So happy together: Change for one, change for eight. The Hong Kong shared experience

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Overview

- The University of Hong Kong (HKU)
- JULAC: 50+ years
- Project overview: timeline, structure and key changes
- Challenges and (some) critical issues
- Successes
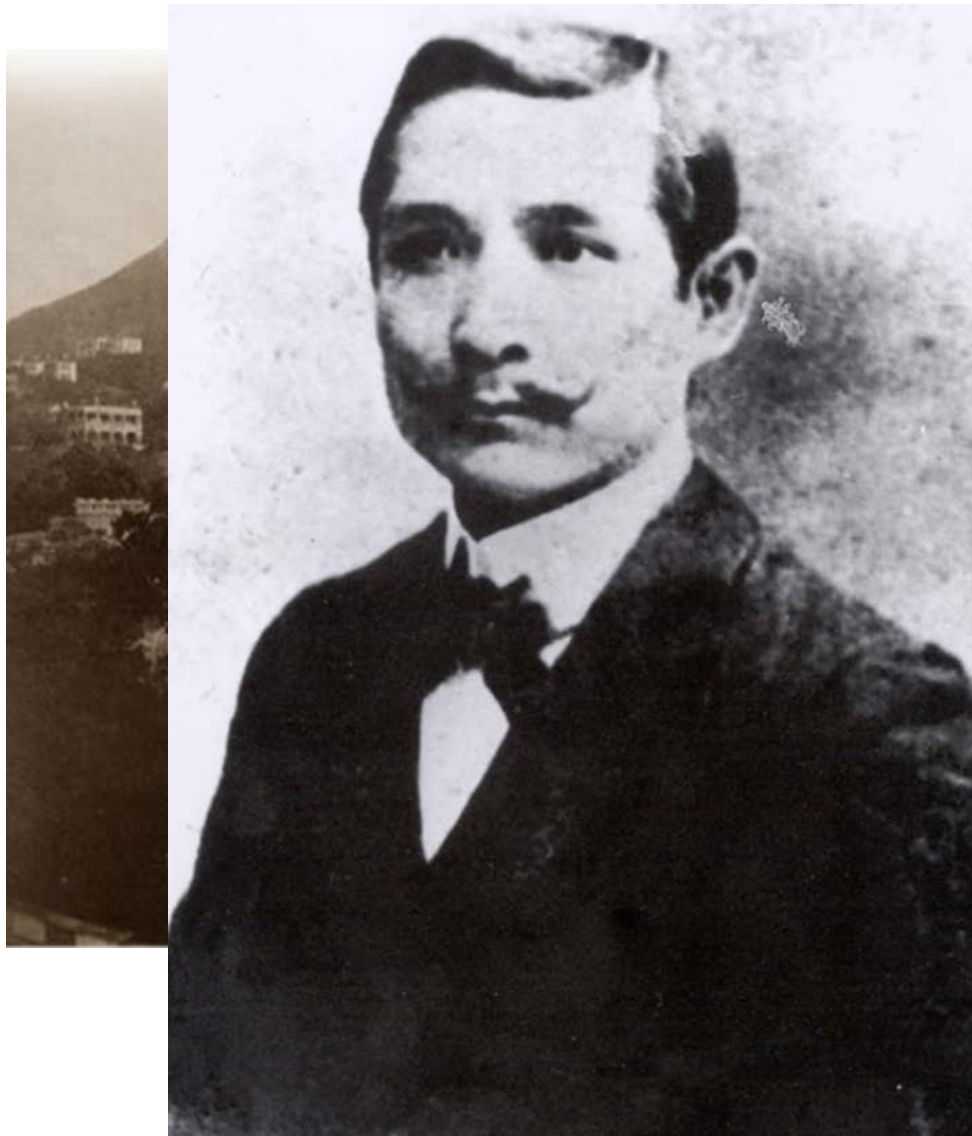- Change management
- Conclusions and Takeaways

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The University of Hong Kong (HKU)

HKU and HKU Libraries

JULAC: Over 50 years of library collaboration

Joint University Librarians Advisory Committee

Founded in 1967

A forum to discuss, co-ordinate and collaborate on library information resources and services among the libraries of the eight university funded by the University Grants Committee (UGC) of HKSAR.

Vision

JULAC is the premier body for deep collaborations related to scholarly information resources and services in Hong Kong academia.
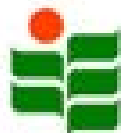
https://www.julac.org/?page_id=3387

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- Chinese University of HK (CUHK)
  香港中文大學(中大)

- City University of HK (CityU)
  香港城市大學(城大)

- The Education University of Hong Kong (EdUHK)
  香港教育大學(教大)

- HK Baptist University (HKBU)
  香港浸會大學(浸大)

