## **Coping With the Copy-Paste-Syndrome**

Narayanan Kulathuramaiyer

Faculty of Computer Science and Information Technology, Universiti Malaysia Sarawak, Malaysia <u>nara@ift.unimas.my</u>

## Hermann Maurer

Institute for Information Systems and Computer Media, Graz University of Technology, Austria hmaurer@iicm.edu

**Abstract:** The Copy-Paste Syndrome describes a situation whereby students at all levels are becoming more and more reliant on wide-range of easily-available digital content. This is a universal problem that has to be addressed effectively, especially with the revolutionary development of the Web. Weber (Weber, 2006) refers to it as the Google-Copy-Paste-Syndrome, which according to him will drastically affect the quality of scientific publications, leading to a degradation of the quality of life. The expansion of digital content together with an emerging participative social learning (and E-learning) ecosystem could result in even more devastating implications. As opportunities for the proliferation of such infringements becomes widespread, a holistic solution is required combining an institutional approach together with the application of viable technologies. This paper describes an E-learning ecosystem combined with a copy-paste detection suite to comprehensively address the emerging phenomenon.

## Introduction

Web 2.0 (O'Reilly, 2006) describes the evolution of the Web which is fast becoming a platform for social networks. Its social engineering power is demonstrated by the many emerging applications such as MySpace, Wikipedia, Flickr and YouTube. The re-mixability of multiple services facilitates highly personalized experiences to suit individual needs.

Web 2.0 is changing the way learning communities build, organize, share and exchange knowledge. Elearning 2.0 (Downes, 2006) explores the social empowerment of learners by harnessing the social power of Web 2.0. Wikis and blogs have provided a powerful means for learners in expressing themselves and collaboratively creating knowledge. E-learning 2.0, is thus anticipated to be able to address the unfulfilled goals of Learner management Systems of the past (Pitner and Drasil, 2006).

In the development of E-learning 2.0 and future E-learning systems, there are social implications that will have to be addressed. As tools get easier to use, it also becomes easier for networked learners to commit violations such as plagiarism and IPR violation. It will also become much simpler to acquire information from the web community as opposed to meeting up with co-learners and experts in the real world (Alexander, 2006). Publishing online has also become much easier. The openness of the Web environment poses a number of challenges in monitoring and keeping track of the explorative expressions of students.

The term copy-paste is used in this paper to refer to an emerging practice of fast and easy publication by millions of people. The 'Google Copy Paste Syndrome' (GCPS), (Weber, 2006) describes a common activity of performing a fast, easy and usually "not diligently researched" copying of passages in text by people of all walks of life which includes scientists, journalists, academics and students The GCPS has resulted in a proliferation of infringements such as plagiarism and IPR violations. Acquiring insights is performed by 'conveniently searching' the Web as opposed to a rigorous process of learning through scientific discovery. Information from Web sources such as Google and Wikipedia are often used without even considering the validity of the source. According to Weber, GCPS will lead to a degradation of scientific quality, and eventually affecting the quality of life.