Knowledge Management

Module Outline

This course will develop your knowledge and understanding of contemporary theories and practices of knowledge management (KM) by examining the relationship between a theoretical understanding of knowledge management and real-life situations and by integrating different dimensions of knowledge management arising from human resource management, information systems and strategic management. The course will explain the concept of 'intellectual capital' and how it is managed and exploited in organisations. The course will demonstrate a critical understanding of knowledge management policies and strategies in organisations that enhance effectiveness. You will be able to apply a range of transferable skills including literature search, analytical skills, application of theory to real-life situations, teamwork, motivation and interpersonal skills.

Module Aims

The main aims of this module are to:

- Explore the diverse range of definitions and perspectives of knowledge management
- Explore philosophers in western philosophy and see what contribution they have on the nature of knowledge
- Explore the different conceptualisations of organizational learning
- Describe different component technologies found in knowledge management
- Explain how knowledge management systems can assist in a variety of organizational problems
- Understand different ways of thinking about strategy
- Understand the nature of organizational culture
- Understand effective ways of implementing knowledge management initiatives
- Explain the characteristics of dominant models of the learning organization
- Explain the emergence of the notion of intellectual capital from a historic perspective
- Contrast differing frameworks and conceptions of intellectual capital
Module Objectives
At the end of this module you should be able to:

- Explain the diversity of disciplines and content that constitute the field of knowledge management
- Describe the underlying philosophical traditions in western philosophy and their debates on the notion of knowledge
- Explain common theories on how we learn as individuals
- Distinguish between different tools for evaluating knowledge
- Explain the nature of systems thinking
- Explain different schools of thought in strategic management
- Explain the nature of organizational culture
- Explain the nature of organizational change and the role of leadership in change processes
- Explain the differences between organizational learning and the learning organization
- Describe the development of the concept of intellectual capital from a historic perspective
Module Contents

Chapter 1: Introduction to Knowledge Management
1.1 What is Knowledge Management
1.2 Different perspectives on knowledge management
1.3 What is the difference between data, information and knowledge?
1.4 Managing knowledge from ancient times to today

Chapter 2: Philosophical Perspectives on Knowledge
2.1 What is knowledge?
2.2 Burrell and Morgan’s framework on philosophical paradigms
2.3 Competing philosophical positions in knowledge management
2.4 Contemporary notions of ‘knowledge’ in knowledge management

Chapter 3: Organizational Learning
3.1 How do we learn as individuals?
3.2 How do teams learn?
3.3 How do organizations learn?
3.4 The role of politics in organizational learning

Chapter 4: Knowledge Management Tools
4.1 Tools for organising knowledge
4.2 Tools for capturing knowledge
4.3 Tools for evaluating knowledge
4.4 Tools for sharing knowledge
4.5 Tools for storing and presenting knowledge

Chapter 5: Knowledge Management Systems
5.1 Systems Thinking
5.2 Drivers of Knowledge Management Systems
5.3 Knowledge Management Systems

Chapter 6: Strategic Management Perspectives
6.1 Strategic management: schools of thought
6.2 Resource-based and knowledge-based view of the firm
6.3 Information systems and knowledge management strategy

Chapter 7: Knowledge Management and Culture
7.1 The nature of organizational culture
7.2 The role of culture in knowledge conversion and creation processes
7.3 Communities of practice and the role of storytelling
Chapter 8: Change Management
8.1 Leadership and change
8.2 Change management strategies
8.3 Human Resource Interventions in change management

Chapter 9: Knowledge Management and the Learning Organization
9.1 Organizational learning and the learning organization
9.2 Dominant models of the learning organization
9.3 Power, politics and the learning organization

Chapter 10: Intellectual Capital
10.1 Emergence of intellectual capital from a historic perspective
10.2 Commonality among intellectual capital frameworks
10.3 Intellectual capital as a narrative
Chapter 1: Introduction to Knowledge Management

Introduction

Overview

In this chapter we explore the nature of knowledge management and why it is important to organizations. We discover there are a variety of definitions of knowledge management and we try to pull together threads linking them together. We provide a fresh conceptualisation of knowledge management that integrates the different perspectives and related dimensions.

