Title	Tagging one million volumes in a 2.0 environment: lessons and experiences of implementing RFID technology at the Main Library, The University of Hong Kong
Author(s)	Wong, RSC; Wan, YC
Citation	The 50th Anniversary Conference of the Hong Kong Library Association, Hong Kong, 4-5 November 2008. In Conference Proceedings, 2008, p. 210-222
Issued Date	2008
URL	http://hdl.handle.net/10722/199858
Rights	Creative Commons: Attribution 3.0 Hong Kong License

LOOKING BACK, MOVING FORWARD:
ASIAN LIBRARIES IN THE WORLD OF INFORMATION
4th - 5th November, 2008 The Hong Kong Central Library

1958-2008

Tagging One Million Volumes in a 2.0 Environment: Lessons and Experiences of Implementing
RFID Technology at the Main Library, The University of Hong Kong

Ruth Wong & Y.C. Wan
The University of Hong Kong Libraries

HKUL 50th Anniversary Conference,
Hong Kong Central Library, November 4, 2008

This Presentation

- **Focus on the tagging exercise – how we planned and managed the project.**
- **The exercise is now 99% complete. This has enabled us to update information we provided in our paper one month ago.**

Agenda

- **Overview of the HKU Main Library RFID project**
- **Scope of the tagging project**
- **Preparation work before starting to tag**
- **The tagging exercise**
- **Lessons and experiences**
- **Q & A**

RFID Project Overview

- **A HKUL Working Group recommended to the Library Senior Management to adopt RFID technology in library operations in 2004.**
- **The Senior Management decided to proceed with the tendering exercise in 2006.**
- **The first product demonstration was held in November 2006**

- **It was decided to awarded the contract to ETI Consulting Limited (ETIC) in late 2007**
- **The library implementation team comprises Peter Sidorko (chair), Y.C. Wan, David Palmer, Thomas Hung and Ruth Wong**
- **Tagging exercise – an Access Services Department project**

Tagging Project Scope

- **Main Library open stack books and bound journals**
- **Fung Ping Shan Library open stack books and bound journals**
- **> 1 million volumes, or some 80% of the open stack collection of the entire library system**

Not Included

- **AV & Reserve Collection**
- **Special Collections**
- **Current periodical issues**

Limitations

- **Space – the Main Library was full before the project started**
- **Time – changing over to RFID before 9/2008**
- **Staff – very busy, cannot afford to deploy existing staff to do the tagging**
- **Vendor – limited knowledge about how the Main Library works**
- **Workflow – mobile tagging was not possible**
- **RFID is new to everyone in the library**

Preparations

- **Ease of space**
- **Purchase of tags**
- **Determine what data will be stored in the tag**
- **Test of tagging workflow**
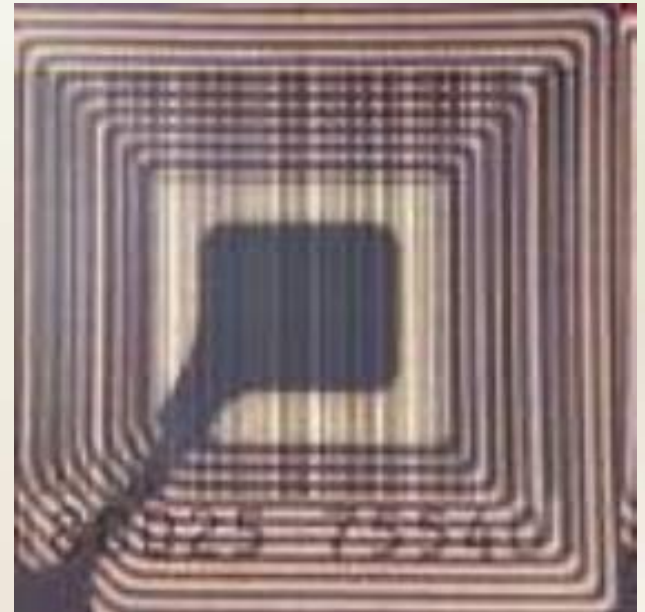- **Devise tagging software incorporating the chosen workflow**

