

# **I spy with my big corporate eye**

Radio frequency identification and consumer privacy

*“Depending on who you ask, RFID tags constitute: 1) the best thing to happen to manufacturing since the cog; 2) the biggest threat to personal privacy since the crowbar; 3) the near-exact fulfillment of the Book of Revelation’s description of the mark of the beast.”*

*(McHugh, 2004)*

## **Important Dates**

Scenario released on Blackboard:	Monday, March 10
Visual material due (via email):	Monday, March 24
<b>Presentation date:</b>	<b>Tuesday, March 25</b>
Written work due:	Tuesday, April 1

## **Debate Assignment #7**

MCS\*2020: Information Management (Winter 2008)

## Scenario

Since 2005, **Plug** has been experimenting with Radio Frequency Identification (RFID) technology in small pilot projects. RFID technology is a method of identifying things quickly and automatically. Small tags are affixed to objects and emit a short-distance unique radio frequency that can be read easily by frequency scanners. These tags are superior to scanning regular Universal Product Codes (UPC) because they can be read from a distance of a few metres and do not need to be in the “line of sight” of the scanner.

In cooperation with some of our key suppliers, **Plug** has been using this technology to improve our supply chain management. Currently, we are using RFID tags at the “pallet” level. This means that suppliers send us products packed on pallets (or skids) and each pallet is tagged with an RFID tag noting key details of the shipment. For example, last week we received a shipment from Samsung with over 15 pallets of electronics. Each pallet contained a number of different products ranging from cell phones, to HD DVD players, to large plasma televisions. When these pallets arrived at our warehouse in Halifax, our RFID reader scanned all of these products and added them to **Plug’s** inventory database in a matter of seconds.

The initial two-year test projects have improved inventory management efficiencies so dramatically that **Plug** plans to implement RFID technology across the entire supply chain over the next few years. While most organizations use RFID technology to help manage their internal logistics, the technology is also being applied in intriguing retail scenarios. The cost of RFID tags and scanners is dropping, which means it is now possible for retailers, such as **Plug**, to gather more data about consumer preferences and buying behaviour than ever before.

Affixing an RFID tag to track every single item in one of our stores – every DVD, CD, telephone, camera, video game, etc. – would enable us to tell when each item was picked up, when it was put down, who bought it, how long they had it in their cart, and other such questions. With a well-designed information system, the possibilities for data collection are endless. Of course, with RFID technology we could even implement cashier-less checkouts, where people could simply push their cart through a scanner and every item would be totaled almost instantly. Talk about the future!

While we’ve had some success with RFID on our supply chain side, there is no guarantee that we will have the same success on the consumer side of our business. In fact, many retailers have had little success implementing RFID technology because consumer advocates suggest it invades privacy. **Plug** needs to carefully consider the implications of this technology before implementing it across our regional locations.

## Taking Sides

- Group 7a: Make the case for implementing RFID technology on the retail side of the business (just like we're planning to do on the logistics side).
- Group 7b: Make the case against implementing RFID technology on the retail side of the business (i.e. the side that deals directly with customers).

## Preparation & Research

A list of recommended readings appears at the end of this scenario package. In preparation for the debate the other employees of **Plug** have been asked to view the following videos:

How RFID Works [Online video]. (2007). Retrieved January 13, 2008 from <http://www.youtube.com/watch?v=yNPDgudPmXE>

IBM RFID Checkout in Supermarket [Online video]. (2006). Retrieved January 13, 2008 from <http://www.youtube.com/watch?v=-ZYY85lyDNM>

RFID – Technology Video [Online video]. (2007). Retrieved January 13, 2008 from <http://www.youtube.com/watch?v=4Zj7txoDxbE>

## Oral Presentation

All members of the group are not required to present to the class, but everyone is expected to contribute to their group. Use the strengths of your group members to your advantage.

## Visual Aids

PowerPoint slides are required to help make your case. Given the shorter time frame you are limited to a maximum of six (6) slides and those slides can only be used during your opening argument. Slides need to be emailed to [mdelia@uoguelph.ca](mailto:mdelia@uoguelph.ca) by **Monday, March 24**. Your slides will not be included in the lecture notes on the course website (so your opponents will not receive advanced notice of your arguments).

## Written Portion of the Debate

After the debate, your group is required to submit a short written report (maximum 2 pages) which answers the following questions:

1. What were your opponent's two strongest arguments?
2. What was your rebuttal for each of these arguments?
3. Was your rebuttal strong enough to counter these arguments?