In the following section, we distinguish between notions of data, information and knowledge. This is important to allow us to differentiate between data management, information management and knowledge management. We continue the chapter by looking at the management of knowledge across history. Knowledge is not something new and has been with humankind from the beginning. As part of our journey across the ages, we explore how knowledge has been managed from the oral tradition to the digital age. We give particular attention to paradigm shifts in gathering and storing knowledge across different times.

Aims

The three main aims of this module are to:

- Explore the diverse range of definitions and perspectives of knowledge management
- Examine the differences between the terms data, information and knowledge
- Describe how knowledge has been managed across history to our modern digital age

Learning Outcomes

Once you have completed this chapter, you should be able to:

- Explain the diversity of disciplines and content that constitute the field of knowledge management
- Distinguish between different perspectives in the knowledge management literature
- Describe the differences between the terms data, information and knowledge
- Assess the differences in the management of knowledge from ancient to modern times
Contents

Introduction 1
Overview 1
Aims 1
Learning Outcomes 1

Contents 2

Resources 3
Essential readings 3
Readings for further study 3

1.1 What is Knowledge Management 4
Learning Objectives 4
The nature of knowledge management 4
Activity 1.1.1 6

1.2 Different perspectives on knowledge management 7
Learning Objective 7
Definitions of knowledge management 7
Activity 1.2.1 9
Online discussion 1.2.1 10

1.3 What is the difference between data, information and knowledge? 11
Learning Objective 11
Data, knowledge and information 11
Question 1.3.1 12

1.4 Managing knowledge from ancient times to today 13
Learning Objective 13
Online discussion 1.4.1 13
Oral tradition to cuneiform 13
Question 1.4.1 15

Summary 16

Feedback on Activities 17
Chapter 1: Introduction to Knowledge Management

Resources

Essential readings

  This reading is relevant to all the sections in this chapter. It examines each section in more depth. The chapter provides a case study followed by three questions which is helpful to practice your skills at applying theoretical ideas to real-life practical examples. There are also 'Questions for further thought' designed to help you think 'outside the box' using material from your experience and wider reading. Please see pages 307-311 for a glossary of key terms and concepts.

Readings for further study

These readings and references are provided to enhance your knowledge and provide extra information in areas that are of particular interest to you. These are not essential to the course and are not directly examinable.

  This is a good all-round book on knowledge management, predominantly from a human resource perspective and contains some good case study material.

  This book helped popularize the field of knowledge management and comes from a consultancy and practitioner background.

  This book provides an excellent historic background on the development of libraries and the management of knowledge across the ages.

  This is a good journal paper providing an overview on knowledge management.
1.1 What is Knowledge Management

Why all the fuss? And what is this entity called knowledge management and where does it come from? The story begins in the mid-1990's when practitioners and scholars recognised that capital and labour based industries were continuing to decline whereas knowledge based industries were growing and highly profitable. One of the key driving forces behind this situation had been the rapid rise of information technologies at this time. Technology created opportunities for generating and disseminating new forms of knowledge across organizations. Knowledge had become the most important source of competitive advantage and given rise to the emerging discourse of knowledge management. In the UK, central government acknowledged the fundamental economic role that knowledge played in promoting innovation, creativity and the exchange of ideas. Organizations couldn't continue in their old ways and had to look at how best to manage this valuable resource called knowledge.

The problem for many practitioners and consultants was the wide range of offerings on knowledge management coming from different directions. Which approach or discipline should they adopt? This section will describe the range of disciplines that make up our current understanding of knowledge management.