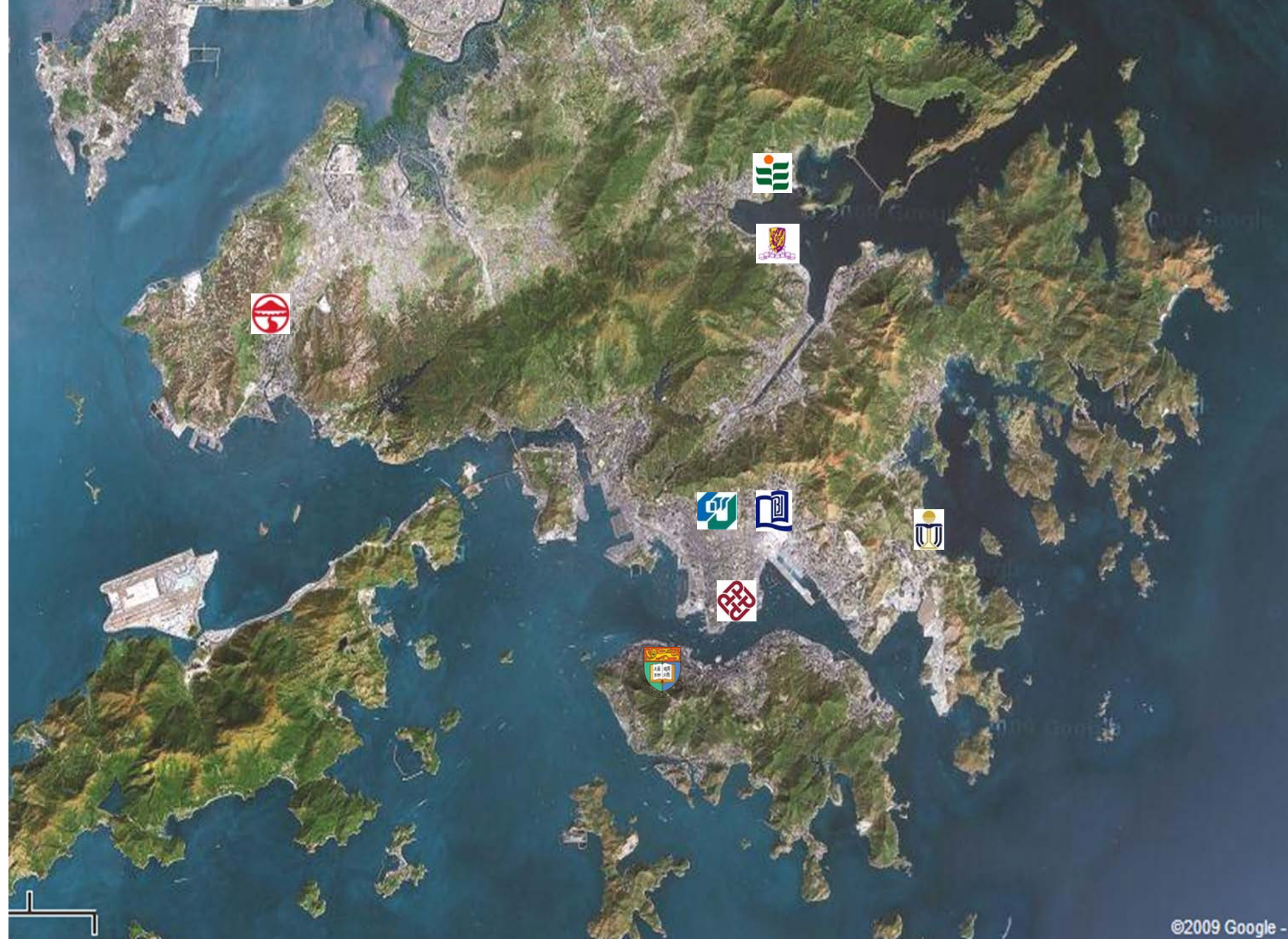- HK Polytechnic University (PolyU)
  香港理工大學(理大)

- HK University Science & Technology (HKUST)
  香港科技大學(科大)

- Lingnan University (LU)
  嶺南大學(嶺大)

- University of Hong Kong (HKU)
  香港大學(港大)

1,108 km²

Why JULAC?

- Common challenges
- Geographical and logistical opportunities
- Benefit for staff/student
- Cost-efficiency
- Cost-effectiveness
- Innovation through shared expertise
- Support from government
- Support from individual institutions

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JULAC Organizational Structure

- JULAC Directors + JULAC Manager + project

- Access Services
- Assessment
- Bibliographic Services
- Committee on Media
- Conservation & Preservation
- Consorti*all*
- Copyright
- Research Support
- JULAC Technology
- Learning Strategies
- Shared ILS Steering
- Staff Development

Deep collaboration?

- Clear, shared vision

- Engagement, time, and goal alignment

- Responsibility, risk, and commitment

- Optimization of information and **staff resources**

- Imagination and perseverance

- **Adapt and change** as process evolves and deepens

- Negotiation and compromise

- Shared power and decisions.

