Transforming the Learner's Environment: Blending Interactive and Multimedia

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1. Introduction

- The importance of enhancing the interest of learners is an on-going challenge for educators of all levels.
- This is apparent within the School of Engineering, Design and Technology (EDT) as learning and teaching (L&T) practices shift from the dominant "Instructions Paradigm" towards a "Blended L&T Paradigm" .
- This is made possible with the adoption of suitable technological and social trends into the learners' environment, broadly termed as technology-enhanced learning (TEL).
- Within this context, the poster aims to present an overview of the good practices and lessons learnt through the implementation of TEL within the L&T curriculum.

Figure 1: Overview of L&T Approach

Figure 2: Interactive, Video and Audio Materials

Figure 3: Open source web 2.0 tools

2. Blended Learning and Teaching Approach

- Figure 1 provides an overview of the blended L&T methodology that is gradually being adopted within EDT for on-campus taught courses. It can be seen that the approach consists of the core delivery and TEL.
- The core delivery relates to general teaching practices, such as lectures, tutorials, seminars, laboratory sessions and formal assessments.
  - The learning materials are usually disseminated through the University's VLE (Virtual Learning Environment).
- TEL mainly implies the incorporation of technological developments into the learning environment to further support the student learner.
- The enhancement is mostly implemented with the aid of the following resources: Open Source Web Technology, Proprietary Systems and Multimedia.
  - **Open Source**: Using open source web technologies, mainly Web 2.0 tools (such as social bookmarking, social networks, blogs, etc.) to aid in the students' learning.
  - **Proprietary**: Using specific software or technologies to enhance the learner's environment, such as creating interactive learning materials, audience response systems.
  - **Multimedia**: Employing video, audio and visual presentations to allow the learners' to grasp a better understanding.

3. Evaluation Feedback

- Student feedback has been positive with regards to the interactive learning materials, with feedback such as "finding the TEL materials useful" and "fun and easy to grasp".
- Staff and students' feedback on making short video clips available to students prior to their laboratory session have been favourable.
- Students have feedback that the use of web technologies for their learning, which has been beneficial.
  - It has been noted that the majority of students find it useful for gaining information but only a handful of students participate or contribute to the interactivity.
- Staff and students' feedback regarding the use of audience response systems within lecture and tutorial sessions have been enthusiastic, as the interactivity aids in enhancing the session.
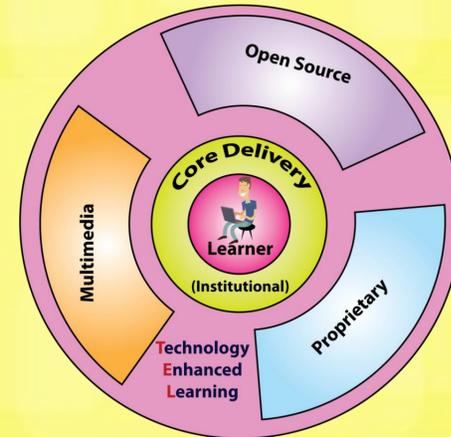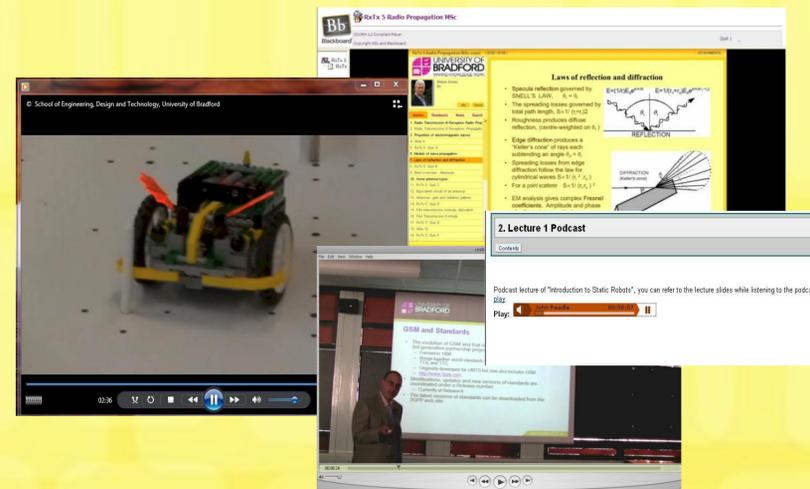
4. Conclusion

- In this poster presentation, a blended L&T approach has been described and showcased.
- Students have found the TEL materials useful, beneficial and were open to using technologies in their studies.
- Staff contribution and participation plays a significant role in the enhancement of the learner's environment.
  - Providing staff with the appropriate training and support, and acknowledging staff contributions remain an important aspects.