GÉANT TF-EDU Virtual Meeting

An introduction to Learning Analytics

Steve Hoole | December 2020

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- Worked in HE for 20 years
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University of Huddersfield

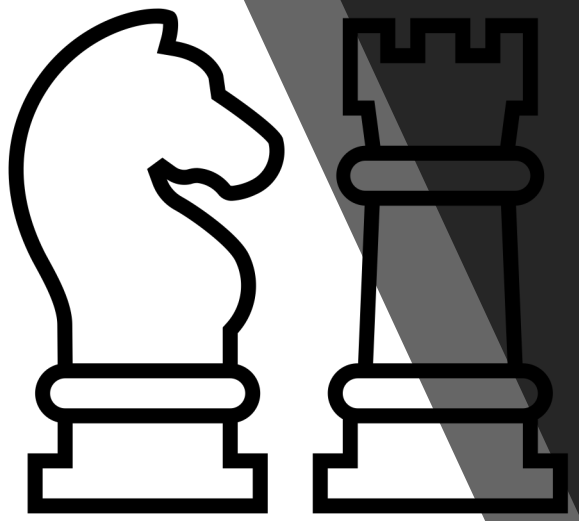
Blackboard

Jisc

Cardiff University / Prifysgol Caerdydd

bucks new university

BU



I will introduce you to ‘*Learning Analytics’* and how different types of data can support enhancing the student experience.

I will cover how data can be aggregated to provide insight into student engagement.

How institutions need to think about Learning Analytics as a business change project rather than a technology project.

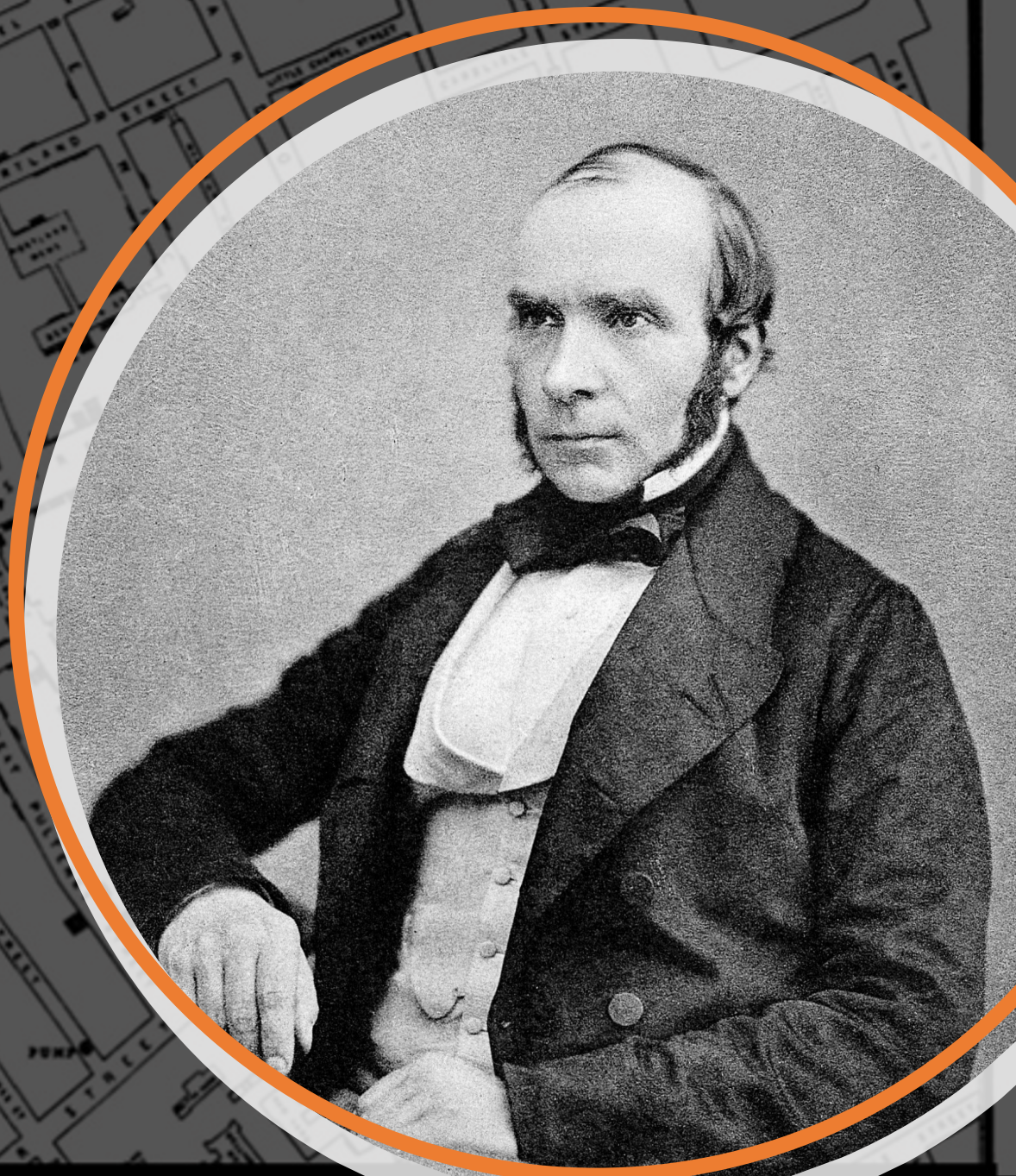
Data is important

We use statistics and data all the time. Now, more than ever, it’s really important to know how students are engaging, if at all.

