Improve Data Quality to Empower Course and Teaching Evaluations

Data Sync Tool as the solution to streamline data from multiple sources

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Southern Cross University | bluenotes group | explorance improvement at heart.

Contents of Presentation

- **History of UoA & Course and Teaching Evaluations (CTE)**

- **Implementation of Blue (SET)**

- **Data challenges**

- **Data Sync Tool – solution/~~demo~~**

- **Discussion: Data integrity and governance**

Background

A bit of history of the University of Auckland and its evaluation operations

The University of Auckland was formally opened as Auckland University College in 1883.

Today, the University of Auckland is the largest university in New Zealand, hosting over 40,000 students (33,118 FTEs) and delivering over 4,000 courses per academic year on five campuses.

Since 2002, course and teaching evaluations were generated by an in-house computer-supported, perhaps "the world's first web-based", learning management system (LMS), Cecil.

Limitations of Cecil-based CTE

- **Evaluation/survey administration**

  - ✓ Manual distribution & collection (paper/staff resources)

  - ✓ (Often) completed in the last lecture

  - ✓ Local/devolved control (>3,000 questions in QuestionBank)

- **Report processing and distribution**

  - ✓ Scanning of returned questionnaires

  - ✓ "Low priority"/competing with examination paper scanning

  - ✓ Delaying report distribution and availability

- **Data quality and Business Intelligence**

  - ✓ Error/duplicats in collection/scanning processes

  - ✓ Response rate (Sample/population)

  - ✓ Inconsistent questions (benchmarking/quality assurance)

Course & Teaching Evaluations in SET

- eXplorance Blue was implemented and renamed as **SET** (**S**ummative **E**valuation **T**ool)

- The official launch of SET-based CTE was for Semester 1/Quarter 2, 2016 (9 May-4 June)

  - Given the time constraints and the need for consistent practice across the university (all 8 faculties), no pilot was conducted prior to the first iteration.

- 7 evaluation periods per academic year (summer school, 2 semesters and 4 quarters)

- Centrally commissioned and administered CTEs for **3,118 courses** in 2016-2017

- The overall response rate of SET was **35%**

Challenges in SET implementation

Data Sources and Quality

Communication of policy, procedure & guideline

Work needed for data preparation

10% Visible

This is just for teachers

No one ever does anything about feedback, anyway!

Online CTE are biased

Online CTE will reduce response rate than paper-based ones!

Organisational culture /existing practice

Complexity of changes

Resistance towards (organisational) changes

Underlying assumptions

90% Invisible

Technical Challenges: Data

Multiple sources of data

- ✓ **Primary/Secondary subjects**

- ✓ **People and their roles**

- ✓ **Relationships between them...**

Where to find, and how to link them together?

Data (source) overview
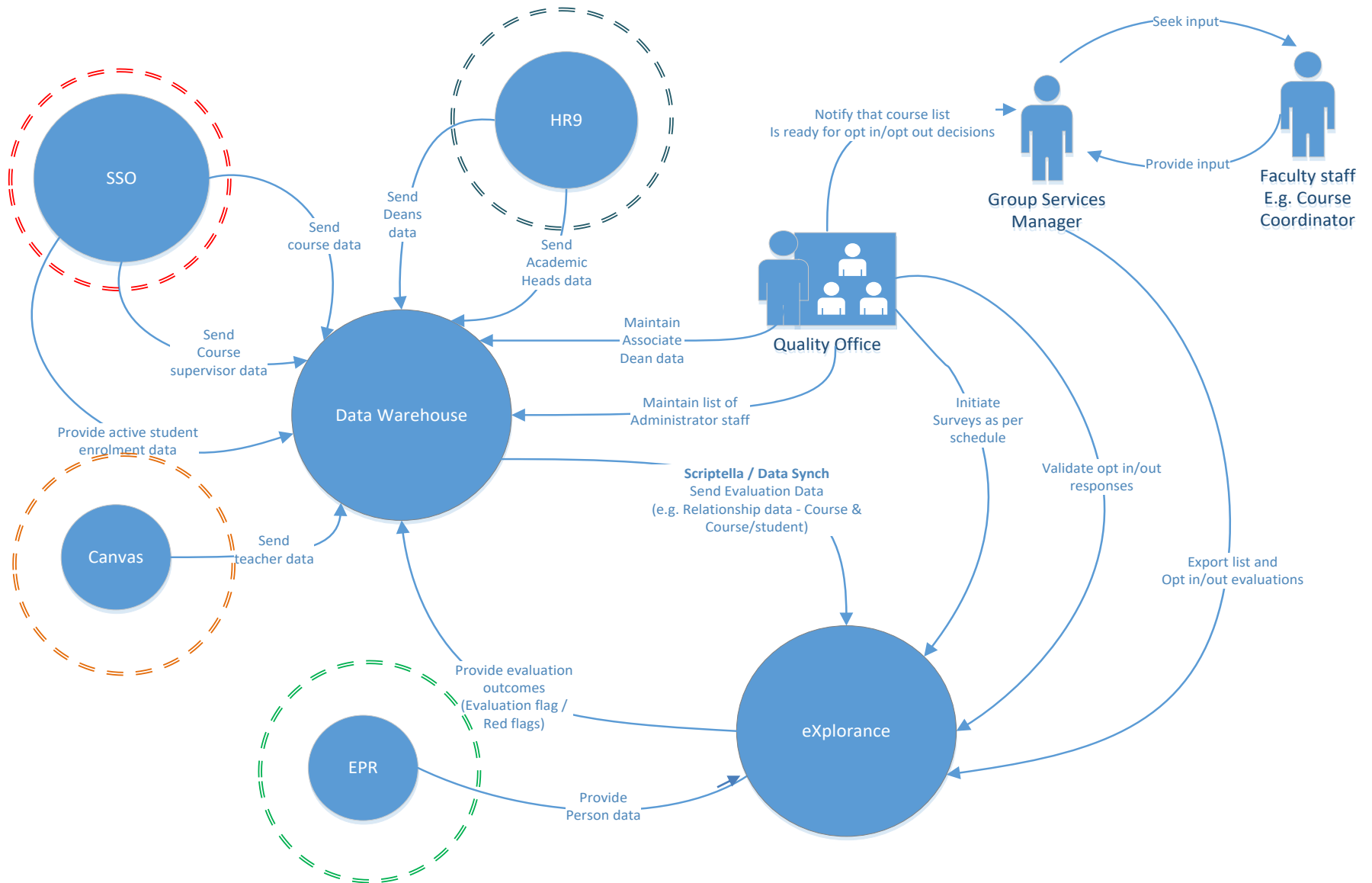
Policy added challenges

