CHAPTER 5

**CASE STUDY: COMMUNITIES OF PRACTICE AS A TECHNIQUE FOR THE
MANAGEMENT OF KNOWLEDGE IN THE ACADEMIC INFORMATION SERVICE
OF THE UNIVERSITY OF PRETORIA**

5.1   INTRODUCTION

The literature study in Chapters 2-4 focused on aspects of knowledge management, the learning organisation and Communities of Practice and their relationship towards one another. In Chapter 4, the management of knowledge through Communities of Practice in academic libraries was discussed, as well as the role of the information professional in Communities of Practice. The aim of Chapter 5 is to investigate whether the results found in the literature study could be applied in practice by focusing on one specific academic library. For this purpose, the Academic Information Service (from this point forward abbreviated as AIS) at the University of Pretoria (UP) was chosen as a case study to investigate whether Communities of Practice played a role in the knowledge management practices of an academic library. First of all, a brief summary of the research methodology followed during the study is provided, followed by an overview of the questions that were dealt with. Next follows an overview of the AIS of the University of Pretoria, South Africa, as well as the profiles of the respondents from the AIS. Finally, the findings themselves are discussed.

5.2   RESEARCH METHODOLOGY USED TO ACQUIRE FINDINGS

In Chapter 1, a more detailed overview was provided on the research methodology followed in this study. The research method to acquire the findings in the case study was empirical (based on individual interviews, and a focus group interview), and qualitative (evaluating the performance of Communities of Practice in their natural settings).

The empirical study consisted of interviews - the results of which can be found in this chapter. Interviews by means of a semi-structured questionnaire were conducted with individuals from the AIS of the University of Pretoria that were involved in Communities of Practice in some or other way. Five individuals were identified through a process of purposive sampling. Results from the interviews included thoughts, opinions and

experiences of respondents as described in their own words. The researcher used the same predetermined questions during each of the semi-structured interviews, which proved helpful when comparisons were drawn between responses received from the different respondents. After the interviews, answers received were verified with respondents by sending them through to the respondents via e-mail. Changes suggested by respondents were then implemented. The responses received in the semi-structured interviews were then further validated by a focus group interview held with four of the individuals originally interviewed. The same set of questions was then presented to the focus group together with the responses received, and changes suggested by the group were then implemented.

The next section provides an overview of the questions dealt with during the interviews.

5.3   AN OVERVIEW OF QUESTIONS DEALT WITH DURING THE INTERVIEWS

- What would you describe as knowledge management?
- Would you say the AIS practices knowledge management?
- Would you describe the AIS as a learning organisation? If so, why?
- Do you belong to a Community of Practice and which of the Communities you belong to are cross-organisational?
- How did these Communities of Practice start and develop?
- How many members do each of the Communities of Practice mentioned by the respondents have?
- Who leads these Communities of Practice?
- How long have these Communities of Practice been in existence?
- How many times does the Communities of Practice meet?
- In which stages of development would you say these Communities of Practice find themselves?
- What would you say is the purpose/value of the Communities of Practice to which you belong and what role does it play, if any, in the management of knowledge in the AIS?
- What types of knowledge are shared in these Communities of Practice?
- What techniques and tools (technology) are utilised by the Communities of Practice for the capturing, organisation and sharing/transfer of knowledge created in them?
- How is ongoing participation in these Communities of Practice ensured?

- How long would you say these Communities of Practice are still going to last?
- Are you rewarded for belonging to Communities of Practice? If yes, how?
- Does top management support Communities of Practice?
- How do you as information/knowledge professional win the trust of the other members of Communities of Practice?
- What do you do when a newcomer joins the Community of Practice?
- What do you regard as critical/important factors for the success of the Communities of Practice to which you belong?
- What will you do if these Communities of Practice are no longer viable?
- Do you envisage new Communities of Practice that are in the process of emerging?

5.4   BACKGROUND INFORMATION ON THE ACADEMIC INFORMATION SERVICE, UNIVERSITY OF PRETORIA

The Academic Information Service (AIS) of the University of Pretoria, South Africa is the collective name for the academic libraries of this university. The AIS is a networked organisation consisting of a number of service units that are each geared towards rendering a one stop service to clients (students, faculty staff and researchers) from specific subject groupings, e.g. Humanities, as well as support units focusing on certain functions in the AIS and delivering a service to the service units. The Service Units of the AIS can be divided into in two groups: those that are on the main campus and those that are on the satellite campuses. The service units of the AIS are:

On main campus:
- Economics and Management Sciences;
- General Services (which includes the circulation desk, security desk and reserved section);
- Humanities;
- Law;
- Natural and Agricultural Sciences, Engineering, Built Environment and Information Technology;
- Theology and Social Sciences;

On satellite campuses

- Groenkloof (Education);
- Mamelodi;
- Medical;
- Pre-clinical;
- Veterinary Sciences.

The support units are administered from the main campus, but have staff working in the service units on the satellite campuses. The support units in the AIS are:

- Financial and General Administration;
- Human Resources;
- Facilities and Maintenance;
- Information Management Procurement Services (IMPS), which includes the cataloguers, ordering people and people who receive the sources, as well as the Interlibrary Loans Section;
- Information Systems and Technology.

A Strategic Management Team manages both the service units and support units. Two of the members of this team went on retirement during this study. Figure 5.1 gives a good illustration of the structure of the AIS
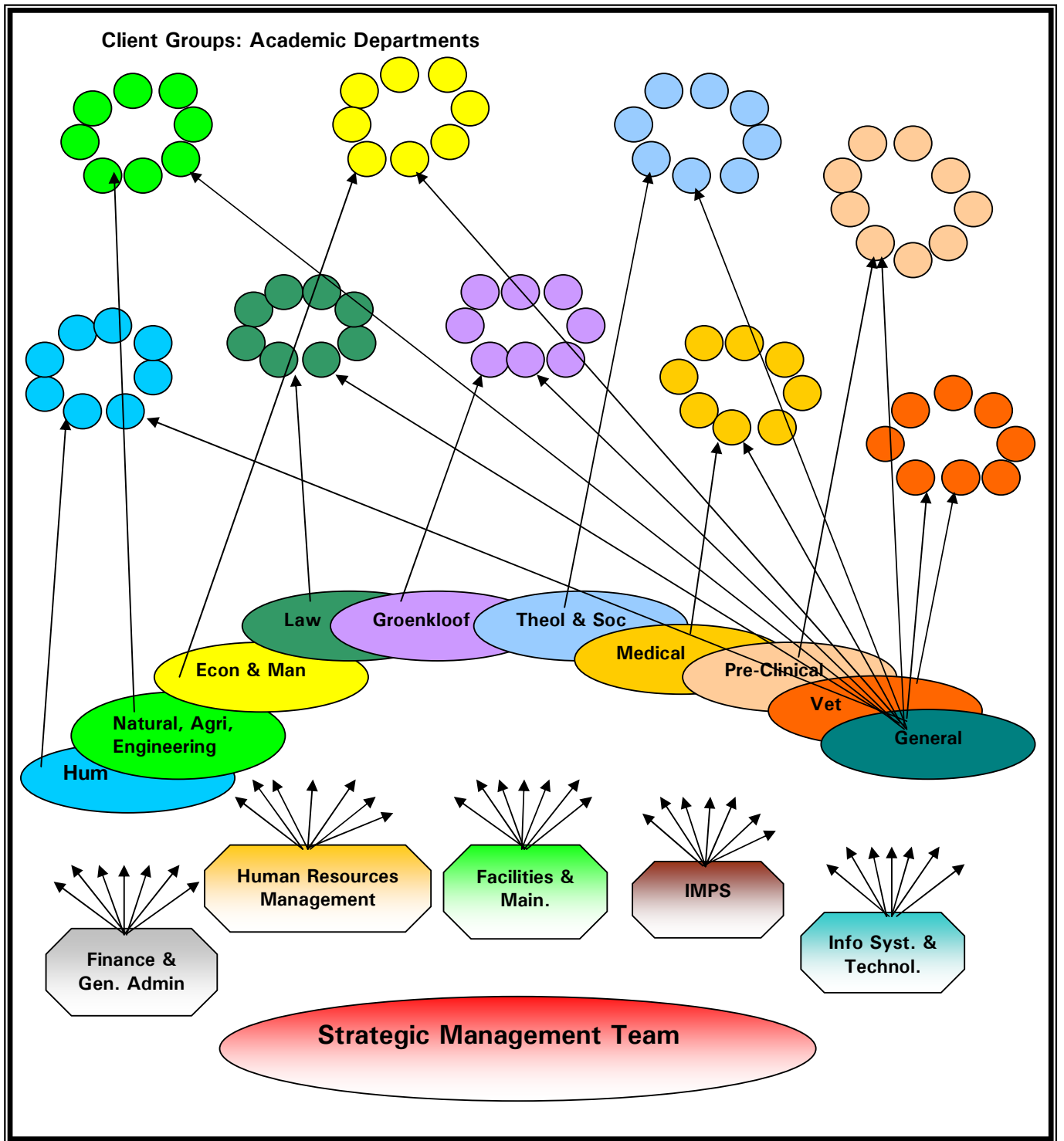
Client Groups: Academic Departments

