she so chooses”. They argue that in such an environment, novices and savvy Internet users alike may have trouble distinguishing the wheat from the chaff, or the useful from the harmful.

LIS scientists have responded to the problem of inaccurate information on the Internet primarily by publishing guidelines for evaluating information (Fallis, 2007). These guidelines, as explained by Fallis, provide people with a list of features of websites that are supposed to be indicators of accuracy (e.g. the author’s identity, whether the author is an authority on the topic, no advertising in the document, no spelling or grammatical errors, the website is up-to-date, authoritative references are cited, etc). Fallis proposes some new guidelines for evaluating the accuracy of information, but warns that such guidelines should not necessarily substitute education on verifying the accuracy of information. His guidelines include (i) authority, (ii) independent corroboration, (iii) plausibility and support, and (iv) presentation.

#### **2.9.4 Intellectual Property**

According to Britz (1996), the ethical issue of property can be defined as any tangible matter over which a person can exercise certain rights, such as allowing some people to use certain possessions while excluding others. Copyright is one of a number of examples of intellectual property. Cornish (2004:1), Flint (1979:6), and Cornish (1989:245) define the term ‘copyright’ as a body of legal rights that prevents creative works from being reproduced, performed or disseminated by others without permission. The owner of the copyright has the exclusive right to reproduce a protected work; to prepare derivative works that only slightly change the protected work; to sell or lend copies of the protected work to the public; to perform protected works in public for profit; and to display copyrighted works publicly (Cornish, 2004:2). Britz (1996) is of the opinion that the question of the ownership of information and the protection of the author’s interest is becoming increasingly blurred and threatened by technology. This is mainly because technology enables information to be copied and disseminated faster and easier than ever before, without the acknowledgement of the original author. Mason (1986:4) suggests that information has some

unique characteristics that create catastrophic problems with regard to the issue of intellectual property. He believes that the fact that information is sharable and ownership still retained, poses a question of whether information can, in fact, be stolen. Furthermore, information can be extremely expensive to produce in the first place. Yet once it is produced, that information has the illusive quality of being easy to reproduce and share with others. Moreover, this replication can take place without destroying the original.

## **2.10 Teaching and Learning of Information Ethics in Library and Information Science**

### **2.10.1 The Need for Education**

In light of the ethical dilemmas facing information professionals (and given their scope), it is apparent that information professionals need greater exposure to information ethics, and this can be achieved through education. Carbo and Almagno (2001) cite the history of one of the earliest information ethics courses at the University of Pittsburg (USA). According to the two authors, many of the information professionals who had taken such courses reported that they had been extremely beneficial. That said and despite the importance of the topic, there are relatively few courses on information ethics for LIS professionals (Fallis 2007; Smith 2002). Buchanan (2004) did a survey on the information ethics courses offered by Library and Information Science programs in the United States. The study found that less than half of the accredited American Library Association (ALA) programs offered such courses, and only a few of these courses required students to take a course in information ethics. The report noted that in most Library and Information Science programs, ethical issues were only covered briefly in the course of other topics, such as collection management, information policy, and information literacy.

### **2.10.2. Why Teach Information Ethics**

The mandate of information ethics education is the urgency of issues in global information justice (Smith, 2002:3). Smith believes that threats to information access, accuracy and privacy, and matters relating to the digital divide and alternative technologies, demand immediate attention and provide the rationale for teaching information ethics. In order to deal effectively with their ethical dilemmas, library and information science professionals must have a good working knowledge of information ethics (Fallis, 2007). Fallis believes that courses in information ethics should be part of

the education of information professionals. Such courses should provide information and library professionals with an understanding of ethical theories and how they can apply them to concrete practical cases. Such courses should also make explicit the connection between information ethics and the mission of information professionals (Fallis, 2007).

According to Carbo and Almagno (2001:3), knowing how to create, find, manage, access, preserve and use information effectively is empowering, because it helps information professionals provide a wider and better array of services. These services help people work and compete more effectively and generally improve the quality of their lives and those of others. Information professionals must recognize that with this power comes responsibility. The authors suggest that librarians and other information professionals must learn to understand the responsibilities and real consequences of their actions and learn to use their power ethically and responsibly. The two authors believe that individuals seeking to become professional librarians or archivists, or seeking to work in other information-related organizations, must first learn to develop and hone their individual sense of ethics and be educated about the ethical issues of information. Information professionals must also learn and be ready to make ethical decisions and take ethical actions.

Smith (2002:3) provides a list of reasons specifying why students in Library and Information Science should learn information ethics. She believes that information professionals should study information ethics to: develop a professional perspective that guides them towards personal integrity and social responsibility in the work place and in their participation in broader society; and enable them to appreciate the global dimensions of ethical, legal and cultural issues. The Information Ethics Special Interest Group (2007:2) observes that knowledge and an understanding of pluralistic intercultural information ethical theories and concepts (including the ethical conflicts and responsibilities facing library and information professionals around the world) are necessary to ensure relevant teaching, learning, and reflection in the field of library and information studies and information-related professions. They argue that many important areas and issues currently facing library and information professionals can only be understood in light of their ethical contexts. Also, the contributions that library and information studies can make to knowledge societies can be significantly informed by their attention to information ethics. The Information Ethics Special Interest Group (from the Association for Library and Information Science Education) strongly

advocates for information ethics to be encouraged as an important aspect of education, research, scholarship, service, and practice in library and information studies and in other related professions (either through the curriculum, instructor expertise, resources or symposia).

### **2.10.3 The Content**

Carbo (2005:28) opines that information ethics is far too complex to suggest what should be taught. According to the author, some of the areas or questions that should be considered when selecting the appropriate content for an information ethics course include the following: How much of the course should be devoted to ethical foundations? How should practical and theoretical knowledge be balanced? What key issues should be discussed? What multicultural content should be included? And how many materials should be included for each course?

The Information Ethics Special Interest Group (2007:5) states that the content of an information ethics course should enable students to: recognize and articulate ethical conflicts in the information field; inculcate a sense of responsibility with regard to the consequences of individual and collective interactions in the information field; provide the foundation for intercultural dialogue through the recognition of different kinds of information cultures and values; provide basic knowledge about ethical theories and concepts and about their relevance to everyday information work; and learn to reflect ethically and think critically and carry these abilities into their professional life.

With regard to the actual content or areas to be covered in the course, The Information Ethics Special Interest Group (2007:5) believes that the content should encompass areas such as: intellectual freedom; intellectual property; open access; preservation; balance in collections; fair use; surveillance; cultural destruction; censorship; cognitive capitalism; imposed technologies; public access to government information; privatization; information rights; academic freedom; workplace speech; systematic racism; international relations; impermanent access to purchased electronic records; general agreements on trade and services (GATS) and trade related aspects of intellectual property rights (TRIPS); serving the poor, homeless, and people living on fixed incomes; anonymity, privacy, and confidentiality; human security; national security policies; the

global tightening of information and border controls; trans-border data flow; and information poverty.

Laudon and Laudon, and O'Brien in Lee and Chen (2005:2) suggest that an information ethics course should cover the following broad areas: relationship between ethics, social and political issues in information society; moral dimensions of the information age; basic concepts of responsibility, accountability, and liability; professional codes of conduct; ethical guidelines, information rights and privacy; property rights - intellectual property, accountability, liability and control systems quality; legal issues in ethics; privacy laws; technology ethics; and computer crime. What these streams of content reveal, is that they all fall within the broader scope of information already highlighted, i.e. privacy, access, accuracy and intellectual property. However, the inclusion of ethical theories in the content of the course raises interesting questions, such as who should, in fact, teach the course.

#### **2.10.4 Who Should Teach Information Ethics**

When deciding who should teach information ethics, Carbo (2005:27) suggests that we first ask what knowledge and experience (and in what subject fields, i.e. philosophy, library and information science, computer science, etc.) are needed to teach an information ethics course. Fallis (2007:7) believes that the course should be taught by library and information professionals who have actually faced some of the ethical dilemmas, and not by philosophers trained in applied ethics. He supports his statement by stating that it is imperative that these courses are taught by someone who understands the ethical dilemmas facing information professionals. He does believe, however, that in order for someone to teach, the person must have knowledge in areas such as philosophy and be familiar with ethical theories and their application to the ethical dilemmas facing information and library professionals. The Information Ethics Interest Group concurs with Fallis' view by stating that the course should be taught by a qualified member of the department.

#### **2.10.5 What Methods Should be Used to Teach Information Ethics?**

Lee and Chen (2005:4) observe that the purpose of information ethics education is to make students understand the importance of ethics and its consequences, and thus generally comprises moral development. They do, however, note that moral development is a complex construct that consists

of cognition, affect, and socialization. Therefore, they believe the teaching methods that are suitable for facilitating ethical development in students are those methods that attend to the students' cognitive, affective, and social development. Some of the teaching methods that are likely to enable such development include case studies, team education, group discussions, and role modeling (Lee and Chen, 2005:4 and Fallis, 2007). Lee and Chen (2005:4) caution that while these teaching methods are better suited to teaching ethics, ultimately the responsibility of how these teaching tools are used depends on the instructor. In other words, it is possible to utilize a case study or a group discussion in a way that does not attend to students' cognitive, affective and/or social development. What then, are the ways in which an instructor should use such teaching tools so that students' ethical development is holistically addressed?

Lee and Chen (2005) believe that the teaching tools for teaching information ethics (case studies, team education, group discussions and role modeling) should be facilitated in a manner that allows students to understand wholes, their constituent parts, and their relationships therein. They believe that deriving meaning from experience requires that students be afforded an opportunity to grapple with isolated parts, construct a framework (or whole) that binds together or unites, in some way, these constituent parts, only to have that framework challenged by new facets of information. As students work through these part-whole, whole-part evolving relationships, they are fraught with the tension that accompanies most change. It is in this tension and uncertainty that the greatest amount of experience is being gained and also where the ethical development is in fact occurring (Lee and Chen, 2005).

#### **2.10.6. To whom should Information Ethics be taught?**

Carbo (2005:27) believes that information ethics should be expanded and become a component of information literacy programs that target all students, beginning in elementary undergraduate curricula and extending to advanced education programs. In HE Institutions, students should be encouraged to take courses that have an information ethics component in them (Carbo, 2005:27). Carbo also believes that more continuous education programs that deal with information ethics should be developed for practitioners in other disciplines (not just information professionals). This would include teachers, those who will work in elementary and secondary education, and those designing, managing and building information systems and services.

### **2.10. 7 Challenges of Teaching Information Ethics**

Carbo and Almagno (2001:1) point out that teaching information ethics to a very diverse group of graduate students working towards careers as information professionals raises a number of challenges. Carbo explained the challenges he faced when teaching information ethics at the University of Pittsburg (USA), where he recognized that students learn in different ways and may come from different disciplines and have diverse educational, economic, social, and cultural backgrounds. His suggestion was that a wide range of teaching and learning styles should be used, and where possible, customized approaches should be developed for different students. In her report, she notes for example that students from cultures that do not permit or encourage questioning the instructor or challenging ideas, often have difficulty in participating in an information ethics course. She attributes this to the fact that information ethics courses are based on case studies and discussions where students are encouraged to challenge certain views.

### **2.10.8 Proposed Model for Teaching Information Ethics**

Crowell (nd) proposes a model to teach information ethics. The model is based on moral psychology and has four components, namely ethical sensitivity, ethical judgment, ethical motivation and ethical action.

Ethical sensitivity - involves perceiving the relevant elements in the situation and constructing an interpretation of those elements. This first component also involves considering what actions are possible, and who and what might be affected by each possible action.

Ethical judgment - relates to reasoning about whether a possible action would be moral or ethical and how the involved parties might react to possible outcomes.

Ethical motivation - involves prioritizing what is considered to be the most moral or ethical action above all others and being intent upon following that course.

Ethical action - combines strength of will with the social and psychological skills necessary to carry out the intended requisite that may arise.

### **2.11. Related Studies**

It is worth pointing out that not much research has been conducted on information ethics education in LIS either globally or continentally. A considerable amount of research has been done on the ethics or values of library and information professionals, but few of these studies focused on information ethics education. For example, Froehlich (1997) focused on the obligations of library and information professionals to themselves, to their organization, and to “the larger environment within which information professionals’ work. There is a whole array of other studies on the values or ethics of information professionals.

Given the focus of this study (information ethics education in LIS), studies of a related nature or of relevance would be those focusing on information ethics education in LIS. In light of this focus, a study that appears to be related to this endeavor is one conducted by Buchanan as cited by Fallis (2007). Buchanan did a survey on information ethics education in ALA accredited schools in the United States. Buchanan’s aim, as in this study, was to investigate and compare information ethics education among LIS Schools. The study found that not many LIS schools offered stand-alone information ethics courses; instead the topic (referring to information ethics) was incidentally covered in the topics of other modules such as information literacy and information policy, among others. Fallis’ (2007) study on the information ethics of information professionals in the 21<sup>st</sup> century made known the ethical dilemmas facing information professionals and strongly advocated information ethics education in LIS in light of these dilemmas. It also recommended the inclusion of ethical theories in the content of information ethics courses. Carbo’s (2005) study is another notable effort towards promoting information ethics education in LIS. However, Carbo does not provide solutions but rather points out the areas that may need to be addressed in deciding who should teach information, how information ethics should be taught, who should learn information ethics and the contents of information ethics courses.

A more recent study on the African continent was conducted by Ocholla (2008) on information ethics education in LIS schools in Africa. Ocholla’s study was an opinion poll among LIS experts on the state of information ethics education on the continent. Opinions were provided by LIS

experts on the necessity of information ethics education in LIS, who should teach information ethics, at what level should information ethics be taught, and what should go into an information ethics module in terms of content. There was concurrence among the LIS experts that information ethics is necessary in LIS education for quite a number of reasons. There were generally mixed feelings on who should teach information ethics, with some suggesting LIS schools and the LIS Faculty and others opting for a more multidisciplinary approach. Ocholla concluded that there are likely to be a number of suggestions on what the content of an information ethics course should be. Pedagogically, the purpose, objectives and expected outcome should dictate the content as the levels of teaching and learning and the contexts will always vary. Ocholla's study is very closely linked with this one, except that it brings on board selected views from LIS schools/experts in Africa and not in South Africa alone. What his study did not do, however, was employ content analysis to assess the information ethics syllabus of LIS Schools, or obtain information from IE lecturers. Ocholla's study also did not cover the South African IE situation in detail.

