

## CPSC 155a Solution Set for Second Hour Exam

### **Question 1.**

(a) Correct answers include:

- IP address
- Domain name
- Organization
- Referring page
- Operating system
- Browser
- Requested URL
- Search terms used
- Cookies

(From page 5 of 11/6/01 lecture notes. Only two were needed for full credit.)

(b) True

(From page 33 of 11/6/01 lecture notes.)

(c) There is an 8-principle version (given on page 28 of the 11/6/01 lecture notes):

- Collection limitation
- Data quality
- Purpose specification
- Use limitation
- Security safeguards
- Openness
- Individual participation
- Accountability

There is also a 5-principle version (given on page 29 of the 11/6/01 lecture notes):

- Notice and disclosure
- Choice and consent
- Data security
- Data quality and access
- Recourse and remedies

Full credit was given for any three distinct items from either list.

### **Question 2.**

(a) Correct answers include:

- Transaction-related fees (*e.g.*, per-transaction, flat [monthly, yearly], value-based)
- Membership/Subscription fees
- Value-added service fees (*e.g.*, logistics, financing)
- Advertising and Marketing
- Sales of Data and Information

(From page 11 of 10/23/01 lecture notes. Only 3 were needed for full credit.)

(b) Advantages include:

- Economics of scale
- Technical expertise and content knowledge
- Incentive to maintain high-volume participation

Disadvantages include:

- Barriers to nich-player and new-player entry
- Anti-trust issues

(From page 12 of 10/23/01 lecture notes. Only one of each was needed for full credit.)

(c) Correct answers include:

- Purchase order
- Printer
- Model
- Catalog
- Order confirmation
- Invoice

Only 3 were needed for full credit.

(d) From page 3 of 10/25/01 lecture notes: HTML was designed to instruct browsers about how to display information for people. “Eyes-only” was the dominant design perspective. HTML documents are hard to search, and it is hard to automate the processing of information that they contain.

### **Question 3.**

(a) It is hard for C2C sellers to do market research and set an optimal or near-optimal price. (From page 16 of 10/30/01 lecture notes.)

(b) From page 7 of 10/30/01 lecture notes:

“Conventional wisdom: Service is technically commoditizable, but strong network effects favor eBay.”

B2C retailers don’t have the same strong network effects on their side. It is also the case that eBay handles massive-scale website operation consistently well; if it were unreliable, competitors could probably gain ground.

(c) i: Second-price Vickrey (From page 17 of 10/30/01 lecture notes.)

(d) iii: Auction of art or luxury goods (As explained in class, that’s why there’s a question mark next to it on page 9 of the 10/30/01 lecture notes.)

### **Question 4.**

(a) (i) DoubleClick

(ii) Amazon

(iii) RealNetworks

(iv) Verisign

(b) Correct answers include:

- Search
- Source
- Specify
- Negotiate and bid
- Order
- Receive goods and services

(From page 8 of 10/23/01 lecture notes. Only two were needed for full credit.)

(c) A major reason that similar small businesses do not “aggregate” in order to negotiate together for volume discounts is that they are geographically and otherwise dispersed. Identifying partners to “aggregate” with and meeting, either face-to-face or via conference call, is prohibitively expensive for most small businesses. If they can simply go to a website and have the aggregation and negotiation handled by an exchange like equalFooting.com, they can avoid this expense.

### **Question 5.**

(a) iv (From page 12 of 11/8/01 lecture notes.)

(b) LaMacchia’s example is that stock quotes (*e.g.*, those available free from, say, the NYSE.com website), can be turned into a “stock-alert” service that contacts a subscriber by phone. (From page 26 of 11/8/1 lecture notes.)

Similarly, freely available news or sports info could be turned into personalized “alert” services that contact subscribers on a variety of mobile devices

(c) Correct answers include:

- Identity Service
- Directory and Search Service
- Personalization Service
- Software-delivery Service
- Calendaring Service
- Schematized Storage Service
- Notification and Message Service

(From page 42 of 11/8/01 lecture notes. Only two were needed for full credit.)

(d) Layering. It makes the Internet a fertile, fast-moving, and dynamic environment for electronic commerce. In particular, inventors and entrepreneurs need not go through the typically long, difficult process of designing, implementing, and deploying a modification of *the network infrastructure* in order to launch a new product on one layer, as long as the new product can communicate via standard protocols with the layers above and below it.

### **Question 6.**

(a) Correct answers include:

- Draft privacy policy
- Respond to customer concerns
- Educate employees about company privacy policy
- Review new products and services for compliance with privacy policy
- Develop new initiatives to keep company out front on privacy issues
- Monitor pending privacy legislation

(From page 32 of 11/6/01 lecture notes. Only three were needed for full credit.)

(b) As explained by Lorrie Cranor, the main advantage is that privacy seals are easier for consumers to understand than privacy policies; companies can convey to potential customers (very succinctly, by displaying a seal) that they care about privacy and that a responsible organization is monitoring the companies' compliance with their privacy policies. The main disadvantage is that the corporate activity monitored by seal programs is actually quite limited; a company can get and keep a privacy seal of approval by following very narrowly defined rules on its website but simultaneously sell products that are privacy-invasive. Thus, potential customers might be misled by these seals.

(c) ii

(d) False

(See page 23 of 11/6/01 lecture notes.)

### **Question 7.**

(a) See solution to question 1(d) from HW3 for explanations of the formulas and definitions of  $N_1$ ,  $N_2$ ,  $N_3$ ,  $p_1$ ,  $p_2$ , and  $q$ .

Here, we have  $N_1=100$ ,  $N_2=100$ ,  $N_3=10$ ,  $p_1=10$ ,  $p_2=1$ .

Weighted ratchet:

$$q = \frac{100(10) + 10(1)}{100 + 10} = \frac{1010}{110} \approx 9.1818$$

Number of shares owned by VC is

$$100 \times \frac{10}{9.1818} \approx 108.91$$

Total number of shares  $\approx 218.91$

Full ratchet:  $q=1$

Number of shares owned by VC is 1000.

Total number of shares is 1110.

(b) Correct answers include:

- Lack of company history
- Lack of market history
- Lack of market
- Company hyperbole
- Inflated projections
- Changing economy

(From page 8 of 10/18/01 lecture. Only two were needed for full credit.)

(c) False (From page 9 of 10/18/01 lecture notes.)

(d) True (From page 10 of 10/18/01 lecture notes.)