Sustainability - It’s Everyone’s Job
Sustainable Academic Libraries: Now and Beyond
Academic Librarian 4
2-3 June 2016, Hong Kong
HKUST Library

- The Hong Kong University of Science and Technology (HKUST) was founded from the earth in 1991.

- The University has had two eras of explosive growth:
  - when it first opened and grew from a few hundred to 5,000 students in just 3-4 years;
  - and recently, when Hong Kong moved from a 3-year to a 4-year undergraduate program - student enrollment rose from 7,500 in 2011/12 to 10,000 in 2014/15 to 13,700 in 2015/16.
Sustainability From Day One

- Design for user needs within available resources
- Responsible use of resources to help fulfill mission
- Look for the best option, not just the cheapest

1. Sourcing study furniture (tables, carrels, chairs, counters)
   - Solid wood construction, plus hard wood edging. Very durable, most still in use
   - May help with unexpected student usage

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Sustainability From Day One

1. Sourcing study furniture (tables, carrels, chairs, counters)
   ▶ Solid wood construction, plus wood edging. Very durable, most still in use
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2. Self-service photocopying - sustainable operations
   ▶ ‘History’ and Negotiations with Finance Office
   ▶ These two efforts were “sustainable”, although that term was not yet in common usage.
   ▶ How sustainable is a Library if its primary focus is minimalism and cost savings?
“Sustainability”

- Sustainability is a relatively recent field

“Sustainability is the ability to continue a defined behavior indefinitely.”


- Provides a graspable entry point for any discussion or action plan at any level - micro- or macro-
Macro- vs Micro- Efforts

- "Macro" - often viewed as national and international politics, economics, demographics, etc.
- "Micro" - efforts at the lower end of social, political, industrial, or organizational body

- Perspective - can be either or both:
  - At a place like HKUST, the institution’s sustainability plans may fit the Micro definition above from the viewpoint of Hong Kong and Chinese governmental planning,
  - but it is very Macro from the viewpoint of clerical staff in the Acquisitions department of the Library.
Macro- ➔ Micro-
- Implementing Institutional Projects & Goals (1)

Most efforts focus on big-picture/large-impact efforts in broad-scale across-the-board initiatives. More “bang for the buck”.

Sustainability has become an increasingly strong focus of institutional planning at HKUST, especially in the areas of building design and resource conservation.

Design and construction of a Library building extension, and renovation of space to create a 24/7 Learning Commons.

Governmental funding bodies encouraged new efficiencies—for cost savings rather than “sustainability” per se, but the effect remained.

Example: inclusion of outdoor plantings on external terraces and ledges of the Library extension.

External shading “fins” to ameliorate the impact of strong morning light on temperature and humidity in the new building atrium.
Macro- ➔ Micro-
Implementing Institutional Projects & Goals (2)

- Library staff at all levels were actively involved in the planning process
- Give staff a sense of “ownership” of the plans
  - Invested in exploring issues and solutions
  - Committed to continuing the efforts on the Micro-scale once the initial project was “completed”.
  - Avoid micromanagement ➔ Don’t just tell staff what to do, tell them the goals and let them find their own solutions
- Bring everyone into the process with an awareness of the goals and benefits not just for the institution but for society
Micro- from the Top Down

- Purchasing Efforts – increasing the lifetime of furnishings and equipment
  - 5-year warranty or maintenance contract
  - 'upgrading' the most heavily-used items – furniture and computers

Again, most activities are from lower-level staff trying to improve their workflow or to incorporate institutional objectives into their operations.

### Reading Chair Re-upholstery Record

<table>
<thead>
<tr>
<th>Date</th>
<th>Blue Chair</th>
<th>Burgundy Chair</th>
<th>Total Number of Chairs</th>
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<tbody>
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<td></td>
<td>Armed</td>
<td>Armless</td>
<td>Armed</td>
</tr>
<tr>
<td>6-Jan-03</td>
<td></td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>6-Feb-04</td>
<td></td>
<td></td>
<td>49</td>
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<tr>
<td>19-Jun-04</td>
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<td>138</td>
<td>124</td>
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<tr>
<td>28-Apr-05</td>
<td>135</td>
<td>174</td>
<td>677</td>
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<td>22 May 2006</td>
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<td>54</td>
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<td>26-May-08</td>
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<td>5-Mar-10</td>
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<td>22-Jul-11</td>
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<td></td>
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<td>19-Aug-11</td>
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<td>16</td>
</tr>
<tr>
<td>20-Jan-12</td>
<td>22</td>
<td>18</td>
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<tr>
<td>20-Dec-13</td>
<td>90</td>
<td>50</td>
<td>140</td>
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<td>1-Dec-14</td>
<td>7</td>
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<td>14</td>
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<tr>
<td></td>
<td>296</td>
<td>387</td>
<td>340</td>
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Micro- from the **Bottom Up**

- Empowering staff to come up with new ideas and bring them up through and across the organization
- Empowerment, Ownership, Inclusion, Solutions
- Refillable white boards markers - from operational staff

```
Everyday at 9 a.m.,
I know that it’s time for
Lecture. But I can’t
wake up even
with my alarms
Ringing.

Damn, I can’t sleep.
Every night
I suffer. I
So I decided
to surf the Net
using my
phone.
But things always go gone.

In my first year
as an university student,
I’m like an Eevee I wonder
which path
I’ll take
What will I become.
```

Library staff are aware of the benefits of going that extra step and thinking about the long-term impact of decisions at all operational levels.