Figure 5.1:   Academic Information Service, University of Pretoria

The AIS developed an Internet portal, called InfoPortal, with the aim of supporting personal knowledge management. Each staff member of the University can customize the portal for his or her needs. It consists of a number of portlets that contains e-mail, access to databases, electronic journals, micro-databases, a calendar function, electronic publishing, a virtual groups function, etc. The virtual groups function has been designed with the purpose of facilitating different types of Communities virtually. The InfoPortal can only be accessed with a valid student/personnel number, which unfortunately exclude people from outside the University from accessing the system. People who are part of a group or a Community of Practice that do not have access to the InfoPortal get the messages sent to the virtual group as an e-mail message. They can therefore still take part in the group, but unfortunately loose much of the functionality of the InfoPortal.

Rapid changes in the environment forced the AIS to rethink its structure in 2004 and with this in mind, the management of the AIS identified 5 focus areas, which are in the process of being implemented. These focus areas might bring about a whole new organisational structure, and could also eventually lead to the formation of new Communities of Practice. The focus areas are:

- Information for Learning (Learning Centre);
- Information for Research;
- More with less focus (Mean and Lean);
- Information for the External Market;
- E-Information strategy.

5.5   PROFILES OF RESPONDENTS

RESPONDENT 1

This respondent is the Leader of the Service Unit Veterinary Science of the AIS at the Onderstepoort Campus of the University of Pretoria, South Africa. Her first work experience was in the AIS and she started working in the AIS as leader of the Service Unit Veterinary Science 22 years ago. One of the projects that she is currently involved in is the Information for Research focus area.

RESPONDENT 2

This respondent is the Coordinator of Cataloguers in the Service Unit Information Management Procurement Services (IMPS) of the AIS. He has been working in this position for 5 years at the time of the interview, but has been working in the AIS a total of 13 years. Previous employment included working at the Reserved Desk, as well as in the Cataloguing and Ordering sections of the AIS, which are now part of IMPS.

RESPONDENT 3

This respondent is the Information Specialist for Architecture, Civil- and Biosystems Engineering, Construction Economics, Engineering- and Technology Management, Industrial- and Systems Engineering, Information Science, Town and Regional Planning, and the Institute for Technological Innovation in the Service Unit Natural and Agricultural Sciences, Engineering, Built Environment and Information Technology. She has been in this position for the past 10 years. Before that she was employed at an engineering firm. Projects that she is currently involved in are: the InfoPortal, Engineering Week, and Web Reference Pages

RESPONDENT 4

Respondent 4 is the Information Specialist for Archaeology, Anthropology and Political Sciences, and has been working in this position in the Service Unit Humanities for the past 10 years. Before that, she was a librarian at the Library of the Potchefstroom University for Christian Higher Education and an information specialist for the Netherlands Cultural History Collection of the University of Pretoria. Projects that she is involved in are: Webpage design, a project to computerize the Political Science card index on the Micro Database function of the InfoPortal, InfoPortal training, and E-Theses.

RESPONDENT 5

This respondent is the Strategic Innovation Manager of the AIS and is part of the top management of the AIS. She has been working in this position for 15 years. Before that, she worked as a lecturer at University of South Africa (UNISA) and before that in

the Information Management division of the South African Defence Force. She is currently involved in the following projects: Electronic (E)-Information Strategy of the AIS and the South African Research Information Service (SARIS).

5.6   FINDINGS

Findings have been given in the following format: question first, followed by an explanation of why the question was asked, a table with the answers from the respondents, and a deduction from the answers below the table.

5.6.1   WHAT WOULD YOU DESCRIBE AS KNOWLEDGE MANAGEMENT?

This question was asked to determine whether the staff members of the AIS knew what "knowledge management" meant.

RESPONDENT	DEFINITION
Respondent 1	- Management of recorded information and information / knowledge in people's heads.
Respondent 2	- Vague term.
Respondent 3	Management of knowledge includes information/ knowledge packaging, information/knowledge retrieval, information/knowledge delivery, etc.
Respondent 4	- Knowledge management means that one manages acquired information in such a way that it is accessible; - Knowledge management includes information/ knowledge in people's minds and recorded information; - Knowledge management is the process through which experience and information is acquired, and is the ability to recall that again.
Respondent 5	Respondent sees knowledge management on two levels: - **Corporate knowledge management**: This covers aspects like utilization, leveraging, and structure of knowledge, climate, culture, IT support and how these advance innovation. - **Personal knowledge management:** This focus on the knowledge worker in his/her own environment. The library/information service can make a difference in this type of knowledge management by supporting and improving the knowledge worker's workflow with technology. In other words, this type of knowledge management is a combination of the knowledge worker, his work, information available to him, tools (information technology) to support him, and leveraging of knowledge to produce better products and services. NB: Information Technology is not equal to knowledge management.

Table 5.1   Respondent's answers to question 'what would you describe as knowledge management?

The answers listed in Table 5.1 showed that all the respondents except Respondent 2 understood the essence of knowledge management, namely the management of tacit and explicit knowledge. None of the respondents regarded knowledge management (or information management) as equal to information technology, but Respondent 5 viewed information technology as something that can support the knowledge worker. In Section 2.7.1 of this study, it was shown that knowledge management could be viewed from two different perspectives. The first perspective shown was the **information technology perspective**, where knowledge management is viewed as the management of content, while information management is viewed as the management of information technology. The second perspective shown was the **integrative perspective**, where knowledge management is regarded as the management of explicit knowledge (information) and tacit knowledge. The answers of the respondents in Table 5.1 indicated that they viewed knowledge management from an integrative perspective, which is the perspective followed in this study.

The answer given by Respondent 5 showed that she had extensive knowledge of the concept and process of knowledge management, which were not surprising considering her role as strategic innovation manager. The fact that knowledge management was a vague term to Respondent 2, could indicate that the cataloguers in the AIS were at the time of the study not included in the knowledge management processes of the organisation and therefore had a lack of understanding of the concept.

5.6.2   WOULD YOU SAY THE AIS PRACTICES KNOWLEDGE MANAGEMENT?

With this question, the researcher wanted to determine whether knowledge management was practiced in the AIS.

RESPONDENT	ANSWER
Respondent 1	- The AIS is still at the beginning stages of knowledge management and a framework for knowledge management in the AIS still needs to be worked out.
Respondent 2	(Researcher explains to respondent what knowledge management is). - Respondent is of the opinion that there has been discussion on the topic within the AIS, but that it is not practiced in the AIS yet.
Respondent 3	- Certain aspects of knowledge management are practiced: knowledge acquired is packaged and stored, but not communicated (transferred) in a constructive way.
Respondent 4	- Knowledge management is practiced to a great extend in the AIS; - Proof of this is the AIS's culture to share knowledge, as well as the compilation of manuals and conducting of training.
Respondent 5	- Not really; - The AIS had a project on knowledge management in 2002 but it was never internalised; - The E-Information projects of the AIS do touch on elements of knowledge management though; - The aim of the InfoPortal was also to support personal knowledge management.

Table 5.2:   Respondent's answers to the question 'would you say the AIS practices knowledge management?'

From the respondents' answers in Table 5.2, one can deduce that knowledge management was only in its beginning stages in the AIS at the time of this study, where only certain aspects of knowledge management were practiced. Respondents 1 and 3 indicated this directly. The answer received from Respondent 4, who felt knowledge management was practiced to a great extend in the AIS, also revealed that the AIS's knowledge management processes have mostly focused on the management of explicit knowledge, but not so much on the management of tacit knowledge. Respondents 2 and 5 also indicated that the only things on knowledge management that have taken place in the AIS were discussions on the topic, the running of a knowledge management project, and the set-up of an information technology infrastructure for knowledge management, indicating therefore that knowledge management was in the beginning stages in the AIS.

The researcher agrees with Respondent 1 that because knowledge management was in the beginning stages in the AIS, a framework for its deployment and development in the organisation would have to be worked out.