Data is extremely important and that using it for Learning Analytics will help improve the student experience

Florence Nightingale

John Snow



"***learning analytics*** *is the measurement, collection, analysis and reporting of data about learners and their contexts,*

for purposes of understanding and optimising learning and the environments in which it occurs"

SoLAR – Society for Learning Analytics Research

Institutional motivators for Learning Analytics

- **Retention**.
- Progression.
- Wellbeing.
- Curriculum

What does it actually mean?

It means any Learning Analytics system will ……

- **Collect data from the systems students use**
- **Aggregate the data in Dashboards and charts academics can understand**

Data types will include:

- **Student Record systems**
- **Learning Managements systems**
- **Lecture Capture**
- **Attendance systems**
- **Library Systems**

What does it actually mean?

It means any Learning Analytics system will ……

- **Allows academics and support staff to see patterns of student activity**
- **Empowers academic personal tutors or support staff to intervene with students that are ‘at risk’**

What does it actually mean for NREN's & institutions?

NRENs could create a national service that will benefit their members by being low cost or establishing a procurement framework with others vendors

Institutions will see benefits of:

- **Increased student retention**
- **Stretching and challenging well performing students**
- **Increased student support**
- **Upskilled staff that can work with and interpret data**

What does that mean for academic staff & support staff?

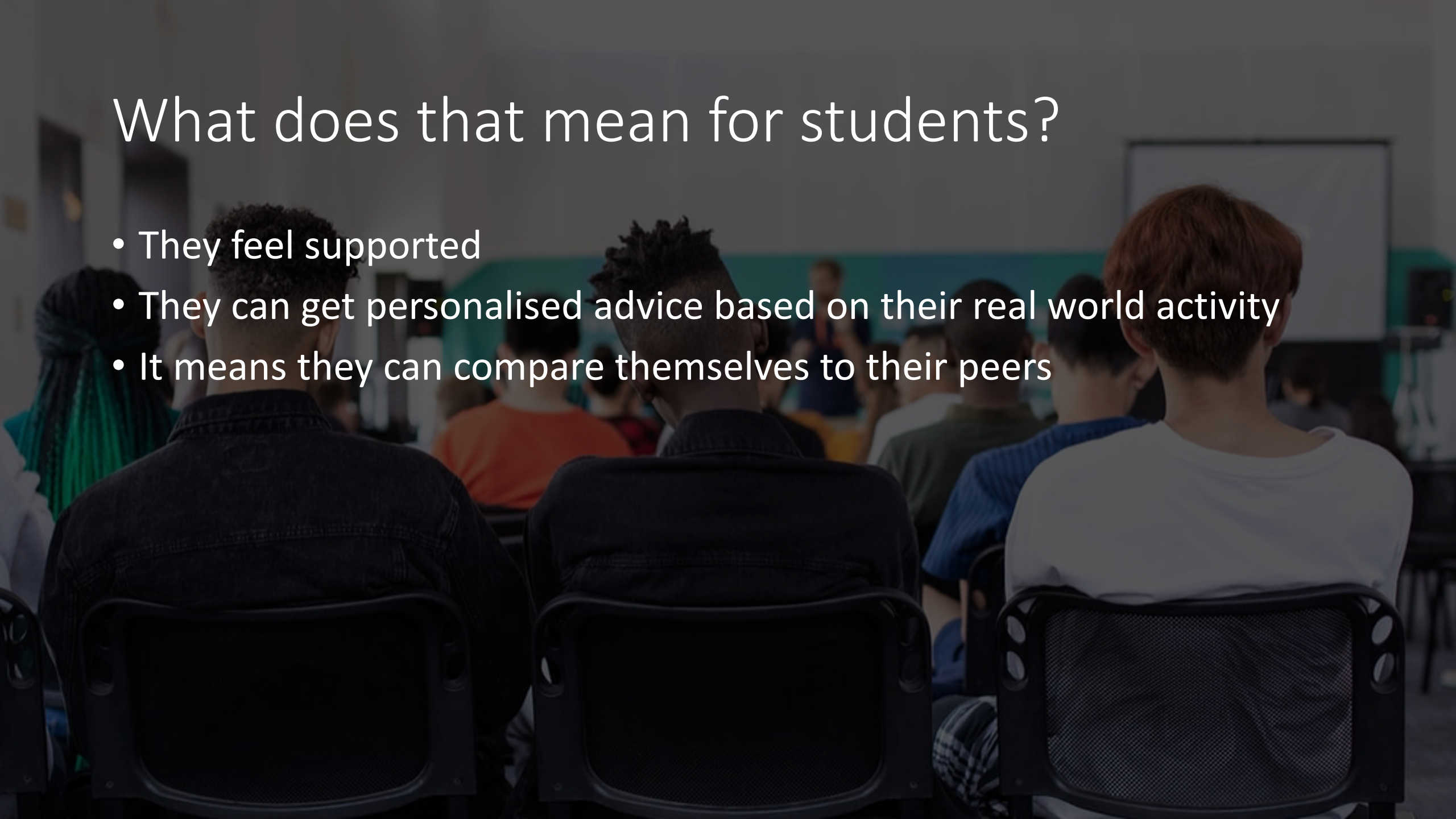
- It means they can see how your students have been engaging
- It means they can spot patterns and understand if there's problems
- It means they can intervene early if there's a problem with physical engagement, attainment, online engagement
- It means they can stretch students that are excelling in some areas but not others
- It means students are supported

