Top Tech Trends in Materials Handling
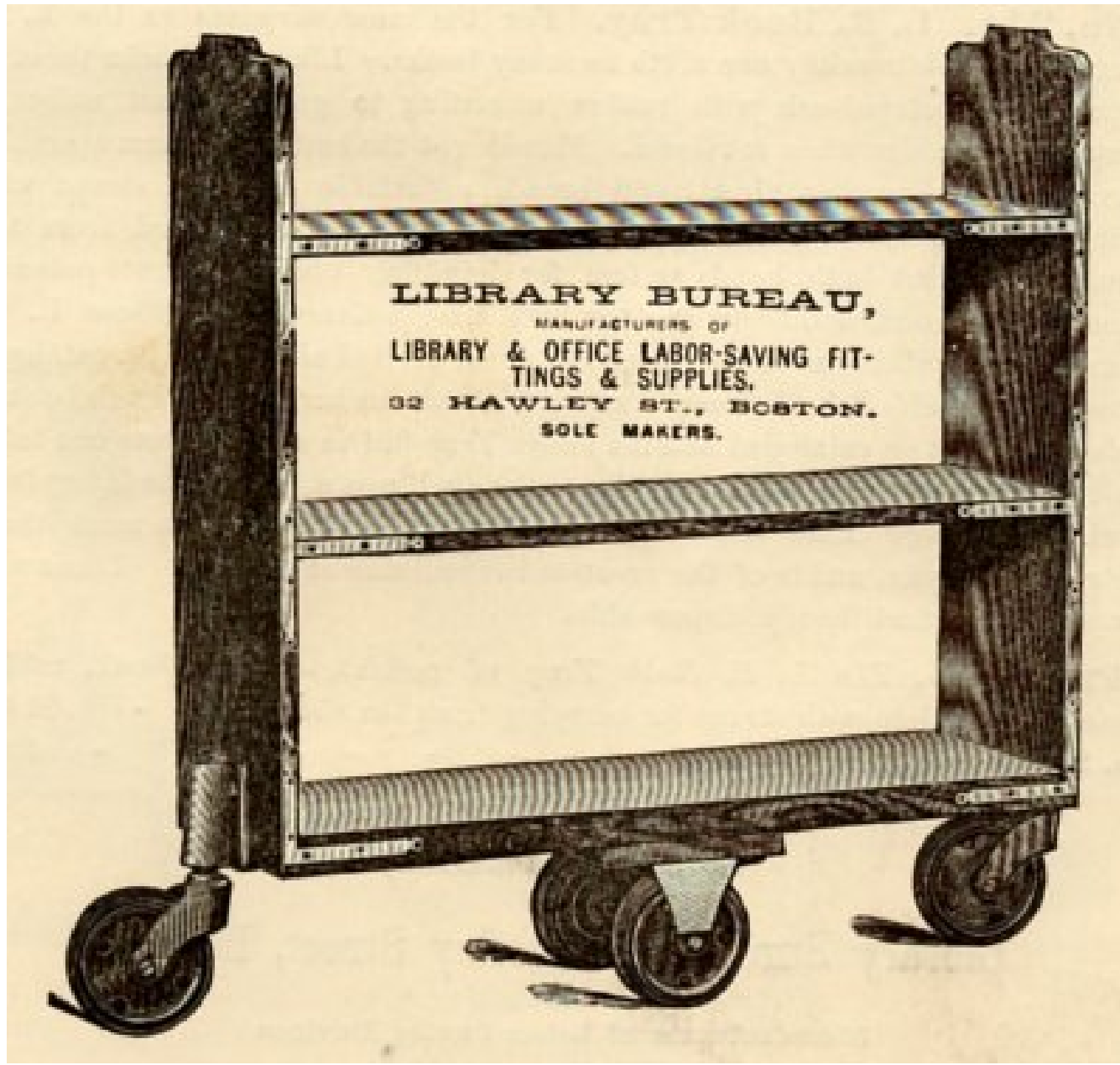
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Back in Circulation Conference

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The evolution of materials handling technology in libraries

"In the beginning, Ranganathan created the …."

Early 1800's

LIBRARY BUREAU,
MANUFACTURERS OF
LIBRARY & OFFICE LABOR-SAVING FITTINGS & SUPPLIES.
32 HAWLEY ST., BOSTON.
SOLE MAKERS.

Later 1800's

The Truck Beautiful

No. 25

1950's

1980's

This isn't your normal boring booktruck!+
State-of-the-art booktrucks now available in 5 vibrant awesome colors.

1990's

2000's

Ergonomic book carts that work with sorters (but don't work for Drill Team)

Trend #1

AUTOMATED SORTERS FOR EVERYONE

Envisionware Whisper Sort

Things to Know About Sorters

1. Do NOT require RFID – can sort with barcode or RFID

2. Your available space is the only restriction for how many sorts you can have

3. Sorters can drop items into Ergo Carts, Smart Bins, trolleys, delivery totes, and more traditional bins.

4. They are quiet (generally)

5. No special power requirements

But how does this stuff get into the sorter?