Ease of space

- less used materials moved to remote store
- vigorous criteria used
- 63,000 volumes relegated in two months
- done by three temporary contract staff

Purchase of tags

- **Based on existing size of collection of the Main Library and projected growth of newly purchased materials**

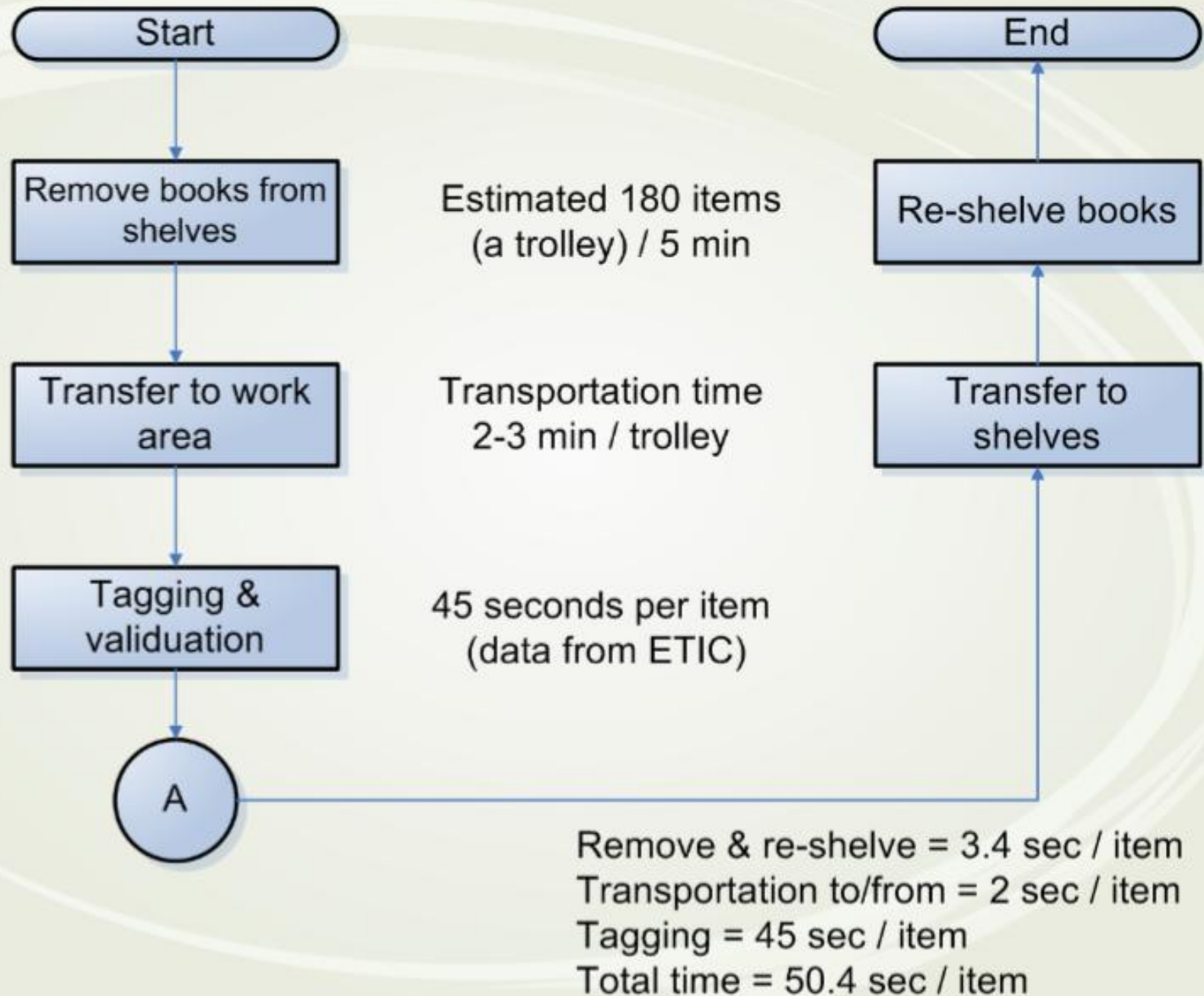   **1.3 million** RFID tags of high frequency is purchased

