

today

topics:

- e-commerce applications
- internet facilities
- issues in e-commerce development
- distributed systems
- internet business models

reading:

- Ince chapter 1

e-commerce applications

case study: we assume we are running a business

The business is an existing music store “Spectrum Music” (<http://www.spectrum-music.com/>)

We have been hired to create an on-line version of the store.

Throughout the term, we will focus on the key decisions to be made by the store owners, the software designers and the web-page designer through this process.

questions for the store owner

1. Do we take our business on-line? (Not every customer is best served by e-services. Not every company needs or wants an e-presence!)
2. Do we create the on-line business ourselves or do we commission someone to do it for us? (Buy or Build?)
3. What are we trying to do? What do we expect to gain from the venture?
4. How do we design the system?
5. What are the interaction protocols?
6. What supporting technologies will we use?
7. How can we guarantee security?

Answers to some questions depend on others, so an iterative process is necessary.

interaction is a high-level theme of the course

- *human-human interaction*
e.g., ordinary commerce
- *human-machine interaction*, also called *human-computer interaction* or *HCI*
e.g., e-commerce, e-voting, ATMs, text messaging, instant messaging
- *machine-machine interaction*
e.g., automated e-commerce, shopbots, agents

We will be looking at various rules and protocols for interaction in different situations.

a commercial interaction

You purchase an airline ticket ...

What are the “standard rules” for this interaction?

How was this type of transaction performed before the Internet?

How has it changed since the Internet?

Each party provides value to the other.

supply chain

A commercial interaction between multiple entities.

- what is exchanged?
- what are the rules of the interaction?

We can draw the value chain...

What is the value chain for our music store?

internet facilities

- the world wide web
 - HTML = hypertext markup language
 - *hyperlink*
 - *browser*
 - *web page, web site, web server*
- ftp (file transfer protocol)
 - *download*
 - *upload*
- email
- newsgroups
 - *posting*
 - *thread*
- mailing lists

issues in e-commerce development

- legacy technology
 - not enough space
 - no “state”
 - static web pages
- security and privacy
- programming and abstraction — portability, compatibility
- speed of development

- structure and data
- distributed transactions
- design
- quality of posted material
- speed of servers

distributed systems

- architecture of an online system:
 - *user* or *client* uses a *browser*
 - *server*
 - *database*
- remember our case study (music store) — how would we define the requirements for the above components? how would they be connected?

internet business models

“A business model is a high-level description of an application type which contains all the common features which can be found in specific examples of the model.”

- e-shop
- e-auction
- e-procurement
- e-mail
- virtual community
- third party marketplace
- information brokerage
- trust brokerage
- collaboration platforms
- portals
- dynamic pricing
- B2B exchanges
- online trading
- e-learning
- free products and services

for next time

- read chapter 2 (sections 1, 2 and 3)
- *There will be a short UNGRADED quiz on tuesday which will help me figure out what you know about javascript and fundamental programming concepts — in order to plan the rest of the course and in order to place you in your groups for the term project.*