Some Other Topics
(just mention other interesting topics; besides many others)

Payment Systems

- Credit card works $\rightarrow$ restricted liability
  - !!! Never use debit card on the web !!!
- Centralized payment systems
  - PayPal and co
- Electronic Cash
  - Great application of cryptographic systems
  - See for example DigiCash (David Chaum)
  - Micropayment systems possible
- Electronic Checks
- SET (Secure Electronic Transactions)
Web Design and Usability: HCI

Person
Execute
Goals
Evaluate

Computer
Read/Scan
Process
Output

Jamie Blustein’ resources:
http://www.cs.dal.ca/~jamie/course/CS/4173/Resources/#UI

... for example:
http://www.usability.gov/guidelines/
(Ro)bots, agents, spiders, search engines

Program that `travel the web’ to gather information

→ Static agents
→ Mobile agents

For example, search engines, web tools such as inactive-link alert, news agents, e-mail harvesting for spamming, …

M(obile)-commerce

Global number of mobile phone users

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2002/3*</th>
<th>2010*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users</td>
<td>570 million</td>
<td>1 billion</td>
<td>1.6 billion</td>
</tr>
</tbody>
</table>

Global m-commerce revenues

<table>
<thead>
<tr>
<th>Year</th>
<th>1999</th>
<th>2003*</th>
<th>201</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>3 billion</td>
<td>13 billion</td>
<td>270 billion</td>
</tr>
</tbody>
</table>
Wireless and SET

Handset-based SET wallet

SET wallet server

Split-SET

Smart Card

Card Topology
"There will be nearly 30 million chip-based credit cards circulating in the United States by the end of the year, up from 17.5 million at the end of 2001."

"... the cost of a Visa smart card dropping from $3.50 two years ago to $1.62 today. He says smart card prices will soon approach the under-50 cent cost of a mag-stripe card, as volumes increase."