Horton (2013)

JULAC Principles of Cooperation

- Share smartly
- Do things together AND Do things once
- Do things to shared standards
- Improve user experience and discovery
- Contribute to the global community

https://www.julac.org/?page_id=216

JULAC Collaborations

- Consortia purchasing
- JULAC Card
- Information Literacy
- RAPID ILL
- Affiliates
- **HKALL (unmediated ILL)**
- **HKCAN (HK Chinese Authority Names)**
- **Shared ILS**
- etc

Project overview: timeline, structure and key changes

Project Overview

- One single system used by all 8 libraries
- Cloud based
- Holds a conglomerate of ca 20 million bibliographic records serving over 380,000 users
- Includes HKALL JULAC's union catalogue
- Supported by Ex Libris products Alma and Primo
- JULAC's next phase in *deep collaboration*

Some Figures at Go-Live date

	2016/2017	Changes in 10 years
Students (FTE)	142,551	+37.1%
Print Books and Bound Journals	11,602,410	+20.8%
E-Books	17,990,978	+770.8%
Print Journals	17,885	-61.4%
E-Journals	712,946	+176.6%
Loans	2,834,586	-55.2%
E-Book Usage (BR2)	14,467,876	N/A
E-Journal Usage (JR1)	20,808,287	N/A
Visits	12,163,729	-4.6%
Library Staff	1,011	+0.8%

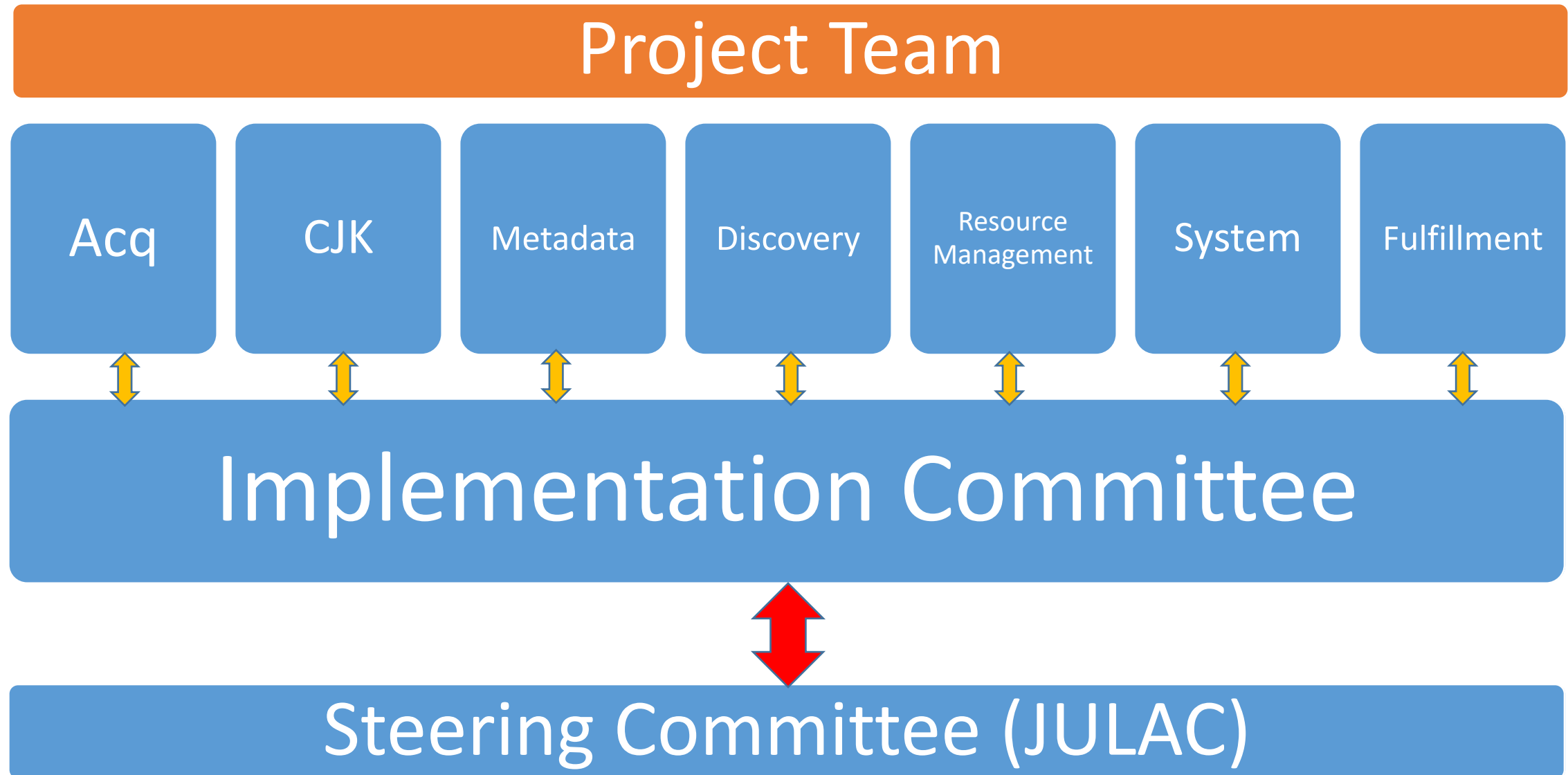| Jun 2013	2013-2016 JULAC Strategic Plan	Explore and implement a shared ILS to achieve the goal of building collections and delivering services collaboratively
Feb 2014	Invited Marshall Breeding as ILS Consultant and visited Hong Kong	Marshall Breeding submitted Consultancy Report in May 2014
Sep 2014	Shared ILS Working Group formed	• Worked with JULAC committees • 5 Functional Groups formed in Apr 2015
Jul 2015	RFP finalised	
Aug 2015	Tendering	HKU administered tendering process on behalf of JULAC members
Sep 2015 – Jan 2016	Product demos and interviews	Evaluation report endorsed by JULAC Directors and HKU Finance and Enterprise Office in Jan 2016
Apr 2016	Tender award announced	Tender awarded to Alma and Primo from Ex Libris

