



A Case Study In Innovative Geoscience Education: Using eBooks and Interactive Software to Enhance Student Learning and Prepare Them for an Ever-changing, Technologically-based Society

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In today's society, technology with its various tools and resources is clearly a major factor which impacts the lives of current students and will continue to have a more pronounced impact on them and on future generations. In the case of Geoscience Education, the focus needs to be placed on how lifelong learners can be prepared to effectively and successfully use new technological tools that are present not only in Higher Education (H.E.) environments but also likely to be present in labour markets.

At York University in Toronto, Canada, a large in-class and online introductory Geoscience course which covers Geophysics, Astronomy and Planetary Science, is pioneering the use of mandatory e-books and associated interactive learning software as an innovative new teaching tool for students. The course, NATS 1570, "Exploring The Solar System," is a general education science course for non-science majors in all undergraduate years and various fields of study. This is the first time that an eBook is being made mandatory for student use exclusive of hard copy texts. Accordingly, a study is ongoing to evaluate students' experience, reaction and performance with the ebook and accompanying software as mandatory course text and innovative learning tool.

While a plethora of studies have been conducted to examine student & faculty attitudes toward the use of eBooks on an elective basis, it has not yet become common practice for universities to require students to purchase eBooks as mandatory course textbooks.

This presentation will report on results of the ongoing study and how study findings potentially impact the development of innovative Geoscience Education processes which may be transferrable into our technically oriented society. Dialogue will be stimulated addressing if, how, and why the use of eBooks as required textbooks may fundamentally transform the student experience in H.E. and beyond.