### **Summary**

The literature reviewed in this chapter was presented in an attempt to demystify information ethics, and what has been going on in information ethics education in Library and Information Science. This was useful as it answered aspects of certain questions and paved the way forward for the rest of the study. From the review, it became apparent that information professionals regularly face ethical dilemmas that fall within the scope of information ethics. The review was useful in identifying the ethical problems faced by information professionals and providing a rationale for information ethics education in LIS Departments. The rationale was based on the urgency of issues in global information justice, such as threats to information access, accuracy and privacy, and matters relating to the digital divide and alternative technologies. There was, however, no literature that reflected on what is going on within the African context, except in one study by Ocholla (2008).

Generally, there seems to be no agreement on who should teach information ethics to LIS students. Fallis (2007) maintains that an information ethics course should give library and information professionals a clear understanding of ethical theories, yet the author also suggests that the course should be taught by LIS professionals. Ethics is an area of philosophy, and what is not clear is how

much philosophical expertise these library and information professionals should possess. Most of the issues in this review have been presented as questions with no solutions. This is due to the nature of the concepts involved, i.e. information ethics, privacy, accuracy, property and access. The questions include: What information should one be required to divulge about one's self to others, and under what conditions? What information should one be able to keep strictly to one's self? Who is responsible for the authenticity, fidelity and accuracy of information? Who is to be held accountable for errors in information? And who should have access to what information? Given the scope of this review, the above mentioned questions were not investigated in this study. Further investigation focusing on these questions and possibly reflecting on what is going on within the African context is consequently recommended. The next chapter (Chapter 3), discusses how the study was conducted in terms of research methods, data collection instruments, and so on.

## **Chapter Three: Research Methodology and Design**

### **3.1. Introduction**

According to Hernon & Schwartz in Ngulube (2004:218), Library and Information Science researchers have been criticized for focusing on the findings and implications of their studies without providing details about their research methods. Ngulube contends that describing the methods used in a given study is important because it enables other researchers to replicate the study and ascertain the validity and reliability of the findings. The broad aim of this chapter is to explain how the study was planned and executed. The chapter consequently explains what, where, how, when and with whom the study was conducted by discussing the research methodology (the approach), research method, study population, sampling technique, data collection techniques and data analysis.

### **3.2 Research Methodology**

Research, according to Leedy and Ormrod (2005:2), is a systematic process of collecting, analyzing and interpreting information (data) in order to increase our understanding of the phenomenon we are interested in or investigating. The authors believe that research is when we intentionally set out to enhance our understanding of a phenomenon and expect to communicate what we discover to the greater scientific community. Similarly, according to Neuman (2006:2), research is a way of going about finding answers to questions. He further mentions that research is a collection of methods people use systematically to produce knowledge.

Neuman (2006:2) observes that the terms ‘methodology’ and ‘method’ are often used synonymously. However, he explains that ‘methodology’ is broader than ‘method’, and actually encompasses method. Creswell (2003:365) defines research methodology as a set of procedures and methods used to conduct research. Creswell’s definition concurs with Neumann’s view that research methods are part of research methodology.

There are two research methodologies primarily used in social science: qualitative and quantitative research methodologies (Payne and Payne, 2004:175; Bless and Smith, 200:37; Shaughnessy, Zechmeister and Zechmeister, 2006:44; Terre Blanche, Durrheim and Painter, 2006:47; Neumann, 2006:13; and Leedy and Ormrod, 2005:34).

The term 'quantitative research' functions as an umbrella term covering different types of research (Bryman in Payne and Payne, 2004:181). Its simpler form consists of counting how frequently things happen (e.g. educational levels among school leavers, attendance at doctors' surgeries, rates of divorce, etc) and presenting these frequencies as summaries in tables and graphs (Nachmias and Guerrero in Payne and Payne, 2004:181). This can be extended to looking at how two or more factors seem to be connected.

Creswell in Leedy (1997:104) defines a quantitative study as an enquiry into social or human problems that is based on testing theories in order to determine whether the predictive theories/hypotheses hold true. Payne and Payne (2004:180) explain that quantitative research seeks regularities in human lives by separating the social world into empirical components called variables, which can be presented numerically as frequencies and rates, and whose association with each other can be explored via statistical techniques and assessed through researcher-introduced stimuli and systematic measurement. Leedy and Ormrod (2005:37) explain that quantitative research involves either identifying the characteristics of an observed phenomenon or exploring possible correlations between two or more phenomena. They further observe that in every case, quantitative research examines the situation as it is, and does not change or modify the situation under investigation; nor is it intended to determine cause and effect relationships.

Almost all forms of quantitative research share certain features (Payne and Payne, 2004:181). The authors identify the following features of quantitative research:

1. The core concern is to describe and account for regularities in social behavior rather than seek out and interpret the meanings that people bring to their own actions.
2. Patterns of behavior can be separated into variables and presented in the form of numbers (rather than treating actions as part of a holistic social process) [see also Bless and Higson-Smith, 2000:47].
3. Explanations are expressed as associations between variables, ideally in a form that enables the prediction of outcomes from known regularities.
4. This form of research explores social phenomena not just as they naturally occur, but by

introducing stimuli, such as survey questions, and collecting data through systematic, repeated and controlled measurements.

Quantitative research has its own strengths and weaknesses. Matveev (2002: 4) observes that one of its strengths is that because it firmly follows the original set of research goals, it arrives at more objective conclusions by testing hypotheses and determining issues of causality. Still on the strengths of quantitative research, Kealey & Protheroe (1996) observe that it eliminates or minimizes the subjectivity of judgment. The weaknesses of quantitative research, as observed by Matveev (nd: 6), include the following:

1. Failure to provide the researcher with information on the context of the situation in which the studied phenomenon occurs;
2. Inability to control the environment in which the respondents provide the answers to the questions in the survey;
3. Outcomes are limited to only those outlined in the original research proposal due to closed-type questions and the structured format;
4. It does not encourage the evolving and continuous investigation of a research phenomenon.

The term ‘qualitative research’ encompasses several approaches to research that are, in some aspects, quite different to each other (Leedy and Ormrod, 2005:133; Payne and Payne, 2004:175). Leedy and Ormrod (2005:133), however, believe that all qualitative approaches have two things in common. First, they focus on phenomena that occur in natural settings, meaning the “real world”. And secondly, they involve studying these phenomena in all their complexity. Payne and Payne (2004:1) believe that almost all qualitative studies share certain features. The authors identify the following characteristics of qualitative research:

1. The core concern of qualitative research is to seek out and interpret the meanings that people bring to their own actions, rather than describing any regularities or statistical associations between variables.
2. They treat actions as part of a holistic process and context, rather than as something that can be extracted and studied in isolation.

3. They set out to encounter social phenomena as they naturally occur (observing what happens rather than making it happen).
4. They operate at a less abstract and generalized level of explanation.
5. Rather than starting with a theoretical hypothesis and trying to test it, they explore the data they encounter and allow ideas to emerge from them (i.e. using an inductive, not deductive approach).

Qualitative researchers rarely try to simplify what they observe; instead they recognize that the issues they are studying have many dimensions and layers, and so they try to portray these issues in all their multifaceted forms (Leedy and Ormrod, 2005:134). Thus, they produce non-quantitative accounts of small groups, seeking to interpret the meanings people make of their lives in natural settings (Payne and Payne, 2004:175).

Qualitative researchers are concerned with attempting to accurately describe, decode, and interpret the meanings of phenomena occurring in their normal social contexts (Fryer, 1991:10). The researchers operating within the framework of the interpretative paradigm are focused on investigating the complexity, authenticity, contextualization and shared subjectivity of the researcher and the researched,; and minimizing illusion (Fryer, 1991:11).

Maykut and Morehouse (1994:43) believe that research studies that are qualitative are designed to discover what can be learned about some phenomenon of interest, particularly social phenomena in which people are the participants. The authors believe that qualitative researchers develop a general focus of inquiry that helps guide the discovery of some social phenomenon. Lincoln and Guba in Maykut and Morehouse (1994:44) state that qualitative researchers are interested in investigating and responding to exploratory and descriptive questions such as ‘What are young children’s conception of mind’? Or ‘In what ways do people in this rural town build informal social networks’? The outcome of any of these studies is not a generalization of the results, but a deeper understanding of experience from the perspective of the participants selected for the study.

According to Peshkin in Leedy and Ormrod (2005:134), qualitative research studies serve one of the following:

*Description* – They can reveal the nature of certain situations, settings, processes, relationships, systems or people.

*Interpretation* – They enable a researcher to:

- Gain insights into a particular phenomenon
- Develop concepts or theoretical perspectives about the phenomenon
- Discover problems that exist within the phenomenon

*Verification* – They allow a researcher to test the validity of certain assumptions, claims, theories or generalizations within real world contexts.

*Evaluation* – They provide a means through which a researcher can judge the effectiveness of particular policies, practices or innovations.

As with quantitative research, qualitative research also has its own strengths and weaknesses. On the strengths of qualitative research, Matveev (2002 6) asserts that qualitative research achieves a more realistic feel of the world that cannot be experienced in the numerical data and statistical analysis used in quantitative research. He also mentions that qualitative research provides a holistic view of the phenomena under investigation. In terms of weaknesses, Matveev (nd:7) believes that qualitative research arrives at different conclusions based on the same information, depending on the personal characteristics of the researcher, and that it lacks consistency and reliability because the researcher can employ different probing techniques and the respondent can choose to tell some stories and ignore others. He believes that this type of approach has great difficulty in explaining the difference in the quality and quantity of information obtained from different respondents, and can lead to different, inconsistent conclusions.

Bless and Higson-Smith (200:38) are aware of the advantages and disadvantages of both qualitative and quantitative research methods. The authors believe that a skilled researcher carefully chooses the most appropriate approach to a particular problem. A comprehensive study should use both methods, and this study is no exception. Given the weaknesses of the two approaches when used in isolation, a decision was made to employ both. This was done for two reasons. First, it was felt that by using a combination of these two approaches, comprehensive data would be obtained on the

level and nature of information ethics education in Library and Information Science Departments in South Africa. Secondly, Glesne and Peshkin and Morse's (in Ngulube, 2004:197) assertion that using both qualitative and quantitative methods could contribute to a better understanding of the concepts under study also motivated the choice of using both approaches.

### **3.3. Research Method**

According to Ikoja Odongo (2002:104), a research method is understood as the first step in how a research project is implemented. A research method has been defined as the general approach taken in an inquiry (Robson 1993:40). Payne and Payne (2004:149) view a research method as the technical practices used to formulate research questions, collect and analyze data, and present findings. The authors view a research method as a tool that is necessary to execute research, but warn that the tool has to be used correctly and has to be right for the job. Payne and Payne (2004:149) thus observe that the choice of a research method depends on the type of research question the study is trying to answer. The nature of this particular study pointed to survey and content analysis.

#### **3.3.1. Content Analysis**

As already indicated, the nature of this study pointed to the use of content analysis. Research questions concerning the content of the information ethics courses taught by Library and Information Science Departments called for the use of this method.

Content analysis is a detailed and systematic examination of the contents of a particular body of material in order to identify patterns, themes or biases (Leedy and Ormrod, 2005:142; Gomm, 2004:247; Babbie, 2005:328; Breakwell, Hammond and Feife-Schaw, 1995:288; Zechmeister and Zechmeister, 2006:211; and Neuman, 2006:322). Content analyses are typically performed on human forms of communication, such as books, newspapers, films, television, the arts, music, video tapes of human interactions, and transcripts of conversations (Leedy and Ormrod, 2005:142). According to Neuman (2006:323), content analysis is non-reactive because the creators of the content do not know whether or not anyone will analyze it. He believes that content analysis lets a researcher discover and document specific features in the content of a large amount of material that may otherwise go unnoticed.

Payne and Payne (2004:51) assert that content analysis was originally a quantitative way of evaluating written texts. The authors explain that this was gradually extended to apply to literature, autobiographies and other documents, with the emphasis shifting to qualitative priorities like interpretation and subjective meaning. As it stands, Neuman (2006:323) observes that there are now quantitative and qualitative versions of content analysis. He mentions that in quantitative content analysis, a researcher uses objective and systematic counting and recording procedures to produce a numerical description of the symbolic content in a text. This includes counting how frequently certain words appear in a text. A researcher using content analysis in a quantitative framework employs objective and systematic coding, counting and recording to come up with a quantitative description. When used in a qualitative framework, content analysis tends to be more subjective and less explicit about the processes through which interpretation of the target material occurs - the emphasis is on meaning rather than on quantification (Breakwell, Hammond and Feife-Schaw, 1995:288). According to Payne and Payne (2004:51), content analysis in qualitative research that draws on the anti-quantitative tradition has to address attitudes, values and motivation. The authors believe that it is the meaning behind the words that matters; the social component is contained in the communication. The aim of qualitative content analysis is to be able to find particular themes or strands of meaning within the content (Breakwell, Hammond and Feife-Schaw, 1995:288). With this form of content analysis, the aim is not normally to put numbers to the data. This study largely employed a qualitative version of content analysis.

It is important to note the significance of content analysis on the objectivity of the research data, as content analysis is iterative (Neuman, 2006:232). Neuman explains that this is because the processes and circumstances that go with providing content analysis data are devoid of any influence from the researcher. The researcher is able to probe into and extract the data as it has been pre-presented. This means that the problem of a respondent expressing what they think the researcher wants to hear or what will portray the respondent in a positive manner is largely eliminated.

As a general rule, content analysis is quite systematic, and measures are taken to make the process as objective as possible. Leedy and Ormrod (2005:142) identify the following steps in content analysis:

1. The researcher identifies the specific body of material to be studied. If this body is relatively small, it is studied in its entirety. If it is quite large, a sample is selected.