Implementation Timeline

May 2016	Project organization and governance structure approved	Implementation Team and 6 Functional Working Groups formed based on the scope of work. The 7th FWG added in Oct 2016
Jul 2016	Official project kick-off	
Sep 2016	Implementation Manager assumed duty for 1 year	Served as the single contact between JULAC and the vendor
Aug–Oct 2016	1st round of test data migration	Test data delivered in Oct
Oct–Nov 2016	Production environment delivered	• Alma library service platform delivered in Oct • Primo discovery service platform delivered in Nov • Workflow testing started

Nov 2016	Change Manager assumed duty for 2 years	• Supports libraries in Change Management and Process Re-engineering at both JULAC and institutional levels • Performs benefits realization study after implementation
Jan–Mar 2017	2nd round of test data migration	Test data delivered in Mar
May 2017	Cutover data migration and freeze of technical services	
Jul 2017	Go-Live	
July 2017+	Let the fun begin	

Project Structure

- Steering Committee
  - 8 JULAC Directors
- Implementation Team
  - 2 co-chairs
  - 7 functional WG Chairs
  - 8 institutional reps
  - 1 Implementation Manager
  - 1 Change Manager

- 7 Functional Working Groups (8 institutional reps in each)
  - Acquisitions
  - CJK
  - Metadata Management
  - Primo Discovery & User Experience
  - Resource Management
  - System & Development
  - User Management & Fulfillment
- Project Team
  - Implementation Manager
  - Change Manager
  - Executive Officer

Key System Changes

- Alma to replace III's Millennium (7 Libraries) and Sierra (1).

- Four of the JULAC libraries will keep using Ex Libris's Primo as their discovery tool. Primo will replace Summon, ENCORE and EBSCO Discovery Service used by the other 4 libraries.

- Primo Central Index will replace Summon Knowledgebase and EDS EBSCO Integrated Knowledge Base for those libraries who are not current users of Primo.

- Alma link resolver will replace SFX and 360 Link.

- The INN-Reach system used for resource sharing will be decommissioned once the system goes live. The Hong Kong Academic Library Link (HKALL) union catalog will be available on Primo. Both online direct requests and walk-in borrowing on HKALL materials can be achieved through Primo.

- Two of the JULAC libraries also chose to implement Leganto for reading lists at that time. Now there are 4.

Challenges and (some) Critical Issues

Within 3 Hours of Go-Live

- "I'm also immensely disappointed at the initial outcome of this costly migration process. I propose to discuss this with my law faculty and other academic colleagues to decide how best to raise within HKU the many issues it brings up as to library management."

- "I'm complaining vociferously about an ill-judged and poorly designed new system, a mishandled IT migration, and an entrenched disregard for the views and needs of users. All of this has been conducted at considerable cost to HK's university system and to the UGC, and clearly needs objective review."

(HKU Law Faculty member)

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1 Merging Bibliographic Records

Targets

- To share bibliographic records in Alma Network Zone

- Need to merge ca 20 million records from individual Millennium databases of 8 member libraries

- To select only one record for Alma Network Zone → de-duplication of bibliographic records needed

1 Merging Bibliographic Records

What we did

Defined what to include in NZ Alma	Print books, AV materials, serials and selected e-resource packages
Designed the de-duplication or merging key	Based on the key data, incl. author, title, publisher, year, etc.
	Cannot rely on MARC field 035 OCLC control number as not all our bib records carry such field
Developed program to generate the key for each bib record for mapping	
Selected the master/priority records	Based on the collection size, availability of Romanization fields, etc.
Enabled better de-duplication of CJK records	By flipping romanization data to parallel fields where necessary → to ensure all records adopt the same type of data for mapping

2 Data Migration

Migrating from one system to a differently designed system

Difficulties in data mapping

- Misunderstanding/confusion in the definitions of tags and labels in Alma
- Corresponding fields not found in Alma
  - Loss of data or incorrect placement of data (esp. in order, patron and holding records)
- Lack of guidance from EXL

Tight migration time frame

- insufficient time for thorough data migration planning and testing, especially having spent much time in first test load
- Underestimated the difficulty in field mapping and migrating all data

Huge volume of bib data for publishing to Primo

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2 Data Migration

How we overcame this?

Two rounds of full test load + full data load for production

EXL adopted a better data loading tool in the 2nd round of data load

EXL changed the Primo publishing methods a few times → finally using a two-environment model

Individual institutions needed to conduct post-migration data cleanup → took some time to clean up

HKUST: duplicated SFX bib data; consolidate "bound with items", i.e. items linking to multiple bib

CityU Library: duplicated SFX bib data, consolidate "bound with items", incorrect codes on material types in item records, etc.