5.6.3   WOULD YOU DESCRIBE THE AIS AS A LEARNING ORGANISATION? IF SO, WHY?

This question was asked to determine two things: whether the AIS was a learning organisation and reasons for describing the AIS as a learning organisation, or not.

POSITION	AIS A LEARNING ORGANISATION?	WHY?
Respondent 1	Yes	- The AIS is a learning organisation because it is perpetually developing new things that compel staff members to learn continuously.
Respondent 2	Yes	- The AIS is a learning organisation because staff members learn daily on a continuous basis. This learning takes place in an informal manner through conferences and at the workplace.
Respondent 3	Yes	- The AIS is a learning organisation because it focuses on the training of people on how to search for information, process it and handle it.
Respondent 4	Yes	- The AIS is a learning organisation because the AIS find itself in a developing sphere where constant changes are taking place, and where things have to be adapted to clients' needs, compelling staff members to adapt on a continuous basis in order to be able to do their daily work.
Respondent 5	Yes	- The AIS's strong focus on research and development, which can be seen in its system of projects, is an indication that the AIS is a learning organisation. - The learning organisation idea was also given further leverage through the competency-based system, which was started in the AIS a few years back.

Table 5.3:   Respondent's answers to question 'would you describe the AIS as a learning organisation, and, if so, why?'

Table 5.3 shows that all the respondents viewed the AIS as a learning organisation, and most of the reasons given by the respondents confirmed this.

Respondents 1, 2 and 4's reasons focused on the continuous learning of the staff members of the AIS as qualifying the AIS as a learning organisation. This corresponded with one of the characteristics of a learning organisation as found in Section 3.3.4.1, i.e. that a learning organisation provides continuous learning opportunities. Respondent 4's answer that the AIS found itself in a developing sphere where constant changes were taking place, and where things had to be adapted to clients' needs, compelling staff members to adapt on a continuous basis in order to be able to do their daily work, also links to the ideas of single-loop and double-loop learning that were discussed in Section 3.2.2 as types of learning that can occur in a learning organisation. The reference of Respondent 5 to a competency-based system in the AIS as promoting the learning organisation idea in the AIS also corresponded with two of the characteristics of a learning organisation, namely that a learning organisation uses measurement systems to measure performance (see Section 3.3.4.2), and that learning organisations link individual performance with organisational performance (see Section 3.3.4.3). The reason provided by Respondent 3, namely that the AIS was a learning organisation because it focused on the training of people on how to search for information, process it and handle it, showed a possible lack of understanding of what is really meant by the concept.

The results of questions 5.4.1 – 5.4.3 thus showed that the AIS practiced knowledge management to some extent and was considered to be a learning organisation.

5.6.4   DO YOU BELONG TO A COMMUNITY OF PRACTICE AND WHICH OF THE COMMUNITIES YOU BELONG TO ARE CROSS-ORGANISATIONAL?

Communities of Practice were described in Section 4.3.1 as a *"network of people emerging spontaneously, and held together by informal relationships and common purpose, that share common knowledge or a specific domain, expertise and tools, and learn from one another"*.

The researcher explained to the respondents what a Community of Practice is, and asked this question to determine if any of the respondents belonged to Communities of Practice. In the rest of the question, the researcher asked the respondents to indicate which of these Communities were cross-organisational (external) Communities of

Practice. The Communities that the respondents belonged to are listed in table 5.4, with the cross-organisational Communities of Practice highlighted in bold letters.

RESPONDENT	COMMUNITIES OF PRACTICE
Respondent 1	- **Knowledge Management Practitioners Group of Pretoria (KMPG).** - Information Specialists Group.
Respondent 2	- **GCATS (GAELIC Cataloguers)** (GAELIC = Gauteng and Environs Libraries Consortium).
Respondent 3	- **Virtual Group on Water Research on the InfoPortal;** - **Virtual Group on Architecture;** - Information Specialists Group.
Respondent 4	- **Maritime Archaeology Group** (consisting of lecturer, students of Archaeology department, researchers from Cape Town and information specialist); - **The Virtual Group on Water Research on the InfoPortal;** - Information Specialists Group.
Respondent 5	- Digital Repositories Group; - Informal Network for E-Information Experts.

Table 5.4:   Respondent's answers to question 'do you belong to a Community of Practice and which of the Communities you belong to are cross-organisational?'

The answers in Table 5.4 showed that while the respondents belonged to one or more Communities of Practice, more respondents belonged to cross-organisational (external) Communities of Practice than to internal Communities of Practice. This could be an indication of the measure to which staff members were involved in professional activities outside the organisational boundaries of the AIS. Worrisome is the small number of internal Communities of Practice that were listed. This could most probably be a result of the absence of two of the top management members in the organisation (see Section 5.6.17), and the fact that knowledge management is only in its beginning stages in the organisation (see Section 5.6.2).

5.6.5   HOW DID THESE COMMUNITIES OF PRACTICE START AND DEVELOP?

The origin of the group can give a good indication of whether these groups were Communities of Practice, or just interest groups or teams.

COMMUNITY OF PRACTICE	ORIGIN
Knowledge Management Practitioners Group of Pretoria.	- An employee of the National Electricity Regulator (NER) of South Africa started this group after identifying a need for it in Pretoria.
GCATS	- This Community was started as a sub-group of the Gauteng and Environs Libraries Consortium (GAELIC) and later developed into an informal knowledge sharing group, where know-how on cataloguing are shared by staff from the different institutions.
Virtual Group on Water Research	- The information specialist working in the Service Unit Natural and Agricultural Sciences, Engineering, Built Environment and Information Technology of the AIS identified different people working with water and realised there are 18 departments on campus working on water research. This particular information specialist then gathered the information specialists of the particular academic departments together, including one of the lecturers who was already involved in the InfoPortal. These groups were then brought together on a Virtual Group on the InfoPortal.
Maritime Archaeology Group	- This group developed because of the interest of several parties from different faculties and institutions from Pretoria and Cape Town, viewing the topic from different perspectives.
Information Specialists Group	- This group developed to ensure that expertise /knowledge flowed to all information specialists working throughout the organisation, ensuring that all were on the same level.
Virtual Group on Architecture	- This group started because of a lecturer's interest.
Digital Repositories Group	- This informal group was started around a project to enable staff members to share their expertise and know-how on the topic with one another.
Informal Network for E-Information Experts	- This group started around a shared interest.

Table 5.5:   Respondent's answers to question 'how did these Communities of Practice start and develop?

The responses given in Table 5.5 showed that 5 of the groups in which the respondents were involved started because of a shared interest or need that were identified by an individual, or a number of people working in the same area of expertise. In Section 4.9 of this study, it was mentioned that Communities of Practice potentially develop from Communities of Interest, which can be found in the first stage of development of Communities of Practice. The fact that these groups started with an interest is evidence that these groups could be classified as Communities of Practice. The Information Specialists Group was developed to ensure that expertise/knowledge flowed to all information specialists in the organisation, which corresponds with one of the characteristics of a Community of Practice, namely that they are defined by knowledge/expertise rather than task (see Sections 4.3.2 and 4.9). One of the groups started as a formal sub-group of a library consortium (GAELIC), but later developed into an informal group, sharing know-how/expertise, which also corresponds to the characteristic that they are defined by knowledge/expertise rather than task. It seems therefore that formal groups/teams could be transformed into Communities of Practice. The group that developed around a project also focused on the sharing of knowledge/expertise. The origin and development of these groups therefore showed that all these groups could be viewed as Communities of Practice.

5.6.6 HOW MANY MEMBERS DO EACH OF THE COMMUNITIES OF PRACTICE MENTIONED BY THE RESPONDENTS HAVE?

One of the characteristics of a Community of Practice is that it normally consists of a small number of people, but that in some cases, it can have a large number of members (see Section 4.3.2). This question was asked to get an idea of the size of some of these groups.

COMMUNITY OF PRACTICE	NUMBER
Knowledge Management Practitioners Group of Pretoria	20 people
Information Specialists Group of the AIS	± 30 people
GCATS	± 20 people
Virtual Group on Architecture	43 people
Virtual Group for Water Research	± 20 people
Virtual Group for Maritime Archaeology	4-5 people
Digital Repository Group	10-15 people
Informal Network for E-Information Experts	10-15 people

Table 5.6: **Respondent's answers to question 'how many members do each of the Communities of Practice mentioned by the respondents have?'**

The Community with the biggest number of members is shown in Table 5.6 as having about 43 members (Group on Architecture), and the smallest group as having 4-5 members (Virtual Group on Maritime Archaeology), with the rest averaging between 10-20 people. In Section 4.3.2 it was stated that the larger the group becomes, the more difficult it becomes to share knowledge, which means that knowledge sharing in the Virtual Group on Architecture might be more difficult than in the smaller Communities. Table 5.6 seems to indicate that the ideal size for these Communities of Practice is 10-20 people.