### **Selected Annotated Bibliography**

From the list of resources that you consulted for this assignment, select the five (5) that were the most useful to your group. List these five references using proper APA style and include two or three sentences for each reference explaining how you used it to make your case. Be sure to make direct reference to points made during your debate.

### **Group Assessment \*\***

You will have the opportunity to evaluate the contributions made by each group member (including a self-assessment). These assessments will be factored into your final grade for the debate assignment and can be found on page 9 of this package. Failure to hand in this assessment will result in a zero (0/5) grade for the group assessment. *The instructor reserves the right to further penalize students who do not contribute to their group.*

All written work (including peer assessments) is due on **Tuesday, April 1.**

### **Debate Agenda**

Overview of the scenario	MJ	8 min
Opening statement	Group 1a	5 min
Opening statement	Group 1b	5 min
Rebuttal	Group 1a	3 min
Rebuttal	Group 1b	3 min
Departmental discussions (Short Recess)	Small groups	5 min
Questions from the floor	Various	15 min
Closing Summary	Group 1a	2 min
Closing Summary	Group 1b	2 min
Voting by secret ballot	Entire class	2 min
	<b>TOTAL</b>	<b>50 min</b>

## Assignment Grading

This assignment will be marked out of 40 (see below for breakdown) and will be worth 20% of your final grade.

Opening argument <ul style="list-style-type: none"><li>• Clear and concise</li><li>• Presents information confidently</li></ul>	7
Rebuttal <ul style="list-style-type: none"><li>• Competently challenges opposing views</li><li>• Gives the audience something new</li></ul>	4
Question period <ul style="list-style-type: none"><li>• Answers questions directly and quickly</li></ul>	4
Closing summary <ul style="list-style-type: none"><li>• Clearly summarizes major arguments</li></ul>	2
Presentation style <ul style="list-style-type: none"><li>• Professionalism, makes good use of time</li><li>• Demonstrates understanding of the scenario</li></ul>	4
Visual aids <ul style="list-style-type: none"><li>• Clear slides, contributes to the overall presentation</li></ul>	4
Written report <ul style="list-style-type: none"><li>• Clear and concise</li><li>• Demonstrates a good understanding of the opposing side</li></ul>	5
Group assessment <ul style="list-style-type: none"><li>• Provide assessments for other members of your group (workload, professionalism)</li><li>• Self-assessment</li></ul>	5
Selected annotated bibliography <ul style="list-style-type: none"><li>• Appropriate APA style</li><li>• Insightful commentary</li></ul>	5
<b>Total</b>	<b>40</b>

## **Reading List**

The following references are recommended readings for this topic. In addition to these readings, you are encouraged to do additional research to support your arguments.

### **RFID articles**

- Andel, T. (2006). Big Brother in Aisle Five? [Electronic version]. *Paperboard Packaging*, 91(2), 4. Retrieved January 17, 2007 from Business Source Complete database.
- Ferguson, R. B. (2007). RFID Adoption is Lagging [Electronic version]. *eWeek*, 24(1), 25. Retrieved August 17, 2007 from Business Source Complete database.
- Fusaro, R. A., Allmendinger, G., Tien, L., Dew, N., & Bhaskar, R. (2004). None of Our Business? [Electronic version]. *Harvard business review*, 82(12), 33-44. Retrieved January 17, 2007 from Business Source Complete database.
- Gentry, C. R. (2006). RFID in Reverse [Electronic version]. *Chain Store Age*, 82(11), 72-73. Retrieved August 17, 2007 from Business Source Complete database.
- Katz, J. (2007). RFID Gains Credibility [Electronic version]. *Industry Week/IW*, 256(1), 35-36. Retrieved August 17, 2007 from Business Source Complete database.
- Kelly, E. P., & Erickson, G. S. (2005). Ethical Perspectives on the Use of Radio Frequency Identification Tags [Electronic version]. *Journal of Applied Management and Entrepreneurship*, 10(3), 78-86. Retrieved January 17, 2007 from ABI/Inform Global database.
- Kelly, E. P., & Erickson, G. S. (2005). RFID tags: commercial applications v. privacy rights [Electronic version]. *Industrial Management + Data Systems*, 105(5/6), 703-713. Retrieved January 17, 2007 from ABI/Inform Global database.
- Kirk, S., Fraser, J., & Vincenti, J. (2007). Is Big Business Watching You? RFID Tags, Data Protection, and the Retail Industry in the European Union [Electronic version]. *Computer & Internet Lawyer*, 24(2), 1-5. Retrieved August 17, 2007 from Business Source Complete database.

