



# Revisoning the Library

7th - 8th February 2007

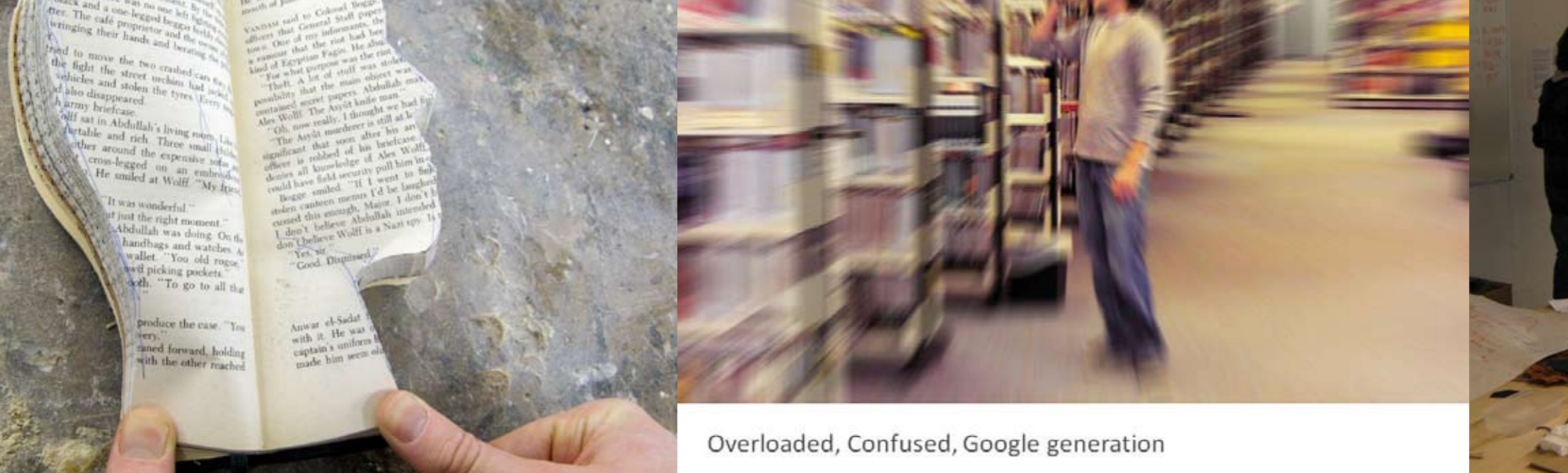
## An trans-disciplinary masters workshop in RFID

### Introduction

The RFID workshop over two days was a chance to speculate on the future of the library. The library is undergoing self-reflection on the relation between its physical and electronic resources, spaces and systems. The starting point for rethinking these relations was to introduce technologies that can store and transmit data, and to begin to imagine scenarios where the physical and digital objects collapse onto eachother. Might agency extend not to readers but to the books themselves in such a scenario?

Francis Hunger, "How I Learned to Love RFID", HWKV 2006. [http://www.hmkv.de/dyn/c\\_program\\_events/detail.php?nr=1239A](http://www.hmkv.de/dyn/c_program_events/detail.php?nr=1239A) as many other technologies, which are basically used in the civil sector, the basics of RFID were commissioned and developed in the frame of military research. In late WW II the British Royal Airforce used "tags" on their planes to decide whether it was a "friend or foe" signal that was reflected by radio waves, used in radar technology. RFID uses a similar basic concept. A radio wave is sent to a transponder - more commonly called "RFID tag" - which then wakes up, consumes the energy of the initial radio wave and sends back data to the sender/receiver unit. Through the 1990s to 1960s, this concept was developed into electronic anti-theft devices that were in fact 1-bit RFID tags. They could be set either on or off and would signal if a person has paid and the cashier did subsequently deactivate the tag. So the theft alarm devices that are positioned on each entrance/exit of shops are very basic RFID readers. In the 1970s several patents for RFID applications were issued and passive and active tags were developed in the private sector and in military research. Today they are intended and used basically for supply chain optimization in logistics.