It is worth reiterating that this method (content analysis) was employed with the aim of determining what is taught in information ethics modules in LIS in terms of modules' contents. As a result, the documents targeted for this undertaking were study guides of information ethics modules. Study guides were perceived as appropriate and relevant for content analysis because they provide information pertaining to a module's title and code, the aims of the module and its objectives, units covered in the module, assessment methods, and recommended readings, among others. Study guides were received from the LIS Departments that offer stand-alone information ethics modules. (Notes: deleted – repetition – see first line in par) Since study guides are in most cases not lengthy, a decision was taken to study them in their entirety. This means that no sampling was done.

2. The researcher defines the qualities or characteristics to be examined in precise, concrete terms.

To achieve the desired results of this process, a content analysis schedule was developed to capture data appearing in the study guides. The content analysis schedule thus consisted of the following:

- Name of Department
- Module Provider
- Module Title and Code
- Aim of the Module
- Objectives of the Module
- Learning Outcomes
- Units Covered
- Recommended Readings
- Assessment Methods

3. If the material to be analyzed involves complex or lengthy items, the researcher breaks down each item into small manageable segments that are analyzed separately.

This process was not applicable in this study.

4. The researcher scrutinizes the material for the instance of each characteristic or quality.

In this study, the documents for content analysis were mainly study guides of information ethics modules. Content analysis was based on examining the course content of information ethics courses in Library and Information Science Departments in South Africa. The analysis of the documents largely focused on the objectives of the course and the units (content) covered in the course.

### **3.3.2. Survey**

Surveys may be used for descriptive, explanatory and/or exploratory purposes, and are chiefly used in studies that have individual people as units of analysis (Babbie, 2005:252). Although this method can be used for other units of analysis, such as groups or interactions, some individual persons must serve as respondents or informants (Gomm, 2004:89). The basic idea behind survey research is to measure variables by asking people questions, and then to examine the relationships between the variables (Neuman, 2006:273). Leedy and Ormrod (2005:183), Zechmeister and Zechmeister (2006:144), Shaughnessy and Zechmeister (1990:78) and Babbie (2005:252) mention that survey research involves acquiring information about one or more groups of people (i.e. their characteristics, opinions, attitudes or previous experiences) by asking them questions and tabulating their answers. Although they differ in scope and purpose, most surveys have similar characteristics (Zechmeister and Zechmeister, 2006:144; and Shaughnessy and Zechmeister, 1990:78). The authors state that surveys generally involve sampling, i.e. a small number is selected from a large group and the results are generalized onto the larger group from which the sample was selected. Surveys are also characterized by their use of a set of pre-determined questions common to all respondents. Oral or written responses to these questions constitute the principal data obtained in a survey.

According to Zechmeister and Zechmeister (2006:145), even though the survey method is viewed as a quantitative research method, it can also be used to collect qualitative data. The authors believe

that the nature of the survey, i.e. whether it is qualitative or quantitative, largely depends on the types of questions in the research instrument. Open-ended questions produce qualitative data, while close-ended questions produce quantitative data. In this study, the survey used both qualitative and quantitative questions.

According to Behr (1988:97), in order to gain maximum value from a survey, a set of procedures should be followed. He identifies the following steps:

1. First, a problem must be identified and clearly defined.
2. This should be followed by carefully scrutinizing previous research on the same or a similar problem.
3. Thereupon consideration should be given to the design of the survey. This includes decisions with regard to the population under study, the instruments employed and the method of execution.
4. Before a proper survey begins, a pilot study should be undertaken. The pilot study is particularly useful in testing the adequacy of the instrument being employed and/or for training the personnel who will assist in carrying out the survey.

In this study, the survey was executed using questionnaires which were distributed to 11 Heads of Library and Information Science Departments and the lecturers in all 12 Library and Information Science Departments or Schools in South Africa. The selection of this population is discussed below.

### **3.4. Population**

According to Bless and Higson-Smith, Ravichandra Rao, and Rowley in Ngulube (2004:225), the population of a study refers to a set of objects, whether animate or inanimate, that are the focus of the research and about which the researcher wishes to determine some characteristics. Bless and Higson-Smith (1995:154) define the population as a set of events, actions, people or things onto which the research findings are to be applied. The authors believe that it is absolutely essential to accurately describe the target population. This can be effectively done by clearly defining the properties that are to be analyzed using the operational definition. Once an operational definition has been provided, boundary conditions are established, thus making it easier to ascertain whether

or not an element belongs to the population under investigation (Bless and Higson-Smith, 2000:154).

The primary aim of the study was to investigate the nature and level of information ethics education in South Africa, which meant that it was necessary to obtain views from all the LIS Departments/Schools in the country. Since the number of LIS Schools in South Africa is 12, it was deemed necessary to include all 11 LIS Schools. This means that no sample was drawn. Ocholla and Bothma (2007) recognize twelve LIS Departments in South Africa which were all included. The list of these departments is provided in Table 3.1 below.

**Table 3.1 List of LIS Departments in South Africa**

<i>Department</i>	<i>Institution</i>
Department of Library and Information Studies	Durban University of Technology
Department of Information Studies	University of Johannesburg
Center for Information Literacy	University of Cape Town
Department of Information Studies	University of Natal
Department of Library and Information Science	University of Zululand
Department of Library and Information Science	Walter Sisulu University
Department of Information Studies	University of Limpopo
Center for Knowledge Dynamics and Decision making	University of Stellenbosch
Department of Library and Information Science	University of Western Cape
Department of Information Science	University of Pretoria
Department of Information Science	University of South Africa
Department of Library and Information Science	University of Fort Hare

### **3.5. Data Collection Instruments**

Data collection is the process of gathering research data about the research topic. This is done in a systematic way to enable statistical analysis. Research instruments are the tools used to collect data for a research project. There are various types of data collection/research instruments, such as questionnaires, interviews, observation, and document or record reviews. According to Marshall & Rosen (1995:104), the principle of data collection is that the instrument should be related to the type of information being sought. Such techniques should be efficient, practical, feasible and ethical. They should permit the researcher to study issues in depth and detail. As mentioned earlier, questionnaires were selected as the data collection instrument under the survey research method.

#### **3.4.1. Questionnaire**

The nature and scope of this study naturally pointed to the use of questionnaires. Questionnaires were viewed as a logical technique for a population as dispersed as the LIS departments in South Africa.

Bless and Higson-Smith (2000:154) define a questionnaire as an instrument of data collection that consists of a standardized series of questions relating to the research topic that must be answered in writing by participants. Likewise, Van Rensburg, Landman and Bodenstein (2002:505) define a questionnaire as a set of questions on the same topic that a selected group of individuals must answer. The purpose of this, they note, is to gather data on the problem under investigation. Marshall and Rossman (1995:96) view a questionnaire as an instrument used to convert information directly provided by the respondent into data in order to gauge what he/she likes or dislikes and/or what he/she thinks. They believe that a questionnaire is based on the assumption that the respondents provide information that cannot be obtained anywhere else.

Questionnaires are classified according to the kind of questions set (Babbie, 2005:254; Behr, 1988:156; Zechmeister and Zechmeister, 1990:93; and Shaughnessy, Zechmeister and Zechmeister, 2006:155). Questions may be closed or open-ended, or both in combination (Behr, 1988:156).

According to Bechhofer and Paterson (2000:74), closed questions require the respondent to place a tick, make a mark or draw a line alongside one of several provided possible answers. The authors state that open-ended questions enable the respondents to reply as they like and do not confine them to a single alternative. According to Behr (1988:156), the closed form of questionnaire facilitates answering and makes it easier for the researcher to code and classify the responses. He further mentions that this is particularly useful if details from a large number of questionnaires have to be dealt with. However, according to Breakwell, Harmond and Fife-Schaw (1995:178), the fixed form of alternative answers may have the effect of forcing the respondents to think along certain lines, which they may not have done had they been left to make up their own responses. The open-ended form of questionnaire enables the respondent to state his/her case freely, and possibly provide reasons as well. It evokes a fuller and richer response, and probably probes deeper into the respondents' opinions than close-ended questions. According to Behr (1988:157), the choice between open and close-ended questions depends on the purpose of the survey; the respondent's level of knowledge about the problem being investigated; and the researcher's knowledge and insight into the respondent's situation. He further mentions that in practice, a good questionnaire should contain both open and close-ended questions so that the responses from both can be checked and compared.

A detailed questionnaire with both structured and unstructured questions was employed in this study. Close-ended questions enabled the researcher to present alternatives for the respondents to choose from according to what was closest to their own positions or views (Breakwell, Harmond and Fife-Schaw, 1995:178). The authors believe that such questions help clarify the intent of the question for the respondent and are easily coded to produce meaningful results for analysis. On the other hand, open-ended questions allow respondents to convey their opinions to their satisfaction, without having to choose one of the several responses usually found in close-ended questions (Shaughnessy, Zechmeister and Zechmeister, 2006:156). The authors also state that open-ended questions can be used when all of the possible answer categories are known, or where there is a need to explore the views of respondents. Thus, open-ended questions allowed the respondents to answer in a relatively unconstrained way. The decision to use both types was based on the strength that combining both types of questions has. This was expected to enrich the data collected and the subsequent findings (Behr, 1988:157).

Two different sets of questionnaires were prepared for the Heads of LIS Departments and the lecturers teaching information ethics. The questionnaires' purpose was to obtain their views on information ethics education in their respective departments or schools. The questionnaires for the HODs consisted of the following sections:

**Section A:** General information (name of institution and department)

**Section B:** Availability of information ethics courses

**Section C:** Information ethics teaching

**Section D:** Duration and level of information ethics education

The questionnaire for lecturers consisted of the following:

**Section A:** Personal information

**Section B:** Information ethics course

**Section C:** Information ethics courses' content

**Section D:** Teaching and assessment methods

**Section E:** Challenges of teaching information ethics

### **3.6. Data Collection Procedure**

The data collection procedure started off with the development of research instruments in September, 2007. A decision was made to use questionnaires. Following their design, the questionnaires were pre-tested on five lecturers and five Masters students at the University of Zululand to test the questions for clarity. Pre-testing was also completed in September. Permission was then requested to conduct the study at individual level using emails. The email addresses of the Heads of Library and Information Science Departments were obtained on the websites of the departments, as most of them have one. The e-mail explained the purpose of the study and the research methodology. It also explained the target population of the study. This was achieved in October, 2007. Before the questionnaires were sent, correspondence was instituted with all the (LIS) HODs to notify them. Questionnaires were then sent via email to all the HODs, with the exception of the LIS Department at the University of Zululand. This was also done in October,

2007. The participants were given two weeks to fill in and return the questionnaires. In the course of these two weeks, the researcher sent emails to remind the respondents about the questionnaires and to confirm that they had received them. With regard to information ethics' study materials, the LIS HODs were asked to email them if they had electronic versions. Those without electronic versions were asked to post them.

### **3.7. Data Analysis**

Data analysis is the systematic study of data so that its meaning, structure, relationships, origins, etc; are understood. This is done in order to extract useful information and facilitate conclusions. Because the study was largely qualitative, data was analyzed using qualitative data analysis methods. Quantitative aspects of the data were analyzed manually using Microsoft Excel.

### **3.8. Challenges**

Over the past ten years, South African Higher Education Institutions have undergone tremendous transformation, the most notable being the merger of many Higher Education Institutions (HEIs), and this has resulted in changes in the programmes/qualifications offered within most of the institutions. Unsurprisingly therefore, this transformation has also resulted in the closure of some LIS schools (Ocholla and Bothma, 2007:1). It was therefore difficult to get the correct number of LIS schools in South Africa. For example, in previous studies, Raju (2005) and Ocholla and Bothma (2007) reported twelve, while Minishi-Manjanja (2004) reported fifteen.

### **Summary**

This chapter stressed that research procedures are fundamental to gathering data in order to address and answer research questions. It outlined the methods and techniques that were used in this investigation, and the nature and level of information ethics education in LIS Departments in South Africa. It was revealed that research is principally done to describe or understand certain phenomena. The research process is commonly informed by either the qualitative or quantitative paradigm. At times, as in this case, a combination of both models is used. The chapter has clearly defined the study population and the instruments used for data collection. The next chapter consists of the presentation, analysis and interpretation of the results.

## **Chapter Four: Presentation Analysis and Interpretation of Results**

### **4.1. Introduction**

This chapter presents the analysis and interpretation of data from the target population. The aim of the chapter is to analyze and interpret the responses in order to make the data meaningful. The study aimed to investigate the nature and level of information ethics education in Library and Information Science Departments or Schools in South Africa. A largely qualitative approach, through a survey and content analysis, was employed. To achieve the above aim, the study targeted the Heads of LIS Schools or their representatives and lecturers teaching information ethics modules. For content analysis, study guides of information ethics modules were also targeted. All eleven LIS Departments/Schools in South Africa were targeted. A questionnaire was sent to the target population via email, seeing as LIS Departments in the country are isolated. Their details were obtained from their respective department's websites. The HODs then identified lecturers teaching information ethics modules in their departments. A separate questionnaire was then sent to the lecturers.

Overall, responses were received from seven Library and Information Science Departments/Schools (a response rate of 58%). Of the 58%, five responses were received from Heads of Departments, three from departments' representatives, and three from lecturers teaching information ethics modules. The responses from lecturers were on condition that their departments offer an information ethics module. In cases where the departments indicated that they do not offer an information ethics module, communication was only limited to HODs/representatives. The same applied to study guides - they were only received from three departments that had an information ethics module in their curriculum. Three of the five LIS Departments had no dedicated websites, and as a result, the researcher was unable to establish contact. With regard to the remaining two, the response from the assumed LIS Department at the University of Stellenbosch read: "My department is in no way related to LIS of any kind. Our focus is on Information Systems Design and Informatics. I am afraid that disqualifies me to respond to your survey". As for the LIS Department at the University of Johannesburg, questionnaires and reminders were sent, but no contact was made.

Results were coalesced from the 3 study population groups, i.e. Heads of Library and Information Science Departments (Section 4.3), lecturers teaching information ethics (Section 4.4.), and study guides and course outlines (Section 4.5.), which were analyzed to determine what is being taught in information ethics modules.