Data stored in the RFID tag

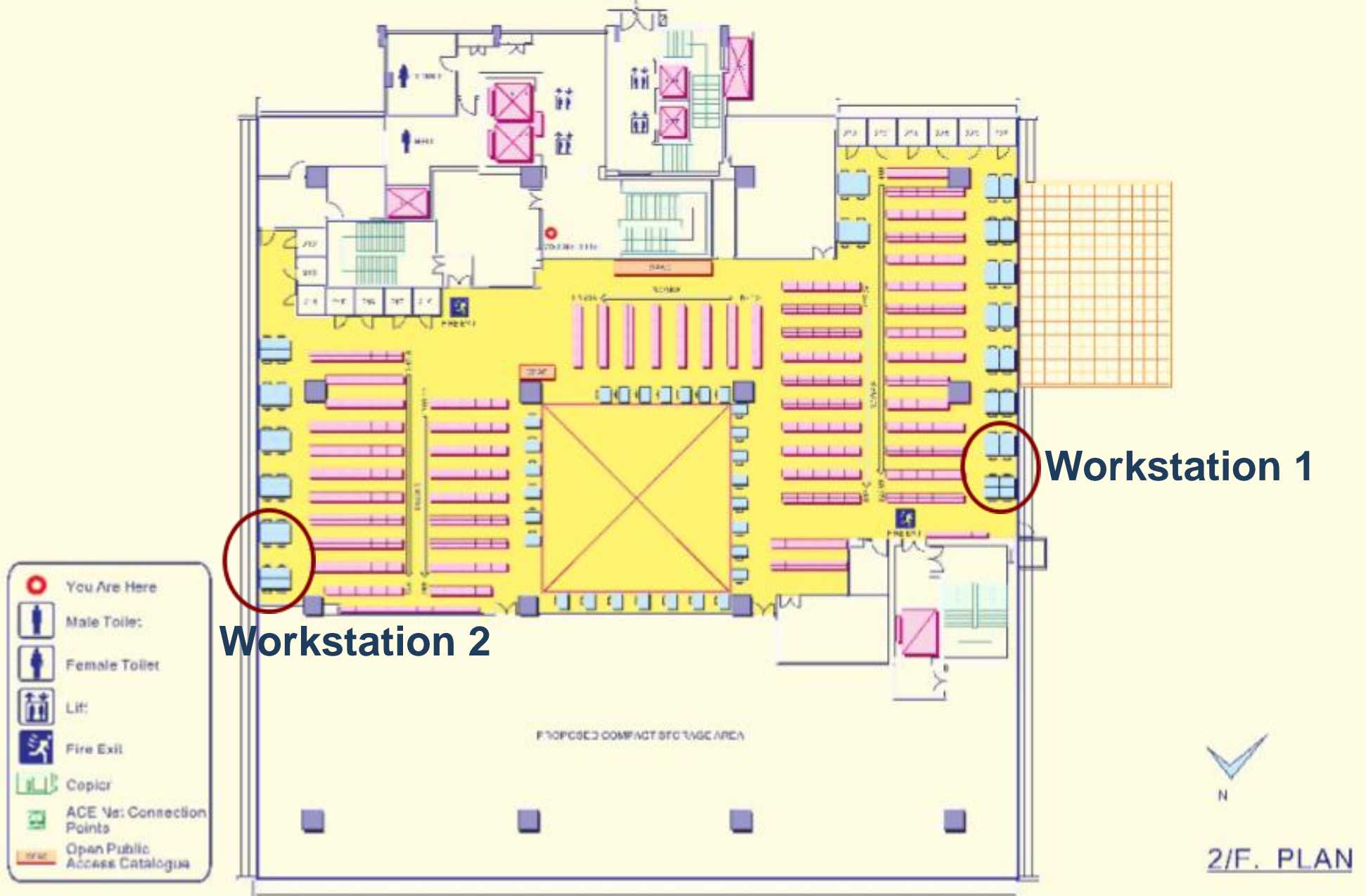