Image: Group 1 matling books



### Context

Bruce Sterling, "The Internet of Things: What is a Spime and Why is it Useful?", <http://video.google.com/videoplay?docid=-385773939595666768> In the future we may be able to find lost keys with a simple google search. Science fiction writer Bruce Sterling imagines how physical objects will be part of the internet as they become trackable in space and time. Bruce discusses the theoretical and technical challenges that we face as we try and think about and develop the Internet of Things. From Spimes to Thing Links to Things, the terminology and verbal framing devices currently being used are pulled apart in this keynote address from the 2006 O'Reilly Emerging Technology Conference.

Duncan Shingleton, "RFID and the Internet of Things: You are part of the Global Network", 2007. [http://www.shingleton.org/?page\\_id=142](http://www.shingleton.org/?page_id=142) Objects tagged with a Radio Frequency Identification (RFID) chip have a unique digital identity and play a pivotal role in joining the physical world with the digital. A resulting "Internet of Things" emerges, consisting of networked objects that are capable of communicating with each other, and what is going on in the space around them. This is the moment where the real world and the Internet become inseparably linked, occupying the same space, becoming the same reality: a merging of 1st and 2nd Life. Current theory surrounding the Internet of Things maintains the viewpoint that we are outside the network and in control of the agency we have over our objects. The tagged object's role in the Internet is to streamline economic practice and make our lives more convenient. However, I propose an alternative hypothesis for addressing the theory that RFID now means a re-orientation within the Internet of Things, and not a separation of the new digital age. There is a resulting transfer of agency as objects become active members of society, contributing to social debate, as we see what can only be defined as a truly ubiquitous network environment emerging, where the real is intrinsically bound with the digital. Wikipedia definition of RFID, <http://en.wikipedia.org/wiki/RFID>

Image: Group 1 becoming the book

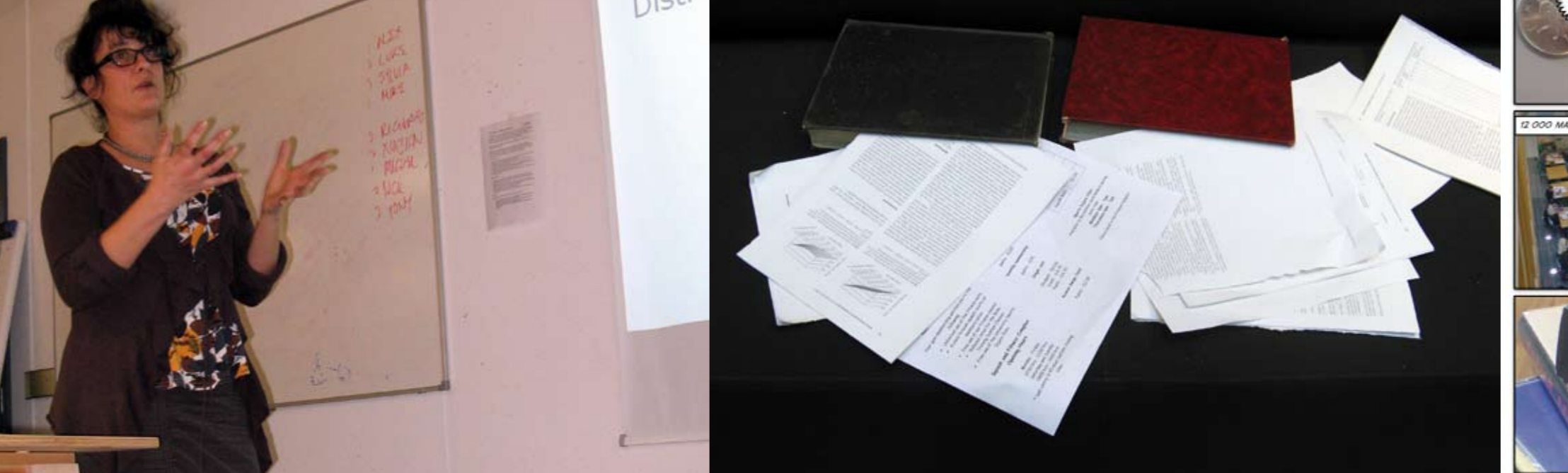


### Task

Students were introduced to the library as a social, cultural and technical context for their work. During a briefing session the students were asked to respond to the following characteristics of a library in the twenty first century.

