Why digital assessment?

*Digital exam & assessment – more than paperless*
What is UNIwise & who am I?

UNIwise
Provider of WISEflow
Leading assessment platform

Rasmus Tolstrup Blok
Executive director
UNIwise

- Started 2010 as a governmental project
- UNIwise spins out of Aarhus University 2012
- Headquarter in Denmark – offices in Norway, Sweden, S. Korea and Ukraine
- Serves +50 clients in HEI in Europe
- Delivers between 20-35,000 student exams daily

Rasmus Blok, Executive director, UNIwise
Digital Examinations, Brunel University 17th of March 2017
What is digital assessment?

“Digital assessment refers to the application of digital technologies to create, administer, report and manage tests and examinations.”

According to Gartner it remains one of the top 10 strategic technologies for the higher education sector and an increasingly important aspect that feeds into other growing areas such as analytics, adaptive learning, competency-based education and new regimes of scrutiny, transparency and accreditation.
Why is the question important?

- Why digital assessment?

• There is not ONE simple answer to the questions!

• Many different reasons, depending on the fact, that:
  • universities and colleges are not alike
  • they apply and strive for different goals
  • they are situated differently in space, economy, openness, ranking etc.

Let me give you some reasons many of our clients have put forward, together with trends we have seen last 5 years!
The student of today

- are exposed and used to the omnipresence of technology in learning (and job life)
- has poor or lack of handwriting skills
- has got increased focus on own quality and performance
- expects a personal or student focused learning with extensive feedback loops
- demand fair and transparent assessment and grading as a result of high competition
- has an increased and important voice towards student satisfaction ratings
- shops and access education on a global scale
Globalisation
- Examples from WISEflow

We currently hold +50 HEI clients in 7 countries

However, our assessment platform WISEflow is accessed from more than 170 countries!
The teachers and assessors:

- are exposed to increased demand for test and test results (to produce measurement and result data for institution and for students)
- demand better tools to align assessment with technology for daily learning and research based teaching (use of multimedia, software, internet, databases etc.)
- need to engage in broader test and assessment strategies – secure right cognitive skills tested
- use assessment as focus point for learning and student engagement
- wish to make assessment a learning process – aligned with teachings
- need tools to streamline the increased demand for feedback
Extensive feedback
- Examples from WISEflow

- Annotate
- Comment
- Score
- Explain/show

Share feedback
- w/ co-assessor
- w/ student
- w/ all

First, a word on our set of methods: hence our goal is to provide feedback to students in a way that is meaningful and actionable. A good example is Bates (1), who found that 10% of students used feedback to improve their learning. However, in a survey of 300 students, only 40% reported that feedback helped them learn. In this scenario, the instructor needs to be more explicit about how feedback is provided and what it means for the students. For example, they should be encouraged to use feedback to improve their work, not just to pass the exam. Otherwise, the feedback is redundant and may not be helpful. The instructor should also be clear about how feedback is used in the course and how it relates to the overall learning objectives. Finally, the instructor should provide examples of how feedback can be used effectively and how it can be tailored to meet the needs of different students. This will help students understand the importance of feedback and how to use it to their advantage.
The Institutional Argument

- Why digital assessment?

Higher Educational Institutions:

- strive to optimise and cut down manual labour by digitising the workflow for assessment
- face high demand to prevent cheating and plagiarism in test and assessment
- experience increased focus on and demand for security, reliability and audit trails in assessment
- are forced to focus on student demands and student satisfaction
- increasingly engage in internationalisation – students and education is truly getting global
- wish for intelligent data collection and statistics – to drive decisions
Examples from WISEflow

**Research and Learning Skills 2016-17**

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**Monitor**
- progression & speed
- attendance, actions & log
- connectivity, time & IP
- comment on behaviour

**Data distribution**
- exams
- questions
- grades
- scores

Rasmus Blok, Executive director, UNIwise
Digital Examinations, Brunel University 17th of March 2017
The technological progress enables:

- automatic plagiarism detection
- autoscoring and instant feedback
- more extensive monitoring of exam events
- logging of different stakeholder actions during exams
- notifications, alarms and trickers of certain events and actions for exams
- collectable and searchable data for individual or institutional statistics of exams
- prompt, easy and flexible distribution of exam data
- greater transparency in assessment process and workflow
- a broader variety for exam and assessment formats and student submissions

Why digital assessment?

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Multiple assessment formats

- Examples from WISEflow

**Assessment formats**
- Open book
- Closed book
- MCQ – adv. Questions
- Oral (on camp/remote)
- Portfolio
- Practical
- Thesis
- Combinations
- Prerequisites

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The researchers tell us:

- "The curriculum tells you what the faculty is doing. The examination system tell you what the students are doing" (Boyd, 1995)

- "From our students’ point of view, assessment always defines the actual curriculum" (Ramsden, 2003)

- "Assessment is about how well they achieve the intended outcomes, not about how well they report back to us what we have told them or what they have read." (John Biggs, 2007)
How are these arguments met?