Book Drop –> Patron Induction

AUTOMATED CHECK-IN BECOMING STANDARD

People don't like standing in line no matter how friendly the staff is (are?)

People like getting items checked in immediately

People like getting receipts

AMH System =
Automated Check-in With Sorting

Trend #3

AMH SYSTEMS ARE GETTING BETTER AND CHEAPER

$65,000 with Automated Check-in

- Equivalent to 1.5 FTE in work performed

- Space required: 8x10

Lyngsoe 3-bin

Lots of configuration possibilities even with small 3-bin

Benefits of AMH
with (at least) 3-bin Sort

1. Items checked in before patron enters library

2. Check-in eliminated from staff workflow

3. Separate ready-to-shelve returns

4. Separate media (protect them from damage)

5. Separate items needing staff (e.g. holds, exceptions)

Variations in Automated Check-ins

- Location (inside, outside, foyer)

- Access (restrictions, or not)

- Induction (one-at-a-time, or not)

- Patron interface (touch screen, or not)

- RFID (or not)

External Check-ins

What to look for:

- Can you see the screen?

- Access door (UL listed?)

- Ease of use

- Touch screen

- Clear instructions

- Work for your climate?

Internal Check-ins

Standard Configurations Can Bring the Prices Down

3M FX Model around $100,000

Bibliotheca Smart Sort - 7-bin

3M Intelligent Return Plus

- Barcode or RFID
- No touch screen
- $40,000

UL-Certified
*picture shown represents the 3M Intelligent Return Plus

Bibliotheca SmartSort 200

- No touch screen
- No receipt
- No reject option
- Inside and outside models
- Pricing: $30K range with 3-bin sorter
- Max of 5 bins

Trend #4

SORTERS BEING USED FOR INTERLIBRARY DELIVERY

Sorting to Delivery Totes

EnvisionWare Modular Sorter - Central Sorter at Las Vegas-Clark County Library District

NYPL 132-bin Sorter

King County 150-bin Sorter

Sort to Light

- Manual sorting

- Lights indicate where item goes

- Increases accuracy

See *Label-Less Library Logistics: Implementing Labor-Saving Practices in Massachusetts' High-Volume Resource Sharing System* Available from http://bit.ly/yFYDQM
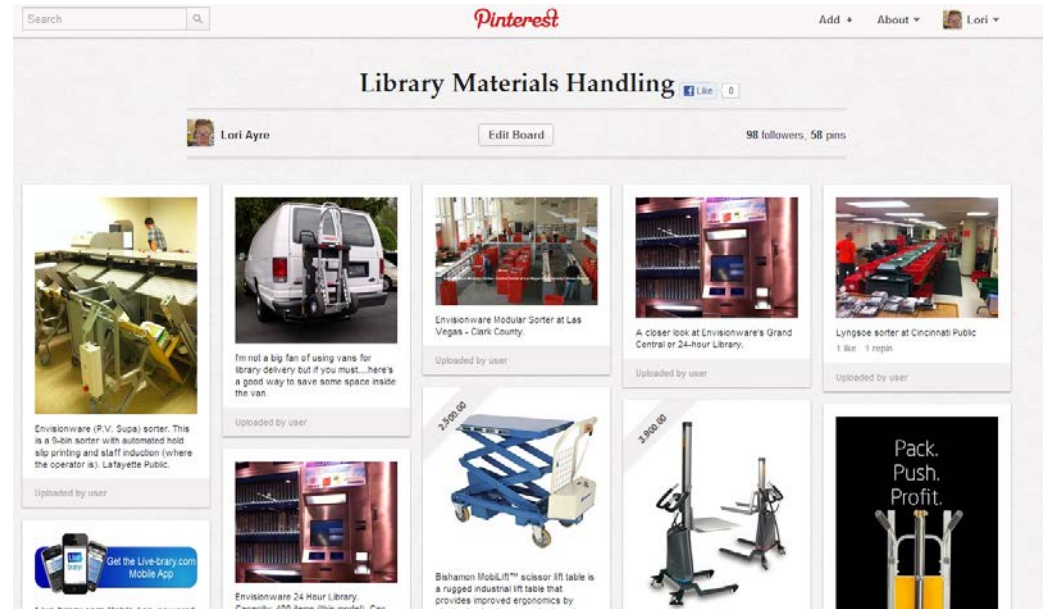
Trend #5

AMH VENDOR MARKETPLACE CONSOLIDATING

AMH Vendors

- 3M
- Bibliotheca
- Envisionware
- Lyngsoe
- mkSorting
- D-Tech
- Tech-Logic

Watch http://pinterest.com/loriayre/library-materials-handling/ for new product developments