5.6.7   WHO LEADS THESE COMMUNITIES OF PRACTICE?

This question was asked to determine who would take the lead in these groups, and whether this role can be fulfilled by information professionals, especially in cross-organisational Communities of Practice.

CROSS-ORGANISATIONAL COMMUNITIES OF PRACTICE	INTERNAL COMMUNITIES OF PRACTICE	PERSON
	Information Specialists Group	- Service Unit Leader of Economics and Management Sciences of the AIS.
Knowledge Management Practitioners Group of Pretoria		- Employee of the National Electricity Regulator (NER) of South Africa.
GCATS		- Leader rotates every year. This year it is led by the Coordinator of the Cataloguers at the University of South Africa.
	Digital Repository Group	- Respondent 5.
	Informal Network for E-Information Experts	- Respondent 5.
Virtual Group on Architecture		- Led by a lecturer from the Architecture Department at the University of Pretoria.
Virtual Group for Water Research		- Respondent 3.
Virtual Group for Maritime Archaeology		- Respondent 4.

Table 5.7: **Respondent's answers to question 'who leads these Communities of Practice?'**

Table 5.7 shows that information professionals have a very active role to play in some of the mentioned Communities of Practice. Three of the cross-organisational Communities of Practice (GCATS, Virtual Group for Water Research, and the Virtual Group for Maritime Archaeology) were led by information professionals. This confirms Section 4.9.4, where it was shown that information specialists could play a valuable role in the coordination and facilitation of Communities of Practice. Though Communities of Practice should not be formalised, in other words structured or forced down by management, it can sometimes be led by a member of management, as in the case of the Information Specialists Group, which was led by a service unit leader. The fact that a member of management led this Community could be a reason why it had

not developed much since it started (see Section 5.6.10). The two Communities led by the Strategic Innovation Manager (Respondent 5), could encounter the same danger, the reason being that people might feel it is forced on them from top management.

5.6.8   HOW LONG HAVE THESE COMMUNITIES OF PRACTICE BEEN IN EXISTENCE?

This question was asked to get an indication of the duration of these Communities of Practice.

COMMUNITY OF PRACTICE	TIME PERIOD
Knowledge Management Practitioners Group of Pretoria	1 Year
GCATS	± 7 Years
Information Specialists Group	4 Years
Virtual Group on Water	2 Years
Maritime Archaeology Group	1 Year
Virtual Group on Architecture	7 Years
Digital Repository Group	3 Years
Informal Network for E-Information Experts	5 Years

Table 5.8:   Respondent's answers to question 'how long have these Communities of Practice been in existence?'

Table 5.8 shows that GCATS had been in existence the longest, followed by the Virtual Group on Architecture as the group that existed the second longest. One could assume that their years of existence indicate that they were in the active stage or final stage of the life cycle of a Community of Practice. The Knowledge Management Practitioners Group of Pretoria and the Maritime Archaeology Group had only been running for a year at the time of the interviews, and one could assume that they were probably in the beginning stages of the development of Communities of Practice. Looking at the years that the Informal Network for E-Information Experts existed, one could assume that it should have been in the active stage of a Community of Practice.

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If one looks at the responses received in Section 5.6.10, many of these groups found themselves in the potential or formation stages, even though they have existed for years. It therefore seems that the number of years a Community of Practice exist is not necessarily an indication of the stage of development it has gone through. Communities of Practice as human phenomena develop at different speeds. Some Communities of Practice can develop into an active Community very quickly; others take time to develop into their full active capabilities, depending on a variety of factors.

5.6.9   HOW MANY TIMES DO THE COMMUNITIES OF PRACTICE MEET?

This question was asked to determine if the mentioned Communities only existed virtually or if they also got together in face-to-face meetings from time to time.

COMMUNITY OF PRACTICE	FREQUENCY
Knowledge Management Practitioners Group of Pretoria	- They get together every second Tuesday of every month.
GCATS	- They get together 3 to 4 times per year.
Information Specialists Group of the AIS	- They get together once every 2 months on a Tuesday.
Virtual Group on Water Research	- This group never gets together. Only exists virtually.
Virtual Group on Architecture	- This group never gets together. Only communicates electronically.
Maritime Archaeology Group	- This group never gets together. Only communicates via e-mail.
Digital Repository Group	- Once a week.
Informal Network for E-Information Specialists	- As necessary.

Table 5.9:   Respondent's answers to question 'how many times does the Communities of Practice meet?'

In Section 4.2 of this study, a distinction was made between face-to-face Communities of Practice and virtual Communities of Practice. It was also stated that in order to give people a sense of being part of a Community, it was essential that people met face-to-face in an infrequent manner. Responses received in Table 5.9 showed that three of the Communities only existed virtually, namely the Virtual Group on Water Research, the

Virtual Group on Architecture, and the Maritime Archaeology Group. Because they never got together face-to-face, they could experience problems in creating a sense of being a part of a Community for their members. The reason that the Maritime Archaeology group never met face-to-face could be because of the distance of some of its members, who stayed far from the ocean.

The groups that got together face-to-face in a more frequent manner, namely the Knowledge Management Practitioners Group of Pretoria, the Information Specialists Group of the AIS, the Digital Repository Group, and the Informal Network for E-Information Specialists, should have experienced a greater sense of being part of a Community than some of the other Communities.

5.6.10 IN WHICH STAGES OF DEVELOPMENT WOULD YOU SAY THESE COMMUNITIES OF PRACTICE FIND THEMSELVES?

In Section 4.5.2 of this study, Communities of Practice were shown to develop through different stages, namely a potential stage, a formation stage, a commitment stage, an active stage and an adaptive or disengaging stage, which forms the life cycle of a Community of Practice. The researcher told the respondents what the stages in the development of a Community of Practice were and explained to them what distinguished each stage. By asking this question, the researcher tried to determine in which stages of development each of these Communities found themselves.

COMMUNITY OF PRACTICE	STAGE IN THE LIFE CYCLE
Knowledge Management Practitioners Group of Pretoria	Formation Stage.
GCATS	Potential Stage.
Information Specialists Group of the AIS	Potential Stage.
Virtual Group on Water	Potential Stage.
Virtual Group on Architecture	Commitment Stage.
Maritime Archaeology Group	Commitment Stage.
Digital Repository	Potential Stage/Formation Stage.
Informal Network for E-Information Specialists	Potential Stage/Formation Stage

Table 5.10:   Respondent's answers to the question 'in which stages of development would you say these Communities of Practice find themselves?'

The responses received in Table 5.10 showed that most of the Communities of Practice found themselves in the potential or formation stage of development. As indicated in Section 5.6.8, some of these Communities have been in existence for quite a number of years. The fact that these Communities of Practice did not develop much further than the first two stages of the life cycle of a Community of Practice, corresponds with Section 5.6.2, where it was indicated that knowledge management is only in the beginning stages of development in the AIS. The fact that they did not develop much further over a number of years could indicate that there were factors that hindered the further development of these Communities.

5.6.11   WHAT WOULD YOU SAY IS THE PURPOSE/VALUE OF THE COMMUNITIES OF PRACTICE TO WHICH YOU BELONG?

In Section 4.4 of this study, it was shown that Communities of Practice provide value for the organisation(s) in which they operate, the Community, and also the individuals that are part of them. The aim of this question was therefore to determine what value/purpose these Communities had for the AIS, the respondents, and the Communities they belonged to.

RESPONDENT	PURPOSE
Respondent 1	- Members all share the same area/type of work, and learn from each other; - They help with problem solving in the AIS; - They are forums where one meets people (Social value); - These groups create opportunities where staff from the satellite campuses can meet colleagues from the main campus.
Respondent 2	- They are used for standardization, in other words to see to it that everyone do the same things and know the same things; - They prevent their members from duplicating what others have already done.
Respondent 3	- They are valuable communication media; - They are places where information specific to a certain group are shared and discussed; - I use it as a forum to help people with their information needs, and by participating I can anticipate the members' information needs and act proactively; - Communities of Practice help to integrate internal knowledge and can make it easier to find information to share with others; - They help that we don't reinvent the wheel again; - These Communities are spaces where one can get trained and can learn informally.
Respondent 4	- They are used for information exchange and help spreading information/knowledge at a faster pace; - They help with the identification of expertise, and bring one in contact with experts and expertise in the organisation and across the field; - They help others to gain the experience and knowledge that experts have, before these experts leave the organisation; - They enrich my work life by helping me put a better product on the table for my clients.
Respondent 5	- These Communities enables one to communicate with people with similar interests; - They help keep people abreast of new trends and developments; - They assist the AIS to get development work off the ground; - They are used as tools for lobbying and pressure; - They give the necessary support (also emotional support) to their members; - They enable knowledge sharing; - They enable one to feel part of a greater network. One does not feel so isolated. The group functions as a sounding board.