Learning Objectives

Once you have completed this section, you should be able to

☐ Explain the diversity of disciplines and content that constitute the field of knowledge management

The nature of knowledge management

When I first started exploring this emerging discipline of knowledge management, it was difficult to make sense of it. The reason I grappled with it was that some books and journals (particularly from continental Europe) were heavily information systems oriented making the new discipline little more than information management. However, other scholars and consultants saw knowledge management as little more than an offshoot of human resource management arguing that true knowledge was held within people and, hence, it was people we needed to understand; not technology.

The more I read about these two perspectives, there seemed to be very little cross-over between them. It was almost as if each spoke a different language that the other didn't understand. Instead, I began my journey of enquiry by looking at the different disciplines that form the roots of this new discourse, the different aspects that form the major contents of knowledge management together with the everyday actions that constitute knowledge management activities in organizations. I have tried to summarize my findings as a diagram of the tree of knowledge management as shown in Figure 1.1.1 below. I hope this map gives you a sense of the diverse landscape of knowledge management and its literature.
Pause for thought: Which aspect of knowledge management are you good at? Human resource or information systems aspects? How would you go about managing knowledge in any organization recognising your own bias?

There are some exciting aspects that constitute the nature of knowledge management. We will explore them in more detail in future chapters but I wanted to highlight the backgrounds of some scholars and consultants. This will be useful when you meet them for the first time or read their work. Think about where they are coming from. Some may come from:

- Organizational learning or learning organization backgrounds. They will be interested in how we learn or fail to learn in organizations.
- Information systems backgrounds. No matter what you say, some form of technology or system will fix it!
- Strategy backgrounds. Their preoccupation is how knowledge management will achieve organizational goals and how to implement their strategies to bring this about.
- Finance backgrounds. They will either be focused on the bottom line with your knowledge management interventions or be over the top and highly enthusiastic about 'intellectual capital'. We'll cover this later.

Before you proceed to the next section, please attempt the following activity. This will help you to consolidate your learning.
Please remember, though, to undertake the reading for this topic first, and if you still have any problems or issues you would like to discuss, to go online and consult your tutor. You may also wish to compare your thoughts with those of your fellow students online.

Activity 1.1.1

Please prepare some short notes or an essay outline in the form of bullet points on the following topic:

- Discuss critically your approach to managing knowledge in an organization.

You will find a lot of the arguments in the reading material indicated.
1.2 Different perspectives on knowledge management

In the previous section, we began to look at the broad discipline roots and the nature of knowledge management found in organizations. We will build on this foundation to explore different definitions of knowledge management and their associated perspectives. We will adopt an interdisciplinary perspective and explore its implications for the dimensions of knowledge management. Finally, we explore arguments and counter-arguments that knowledge management is no more than a fad.

**Learning Objective**

Once you have completed this section, you should be able to

☐ Distinguish between different perspectives in the knowledge management literature

**Definitions of knowledge management**

Have a look at the diversity of definitions of knowledge management provided in the Table below.

**Table 1.2.1 Representative sample of knowledge management definitions**

<table>
<thead>
<tr>
<th>Author/s</th>
<th>Definition</th>
<th>Perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Davenport and Prusak (1998)</td>
<td>“Knowledge Management draws from existing resources that your organization may already have in place-good information systems management, organizational change management, and human resources management practices.”</td>
<td>Integration (IS and human resources)</td>
</tr>
<tr>
<td>Swan et al. (1999)</td>
<td>“…any process or practice of creating, acquiring, capturing, sharing and using knowledge, wherever it resides, to enhance learning and performance in organizations.”</td>
<td>Human resource process</td>
</tr>
<tr>
<td>Skyrme (1999)</td>
<td>“the explicit and systematic management of vital knowledge and its associated processes of creating, gathering, organizing, diffusion, use and exploitation, in pursuit of organizational objectives.”</td>
<td>Human resource process</td>
</tr>
<tr>
<td>Source</td>
<td>Definition</td>
<td>Perspective</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Mertins et al. (2000)</td>
<td>“...all methods, instruments and tools that in a holistic approach contribute to the promotion of core knowledge processes.”</td>
<td>Information systems</td>
</tr>
<tr>
<td>uit Beijerse (2000)</td>
<td>“the achievement of the organization’s goals by making the factor knowledge productive.”</td>
<td>Strategy</td>
</tr>
<tr>
<td>Newell et al. (2002)</td>
<td>“...improving the ways in which firms facing highly turbulent environments can mobilize their knowledge base (or leverage their knowledge ‘assets’) in order to ensure continuous innovation.”</td>
<td>Strategy</td>
</tr>
</tbody>
</table>