3 User Authentication

EXL required JULAC to use external identity sources for user authentication

Individual libraries have multiple identity sources (staff, students, alumni, library registered users, self-finance program students, etc.)

HKALL Primo requires a cross-institution authentication solution.

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3 User Authentication

SAML 2.0 Authentication *– Adopted*	Individual libraries worked with their institutions' IT dept to integrate SAML 2.0 based IdP to Primo (and Alma), to cover all users
	Successfully implemented within tight implementation time frame
HKALL Primo Authentication *– Being explored*	Hong Kong Access Federation (HKAF) for cross-organization single sign-on authentication - Project started by Joint Universities Computer Center in 2016
	Unable to implement HKAF for HKALL Primo - Primo did not have the capability to communicate with HKAF's discovery service
	EXL need to adopt PDS technology to implement cross-institutional authentication

4 Continuing Support and Management
(for NZ Alma and HKALL Primo)

? When is the appropriate time to shift from Project Team Support to Service Support

? Which party to report problem cases to EXL

? Which party to look after NZ Alma and HKALL Primo – long term system administration (incl. API key)

? Who should own the system administration right

? Which party to make final decision/approval on proposed system changes

? How to handle enhancement requests that can maximize the benefits of the consortium

Critical Issue 1: CJK

Problem One	Solution	Issues
• Conven containe.g. Pin880 paproperl		• Auto-Romanization on a record, to transliterate all Chinese characters in MARC tags to Pinyin in one shot

Most issues now resolved through software development.

Flipping MARC Tag 880 parallel fields

LC MARC:

```
LEADER 00000cam  2200000Ia 4500
001    23330745
008    890713s1975    hk              000 0bchi
010    76838960
040    DLC|cEYM|dOCL
045    w9x7
049    HNKA
050  4 PL2781.N2|b37 1975
245 00 |6880-02|aLin Yutang lun /|cYide bian
260    |6880-03|a[Xianggang? :|bs.n.] ;|aHong Kong :|bWan you tu
       shu gong si,|c[1975?]
300    14, 309 p. ;|c19 cm
500    |6880-04|aOriginally published: Lin Yutang si xiang yu
       sheng huo. Hong Kong : Xin wen hua chu ban gong si, 1954
600 10 |6880-06|aLin, Yutang,|d1895-1976
700 0  |6880-01|aYide
700 12 |6880-07|aLin, Yutang,|d1895-1976.|tWorks.|kSelections.
       |f1975?
740 0  |6880-05|aLin Yutang si xiang yu sheng huo
880 00 |6245-02/$1|a林語堂論 /|c一得編
880    |6260-03/$1|a[香港? :|bs.n.] ;|aHong Kong :|b萬有圖書公司,
       |c[1975?]
880    |6500-04/$1|aOriginally published: 林語堂思想與生活. Hong
       Kong : 新文化出版社, 1954
880 0  |6700-01/$1|a一得
880 0  |6740-05/$1|a林語堂思想與生活
880 10 |6600-06/$1|a林語堂,|d1895-1976
880 12 |6700-07/$1|a林語堂,|d1895-1976.|tWorks.|kSelections.
       |f1975?
```
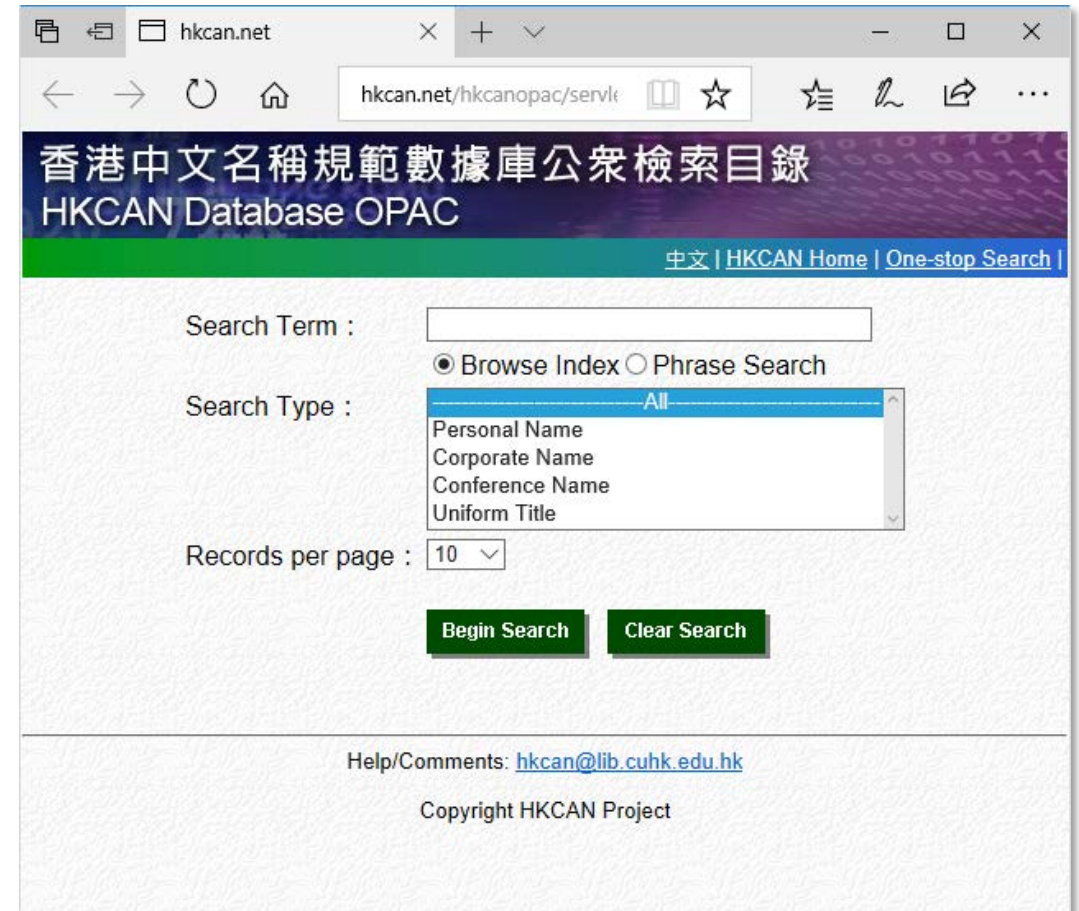
In JULAC Alma, the pair is flipped:

```
245 0  0  $$6 880-02/$1 $$a 林語堂論 / $$c 一得編
    0  0  $$6 245-02 $$a Lin Yutang lun / $$c Yide bian.
```