Table 5.11:   Respondent's answers to the question 'what would you say is the purpose/value of the Communities of Practice to which you belong?'

The values in Table 5.11 can be grouped in terms of the value it had for the individual, for the Community and for the organisation:

The values these Communities had for the individual:

- Social value: members met others sharing the same interests or types of work;
- Created a sense of being part of a network or community;
- They gave the necessary emotional support to their members;
- They helped their members stay abreast of new trends and developments;
- They acted as learning spaces where members could be "trained" informally and could learn;
- They were used by information specialists to help people with their information needs;
- They enriched their members' work life and helped them to put a better product on the table.

The responses showed that Communities of Practice do provide value to their individual members. These values can motivate them to participate, even though they get no incentives or rewards for participation.

The values these Communities of Practice had for the Community itself:

- They were used for standardisation, in other words to build common language;
- They helped others to gain the experience and knowledge that experts have, before these experts leave the organisation;
- They provided access to expertise in the organisation and in the field;
- They were used as tools for lobbying and pressure.

These responses showed that Communities are used as a tool for leverage in the organisation and for their members.

The values these Communities of Practice had for the AIS:

- Prevented duplication of work;
- Valuable communication media;
- Valuable knowledge sharing/knowledge transfer media and accelerated knowledge sharing and –transfer;
- They ensured that better products were delivered;

- They helped with problem solving in the AIS;
- They helped to integrate internal knowledge in the organisation;
- They assisted the AIS to get development work of the ground.

These values showed why the AIS embraced the idea of Communities of Practice and implemented it as a knowledge management tool.

5.6.12 WHAT TYPES OF KNOWLEDGE ARE SHARED IN THESE COMMUNITIES OF PRACTICE?

In Section 2.2.4 of this study, four types of knowledge were identified, i.e. tacit, explicit, organisational and cultural knowledge. This question was asked to determine which of these types of knowledge were shared in these Communities of Practice.

RESPONDENT	TYPE OF KNOWLEDGE
Respondent 1	- Anything related to their tasks in general, new developments in their fields of work, problems related to the work, solutions found, new appointments/staff changes, relevant information sources, relevant conferences to be held, etc.
Respondent 2	- Know-how, procedures and documents.
Respondent 3	- I would say that members tend to share explicit knowledge more, e.g. a URL or an interesting document, and tacit knowledge to a lesser extend.
Respondent 4	- Practical things; - Something interesting; - Know-how; - Short-cuts/Shorter Processes.
Respondent 5	- Much of the knowledge that is shared is explicit, but when these groups get together in discussions, the knowledge shared is tacit. Projects are strongly driven by tacit knowledge and insights.

Table 5.12: Respondent's answers to the question 'what types of knowledge are shared in these Communities of Practice?'

The answers received from the respondents in Table 5.12 showed that both tacit (which can include know-how, practical things, short-cuts/shorter processes, and interests), and explicit knowledge (e.g. documents, URLs) were shared in all the Communities of Practice the respondents belonged to, though in some cases, the

sharing of explicit knowledge seemed to be more (see Respondent 3). By looking at some of the remarks made by the respondents, e.g. "anything related to their tasks, new developments in their fields of work, problems related to the work, solutions found, new appointments/staff changes", one can deduce that organisational knowledge was also shared in these Communities of Practice. Though none of the respondents' answers referred to cultural knowledge, it is assumed that cultural knowledge was transferred through values and examples set by individuals in the Community.

5.6.13   WHAT TECHNIQUES AND TOOLS (TECHNOLOGY) ARE UTILISED BY THE COMMUNITIES OF PRACTICE FOR THE CAPTURING, ORGANISATION AND SHARING/TRANSFER OF KNOWLEDGE CREATED IN THEM?

In Section 4.8.1 of this study, role-play/simulations, knowledge mapping and storytelling were mentioned as techniques that can be used to share knowledge. Different enabling technologies can also be used to share knowledge in Communities of Practice. This question was therefore asked to determine which of these techniques were utilised, and also to identify possible other techniques that could be used. The question further tried to determine which technologies were utilised in Communities of Practice.

RESPONDENT	TECHNIQUES	TOOLS
Respondent 1	- By sharing news, new developments, and problems at meetings and via e-mail.	- Most of these groups use listservs; - Some use webpages; - The Virtual Group Function on the InfoPortal are not fully utilized yet, because it is restricted to internal clients of the University of Pretoria only and is not open to people from outside the University.
Respondent 2	- Storytelling is the buzzword, but we do it very seldom. A problem lands on the agenda and the group then solves it.	- Make use of webpage; - Make mostly use of a listserv; - Telephone; - E-mail.
Respondent 3	- No specific techniques are really used; information is just sent through, for example a URL.	- Listservs; - Use the Virtual Groups on the InfoPortal; - Use E-mail; - Telephone.
Respondent 4	- Storytelling: in the group for information specialists in the AIS, we use storytelling a lot; - Training: - informally, where we say this has happened and that is how we solved it. – formally, where we get a knowledgeable information specialist to come and share his/her experience with the rest of the group; - Practical simulations: where we get people to sit in front of a computer to experience a situation firsthand; - Demonstrations; - Lectures/formal feedback; - Formal manuals.	- Listservs; - Use Virtual Groups on the InfoPortal, but it is only restricted to internal groups, not groups that span the border of the University, e.g. the Maritime Archaeology Group. This group can only use e-mail, as it has members from Cape Town; - Use E-mail; - Intranet; - Tele-conferencing
Respondent 5	- Storytelling; - Formal feedback.	- E-Mail; - Telephone; - Virtual Groups on the InfoPortal.

Table 5.13: Respondents' answers to the question 'what techniques and tools (technology) are utilised by the Communities of Practice for the capturing, organisation and sharing/transfer of knowledge created in them?'

Storytelling was mentioned by 3 of the respondents in Table 5.13 as a technique that was used in the Communities for the sharing/capturing of knowledge, although Respondent 2 reiterated that it was not used often in the Community he belonged to. Practical simulations/role-play were mentioned by Respondent 4 as a technique, but none of the respondents mentioned knowledge mapping as a technique. The answers received from Respondents 1 and 3 showed a lack of knowledge and a non-awareness of the knowledge capturing and -sharing techniques.

The techniques added by Respondents 4 and 5, namely demonstrations, lectures/formal feedback and formal manuals, are techniques one would expect more in formal groups, for example teams. In overview of all the answers, it seems knowledge capturing and sharing techniques were only applied by some of the respondents, and that there also was a lack of knowledge on techniques that were available. This could be attributed to the fact that most of these Communities of Practice were only in their beginning stages, where a framework for knowledge capturing and -sharing needed to be worked out (see Section 5.6.2).

The tools mentioned by the majority of the respondents were e-mail (Respondents 2-5), listservs (Respondents 1-4), and the Virtual Groups Function on the InfoPortal of the AIS (Respondents 1, 3, 4, 5). The second most used tool was the telephone (Respondents 2, 3, and 5), although this might be efficient for the sharing of knowledge but not the capturing of it. The third most used tool was webpages (Respondents 1 and 2). Only Respondent 4 mentioned the use of an intranet and tele-conferencing.

All the answers by the respondents showed that the information technology infrastructure was being utilised by these groups in the capturing/sharing of knowledge. Though information technology is not equal to knowledge management, it is essential in supporting knowledge capturing and sharing in Communities of Practice. This essential element has thus been taken care of in these Communities. The fact that the virtual Groups Function of the InfoPortal was not open to people from outside the University of Pretoria seemed not to have stopped some of the cross-organisational Communities of Practice from using it, even though it was not the ideal situation (See Respondent 4).

5.6.14   HOW IS ONGOING PARTICIPATION IN THESE COMMUNITIES OF PRACTICE ENSURED?

In Section 4.5.1 of this study, different techniques to inspire participation in Communities of Practice were mentioned, namely identification/recognition of individual achievement, building of group identity, motivating and rewarding people to participate, and celebrating achievements and successes. The purpose of this question was therefore to determine if some of these techniques were used to ensure participation, and also to determine if there were other techniques that could be used.

