

Editorial

New Knowledge, Education and Technology

*“Information is not knowledge.”
Albert Einstein (1879 – 1955)*

The following phrase can sometimes be heard circulating among educators nowadays, “a new knowledge is coming to the universities”. Although anyone could intuitively guess what is supposedly the meaning of the said idiomatic phrase, some aspects of the concept of knowledge need to be clarified. Knowledge is acquired when a proper understanding of a particular topic is reached through experience on the basis of a training delivered by an experienced instructor who has an access to reliable information. The concept of knowledge is also related to another idiomatic phrase, “the body of knowledge”. It should be noted that the body of knowledge is not in the libraries, but among the knowledgeable people, the libraries mainly store information. The vast amount of information which is available electronically must be filtered, classified into categories, interpreted and analyzed in terms of the interrelationships between different fields before to be delivered to students. A student could acquire knowledge only if the instructor is a knowledgeable person, i.e., not only “knows” a lot of information but also possesses a proper knowledge about the available information. Whenever a new knowledge is acquired for the first time by a limited group of researchers, the information about it becomes available to the public in the form of papers in conference proceedings and journals or chapters in research monographs. At a certain point, the information concerning the privately acquired knowledge becomes internationally accepted and is included in textbooks which are used for the delivery of lectures to students.

The promotion of new knowledge in the universities is always limited by the existing curricula of the education system. While new discoveries in science and technology are made on a daily basis, the status quo in teaching students is largely preserved. The inertia in changing important aspects of human life is not an entirely negative phenomenon. The preservation of well established traditions was a key component for the survival of mankind in the past. The current teaching methods do not differ significantly from the situation observed a few decades ago. The main difference is that the instructors prepare their teaching materials in electronic form and project slides on a screen, while the “talk and chalk” approach is considered obsolete. A radical reform in education is needed that would allow the students to grasp the complexity of the modern reality as the information being delivered in class comes from a number of books which are mainly updated editions and hardly cover the multidisciplinary fields which arise from the synergy of all known aspects of the body of knowledge.

The transition to interactive, technology-assisted teaching and learning methods appears to be the modern tendency in education as contradicting factors are to be balanced in obtaining positive results. While the society experiences a constant stress in dealing with the increasingly complex technological challenges, the human capabilities to process multivariate logical content remain limited. Technology could greatly assist the instructors in their teaching efforts to facilitate the learning process of students acquiring knowledge. Among other things, a good facilitator should: prevent the students from jumping quickly from one topic to another; concentrate on key concepts; introduce interesting case studies; show the applied aspects of the fundamental knowledge; and propose solvable open problems. Computers became cheap and flexible educational tools which deliver instant information. Such information has a twofold effect on students due to a noise-like additional content which should be omitted during a first reading.

The technological aspects of the interaction between instructors and students in acquiring new knowledge with the use of computers and other artificial devices become of utmost importance and the Assumption University Journal of Technology (AU J.T.) invites prospective authors to contribute research papers related to new knowledge, education and technology.

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