- JULAC Systems Committee in collaboration Bibliographic Services Committee, Metadata FWG and System FWG made this drastic recommendation, i.e. flipping content of 880 parallel fields

- This was proved to be a significant implementation decision that helped reducing number of CJK issues

33

Critical Issue 2: HKCAN

- **HKCAN: Hong Kong Chinese Authority Names**

- Established in 1999

- A union database of Chinese name authority records which reflects the unique characteristics of Chinese author names and organization names

- Has created some 300,000 Chinese name authority records

Critical Issue 2: HKCAN

Problem Two	Issues	Solution
• Hong Kong Chinese Authority Name (HKCAN) • Multi-lingu control	• Alma does not support Authority MARC tag 7XX • Need to merge HKUST's authority record to HKCAN • HKCAN content needs refreshing	• Migrated HKCAN database to NZ and ...e ...AF

Issues now resolved through software development.

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HKCAN Architecture with Alma

Critical Issue 3: HKALL

- Hong Kong Academic Library Link (2003+)

- User initiated, unmediated Inter Library Lending among the 8 JULAC libraries

- First of its kind in Asia

- First in the World to include a large number of Chinese vernacular items

- In 2009, the busiest INN-Reach in the world (av request per library)

Critical Issue 3: HKALL

- HKALL is (was)

- … a **Real-time Resource Sharing System** that allows unmediated borrowing & lending physical materials among consortia member libraries. It contains 4 major components:
    - Union catalogue
    - Discovery application
    - Requesting and circulation system
    - Statistics module.

The Decline of HKALL

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Transactions	213,207	197,754	170,094	149,632	135,103	120,372	112,542	93,712	63,853
Percentage change	9	7.5	14	12	9.7	10.9	6.5	16.7	31.9

