The adoption of learning technologies in universities

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The Purpose of Teaching - Transformations

- School leaver
- Graduate
- Nascent professional
- Professionals ready for 4IR

University

Employment
Future ready capabilities

- Autonomous
- Adaptable
- Fast and deep learner
- Tolerant of ambiguity
- Sense-maker
- Communicator
- Inventive
- Resilient
- Principled
- Creative
- Proactive
- Autonomous
- Tolerant of ambiguity
- Sense-maker
- Inventive
- Principled
- Creative
- Proactive

KNOW MORE
Data savvy
Technical knowledge
Theory
Facts

DO MORE
Problem solver
Critical thinker
Communicator

BE MORE

Easier to teach
More difficult to teach
Implications for teaching

Passively absorbing truths

Actively questioning, constructing, negotiating and testing ways of seeing and being

Less effective

More effective
Increased investment by institutions (e.g. Mkhize et al., 2016; Smith, 2012; Tierney & Lanford, 2016)

Institutions implicitly or explicitly regard learning technologies as catalysts or facilitators of pedagogical development.
Solution(ism) – Get better learning technologies!

Increased investment by institutions
(e.g. Mkhize et al., 2016; Smith, 2012; Tierney & Lanford, 2016)

Unsatisfactory adoption by individual academics
(e.g. Rambe & Nel, 2015; Dahlstrom et al., 2014)
Predicting adoption - Exploring the research

Technology characteristics

Relative advantage

Ease of initial adoption

Availability

Hmm - but why do different people in the same roles adopt a technology differently?
Predicting adoption - Exploring the research

Technology characteristics
- Typologies
- Attitudes to change
- Control
- Pedagogical beliefs and practices
- Skills

Individual characteristics

Yeh! - but you can’t just reduce people to a set of variables ... and anyway why do some teams or groups adopt when others don’t?
Predicting adoption - Exploring the research

Technology characteristics

Individual characteristics

Contextual characteristics

Politics and purpose

Prioritization

Culture and discipline

What about all those change management consultants? Don’t they do anything?
Predicting adoption - Exploring the research

Technology characteristics | Individual characteristics | Contextual characteristics | Influencing adoption

Hmm .... can’t you offer anything a bit more insightful?

Strategic intent
Participation and collaboration
Training
Reframing the adopter and the adoption process

Reframing the adopter - Personal and professional identities

• We have multiple identities
• We respond to protect ourselves from threats to our identities
• We seek to maintain notions of our ideal self
• We engage in sense making
• We adopt/adapt to the extent that changes align with our identities
• Professional identities do change but not readily
Supporting the adoption of technologies: Developing strategies that are sensitive to the challenges teachers face

Reframing the adopter and the adoption process

Reframing the adoption process – single and double loop learning

Assumptions –
- Role beliefs,
- conceptual framework,
- professional identities

Action strategies and techniques

Single loop learning

Results and consequences

Double loop learning

Rejection, discontent, disengagement
Reframing the adoption process – single and double loop learning

On the ground technologies are often experienced as an additional challenge – one that requires **triple loop learning** and radical rather than incremental shifts in professional practice.
Implications for practice

Strategies to facilitate the adoption of learning technologies organised by sub-themes identified in review:

- 1. Relative advantage - Provide clear, concise, and accessible information.
- 2. Ease of initial adoption - Develop and implement pilot projects.
- 3. Availability - Ensure availability of technological resources.
- 4. Type of use - Provide diverse and flexible learning options.
- 5. Attitudes of change - Foster a climate of change and support.
- 6. Control - Provide opportunities for control and collaboration.
- 7. Pedagogical beliefs and practices - Align technology with existing teaching and practice.
- 9. Bureaucracy - Establish clear and effective communication channels.
- 10. Policies and purposes - Develop clear and consistent policies and practices.

- 11. Strategies of research - Provide case studies and support for successful implementation.
- 12. Culture and discipline - Foster a culture of innovation and collaboration.
- 14. Participation and collaboration - Encourage participation and collaboration.
- 15. Facilitator leadership - Foster effective leadership and support.
- 16. Academic Development - Provide opportunities for professional development.

Influencing adoption

Technology characteristics

- Individual characteristics

Contextual characteristics
Thank you

Questions - Comments - Observations

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