An international collaboration to develop a regional network of innovation hubs with public-private partnership

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Purpose and Outline

Purpose

- Share insights from UC-BIUST partnership in the adaptation of UC's Greater Cincinnati Regional Smart Campuses (GCRSC) model for Palapye Secondary School (PSS) - Botswana

- Demonstrate the value of library collaborations through already existing institutional and/or community partnerships

Outline

- UC's GCRSC model

- Local adaptation for the PSS project

Greater Cincinnati: *A Tale of Two Cities*

- ~2.12m citizens, 17 counties
- 9 Fortune 500 companies
- R1 University
- Growing hi-tech Industry (Innovation Corridor)

- ~44% of Cincinnati children live in poverty
- Skills gap
- Lack of diversity in IT
- Adverse Digital Divide impact

Greater Cincinnati Regional Smart Campuses (GCRSC)

"Regional Smart Campuses is a multi-layered environment that spans physical, mobile and virtual spaces to create a network of education, workforce development and innovation."

- N. Vincent, UC CIO, 2018

Innovation Hubs ~ "Smart Spaces"

A physical or digital environment … where people, processes, services and technology-enabled systems interact … … to create a more interactive ecosystems & experiences.
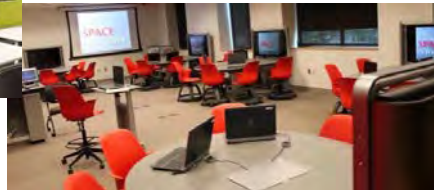
"This trend has been coalescing for some time around elements such as smart cities, digital workplaces, smart homes and connected factories."
Gartner's Top 10 Strategic Technology Trends, 2019

Innovation Hubs ~ "Smart Spaces"

Space & Activities

- Active learning
- Specialty Technologies
- Collaboration
- Mentorship, consulting
- Technology events, outreach
- Services and Support

Outreach & Services

- Tech Talks (industry and academia)
- Hackathon days
- Collaborative meetings, etc.
- Training, mentorships
- Consulting: Advising, Creating an MVP, Bring product to market

Innovation Hubs ~ "Smart Spaces"

- Computers (HE)
- Mobile devices
- 360º cameras
- Media software
- Gaming software

- Immersive tech
- 3D VR gears
- AR/VR software

Application Development

Smart Wearables and Devices

Devices/Tools

eXtended Realities

Big Data, Analytics, and AI

- Smart wearables
- Health monitors
- Smart devices
- Robotic kits
- Drone kits

- DB software
- Analytics software
- AI platforms
- Cognitive computing

Public-Private Partnership

University of Cincinnati team:

Dr Bleuzette Marshall, VP for Equity, Inclusion & Community Impact

Josette Riep, Director for Software Development, IT@UC

May Chang, Library Chief Technology Officer

Other Components

- ❖ *5 locations in the region strategically selected to create a canopy of services and opportunities*
- ❖ *A Smart Tech Truck to increase reach to rural areas*
- ❖ *Managed by associated school, community center or library*

- Planned investment of ~US$3 million over 5 years
- UC Office of Equity, Inclusion & Community Impact, IT@UC, and UC Libraries
- UC Co-Op students, experiential learning, peer-to-peer teaching and mentoring, train the trainers
- UC College of Education + Cincinnati Public Schools
- UC's 1819 Innovation Hub

GCRSC Model Adapted @ Botswana

- UC & BIUST already strategic international partners
- BIUST and UC Librarians – from IFLA professional networking – determined applicable approach to GCRSC model
- BIUST leadership had already initiated conversations with key stakeholders from the community, business and policymakers on concept of smart village
- Palapye Secondary School (PSS) project partners – BIUST, Palapye community & leaders, business community, Government departments

Project Relevance @ PALAPYE

- A junction village for Botswana Economic corridor; between the only 2 cities in the country

- Hosts coal mine and power station – Botswana principal domestic source of electricity

- Demonstrates fast economic growth characterized by construction industry; retailing and hospitality activities

- Has rural village characteristics of poverty; low educational attainments; adverse effects of information and digital divide (similar to some of Cincinnati 's social issues)

- BIUST - set up in 2014, mandated to be responsive to community technology and engineering needs, and to transform Palapye village into a University city.

Roles of Project Partners

- BIUST already in partnership with the Morupule Coal Mine (MCM)

- BIUST library serve as expert advisor – borrowing from the GCRSC model (space & activities BIUST library in direct relationship with PSS librarian through Palapye Librarians' Forum).

- MCM - through "national adopt a school initiative" - refurbishing the school library and equipping it with the necessary study materials
    - Refurbishment September 2020 - handed over 27th March 2021 not in 3 months as planned (COVID19)
    - Contract awarded to predominantly women owned or managed local company
    - The project scope included equipping the library with new shelves, library tools, and the needed technologies. - not books / information resources

Role of Project Partners (cont...)

- BIUST library engaged a campaign strategy to develop the needed collection. The collection is intended to support the teaching, learning and recreational purposes of the user community (500 books, 3 computers, stationery)

- Handing over occasion graced by area Member of Parliament; Minister of Mineral Resources, Green Technology and Energy Security; BIUST Management and library reps; Executives from Ministry of Education; Village leadership, etc. (to ensure ownership and support)

- Internet and Cellular network providers enabled free internet

GCRSC Model Applied to PSS Project

Space & Activities

- Internet access
- State of art shelves; reading space (36 seats); tables and computer space; television, white board and a projector
- 2 discussion rooms
- Air conditioned

Outreach & Services
(deferred due to COVID19)

- Tech Talks (industry, community & BIUST)
- Hackathon days
- Collaborative meetings, etc. (BLA; P Lib Forum)
- Training, mentorships
- Consulting: Advising
- ILS programs

PSS Library Before Refurbishment

PSS Library After Refurbishment

Desired Project Outcomes

Increasing digital and Information and Communication Technology (ICT) literacy, bridge the digital divide

Support technology education and workforce

To give PSS students an opportunity for experiential learning

Attract student exchange to assist in leading innovation hubs, peer to peer leadership, etc.
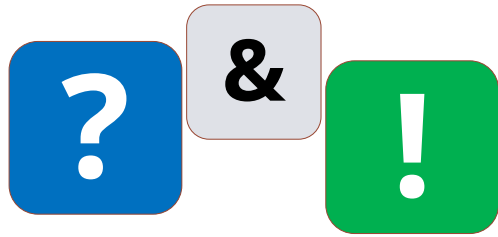
Attract research to determine scale and sustainability in different environments

Develop guides and other info and training materials on digital/IT literacy

The library will empower community with Information Literacy skills (teachers & students)

Social Value and Impact

- Viable and empowering.

- Removes the barrier of affordability for broadband access.

- Enhances digital literacy, IT competency, & provides programs to develop IT professionals, innovators and entrepreneurs.

- Addresses a growing skills gap that threatens to stifle economic progress and innovation.

- Enhances education; workforce development, and public-private partnerships through a win-win investment for all partners.

- An ecosystem that connects multiple entities for enhanced communication and support across systems.

- Positive impact on the entire economic corridor (Junction Village).

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