#### **4.2. General Information**

It was important to establish the departments' details in terms of institutions, names of the departments, faculties, qualifications offered and their duration, teaching and learning modes and the duration of teaching in a year (semester or modular). Responses were obtained from LIS Departments at the University of Zululand, University of South Africa, University of Pretoria, University of Cape Town, University of KwaZulu Natal, University of the Western Cape, and the Durban University of Technology. Two departments were named Departments of Library and Information Science (University of Zululand and University of the Western Cape), two were Departments of Information Science (University of South Africa and University of Pretoria), two were Departments of Library and Information Studies (Durban University of Technology and University of Cape Town), and one was the Department of Information Studies (University of KwaZulu Natal). Traditionally, all LIS departments were called Departments of Library and Information Science. Departments have, over the past few years, changed their names to keep up with trends in the job market and to be more marketable. With regard to faculties, two Departments were in the Faculty of Arts (University of Zululand and University of the Western Cape), and one [each] was in the Faculty of Engineering, Built Environment, and Information Technology (University of Pretoria); the Faculty of Accounting and Informatics (Durban University of Technology); School of Sociology and Social Studies (University of KwaZulu Natal); School of Arts, Education, Languages and Communications (University of South Africa); and the Faculty of Humanities (University of Cape Town).

Table 4. 1. Academic Offerings

<b>Institution</b>	<b>Department</b>	<b>Academic Offerings</b>
University of Zululand	Library and Information Science	Bachelor of Library and Information Science (4 years), Bachelor of Information Science (3 years) BA Hons Library and Information Science Master of Arts, Library and Information Science Doctor of Philosophy in Library and Information Science Postgraduate Diploma in Library and Information Science Diploma in Specialized Education: School Library Science
University of South Africa	Information Science	Bachelor of Information Science (3 years), Diploma in Information Science (2 years), Hons BInf (1 year), MInf – Dissertation (2-3 years), DLit et Phil (Info Science) [3-4 years]
University of KwaZulu Natal	Information Studies	Advanced Certificate in Education (ACE), School Library Development and Management, Bachelor of Library and Information Science Honours, -Postgraduate Diploma in Information Studies Postgraduate Diploma in Museology, Postgraduate Diploma in Archives and Records Management
Durban University of technology	Library and Information Studies	National Diploma in Library and Information (3yrs) Bachelor of Technology in Library and Information Studies (one-year full-time or part-time study over a minimum of two years), Master of Technology in Library and Information Studies (a minimum duration of one year full-time and two years part time) and

		Doctor of Technology in Library and Information Studies (two years full-time).
University of Pretoria	Information Science	Baccalaureus Informationis Scientiae [BIS] (with specialization in Information Science, Multimedia, and Publishing); Baccalaureus Informationis Scientiae Honores (specialization in Information Science, Multimedia, and Publishing); Magister Informationis Scientiae (Research) with specialization in Library Science, Information Science, Multimedia and Publishing; Doctor Philosophiae (DPhil) with specialization in Library Science and Information Science; and Philosophiae Doctor (PhD), with specialization in Publishing
University of Cape Town	Information and Library Studies	Postgraduate Diploma in Library and Information Science - PGDipLIS Honours in Library and Information Science - BBiblHons  Master of Library and Information Science - MBibl (by coursework and minor dissertation)  Master of Library and Information Science - MBibl (by major dissertation)  Master of Philosophy (MPhil)  Doctor of Philosophy (PhD)
University of Western Cape	Library and Information Science	BBibl and MBibl Degree programme. Advanced Certificate in Education, School Librarianship  Short courses in School Librarianship

The results in Table 4.1 indicate that academically, the University of Zululand's department offers a Bachelor of Library and Information Science (4 years), Bachelor of Information Science (3 years), BA Hons Library and Information Science, Master of Arts, Library and Information Science, Doctor of Philosophy, and Library and Information Science; the University of South Africa offers a Bachelor of Information Science (3 years), Diploma in Information Science (2 years), Hons BInf (1 year), MInf –Dissertation (2-3 years), and DLit et Phil (Info Science) [3-4 years]; the University of KwaZulu Natal's department offers an Advanced Certificate in Education (ACE), School Library Development and Management, Bachelor of Library and Information Science Honours, Postgraduate Diploma in Information Studies, Postgraduate Diploma in Museology, and a Postgraduate Diploma in Archives and Records Management; and the Durban University of Technology offers a National Diploma in Library and Information studies as a full three-year academic programme, Bachelor of Technology in Library and Information Studies (one-year full-time or part-time study over a minimum of two years), Master of Technology in Library and Information Studies (a minimum duration of one year full-time and two years part time) and Doctor of Technology in Library and Information Studies (two years full-time).

The Information Science Department at the University of Pretoria offers the following academic programmes: Baccalaureus Informationis Scientiae [BIS] (with specialisation in Information Science, Multimedia, and Publishing); Baccalaureus Informationis Scientiae Honores (specialization in Information Science, Multimedia, and Publishing); Magister Informationis Scientiae (Research) with specialisation in Library Science, Information Science, Multimedia and Publishing; Doctor Philosophiae (DPhil) with specialisation in Library Science and Information Science; and Philosophiae Doctor (PhD), with specialization in Publishing. The Department at the University of Cape Town offers the following programmes: Postgraduate Diploma in Library and Information Science (PGDipLIS); Honours Bachelor in Library and Information Science (BBibl-Hons), which takes one academic year; and Master of Library and Information Science (MBibl). At the University of the Western Cape, the core of the department's teaching programme is its BBibl and MBibl Degree programme. New courses on offer are the Advanced Certificate in Education, School Librarianship and short courses in School Librarianship

Almost all the LIS schools use the contact teaching and learning mode, with the exception of the University of South Africa which uses distance education. In terms of the duration of teaching in a year, all the LIS Departments use the semester method, with the exception of the University of Zululand (the semester method was to be implemented in 2008).

#### **4.3. Responses from Heads of LIS Departments/Representatives**

This section presents the responses received from the Heads of Library and Information Science Departments or their representatives. The HODs were mainly targeted for curriculum-related issues pertaining to information ethics education. Such issues relate to the necessity of information ethics education in LIS, curriculum presence of information ethics in LIS, who should learn information ethics, academic levels at which information ethics is taught, and the duration of information ethics modules. In some LIS Departments, specifically the ones at the University of KwaZulu Natal, Durban University of Technology and the University of Western Cape, the department's representatives responded to the questionnaire. The results are presented below.

##### **4.3.1. Necessity of Information Ethics Education in Library and Information Science**

This section sought to solicit views from the Heads of Library and Information Science Departments/ Schools and representatives on the necessity of information ethics education in the LIS curriculum. All the respondents agreed that it is necessary for information ethics to be taught in the LIS curriculum. The reasons for this varied; for example, the respondent from the University of Zululand argued that information ethics education is necessary because LIS views students as information users and future information managers and providers who need to be sensitized to respect intellectual property, and recorded information is an intellectual property whose owners' or producers' moral and material rights must be protected against any form of abuse to ensure that research, culture and industrial output and activities within a community or country are boosted for the general welfare of society. He believed that it is critical to ensure that information access, use and the provision of information services are done ethically.

The respondent from the University of KwaZulu Natal stated that ethics in general (and its absence in particular) is a crucial issue in our society at present. More specifically ethics, as it relates to information, is an issue that we cannot ignore, particularly if we consider ourselves to be living in what is referred to as an information society.

The respondent from the Durban University of Technology affirmed that information ethics education in LIS is necessary, especially in view of the current knowledge society (driven by rapidly advancing information and communications technology) where information is often the factor determining competitive advantage in many enterprises. LIS education and training should thus orientate students (who will, in the future, be participants in the information society) on ethical issues surrounding the availability of and access to information, responsible use of information, acknowledging sources of information, and property rights relating to information, among others.

The respondent from the University of South Africa mentioned that information handling is very important, and that it is vital for ethical behavior to be part of the professional conduct and issues related to this; therefore it needs to be taught within the first professional qualification. The University of Pretoria's respondent stated that it is of the utmost importance for information specialists to know something about the moral and ethical responsibilities they have towards society, while the University of the Western Cape's respondent stated that LIS education should be at the forefront of ethical considerations in terms of information and information use (and especially information access) given the current emphasis on information. Finally, the University of Cape Town's respondent argued that if we indeed live in what is termed the 'information/knowledge society', then issues of information access, privacy and intellectual property are of the utmost importance and should be covered in LIS education to prepare students - future participants in this society - to full capacity.

What comes to light in the above that all the respondents agreed that information ethics education is necessary in LIS education for reasons relating to respect for intellectual property, promoting research, information access, the responsible use and provision of information, and responsibility towards the evolving knowledge society wherein information is a source of wealth and a commodity.

#### **4.3.2. Who should Learn Information Ethics**

There were mixed feelings from the respondents about who should learn information ethics. Some felt that information ethics education should only be limited to LIS students, while others felt that

information ethics should be expanded and taught across all disciplines. The respondents provided reasons to support their feelings on this issue. For example, the respondent from the University of Zululand stated that all academic departments should offer information ethics education because ethics threads through all information activities, and these need to be done ethically. The respondents generally also highlighted computer science and the ethical use of software and licenses. The respondent from the University of Western Cape posited that computers are vehicles for information transfer, and it would thus be advisable to include ethics in the curriculum of Computer Science. It is equally important to deal with this aspect in Philosophy, particularly the philosophy of information. The University of South Africa's respondent stated that while ethics may significantly contribute to each of the disciplines, it may take on a certain perspective in each case that may not necessarily be applicable to all and sundry. Thus, each discipline needs to customize its own brand of information ethics. The Durban University of Technology's respondent believed that information ethics education should not be confined to particular departments, but should be an institutional undertaking. The respondent further stated that since tertiary institutions mould information users, it becomes necessary to teach them how to be responsible with information. This respondent shared the same view as the respondent from the University of South Africa in saying that the module has to be customized according to the needs of the departments.

#### **4.3.3. Presence of Information Ethics in the LIS Curriculum**

This section sought to establish if information ethics courses are embedded in the curriculum of Library and Information Science Departments in South Africa. The results from the HODs/representatives indicate that information ethics is a major component of Library and Information Science and is imperative in Library and Information Science education for the reasons mentioned above. Paradoxically, of the seven Library and Information Science Departments that were surveyed in this study, only three offered an information ethics module as a stand-alone module (i.e. solely devoted to information ethics). These were the LIS Departments at the University of Zululand, University of Pretoria and the University of South Africa. In other LIS Departments, some components of information ethics were covered in other modules. This is the case in the LIS Department at the University of KwaZulu Natal, where some components of information ethics were briefly covered in a general module called Information Science and Agencies. The module looks generally at the issue of information as a commodity, and more

specifically at the charging of user fees in the public library context and codes of ethics for information professionals.

The LIS Department at the University of the Western Cape offered shorter segments of information ethics in other modules, but did not offer a full module in ethical issues pertaining to information. At the University of Cape Town, the topic appeared to be covered incidentally in some of the courses, but there was no single course that dealt with information ethics. For example, copyright issues were covered in a module that deals with information sources and issues relating to plagiarism, while academic conventions were covered in another module. There was also a seminar on how to communicate with customers that incorporates ethical considerations. This case is similar to that of the LIS Department at the Durban University of Technology. The department was found not to have a stand-alone module on information ethics; ethical issues were instead incorporated in the teaching of aspects such as reference work, practices in information environments, etc. The results suggest that there are disparities with regard to the importance alluded to information ethics among LIS Departments in South Africa. To surmise, some departments offered information ethics as a stand-alone module, while others covered it incidentally in other modules. This state of affairs indicates that there is a lack of harmonization in the offering of Information Ethics in LIS education and training in the country.

#### **4.3.4. Academic Department(s) Responsible for Teaching Information Ethics Modules**

This section sought to establish who is responsible for teaching information ethics in the departments that offer the module. Overall, the stand-alone modules were only taught by the LIS Departments. As previously mentioned, information ethics is multidisciplinary in nature, drawing from disciplines such as Philosophy, Library and Information Science, Computer Science and Communication Science. This multidisciplinary nature should suggest a multidisciplinary approach in teaching the module. Even though the course may be customized to LIS needs, philosophical aspects of information ethics, such as the background of ethics and ethical theories, can be taught well by Philosophy Departments. The question that arises is what knowledge and experience (and in what subject areas, i.e. philosophy, library and information science, or computer science, etc.) are needed to teach an information ethics course? Although it is strongly believed that information ethics for information professionals should be offered by LIS Departments - based on the belief that

they have faced some of the ethical dilemmas facing information professionals - the need for collaboration with other relevant departments like Philosophy and Computer Science should not be overlooked.

#### **4.3.5. Academic Rank of the Instructor**

The academic rank of the instructor determines the level of insight the person has into the discipline in general and the subject area in particular. The assumption is that a person with a higher rank has greater insight and expertise on any given subject area. The academic rank of the instructor also determines the importance and value attached to the subject. An academic rank also symbolizes the amount of research the person has conducted in the subject area. Since it is believed that information ethics is a significant aspect of LIS education, it was deemed necessary to find out the academic rank of the instructors of the module. Based on the comments, in 2007, the information ethics module at the University of Zululand was taught by a professor; the University of Pretoria's module was taught by a lecturer and a professor; and the University of South Africa's module was given by a lecturer.

#### **4.3.6. Field of Expertise and Knowledge of an Information Ethics Module Instructor**

Since information ethics draws a lot from other disciplines (mentioned earlier), it was considered important to determine whether or not the instructors of the module had knowledge and expertise in other related fields. Apart from the lecturer in the University of South Africa, who had background in both Library and Information Science and Philosophy, all the other lectures only had background in LIS. This may suggest that their insight into information ethics is only from a Library and Information Science perspective, suggesting that other perspectives may be compromised. These compromised perspectives would, for example, include the background of ethics and ethical theories that require a philosophical component.

**4.3.7. What Bearing does the Lecturer's Area/Field of Study have on the Teaching of the Module? (Notes: was this information supplied by the HODs or lecturers?)**

This section sought to establish from the study's participants the bearing that the lecturer's field of study has on teaching information ethics. All the respondents agreed that the instructor's field of study has a bearing on teaching information ethics. The respondents stated, for example, that the field of study determines the depth of insight that the lecturer will bring to the module. The respondents further felt that one's field of study also determines the approach the module would take; for example, a person trained in philosophy may have a philosophical approach to information ethics and thus overemphasize the philosophical aspect of the subject.