As you read the definitions, you will see that the emphasis of the definitions is either from a human resource perspective, an information systems perspective or a strategy one. The argument put forward by me is that neither of the perspectives on their own is likely to help firms achieve competitive advantage. Instead, an integration of these perspectives that relies on synergies (2+2=5 or the whole is greater than the sum of its parts) is more likely to achieve success.

From an interdisciplinary perspective, knowledge management can be defined as:

> “the effective learning processes associated with exploration, exploitation and sharing of human knowledge (tacit and explicit) that uses appropriate technology and cultural environments to enhance an organization’s intellectual capital and performance.”


To reinforce our earlier message shown in Figure 1.1.1, the dimensions of knowledge management that become important for any organization are shown in Figure 1.2.1 below.
Is knowledge management a fad?
Knowledge management has had its fair share of critics from academia and industry. The fiercest critics say that knowledge management is no more than a fad that will soon pass away and wither. It is likened to other fads such as quality circles and business process reengineering.

However, if one looks at empirical evidence, one finds that this couldn't be further from the truth. Bibliometric studies show that knowledge management has had exponential growth in the number of articles published and this trend shows no signs of abating. Numerous academic journals have emerged since 2000 purely focused on knowledge management and intellectual capital. Rather like this course, knowledge management courses have spread to most business schools around the world. Also, knowledge management has now become accepted as part of the corporate agenda. Specialist roles have emerged such as Chief Knowledge Officer and Knowledge Manager. There are numerous examples in the private, public and voluntary sectors engaged in knowledge management interventions.

Before you continue, please attempt the following activity. Remember to seek online assistance if you have any difficulties or concerns.

Activity 1.2.1
To help develop your ideas on knowledge management, write some brief notes on the following question:

☐ Please outline your approach to a knowledge management consultancy assignment

Feedback: See page 17
Online discussion 1.2.1

Please go to the online discussion and answer the following question:

Do you think information systems can provide the solution to most organizational problems?

Please respond to the question and then check back in a couple of days to respond to at least two other posts.

Feedback: See page 17
1.3 What is the difference between data, information and knowledge?

In the 1960s, the information systems world was captivated by ‘data processing’. This later moved to management information systems with an emphasis on information management. Now, managers and executives in organizations are preoccupied with knowledge management and want to know the difference between data management, information management and the elusive knowledge management. This section will try to tease out the distinctions between data, information and knowledge to allow these concepts to be made more meaningful. It will not get into the philosophical realms of the nature of knowledge. You will have to wait for the next chapter for these exciting instalments.

Learning Objective

Once you have completed this section, you should be able to

- Describe the differences between the terms data, information and knowledge

Data, knowledge and information

One way to conceptualise data, information and knowledge is to think of three entities in a hierarchy with knowledge at the top and data at the bottom.

What is data?

But what is data? For example, isn’t it interesting when three people see an accident but come up with three totally different accounts of the same accident. Their observations or data are almost identical but we have three different accounts. Some scholars describe this data as value laden as each individual almost unconsciously adds their own values to the data they see.

In most contexts, we are bombarded with data whether it’s at a party or watching television. However, we have a great capacity to screen this raw material or background noise such as adverts or other people and concentrate on the data of the person speaking to us or watching a film. If we fail to do this screening, we can suffer from data overload.

What is information?