What does that mean for academic & support staff?

- It means as a personal tutor you can inform the conversations, they have with tutees in a 1-1
- It means they can see how the module cohort is engaging with the materials that are provided for them online
- It means they can change their curriculum if content or tools are not being utilised or find out why and make changes or educate their students
- It is also important to equip key users with data literacy and reflective skills to move from data to action.

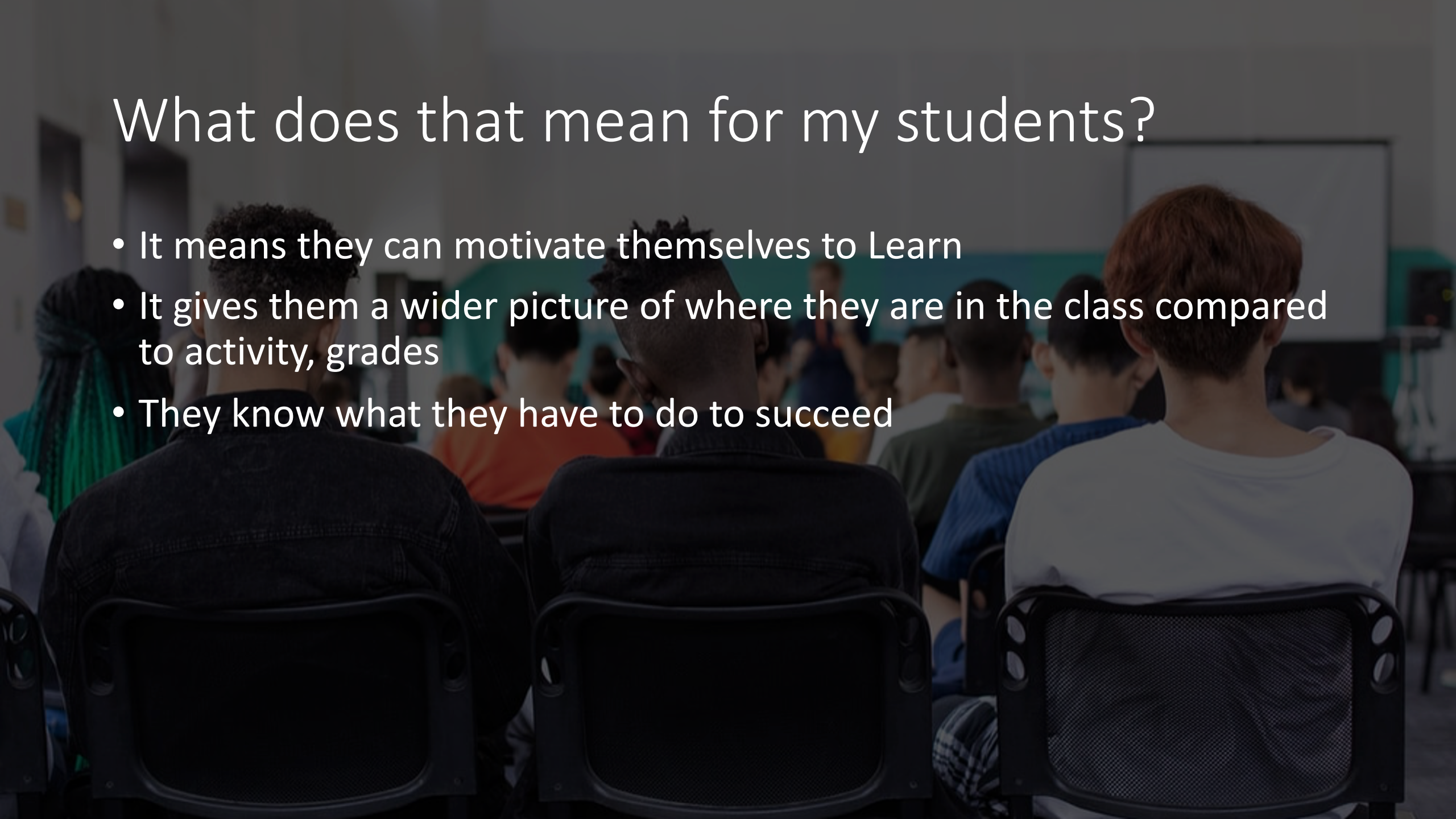
What does that mean for students?