As a follow up question, respondents were asked to indicate who, in terms of areas/fields of study, is suitable to teach information ethics. There were again mixed feelings from the respondents concerning this issue. Some felt that the module should be taught by persons trained in LIS while others preferred a multidisciplinary approach. Those in favor of the latter expressed firstly that information ethics is multidisciplinary, and thus an instructor should be conversant in other areas of information ethics. Secondly, they felt that ethical dilemmas facing information are diverse and should be approached from that point of view. The respondents in support of only LIS involvement also had their reasons. They strongly believe that only LIS professionals who understand the ethical dilemmas facing information professionals can be able to teach the module. Even though both arguments are valid, a multidisciplinary approach in teaching information ethics would be more acceptable given the multidisciplinary nature of information ethics.

## **4.4. Responses from Lecturers Teaching an Information Ethics Module**

### **4.4.1. Personal Information**

The responses in this section were collected from lecturers from LIS departments that offered a stand-alone information ethics module. Lecturers were included to find out what is taught in an information ethics module. As was mentioned in the previous section, three LIS Departments offered an information ethics module. These were the LIS Departments at the University of Zululand (Department of Library and Information Science), University of Pretoria (Department of Information Science), and the University of South Africa (Department of Information Science). Responses were therefore only received from three lecturers from these departments.

The respondents consisted of one Professor (University of Zululand), one Senior Lecturer (University of Pretoria), and one Lecturer (University of South Africa). Of the three lecturers, two had a background in Library and Information Science (University of Zululand and University of Pretoria), while one had a background in both Library and Information Science and Philosophy (University of Pretoria).

### **4.4.2. Information Ethics Modules**

The respondents were asked to indicate the information ethics modules' titles and codes. The results were as follows: Legal Aspects of Information (later changed to Information Ethics) [University of Zululand]; Investigating Information Ethics in the Information Era (INS2066) [University of South Africa]; and Information Science: Social and Ethical Impact (INL 240) [University of Pretoria].

#### **4.4.2.1. Modules' Aims**

It was necessary to establish the aims of information ethics modules, as this spelt out what the modules aimed to achieve and why they were being offered. At the University of South Africa, the aim of the information ethics module was to provide students with an insight into the existence, nature and context of different types of information in order to sensitize them to ethical issues related to information. Students are introduced to the main ethical theories and normative principles of information science; the difference between morality and the law; and issues of access, privacy and intellectual property within the framework of South African law. The University of Pretoria's respondent suggested that their module aimed to introduce students to the legislative process, i.e. sources of legal information, legislation influencing information provision, legislation influencing information organisation, legislation influencing the information environment, and the ethical issues pertaining to the information and knowledge society.

The University of Zululand's lecturer opined that their module sought to provide learners with knowledge of ethical and legal issues concerning information services and to sensitize them to the need to observe legal and ethical requirements in information management and services. Furthermore, on completion of the module, it was expected that students would recognize and appreciate legal aspects of information and safeguard its fair use. The aims of the modules generally appear to be in line with what an information ethics course should aspire to achieve.

#### **4.4.2.2. Learning Outcomes of the Module**

The respondents were asked to indicate the learning outcomes of the information ethics modules in their departments for 2007. The learning outcomes of the Legal Aspect of Information module, as outlined by Unizul's lecturer, were to discuss legal issues affecting information exploitation; show the relationship between intellectual property, copyright and industrial property; explore current copyright and contractual rights affecting information access in South Africa; investigate and report violations of intellectual property and copyright in an organization or information centre; discuss trans-border data flows within the context of the infringement of intellectual property rights, free access to information, security and privacy; and debate accessibility and protection concepts.

According to UNISA's lecturer, the main learning outcomes of the information ethics module were to explain and analyze the existence and nature of different types of information by tracing their representation and dilemmas; balance and compare the representation and application of information in different areas of information studies - with specific reference to ethical dilemmas in the study of information; describe what is meant by ethical theories and differentiate between law and morality; identify some of the ethical issues, such as privacy and access to information, that relate to electronic developments in the information environment; and explain some of the implications of the Legal Acts that relate to access, privacy and copyright (as one example of intellectual property) of information in South Africa. The University of Pretoria's information ethics module consisted of the following:

- Discuss the structure and functions of the South African Government;
- Be conversant with the South African legislative process;
- Discuss the various types of legal publications, where to find legal publications and how and why they came into being;
- Discuss various methods to preserve information, i.e. archives, libraries, etc;
- Discuss libraries as "legal deposit libraries";
- Identify and discuss the purpose and benefits of legal deposits;
- Discuss strategies for the development of a national legal deposit collection;
- Discuss the Legal Deposit Act, 1997 (No 54 of 1997);
- Discuss the National Library of South Africa Act (Act no. 92 of 1998);
- Discuss the National Archives and Records Service of SA Act (Act no. 43 of 1996);
- Be conversant with the concepts of intellectual property and copyright;
- Discuss the origins of copyright laws and the various international agreements and treaties pertaining to international copyright;
- Identify and describe the various conditions, prerequisites and applications of South African copyright;
- Be aware of the problems encountered with copyright on the Internet and the conditions for the use of material on the Internet;
- Interpret the content and understand the substance and requirements of the Promotion of Access to Information Act (PAIA);
- Understand and implement the operational systems and challenges of the PAIA within an organization;
- Discuss the Universal Declaration of Human Rights;
- Discuss The Films and Publications Act.
- The impact the ECT Act has on the validity of electronic documents;
- The impact the ECT Act has on electronic contracts;
- The role the ECT Act plays in the regulation of electronic information;
- The impact the ECT Act has on other information-related legislation;
- Distinguish between information terrorism and information warfare;
- Discuss the current ethical discourse surrounding information warfare;
- Discuss the ethical implication and ramifications of information warfare;
- Discuss various ethical theories;
- Identify and describe the importance of computer and information ethics;

- Discuss the impact of the use of new technology;
- Define the concept privacy and indicate in which manner information technology has influenced the right to privacy;
- Discuss the different categories of private information;
- Discuss the guidelines for the processing of private information.
- Discuss various issues concerning computer ethics and access, e.g. hacking;
- Discuss various issues concerning information ethics and access, e.g. information poverty;
- Discuss the main reasons for information poverty;
- Discuss the so-called Digital Divide;
- Understand the social implications and social values of the use of IT;
- Understand software ownership;
- Discuss the current legal protection for those who create software;
- Discuss the philosophical basis of property;
- Discuss computer ethics and software piracy;
- Define what an Internet service provider is;
- Understand the moral responsibility of Internet service providers; and
- Understand the current legal discourse surrounding Internet service providers.

#### **4.4.2.3. Units Covered in an Information Module**

This section sought to determine what is taught in an information ethics module in terms of the units being covered, i.e. subtopics and components. At the University of Zululand, the units covered in 2007 were the necessity of law and ethics as a social phenomenon, intellectual property, copyright, industrial property, contractual property, trans-border data flow, censorship, free access to information, security and privacy, and current issues and problems (freedom of access versus accessibility). The University of South Africa's units were information ethics and the information scientist, different types of information, the ethical dilemma of information, ethical theories, privacy in the information age, copyright (an overview), and copyright law in the electronic environment. The University of Pretoria covers information and the law (introduction to information law); the preservation of information; copyright and promotion of access to information, films and publications acts; the ECT Act of 2002; information warfare and terrorism; information and computer ethics (the importance of information and computer ethics); information ethics and privacy; information ethics and access; information ethics and property; and the moral responsibility of Internet service providers. From this, there appear to be significant disparities in the units being covered in the modules of the three institutions. However, there are some units that were covered across the board, such as intellectual property (copyright and industrial property), information access and protection.

#### **4.4.2.4. Duration of Information Ethics Modules and Lectures**

The respondents were asked to indicate the duration of an information ethics lecture in their departments. The respondent from the University of South Africa stated that since UNISA is a distance education institution, there are no lectures given to students. At both the University of Zululand and the University of Pretoria, a lecture takes about an hour, with the total number of lectures covering information ethics per week amounting to three. On average, therefore, the course in 2007 was taught for three hours per week. However, although the number of hours given to the modules per lecture and per week was similar in both LIS Departments, they varied according to the duration of teaching in the year of the two institutions. The University of Pretoria uses a semester system while the University of Zululand uses a modular system. This means that the number of weeks would be more in a semester than they would in a term.

#### **4.4.2.5. Academic Level(s) at which an Information Ethics Module is Offered**

The respondents were asked to indicate the academic levels at which the information ethics module is offered in their departments. All three respondents stated that the module was offered at second year level. The University of Zululand participant stated that students were introduced to information ethics during their first year in an information literacy module second year, they could take on a fully fledged information ethics module. The premise behind this is that by second year, students are senior enough in terms of both the quantity and quality of work covered to fully understand and appreciate information ethics. This view was also shared by the respondents from the Universities of South Africa and Pretoria.

#### **4.4.2.5. Teaching Methods used to teach the Information Ethics Modules**

The objective was to determine the methods used to teach the information ethics module in the LIS Departments that offered the module. Lectures were cited as the principal teaching method at the University of Zululand, with an emphasis on outcomes-based education. The University of Pretoria combined lectures and group discussions, while the University of South Africa used case studies

and group discussions. The University of Pretoria respondent suggested that lectures and group discussions are the best suited methods to teach second years on the grounds that they would be senior enough to engage in group discussions and their discourse would be better at that level. The University of Zululand respondent stated that students at second year level would have a much better insight into LIS issues and would therefore be able fully appreciate ethics in general and how they relate to the LIS field in particular. The University of South Africa respondent reiterated that UNISA is for distance-education students. Their study guides include exercises, case studies, and self-reflection opportunities. As a result, the department does not have daily lectures, but instead hosts group discussions, workshops and symposia at certain times of the year. Students also have access to an online forum.

#### 4.4.2.7. Assessment Methods

The respondents were asked to state what assessment methods the departments used in their information ethics modules. This was necessary because there is a very close correlation between teaching methods and assessment methods. The results are presented in Table 4.1 below.

*Table 4.1 Assessment Methods*

<b>University of Zululand</b>		<b>University of Pretoria</b>		<b>University of South Africa</b>	
<i>Assessment Method</i>	<i>Weighting</i>	<i>Assessment Method</i>	<i>Weighting</i>	<i>Assessment Method</i>	<i>Weighting</i>
Formal end of module exam	50%	Semester Tests	70%	Formal end of module/course exam	80%
Interim tests during module	10%	Assignments	20%	Assignments	20%
Assignments	10%	Class Tests	10%		
Simulations	10%				
Self Assessments	5%				
End notes	10%				

Other written assessments	5%				
<b>Total</b>	100%		100%		100%

The results in Table 4.1 indicate that only the University of Zululand used a combination of assessment methods. It is surprising to note that none of the LIS Departments used oral assessment methods, including those that incorporated group discussions as a teaching method. A combination of assessment methods should be encouraged in LIS Departments.

#### 4.4.2.6. Challenges of Teaching Information Ethics

This section sought to determine, from the lecturers, the challenges of teaching information ethics modules. A number of challenges were mentioned by the respondents. For example, the University of Zululand’s lecturer raised concerns over the duration of teaching per year at the University of Zululand (a term), which was not sufficient to cover all the components of the course. The respondent further stated that there is a lack of literature that presents an African perspective on information ethics. The respondent from the University of Pretoria suggested that challenges include trying to remain up to date and informed about various new legislations, and getting students to actively participate in group discussions. The University of South Africa’s respondent stated that the module is still new, having only started in 2008, and the limitations of distance education would have an effect on the teaching of the module. The respondent also stated that the university’s decision to replace the year system with a semester system, starting in 2009, would result in the study programme of the module being adapted to fit a shorter time frame, which could cause complications.

#### 4.4.2.7. How the Challenges can be Overcome

In light of the cited challenges, the respondents were asked to recommend how [the challenges] can be overcome. The respondent from the University of South Africa believed that overcoming challenges requires the continuous assessment of all the structures in place, as well as the constant reevaluation of course content. Study guides and curricula need to be regularly revised. Student

feedback, results, reading levels, etc; should also be taken into consideration on a continuous basis. The University of Zululand respondent believed that there is a need for collaboration in LIS Education in the country so that there is agreement on what should be taught in an information ethics module. The respondent also believed that there is a need for collaboration among experts in various fields to come up with African information ethics. Finally, the respondent stated that the University of Zululand was soon to adopt a semester system that would give teaching staff enough time to cover the units of the modules. The University of Pretoria respondent suggested that meeting the challenge of staying up to date or informed would require attending conferences and symposia and conducting continuous research on the subject area.

## **4.5. Content Analysis Results**

### **4.5.1. Introduction**

Content analysis was used in juxtaposition with the survey in order to determine what was being taught in the information ethics modules. The materials analyzed were the study guides of the information ethics modules. Study guides were only received from the three institutions that offered the module. The study guides were analyzed according to each module's title and aim, the objectives of the module, the module's type of delivery and estimated working hours, methods of assessment and weighting, and recommended reading. It was felt that in some sections, the results are identical to the responses provided by the lecturers - assumedly they paraphrased what was in the study guides - and those sections would not be covered in this section. The results are presented below.

### **4.5.2. Background Information**

The study guides were received from the Department of Library and Information Science at the University of Zululand; the Department of Information Science, University of South Africa; and the Department of Information Science at the University of Pretoria. These were the only departments offering a full information ethics module.

### **4.5.3. Module Providers**

The modules' providers were Professor D. N. Ocholla (University of Zululand), Dr. Marlene Holmner and Professor A. Dick (University of Pretoria), and Ms Mcgruik (University of South Africa). The University of Zululand only offered the module in one term, while both the University of South Africa and the University of Pretoria offered the module over one semester.

### **4.5.4. Modules' Content**

It was necessary to examine the content of the information ethics modules taught in LIS Departments in South Africa to solicit what was being taught in these modules. The results are shown below, as per LIS Department.

