

**Key Action:** Cooperation for innovation  
and the exchange of good practices  
**Action Type:** Strategic Partnerships for  
higher education

# *LEARNING ANALYTICS, ETHICS AND POLICY IN PERFORMANCE DATA MANAGEMENT*

## SQELT INTERNATIONAL EVALUATION WORKSHOP

Performance Indicators of Higher Education Learning and Teaching in  
Context: Governance, Quality Management, Learning Theories and Policy

Danube University Krems – 1&2 July 2020

# AGENDA

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- Introduction – the SQELT team experience
- Over to You:
  - What does Learning Analytics mean to you?
  - How does Learning Analytics inform internal quality assurance?
  - What ethical issues are there in learning analytics?
  - Can you do a SWOT analysis for your own institution?
- Questions/Discussion



## INTRODUCTION

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- *‘Learning Analytics is the measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environment in which it occurs’ (Siemens 2011a; HEC 2016, 4)*
- *Learning Analytics is ‘the process of using living data collected to predict student success, promote intervention or support based on those predictions, and monitor the influence of that action.’ (Zilvinskis et al., 2017: 10)*



# INTRODUCTION

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## DATA (Zilvinskis et al., 2017; HEC, 2016)



TRADITIONAL (e.g. students' records, answers to different types of surveys, staff data, financial data or estates data)



From TRANSACTIONAL SYSTEMS (e.g. learning management systems, online course platforms, social networks, e-books or online journals downloads or log-ins to the virtual learning environments)

- But... **data in itself is not decision making.**
- So, and despite **technology** being a **key factor in LA**, **human factors** are still **paramount** to its successful implementation and long-term use.

# INTRODUCTION

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- Data collection and analysis
  - Focus groups with different stakeholders (students; teaching staff; quality management staff; and leadership)
  - Stakeholders perceptions about learning analytics in their institution:
    - Is learning analytics put into practice at the HEI?
    - Functions of Learning Analytics (including ethical issues)
    - Learning analytics SWOT analysis
  - Content analysis



# PERSPECTIVES OF AVEIRO, BCU AND GHENT

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- Aveiro
- BCU
- Ghent



# UNIVERSITY OF AVEIRO

## Strengths

- Relevant LA processes are in place and allow identifying students' academic path, helping to prevent failures
- All existent L&T quality monitoring mechanisms are useful to support and legitimise decision-making
- The SubGQ\_UC allows to establish profiles of courses and teachers
- The actors' role when holding decision making responsibilities

## Weaknesses

- Students' participation is still rather low and they do not fully experience the practical consequences of LA
- Deficient perception of the relevance of data collection and analysis for managing the university
- Deficit of integration of information and data platforms and processes into the actual L&T work processes
- Still difficult to implement a fully-fledged LA approach:
  - not enough data collected regarding students emotional dimensions nor graduates' success
  - Just collecting data and information per se is not enough for improvement to happen

## Opportunities

- Communication to students and teachers about LA importance and its results should be emphasized
- Performance deficits and best practices can be used as inputs for self-improvement
- Existent mechanisms in the university to monitor L&T are an opportunity for its quality improvement
- LA provides the possibility of knowing in real time the student's academic path, being able to positively constrain their future path in order to promote academic success

## Threats

- Great amount of data collected on all university actors might be too intrusive, although perceived as very useful in many ways
- Excessive control of the life and academic path of each individual student might be possibly unethical
- When data says "we are good", the risk is that we stop trying to get better
- Danger of overemphasising data and information and take them as the only measure of L&T quality
- Danger to resort to the data and information which are easier to collect and analyse, irrespective of its relevance