HR9: Dean/HODs

SSO (Student Services Online)/CS9:
- Students (Raters)
- Course Director

EPR (Enterprise Person Registry): person data

Canvas (LMS): Teachers*

+

1. Associate Deans

2. Courses
- **Evaluation frequency**
- **Enrolment threshold**
- **Evaluation outcome (R=Red-flagged tag)**

3. Teachers:
- Eligibility/Significant Teaching Role)

The best source of to supply teacher data for validation Multiple data sources/systems meet the requirements for relationship files to link with courses.

Technical Challenge: Data Automation

But what if:

- ➤ **A student's withdrawal**
- ➤ **A Course Director or teacher (instructor)changes**
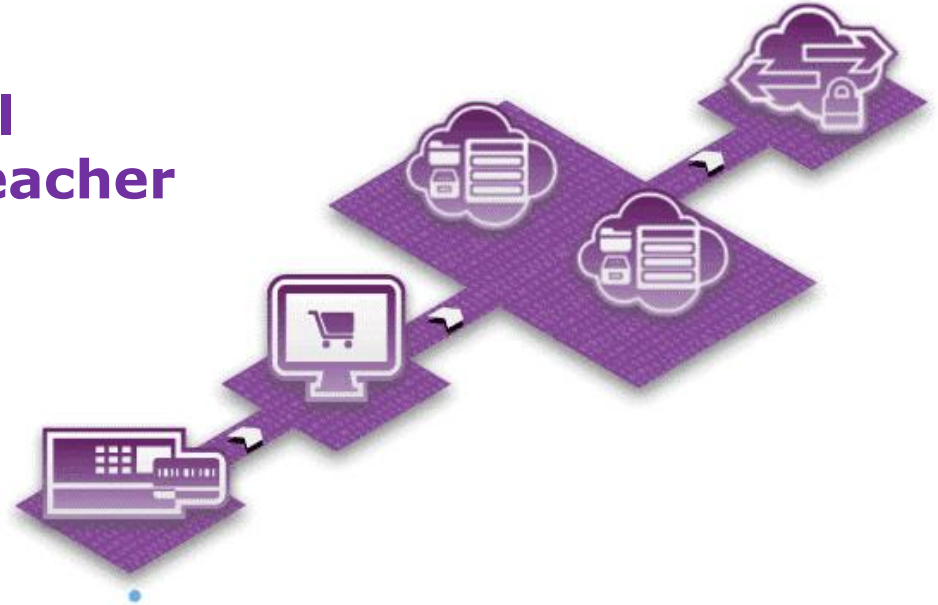
How could we move data files updated from multiple data source to Blue automatically?

Adoption of Data Sync Tool (DST)

A companion application, provides the technical solution which streamlines data flow from the various data sources and systems to the cloud-hosted instance in a timely manner.

- ✓ Configure data sources
- ✓ Map fields from the data sources to eXplorance Blue
- ✓ File transmission to eXplorance Blue

UOA feeds csv files to DST for file mapping and transmission to Blue's cloud hosted application.