- They feel supported
- They can get personalised advice based on their real world activity
- It means they can compare themselves to their peers



What does that mean for my students?

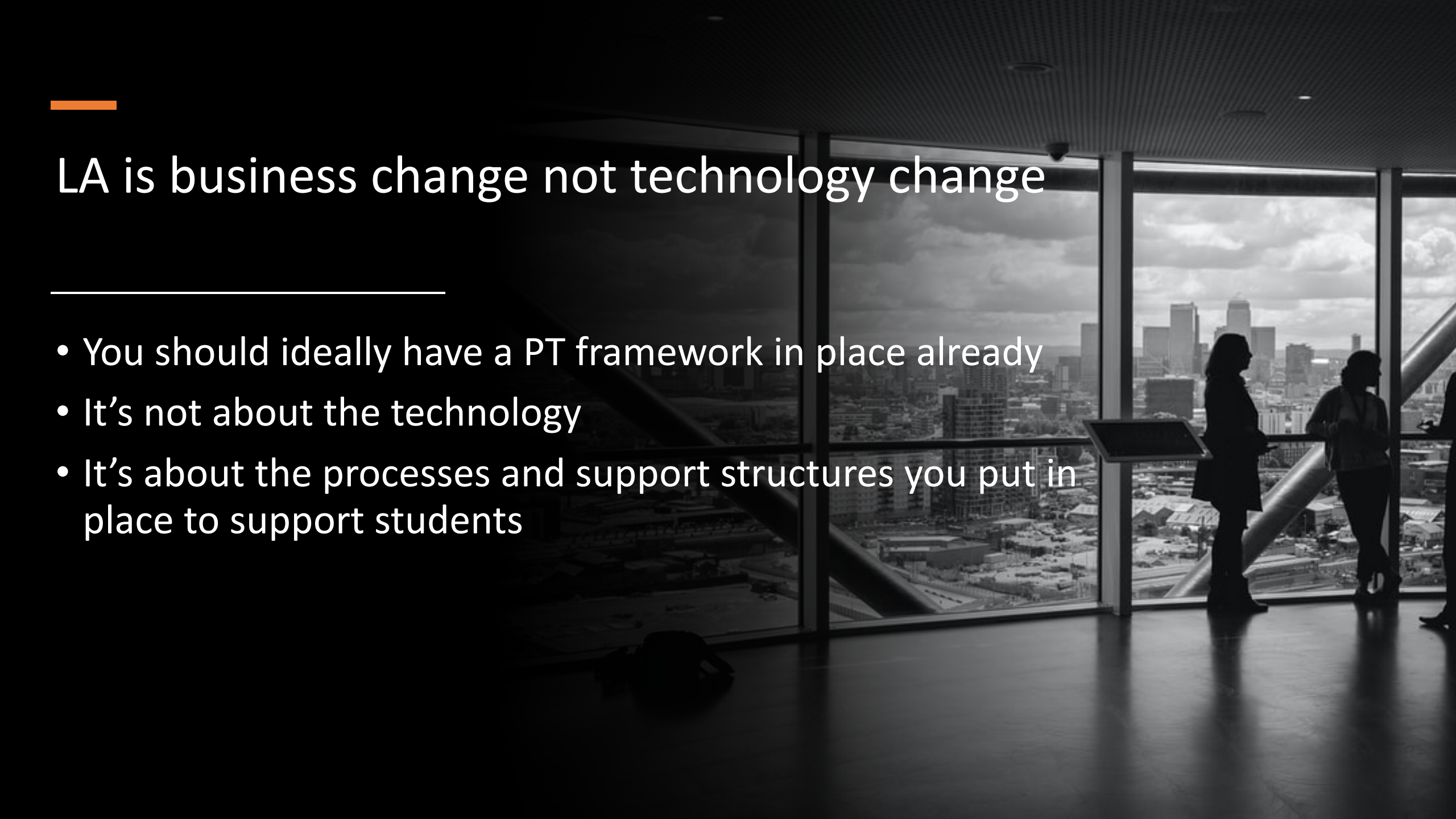
- It means they can motivate themselves to Learn
- It gives them a wider picture of where they are in the class compared to activity, grades
- They know what they have to do to succeed