Tech-Logic

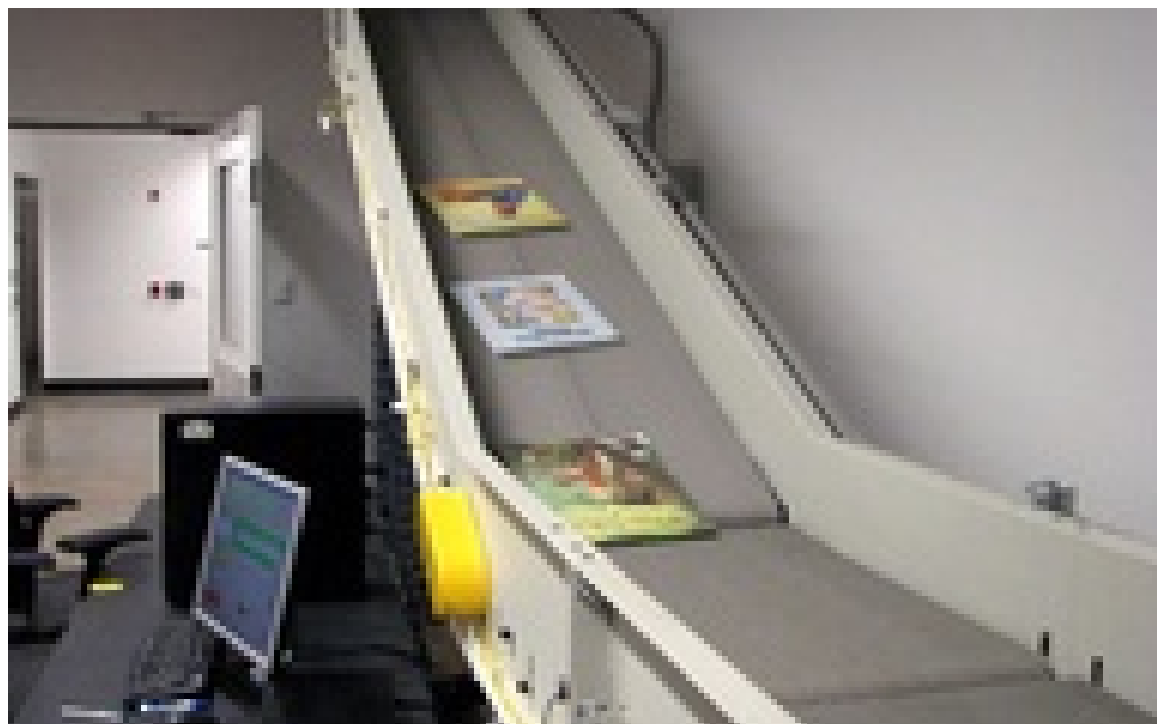"Serving US Libraries Since 1992"

Tech-Logic "Book Placer" System

Tech-Logic "De-Shingler"

Trend #6

MORE SELF CHECK DEVICES

Tech-Logic MyMobileLibrary

- Mobile self-check-out application

- Uses Boopsie

- Check-out with smartphone

- Requires security kiosk to turn off security

Bibliotheca SmartDispenser 200

- Formerly ITG DiscXpress
- 500 discs per tower

LAT's allCIRC

Bibliotheca Product Expandable to Six Towers

Trend #7

KIOSKS FILLING A NICHE...BUT EVOLVING

mk LibDispenser

- Holds 500 books
- Can have one or two screens
- Can access OPAC
- Barcode or RFID

Evanced BranchAnywhere

- 220 books or 500 CD/DVDs
- 24/7
- RFID required
- Walk-up service only
- Returns are re-shelved

Bokomaten

- Holds 400 items
- Contra Costa's Library-a-Go-Go
- RFID required

CONTRA COSTA COUNTY LIBRARY

LIBRARY a-Go-Go

FOR INFORMATION CALL 1-800-984-4636

ccclib.org

COMMUTER APPRECIATION This freestanding GoLibrary machine has been a big hit with patrons, especially those with long commutes into San Francisco

Envisionware 24-Hour Library

- Can dispense holds, check out items found in kiosk, take any returns, browse stacks

- Items drop in bins, not re-filed, so staff must load it

- RFID required

Brodart Lending Library

- Doesn't accept returns
- Staff must handle check-in and restocking

Tech Logic Media Surfer

- For lending iPads pre-configured with content
- System resets each iPad to library settings upon return so customers can use them as they wish

Trend #8

NEW PRODUCTS AND SERVICES RESULTING FROM RFID

Receiving

- Bibliotheca SmartStock 500
- Read up to 50 tags at once
- Bulk receive items
- "RFID Tunnel"
- Ballpark pricing: $11K

Tracking Material

- Bibliotheca SmartStock 600
- Detects items on the shelf in real-time
- Can search for items and find out where they actually are
- Utilizes cover-flow display to assist in searching

Ability to Perform More Functions Without ILS Connectivity using RFID

- Interlibrary sorting based on "next location" field on RFID tag

- Capture ILL transaction info directly from tag

- Track multi-part sets

- Security works between different library systems

RFID Innovation Relies Upon Standards Compliance

- What standard?
  - ISO 28560-2
  - Adopted by NISO March, 2012
- Why it matters
  - Do <u>more</u> with RFID tags
  - RFID Interoperability
- More info in RFID available at http://galecia.com/content/rfid

RFID

More Info

- More AMH information available at http://galecia.com/content/automated-materials-handling

- Check out some AMH videos at http://bit.ly/R6tW7j

QUESTIONS?

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AUTOMATED MATERIALS HANDLING

WORKFLOW OPTIMIZATION

RFID

San Francisco Public Library