Thematic Library Spaces and Makerspace

Singapore Polytechnic Library
14 Oct 2014
Library: a Place Where Students and Staff

Discover
New Possibilities
Emerging Technologies
Interests & Passions

Connect
With People
With Ideas
With Resources

Create
New Knowledge
Concepts & Prototypes
In a Safe & Supportive Environment
Thematic Library Spaces

• Focus on characteristics & needs of specific academic discipline

• Incorporate features to:
  • Inspire discovery
  • Foster interaction
  • Build connections
  • Learn by doing

• Showcase for department/schools’ capabilities
Our Journey

- Started in 2012 with **Da Vinci Level** for Art, Design & Architecture
- **Makerspace** in 2013 for Engineering & Technology to promote learning by doing
The Making of Da Vinci Level

PAST - a container of books & study areas

NOW - a space filled with inspiration & creativity
To Discover

- Project display by students from the Design School
- Video project screening by students of the School of Communication, Arts & Social Science
To Connect

Staff attending workshop

Discussing project, using writable wall

Senior citizens visiting library, creating a poem on writable table

Year 1 students browsing architecture books
To Create

Student of the Design School displaying her prototype design

Student of the Design School presenting her prototype design

Sofa & rack design designed by students of the Design School

Student of the School of Electrical & Electronic Engineering doing his craft work

Abstract painting by a group of students
Discover, Connect, Create ...

Congratulation to Augustine Ashely Santhanam & Tan Ru Rui (ABE graduands in 2008) who will get married in Dec 2014
Design Thinking Summit @ Makerspace

On Thurs 18 Sep, SP Library played host to SP staff and external industry parties during the Design Thinking Summit 2014 workshop ...

Maker Kickstart - Introduction to 3D Printing (27 Aug)

Introduction to 3D Printing workshop Wed 27 Aug, 3pm – 5pm Event Box, Main Library Level 2A This Kickstart activity is specially ...

Electronic Kits for Loan!

Keep your hands busy with these new set of electronic kits that range from absolute beginner to ‘programme-it-yourself’ hardware. Listed below in ...
Why Makerspace?

• Learn through hands-on
• Engage audience and getting them involved in a real way
• Foster play and imagination
• Reduce digital divide – open doors for users to try latest technology that would beyond their reach
• Makerspaces are growing in popularity across the globe
• Making is a source of innovation
Why Makerspace in Library?

A library is a natural convergence of curriculums and communities.

Makerspaces have been called libraries of the 21st century.

Research is not just about reading, but experiential learning.

As the technologies evolve, so must the library.
Objectives of Makerspace@SP

Celebrate STEAM
science, technology, engineering, ART & the maker-instinct

Learn and apply Cross-discipline insights

Embrace the spirit of Experimentation innovation & creativity

Encounter emerging technologies in an inclusive & inspiring community
Our Experience so far ...

• Exploring ways to engage engineering students
  – RoboPod, Tech Lending and Makerspace
• Started in Oct 2013 to focus on STEM
• Collaboration with Schools in SP and external Maker communities
• Expanded resources in Dec 2013
  – Appointment of Maker Coach
  – Added tools, DIY kits and furniture
• Programs and activities expanded from Jan 2014
  – Shift focus from STEM to STEAM
• Still work in progress!
Areas of Focus

- 3D Printing
- Emerging Technologies
- Infocomm
- Engineering
- Science
- Media, Design/Art

COI

- Innovators
- Maker->Market
- Makers
- Maker->Maker
- Tinkerers
- Zero->Maker

MAKERSPACE*SP

SINGAPORE POLYTECHNIC
What We do

• Conduct workshops and activities
• Provide resources and facilities to promote DIY
• Create online communities to encourage sharing
• Connect with local makers
  – Bring external makers meet-ups/events to SP
• Participate actively in local Maker events
• Infuse Maker activities into curriculum
Activities

NAO humanoid robot

3D Scanning & Printing

Interactive LED Christmas Tree

Conductive Ink

Intro to Autodesk 123D Make

3D Printing Party (for kids)
Activities

- Raspberry Jam #8
- Makers’ Meet-up
- 3D Print Your Favourite Protein
- Raspberry Pi Workshop
- 3D Scanning
Facilities

- 3D Printing
- 3D Scanning
- Tinkering Space
- Event Box
- Lockers
- Video Wall
DIY Kits

Raspberry Pi
Arduino Uno
Inventor Kit
Makey Makey
LEGO Mindstorms
LED Art Kit
Connecting with Local Makers

25 Apr 2014

27 Jun - 7 Jul 2014

13 Jun 2014

26-27 Jul 2014
Infuse Making Activities into Curriculum

- School of Chemical and Life Sciences included 3D printing as part of their curriculum
This space is still evolving

“Life is trying things to see if they work”, Ray Bradbury
Moving Forward

- Da Vinci Level
  Art, Design & Architecture

- Makerspace
  Engg, Tech & Maker Culture

- L1 & L2
  Discovery & Inspiration
“space is being reconfigured around broader education and research needs, and less around the management of print collection. In effect, space is shifting from infrastructure to engagement…”

- Lorcan Dempsey of OCLC

THANK YOU