LA is business change not technology change

- This is crucial
- Crucial to get a business sponsor to drive the project
- LA affects every part of the institution
- LA has many different drivers and motivator from multiple stakeholders. All want it to work but for different reasons

LA is business change not technology change



- You should ideally have a PT framework in place already
- It’s not about the technology
- It’s about the processes and support structures you put in place to support students

LA is business change not technology change

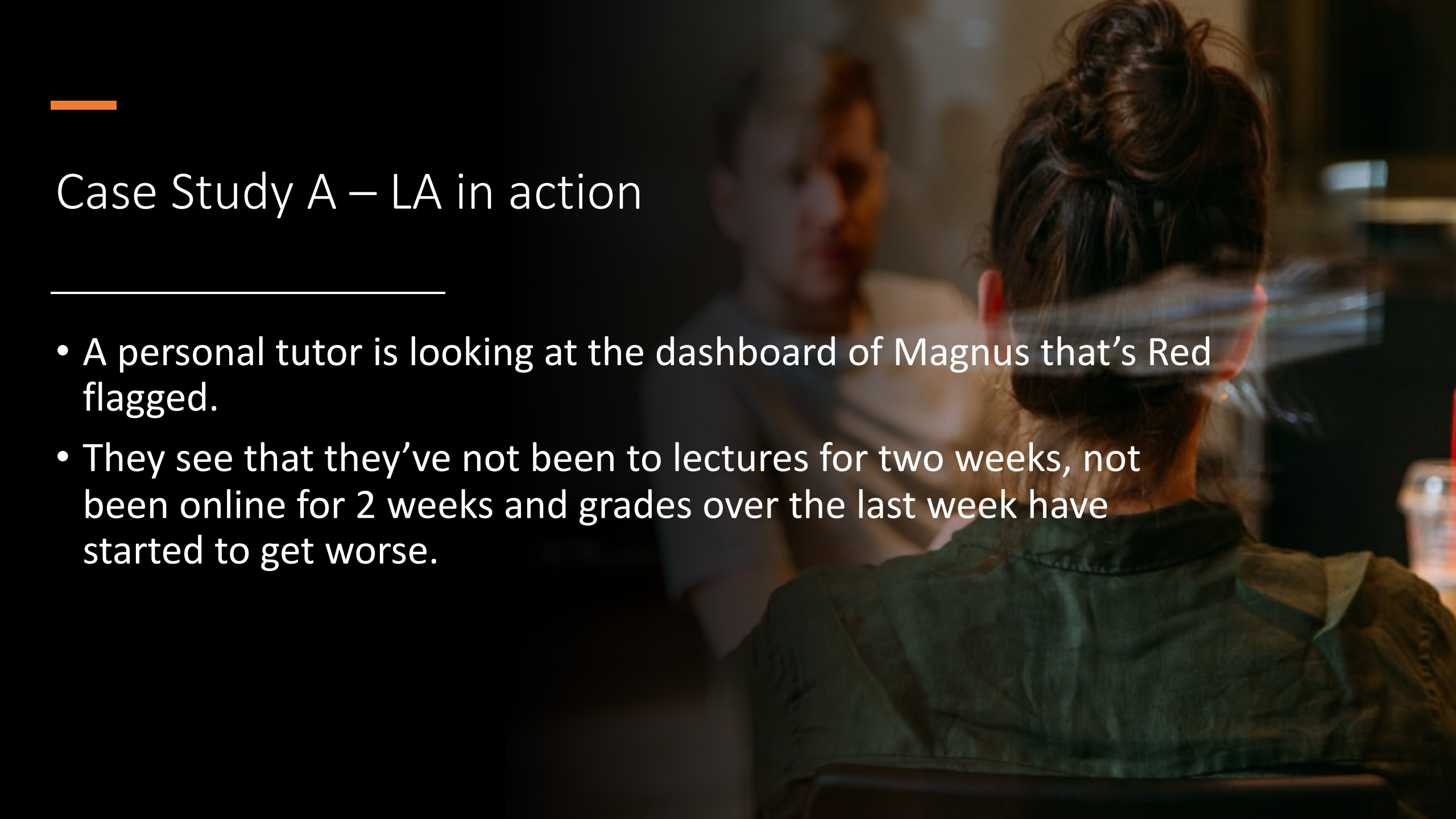
- 70% of transformation efforts fail. That does not change when it’s Digital*
- 63% of people rely on IT and Analytics groups for data analysis for their decision making. None report satisfaction**
- Change is hard.

*Mckinsey - 2018

**Digital pulse survey – Harvard business review 2019

Case Study A – LA in action

- A personal tutor is looking at the dashboard of Magnus that's Red flagged.
- They see that they've not been to lectures for two weeks, not been online for 2 weeks and grades over the last week have started to get worse.



