

# Tag Ethics

**Prof. Simon Rogerson**

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Radio frequency identification (RFID) is heralded by many as one of the new society-changing technologies. The RFID tags are minute ranging from as large as a grain of sand to as small as a speck of dust. This intelligent Lilliputian technology has a huge range of applications. Tags can be placed in absolutely everything. The current list includes animal identification, beer keg tracking, vehicle key-and-lock anti-theft systems, library book or bookstore tracking, pallet tracking, building access control, airline baggage tracking, clothing item tracking and identification badges.

Electronic toll collection such as the FasTrak system in California use RFID tags. As the vehicle passes the tag is read and the information is used to automatically debit the toll from a vehicle owner's bank account. Retailers such as Wal-Mart and Tesco are using tags in their supply chains to track and monitor items from wholesale supply to public consumption. Manufacturers such as General Motors use the tags to monitor and report where every item is at every moment during the manufacturing process. Recently the Ohio Department of Rehabilitation and Correction in the US has announced it will fit RFID transmitters the size of a wrist watch to all inmates so they can track them all the time. If prisoners try to remove the tags an alert will be sent to the prison computer system and the alarm will be raised. Finally, the US military has recently announced it will tag all its assets as part of a major overhaul of logistics and security.

The potential is huge but the price we have to pay may be high. Many argue that the depth of information which can be held by these tags, the ease with which they can be incorporated into products and the ability to interrogate them at a distance present major issues for society particularly regarding privacy.

TheFreeDictionary.com ([encyclopedia.thefreedictionary.com/rfid](http://encyclopedia.thefreedictionary.com/rfid)) lists four main privacy concerns regarding RFID technology as:

- The purchaser of an item will not necessarily be aware of the presence of an RFID tag or be able to remove it;
- An RFID tag can be read at a distance without the knowledge of the individual;
- If a tagged item is paid for by credit card or in conjunction with use of a loyalty card, then it would be possible to tie the unique ID of that item to the identity of the purchaser; and

- RFID Tags create, or are proposed to create, globally unique serial numbers for all products, even though this creates privacy problems and is completely unnecessary for most applications.

These align with the reported problems over RFID tags and readers described by Technovelgy ([www.technovelgy.com/ct/Technology-Article.asp?ArtNum=20#Security](http://www.technovelgy.com/ct/Technology-Article.asp?ArtNum=20#Security)).

- The contents of an RFID tag can be read after the item leaves the supply chain
- RFID tags are difficult to remove;
- RFID tags can be read without your knowledge;
- RFID tags can be read a greater distances with a high-gain antenna; and
- RFID tags with unique serial numbers could be linked to an individual credit card number.

Larry Ponemon (2004) warns of another potential problem with RFID tags. He explains that over-reliance can lead to complacency in stringent monitoring in the supply chain which can have devastating effects in for example food manufacturing. He explains that there is a "need to recognise the importance of having internal controls such as monitoring and accountability procedures in place to identify negligence in the supply chain or improper usage of personal data."

These commentaries illustrate the range of issues that need to be addressed if RFID technology is to be widely accepted.

Some organisations have been mindful of public concern over the seemingly unrestricted used of RFID tags. For example, in its 2003/2004 Corporate Social Responsibility Report Marks and Spencer states, "We started to introduce [RFID] technology into our food distribution systems in 2002 to increase the efficiency and accuracy of delivering products to stores. ? However, a number of civil society groups have concerns that it could then be used unethically to track people and their behaviour. We held discussions with the National Consumers Council and Caspian to understand their worries and have developed responses for a number of their concerns. For example, any RFID tags used on products are made very visible and easily detachable. It is our intention to continue these discussions. ? We see great potential in RFID technology and are committed to ensuring we use it in a way that is acceptable to our customers and wider society.

Speaking at the RFID Privacy workshop held at MIT in US, Wipro Technologies, a leading IT solutions and services provider in application development, system integration, product implementation and consulting services, called for improved public policy concerning RFID technology. This would help the commercial use of RFID

realise its full potential, address the radical shift to a customer oriented marketplace, address the issues surrounding reengaging with customers, address the growing complexity of conducting business globally and improve the trust in public and private institutions. An integrated approach to public policy was called for based on six elements: technical, industry self-regulation, ethical approach, legislation, RFID branding, and consumer education. The ethical element would be based upon:

- Respect confidentiality
- Don't "flame"
- Don't be anonymous
- Don't allow third party to access other's data
- Don't misrepresent or lie
- Follow government's general guidelines
- Consider presentation of message

This strong ethical element is encouraging particularly as it is being put forward by a major player in the computer industry. It remains to be seen whether such an integrated approach to international public policy will ever come to fruition.

This pervasive technology has great appeal to many organisations that have a legitimate requirement to track and monitor goods and people. But for it to go unfettered is dangerous. How do you know that the item of clothing you are wearing has not got a tiny RFID tag in it which has not been deactivated and now someone knows where and when you are reading this article?

Please send your views on ethical and social responsibility issues and cases of ethical dilemmas to:

Professor Simon Rogerson  
Director  
Centre for Computing and Social Responsibility  
Faculty of Computing Sciences and Engineering  
De Montfort University  
The Gateway  
Leicester  
LE1 9BH

Tel:(+44) 116 257 7475

Fax:(+44) 116 207 8159

Email:<srog@dmu.ac.uk>

Home Page: ( <http://www.ccsr.cse.dmu.ac.uk>)