ICS 132: Organizational Information Systems

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UCI Information & Computer Science

administrivia

- class times
  - lectures: Tu, Th 2:00-3:30, ICS 174
  - discussion: Tu *OR* Th 5:00-6:00, PSCB 140
- add/drop dates
  - drop deadline is *January 18*
  - class is very impacted, so this will be enforced
- 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: by appointment (email)
    - I'm generally available if my office door is open
- teaching assistant
  - Steve Abrams sabrams@ics.uci.edu
  - office hours: to be determined

grading

- breakdown
  - 20% homework
  - 25% project
  - 25% midterm
  - 30% 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
- some timing details
  - no meeting next Tuesday (Jan 14)
  - midterm will be Feb 6 (*probably*)
  - final will be *during last teaching week*

texts and resources

- no primary text this year
  - readings, handouts, and lecture slides
- Lofland and Lofland
  - field work and qualitative methods
- class web page
  - http://www.ics.uci.edu/~jpd/classes/ics132w03
  - look there for schedule and for copies of slides

topic

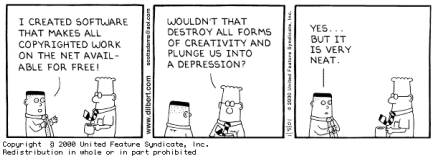
- organizational information systems
  - how do organizations work?
  - how do information systems support organizations?
  - techniques for understanding organizations
  - designing and deploying organizational IS
- focus on requirements
  - what they are
  - why they're hard to uncover
  - what to 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



why study organizations?

- 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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- examples
  - 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?

how to succeed in 132

- do the reading
  - especially, pay attention to the case studies
- look for examples around you; *apply* concepts
  - places you've worked
  - organizations you deal with (e.g. as a customer)
  - in the newspapers
- ask questions

how to succeed in 132

- learn (and apply) some basic principles
  - organizations are radically diverse
    - externally
    - internally
  - technology and organisations co-evolve
  - organisations use technology strategically

example

- the impact of a highly significant technology…
  - the later part of a century saw the widespread adoption of a technology that:
    - allowed organizations to store and retrieve information that was lost to them before
    - enabled the calculation of trends and patterns
    - required radical transformations in how people work
    - allowed organisations to operate across distances and distribute themselves across multiple sites

example: vertical filing

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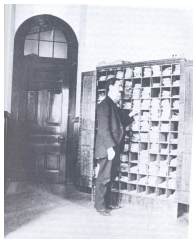

example: vertical filing

- 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 opportunities 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…
- but first…
  - a survey, not a test