Case Study A – LA in action

- The PT discusses this with the student and points out the lack of engagement.
- The student say this is because they've had a bereavement
- The tutor refers the student to the counselling service
- The student starts to pick up in attendance and grades a week later.

Questions

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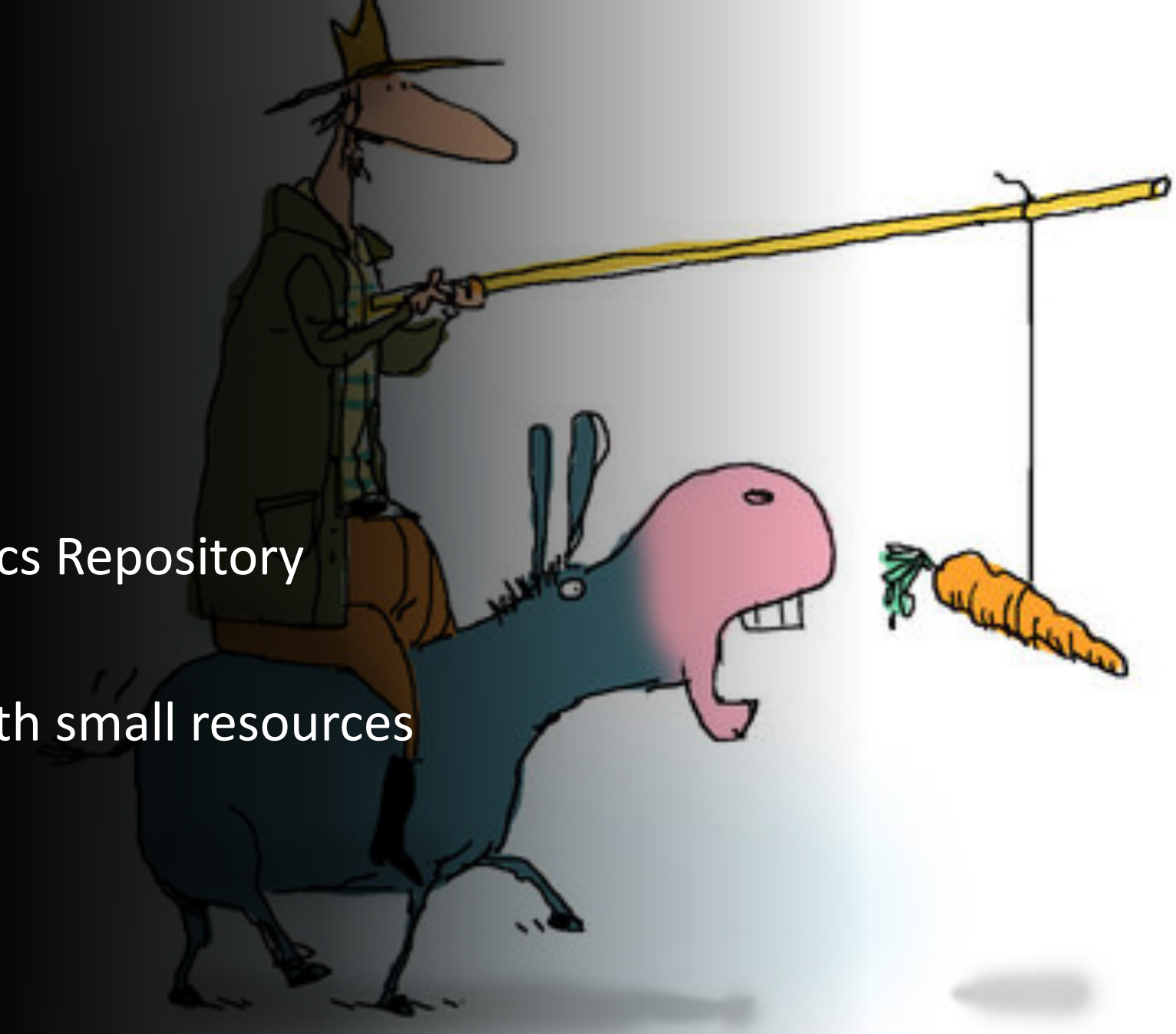
Jisc Learning Analytics Service

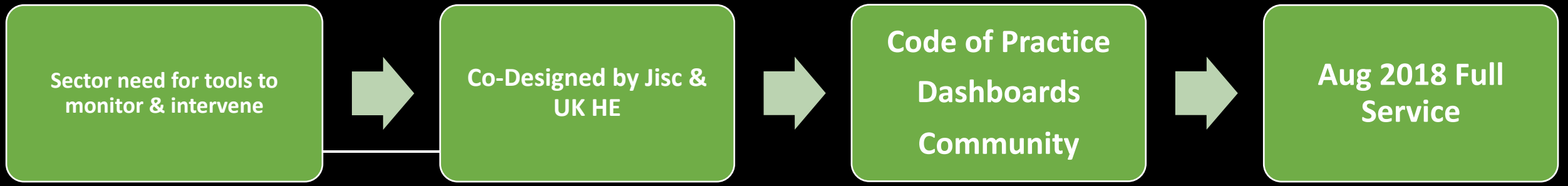
- Motivations
- Challenges
- Experiences
- Future Plans