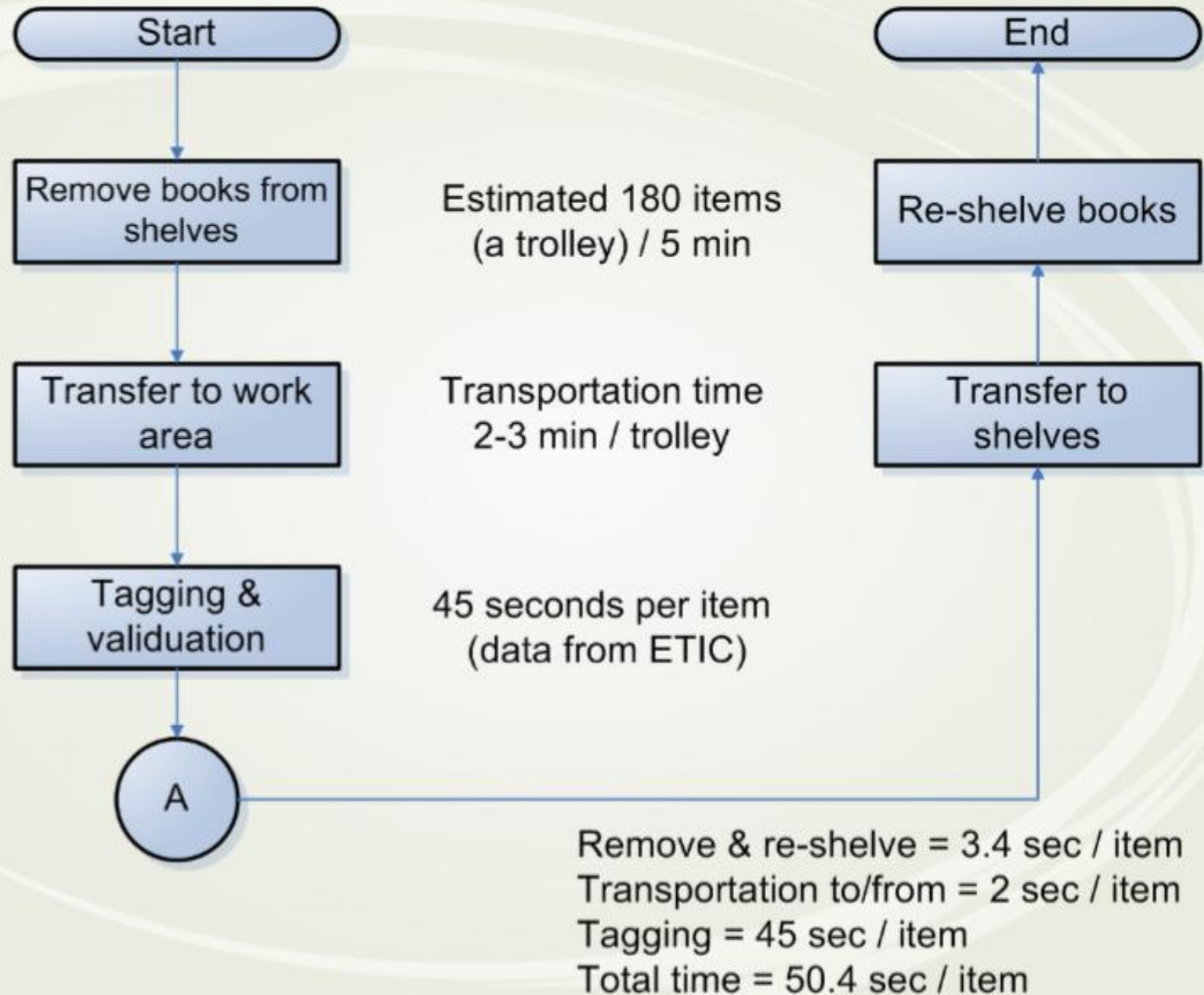- **Privacy issue Ownership & Primary Item ID (barcode) only**