- Koh, C. E., Kim, H. J., & Kim, E. Y. (2006). The Impact of RFID in Retail Industry: Issues and Critical Success Factors [Electronic version]. *Journal of Shopping Center Research*, 13(1), 102-117. Retrieved August 17, 2007 from Business Source Complete database.
- McHugh, J. (2004). Attention, Shoppers: You can now speed straight through checkout lines! *Wired*, 12(07), 150-155. Retrieved August 29, 2007 from <http://www.wired.com/wired/archive/12.07/shoppers.html>
- Millar, S. A. (2005). RFID: Emerging Policy Issues [Electronic version]. *Paper, Film and Foil Converter*, 79(4), 32. Retrieved August 17, 2007 from ABI/INFORM Global database.
- Neumann, P. G., & Weinstein, L. (2006). Risks of RFID [Electronic version]. *Communications of the ACM*, 49(5), 136. Retrieved August 17, 2007 from Business Source Complete database.
- Rappold, J. (2003). The Risks of RFID [Electronic version]. *Industrial Engineer: IE*, 35(11), 37-38. Retrieved August 17, 2007 from Business Source Complete database.
- Rothke, B. (2004). RFID threat overblown [Electronic version]. *eWeek*, 21(31), 31. Retrieved January 17, 2007 from Business Source Complete database.
- Schonfeld, E. (2006). Tagged for Growth [Electronic version]. *Business 2.0*, 7(11), 58-61. Retrieved August 17, 2007 from Business Source Complete database.
- Stajano, F. (2005). RFID Is X-Ray Vision [Electronic version]. *Communications of the ACM*, 48(9), 31-33. Retrieved January 17, 2007 from Business Source Complete database.
- Strickland, L. S., & Hunt, L. E. (2005). Technology, Security, and Individual Privacy: New Tools, New Threats, and New Public Perceptions [Electronic version]. *Journal of the American Society for Information Science & Technology*, 56(3), 221-234. Retrieved August 17, 2007 from Business Source Complete database.
- Taghaboni-Dutta, F., & Velthouse, B. (2006). RFID Technology Is Revolutionary: Who Should Be Involved in this Game of Tag? [Electronic version]. *Academy of Management Perspectives*, 20(4), 65-78. Retrieved January 17, 2007 from Business Source Complete database.

## Multimedia

How RFID Works [Online video]. (2007). Retrieved January 13, 2008 from <http://www.youtube.com/watch?v=yNPDgudPmXE>

IBM RFID Checkout in Supermarket [Online video]. (2006). Retrieved January 13, 2008 from <http://www.youtube.com/watch?v=-ZYY85lyDNM>

IBM RFID Clipped Tag [Online video]. (2006). Retrieved January 13, 2008 from <http://www.youtube.com/watch?v=95VOxKp0s74>

RFID Demonstration. [Online video]. (2007). Retrieved January 13, 2008 from <http://www.youtube.com/watch?v=FVmd4iTXRLE>

RFID IBM Commercial [Online video]. (2006). Retrieved January 13, 2008 from <http://www.youtube.com/watch?v=llnUJkH0Mlc>

RFID – Technology Video [Online video]. (2007). Retrieved January 13, 2008 from <http://www.youtube.com/watch?v=4Zj7txoDxbE>

That's how we will shop in a couple of years! [Online video]. (2006). Retrieved January 13, 2008 from <http://www.youtube.com/watch?v=sDyqhcy1L-0>

**Debate Group Assessment: MCS 2020 (Winter 2008)**

Group Number: \_\_\_\_\_ Section: \_\_\_\_\_ Date: \_\_\_\_\_

Debate Name: \_\_\_\_\_ Radio Frequency Identification (RFID) \_\_\_\_\_

*Instructions:* List the names of your group members (put your name in the first box). If you were the instructor looking in on your group, mark the level of contribution and effort (out of 5) for each group member (including yourself). Feel free to add any additional comments in the space provided below.

Member #1 (Your name):	/5
Member #2:	/5
Member #3:	/5
Member #4:	/5
Member #5:	/5
Member #6:	/5

Comments: