overview
- communication and decision making
  - information systems support decision making
    - information access
    - information sharing
    - coordination
- communication and genre
- communication and organisational structures
- typology of information systems

mintzberg on managers
- managers don’t spend much of their time “making decisions”
- they spend their time talking to people:
  - to understand the problems they’re having
  - to get ideas from people
  - figure out if people are doing the right things
  - encouraging people to do good work
  - helping people sort out problems

what does communication do?
- various functions
  - sharing information – “all on the same page”
  - getting information from place to place
    - what’s happening over there?
    - remember, responsive to environment
  - building trust
- communication supports decision-making
  - three phases
    - preparation
    - informing
    - monitoring

aspects of communication
- formality
- directedness
- temporality
- richness
- persistence
- genre

the emergence of the memo
- the form of the memo
  - “to”, “from”, “subject” headings
  - subheads and lists
  - formal language
  - no greeting or sign-off
- the memo wasn’t always around
  - essentially invented between 1870 and 1920
  - why?
the emergence of the memo
- organisational growth
  - geographical growth
  - everyone doesn’t share a common environment
  - structural growth
  - the emergence of middle tiers of management
- Scientific Management
  - documenting the process
  - regimenting and controlling organisational work
- technology
  - typewriters and filing cabinets

genres of communication
- genre is a social construct
  - it provides a set of expectations
  - it makes actions meaningful and sensible
  - it supports coordination between participants
  - it emerges from interactions over time
- genre has technical components, too
  - it is tied to the medium of production
    - timeliness
    - distribution

genres of communication
- the committee meeting
- the resume
- the memo
- the presentation
- the conference

what are:
- their components?
- their functions?

using genres

electronic memos?
- email as a medium for electronic memos
  - email shares some properties with memos
    - the formal structure
    - enabling one-to-many communication
  - in the 80s, many organisations introduced email
    - automating vertical communication
      - distributing instructions, reporting results
    - the unexpected outcome...

social networks
- “it’s not what you know, it’s who you know”
  - multiple, overlapping groups
  - remember the functional organisation structure?
- the spread of organisational information
  - how does information spread?
social networks

from Mackay, 1990

newer forms

• communication is always evolving
  – different technologies support different genres
• newer forms:
  – desktop videoconferencing
  – corporate intranet
  – enterprise information portal
  – workplace IM

videoconferencing

• 1970s videoconferencing failed spectacularly
  – technical reasons
    • interacting with artifacts
    • resolution, field of view, etc
  – cultural reasons
    • why won’t you come to meet me?
    • the formal and informal aspects of meetings

desktop videoconferencing

• desktop videoconferencing is quite different
  – 1990s: H.261 over ISDN
    • ISDN is 128kbps data + 16kbps signal
    • QCIF: 176 x 144, 5-10fps
  – 2000: Internet
    • Quicktime, RealPlayer, streaming video
• what factors make it more successful?
  – a different niche
  • less expensive makes it less formal
  • spontaneity
  – immediate control of technology
  – combined with other forms of communication

distance learning

• video for distance learning?
  – California Master Plan for Higher Education
  – opportunities
    • extending reach
    • accessing archives of material
  – problems
    • interaction – asking questions, getting answers
    • feedback – hard to gauge how material is going over
distance learning

This is from Sun... interesting work from Microsoft too...

decision-making

- mintzberg’s description
  - the role of communication in decision-making
- problems in decision making
  - framing
  - recency effect
  - primacy effect
  - poor probability estimation
  - overconfidence
  - escalation phenomena
  - association bias
  - groupthink

decision-support systems

- explicitly supporting decision making
  - embody a model of the process
    - e.g. gather data, formulate hypotheses, determine criteria, brainstorm alternatives, select and evaluate, compare, decide
  - two forms of support
    - specialised tools for parts of the process
    - individual tools focus on analysis, group on process
- issues
  - domain knowledge
  - DSS vs data mining vs information visualisation

alter’s system typology

- office automation
- communication
- transaction processing
- management information systems
- decision support systems
- execution systems

OA & TP

- office automation
  - certain classes of workflow (focus on automation)
    - Alter includes productivity tools
      - it’s not clear that Word automates much
  - transaction processing
    - primarily, databases
      - also their immediately surrounding processes
        - data validation
        - notifications

MIS/EIS

- focus on “keeping on top of things”
  - monitoring performance
  - maintaining coordination
- it’s a question of perspective
  - databases record what’s going on
  - MIS systems contextualise it
- MIS -> EIS?
  - Alter tries to persuade us that this is a real difference...
execution

• helping you actually do the work
  – workflow & monitoring technologies
  – specialised applications for specialised work
    • surgical, TELE, graphic design…
  – expert systems
    • capturing procedural knowledge and making it available
    • remember who’s the expert…
    – the trick to knowing something is knowing when and how to apply it

architecture

![Architecture diagram]

problems

• information overload
  – 1996 paper: "mean number of inbox items is 2482”
• misinterpretation
• social context
• power relationships
  – difficult for people in the middle
• privacy
  – who owns your email?

summary

• communication isn’t just bits on the wire
  – communication achieves coordination
  – communication supports decision-making
• communication isn’t just what’s said
  – genres shape and structure our expectations
  – genres provide resources for interpretation
  – the medium is the message
• typology of information systems
  – these are facets, not absolutes