

## Week 2 – Privacy, security and utility

This week's warm-up Crew Challenge addressed the tug-of-war between information privacy, information security and the utility of information. There were several large areas of data described and illustrated.

### **Level 1: For up to 6 marks (no minimum):**

List in any order the 6 areas of data discussed in the preamble to the Crew Challenge. (1 mark each = 6 total). No potential extra marks available here.

- 1. Administrative**
- 2. Commercial, personal & government surveillance**
- 3. Personal communication**
- 4. Commercial transactions**
- 5. Social media**
- 6. Personal browsing**

For up to 7 marks:

List three data areas from those discussed in the preamble (1 mark each = 3 total) and describe some data with which you are familiar that might be included in each of the three areas you listed (1 mark each = 3 total). Finally, give an example of one of your three chosen types of data (what would the data look like?) (1 mark) Potential of up to 1 extra mark for an excellent answer.

- 1. Administrative**
  - **Birth certificate; driver's licence; SIN card; CU Card; Bus pass; Health card...**
- 2. Commercial, personal & government surveillance**
  - **Traffic cameras; video in stores, casinos, government offices; satellite; police scanners; GPS on phone (crosses boundary into personal comm below)...**
- 3. Personal communication**
  - **GPS on phone; text messaging; cell phone calls; wi-fi connection; Bluetooth; NFC; email**

### **Level 3: For up to 8 marks (minimum 6 marks to receive a grade):**

Define utility in the sense discussed in this challenge (2 marks). Then pick two data areas from among those discussed in the preamble and describe a potential conflict between you and the collector of that data in terms of privacy versus utility. The description should give both sides of the argument and why these two elements produce a conflict (3 marks each = 6 total). Potential of up to 1 extra mark for an excellent answer.

### **Level 4: For up to 9 marks (minimum 8 marks to receive a grade):**

Define utility in the sense discussed in the challenge (2 marks). Pick one area, describe a potential conflict in terms of privacy versus utility. The description should give both sides of the argument and

why these two sides produce a conflict (3 marks). Finally, propose a resolution to the conflict (4 marks – the resolution should address both sides of the conflict (2 marks) and illustrate why your resolution would solve the conflict (2 marks)). Potential of up to 1 extra mark for an excellent answer.

**Business Utility in this challenge was introduced by first describing utility as defined in economics**

1. ***Utility: An economic term referring to the total satisfaction received from consuming a good or service.***

**Then by specifically defining (and relating to the core definition of utility) it as follows:**

2. ***Business Utility – is the total business value that can be derived from possessing, or consuming, a good or service.***

**In this CC, the “good or service” is data. Therefore, the business utility is the value that could be derived from data that petGRO could reasonably collect.**

**One of the areas of data is Personal Communications. A potential conflict is exemplified by the real life example of Microsoft’s recently announced Skype Translate Service. This is a service that is supposed to provide real-time or near real-time voice and text translation of conversations between individuals speaking different languages. The utility here is that for the users, the language barrier to communication is effectively eliminated thereby allowing them to communicate more easily and effectively in our increasingly global community. The utility and business value to Microsoft is that they can charge for this service and make money. The privacy issue is that in order for this service to work well and improve over time, it requires the collection, and analysis of the audio calls made over skype in order to learn the various languages. This is an issue because individuals do not want corporations listening to and storing their private conversations. Therein lies the conflict. We want real-time translation (utility) but we don’t want companies having our private, personal conversation (privacy) and we seemingly can’t get the first without the second.**

**We can derive the utility and still maintain privacy by the company collecting the information and providing the useful service by stripping the information of all personally identifying metadata that would allow the people on the calls to be identified in any way then using the CIA framework to store the information. The information should be held confidentially, it should be accurate and the customers should have access to the data to know personal information the company is storing about them. This should be clearly stated and agreed to by both parties in the terms of use of the service. This way customers keep their privacy and get the utility of the service being provided. They also get to give informed consent to the data collector.**