Leveraging on Data Visualisation and Analytics for Assessment and Innovation

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Leveraging on Data Visualisation & Analytics for Assessment & Innovation

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SMU Libraries’ Vision & Mission

To be a leading research library providing ubiquitous access to information using innovative strategies to drive intellectual exchange and the creation of knowledge.

• The SMU Libraries mission is to enable a culture of life-long learning through collaboration, engagement and outreach.

• It aims to provide seamless access to information using innovative and leading edge technology.

• The Library is committed to delivering exceptional services and building dynamic relationships within the SMU community and beyond.
Background

Culture of Assessment

... an organizational strategy requiring decision-making based on "facts, research, and analysis, and where services are planned and delivered in ways that maximize positive outcomes and impacts for customers and stakeholders (Lakos & Phipps, 2004)."

Lean Six Sigma Foundation

- Initiated in 2013, to date more than 90% of library staff have received the Green Belt certification
- The Lean Six Sigma training provided an introduction to the methods and techniques necessary to implement and sustain a lean culture (a culture of assessment)
Data Science Process

- The Data Science Process is a framework for approaching data science tasks – collecting, cleaning, exploring, modelling, communicating (O’Neil & Schutt, 2013).
Library Analytics Project

Oct’15
Requirements Gathering

Nov’15
Prototyping

Dec’15
Development

Jan’16
User Acceptance Testing

Feb’16
Training

Mar’16
Go Live

Our Passion, Our Commitment, Your Advantage
Data Scope

Strategic Goals

Library Services

Systems

Data

Our Passion, Our Commitment, Your Advantage
Data Collection

- Review reporting process
- Leverage on same workflow (& manpower)
- Simplify process from reporting generation to uploading datasets
Data Quality

- Iterative data cleaning cycles
- Comparing loaded data with source data
Case Study – Space Management

Visitorship & Events

- Standard Opening Hours vs 24hrs Learning Commons
- Insights on students learning patterns
- More learning spaces in development on campus
Case Study – Collection Management

- Physical vs Electronic resources
- Usage patterns by different schools
- Useful information for Faculty engagement
Benefits

• Staff have better understanding of the data generated
• Increased awareness of the datasets available
• Easy dashboards access to assess their work areas
• Evidence based approach for work improvements and innovation
Our Passion, Our Commitment, Your Advantage

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Thank you!