Transactions
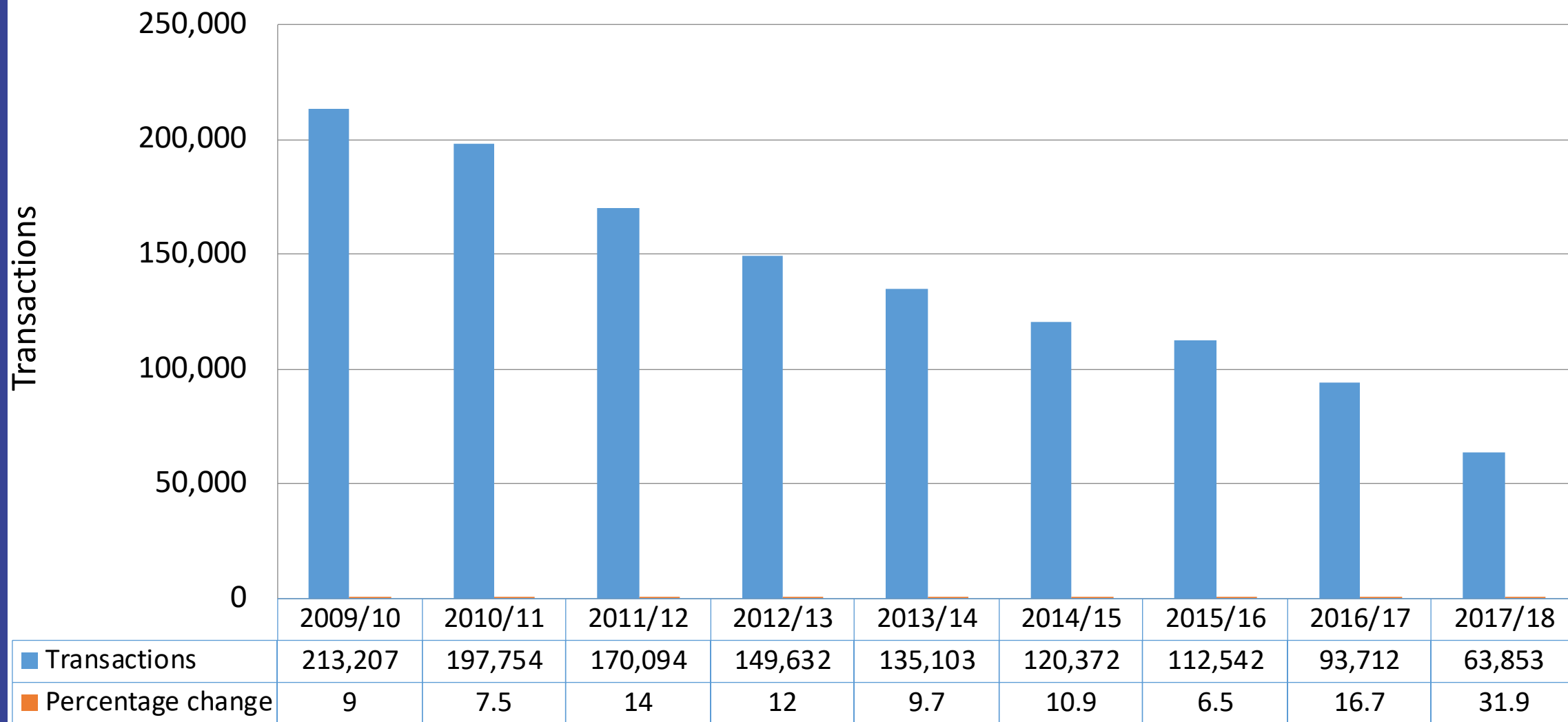
Issues with Alma's "Resource Sharing"

- Not Real Time. Can't tell if an item is "available". No indication of a successful request. Need to wait for a confirmation or rejection email often leading to mu

- A t and

- Can

Most issues now resolved or using a workaround or pending.

- No reasons given when requests are rejected.

- Titles appear as 'available' but may not be HKALL 'requestable'.

- HKALL request button may not appear for no given reason (e.g. ineligibility, exceed quota etc.).

Successes

What Worked Well?

Procurement	Implementation	Critical Issues
Request for Proposals	Forming teams Steering Committee	Flipping MARC tag 880
Tendering	Implementation team	Merging bib records and load sequence
Evaluation of products & vendors	Functional working groups	
	Implementation manager	User account authentication

Deep Collaboration among 8 JULAC libraries

Sharing responsibilities, workloads, experiences, expertise, practices, programs, APIs, configurations

Coming to consensus on differences

What Worked Well?

Constant Communication

- Within JULAC – wiki, email mailing lists, group meetings, WhatsApp groups

- With Ex Libris – Basecamps, Salesforce website, onsite training, WebEx, weekly project calls, Knowledge Center website (some not effective), product experts on f2f discussions (very effective)

United Front on Critical Issues

- Bargaining power
  - Pricing
  - a second Primo environment to hold HKALL Primo data
- Additional resources
  - Change Manager & admin staff
- Change management
- Cooperative cataloging and contributing to global community

What Worked Well? (and not so well)

What we like

- No need to swap between modules
- Link e-resources to reading lists
- Real time notices (pick-up, recall)
- Able to view history of bib records
- Easier to create sets
- Able to share HKCAN in CZ
- Integrate with campus systems
- Linked Data
- APIs for more automation, data extraction

Pain points

Response time varies , frequent down time (due to weekly maintenance and system stability issue)

- Alma – Primo synchronisation
- Cannot batch remove portfolios from Collection/Service.

- HKALL *still* not ideal
- ERM not fully functional
- Shared cataloging cannot be (fully) done yet
- Multi-lingual authority control not fully supported

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What Worked Well? (So far)

