

Going Beyond the Basics: Addressing Privacy, Ethics, and Security within a Technology Integration Course

As teachers, the issue of information assurance and security is of great concern. Federal law mandates that teachers protect the information they gather and record regarding their students (Szuba, 1998). Failure to do so could result in personal and professional liability. Additionally, as educators move to integrate the Internet within the standard curriculum, it is critical that teachers and administrators take a few steps to ensure the protection of their students as well as to teach their students specific techniques that emphasize a more secure use of the Internet.

Lack of Information Security in the K-12 Environment

Despite the clear-cut expectations of a teacher's responsibility to protect the sensitive information associated with normal classroom activities, many fail to do so. One reason for this lack of attention to security issues in schools revolves around the lack of information regarding security as it directly applies to the K-12 school environment (Szuba, 1998).

As we introduce technology into our classrooms, it is important to combine the technical skills with security skills. The issues of information assurance and security are critical, complex, and ever changing. It is an area that needs to be addressed by educators, administrators, parents, and students. School officials have a legal and ethical responsibility not only to protect the personal information of its students but also to teach them how to do it for themselves. Within their classrooms, teachers must demonstrate proper security techniques in order to protect student information as well as to serve as an active role model for their students.

Identification of Basic Security Components

National Infrastructure Protection Center's Security Checklist

In 2000, SANS Institute and the National Infrastructure Protection Center (NIPC) released a document summarizing the Ten Most Critical Internet Security Vulnerabilities. (SANS, 2001). This document identified the most common and critical security holes in existence at the time. Due to the ever-expanding nature of information security, the duo worked together to expand and enhance the original list of ten vulnerabilities to include the twenty most critical elements. This new list, released on October 1, 2001, updated and expanded the Top Ten list (SANS, 2001).

The list of vulnerabilities was designed as a resource for network analysts and systems administrators. It is quite technical in nature and is often misunderstood by the average user. Recognizing this as a barrier for practical implication for the average user, Bob Gerber, the Chief of Analysis and Warning for the National Infrastructure Protection Center, led a group in the creation of the Seven Simple Computer Security Tips for Small Business and Home Computer Users (NIPC, 2001). This list included the understanding of the following topics: basic security concerns, password creation and protection, utilization of data back-ups, virus protection software, firewall basics, e-mail protocol, and the utilization of security patches.

According to the NIPC, this list encompasses the basic skills needed to assist in the protection of the average user's system. This list, therefore, also applies to the skills needed by teachers and students working within an integrated classroom. These seven points will serve as the focus for a discussion of the instructional strategies currently being infused within a technology integration course for pre-service educators at Indiana University South Bend. A discussion and formative evaluation of the course activities will be provided at the presentation in November.

References

- NIPC. (2001). Seven simple security tips for small businesses and home computer users. Website. Available: <http://www.nipc.gov/publications/nipcpub/computertips.htm>
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