Motivations

- Data Repatriation
- National Learning Analytics Repository
- Co Designed solution
- Low cost for members with small resources



Motivations



Challenges

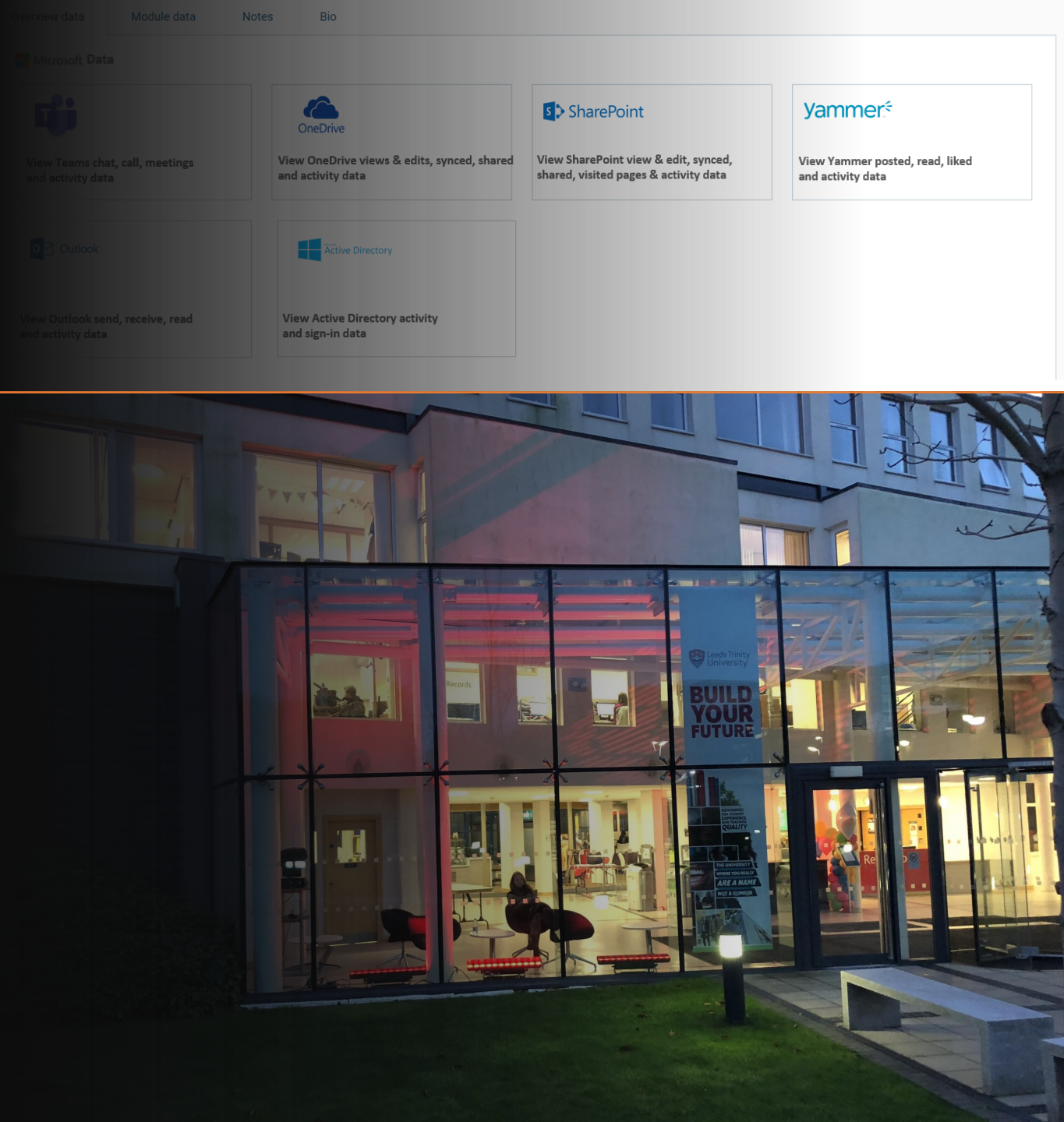
- Resources of Institutions
- Competition
- Finance
- Pace of Development
- Technical Debt