So if data is some sort of raw material, what is information? Some people think it is some form of organised data. An example of organized data would be the Dewey Decimal Classification system used by libraries. Here all of knowledge is divided and sub-divided into groups ranging from 0 to 999. I wonder what the number is for knowledge management? If you have a spare moment, why don’t you try your library catalogue on the internet? Others think that it is data that is endowed with meaning, relevance and purpose. For example, a consultancy report may appear as noise to one person but valuable information to another where some form of meaning is applied to it.
What is knowledge?

Then, what do we make of knowledge? A practical way of looking at it (without getting into deep philosophical realms) is that it is ‘actionable information’. This means it is information that allows us to take a certain action at any given moment in time. But we want the right action rather than the wrong type of action. Hence, we could look at knowledge as information provided to us at the right time, the right place and in the appropriate format to allow us to make effective action. For example, knowledge of this type may include the performance record of contractors when you are trying to select the most appropriate one in a very limited timescale. This type of knowledge would be very valuable.

The current popular conceptualisation of knowledge is to view it as a continuum between explicit knowledge and tacit knowledge. On a personal level, explicit knowledge could be seen as synonymous with information. It is what we have written down or verbalised and made explicit. Tacit knowledge, by definition, can never totally be verbalised. It is our abilities and know-how to do things. It is our skills. For example, many people would have difficulties describing things they do almost without thinking, such as riding a bicycle or making a curry. This is their tacit knowledge. One of the main challenges in knowledge management (as opposed to information management) is to manage this valuable tacit knowledge. We’ll hear in later chapters how different people are approaching this challenge.

Before you continue, and to consolidate your understanding so far, please attempt the following activity. Remember to seek online assistance if you have any difficulties or concerns and, in any case, to share your thoughts with your fellow students.

Question 1.3.1

Assuming that you are a traditional management student with no other interests (god forbid!), which of the following statements would you describe as data, information or knowledge? Circle your answer for each statement.

- A report on career progression prospects of MBA students (Data/Information/Knowledge)
- An Excel spreadsheet with questionnaire data on MBA students (Data/Information/Knowledge)
- Critical success factors on interview success with your favoured company (Data/Information/Knowledge)
- A visit to an art exhibition (Data/Information/Knowledge)
- The latest figures on unemployment (Data/Information/Knowledge)
- An entrepreneur’s guide on setting up a business; the trials, tribulations and joys (Data/Information/Knowledge)

Feedback: See page 18
1.4 Managing knowledge from ancient times to today

Even though knowledge management as a discipline emerged in the late 1990s, one could argue that humankind has had knowledge from the beginning of civilisation and used it in different ways. This section adopts the position that knowledge was managed in different ways across history with particular turning points occurring at different times. These turning points are instructive and we can learn more about managing knowledge today by looking at how it was managed in the past, even though it wasn’t called knowledge management.

Learning Objective

Once you have completed this section, you should be able to

- Assess the differences in the management of knowledge from ancient to modern times

Online discussion 1.4.1

Please go to the online discussion and explore the following questions around devices you use to help memorize things:

- How do you memorize things particularly when revising for an exam? Do you get into rote learning? As a child, I remember that if I recited a line ten times; almost by magic the line seemed to get lodged in my head. What do you find useful? I’m aware that some students summarize their notes and find that the act of writing something down also helps store facts in their memory. Some students associate certain facts with certain words such as different animals. Others draw mind maps to help them remember things. The Roman senators remembered their long speeches by breaking them down and associating different parts of their speech with different columns around the Senate. What works best for you?

Please respond to the questions and then check back in a couple of days to respond to at least two other posts.

Oral tradition to cuneiform

From the oldest times, we relied on our human memory to store and transfer knowledge. But like our ancestors, we found that there were huge problem with human memory particularly in terms of its fallibility. We forgot things or we discarded certain bits of knowledge intentionally or unintentionally that we didn’t consider important. Can you imagine the amount of dedication required in the old days to memorize epic poems and stories?