RESPONDENT	ANSWER
Respondent 1	- Individual achievement was identified and recognized by inviting suitable experts to join the Knowledge Management Practitioners Group; - Group identity in the Knowledge Management Practitioners Group was built through the setting up of a webpage; - People have been motivated to partake by including this in their performance evaluations; - No techniques have been used in the Information Specialists Group.
Respondent 2	- Use no techniques in the GCATS group as each one is sent by their particular university to participate.
Respondent 3	- Have built group identity by designing virtual workspaces on the InfoPortal for the Virtual Group on Water Research and the Virtual Group on Architecture; - Some of the experts on water research in the different departments at the University of Pretoria have been identified, and their achievements recognized by inviting them to join the Virtual Group on Water Research; - No techniques have been used in the Information Specialists Group.
Respondent 4	- Suitable experts were identified and invited to join the Maritime Archaeology Group and in so doing, their individual achievement was recognized. This inspired others to participate; - Virtual workspaces were developed on the Virtual Groups Function of the InfoPortal for both the Maritime Archaeology Group and the Virtual Group on Water Research.
Respondent 5	- Certain staff members of the AIS who had the necessary expertise were identified and invited to become members of the Digital Repositories Group and the Informal Network of E-Information Experts. This gave them the recognition they deserved and inspired them and others to partake; - Contracting people to take part can also ensure ongoing participation.

Table 5.14:   Respondent's answers to question 'how is ongoing participation in these Communities of Practice ensured?'

The responses received in Table 5.14 showed that only three of the techniques mentioned in Section 4.5.1 have been utilised, namely the identification/recognition of individual achievement, the building of group identity and the technique of motivating and rewarding people to participate. Respondent 5 added a technique not mentioned in literature, namely to contract people to take part. The reason that no techniques were used in the Information Specialists Group and in the GCATS Group could be because their members were compelled to be there by their management or by their organisations, which means they did not need techniques to ensure participation. The technique of motivating people to participate was only mentioned by Respondent 1, and not by the others. The reason for this could be that it has not done throughout the AIS. Another reason could be that although participation was built into some of the members' performance evaluations, no rewards or incentives, e.g. promotions or bonuses, have been linked to it, with the result that staff members were not really motivated to participate (see Section 5.6.16). None of the respondents mentioned the technique of celebrating achievements and successes, and the reason for this could be that it was more possible in communities that already executed and improved its processes, and where the community understood and demonstrated benefits from knowledge sharing and the collective work of the community, in other words Communities that have developed into the commitment or active stages of a Community of Practice. This confirms that most of these Communities of Practice were only in the beginning stages of development (see Section 5.6.10).

5.6.15   HOW LONG WOULD YOU SAY THESE COMMUNITIES OF PRACTICE ARE STILL GOING TO LAST?

Communities of Practice normally have a life cycle (see Section 4.5.2 of this study) through which they develop. This question was asked to determine how long the groups to which the respondents belonged would keep on functioning, and if these groups were in the final stage of the life cycle, where they either had to disengage or adapt.

RESPONDENT	ANSWER
Respondent 1	- The Knowledge Management Practitioners of Pretoria Group will last for a long time, because knowledge management is developing all the time. - The Information Specialists Group should last indefinitely because it is a dynamic field and have been formed around the core business of the AIS.
Respondent 2	- GCATS should last indefinitely, because everything keeps on changing.
Respondent 3	- I don't think these Communities will grow further, because of shortcomings experienced in the InfoPortal. This includes the Virtual Group on Water and the Virtual Group on Architecture. These groups should be closed down and new groups should be started from scratch.
Respondent 4	- I feel that the Virtual Group on Architecture in which the Service Unit Humanities of the AIS also takes part will continue, even though it is sometimes inactive and other times active. - The Group for Information Specialists in the AIS should continue indefinitely because it is driven by the necessity to address the immediate information needs of clients.
Respondent 5	- These groups (Digital Repositories Group) and the Informal Network for E-Information Experts) will last as long as the projects lasts or the need for such groups exist.

Table 5.15: **Respondent's answers to question 'how long would you say these Communities of Practice are still going to last?'**

The responses given in Table 5.15 showed that a Community of Practice's life span is determined by the reason for its existence. When the reason for their existence no longer exists, they disengage or transform to address another issue (in other words their reason for existence change). From Table 5.15, it seems that Communities of Practice that are built around dynamic topics/fields and around the core business of the organisation, tend to last longer or even indefinitely. Communities that form around a project only last as long as the project lasts. Table 5.15 also shows that Communities of Practice rely on information technology to support their processes (See Respondent 3), and if the technology fails them, it can inhibit their development or even lead to the premature death of the Community. The researcher is of the opinion that Communities that find themselves in this position should not let them be limited by one specific technology, but must examine and adopt other technologies that can support them. These Communities can even use different types of technologies at the same time.

An interesting discovery during the focus group interview was that the Virtual Group on Architecture had disengaged in the time span between the individual interviews and the focus group interview. The reason given was that the group had outlived its purpose/reason for existence, and not only because of the failure of the technology as stated by Respondent 3 in Table 5.15. Communities of Practice can therefore die out

because of a combination of reasons, e.g. shortcomings of supporting technology, reason for existence that is no longer valid, completion of the project around which it was formed, the field or topic around which it was built that is no longer dynamic, or the core business of the organisation that has changed.

5.6.16 ARE YOU REWARDED FOR BELONGING TO COMMUNITIES OF PRACTICE? IF YES, HOW?

People are inspired to participate in Communities of Practice by a variety of things (see Section 4.5.1 of this study). Incentives in the form of financial compensation, recognition etc. can be strong motivators to participate in Communities of Practice. Thus, by including participation in performance evaluation and linking it to incentives, e.g. a financial bonus or promotion, Communities of Practice can be afforded a more important role in an organisation like the AIS. Staff members will also be motivated to give more attention to the development and nurturing of these Communities in the organisation. The purpose with this question was therefore to establish whether members of these Communities were rewarded with any type of incentives, and if participation was included in their performance evaluation.

RESPONDENT	ANSWER
Respondent 1	- No, I receive no reward for belonging to Communities of Practice, but it is included in my performance evaluation.
Respondent 2	- No, I receive no reward for belonging to Communities of Practice, but it is included in my performance evaluation.
Respondent 3	- No, I receive no incentives for belonging to Communities of Practice, and it is not included in my performance evaluation, but it would be good if it was included in it, because it will motivate us to spend more time and energy on these Communities. At the moment it is just a nice thing to do on the side.
Respondent 4	- No, I receive no reward for participating in Communities of Practice. Participation is also not included in my performance evaluation. It depends on how you set up your performance contract every year. If this is one of my aims, then I can measure it at the end of the year to see if I have attained that aim. This is just for intrinsic motivation; not for financial gain.
Respondent 5	- No formal incentives are given for participation in these groups. Belonging to these groups does however provide opportunities, e.g. a sponsored trip overseas to do research for one of the groups, and opportunities to go to conferences. Participation in these groups is not formally included in performance evaluation.

Table 5.16: Respondent's answers to question 'are you rewarded for belonging to Communities of Practice, and, if yes, how?'

From Table 5.16 it is clear that no incentives were given to any of the respondents for participation in Communities of Practice, although participation could present opportunities like an overseas trip, as mentioned by one of the respondents. In two of the respondent's cases, participation was included in their performance evaluations, but this was still not linked to any type of reward, e.g. a bonus or a promotion. Two of the other respondents felt that it should be included in their performance evaluation, because it would then motivate them to participate more in Communities of Practice.

The deduction that can be made from Table 5.16 is that staff members of the AIS are not really motivated or inspired to participate in Communities of Practice, as they do not receive any kind of reward or incentive to participate in these Communities. This could also be a reason why many of these Communities had not really developed beyond the first stages of the life cycle of a Community of Practice. Staff members that were participating in Communities of Practice were most probably motivated to partake

because of the value they got from it, e.g. learning from others in the Community on how to solve problems in their work situation (faster problem solving), the acquisition of know-how, peer-recognition, etc. These motivators are however not enough to ensure that these Communities grow dynamically. The AIS will therefore have to address this issue by including participation in Communities of Practice in all of its members' performance evaluations, and by rewarding their participation with financial incentives, e.g. bonuses, promotions, etc.