Library users show greater appreciation for the available facilities and services.

Small actions create large results – little things help.
UST: Heating, Ventilation, A/C, Lighting

- HVAC - Single largest environmental impact point of the Library
- Competing requirements of user comfort versus collection conservation
- Complete isolation of the Learning Commons and its 24/7 operation
- Local Controls where feasible
- Circulation staff doing regular building patrols suggested expanding the provision of occupancy sensors into all the study rooms - not just the new and renovated spaces
- Sensors in new areas deactivating HVAC systems as well.
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UST: Power

2. Added power to all older wooden tables and carrels – over 1,000 outlets
3. Power outlets for all newer fixed furniture – about 1,200 outlets
4. Over 1,000 more added along walls using low-profile conduits
5. Library Computers – wasting power?
   - Power-up is user-initiated at time of need
   - An idea not from the Library or University, but from an anonymous student suggestion
   - Automatic shutdown for 150-200 public PCs – also followed student suggestion

UST: Water

1. Library
   - Power revitalization
   - User-initiated power-up
   - Automatic shutdown

2. High-impact micro-level sustainability initiative
   - Despite some initial resistance this seems to be spreading through the campus.

3. Micro influence example:
   - In 2009/10 a few students asked if the Library could provide hot water for their tea.
   - High-impact micro-level sustainability initiative
   - Despite some initial resistance this seems to be spreading through the campus.
Expansion of electronic collections, reduces photocopying but increases printing.

Large shift away from paper output is tied to network scanning, starting in 2013.

In the 1st year of scanning, copies dropped by 1/3, and the number of scans made was equal to the number of copies.

Library does not charge for scanning, as no consumables are used.

Printing remains higher than copying and scanning combined, which is only partially addressed by making duplex printing default.

Sun Glare - Staff in one office were having trouble with morning sunlight, and suggested applying a low-cost tinted film - worked great!

Trying in some public areas where solar heat gain or sun glare are significant issues.

Energy savings, user comfort, natural light.

Crowded Toilets - waiting lines in the women's toilets during exam periods.

Suggestion to convert one of the male toilets to female use during exams.

Raised by front-line staff at the Library's annual retreat.

Also opportunities to raise awareness among users.
HKUST Library established a standard process for reporting and handling defects in facilities and furnishings.

- Improve efficiency
- Eliminate redundant reporting to campus and library facilities offices
- Prioritize issues more effectively
- Provide data for evaluating operational effectiveness
- Identify unexpected complications of different projects/operations
- Dedicated communication channel with campus facilities staff and outside vendors

Developed solid relationships based on trust and reliability

The most recent sustainability initiative for the HKUST Library is in the area of event planning - specifically here and now with this Conference.

- Electronic rather than printed conference information
- Arranging a sustainable menu of locally grown and farmed food

Sustainable event planning - a learning process not just for the Library, but for all the vendors involved.

Apply to the receptions, book talks, and other Library events?

<table>
<thead>
<tr>
<th>Type of Defects</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>Electrical</td>
<td>495</td>
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<tr>
<td>Water Supplies</td>
<td>55</td>
</tr>
<tr>
<td>Drainage</td>
<td>59</td>
</tr>
<tr>
<td>Wall</td>
<td>32</td>
</tr>
<tr>
<td>Others</td>
<td>121</td>
</tr>
<tr>
<td>Ceiling</td>
<td>8</td>
</tr>
<tr>
<td>Furniture &amp; Fittings</td>
<td>142</td>
</tr>
<tr>
<td>Window</td>
<td>3</td>
</tr>
<tr>
<td>Floor</td>
<td>3</td>
</tr>
<tr>
<td>Air Conditioning</td>
<td>31</td>
</tr>
<tr>
<td>Door</td>
<td>30</td>
</tr>
<tr>
<td>Sanitary Fitting</td>
<td>12</td>
</tr>
<tr>
<td>Grand Total</td>
<td>991</td>
</tr>
</tbody>
</table>

Defects completion based on (991 defects/260 days*)

= completed 3.8 defeats per day for Facilities team
UST: Organizational Structure and Culture

- When looking at these efforts, a pattern emerges of an increasingly flexible and agile management culture - much of the reason for the range and success of the Library’s sustainability efforts.

- Strong positive outcomes require developing a management style which encourages user input at all levels.

- Input from micro-level staff is needed into the process of sustainability.

- BUT!!! To make this work, the organizational structure must support it.

- Many ways to achieve this:
  - flattening the organizational chart.
Culture of Sustainability

- Issues of sustainability need to permeate the entire organization - create a “culture of sustainability”
- Existing focus is top-down micro efforts from macro directives
- Seek opportunities for bottom-up efforts - micro-level actions influence macro-level initiatives
- Over time, HKUST Library has made many changes in organization and management
  - flattening the organization chart;
  - involving a broader range of staff on committees, working groups, project teams;
  - Established annual strategic planning retreat for all staff.
- Micro-level issues are not always micro-implementations of institutional objectives. They also contribute to high-level strategic planning.
- Remember to build in an understanding of what sustainability is.
A sustainable environment is everyone's responsibility, and it can make all of our jobs easier ... or at least more satisfying.