The first major shift in storing knowledge away from using human memory came with the Sumerians around 3000 B.C. They created the first form of writing by making clay tablets and fashioning three-cornered writing instruments as their pens. This first writing was called cuneiform and comprised a combination of simple wedges and straight lines. With this writing, the Sumerians could represent hundreds of words and sounds.
The knowledge recorded on these clay tablets included financial records, marriage contracts and astrological omens that preoccupied the societies at this time. One of the largest collections of these clay tablets (around 30,000) was found in Assurbanipal's palace library in Ninevah around 650 B.C. What is amazing is that this collection included 'catalogue' tablets providing information on the precise location of each tablet. This is more than 2500 years ago! However, the problem with clay tablets was they were heavy, unwieldy and easily broken.

The Ancient Egyptians shifted their writing medium to papyrus for storing their knowledge. Papyrus had the advantage of being lighter and much more easily transportable. The Egyptians inscribed their formal records in stone but used papyrus for their informal records. Could it be that papyrus contains the oldest tacit knowledge recorded through informal interactions between people?

Knowledge management in Ancient Greece and Rome

By the time of the Ancient Greeks, we find that books begin to emerge written on papyrus or parchment. It was not long before we saw the development of libraries containing large scrolls containing text. These texts included works of history, philosophy, music and arts. During Cleopatra's time, the great library of Alexandria in Egypt contained 400,000 scrolls around 50 B.C. That is a lot of knowledge stored in one place. The Egyptian government has recently built a national library at Alexandria in honour of the famous old library.

The tradition of books and libraries continued into the Roman era. Large public libraries were built housing Greek and Latin collections. There were two main problems with the knowledge contained in scrolls in Roman libraries. Firstly, they were susceptible to damage through fires or dampness or insect attack. Secondly, and more importantly, knowledge was susceptible to the sensibilities of the emperor at the time. If a scholar or poet fell out of favour with an emperor, their whole collection of works was banished from the libraries. Hence, entire collections of knowledge were lost. This occurred with Ovid, Livy and Virgil.

Management of knowledge in monastic and cathedral libraries

The rise of Christianity in the fourth century had an impact on the nature of knowledge collected and stored in libraries. The most common texts were the Bible, lives of saints and church service books. The traditional life of a monk was to read and copy texts meticulously and provide commentaries on key texts. These monks were the gatekeepers of all knowledge which was not available to the ordinary person.

By the twelfth century, monasteries and cathedrals took on the role of educating and training people particularly in cathedral schools. These developed into bodies called universities or guilds. Oxford University became the first university to be established in England in 1167. Books were expensive and knowledge was purely for the privileged few.
Paradigm shift from print to a digital age

The next major shift in managing knowledge came with the advent of print in 1455. Johann Gutenberg invented printing which allowed books to be printed at a fraction of the cost of traditional manuscripts. This caused a sea change and made knowledge accessible to the ordinary person rather than being the preserve of monks and monasteries. This was radical and allowed an explosion of learning and knowledge dissemination at the time. The ordinary person could read and interpret texts for themselves. Soon this access to knowledge for the masses led to the development of learned societies and dissemination of specialist knowledge occurred through printed journals.

The next paradigm shift occurred in the late twentieth century from the introduction of computers to all aspects of life. Computers allowed storage and retrieval of large amounts of data. Communication of knowledge occurred easily through local networks as well as the internet. Emails could be sent almost instantaneously around the world and people could communicate easily via internet phones or engage in video-conferencing. Search engines became very powerful in the accuracy and relevance of their results. This led to high quality retrieval of relevant knowledge at the right time. It is within this context that knowledge management emerged as a discipline. The development of information and communication technologies has been a revolution.

Finally for this chapter, please undertake the following activity to consolidate your learning. Remember to complete your reading of the chapter prior to attempting the activity.

Question 1.4.1

Please prepare some short notes or an essay outline in the form of bullet points on the following topic:

☐ Discuss critically how an understanding of managing knowledge through history can help you manage knowledge today.

☐ You will find a lot of the arguments in the reading material indicated.

Feedback: See page 18
Summary

In this chapter we looked at a brief history of the development of knowledge management and saw that the most fruitful definition of the field would tie together the various perspectives on the field and would focus on the possible synergies between these perspectives.