5.6.17   DOES TOP MANAGEMENT SUPPORT COMMUNITIES OF PRACTICE?

One of the critical success factors of a Community of Practice as mentioned in Section 4.7.1, which were identified as a management challenge, is to ensure that people have the time and is encouraged to participate. In other words, by getting top management involved, people will be allowed to participate in Communities of Practice as part of their work. The purpose of this question was to determine how important Communities of Practice were to the top management, for this would determine how successful they were in the AIS.

RESPONDENT	ANSWER
Respondent 1	- I think it is very important to the top management of the university and the AIS.
Respondent 2	- I think it is very important to them.
Respondent 3	- I don't think it is important to the top management of the AIS.
Respondent 4	- I get the idea that it is important to the top management of the AIS.
Respondent 5	- Though Communities of Practice play a strong invisible role in the AIS, I don't think it is important to the top management of the AIS or the University, mostly because of a lack of knowledge about the role and importance of Communities of Practice.

Table 5.17:   Respondent's answers to question 'are Communities of Practice supported by Top Management?'

In Table 5.17, Respondents 3 and 5 felt that Communities of Practice were not really important to the top management of the AIS, while the majority of respondents (Respondents 1, 2 and 4) felt that it was important to them. The reason for this difference of opinion could be that the top management of the AIS did not articulate

their support of Communities of Practice clear enough. The fact that participation in Communities of Practice was only included in some of the staff members' performance evaluations (see Section 5.6.16), seems to show that top management's support was not felt throughout the organisation. Hence the perception by some of the staff that top management did not think Communities of Practice were important. In order to change this perception, the top management of the AIS will have to make sure that they articulate the importance of Communities of Practice more clearly throughout the organisation, and see to it that staff members' participation are rewarded in the form of financial incentives.

Another reason why some of the respondents had a perception that Communities of Practice were not important to top management, could have resulted from the retirement of two of the top management members of the AIS who were very supportive of Communities of Practice, resulting in Communities of Practice not receiving the same amount of attention than in the past.

5.6.18 HOW DO YOU AS INFORMATION/KNOWLEDGE PROFESSIONAL WIN THE TRUST OF THE OTHER MEMBERS OF COMMUNITIES OF PRACTICE?

Trust is a very important element in a Community of Practice, as people are more willing to share knowledge with those they trust (see Section 4.8.2.1). Very often members of cross-organisational Communities of Practice can be more knowledgeable about the domain of knowledge of the Community of Practice than the information/knowledge professional. The information/knowledge professional then have to win the trust of these members by showing them that he/she can contribute valuable expertise to the Community. This question was therefore aimed at determining how information/knowledge professionals could win the trust of the other members of Communities of Practice.

RESPONDENT	ANSWER
Respondent 1	- It takes time to win the trust of other members; they need to know you well and need to know that they can rely on you, and that you know what the Community is about.
Respondent 2	- You cannot win trust. Trust is something that has to be present in a group otherwise the group can be terminated.
Respondent 3	- I think that it is important that you already have a trusting relationship with the people before you start such a group.
Respondent 4	- The expectations of the other members of the group are that you will also apply your particular expertise in the group. Your expertise is that you will identify resources and that you will give information through. By doing this, you win their trust. Another way to win their trust is to send them relevant information on a regular basis in advance and in a timely manner.
Respondent 5	- The way to do this is to show that you are the expert in your area of work, and that you are there to support them in their areas of work. This means that you cannot be prescriptive.

Table 5.18: **Respondent's answers to question 'how do you as information/knowledge professional win the trust of the other members of Communities of Practice?'**

Only two of the respondents (Respondents 4 and 5) in Table 5.18 really answered the question. Their answers showed that an information professional could win the trust of other members of a Community by showing that he/she is an expert in his/her work by providing them with the necessary information resources, as well as relevant and timely information in their areas of work. Respondents 1-3's answers can indicate three things: they either did not fully understand the question, or maybe did not really know much about trust, or alternatively did not know how information professionals can win the trust of other members. The researcher is of the opinion that trust is something that is earned, meaning that if these respondents do not know how to earn the trust of the other members in a Community Practice, their participation will have no effect on the Community at all. They might even find that they are excluded from its activities. Moreover, if they were the persons who started these Communities, they might have difficulty in convincing other members to join. If this is the case, the AIS will have to focus on improving the self-marketing skills of its information professionals.

5.6.19   WHAT DO YOU DO WHEN A NEWCOMER JOINS THE COMMUNITY OF PRACTICE?

In Section 4.3.2 of this study, the researcher indicated that Communities of Practice could be a place where newcomers learn from old-timers by being allowed to take part in certain jobs relating to the practice of the community. This question was therefore asked to determine how newcomers were accommodated in the Communities under discussion and whether they were able to move from peripheral participation (see Section 4.3.2) to full participation in these Communities.

RESPONDENT	ANSWER
Respondent 1	- A newcomer is welcomed and introduced at a face-to-face meeting, or on the listserv. The person is also encouraged to introduce him-/herself and to say what his/her fields of interest are.
Respondent 2	- Newcomers are handled differently in the different groups, for example in GCATS people just fall in. There are no formal procedures to ensure that they come on the same level as others.
Respondent 3	- When a newcomer joins he/she is welcomed and introduced to the group. Then it is important to explain to him/her how things work, and if necessary give him/her training.
Respondent 4	- We have not done much formally for such people. A newcomer has to catch up as things go along.
Respondent 5	- I think this is an area where most of these groups lack. These groups tend to be very closed and this makes it difficult for a newcomer to join. People are not excluded on a personal basis, but because of a lack of expertise.

Table 5.19:   Respondent's answers to question 'what do you do when a newcomer joins the Community of Practice?'

From the responses received in Table 5.19, it seems that not much was being done at that stage to help newcomers move from peripheral participation to full participation. Though newcomers were welcomed in most of these Communities, they were left very much on their own.

One of the characteristics of a Community of Practice is that newcomers learn from members that have been active in the Community for some time. The fact that this was lacking in the Communities the respondents belonged to, could contribute to the

majority of the Communities of Practice in the AIS not developing further than the beginning stages of the life cycle of a Community of Practice.

5.6.20   WHAT DO YOU REGARD AS CRITICAL/IMPORTANT FACTORS FOR THE SUCCESS OF THE COMMUNITIES OF PRACTICE TO WHICH YOU BELONG?

In Section 4.7 of this study, factors critical to the success of Communities of Practice were listed and discussed. By asking this question, the researcher thus aimed to determine if these factors were really so important and if there were other factors that were not mentioned in the discussion.

RESPONDENT	ANSWER
Respondent 1	- The discussions in the Communities should be on cutting edge issues, e.g. the Knowledge Management Practitioners of the Pretoria Group, that discusses issues on knowledge management; - There should be forums where people with similar interests can meet and exchange ideas; - Getting experts involved; - Setting time apart for information specialists to get involved because it can take up a lot of their time.
Respondent 2	- They should be forums where ideas can be exchanged.
Respondent 3	- Technical infrastructure is very critical. The reason that the groups I belong to are not working is because the infrastructure of the InfoPortal has not been sorted out; - Time must be managed thoroughly. Questions must be sent through at a specific time, otherwise people will not react on it.
Respondent 4	- Getting experts in the field involved in the Community; - By discussing interesting things, e.g. an interesting article, that touches on aspects of the members' work.
Respondent 5	- Maintaining personal contact among Community members so that people don't feel isolated; - That the group functions as a sounding board (forum) and gives support and confirmation for what you want to do; - It is the passion that keeps these Communities together.

Table 5.20:   Respondent's answers to the question 'what do you regard as critical/important factors for the success of the Communities of Practice to which you belong?'

The answers given in Table 5.20 showed that most of the factors listed in Section 4.7 were also mentioned by the respondents as being critical for the success of the Communities they belonged to. Factors that were not mentioned included: the focus on knowledge important to the business; finding a well-respected community member to coordinate the community; building on the core values of the organisation; and developing an active, passionate core group. Respondent 5 added passion as a critical factor that keeps the Community together.

The respondents' answers thus showed that they had an understanding of the factors that would make their Communities a success. This could be of great help in the nurturing of these Communities so that they can develop to their full potential.

5.6.21   WHAT WILL YOU DO IF THESE COMMUNITIES OF PRACTICE ARE NO LONGER VIABLE?

In the fifth stage of the life cycle of a Community of Practice, two scenarios are painted, namely disengagement (see Table 4.5) or adaptation (see Table 4.6). With this question, the researcher aimed to determine what library staff/information professionals would do if these Communities were in the fifth stage.