The University of Hong Kong Libraries

X60080950

Test of tagging workflow

Location of workstations

Workstation 1

Workstation 2

You Are Here
Male Toilet
Female Toilet
Lift
Fire Exit
Copier
ACE Net Connection Points
Open Public Access Catalogue

N

2/F. PLAN

Test of tagging workflow

Start → Remove books from shelves — Estimated 180 items (a trolley) / 5 min

Transfer to work area — Transportation time 2-3 min / trolley

Tagging & validuation — 45 seconds per item (data from ETIC)

→ **A**

End ← Re-shelve books ← Transfer to shelves ← **A**

Remove & re-shelve = 3.4 sec / item
Transportation to/from = 2 sec / item
Tagging = 45 sec / item
Total time = 50.4 sec / item

Devise tagging software incorporating the chosen workflow

- **Original procedures**
Write
  - ○ **Scan barcode**
  - ○ **Retrieve item details**
  - ○ **Write barcode to RFID tag**

Validate
  - **- Scan barcode**
  - ○ **Retrieve item details**
  - ○ **Check details from screen against details on physical items**
  - ○ **Press enter to lock data**

Devise tagging software incorporating the chosen workflow

- **Revised procedures**
  Write, check and validate data in one step
    - Scan barcode
    - Retrieve item details
    - Check details from screen against details on physical items; and

Press enter to lock data

2 steps

9.2 seconds per item are saved

Tagging resources
Equipment & furniture

- **Conversion workstations**
  - **1 PC with LCD monitor,**
  - **1 RFID antenna,**
  - **1 RFID reader,**
  - **1 barcode scanner and**
  - **1 RFID tag dispenser**
- **Trolleys**
- **Desks, chairs and partitions**

Tagging resources
Equipment & furniture

Tagging resources

Temporary staff

- **Supervisors x 3**
  - Relieve workload from regular library staff from circulation
  - Relegate less used books from the Main Library to remote storage to prevent from frequent shifting of books
  - Solve simple problems on the spot
  - Provide day to day supervisions to tagging helpers

Supervisors

- **One is a retired staff who had been working for the Main Library for more than 30 years**

- **Two had been participated in relegation and LC re-labeling projects**

Supervisors

- **Started one month before the tagging helpers**
  - To familiarize themselves with the tagging workflow and;
  - To help relegate less used materials to a remote store

Supervisors

- **Briefing on standardizing supervising patterns**

    All three understand that they have to

    o Ensure all helpers followed uniform procedures;
    o Ensure tagged items are re-shelved within 3 hours;
    o Ensure no untagged books were left on trolleys overnight;

Supervisors

- **Briefing on standardizing supervisory patterns**

  o Ensure a constant productivity of tagged items;
  o Ensure sufficient manpower on all floors even if some helpers are sick or on leaves;
  o Ensure simple problems were solved immediately;

Supervisors

- **Briefing on standardizing su~~~~~y patterns**

  o Ensure complicated problems were reported to the Access Services Department;
  o Keep daily statistics on outputs and used RFID tags.

Tagging resources

- **Temporary staff**
- **Tagging helpers x 22**

  - Shelving and tagging
- Most of them are students from universities, community colleges or secondary schools.

Measures to enhance productivity

- **Shelves are sequentially numbered**

Measures to enhance productivity

- **Trolleys are marked "start" and "end" and a co-ordinate chart in the front**

Measures to enhance productivity

- **Helpers marked an arrow on the exact place on shelf where the last book on the trolley was located**