We then looked at the differences between data, information and knowledge. We looked at a possible viewpoint that presents the three entities in a hierarchy with knowledge (actionable information) at the top and data (raw information) at the bottom.

Finally we had a brief look at the history of knowledge management from ancient times to today's digital revolution.
Chapter 1: Introduction to Knowledge Management

Feedback on Activities

Activity 1.1.1
The following is an outline of the kind of arguments you may have formulated:

KM as information systems perspective – strengths and weaknesses:
- Rapid advancement in information technology
- Current business tools would suffice
- Many information systems found wanting in organizations

KM as human resource management – strengths and weaknesses
- Try to understand how to manage knowledge in people
- Is it little more than training and development initiatives?
- How do you get people to share valuable knowledge linked to power?

KM as interdisciplinary discipline – strengths and weaknesses
- Synergies between disciplines
- Problems of crossing boundaries between disciplines?
- Language barriers?

Activity 1.2.1
In some respects, your answer will be relatively general as I haven’t given you any specifics about the organization. The types of issues I would expect to see in your answer are:
- Identifying the nature of the organizational problem
- Talking to all the key stakeholders about the nature of the problem
- Identifying potential knowledge management options and interventions
- Organizational learning interventions
- Information systems interventions
- Strategy interventions
- Cultural interventions
- Providing knowledge management recommendations following analysis of various options

Online Discussion 1.2.1
Information systems do have their strengths but also their weaknesses, particularly in successful implementation. There are no real right or wrong answers here. It really depends on the context. I suggest that you develop your skills in arguing for a particular position in the online discussion. Try supporting your argument in the following manner:
- Statement of your position
- Argument for your position
- Statement of the potential counter-arguments
- Refutation of the counter-arguments
Activity 1.3.1
The answers really depend on the perspective of the individual. For example, I have assumed that the management student doesn’t like art (I don’t think I could live without art in my life!)

A report on career progression prospects of MBA students: Information – this may be one source that allows the student to make informed career choices.

An Excel spreadsheet with questionnaire data on MBA students: Data

Critical success factors on interview success with your favoured company: Knowledge – this is actionable information in interview skills development to get the job you want.

A visit to an art exhibition: Data – assuming the management student has no interest in art and the paintings have no effect on the person.

The latest figures on unemployment: Data or Information – depending on whether these figures are meaningful to the student. If they are meaningful, the figures can be considered as information.

An entrepreneur’s guide on setting up a business; the trials, tribulations and joys: Knowledge – this provides tacit knowledge or skills to help the management student, assuming they also want to set up their own business.

These statements show how the person’s perspective is important in determining whether one considers any material as data, information or knowledge. What is simply data for one person may be useful knowledge to another.

Online discussion 1.4.1
There is no right or wrong answer about what best helps you to memorize things. The important aspect of the online discussion is to share with others what works best for you and being receptive to what works for others. This discussion may tempt you to try out new ways of memorizing things. Be brave and give them a go! You may find techniques mentioned in the online discussion more effective than the ones you are using at the moment.

Activity 1.4.1
An understanding of managing knowledge across history can help managing knowledge today in the following manner:

- The oral tradition shows us the fallibility of human memory in storing, remembering and forgetting knowledge.
- The Sumerians show us the importance of the medium (clay tablets in their time) for storing knowledge. This is important in terms of how firms archive their stored knowledge. Often, the software programs become redundant after a few years and problems may arise if the archives haven’t been suitably updated.
- The library catalogue systems found among the Greeks and Romans show us the need to organise our knowledge in terms of effective ontologies and taxonomies. Hopefully, this will
allow us to retrieve the necessary knowledge speedily and accurately.

- The monks and monasteries show us the need for effective learning and training in the development of new knowledge as espoused by universities and learned societies.
- The print age, like the internet revolution, makes knowledge accessible to a vast number of people rather than remaining the domain of the privileged few.