RESPONDENT	ANSWER
Respondent 1	- If it is no longer serving a purpose one just ends it.
Respondent 2	- Then you end it. If you cannot end it, you transform it.
Respondent 3	- One should act radically and end it, and start these groups afresh by finding out if there really is a need for such a group. The group is then started afresh on the condition that everyone understands how the technology used (e.g. InfoPortal) works, and with the undertaking that everyone will partake.
Respondent 4	- One should let them die out naturally. Many of these groups just fade out, and there are no formal terminations of them. There are a few of these groups that just plod along. In that case, the members of the group should decide if the group should maybe operate in a different way. Sometimes it happens that the people who started the group originally are no longer interested in the group and start a new group. The old group then dies out naturally.
Respondent 5	- These groups will naturally fade away or will go into a hibernation period.

Table 5.21:   Respondent's answers to question 'what will you do if these Communities of Practice are no longer viable?'

From the responses in Table 5.21, it seems that Communities of Practice normally die out naturally if they become obsolete. In other words, when the members realize it serves no purpose anymore, they disband/end it. This confirms the scenario of disengagement as stated in Section 4.5 of this study. Another action suggested by the respondents was that of transformation. If the Community has outlived its purpose, its members can transform the Community to operate in a different way so that it can again serve a purpose. This confirms the scenario of adaptation as stated in Section 4.6 of this study. A third possibility was also mentioned by Respondent 5, namely that the Community can go into a period of hibernation and be revived again when needed. The respondents were very vague however on how these disengagement or adaptation scenarios can be played out. This could indicate that none of them has experienced the disengagement or transformation of a Community of Practice.

5.6.22   DO YOU ENVISAGE NEW COMMUNITIES OF PRACTICE THAT ARE IN THE PROCESS OF EMERGING?

This question was asked to help identify possible new Communities of Practice that should be developed and nurtured.

RESPONDENT	ANSWER
Respondent 1	- I am busy organising a conference for all the Veterinary librarians of the world. Something could develop out of that, especially for the Veterinary librarians of Africa.
Respondent 2	- No.
Respondent 3	- I have noticed that the concept have been taken up by the rest of the university, and many people are busy with such groups, but the AIS is lagging behind and are not even aware of these groups. The AIS will have to become aware of these groups, especially the information specialists through their relationships with their academic departments.
Respondent 4	- Yes, I think around the new focus areas of the AIS new groups will emerge.
Respondent 5	- There could develop a Community of Practice around the Lean and Mean Focus.

Table 5.22:   Respondent's answers to question 'do you envisage new Communities of Practice that are in the process of emerging?'

The list of possible Communities of Practice as given by the respondents was very limited. This could indicate an inability among information professionals in the AIS to identify potential Communities of Practice. Information professionals will therefore have to be sensitised to the characteristics of Communities of Practice, and on how to recognise the signs of Communities that are in the process of developing.

5.7   SUMMARY

At the start of this chapter, a short overview was given of the research methodology followed in this study. The research method to acquire the findings in the case study was shown to be empirical (based on individual interviews, and a focus group interview) and qualitative (evaluating the performance of Communities of Practice in their natural settings).

The above was followed by an overview of the questions asked in the interviews. Next followed an overview of the AIS and the five respondents that were interviewed. The empirical study then followed, which showed that the respondents viewed knowledge management from an integrative perspective, and that knowledge management was only in the beginning stages of development in the AIS. It seems that the AIS had focused more on the management of explicit knowledge in the past than on tacit knowledge. A suggestion was then made that a framework for its deployment and development in the organisation be worked out.

The respondents described the AIS as a learning organisation in answer to the following question, and this was followed by a list of all the Communities of Practice the respondents belonged to. The fact that staff members belonged to more cross-organisational Communities of Practice was shown to be a possible indication of their involvement in professional activities outside the organisational boundaries of the AIS. The absence of top management in the organisation, and the fact that knowledge management was only in its beginning stages in the organisation, were given as possible reasons for the small number of internal Communities in the AIS. The origin of these groups further confirmed that they could be classified as Communities of Practice.

Next, the researcher asked the respondents to give an idea of the number of members that belonged to these Communities of Practice. Their answers showed that the average

size of their Communities was between 15-20 members, which is an ideal size for a Community of Practice, because it is not too large. After this, the researcher determined who led these Communities of Practice and found that information specialists took the lead in three of the Communities. It was also discovered that the Information Specialists Group, the Digital Repository Group and the Informal Network for E-Information Experts were led by management, which could be a contributing factor for most of these Communities not developing beyond the first stages of the life cycle of a Community of Practice. One would expect that the number of years a Community of Practice exists could be an indication of its stage of development, but is was shown that some Communities of Practice can develop into an active Community very quickly, and that others take time to develop into their full active capabilities, depending on a variety of factors.

The results of the next question showed that four of the Communities that the respondents belonged to met face-to-face in a regular manner and that three of the groups only met virtually. It was indicated that these virtual groups might have experienced problems to create a sense of community for their members. Next, the researcher asked the respondents to indicate in which stage of the life cycle of a Community of Practice each of these Communities found themselves. The responses showed that most of the Communities found themselves in the potential or formation stage of development - some of them being in these stages for a number of years, which could indicate that there were factors that hindered development of these Communities.

The next question focused on the values that the Communities of Practice had for the individual, the Community and the AIS. The values were shown to be the motivation behind individuals' participation in Communities of Practice, while it also showed that Communities could be used as tools for leverage in the organisation. It furthermore showed why the AIS embraced the idea of Communities of Practice as knowledge management tools.

Following the above, the researcher asked the respondents to identify the types of knowledge that were shared in the Communities of Practice they were involved in. Their answers indicated that tacit, explicit and organisational knowledge were shared. Though cultural knowledge was not mentioned, it was assumed that cultural knowledge was

transferred though values and examples set by individuals in the organisation. The next question focused on the techniques and tools (technology) that were utilised by the Communities of Practice for the capturing, organisation and sharing/transfer of knowledge created in them. The results showed that storytelling and role-play/simulations were used by some, but knowledge mapping by no-one. The answers received further showed that knowledge capturing and sharing techniques were only applied by some of the respondents, and that there was a lack of knowledge on techniques that were available. It was attributed to the fact that most of these Communities of Practice were only in their beginning stages, where a framework for knowledge capturing and sharing needed to be worked out. It was also shown that various types of information technology infrastructure were being utilised by these groups for the capturing and sharing of knowledge.

Next, the respondents indicated that the Communities used identification/recognition of individual achievement, the building of group identity and motivation of people to participate as techniques to ensure participation of their members. None of the respondents mentioned the technique of celebrating achievements and successes, and the researcher indicated that it could be another reason why many of the Communities were only in the beginning stages of development. The following question tried to determine how long these Communities would last. The deductions were that Communities of Practice that are built around dynamic topics/fields, and around the core business of the organisation, tend to last longer or even indefinitely, and that Communities that form around a project only lasts as long as the project. Shortcomings in information technology were shown to be an inhibitor of development. This was followed by a question on whether staff members received incentives/rewards for participation in Communities of Practice. The answers showed that they received none; the lack of which might demotivate members to participate in Communities of Practice in future. The researcher felt that this could be a factor why many of the Communities did not develop further than the first stages of development of a Community of Practice.

In the next question, the researcher tried to determine if Communities of Practice were supported by top management. The responses received showed a difference of opinion amongst the respondents. The researcher felt that this could be an indication that management were not articulating their support of Communities of Practice clear enough throughout the AIS.

The next question addressed the issue of how an information/knowledge professional could win the trust of the other members of a cross-organisational Community of Practice. Their responses showed that the majority of the respondents did not really understand the question, did not really know much about trust or alternatively did not know how information professionals can win the trust of other members. This showed a lack of self-marketing skills. The issue of how to handle newcomers in Communities of Practice were dealt with next and it was found that not much was done for newcomers.

A question on the factors critical for the success of these Communities of Practice then followed, with answers indicating that the respondents had an understanding of what the factors were that would make their Communities a success. The next question tried to determine what the respondents would do if these Communities were no longer viable. Answers received included the disengagement or transformation of Communities, as well as the possibility of Communities going into hibernation. Lastly, the researcher tried to establish if the respondents knew of possible new Communities of Practice that were in the process of emerging. The limited list of possible Communities that were provided indicated a possible inability among information professionals to identify potential Communities of Practice.

Having completed the empirical study, the researcher could compare the findings in the empirical and literature study with each other and indicate correlations as well as differences between the two studies in the next chapter. The next chapter also includes recommendations, limitations of the study, and concluding remarks.