#### **4.5.4.1. University of Zululand (Notes: Decide on caps – ensure consistency)**

1. Necessity of law and ethics as a social phenomenon
2. Intellectual property
3. Industrial property
4. Contractual rights
5. Trans-border data flows
6. Censorship, free access to information, security and privacy
7. Current issues and problems: freedom vs. access to information

#### **4.5.4.2. University of South Africa:**

##### **1. Information ethics and the Information Scientists**

- The relationship between information and knowledge
- Professional ethics
- Demarcation of the profession of the information scientist
- Ethical perspective of the profession
- Information and democracy
- Norms for information ethics
- The main ethical problems
- Ethical guidelines for handling information

## **2. Different Types of Information**

- The existence and nature of information
- The different types of information
- The ontological status of information

## **3. The Ethical Dilemma of Information**

- Ethical aspects of information
- Morals, ethics and justice
- Information policy
- Information economy
- Information technology

## **4. Ethical Theories**

- What do we mean by ethics
- Basic ethical theories
- Theological theories
- Duty based theories
- Consequence based theories
- Comparison of the theories

## **5. Privacy in the Information Age**

- Definition of privacy
- Forms of privacy
- Privacy as a natural right
- Protection of privacy in South Africa

## **6. Copyright, An Overview**

- What is copyright

- Who owns copyright
- General background of copyright
- The aims of copyright
- South African Copyright Act
- International copyright

## **7. Copyright in the Information Environment**

- Copyright law and information materials
- Electronic Copyright Management Systems
- Copyright enforcement on the Internet

### **4.5.4.3. University of Pretoria**

#### **1. Introduction To Information Law**

- Important features and characteristics of information
- The structure and functions of the South African Government
- The South African legislative process
- Types of legal publications

#### **The Preservation of Information**

- Legal deposit
- Purpose of legal deposit
- Benefits of legal deposit
- Legal deposit in South Africa
- Legal Deposit Act, 1997
- The Legal Deposit Regulations
- Interpreting Legal Deposit legislation
- Official publications depositories (OPDs)
- The National Library of SA Act
- The National Archives and Records Service of SA Act

#### **Copyright & Promotion of Access to Information**

- Introduction to intellectual property and copyright
- Copyright in South Africa
- Copyright on the Internet
- Background and importance of the Act
- Objectives of the Act
- Important concepts of the Act
- Processes and procedures
- Practical implications and challenges of the Act
- The dual nature principal

### **Films and Publications Acts**

- Universal Declaration of Human rights
- Background to Universal Declaration of Human Rights
- Publications Act 42 of 1974
- Films and Publications Act 65 of 1996
- Films and Publications Amendment Act [No. 34 of 1999]
- Films and Publications Amendment Bill [B61-2003]

### **The ECT Act of 2002**

- Facilitating electronic transactions
- E-Government and E-Government services
- Cryptography
- Authentication services
- Consumer protection
- Protection of personal information
- Protection of critical databases
- Limitation of liability of service providers
- Cyber inspectors
- Cyber crime
- General provisions of the ECT Act

### **Information Warfare and Terrorism**

- What is information warfare?
- What comprises information warfare?
- The legal and practical constraints of information warfare
- Information warfare vs. Cyber warfare

### **The Importance of Information and Computer Ethics**

- Different scenarios
- 1.2 Impact of the use of new technology
- 1.3 The uniqueness of information and computer ethics
- 1.4 Case studies
- 1.5 Three moral characteristics
- 1.6 Hacking
- 1.7 Solutions

### **Information Ethics and Privacy**

- Defining the concept privacy
- 2.2 The different categories of private information
- 2.3 Expressed will to privacy
- 2.4 The impact of technology on privacy
- 2.5 The importance for the information worker
- 2.6 Guidelines for the processing of private information

### **Information Ethics and Access**

- Technology and social change
- 3.2 The so-called Digital Divide
- 3.3 The Internet as a democratic medium
- 3.4 Information poverty
- 3.4.1 What is information poverty

- 3.4.2 The main reasons for information poverty
- 3.4.3 Possible solutions to the problem of information poverty
- 3.4.4 A moral reflection on information poverty

### **Information ethics and property**

- Understanding software ownership
- Current legal protection
- Trade secrecy laws
- Patent Protection
- The philosophical basis of property
- Software piracy

### **The Moral Responsibility of Internet Service Providers**

- A few case studies
- The current legal discourse
- What is an Internet service provider?
- What is responsibility?
- The moral responsibility of Internet service providers

### **4.5. Summary**

In conclusion, this chapter has presented the analysis of the responses obtained from three sets of the study population, i.e. the Heads and representatives of Library and Information Science Departments, the lecturers teaching information ethics modules in three of the departments, and the study guides of the modules offered in [the three] departments. From the results, there appear to be discrepancies regarding the importance of information ethics among LIS Departments in South Africa. In some LIS Departments (University of Zululand, University of South Africa and the University of Pretoria), a full stand-alone module of information ethics was offered, whereas in others, information ethics was only covered briefly in the contents of other modules. The results of the study have shown that in 2007, no collaboration existed with other departments such as Philosophy. Information ethics modules were only offered to students in their second year of study

because by then, students are thought to be senior enough to fully understand and appreciate information ethics. The next chapter presents the discussion of the findings.

## **Chapter Five: Discussion of Findings**

### **5.1. Introduction**

The analysis of research data and information does not in itself provide answers to the research problem. Thus it is essential to interpret the data and information gathered from the results to ensure that the research questions have been answered. It is also imperative to interpret and discuss the data to establish whether or not the objectives of the study have been met. The aim of this chapter is therefore to discuss and interpret the findings made from data collected on information ethics education in Library and Information Science Departments or Schools in South Africa.

As mentioned earlier, the study targeted Heads of LIS Departments for the curriculum presence of information ethics; lecturers teaching information ethics modules for the modules' details (content, aims, learning outcomes and so on); and information ethics modules' study guides to confirm the data provided by the lecturers. This chapter discusses the major findings as they relate to the following:

- Background information of LIS Departments
- Necessity of information ethics education in Library and Information Science
- Who should learn information ethics?
- Curriculum presence of information ethics in LIS
- Departments teaching information ethics
- Areas of knowledge and expertise of lecturers teaching information ethics modules
- Content of information ethics modules
- Academic levels at which information ethics modules are offered
- Teaching methods used to teach information ethics
- Challenges of teaching information ethics

## **5.2. Background of Library and Information Science Departments**

The study initially targeted all twelve Library and Information Science Departments in South Africa. Responses were received from seven of these departments. In cases where responses were not obtained, either the department had no dedicated website or there was no response to the mailed questionnaires. As mentioned in the preceding chapter, responses were received from LIS Departments at the University of Zululand, University of Pretoria, University of Cape Town, University of KwaZulu Natal, Durban University of Technology and the University of Pretoria.

The trend reported by Ocholla and Bothma (2007) that LIS Departments have, over the years, changed their names and consequently moved to other faculties, was still visible. The authors attribute this to the changes in the information environment which have led LIS Departments to adapt their curricula, their names and their institutional alignments to reflect these changes. Minishi-Majanja (2004:5) reported the same trend and suggested that the name changes are a way to accommodate the wider scope of LIS activities that involve ICT use, suggesting that the term Library Science is not sufficient to denote the current professional practice. For example, the LIS Departments at the University of Pretoria and South Africa have moved to other faculties, and the departments names have been changed to 'Departments of Information Science'. This trend clearly demonstrates a change in focus that directly affects the curriculum. LIS Schools have been observed moving away from traditional library orientation to recent fads such as knowledge management and other emerging courses.

However, irrespective of these name changes and/or migrations, LIS Departments are still training information professionals who have a responsibility to ethically carry out their missions (Hannabus, 1996:3). This implies that information professionals still have to respect and promote the respect of intellectual property, adhere to the aspirations of the freedom charter of enabling equitable access to information, uphold privacy principles, and so on. Changes in focus and moving with the times should not necessarily imply an abridged approach to information ethics education or even worse, rule out information ethics education, as ethics threads through all information-related activities.

### **5.3. Necessity of Information Ethics Education in LIS**

There was a strong feeling among the respondents (referring to the Heads and representatives of Library and Information Science Departments) that information ethics education is necessary in LIS. For example, the University of Zululand respondent believed that information ethics education is necessary because LIS student as users and future managers of information need to be sensitized to respect intellectual property rights. The respondent from the University of Pretoria also strongly expressed that it is of the utmost importance that information specialists know something about the moral and ethical responsibilities they have towards society. There were a myriad of other reasons given by the other respondents relating to access to information, privacy, intellectual property, and so on.

These findings concur with the views of authors such as Fallis (2007), Carbo (2005), Smith (2002), Carbo and Almagno (2001), Babik (2006), the Information Ethics Special Interest Group (2007) and Ocholla (2008), who have variously demonstrated the importance of information ethics education in Library and Information Science. The rationale for information ethics education in LIS is viewed from different perspectives; for example Smith (2007) views threats to information access, accuracy and privacy as a rationale for teaching information ethics. The rapid changes in the information landscape, which are a threat, have created greater urgency for information ethics education in LIS. Fallis's (2007) advocacy of information ethics education is based on the fact that LIS professionals face ethical dilemmas, and given these dilemmas, they should have exposure to information ethics through education. The author suggests that information ethics education is mandatory because the ethical problems facing information professionals fall within the scope of information ethics.

Similar observations are made by the Information Ethics Special Interest Group (2007:2) in their suggestion that knowledge and an understanding of the ethical conflicts and responsibilities facing library and information professionals around the world are necessary to enable relevant teaching, learning and reflection in the field of library and information studies and information-related professions. Information ethics education would allow information professionals to learn to understand the responsibilities and real consequences of their actions, and learn to use their power

ethically and responsibly. Carbo and Almagno (2001) provide their own reasons, arguing that individuals seeking to become professional librarians or archivists or seeking to work in other information-related organizations must be educated about ethical issues of information.

Quintessentially, library and information professionals need to be aware of their duties and the responsibilities they have towards society and carry them out in an ethical manner. A study by Chu (2006) on the LIS curricula of the American Library Association accredited LIS Departments found that information ethics was among the top core and most visible modules. Generally, information ethics is a fundamental and significant aspect of Library and Information Science training and education for the reasons stated above and which can be summarized as follows:

- Urgency of the changes in the information landscape resulting in information injustice
- Threats to information access, accuracy and privacy, and matters relating to the digital divide
- Intellectual property issues
- Need for information professionals to carry out their duties ethically
- Ethical dilemmas facing information professionals

#### **5.4. Who should learn information ethics?**

There were mixed feeling from the respondents (referring to Heads of Departments/representatives) regarding this matter. For example, some believed that information ethics should only be a part of LIS education, while others argued that information ethics education should be made available to all participants in the information society. Those who believed that information ethics education should only be limited to LIS students argued that LIS students would ultimately be most involved in information gathering, processing, transfer and use. However, this argument does not hold when taking into account that virtually all participants in the information society get to be users of information, and they also have to do so ethically. Those who are of the view that information ethics should broach various other disciplines suggested a customized approach where departments would customize their brand of information ethics while still covering important elements like intellectual property, copyright, and so on.

It is worth noting that Carbo (2005) does not limit or even suggest that information ethics should only be limited LIS but believes that it should be continuous and thus extended to all practitioners, and not just information professionals. When taking into account Carbo's view, which accommodates the roles of non-information professionals as users of information, it is clear that information ethics education should be part of other professions as well. Although in Carbo's contention this can be done by incorporating information ethics into information literacy programs which could be made available to all students, departments can alternatively customize their brand of information ethics (content) to meet their needs and offer this to their students. The customized approach is based on the premise that information ethics education may take on a different path in other disciplines. An inclusive approach to information ethics education is essential, given that all sectors get to be users of information; thus it is imperative to promote an understanding and appreciation of the ethical and legal issues surrounding the use of information. This can only be done through education.

#### **5.5. Presence of information ethics in LIS Curricula**

Given the fact that all the HODs/representatives felt that information ethics is necessary in Library and Information Science education, it was necessary to investigate the presence of the subject in LIS curricula in terms of the modules offered. Paradoxically, only three LIS Departments offered an information ethics module as a stand-alone course. In other LIS departments, the content of information ethics was only touched on briefly in other modules.

A lot has been said about the significance of information ethics education in LIS. For example, Smith (2007) cites the urgency of issues in global information justice. Carbo and Almagno (2001) have also offered arguments for and in support of information ethics education in LIS. They do so by describing the history of their earliest information ethics module at the University of Pittsburg (USA) and how beneficial it had been for professionals who had taken such a course. Given the importance of the subject as illustrated by literature, a full module on information ethics is essential, rather than having the content dispersed and covered briefly in other modules (as Buchanan, 2004, reported).

This then raises the question of whether LIS scholars and educators would want their students to drive on the [global information] superhighway - as once metaphorically stated by Vagaan (2003) - without knowing the rules of traffic. When considering the current situation with information ethics education in the country, this appears likely. As the results have shown in this study, information ethics is either offered as a full module or dispersed in the contents of other modules. In the latter's case, only the basic components of information ethics are covered. If students only cover the basics, are they expected to learn the rest on Vagaan's global information superhighway? And if this is the case, what are the chances of them becoming reckless or causing incidents?

### **5.6. Departments Teaching Information Ethics**

When taking into account the multidisciplinary nature of information ethics, it was considered essential to find out which academic departments were offering the full module. The study found that in all cases, the module was only offered by the LIS Departments. This was also visible from the study guides collected from the LIS Departments which were all prepared by the Departments of LIS. In terms of areas of expertise and knowledge, the responses obtained from lecturers indicated that with the exception of the lecturer from the University of South Africa (who had a background in both Library and Information Science and Philosophy), the lecturers in the LIS Departments had backgrounds only in Library and Information Science.