- Challenges:**
- Google Generation - who needs a library!
  - Cost of buildings - maximise use
  - Virtual library vs physical library
  - Complexity of copyright laws
  - Complexity of publishers pricing
  - Shifting sands of publishing world - now you see it now you don't!
  - Complexity of licensing regulations
- Areas of Improvement:**
- Induction - needs to be more interesting / interactive
  - Information literacy workshops - how can we improve them
  - Better stock control
  - Public catalogue - needs to be more interactive
  - Marketing of e-resources

Image: Group 3 depiction of the confusion experienced by students in the search of the right book



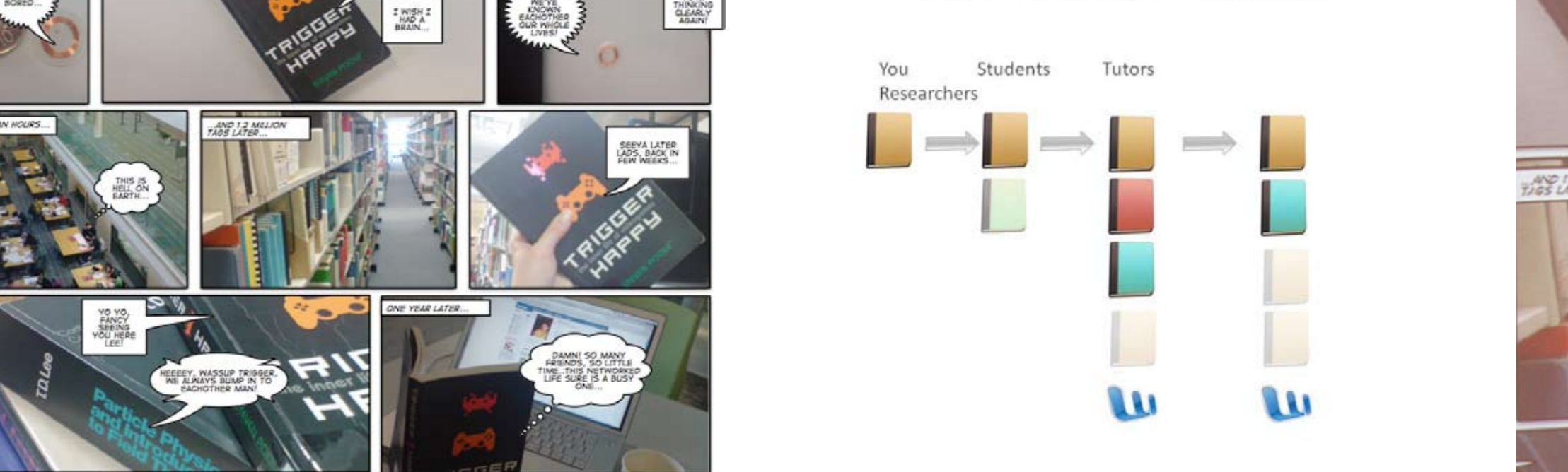
### Project Team

Tutors: Geoff Cox, Pete Davis, Chris Speed  
Seminar: Gianni Corino, Davide Marocco  
Library: Jayne Moss

### Students

- Alex
- Luke
- Tony x
- Silvia x
- Xiaojuan Wang
- Mike Thomas
- Richard Wilks
- Miguel Oliveros