New Shared ILS Steering Committee

- The Committee will:
  - Provide oversight and leadership;
  - make operational and policy decisions;
  - escalate and/or report as needed;
  - liaise between JULAC and Ex Libris.
- On behalf of the Committee, the JULAC Manager will be
  - the gatekeeper of requests on creation/deletion of user accounts and configuration changes on the Shared ILS;
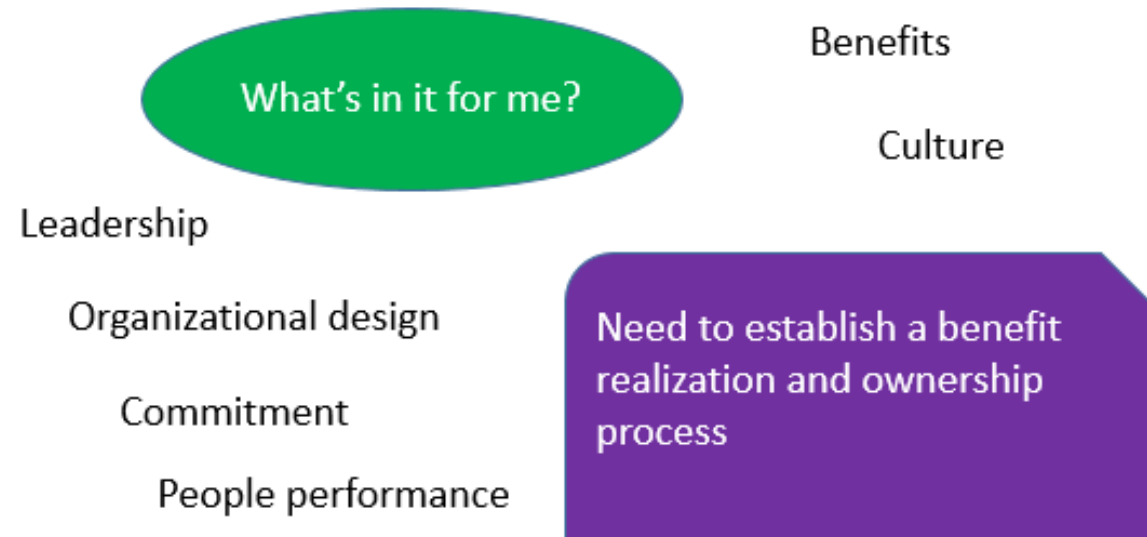 - the single point of contact between JULAC and Ex LIbris.

What Worked Well?

Change Management

Change Management

- Coordinated by a Change Manager and an Executive Officer
- Business Process Re-engineering (BPR) for **twenty two** projects across the eight libraries, with **nine SILS related** and **thirteen SILS-related/non-SILS**. From "Acquisition to cataloging processes" to "Relegation and Weeding processes".

Change Vision

Share smartly

Do things together and do things once

Do things to share standards

Consistent user experiences

Contribute to global community

What's in it for me?

Benefits

Culture

Leadership

Organizational design

Commitment

People performance

Need to establish a benefit realization and ownership process

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The Change Dilemma!

- 20+ years in same system, **reluctance to change**, to learn new things and work on new procedures, outside the comfort zone.

- The cloud-based SILS with consolidated functionalities eliminated the management of segregated servers and software platforms, **threatening the job security**.

- Network Zone **eliminated the boundaries** among libraries in sharing of information, processing and management responsibilities.

- Deeper collaboration among libraries meant that more integrated tasks to achieve the objective of "do things together and do things once", triggered the feeling of **losing control**, the reduction of the individual's span of control intensified the reluctance to collaborate.

- The (new) **monitoring and measurement** of process performance made staff uncomfortable.

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The Change Approach.

- Over 80 individual **interviews**;

- **Communication sessions** to cascade the change vision;

- **Process re-engineering** training to communicate the approach and benefits;

- Re-engineering **workshops on real projects** to demonstrate the as-is analysis, should-be redesign and implementation planning with project team members;

- Project team members were encouraged to **own the implementation** and performance evaluation with clear deliverables and responsibilities assigned;

- Change manager also **randomly revisited** the project team to evaluate the results of the change to ensure implementation carried out as planned.

Common BPR findings.

- Rethink the handling of **bottlenecks** and reduce process waiting time;
- Ensure **accuracy of information** collected in the first place to eliminate additional redoing time;
- Provide a **transparent environment across library functional units** to reduce repetitive information checking and verifications;
- **Challenge the existing workflow** and remove any non-value-added process steps and handoffs;
- Reduce process variation through **standardization, simplification, regrouping or elimination**;
- Review the old process, **challenge** the fundamental, structures and methods, **explore new technological methods** to improve process effectiveness;
- **Communicate** the full picture of cross-functional workflow to remove silos and enhance collaboration between staff, both internal and external in different departments.

Conclusions and Takeaways

- **Efficiencies** through sharing the creation of the RFP, tender evaluation, negotiation, single cloud system (not 8 standalones);

- **System cost efficiencies** (initial (XX%) and recurring (2%) based on historical data);

- **Hardware cost efficiencies** both initial (72%) and recurring (78%);

- Shared training and working in **cross-institutional implementation teams** increased implementation expertise and learning. Many staff have reported that they valued the opportunity to coordinate and share with like-minded colleagues;

- **Shared standards**. The JULAC Bibliographic Services Committee developed shared cataloging standards and protocols as the baseline for shared cataloging;

- **Shared expertise** in workflows and development work, for example sharing API developments;

- **Change management** and BPRs had a (positive) "mindset" impact;

- **Deep(er) Collaboration through the Project;**

By many measures the journey was more important than the destination!!

Acknowledgements

- The 1,000+ staff across the 8 libraries who participated in the project or had their lives affected by the outcome;

- The hundreds of staff who participated in numerous vendor presentations;

- The 90+ staff involved in committees: Tendering Team; Functional Working Groups, and; Implementation Team;

- HUCOM (Heads of Universities Committee) for funding and support;

- Our patient users (only the patient ones) across 8 universities.

- HKU Library staff Michael Cheng, Ku Kam Ming and Connie Lam for comments on parts of this presentation.

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Thank You!!