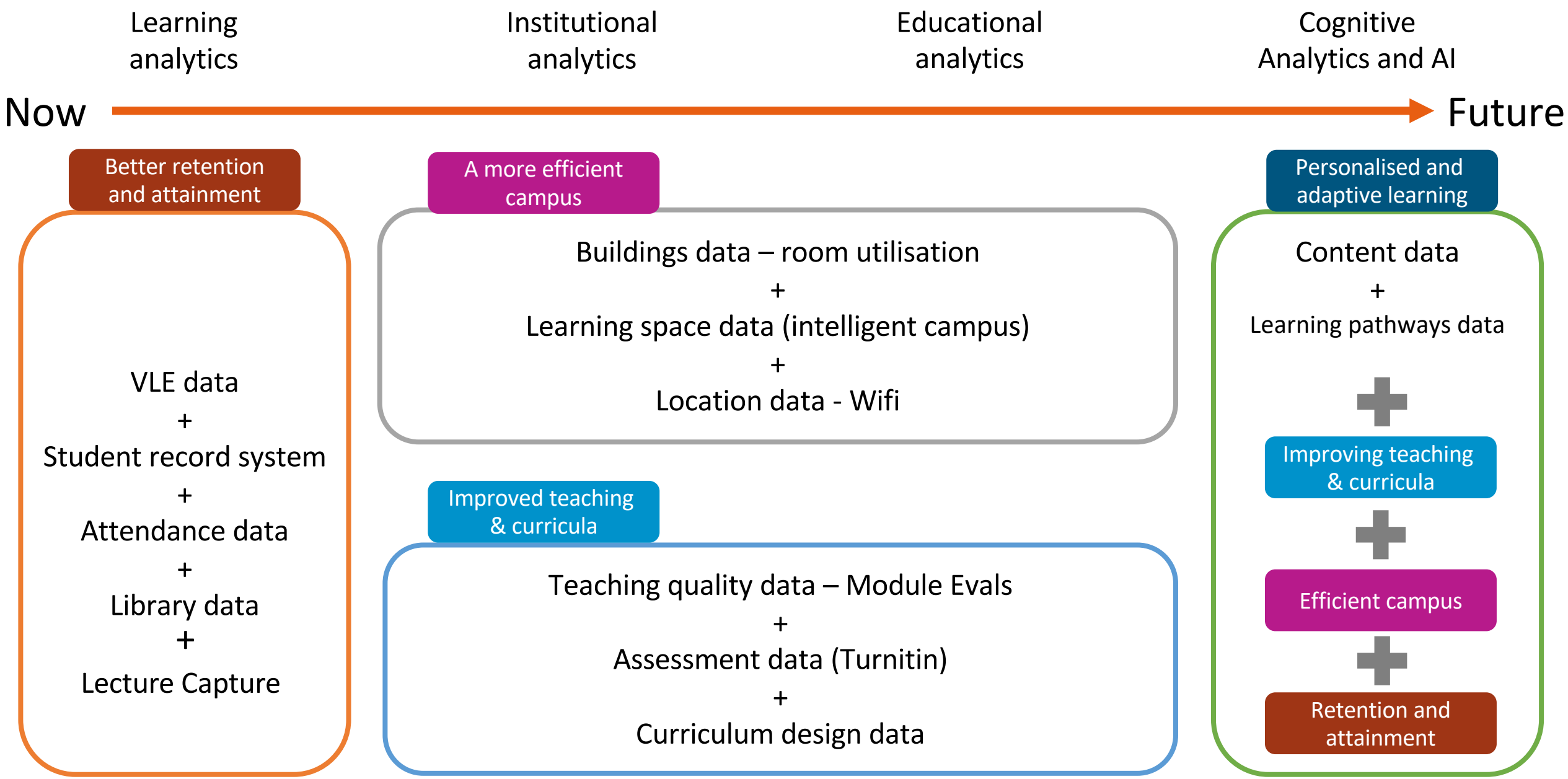
Experiences

- Positive implementations – Students seeing an impact
- Strong User Community eager to share good practice
- A sector that has reached a maturity with LA.
- 25 institutions are now ready to take LA further into CA & WA

Future Plans

- Teams
- Talis
- Turnitin
- Student Provision
- Collaboration with NRENs




Learning analytics
Institutional analytics
Educational analytics
Cognitive Analytics and AI
Now
Future
Better retention and attainment
VLE data
+
Student record system
+
Attendance data
+
Library data
+
Lecture Capture
A more efficient campus
Buildings data – room utilisation
+
Learning space data (intelligent campus)
+
Location data - Wifi
Improved teaching & curricula
Teaching quality data – Module Evals
+
Assessment data (Turnitin)
+
Curriculum design data
Personalised and adaptive learning
Content data
+
Learning pathways data
Improving teaching & curricula
Efficient campus
Retention and attainment

Presentation and Action
Staff Dashboards in Data Explorer
Other Staff Dashboards
Student App: Study Goal
Data Storage and Analysis
Jisc Learning Analytics Predictor
Learning Data Hub
Data Aggregator
Data Collection
UDD Transformation Process
Self Declared Data
Plugins and/or Universal xAPI Translator
Attendance
Student Records
VLE
Library

Questions

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