

## **ANNEXURE A: Feature Questionnaire**

### **Survey: Features for Social Media Applications in Ubiquitous Learning**

Dear Participant. You are invited to participate in a survey to ascertain the educational requirements and technology criteria for ubiquitous learning (u-learning). It will take approximately 15 minutes to complete the questionnaire. Answer each question as honestly as possible. Your participation in this study is completely voluntary. There are no foreseeable risks associated with this project. However, if you feel uncomfortable answering any questions, you can withdraw from the survey at any point. Your survey responses will be strictly confidential and data from this research will be reported only in the aggregate. Your information will remain confidential. If you have questions at any time about the survey or the procedures, you may contact Caitlin Sam by email at [caitlin.s01@curro.co.za](mailto:caitlin.s01@curro.co.za). Thank you very much for your time and support.

### **Section 1**

#### **Section A: Demographic Details**

Please choose the option that applies to you in the questions that follow.

1. What is your job description?
  - School-based instructor
  - Higher education instructor
  - Higher education e-learning specialist
  
2. What is your job experience?
  - 3 - 5 years
  - 6 - 10 years
  - Above 10 years

### **Section 2**

#### **Section B: Education Requirements**

Please rate the following social media application features in light of their importance to promote u-learning in high schools. The rating scale is from 1 to 5 with 1 being the least important and 5 being the most important.

3. LEARNING CONTENT QUALITY: Relevance, timeliness, accuracy, comprehensiveness, and usefulness of learning content.

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4. PRESENTATION OF LEARNING CONTENT: Simplicity, clarity and readability of text; appropriate format with lists of topics; choice of media aligned with content; possibility to correct choices and entries; display of time required to view media.

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5. ENJOYMENT FACTOR: Gratification from the use of social media application for learning.

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6. SOCIAL INTERACTIVITY: Allows learners to share their ideas on various subjects with each other. Learner-led online discussions may be included.

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7. CLEAR INSTRUCTIONS PROVIDED: Social media application offers clear instructions on how to access and use all elements of the online learning environment.

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8. INSTRUCTOR OPINION: The importance of instructor opinion on the value of the social media application.

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9. COMPATIBILITY WITH COURSE DESCRIPTION: Social media application is compatible with course description- with pre-requisites (if any); learning outcomes and what is expected of the learners.

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10. LEARNER BEHAVIOUR: Social media application makes learners aware of regulations, policies and ethics that govern the social media application.

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11. INTEGRITY: Social media application has academic integrity needed to facilitate learning.

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12. SUITABLE TECHNICAL COMPETENCES FOR LEARNING: The social media application is at a suitable level for learners to display sufficient technical competences needed to successfully reach the learning outcomes.

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13. OWNERSHIP OF LEARNING: The social media application gives learners the opportunity to meet their own learning goals.

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14. INSTRUCTIONAL DESIGN: The social media application allows learners to use appropriate learning strategies and methods to meet learning outcomes.

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15. ASSESSMENT OF LEARNING: Social media application provides opportunities for assessment aligned goals and objectives; clear, well-defined, and measurable assessment of learning outcomes; provides opportunities for fair and transparent grading; feedback related to grading; learners can track their learning progress.

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16. PEER LEARNING: Fosters peer learning and engagement to meet learning outcomes and to learn skills and competences.

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17. INSTRUCTIONAL RESOURCES FOR TEACHING AND LEARNING: Social media application provides a clear explanation of how resources are going to be applied and utilized; no unwarranted technical, financial or administrative barriers for chosen resources; various multimedia content and multi-modal delivery channels for learners' different learning preferences.

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18. LEARNER SUPPORT: Learners enabled to achieve their maximum potential through instructional support, academic support, technical support, and administrative support.

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19. COURSE EVALUATION: Social media application provides feedback to improve teaching and learning.

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20. ARCHIVING/RESPOSITORY: Social media application allows learning area resources, texts, communication, etc., to be backed-up or archived (in line with the institution's access policies) in a safe and secure way.

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21. COLLABORATION: Social media application allows learners to be able to interact with the instructor, classmates, or experts in the field; It can be synchronous (real-time learning) or asynchronous (learning in different locations and at different times).

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22. USER ACCOUNTABILITY: The social media application provides technical solutions for holding learners accountable for their actions.

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23. DIFFUSION: The social media application is widely known and popular; most learners are familiar with the application and have basic technical competence with it.

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24. INSTRUCTOR FACILITATION: The social media application has easy-to-use features that would significantly improve an instructor's ability to be present with learners via active management, monitoring, engagement, and feedback.

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25. LEARNING ANALYTICS: The social media application allows Instructors to monitor learners' performance on a variety of responsive measures; Measures can be accessed through a user-friendly dashboard/tab bar.

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26. ENHANCEMENT OF COGNITIVE TASK(S): The use of the social media application increases engagement in targeted thinking process task(s) that were once very complex or difficult to imagine through other means.

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27. HIGHER ORDER THINKING: Social media application promotes understanding facts, inferring from them, connecting them to other facts and concepts, categorizing, manipulating, and applying them to seek new solutions to new problems.

