ICT421 IT Professional Practice

Communication

Dr Fay Sudweeks
sudweeks@murdoch.edu.au
Outline

• What is a message?
• Models of communication
  – Shannon & Weaver, Gerbner, Lasswell, Braddock, Stohl and Redding, Hall
• Language and diversity
  – Whorf
• How do we converse?
  – Grice, Sacks et al.
• Mediated communication
  – Daft & Lengel, Fulk et al., Sitkin et al.
• Summary
What is a message?

- You come home late in the evening and you see the kitchen light is on.
  - Is the light a message?
  - If so, what is the message?
What is a message?

• Message 1
  – Your partner is waiting up for you.

• Message 2
  – Your partner is angry because you’ve come home too late.

• Message 3
  – It’s not a message at all – your partner forgot to turn out the light.
What is a message?

• Anything that triggers meaning is a message, e.g.
  – Where you are seated
  – Type of furniture in your office
  – Where you are assigned a parking spot
  – The order in which you get to see your boss.
  – Etc.
What is communication?

- Communication models have been developed to explain why and how communication takes place.
  - Models can explain existing communication pathways and recommend communication strategies.
- Early models were simple – just 3 components:
  - **Sender** (person who sends the message)
  - **Channel** (means by which message is being sent)
  - **Receiver** (person who is supposed to receive the message)
Shannon & Weaver (1949)

• Shannon and Weaver developed a model during World War II in the Bell Telephone Labs in the USA.

• Their concern was to work out a way in which the channels of communication could be used most efficiently.
  – Channels for them were the telephone cable and radio wave.

• Their theory enabled them to approach the problem of how to send a maximum amount of information along a given channel and how to measure the capacity of any one channel to carry information.
  – S&W claimed that their theory could be generalised to all human communication.
Shannon & Weaver (1948)

• S&W model has 6 elements:
  – Source
  – Encoder
  – Message
  – Channel
  – Decoder
  – Receiver
Noise

- Anything that is added to the signal that is not intended by the source, e.g.
  - technical - distortion of sound, crackle of telephone line
- Also refers to other levels (semantic, effectiveness), e.g.
  - Uncomfortable chair during a lecture
Shannon & Weaver (1948)

• Shannon and Weaver identified 3 levels of problems in the study of communication:
  – **Level A** (technical problems) – How accurately can the symbols of communication be transmitted?
  – **Level B** (semantic problems) – How precisely do the transmitted symbols convey the desired meaning?
  – **Level C** (effectiveness problems) – How effectively does the received meaning affect conduct in the desired way?
Gerbner (1956)

- A more “general purpose” model of communication.
- More complex than S&W, but still a linear process.
- Emphasizes the dynamic nature of human communication.
The event (E) is perceived by M (the man (sic) or machine).

The process of perception is a process of active interpretation. The way that E is perceived will be determined by a variety of factors, such as the assumptions, attitudes, point of view, experience of M.

E can be a person talking, sending a letter, telephoning, or otherwise communicating with M. In other words, E could be what we conventionally call the Source or Transmitter. Or E can be an event - a car crash, rain, waves crashing on a beach, a natural disaster etc. In this case, we could be applying the model to mass media communication, say the reporting of news.
Gerbner (1956)

• The model also has three important factors:
  – **Selection:** M, the perceiver of the event E (or receiver of the message, if you prefer) selects from the event, paying more attention to one aspect than another.
  – **Context:** a factor often omitted from communication models, but a vitally important factor.
    • Example: I scream or ice-cream
  – **Availability:** how many Es are there around? What difference does availability make? If there are fewer Es around, we are likely to pay more attention to the ones there are. They are likely to be perceived by us as more 'meaningful'.
Lasswell (1948)

- Lasswell expands the earlier models, although his model is one of mass communication.
- He argues that to understand the processes of mass communication we need to study each of the following:
  - Who?
  - Says what?
  - In which channel?
  - To whom?
  - With what effect?
Braddock (1958)

- Braddock asks a further question:
  - Who?
  - Says what?
  - To whom?
  - Under what circumstances?
  - Through what medium?
  - With what effect?
Problems with transmission models

- It is assumed that we put an object (message) into a container and the receiver takes the object out. But this doesn’t explain how we succeed in putting meanings into words.
- Assumes a definite start and finish to the communication process, which in fact is often endless.
- Omits feedback.
- Preoccupied with efficiency of the communication process rather than social interaction.
• Messages have four levels:
  – Level 1 – what the sender desired to be sent.
    • “Boss, you really don’t know what you’re talking about.”
  – Level 2 – what the sender decides to be sent.
    • “There may be some other opinions about that issue.”
  – Level 3 – what is actually verbalised (ostensive message)
    • “Sir, that certainly seems to be an interesting possibility”
  – Level 4 – what is actually interpreted.
    • “That employee is always trying to show he knows more than me.”
Hall (1980)