Measures to enhance productivity

- **Take and tag one book at a time**

Measures to enhance productivity

- **Verify the call number only**

Measures to enhance productivity

- **Marked boxes for problematic books**

Measures to enhance productivity

- **Documentations of tagging procedures and self-devised tools are given**
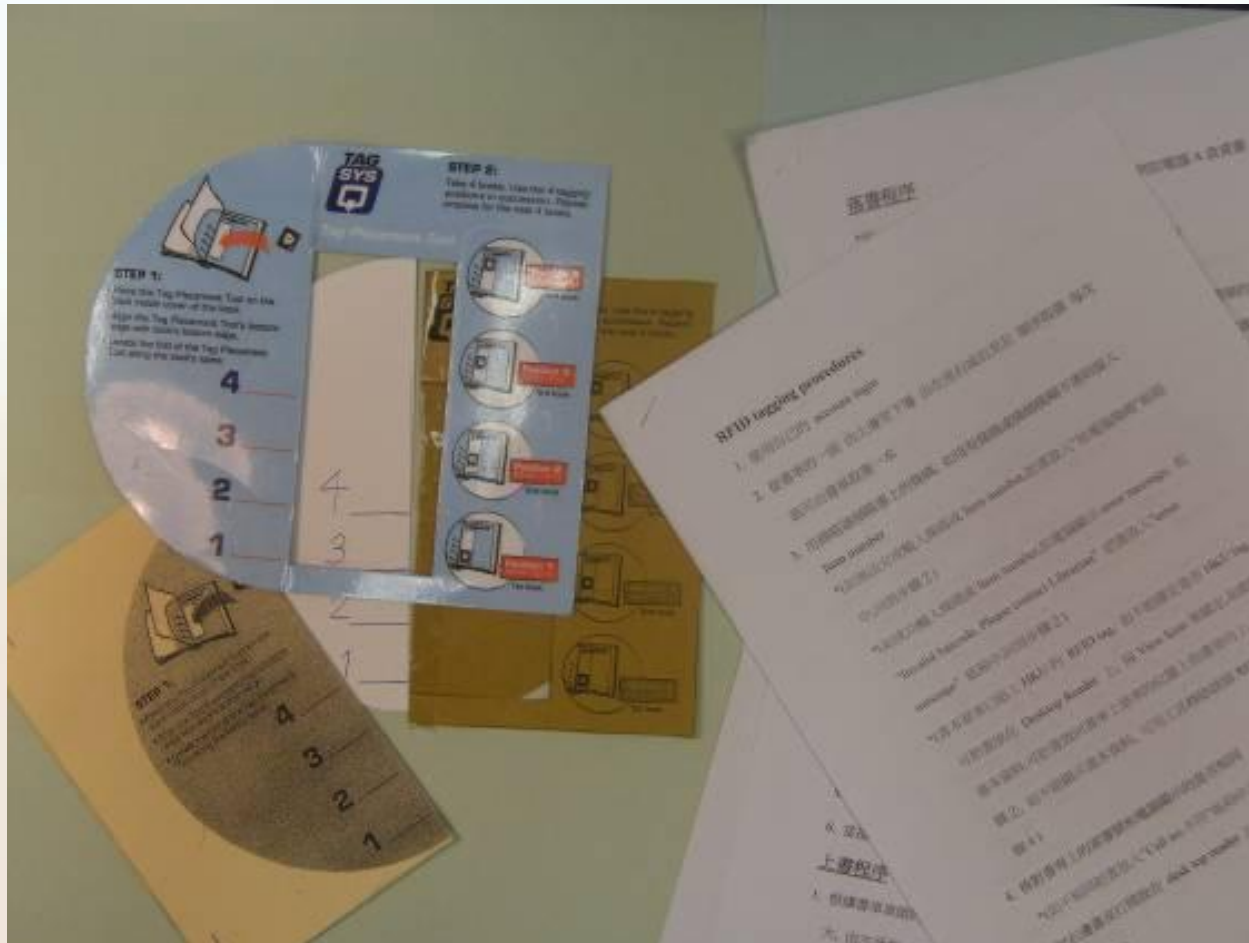
Tagging exercise kick-off

- **2 May 2008**
- **22 helpers reported for duty in two batches**

Tagging exercise kick-off

- **All staff received half day briefing & training on**

  - Project missions and expectations;

  - Tag's positions, tagging procedures and shelving safety.