Image: Group 3 tag the student not the book



### Group 1

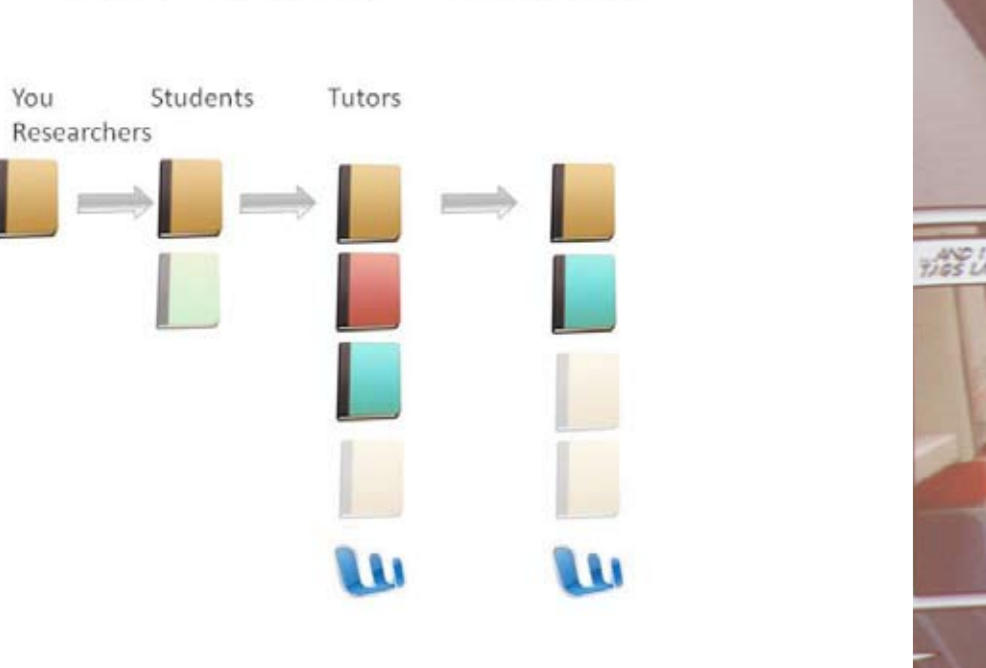
Tony harker, Sylvia llecha, xiajuang

The outcome we have discussed focuses very much of the physical manifestation of books, and how although all created equal and identical the second they enter the real world they begin to evolve and grow, as knowingly or unknowingly people leave their marks on this vessel of knowledge. This may take the form of a fold on a page corner, or a note on a margin, but can be as subtle as a build up of smudge marks on a well used page corner, or a particular bending of the spine. The marks build into a history that remains within and is unique to the book. Far from damaging, or detracting from the book as we are taught when young these scars of use serve to enrich the information, providing clues as to how others have viewed and interpreted it.

This evolution, and editing, as well as a notion of preserving willingly or unwillingly something of yourself in this agent or vessel for information we term a book is something which is lost in the translation to electronic media.

This is a bizarre occurrence given the ease with which one make and reverse changes within the electronic environment, destroying any notions of preservation of a thing with an associated value which might discourage the visual manifestations of history and past use within a printed text. I feel this is partly associated with the immediacy, tangibility and flexibility of a paper as a medium for carrying information, and the instancy and tangibility of those changes. These changes to the original state of the book form a history, which can in itself tell you a lot about the information in the book, be it the structure, or in interpretation or contextualisation. This enrichment of the text should be encouraged wherever possible... change this it is rubbish....

Image: Group 1 presentation of concept



### Group 2

Students were introduced to the library as a social, cultural and technical context for their work...

Using E-books and journals as a starting medium the potential to produce an amalgam text incorporating these notes, and personal thoughts of readers in order to create an evolved text is immense. This evolution and reshaping of the text has the potential to update in terms of thought and context the information within the book or journal, as well as suggesting devices to aid understanding, or provide contrast, or support to the material within the publication.

This has the potential for the commentary to advance into being an entity in itself, which could then be commented upon, and grow with the text, producing a combined text, an expanding co-written body of information, where thoughts and opinions, elements of the humanity of the readers can be preserved within this electronic medium forever.

These comments could be attributed to readers, providing the option of reading specific commentaries, as well as offering a chance to have any reference material you have tagged as useful or commented upon combined into a rich volume of useful texts complete with references from your time at university. This would end the days of references being forgotten and lost within obscure reports, and would help provide a lasting memorandum of what you accomplished, and were driven by during this time of great personal development. This repository for want of a better word could provide a valuable resource for use throughout the rest of your life, further enhancing the outcomes that university education as a whole strives to achieve.

Image: Group 2 books exchanging knowledge



### Group 3

Students were introduced to the library as a social, cultural and technical context for their work...

MA Design  
MRes Design Thinking  
MA Contemporary Designer Maker  
<http://www.3ddesign.org.uk/>

MA / MSc / MRes Digital Art & Technology  
<http://m.i-dat.org/>

Image: Group 2 schematic for the paths of study across the university