• An important factor in communication, according to Gerbner, is context.
• Hall has studied the variation in the amount of context required for different cultures.
• Context is the information surrounding a message.
  – Cultures with highly interconnected networks operate as high-context message producers.
  – Cultures with segmented and compartmentalized networks operate as low-context message producers.
Hall (1980)

- High context message is one in which most of the information is already in the person and the relationship and very little is in the coded, explicit part of the message.
- Low context message is the opposite – most of the information is vested in the explicit code.
Language and culture

• How people collectively use language is one of the major characteristics that defines and distinguishes their culture from others.
• Each language shapes the perceptions and patterns of thought of the people who speak it.
• Sometimes it is difficult to communicate with people from different cultures or even different social background, e.g.
• Even people who share a language may have a different culture.
## Language and culture

<table>
<thead>
<tr>
<th>Australian English</th>
<th>American English</th>
</tr>
</thead>
<tbody>
<tr>
<td>boot and bonnet of a car</td>
<td>trunk, hood</td>
</tr>
<tr>
<td>chemist</td>
<td>pharmacist</td>
</tr>
<tr>
<td>license plate</td>
<td>number plate</td>
</tr>
<tr>
<td>footpath</td>
<td>sidewalk</td>
</tr>
<tr>
<td>petrol</td>
<td>gas</td>
</tr>
<tr>
<td>nurse the baby</td>
<td>hold the baby</td>
</tr>
<tr>
<td>biscuit</td>
<td>cookie</td>
</tr>
<tr>
<td>got lucky</td>
<td>lucked out</td>
</tr>
<tr>
<td>food to go</td>
<td>take away food</td>
</tr>
</tbody>
</table>
Whorf-Sapir Hypothesis

- This hypothesis starts from the view that we all have a basic need to make sense of the world. To make sense of it, we impose an order on it. The main tool we have for organising the world is language.

- Relationship between language, thought and culture.
  - Strong version (linguistic determinism): the language you speak determines the way that you will interpret the world around you.
  - Weak version (linguistic relativism): language influences your thoughts about the real world.
Whorf (1956)

• Examples:
  – No words in the Hopi (native Americans) language for the concept of incremental time – no seconds, minutes, hours. What does that imply?
  – Inuit (eskimos) have more words for snow (falling snow, snow on the ground, hard-packed snow, etc.) while people who live in less snow-dependent environments. The Aztecs have a single word for snow, cold and ice.
Whorf (1956)

Problems with the theory:

• If there was no thought before language, how did language arise in the first place?

• In explaining his argument to us, Whorf undermines it. The mere fact that he can translate words from Inuit and Aztec must surely mean that we can see the world from an Inuit or Aztec point of view. Some meaning may be lost in translation due to subtle language differences but some researchers believe that anything can be said in any language.

• Ekkehart Malotki, an anthropologist who made an extensive study of the Hopi, has shown that their language contains a variety of tenses and words for units of time and that their culture has complex phrases for recording events.
How do we converse?

• Given the many problems associated with communication, how do we use our language to carry on a conversation at all?

• Grice’s maxims of conversation supporting a cooperative principle:
  • Cooperative principle:
    – “Make your contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged.”
Grice (1975, 1978)

- **The maxim of Quality**
  - Try to make your contribution one that is true, specifically:
    - Do not say what you believe to be false
    - Do not say that for which you lack adequate evidence

- **The maxim of Quantity**
  - Make your contribution as informative as is required for the current purposes of the exchange
  - Do not make your contribution more informative than is required.
Grice (1975, 1978)

• The maxim of Relevance
  – Make your contributions relevant

• The maxim of Manner
  – Be perspicuous (clear), and specifically:
    • Avoid obscurity
    • Avoid ambiguity
    • Be brief
    • Be orderly
Grice (1975, 1978)

- The maxims specify what participants have to do in order to converse in a maximally efficient, rational, cooperative way.
- When talk does not proceed according to these specifications, hearers assume that, contrary to appearances, the principles are nevertheless being adhered to at some deeper level. For example:

  - A: Where is Bill?
  - B: There’s a yellow VW outside Sue’s house.

- This example violates the maxims of Quantity and Relevance.
1. Quantity
   A: What happened to Harry in court the other day?
   B: Oh he got a fine.