Although Fallis (2007) believes that the module should be taught by Library and Information Science professionals who understand the ethical dilemmas facing information professionals and who have faced these dilemmas, the multidisciplinary nature of the subject is undisputable. Fallis does, however, suggest that information ethics modules should provide library professionals with an understanding of ethical theories and how they apply to concrete practical cases. There is therefore a contradiction in Fallis' view of who should teach information ethics, in that if information ethics modules are to provide library and information professionals with the understanding of ethical theories and how they apply to concrete cases, then this should perhaps be left to the Department of Philosophy. From this, it appears as though a multidisciplinary approach to information ethics prevails. The bottom line is that the information ethics module should be taught by a knowledgeable and experienced person (Carbo, 2005:27; Information Ethics Interest Group, 2007:3)

### **5.8. Content of information ethics modules**

In answering this research question, lecturers were requested to indicate in the questionnaire the content of the information ethics module they teach. Triangulation was also done with content analysis, where study guides were obtained to verify the data provided by the lecturers. There was concurrence in the results from the lecturers and the content analysis. The study found that there was diversity in terms of the modules' content in the three Library and Information Science Departments that offer information ethics. However, there were some significant similarities and differences; for example, intellectual property was covered across the board while ethical theories were only covered by the LIS department at the University of South Africa. Depending on the duration of teaching in a year for the three institutions, differences in the amount of content covered seemed to prevail. For example, an information ethics module in the University of Zululand's LIS department was (at the time of writing) only offered over a single term. A term is approximately eight to nine weeks, which may not afford enough time to comprehensively cover all aspects of the module. In some LIS departments, i.e. at the University of Pretoria and the University of South Africa, the module is offered over longer periods, meaning that more areas are covered.

Irrespective of the time factor, an information ethics module - as stated by the Information Ethics Special Interest Group (2007:5) - should achieve the following:

- Enable students to recognize and articulate ethical conflicts in the information field;
- Inculcate a sense of responsibility with regard to the consequences of individual and collective interactions in the information field;
- Provide the foundations for intercultural dialogue through the recognition of different kinds of information cultures and values;
- Provide students with basic knowledge about ethical theories and concepts and about their relevance to everyday information work; and
- Teach them to reflect ethically and think critically and carry these abilities into their professional life.

Although it is advocated by many, such as Fallis (2007) and the Information Ethics Special Interest Group (2007), that ethical theories should be a component of information ethics, from the findings, only the LIS Department at the University of South Africa contained a unit of ethical theories in their information ethics module.

Although there is no general consensus on what should go into an information ethics module, there have been suggestions on the core areas that should go into the course. For example, The Information Ethics Special Interest Group (2007:5) suggests that the content should encompass areas such as intellectual freedom; intellectual property; open access; preservation; balance in collections; fair use; surveillance; cultural destruction; censorship; cognitive capitalism; imposed technologies; public access to government information, and so on. It is also suggested by Laudon and Laudon, and O'Brien in Lee and Chen (2005:2) that an information ethics module should cover the following broad areas: relationship between ethics, social, and political issues in information society; and moral dimensions of the information age, to name a few. The results of the study conducted by Ocholla (2008) point to similar areas as well.

Although the scope may differ in terms of the duration of the module, it is worth noting that almost all the areas suggested by the literature were covered in the modules' content of the LIS Departments in South Africa. There is, however, an area that appeared to be abandoned in terms of content, which is the professional code of LIS professionals. Arguably, there would be no better module to teach these codes than one focusing on information ethics.

#### **5.9. Academic levels at which information ethics modules are offered**

In each case, the information ethics module was persistently offered at the second year level of study. There was no evidence provided that the module continued into postgraduate levels. The Unizul LIS department also offered an Information Literacy module in first year that introduces students to information ethics (particularly issues of plagiarism, research, etc). During second year, a fully fledged course is offered on information ethics on the grounds that second year students are more senior in terms of the work that they have covered and are subsequently able to fully understand and appreciate information ethics. This view was shared by the other respondents.

In order to avoid duplications in content, it would be better if students in their first year are introduced to information ethics in an information ethics module before a continuous approach as suggested by Carbo can be followed. The argument is that if students are perceived to be senior enough at second year level to appreciate and understand information ethics, then they would be even better at higher levels. Information ethics aims to shape the behavior of students so that they may be better users of information, and this should be continued throughout other levels as students experiences grow.

#### **5.10. Methods used to teach information ethics**

In the departments that offered an information ethics module, it was discovered that in some, for example the LIS Department at the University of Pretoria, a combination of lectures and group discussions were used to teach the module. At the University of Zululand, only lectures were used, whereas at the University of South Africa, case studies were also incorporated. This was also confirmed in the study guides collected from these LIS Departments. Notably, while the University of Zululand cited group discussions among its teaching methods in the study guide, there was no indication of their use (i.e. from the lecturer). Carbo (2005) reiterates that deciding on the best methods to teach information ethics may be a daunting task, but still suggests areas that should perhaps be considered. For example, how can students unaccustomed to questioning others and engaging in ethical or civic discourse be taught to do so and what kinds of assignments and evaluation of students should be used?

Lee and Chen (2005:4) contend that since information ethics education strives for moral development, the teaching methods that are suitable for facilitating ethical development in students are those methods that attend to the students' cognitive, affective, and social development. They view case studies, team education, group discussions, and role modeling as suitable methods. This view is also shared by Fallis (2007). While these teaching methods are better suited to teaching information ethics, ultimately the responsibility for their effective use depends on the instructor.

It can be drawn from the above that information ethics teaching requires a diverse range of teaching methods (Carbo, 2005). The use of lectures, as is case at the University of Zululand, would be appropriate if used in conjunction with other teaching methods. Different models may be needed to

assist with ethical reflection and decision-making, and/or recognizing cultural and other biases in these. A model that works well with certain students may not work as well with others. Cultural biases in some models may act as barriers to some students. Continuing to explore alternatives and evaluating the effectiveness of various models is necessary to encourage student learning and exploration. Incorporating models, diverse readings, active discussion and interaction among students, and perspectives from outside speakers; provides opportunities for effective learning and enhances education.

### **5.11. Challenges of teaching information ethics**

There are a variety of challenges pertaining to information ethics education in Library and Information Science Departments in South Africa as cited by the lecturers of the modules. The challenges did, however, vary across the departments. The duration of teaching the module was cited as a huge challenge at the University of Zululand as it provided insufficient time to fully cover the aspects of the module. There were, of course, other challenges, such as the need for African literature on the subject, the need to remain informed about the latest developments in information legislation, and the need for an African perspective on information ethics. In one LIS Department, the module was still new and no challenges had been encountered. It was found that getting students to participate in group discussions and challenge certain views was a problem, perhaps because of cultural obstacles in one LIS Department. As already mentioned, Carbo (2005) reported similar problems while teaching an information ethics course at the University of Pittsburg. He reported that due to differences in the cultural dispensations of students, some had difficulty in participating in group discussions where they had to challenge certain views and voice their opinions. In light of this, various teaching methods are recommended for an information ethics module.

### **5.12. Summary**

In conclusion, the chapter has provided the discussions and interpretations of the research findings. The study found that there was a strong feeling among the LIS experts that information ethics education is necessary in the Departments of Library and Information Science. However, the results indicate that only a few of the LIS Departments offered full stand-alone modules of information ethics. There were also differences regarding the modules' content, as some components, especially

ethical theories, are not offered in other departments. The results indicate a lack of uniformity and perhaps collaboration among LIS Departments in information ethics education in South Africa. Collaboration would allow LIS schools to share ideas and consequently delineate common grounds. Other issues that emerged were the lack of African literature, which was seen as a challenge, and also the limited duration of teaching at the University of Zululand. The next chapter provides the summary, conclusion and recommendations of the study.

## **Chapter Six: Summary, Conclusion and Recommendations**

### **6.1. Introduction**

This chapter summarizes the research findings and proposes recommendations for information ethics education in Library and Information Departments or Schools in South Africa. The aim of the study was to investigate and compare information ethics education in Library and Information Departments and Schools in South Africa. The objectives were set to break the aim down into more specific, measurable, and timely units. The objectives of the study were as follows:

- To investigate the curriculum presence of information ethics modules in Library and Information Science in South Africa
- To find out who teaches information ethics modules in terms of academic departments
- To determine the level(s) at which information ethics modules are offered in LIS Departments or Schools in South Africa
- To establish what is being taught in information ethics modules in terms of content
- To determine the teaching methods of information ethics modules in LIS Departments or Schools in South Africa
- To determine the challenges in the teaching and learning of information ethics in LIS Departments or Schools in South Africa

### **6.2. Summary**

This section summarizes the findings under each of the study's objectives. It serves to illustrate how the research questions and objectives were answered.

#### **6.2.1. To Investigate the Curriculum Presence of Information Ethics Modules in Library and Information Science Departments in South Africa**

This objective sought to determine whether and to what extent information ethics modules form part of the curricula of Library and Information Science Departments in South Africa. There was a

strong feeling among the Heads of Departments that information ethics education is necessary in LIS. The literature review (in Chapter 2) also stressed the need for information ethics education in LIS in light of the ethical dilemmas facing information professionals. However, of the seven LIS Departments that responded to the questionnaire, only three had a full information ethics module in their curricula. These are the LIS Departments at the University of Pretoria, University of South Africa and the University of Zululand. The modules' titles (in 2007) were Legal Aspect of Information (University of Zululand), Investigating Information Ethics in the Information Era (University of South Africa), and Information Science: Social and Ethical Impact (University of Pretoria). In the LIS Departments at the University of KwaZulu Natal, University of Cape Town, University of the Western Cape and Durban University of Technology; information ethics was not offered as a full module on its own. The content of information ethics was covered briefly in the content of other modules. This isn't enough considering the importance of the module. What transpired from the results of the study is that information ethics is not accorded equal importance by the LIS Departments in the country. (Notes: deleted – already stated in par)

### **6.2.2. To Find Out who Teaches Information Ethics Modules in terms of Academic Departments**

Considering the multidisciplinary nature of information ethics, it was imperative to establish who teaches or is responsible for teaching information ethics modules in terms of academic departments and areas of knowledge and expertise. In all the cases, the module was offered by LIS Departments with no collaboration with other departments. Of the instructors, two had background knowledge in LIS (University of Zululand and University of Pretoria), while the remaining respondent had a background in both Library and Information Science and Philosophy. Although it was such as Fallis (2007) advocate that that an information ethics module should be taught by Library and Information Science professionals who understand the ethical dilemmas facing information professionals, it is undisputable that information ethics draws from other disciplines such as Philosophy and Computer Science. Some aspects of information ethics can better be taught by the Departments of Philosophy or people with a philosophical background.

### **6.2.3. To Determine the Level(s) at which Information Ethics Modules are offered in LIS Departments or Schools in South Africa**

In all the departments, the full module was only offered in the second year of study. This was based on the idea that by second year, students are senior enough to understand and appreciate information ethics, having gained at least some institutional experience. The University of Zululand did, however, have an information literacy module with some aspects of information ethics that it offered to its first years.

### **6.2.4. To Establish what is being Taught in Information Ethics Modules in terms of Content**

The study found that there was diversity in terms of the content of information ethics modules in the three Library and Information Science Departments that offered the subject. However, certain similarities persisted; for example, intellectual property was covered across the board. Depending on the duration of teaching in a year at the three institutions, differences in the amount of content covered seemed to prevail. For example, an information ethics module at the LIS Department at the University of Zululand was offered over a single term. A term is approximately eight to nine weeks, which may not afford enough time to comprehensively cover all aspects of the module. In some LIS Departments, such as the departments at the University of Pretoria and the University of South Africa, the module was offered for a semester, which is much longer than a term, meaning that more areas are covered. Although there does not appear to be a general consensus on what should be taught in an information ethics module, the general topics that were covered in the information ethics modules include background to ethics, ethical theories, intellectual property, protection of information, information accessibility, trans-border data flows and many others.

Surprisingly, none of the modules' content included the professional codes of LIS. One would expect that a component that deals with the professional behaviour of information professionals in carrying out their duties in the workplace would be covered in such modules. The different topics covered in the LIS Departments suggest that there is no collaboration among LIS Departments on information ethics education. As it stands, each department teaches its own version of information ethics.

#### **6.2.5. To Determine the Teaching Methods of Information Ethics Modules in LIS Departments or Schools in South Africa**

Students come from diverse backgrounds and thus have a diverse range of knowledge and practical and cultural experiences; thus it was considered necessary to investigate the methods being used to teach information ethics modules in the LIS Departments in South Africa. A combination of lectures and group discussions formed the basis of teaching in the LIS department at the University of Pretoria; the University of Zululand only used lectures; and the University of South Africa's department used case studies. Different models may be needed to assist with ethical reflection and decision-making, and/or recognizing cultural and other biases in each. A model that works well with certain students may not work as well with others as a result continuing to explore alternatives and evaluating the effectiveness of various models is necessary to encourage student learning and exploration

#### **6.2.6. To Determine the Challenges in the Teaching and Learning of Information Ethics in LIS Departments or Schools in South Africa**

It was found that there were quite a few challenges facing information ethics education in Library and Information Science Departments in South Africa. However, the challenges varied according to each department. The duration of teaching the module was cited as a major challenge at the University of Zululand. In 2007, the duration of teaching was a term. A term is approximately eight to nine weeks, and this does not afford enough time to comprehensively cover the subject. Other challenges include the need for African literature on the subject, the need to remain up to date and informed about the latest developments in information legislation, and the need for an African perspective on information ethics. In the LIS Department at the University of South Africa, the module was still new and no challenges had been encountered. The lecturers generally mentioned that getting students to participate in group discussions and challenge certain views was a problem, possibly because of cultural clashes.

### **6.3. Conclusion**

The results of the study show a lack of uniformity in Library and Information education and training in South Africa. Although Library and Information Science Departments have, over the years, moved to other faculties and subsequently changed their names, their mission still remains the same, i.e. training information professionals. There is, however, limited research on the core courses of LIS in South Africa. Even though substantive research has been done on LIS curricula, a great deal of that research has been focusing on the curricula in relation to the employability of LIS graduates, with none concentrating on the core modules of Library and Information Science. This is showcased in the results, which indicate that in some LIS Departments, information ethics is offered in full stand-alone modules, whereas in others, the content is dispersed across other modules. There is evidently a need for collaboration among LIS Departments in the country in order for an agreement to be reached on the core modules of information ethics, and perhaps what should go into these modules in terms of content.

### **6.4. Recommendations**

Based on the results, the study put forward the following recommendations:

#### **6.4.1 Presence of information ethics modules in the curricula**

- Given the ethical dilemmas facing information professionals and the importance of the subject, information ethics modules should be made part of the core modules of Library and Information Science education and training in South Africa, and be offered as full stand-alone modules.
- Since information ethics threads through all human activities where information and knowledge is generated, processed, stored, disseminated and used, all the people working in the information and knowledge industry, including consumers of knowledge products and services, should (either formally or informally) undergo information ethics education. At the very least, those involved should know their rights and responsibilities with regard to information access and protection.

