ICS 132: Organizational Information Systems

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UCI Information & Computer Science

administrivia

- class times
  - lectures: M, W 11-12:30, SH 174
  - discussion: F 1-1:50, SSL 270
- add/drop dates
  - add deadline is January 26
  - drop deadline is February 16
- this course is...
  - intermediate between ICS 131 and 135
  - the classes with a satisfaction guarantee!

personnel

- instructor
  - Paul Dourish <jpd@ics.uci.edu>
  - office ICS2 206
  - office hours: W 3-4; F 11-12
    - please email me first to guarantee appointment
- teaching assistants
  - Victor Gonzales <vmgyg@ics.uci.edu>
  - Vijay Jayanti <vjayanti02@gsm.uci.edu>

grading

- breakdown
  - 10% attendance
  - 20% project
  - 35% midterm
  - 35% final
  - ... but you *must* do everything!

policies

- academic honesty
  - simple: zero tolerance
- spelling
  - "organization" and "organisation" are both fine ☺
    - I'm not going to be so careful about "z" in future
- attendance
  - discussion sections are important!
- timing
  - final will be *during last teaching week*

texts and resources

- Alter, Information Systems
  - management perspective on information systems
- Lofland and Lofland
  - field work and qualitative methods
- a lot of reading
  - not just volume, but also a different style

- class web page
  - http://www.ics.uci.edu/~jpd/ics132

topic

- organizational information systems
  - how do organizations work?
  - how do information systems support organizations?
  - techniques for understanding organizations
  - designing and deploying organizational IS
- focus on requirements
  - what they are
  - why they're hard to uncover
  - what to do with them once you've got 'em
- what *is* an organizational information system?

why study organizations?

- most information systems are used:
  - in organizations
  - for organizations
  - between organizations
- need to understand the organization
  - so that we can understand what systems should do
  - so that we can understand how systems will be used
  - so that we can understand how people work
  - so that we can make systems more successful

why study organizations?

- because we so often get it wrong!
  - technology matters, but when people are involved, people always matter more

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- because we so often get it wrong!
  - technology matters, but when people are involved, people always matter more
  - things that never work:
    - forcing a system down people's throats
    - telling users that you know better than they do
    - complaining that it isn't your fault the system failed
- not just about understanding the user's work
  - need to understand the user's *point of view*

what is an organization?

- examples

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- examples
  - IBM, Apache Foundation, UCI, the Mafia
    - what do these have in common?
    - in what ways do they differ?

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  - IBM, Apache Foundation, UCI, the Mafia
    - what do these have in common?
    - in what ways do they differ?
- definition
  - organizations are arrangements of people and processes that achieve collective action

organizational conundrums

- how do organizations achieve their goals?
  - *organizations* don't do things; *people* do
  - why do people do what organizations want?
  - why do organizations do what people want?
- how do organizations learn and survive?
  - organizations last longer than their members
  - is IBM really the same organization now as in 1930?

organizations and information

- organizations depend on information
  - information about their own processes
    - how quickly can we build a widget?
    - how much does it cost us to make one?
    - are our costs increasing or decreasing?
  - information about clients and customers
    - what sorts of widgets do people want?
    - when do they buy them?
  - information about what's going on
    - when will the new widget line be ready?
    - who is responsible for managing the process?

organizations and IS

- information systems
  - collect information
  - transmit information
  - store information
  - retrieve information
  - process information
  - display information

organizations and IS

- information systems
  - collect information
  - transmit information
  - store information
  - retrieve information
  - process information
  - display information
- but...
  - who decides what information should be collected?
  - to whom is the information transmitted & displayed?
  - what can organizations do once they have it?

example

- the impact of a highly significant technology...

example: vertical filing

- what was the world like before filing cabinets?

example: vertical filing

example: vertical filing

- lessons
  - organizations depend on processing information
  - information transforms organizations
    - what they can do
    - how they can do it
  - "technology" isn't always "hi-tech"
  - small changes can have massive repercussions

who studies organizations?

- systems analysts & consultants
  - systems need to be tailored to contexts of use
    - organizational contexts are often the most significant
  - most technical problems have an organizational component
  - many "technical" problem are entirely organizational
- if they're smart, all system developers
  - if your system will be used by an organization, shouldn't you know how to study it?

how to study organizations?

- background and theory
  - how do organizations work? what do they do?
- case studies
  - examples show us how these work in practice
  - opportunities to learn how to look at problems
    - no formulas or absolutes – this is about looking at problems through the right kinds of lenses
- qualitative techniques – going and looking
  - quantitative techniques are about *numbers* of things
  - qualitative techniques are about *kinds* of things
  - so when do we use each one?

what will we do?

- learn about organizations
  - what they do
  - how they work
- learn about information systems
  - how they support organizational work
- learn about requirements gathering
  - how do we find out what's going on?
- project
  - a chance to practice

what will we do?

- metaphors for organizations
- aspects of organizations & information systems
  - e.g. business processes
  - e.g. information management
- carrying out qualitative investigations
- further topics
  - e.g. security
  - e.g. knowledge management

questions to ask

- where does control reside?
  - information systems both *constrain* and *enable*
    - structuring the system in any given way opens up some opportunities but closes down others
  - what new opportunties does a system open up?
- whose purposes are served?
  - different information is valuable to different people
  - information comes with points of view
    - hence, so do systems... c.f. Conway's Law

questions to ask

- what are the impacts?
  - what role does information play?
  - how will that role be affected by new technologies?
    - information can become more detailed and easier to process
  - how might that transform the organisation?
    - example: outsourcing internal services; Dell

next time…

- metaphors for organizations
  - three ways to think of organizations
  - what they tell us about organizations and information
  - come armed with some examples...