Blue Data Sync
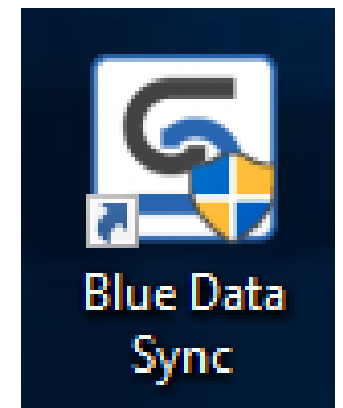
DST-empowered CTE Architecture Map
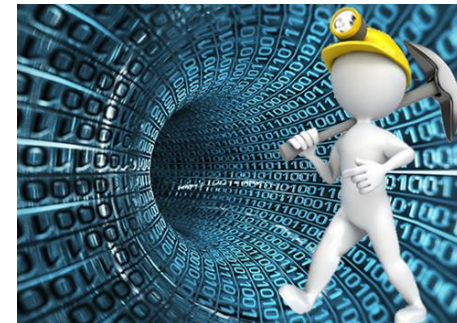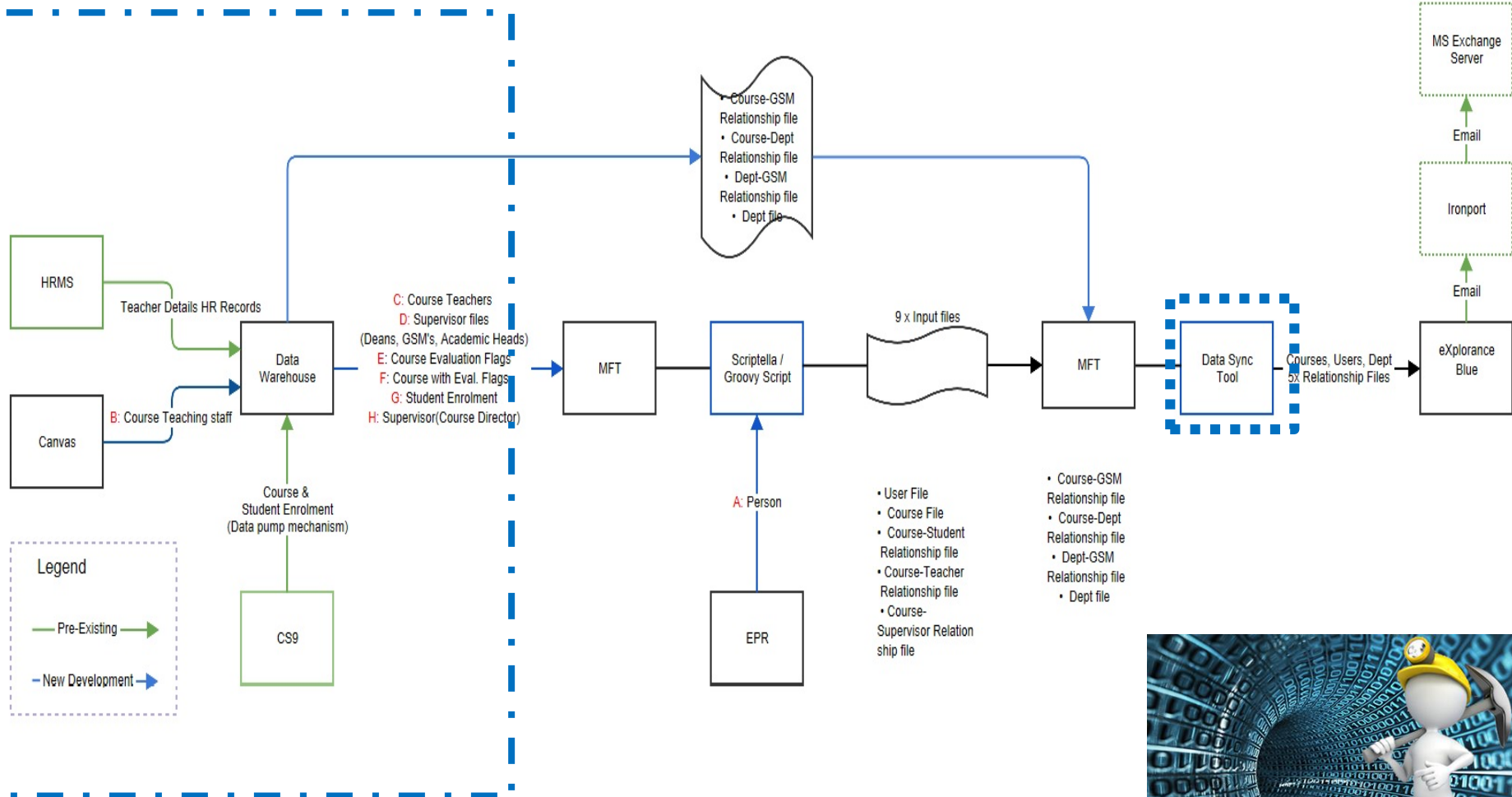
To inform future data quality?

❖ **Data integrity**
  - **How to validate data from the multiple data source?**
  - **What actions to take in data corruption/data loss?**

❖ **Data accuracy/consistency**
  - **Manual process: survey/evaluation schedules**
  - **Course Catalog: definitions of primary grade component (PGCs)**
  - **Canvas: teacher and other roles**

❖ **Data governance (policy)**
  - **Which role is responsible for data quality?**
  - **Should a process to ensure high quality data available before/during the evaluation window?**
  - **The need of data governance policy**

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