Guidance on Using Institutional Data

This project primarily focuses on the use of data to support students. However, research also provided an insight into what may need to be considered when embedding the IT infrastructure behind the data.

Collating this learning into a single piece, this document provides guidance to an institution wishing to develop data and/ or learning analytics systems as part of the student support process. It is designed for staff members who work with data, conduct research, or consider systems at a senior level.

Recommendations are grouped into overarching themes. These themes are not necessarily chronological in nature, instead highlight different areas to be considered before developing a system.

1. Purpose and Outcome Focus

The long-term impact of a data system, how its outputs are used and who this system will designed for, ultimately dictates the structure of the system itself. We recommend that you consider:

- **The outcomes of using data in support**
- **Why the user may need to use this system**
- **The extent to which decision-making is determined by the system**
- **Improving the data literacy of users and stakeholders**

2. Type and Availability of Data

Learning analytics/ early warning systems will be profoundly shaped by the quantity, quality, timeliness, and ethical dimensions of the data available. We recommend that you consider:

- **The specific use of dynamic data over static data**
- **How the data points are chosen and reviewed before use**
- **The amount of data points used**

3. Processing and Presenting Data

How data is treated and displayed to the user can be achieved in a much more efficient and effective way if the IT infrastructure itself compliments the process. We recommend that you consider:

- **How you will present the data**
- **How presenting more data can be demotivating**
- **How you access data during the intervention**
- **How to present data with appropriate context**

4. Data Sourcing and Storage

In addition to identifying what data to use and understanding how to process it, users must understand where the data comes from and where it is held before and after it is processed. We recommend that you consider:

- **Mapping the data pathways fully**
- **Amending the original data sources before using**
- **Where data is stored and/or amended on your system**

5. Timing and the Academic Cycle

In addition to what data is used, understanding when the data can and should be acted upon, determines the structure of the system and process. We recommend that you consider:

- **The advantages of 'live' data vs a 'period review'**
- **When an alert is generated throughout a year...**
- **...and when an alert is generated for the student**

6. Stakeholders and Data Users

Throughout the project, staff members from across the university and beyond were consulted as both providers and users of data, and their contribution was found to be critical. We recommend that you consider:

- **Who you may need on a project team**
- **How to consult with the users**
- **The benefits of internal vs external providers**

7. Ongoing Development and Refinement

The majority of this guidance applies to the initial development of IT infrastructure and the early stages of managing institutional data; however, there are continuing factors that an institution must consider on an ongoing basis. We recommend that you consider:

- **How you can prioritise ongoing support**
- **How you are consulted with institution-wide data system changes**
- **How you can maintain trust in the data**
- **How you can maintain data literacy and understanding**

Although not an exhaustive list, this output produces a number of recommendations that are grouped under seven overarching themes. These seven themes are intended to help data practitioners consider their approaches to supporting early warning alerts. The sections provide a high-level series of considerations that may helpfully influence their thinking or approach. It is our hope that staff at higher education institutions can use these considerations to have a profound effect on data processes, before the first stage (alert) of the OfLA three stage model of support is even reached.