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28. META-COGNITIVE ENGAGEMENT: Through the social media application, learners can regularly receive formative feedback on learning; track their performance, monitor their improvement, test their knowledge.

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29. PERMANENCY: Both course material and material produced by learners is never deleted on purpose.

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30. IMMEDIACY: When using the social media application learners should be able to get information whenever they want; it may be local, stored on their device, or stored on a server and is accessed by the learner over the internet.

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31. ADAPTABILITY: The social media application should be able to adapt to learners' changing lives.

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32. MANAGEMENT OF INTERACTIVE LEARNING OBJECTS The social media application allows for adaptation of learning path and user groups management.

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33. U-LEARNING TRAINING FACTORS Social media application is a continuous training system for training content and management of trainees.

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34. QUALITY ASSURANCE: Fitness for purpose; suitability of provided knowledge; user interface; language level; graphic approach and Interaction level.

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35. LEARNABILITY AND MEMORABILITY: Learnability; productivity level after user has learnt to use the system; memorability level by ensuring user is able to use system after a period of inactivity without having to relearn everything.

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36. USEFULNESS AND SATISFACTION: Degree to which it is believed that using a particular system would enhance their performance and be satisfaction of using the application to complete a task.

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37. CURRICULUM MANAGEMENT: Social media application promotes the management of the curriculum

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38. CUSTOMIZATION: Social media application is adaptable to its environment: easily customized to suit the classroom context and targeted learning outcomes.

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### Section 3

#### Section C: Technology Criteria

Please rate the following social media application features in light of their importance to promote u-learning in high schools. The rating scale is from 1 to 5 with 1 being the least important and 5 being the most important.

39. ACCESSIBILITY STANDARDS: Ease of access, access time, access speed, internet access, accessibility of learning materials, user focused participation, required equipment, and cost of use.

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40. WEB AND COURSE DESIGN: Design of user interface; display of instructional materials and display of web page; service design.

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41. SCALABILITY: The social media application can be scaled to accommodate any class size with the flexibility to create smaller sub-groups or communities of practice.

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42. EASE OF USE: The social media application has a user-friendly interface and it is easy for instructors and students to become skilful in a personalized and easily understandable manner.

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43. INTEGRATION/EMBEDDING WITHIN A LEARNING MANAGEMENT SYSTEM: (LMS) The social media application can be embedded (as an object via HTML code) or fully integrated into an LMS while maintaining full functionality of the application.

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44. OPERATING SYSTEMS: Users can effectively use the social media application with any standard, up-to-date operating system (e.g. Microsoft Windows, Apple macOS, Linux, Android and Apple's iOS).

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45. BROWSER: Users can effectively use the social media application with any standard, up-to-date browser.

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46. NO ADDITIONAL DOWNLOADS NEEDED: Users do not need to download additional software or browser extensions to use the social media application.

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47. ACCESS ON THE MOBILE PLATFORM: The social media application can be accessed, either through the download of an application via a mobile browser, regardless of the mobile operating system and device; design of the mobile application fully takes into consideration the constraints of a smaller-sized screen.

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48. FUNCTIONALITY: There is little to no functional difference between the mobile and the desktop version, regardless of the device used to access it; No difference in functionality between applications designed for different mobile operating systems.

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49. OFFLINE ACCESS: Offers an offline mode - core features of the social media application can be accessed and utilized even when offline, maintaining functionality and content.

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50. DATA PRIVACY AND OWNERSHIP: Users maintain ownership and copyright of their intellectual property/data; and the user can keep data private and decide if/how data is to be shared.

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51. DOWNLOADING, SAVING AND EXPORTING DATA: Users can archive, save, or import and export content or activity data in a variety of formats.

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52. TECHNICAL INFORMATION: Ease of installation and uninstallation; clarity of update time and time needed during update process; availability of technical support or online help; and information about limitations.

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53. MULTIMEDIA CONTROL: Audio-readings and sound control; clarity of all images and graphics; control of audio or video clips; adjustment with final display process; and optimized size for multimedia contents.

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54. SOFTWARE CHARACTERISTICS QUALITY: Reliability, usability, efficiency, maintainability, and portability.

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55. USER-FRIENDLY INTERFACE: Ease of navigation and control tools; materials are easily accessible; and utilization of links to external websites.

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56. FUNCTIONALITY: Scale and offline usability - synchronous and asynchronous communication tools.

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57. HYPERMEDIALITY: The social media application allows users to communicate through different channels (audio, visual, textual) and allows for non-sequential, flexible/adaptive engagement with material, and media richness.

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58. FACILITATION OF E-CONTENT: Use of key words, content should be printable, and self-assessment.

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59. OPERATIONAL STABILITY: These systems are designed in a manner that processing of day-to-day transactions is performed efficiently and the integrity of the transactional data is preserved.

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60. OFFLINE MOBILE ACCESS: Full or partial functionality when the mobile platform is off-line.

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61. SECURITY OF TECHNOLOGY: Secure and trustable working environment.

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62. FAULT TOLERANCE OF TECHNOLOGY: Error prevention, stability and accuracy, flexibility, and interoperability and continuity.

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