2. Relevance
   A: Can you tell me the time?
   B: Well, the milkman has come.

3. Manner (brevity)
   A: Open the door
   B: Walk up to the door, turn the door handle clockwise as far as it will go, and then pull gently towards you.
Local Management System for Turn Taking

- Conversation is characterised by turn-taking, i.e. A talks, stops; B starts, talks, stops; etc.
- Less (and often considerably less) than 5% of speech is delivered in overlap yet gaps between one person speaking and another starting are measurable in just a few micro-seconds with an average of a few tenths of a second.
- How is this orderly transition from one speaker to another achieved with such precise timing and so little overlap?
Sacks et al. (1974, 1978)

Rules ($C =$ current speaker; $N =$ next speaker)

- If $C$ selects $N$ in current turn, the $C$ must stop speaking and $N$ must speak next.
- If $C$ does not select $N$, then any (other) party may self-select, first speaker gaining rights to the next turn.
- If $C$ has not selected $N$, and no other party self-selects, then $C$ may (but need not) continue.

• How do you indicate who the next speaker is in face-to-face conversations?
• How do you indicate that you want to speak next?
Mediated communication

• Given the difficulties in conversing face-to-face, e.g.
  – noise
  – culture
  – linguistic diversity
  – turn taking

how do we communicate in a mediated environment?
Mediated communication

Models of mediated communication

• Media Richness Model
• Social Information Processing Model
• Dual Capacity Model

Media Richness Model

- Framework for understanding the choices made about communication media use.
- The choice depends on the ambiguity of the communication task and the information-carrying capacity of the medium.
Rich media richness continuum

Managers choose media to match the ambiguity of the message

High

Rich

face-to-face
videoconferencing
audioconferencing
telephone
IRC
email
written letter
fax
printed letter
brochure
statistical report

Lean

Low

Low Ambiguity

• Examples:
  – You need to remind employees about a meeting.
  – You need to fire an employee.
  – You need to resolve conflict between two employees who are in different branches in different states of Australia.
Communication tasks can be characterised in terms of their level of ambiguity.

- Ambiguity refers to the existence of conflicting and multiple interpretations of an issue.
- Where multiple interpretations of a communication are unlikely to occur, it’s considered an unambiguous communication task.
- Where multiple interpretations are likely and misunderstanding could occur, it’s considered an ambiguous communication task.

• Communication media can be characterised in terms of their information carrying capacity.
  – Examples:
    • The availability of instant feedback
    • The use of multiple cues
    • The use of natural language
    • The personal focus of the medium
  – Richness or leaniness of a medium depends on the number of these characteristics in the medium. The more of these characteristics, the richer the medium.
  – Ambiguity of the task is matched to richness of the medium …
Media Richness Model

ambiguity of task

information-carrying capacity of medium

face-to-face

e-mail

statistical report
<table>
<thead>
<tr>
<th>Ambiguous task</th>
<th>Unambiguous task</th>
</tr>
</thead>
</table>
| **Rich media** | **Communication failure.**  
Rich media matches ambiguous tasks. | **Effective communication.**  
Data glut, excess cues cause confusion and surplus meaning. |
| **Lean media** | **Communication failure.**  
Data starvation, too few cues to capture message complexity. | **Effective communication.**  
Media low in richness matches routine tasks. |
But …

- Much media use behaviour is NOT accounted for by the task ambiguity and channel richness match.
- Are managers so rational in media choice behaviour?
- Media adoption involves more than a simple matching between the “objective” characteristics of the media and the task.
- Example – Murdoch wants to increase use of WebCT.
Fulk et al. (1987)

Social Information Processing Model

• The use of communication technology is more complex.
• Communication technology use is a function of:
  – objective characteristics of the task and media
  – past experience and knowledge
  – individual differences
  – social information
Fulk et al. (1987)

- Communication with co-workers influences how we perceived media, tasks, and whether or not a particular communication medium will be adopted.
- SIP model considered an extension of the media richness model
social information

objective comm. task requirements

perceived comm. task requirements

task experience and knowledge

objective media characteristics

perceived media characteristics

attitudes toward comm. media

media use behaviour

media experience and knowledge

past attitudes and prior use behaviour

individual differences
Sitkin et al. (1992)

**Dual-Capacity Model**

- Organisational communication media carry two kinds of messages:
  - “data” (content) and “meaning” (symbol)
- **Data-carrying capacity**
  - degree to which a medium is able to effectively and efficiently convey task-relevant data
  - (this is similar to media richness model)
- **Symbol-carrying capacity**
  - ability to convey core values and assumptions of an organisation’s culture
  - medium attains the status of a symbol apart from the actual message being transmitted (medium should be consistent with organisation’s culture)
- Example – Microsoft meeting
Summary

• List the factors in early models of communication.
• Describe the problems with these models.
• Explain high-context and low-context messages.
• Describe are linguistic determinism and linguistic relativism.
• Give a brief description of the four maxims of conversation?
• How do we manage turn taking in conversations?
• Describe 3 models of mediated communication.
References

• Daft, R. L. and Lengel, R. H.: 1986, Organizational information requirements, media richness and structural design, Management Science, 32, 554-571.
References

References