- There is an urgent need for collaboration among LIS Departments in South Africa through a professional body or other such avenue to ensure uniformity in the modules offered by the departments.

#### **6.4.2. African Literature and Ethics**

- African literature reflecting an African perspective and African issues should be included in the content of information ethics modules.
- Collaboration among experts in various fields to come up with an African form of ethics that will reflect on African values is strongly recommended.

#### **6.4.3. Teaching Methods**

- Since students come from diverse backgrounds and cultural orientations, a variety of teaching methods should be used to teach information ethics modules, especially those that will attend to students' cognitive, affective and social development, such as case studies, team education, role modeling and group discussions.

#### **6.4.4. Departments Teaching Information Ethics Modules**

- Considering the multidisciplinary nature of information ethics, the study recommends that there should be collaboration with various relevant departments (e.g. Philosophy) in the teaching of information ethics.
- In instances where collaboration cannot be established with other departments, it is recommended that instructors of the modules at least acquire knowledge of other relevant subject areas.

#### **6.4.4. Academic Levels at which Information Ethics Modules are Offered**

- The study recommends for information ethics to be made part of continuous education and offered at all levels of study, from undergraduate to postgraduate level.

#### **6.4.5. Information Ethics Modules' Content**

- There should be collaboration among LIS Departments in terms of information ethics education in order to decide on the content of information ethics modules.
- The professional codes of information professionals should be made part of the content of information ethics modules.

#### **6.4.6. Recommendations for Further Research**

- Finally, further research is recommended on information ethics education in LIS Departments on the continent to find out where South Africa stands in relation to other LIS Departments in Africa.
- Further research on the core modules of LIS is also recommended.

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**Appendix One: Questionnaire for Information Ethics Education in Library and Information Science Departments or Schools in South Africa**

**Questionnaire for Heads of Library and Information Science Departments**

**Dear Respondent**

I am a Masters student in the Department of Library and Information Science at the University of Zululand. I am conducting a study on the topic “*Information Ethics Education in Library and Information Science Departments in South Africa*”. The aim of the study is to establish the nature, scope and level of information ethics education in LIS Schools/ Departments in South Africa.

To complete this study, I would gladly appreciate it if you could spare a few minutes to complete and return this survey questionnaire by the 17th March 2008 to: Siphon Cyril Ndwandwe Email: ndwandwe\_finet@yahoo.com. Be assured that the information provided will be treated with confidentiality and will only be used for the purpose of this study. I have also attached a questionnaire to be completed by the lecturer who teaches an information ethics module. I would appreciate if you can forward the questionnaire to the concerned lecturer.

If you have any questions regarding the survey, please contact me at: Email: ndwandwe\_finet@yahoo.com or my supervisor: Prof. D.N. Ocholla email:docholla@pan.uzulu.ac.za

Yours Faithfully  
Siphon Ndwandwe  
0739272118

*Instruction: Please tick the appropriate answer where applicable:*

**Section A**

**General Information**

1. Name of Institution

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2. Faculty/School

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3. Name of Department

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4. Qualifications Offered and Duration (e.g. Bachelor of Library and Information Science, Bachelor of Information Science)

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5. Mission of the Department

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6. What teaching and learning mode is used by the Department? (e.g. contact or distance)

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7. What is the duration of teaching in the year? (e.g. term or semester)

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**Section B: Information Ethics Education**

8. In your opinion, do you think it is necessary that LIS education should include information ethics?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

9. Please justify your choice above

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10. If your response to question 8 was YES, which department/discipline do you think should offer such a course? (*Multiple responses possible*)

Library and Information Science

Computer Science

Philosophy

Law

Theology

Other, please specify.....

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

11. Please justify your response

.....  
.....  
.....

12. Does the Department offer an information ethics module?

Yes

No

13. If yes, please provide the module title and code

\_\_\_\_\_

14. If no, please state the reasons

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

15. Is the module offered by the Department?

Yes

No

16. If not, which department offers the course?

\_\_\_\_\_

17. Why is the module offered by the department indicated above?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

18. Who is responsible for the teaching of information ethics?

Junior Lecturer	<input type="checkbox"/>
Lecturer	<input type="checkbox"/>
Part time Lecturer	<input type="checkbox"/>
Senior Lecturer	<input type="checkbox"/>
Associate Professor	<input type="checkbox"/>
Professor	<input type="checkbox"/>
Other	_____

19. What is the field of expertise and knowledge of the Instructor?

Library and Information Science	<input type="checkbox"/>
Philosophy	<input type="checkbox"/>
Computer Science	<input type="checkbox"/>
Law	<input type="checkbox"/>
Theology	<input type="checkbox"/>
Other	_____

20. In your opinion, what bearing does the lecturer's area/field of study have on the teaching of the module?

.....

.....

.....

.....

21. Who in your opinion, in terms of academic discipline, is better suited to teach such a module?

.....

.....

22. Why do you think so?

.....  
.....  
.....

23. To whom is the information ethics module offered?

Undergraduate Students	<input type="checkbox"/>
Postgraduate Students	<input type="checkbox"/>
Both	<input type="checkbox"/>

24. At what study level is the information ethics module offered?

First Year	<input type="checkbox"/>
Second Year	<input type="checkbox"/>
Third Year	<input type="checkbox"/>
Fourth Year	<input type="checkbox"/>
Honours	<input type="checkbox"/>
Masters	<input type="checkbox"/>
Doctorate	<input type="checkbox"/>

25. Why is the module offered at the level(s) indicated above?

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26. How long is the module offered?

One Term long	<input type="checkbox"/>
One Semester long	<input type="checkbox"/>
One year long	<input type="checkbox"/>
Throughout the Programme	<input type="checkbox"/>

27. Why is module offered for the period indicated above?

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**28. Additional Information**

If the Department does not offer an information ethics module, what other modules offer information ethics related content, please list them and the information ethics content they cover

Module	Information ethics Content

29. In case the Department offers an information ethics module, what other modules offer information ethics related content, please list them and the information ethics module

Module	Information ethics Content

**Thank You.**

**Appendix Two: Information Ethics Education Questionnaire for Lecturers/Instructors teaching Information Ethics Module**

**Dear Respondent**

I am a Masters student in the Department of Library and Information Science at the University of Zululand. I am conducting a study on the topic “*Information Ethics Education in Library and Information Science Departments in South Africa*”. The aim of the study is to establish the nature, scope and level of information ethics education in LIS Schools/ Departments in South Africa.

To complete this study, I would gladly appreciate it if you could spare a few minutes to complete and return this survey questionnaire by the 17th March 2008 to: Siphon Cyril Ndwandwe Email: [ndwandwe\\_finet@yahoo.com](mailto:ndwandwe_finet@yahoo.com). Be assured that the information provided will be treated with confidentiality and will only be used for the purpose of this study. I have also attached a questionnaire to be completed by the lecturer who teaches an information ethics module. I would appreciate if you can forward the questionnaire to the concerned lecturer.

If you have any questions regarding the survey, please contact me at: Email: [ndwandwe\\_finet@yahoo.com](mailto:ndwandwe_finet@yahoo.com) or my supervisor: Prof. D.N. Ocholla email: [docholla@pan.uzulu.ac.za](mailto:docholla@pan.uzulu.ac.za)

Yours Faithfully  
Siphon Ndwandwe  
0739272118

**Section A**

**Personal Information**

1. Title

Mr.	<input type="checkbox"/>
Ms	<input type="checkbox"/>
Mrs.	<input type="checkbox"/>
Dr	<input type="checkbox"/>
Prof	<input type="checkbox"/>

2. Areas of knowledge and Expertise

Library and Information Science	<input type="checkbox"/>
Philosophy	<input type="checkbox"/>
Computer Science	<input type="checkbox"/>
Law	<input type="checkbox"/>
Theology	<input type="checkbox"/>

Other \_\_\_\_\_

3. Name of Institution

\_\_\_\_\_

4. Name of Faculty \_\_\_\_\_

5. Name of Department

**Section B:**  
**Information Ethics Module**

6. Please state the module title and code

\_\_\_\_\_

7. Please indicate the aim of the module

\_\_\_\_\_  
\_\_\_\_\_

8. What are the learning outcomes of the module?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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9. Is the module solely devoted to information ethics?

Yes

No

10. If not what specific information ethics content does it cover? (e.g. subtopics)

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11. How long is the module taught per lecture?

One hour

Two hours

More than two hours

12. How many hours are given to the module per week?

Three hour

Four hours

More than four hours

13. Please indicate the academic level at which the module is offered

First year

Second year

Third year

Fourth year

Postgraduate

14. Please indicate/itemize the units covered in the module (**Provide a course outline if possible**)

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

6. \_\_\_\_\_  
 7. \_\_\_\_\_

15. What teaching methods are used to teach the module?

Case Studies   
 Lecture Method   
 Group discussion   
 Role modeling

Other, please specify \_\_\_\_\_

16. Why is the selected method used?

\_\_\_\_\_  
 \_\_\_\_\_

17. Please indicate how the students are assessed and the weightings for each method

<b>Method of assessment</b>	<b>Weighting</b>
Formal end of module/course exam	
Interim tests during module/course	
Practical Assessments	
Assignments	
Fieldwork assessments	
Peer assessments	
Self assessments	
Open book assessments	
One minute papers (quick reviews of knowledge gained held during learning sessions)	
Learning journals(diary of learning created during the module)	
Portfolios	
End notes (notes written by learners at the end of a learning session to display knowledge gained)	
	100%

18. What are the challenges associated with teaching the module?

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

19. How are the challenges overcome?

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Thank You!

## **Appendix Three: Content Analysis Schedule**

### **Content Analysis Schedule**

#### **General Information**

1. Name of the Institution

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2. Name of the Department

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3. Name of the Course/Module Title

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4. Module Provider

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5. Duration of the Course/Module

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#### **Course/Module Aims/Objectives**

6. Aim (s) of the Course/Module

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7 Objectives of the Course/Module

7.1

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7.2.

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7.3.

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7.4.

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7.5.

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7.6.

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7.7.

**3. Course/Module Content**

8. Units covered in Course/Module

8.1. Unit One

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8.1.1. Duration

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8.1.2. Objectives of the unit

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8.2. Unit Two

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8.2.1. Duration

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8.2.2. Objectives of the unit

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8.3. Unit Three

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8.3.1. Duration

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8.3.3. Objectives of the unit

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8.4. Unit Four

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8.4.1. Duration

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8.4.2. Objectives of the unit

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8.5. Unit Five

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8.5.1. Duration

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8.5.2. Objectives of the unit

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8.6. Unit Six

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8.6.1. Duration

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8.6.2. Objectives of the unit

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8.7. Unit Seven

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8.7.1. Duration

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8.7.2. Objectives of the unit

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8.8. Unit Eight

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8.8.1. Duration

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8.8.2. Objectives of the unit

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8.9. Unit Nine

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8.9.1. Duration

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8.9.2. Objectives of the unit

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8.10. Unit Ten

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8.10.1. Duration

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10.2.2. Objectives of the unit

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**4. Type of Delivery and estimated Notion Hours**

Study Contact	Notion Hours
Lectures	
Practicals	
Tutorials	
Field Trips	
Other	
Total Notional Hours	

**5. Methods of assessments used in the Module/ Course (% weighting)**

Formal end of course/module exam	
Interim test during module/course	
Practical Assessment	
Assignments	
Open Book Assessment	
Peer Assessment	
Self Assessment	
Portfolios	
Oral Assessments	
Notes	
Other	
Total	

**6. Recommended Readings**

6.1.

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6.2.

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6.2.

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6.2.

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6.2.

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6.2.

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6.2.

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6.2.

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6.2.

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Appendix Four: Outline of the Study Objectives in relation to the Methodology

Aim	Objectives	Research Questions and Chapters	Target Population	Research Method	Research Instruments
<p>The aim of the study was to investigate and compare the teaching and learning of information ethics in LIS Departments/Schools in South Africa.</p>	<ul style="list-style-type: none"> <li>• To investigate the curriculum presence of information ethics modules in Library and Information Science in South Africa</li> <li>• To find out who teaches information ethics modules in terms of academic departments</li> <li>• To determine the level(s) at which information ethics modules are offered in LIS departments or schools in South Africa</li> <li>• To establish what is being taught in information ethics modules in terms of content</li> <li>• To determine the teaching methods of information ethics modules in LIS Departments or Schools in South Africa</li> <li>• To determine the challenges in the teaching and learning of information ethics in LIS Departments or Schools in South Africa</li> </ul>	<ul style="list-style-type: none"> <li>• Are there information ethics modules offered in the Departments of Library and Information Science in South Africa? (chapters 4, 5 and 6)</li> <li>• Who, in terms of academic departments and areas of knowledge and expertise, teaches information ethics modules? (chapters 2, 4, 5 and 6)</li> <li>• At which study level (s) are information ethics modules offered in LIS Departments? (chapter 4, 5 and 6)</li> <li>• What is covered in terms of module content in information ethics modules? (chapters 2, 4, 5 and 6)</li> <li>• What are the teaching methods used to teach information ethics modules in LIS Departments? (chapters 2, 4, 5 and 6)</li> <li>• What are the challenges of information ethics education in LIS Departments in South Africa? (chapters 4, 5 and 6)</li> <li>• How are these challenges overcome? (chapters 4, 5 and 6)</li> </ul>	<ul style="list-style-type: none"> <li>• HOD's LIS</li> <li>• HOD's LIS</li> <li>• HOD's LIS</li> <li>• Lecturers and information ethics study materials</li> <li>• Lecturers</li> <li>• Lecturers</li> </ul>	<p>Survey</p> <p>Survey</p> <p>Survey</p> <p>Survey and qualitative content analysis Survey</p> <p>Survey</p>	<p>Questionnaire</p> <p>Questionnaire</p> <p>Questionnaire</p> <p>Questionnaire and content analysis schedule</p> <p>Questionnaire</p> <p>Questionnaire</p>
