Adoption of Twitter in higher education – a pilot study

Nauman Saeed, La Trobe University, Australia
Suku Sinnappan, Swinburne University of Technology, Australia

Ascilite 2011, December 5, 2011
Outline

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Micro-blogging (Twitter)

• A kind of Weblog that is restricted to 140 characters per post
• Normally posted by one person and is in reverse chronological order
• Can be accessed and written by any Web interface and mobile phone via SMS or IM
• Twitter started in 2006 and is considered the fastest growing Web 2.0 technology (CrunchBase, 2011), over 200 million user accounts worldwide.
...continue (Twitter)

- Mostly used for information sharing, information seeking and friendship wide relationships (Java et al., 2007)
- Also considered as a highly social tool, (Humber et al, 2008) and (Krishnamurthy et al, 2008)
- The link between Web 2.0 tools, social interaction and enjoyment within the higher education has been widely documented (Hsu and Lin, 2008)
- Similar inherent features are also seen in Twitter (Wigand, 2010)
Motivation

• Despite its world wide adoption, Twitter’s potential has yet to be harnessed (Faculty-Focus, 2010).

• Previous attempts: Twitter adoption in Government organisations (Wigand, 2010); mass convergence and emergency events (Hughes and Palen, 2009); and the enterprise (Gunther et al., 2009)

• But no empirical study on Twitter adoption in higher education

• Significant predictors of Twitter usage…?
Theory of technology adoption /acceptance

• In IS research, **several models** attempted to measure adoption of new technology.
  – Theory of Planned Behaviour (TPB).
  – Technology Acceptance Model (TAM).
  – Self-Efficacy Theory (SET).
  – Innovation Diffusion Theory (IDT).
• **TAM** is the most researched one.
Technology Acceptance Model (TAM)

• TAM posits that “user perceptions of usefulness and ease-of-use determine attitudes towards using a technology. Users’ attitudes drive their intentions to use technology which then leads to actual usage”.

• In the follow-up studies, the attitude component was dropped and perceived technology characteristics directly influenced the individual’s intention to use the technology. Subjective norms were also included in the follow-up model (Venkatesh & Davis, 2000).

• Validated for a variety of technologies including Web 2.0.
The proposed model for Twitter adoption

- Subjective Norms
  - Perceived Usefulness
    - H7
    - H2
    - H6
    - H5
    - H3
    - H1
  - Perceived Enjoyment
    - H4

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Study design

• Second year undergrad students studying an e-Commerce unit at SUT.
• Students used Twitter as part of their weekly tutorials by discussing their work with the peers through Tweets.
• Tweets uploaded to Blackboard
• Tweetdeck used for tweet management
• Twitter usage was not assessed
Study results

• 27 out of 45 students responded to the survey.
• All constructs passed the convergent validity, internal consistency and discriminant validity tests.
• Surprisingly, all TAM hypotheses appeared insignificant.
• Perceived enjoyment emerged as the strongest predictor of Twitter adoption followed by subjective norms.
• The proposed model explained 80% of students’ intentions to use Twitter – highly significant.
PLS analysis

Subjective Norms

0.55 (2.44)**

Perceived Usefulness

0.36 (1.39)

Perceived Ease of Use

0.66 (5.49)***

Perceived Enjoyment

0.27 (2.08)*

0.25 (1.27)

0.19 (0.59)

0.43 (2.47)***

Behavioural Intention

R² = 0.80

*Significance at the 0.05 level; ** at the 0.01 level; *** at the 0.001 level
Implications and limitations

• It is important to consider enjoyment and social influence while designing educational activities around Twitter or Web 2.0 in general

• More research is needed to validate TAM’s behaviour towards Web 2.0 adoption

• Limitations
  – Small sample size
  – Voluntary use of Twitter
Conclusion and future work

• A useful initiative to understand key predictors of Twitter adoption in HE
• Strong impact of enjoyment and social influence behaviours
• Inability of TAM to explain Twitter adoption
• Future studies with bigger sample size
• A collaborative study is in progress with Southern California Polytechnic University.
Thank You

Dr Nauman Saeed
eLearning Designer
Faculty of Business, Economics and Law
La Trobe University, Melbourne Australia
Tel: +61 3 9479 3316
Email: n.saeed@latrobe.edu.au