# 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
- 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
  - IBM, Apache Foundation, UCI, the Mafia
  - What do these have in common?
  - In what ways do they differ?
**what is an organization?**

- **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

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**example**

- the impact of a highly significant technology...
example: vertical filing

• what was the world like before filing cabinets?

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

example: vertical filing

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
  - qualitative 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 \textit{constrain} and \textit{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... \textit{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...