Some continue the old fashioned way!
How are these trends met?

- others...

... utilize stand-alone and content driven providers and use their preformatted questions for exams
How are these trends met?

- yet others...

... appropriate their VLE to cover some assessments and exams in a digital matter
How are these trends met?
- others...

... change to and implement dedicated exam and assessment platforms

EMA – Electronic Management of Assessment (Jisc)
The landscape of assessment today

Progress towards digitalisation

- Offline & manual assessment
- Blended use of content providers
- Blended use of VLE
- Dedicated assessment platform

Level of integration into the HEI infrastructure

Single Sign-on Service
EDUgain

Plagiarism Detection Service

Archive / Library

External Assessor System

Student Record System

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The near future

WISEflow vision

- Personalised and guiding learning analytics
- Better and more advanced authentication
- Fully omnipresence and device/system independence
- Extended diversity, specialisation and a broader tool set
- Greater alignment and support for assessment as a true learning experience
Near future focus

WISEflow vision

**Learning analytics**
- Providing **data to guide** the individual student on progress, the professor in assessing the class, as well as the institution on **achievements on learning goals etc.**
- By means of **standardised assessment**, taxonomy based rubrics, proactive data analysis

**Authentication**
- Identifying and locate your students easy – whether on campus or from distance – and secure their exam action against **cheating and identity theft.**
- By means of **facial recognition**, advanced monitoring and online proctoring

**Omnipresence**
- Based on **Bring Your Own device (BYOD)**, available 24/7, independent of device (PC, tablet & mobile), **operating system** (Windows & IOS) and **browser** (IE, Chrome, Safari..).
- By providing cloud based **Software as a Service (SaaS)** and **fully web based access**

**Diversity**
- Providing for various assessment forms and combinations thereof, as well as supporting specialised exam and assessment formats (OSCE, programming, art etc.)
- By allowing **easy integration of external services** and building **advanced authoring tools**

**Alignment**
- Align class actions of teaching and learning with assessment and test actions, supporting transparency, deep learning and easy and individualised human feedback
- By implementation of **standardised rubrics**, support the use of learning goals, provide easy/automatic scoring and cater for various feedback types – including peer-feedback

Rasmus Blok, Executive director, UNIwise
*Digital Examinations, Brunel University 17th of March 2017*
## Content providers vs. VLE vs. Assessment platform

- A brief AS-IS comparison – regarding digital assessment for HEI today

*WISEflow as benchmark*

<table>
<thead>
<tr>
<th>Feature</th>
<th>Content / Stand alone Providers</th>
<th>VLE</th>
<th>Assessment Platform (Wf*)</th>
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<td>Test Diversity</td>
<td>SIMPLE</td>
<td>MEDIUM</td>
<td>ADVANCED</td>
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<tr>
<td>Assessment Tool Specialisation</td>
<td>ADVANCED</td>
<td>MEDIUM</td>
<td>ADVANCED</td>
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<td>Feedback Possibility</td>
<td>MEDIUM</td>
<td>MEDIUM</td>
<td>ADVANCED</td>
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<tr>
<td>Authentication &amp; Security</td>
<td>SIMPLE</td>
<td>MEDIUM</td>
<td>ADVANCED</td>
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<tr>
<td>Analytics &amp; Statistics</td>
<td>MEDIUM</td>
<td>MEDIUM</td>
<td>ADVANCED</td>
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<tr>
<td>Integration &amp; API</td>
<td>SIMPLE</td>
<td>MEDIUM / ADVANCED</td>
<td>ADVANCED</td>
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<tr>
<td>Full Workflow Support</td>
<td>SIMPLE</td>
<td>MEDIUM</td>
<td>ADVANCED</td>
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<td>Cost Effectiveness</td>
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<td>MEDIUM / HIGH</td>
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**Overall Conclusion**: **SORT TERM QUICK FIX**, **REQUIRES MODIFICATION**, **LONGTERM SOLUTION**

Rasmus Blok, Executive director, UNIwise
Digital Examinations, Brunel University 17th of March 2017
Recommendation
- Regarding digital assessment

By implementing a digital assessment platform like WISEflow, our HEI clients have shown they were able to:

**Enhance quality**
- Raise student satisfaction
- Provide better feedback
- Strengthen transparency
- Provide better data basis
- Align test strategies

**Heighten diversity**
- Expand assessment methods
- Raise accessibility
- Provide easier and global availability
- Better prevent cheating and plagiarism

**Lower cost**
- Decrease manual labour by 75%
- Eliminate manual distribution costs
- Lower human errors
- Streamline processes

"Digitalisation makes it possible to stretch the iron triangle!"
- Sir John Daniel, former Vice Chancellor of Open University, UK
  (Referring to Adam Smiths The Pin Factory - 1776)
Thank you and “Bon voyage!”

- Digitalisation of assessment is inevitable – when will you join?

Curious for more info?

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