IMS1603 Lecture 3

Why information management matters

Outline of today’s lecture

1. Defining information/knowledge
2. Problems: information overload
3. Problems: placing information in context
4. The place of information in systems

1. Defining information/knowledge

• These terms are widely used, often together with data
• Many possess different, even contradictory definitions, depending on context and perspective
• Even worse, some are used interchangeably by different people
1a. Data/information/knowledge

For example, here’s how Applehans et al. (1999: 18) suggest a relationship between these three terms:

- **data**
  - ‘comes in the form of measurements’ (eg MB)
- **information**
  - ‘a statement of fact about these measurements’
- **knowledge**
  - ‘the ability to turn information and data into effective action’

1b. A different approach

Michael Buckland (1991) suggests we can understand information as

- **a thing** ie a document
- **a process**
- **knowledge**

1c. Information-as-thing (document)

- that is, the things that inform us
- evidence
1d. Information-as-process

‘the process of becoming informed’
informed = changed (Buckland 1991: 43)

Environment:
1. Personal values
2. Other sources of information

1e. Information-as-knowledge

that which is imparted when we become informed
1e. Information-as-knowledge

By its nature, information-as-knowledge is

– intangible
– personal
– subjective
– conceptual

(Buckland 1991: 200)

1f. Peculiar properties of information

• May be costly to produce, but is often cheap to reproduce
• Can often be freely shared with others, yet still retain its worth
• What does this imply for your role as an information professional?

2. Information overload ...

is a growing concern in modern society. Some commentators suggest a ‘double bind’, as we complain both that

– ‘We are not receiving enough information’
– ‘Too much information is thrown at us’

(Koniger & Janowitz 1995: 5)
2a. Information overload

Jordan (2000: 118) puts this double bind differently, saying we face:

– Excess volume of information
– Information so ‘chaotically organised’ as to be useless

2b. How can information management help?

It can provide criteria by which relevant information can be:

> Located
> Selected
> Sorted
> Stored
> Retrieved
> Analysed
> Presented

2c. How can information management help?

• By offering suggestions on how to look for the information we need
• Even before the steps of identifying and retrieving data, we need to focus upon
  ‘the questions [we] are seeking to ask’

(Mutch 1997: 383)
3. Placing information in context

There are times when all we have is some fragment of information, and we need the bigger picture.

3a. How can information management help?

It can provide the skills by which to seek the broader context. Take the statement:

'Aspirin can help ward off heart attacks'

Are there any questions we need to ask before rushing off to quaff a jar of pills?

3b. How can information management help?

Here are some of the questions we need to seek answers for:

- How does aspirin help here?
- How effective is it?
- What is an acceptable level of dosage?
- Are particular groups of users at risk?
- Should people without heart disease take aspirin for this purpose?
- What research backs up these claims?
3c. How can information management help?

Some quotes from one review of my first book, printed on its back cover:

'... extraordinary ... an impressive display ... of logical thinking ... In my twenty years of professional experience, I have never seen a book like this ...'

Should we take these excerpts on face value? Or should we check out the original review?

3d. How can information management help?

Here is part of the original review:

'I find it extraordinary to think that this man ever received a publishing contract! The book provides an impressive display of ignorance in matters of logical thinking. In my twenty years of professional experience, I have never seen a book like this; I can only pray that I never see its like again ...'

4. Information in systems

If by its nature, information-as-knowledge is

> intangible
> personal
> subjective
> conceptual

(Buckland 1991: 200)
4a. Information in systems

... then it has to be
‘expressed, described, or represented in some physical way – as a
– signal
– text, or
– communication.’

(Buckland 1991: 43)

4b. Information in systems

‘Every information system built, or ever likely to be built ... deals directly with ... physical matter – information-as-thing ...’

(Buckland 1991: 199)

4c. Defining an information system

‘a linked and related system of entities that acts as a mechanism through which individuals can inform other people or become informed’

(Allen 1996: 6)
4d. Defining an information system

‘entities/mechanism’:
– Information as things, such as books, computers, records, photographs, sounds

‘linked and related’:
– To allow coordinated storage and retrieval

‘can inform people’:
– Information as process, information as knowledge

4e. Defining an information system

Information systems can be:

> As simple as a shopping list
> As complex as a search engine

• Use is a crucial factor in terms of definition

4e. Final thoughts on systems

• ‘delivering information is not in itself sufficient for becoming informed’
  (Buckland 1991: 200)

• Information management involves much more than the handling of information-as-things
Next lecture

Thinking critically about web resources

Seeking and evaluating information: some Introductory thoughts

6. Further reading