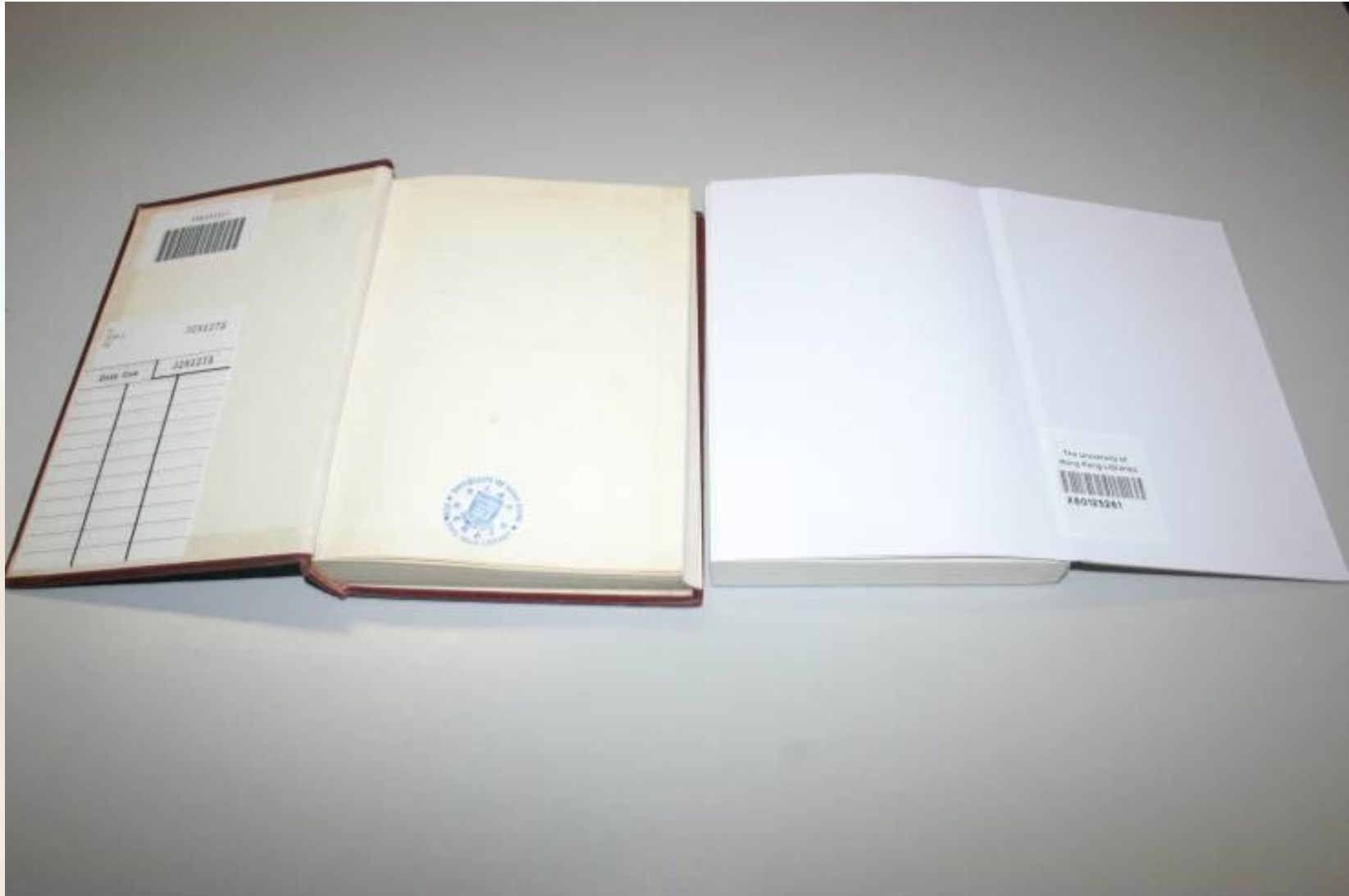# Projected vs. actual productivities

Problems encounters

Problems encounters

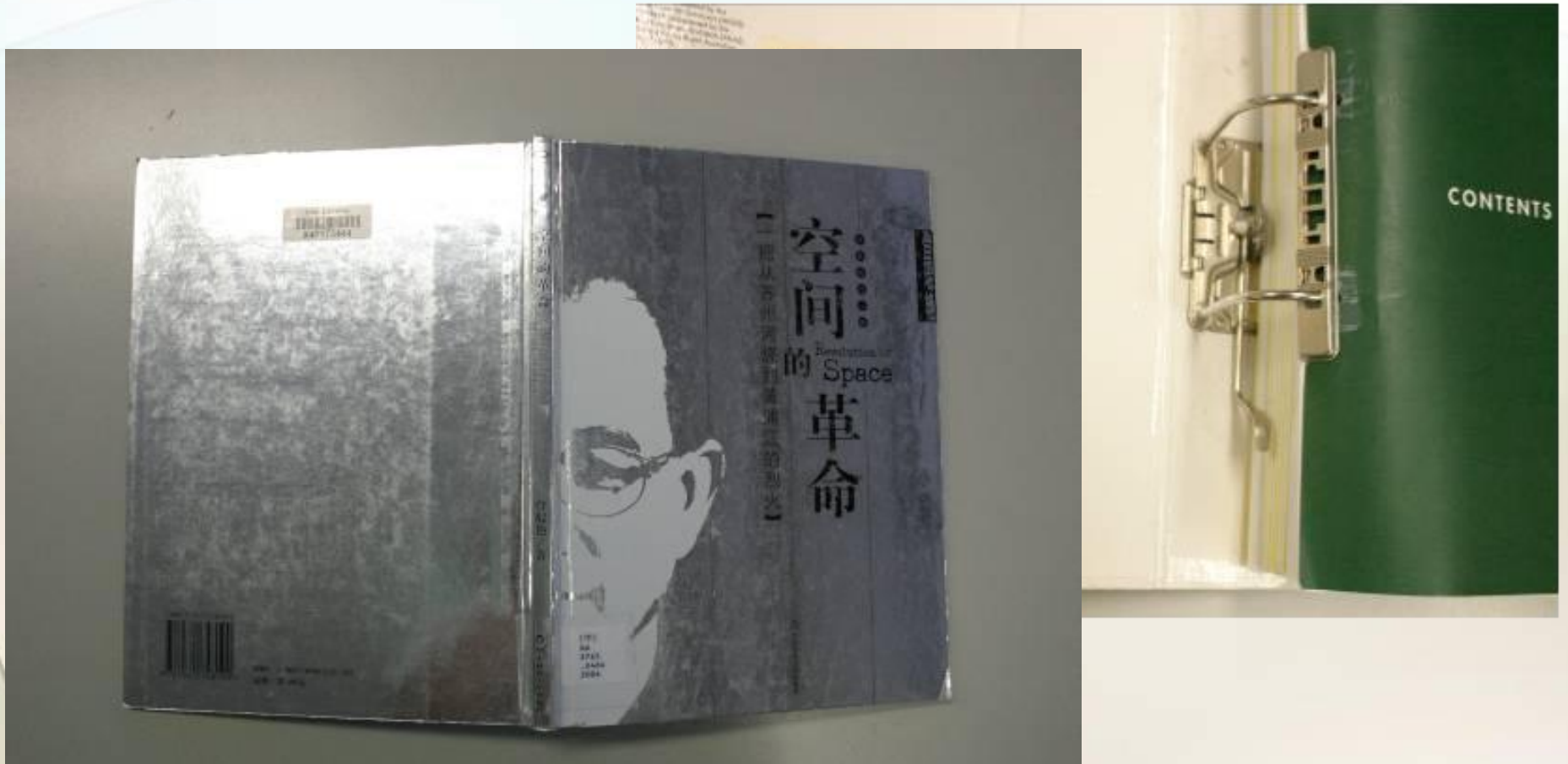- **Books in different orientations**

Problems encounters

- E
- c

Problems encounters

- **Books with metal covers / are in ring binders**

Problems encounters

- **Network problem**
  - **Slooooooooow**
  - **Innopac upgrade**

At Last – 28/8/2008

- **800,000 items were tagged**
- **RFID circulation service was launched**

Lessons & experiences

- **Planning and preparations is important**
- **Right time & right support**
- **Roles of supervisors**
- **Temp staff?**
- **Communications**
- **Just do it!**

**Thank you
Q & A**