# BIRMINGHAM CITY UNIVERSITY

<b>Strengths</b>	<b>Weaknesses</b>
<p>Mature system of data collection</p> <p>Existing data collection can be mapped across and form the basis of performance indicator development</p> <p>Recognition that all staff need to be able to access data to inform personal and institutional progress</p> <p>Willingness to build systems that work for all staff</p> <p>Recognition of the importance of data analysis/ development of performance indicators</p>	<p>No shared institutional understanding of the purpose of collecting data</p> <p>Little joined-up working within the institution</p> <p>Existing data collection fails to adequately address current needs</p> <p>Relevant data is not available to all stakeholders</p> <p>Diversity of the institution lends itself to 'silo' working</p>
<b>Opportunities</b>	<b>Threats</b>
<p>An opportunity to improve the situation: to start from scratch if necessary</p> <p>To harness existing functions to support the development of a new system</p> <p>To ensure that the right data is getting to the right people</p>	<p>Development of performance indicators that do not reflect the reality of the institution</p> <p>Excessive reliance on the collection of data: less reliance on interpretation</p> <p>Policy changes relating to current debates in UK HE: i.e. student fees, value for money etc.</p> <p>Partnership working/collaboration in the wake of Brexit</p>





# GHENT UNIVERSITY

Strengths	Weaknesses
<p>UGent's Business Intelligence platform (UGI) provides data on a wide range of elements in the educational process</p> <p>Relevant data are easily available to stakeholders, esp. decision makers</p> <p>The (new) Learning Management System (D2L) allows monitoring of all phases in the learning process</p> <p>Active engagement by stakeholders on different levels: nationwide by Royal Flemish Academy, at the institution by (groups of) teachers and the student representatives</p> <p>Certain innovation projects using LA lead to in-house expertise</p>	<p>An institution-wide vision on the use of LA is still lacking and needs to be developed</p> <p>An overload of data can be counterproductive in use</p> <p>Interpretation can be divergent and data can be treated inaccurately by non-informed users</p> <p>Data used for study counselling should be handled with great care</p> <p>Access control of the data can be optimized</p>
Opportunities	Threats
<p>Cooperation and exchange of experiences between institutions should continue (first step: Academy's position) and may lead to engagements and a leading framework</p> <p>Research on LA is paramount and first steps are taken in several departments</p> <p>A workgroup on LA, installed by the Educational Council (June 2019), consisting of a wide representation of stakeholders, will map the current situation and prepare for an institution-wide vision and policy</p> <p>Training of the users can avoid misreading and ill-treatment of the data</p>	<p>Continuous attention to data protection, privacy and ethics is needed to avoid abuse. Codes will need to be developed.</p> <p>Control and ownership of data must be clearly defined; in a large institution, responsibilities (ICT and other) aren't always clear and delineated</p> <p>If the privacy issue isn't clearly defined, students' confidence is at stake</p> <p>Management of data is crucial and it's hard to control destruction of data in due time</p>



## CHALLENGES IN LEARNING ANALYTICS

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- The Royal Flemish Academy in Belgium for Science and Arts **position about “Learning Analytics”** in the Flemish higher education system
  - 16 Recommendations
  - Research and interdisciplinary cooperation is needed; there’s LA on small and big data
  - HEIs should have ownership and control of the data, keep record of all data (flows)
  - HEIs should have a LA policy and a strategy and support the users
  - Cooperation between HEI’s can be useful and fruitful.
  - All institutional stakeholders should be involved (e.g. student counsellors and students)
  - Users should have the necessary competencies
  - Data protection and privacy is paramount. Data protection officers, ethical committees should be involved from the start and a code of conduct could best be developed in alignment with all Flemish HEI’s.

## CHALLENGES IN LEARNING ANALYTICS

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The **DELICATE** checklist to implement **trusted learning analytics**

- **D – Determination** – why you want to apply learning analytics?
- **E – Explain** – Be open about your intentions and objectives
- **L – Legitimate** – Why you are allowed to have data?
- **I – Involve** – Involve all stakeholders and the data subjects
- **C – Consent** – Make a contract with the data subjects
- **A – Anonymise** – Make the individual not retrievable
- **T – Technical** – Procedures to guarantee privacy
- **E – External** – If you work with external providers

# OVER TO YOU!

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- We want to hear from you
- Three key questions:
  - What does learning analytics mean to you and your institution?
  - How do learning analytics inform quality assurance?
  - What ethical issues are there in learning analytics?
- Do a SWOT analysis of your own institution. What do institutions share? What is different?



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# Any further questions?

## Other topics to discuss?

