

ANNEX A: FACTSHEET

Data-Driven Innovation Challenge for Institutes of Higher Learning

Background

Singapore is working towards being the world's first Smart Nation. To do so, the Infocomm Media Development Authority of Singapore (IMDA), will develop a vibrant, world-class infocomm media sector which drives the economy, connects people, bonds communities and empowers its people. Citizens as well as businesses are also empowered through access to data, to be more participatory in engaging government, to make more informed decisions and meaningful choices in their daily living.

The second Data-Driven Innovation (DDI) Challenge for Institutes of Higher Learning (IHLs) competition was launched in January 2016. Participating schools had nine months to formulate ideas on how Big Data can be innovatively used in dataset mashups to address or provide insights to key challenges faced by Singapore today. The objectives of the DDI challenge are to:

1. Encourage students to undertake DDIs as part of school work, away from competitive pressures of regular hackathons,
2. Provide opportunities for students to develop DDIs aligned with Smart Nation
3. To inculcate a culture of data literacy amongst students.

Submissions

The DDI submissions are **mashups that made use of at least two separate datasets**, with **at least 1 dataset** from the Data-as-a-Service (DaaS) platform.

The submissions fell under one of the following categories:

- a. Web or mobile application
Submission needs to be a working web or mobile application that is a prototype which can demonstrate key functionalities.
- b. Data Journalism
Submission needs to be an insightful article that includes charts, graphs or other forms of visualization that addresses a topic, issue, theme or tells a story.
- c. Data Gamification
Submission needs to be a working prototype which can demonstrate key functionalities of a game that uses datasets.
- d. Data Analysis
Submission needs to show inspecting, cleaning, transforming and modelling data with the goal of discovering useful information, suggesting conclusions and supporting decision making.

- e. Data Visualisation & Infographics
Submission needs to show presentation of data in a pictorial or graphical format and as a visually compelling communication medium
- f. Any output as a result of using DaaS datasets

A total of **42** submissions were received from **114** students across five IHLs (Singapore Institute of Technology, Singapore Management University, Singapore Polytechnic, Temasek Polytechnic, and Nanyang Polytechnic.)

Challenge Format

The Challenge was split into 2 rounds. Round 1 was held at the IHL level, where competitions were held for students to create DDI as part of coursework team projects or outside-class projects. From these competitions, up to three teams were selected from each IHL.

13 shortlisted teams then proceeded to a final round where they presented submissions to a panel of judges on October 19. The top three winners were then announced and presented with the grand prizes by Mr. William Liu, Chairman of the National Cloud Computing Advisory Council.

Judging Criterion

The final judging panel included members from IMDA, industry partners, and supporting organisations such as the National Cloud Computing Advisory Council and Singapore Computer Society.

The judges were:

- Mr. William Liu, Chairman, National Cloud Computing Advisory Council
- Mr. Chak Kong Soon, Managing Partner, Stream Global Ptd. Ltd.
- Mr. Adrian Chye, Chairman – Student Chapter, Singapore Computer Society
- Mr. Samuel Harris, Sales Development, Education & Not-for-Profit, Amazon Web Services, APAC, Global Public Sector
- Dr. Lee Hing Yan, Director, National Cloud Computing Office, IMDA

Student submissions were judged based on four key factors:

- (i) Innovation – how unique and interesting was the submission
- (ii) Impact, Potential, Sustainability – whether the submission bears an impact on business, social and economic activities etc.
- (iii) Data Usage - Whether use of datasets is key to the submission
- (iv) Presentation – effectiveness and clarity of the submission presentation

Prizes

1. Round 1 prizes were sponsored by Amazon Web Services.

Round 1 winners received the following:

- a. 1st prize: Amazon Fire HD 8
- b. 2nd prize: Amazon Kindle PaperWhite

- c. 3rd prize: Amazon Fire TV
2. Grand prizes were sponsored by IMDA.
The top three teams received the following:
- a. 1st prize: S\$3,000 cash
 - b. 2nd prize: S\$2,000 cash
 - c. 3rd prize: S\$1,000 cash

Top Three Winners:

Third Place Winners: Singapore Institute of Technology

Team Name: Visualising Mandai

Ong Jia Min, 23

Teo Wei Wei, 30

Lim Xing Yi, 30

Anita Koo Shi Qi, 22

Tan Siew Yu, 24

Project synopsis:

Multimodal web/mobile application aims to improve Wildlife Reserves Singapore (WRS) in supporting staff operation of its attractions with data visualisation & infographics incorporating various datasets such as footfall, weather, public posts from DaaS, Facebook, Twitter and NEA.

Second Place Winners: Singapore Polytechnic

Team Name: Happy Wheel

Tay Hui Chin, 19

Low Kay Se Cassey, 19

Chin Bing Huang, 21

Zainul Ariffin, 20

Tan Ee Khai, 20

Mohamed Najulah, 20

Project synopsis

Navigational web/mobile platform application with its main objective to aid disabled or wheelchair bound individuals in navigating obstacles using weather and map datasets from DaaS and Google.

First Place Winners: Singapore Institute of Technology

Team Name: NewsInsider

Joseph Lim, 28

Toh Yao Xiang, 24

Gavin Tan, 23

Project synopsis

Web/mobile application combining data analysis, data visualisation & infographics into an intuitive user interface design to access news with postal code datasets from DaaS and public datasets extracted from news websites.