Learning With Laptops

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"There are two ways to break out of poverty. The first is by formal education, and the second is by the worker acquiring a greater skill at his work and thus higher wages." (Mandela, 1964)

"Children are largely their own teachers, and in a right environment they will teach themselves more than all the schools can teach them." (Mee, ca. 1953, p.2)

INTRODUCTION

Rogoff (1994) believes that technology can act as a catalyst influencing change from a traditional classroom to an environment of community of learners. One way to successfully integrate technology in schools is to use a constructivist approach. Here the environment provides facilities for students to learn by doing, to work with others, and to have authentic experiences, motivating learning and making it relevant. Technology provides cognitive tools for students as they make sense of the information gathered, allowing experts, teachers, and students to communicate their thoughts and interests in the subject matter and simulating real-life situations and problems. Laptops can hinder or help children. The software has to be well-designed for the purpose of "teaching the child to learn".

The use of technology can enhance learning for children in developing countries. While desktop computers may be impractical for deployment in countries where many homes may not have electricity, laptops can be used to help children in the developing countries to learn. The reason for using laptops rather than desktops is that laptops are mobile. They can be taken home by children at night, and charged and reloaded at school. Laptops can be used by children to "learn learning", through independent interaction and exploration. They give children access to a wealth of information which can be garnered by educationalists and teachers from the Web. Studies have shown that bringing laptops home engage the family (OLPC, 2006). There are many reasons why laptops for children are necessary for developing countries. These include:

- Lack of Internet access at home;
- Lack of textbook in schools or home;
- No public or school library;
- Many teachers are uneducated;
- Parents are uneducated; and
- Children are mostly poor.

Children must be encouraged to read as early as possible and to read as much as possible. Books are today's repository of our accumulated wisdom, and a key to lifelong learning. Encyclopedic Electronic books are tomorrow's investment for today's children. Traditional encyclopedias have successfully launched many generations of children as lifelong learners. In the early 1900s, privileged children had to try to read their parent's copies of *Encyclopedia Britannica* to find out about the world. Subsequent generations had their own encyclopedias: Arthur Mee's *Children's Encyclopedia*, *Compton's Encyclopedia*, *World Book Encyclopedia* (1980), more recently the World Wide Web with Wikipedia, and now the *One Encyclopedia per Child* in Simple English.

A hyperlinked encyclopedia would provide a powerful tool for children in developing countries. Children in developing countries, who are keen to learn, can bring their newfound knowledge into the home. It is important that we encourage this attitude and motivation for learning to promote lifelong learners among these children. Lifelong learning skills are a must in today's world as we are living in a very fast changing society. What has been learned today will be obsolete tomorrow. Today's employers demand that prospective employees have problem solving, critical thinking, communication, and learning-to-learn skills. Children

must be encouraged and provided with the environment where they can develop these skills. The constructivist believes that learning is a *social process* where learners learn by construction of knowledge through interaction with their surroundings. We believe that by providing a child with a laptop generally referred to as One Laptop Per Child (OLPC) will enable the lifelong learning skills that each child needs to survive in a fast-changing, competitive world. Our theoretical underpinnings of the OLPC thus include constructivism, lifelong learning, and problem-based learning (PBL). The use of encyclopedias can invoke these techniques to stimulate the reader through doing projects, posing problems, puzzles, or asking questions. The integration of an encyclopedia with the curriculum can usefully be encouraged by employing these techniques.

The purpose of this article is to document the process of quick generation of good content for initially populating the One Laptop Per Child. This article shows the process of generating some best-practice content especially designed to engage the minds of poor children around the world. The product is a small corpus in Simple English, the One Encyclopedia Per Child (OEPC), suitable for ultimate downloading to the One Laptop Per Child. The OLPC can be made into the OEPC. *One Encyclopedia Per Child is arguably the most important content that can be pre-loaded on the One Laptop Per Child.*

The possibility of One Laptop Per Child (OLPC) have already analyzed (Kennedy, 2006a, 2006b; Kennedy & van Olst, 2006; Wikipedia, 2006d) as well as the side effects, the knock-on effects, the communities, the benefits and changes to the communities, the formation of new communities, the changing teaching patterns and rural life, creative teaching, lifelong learning, *ad hoc* network traffic, and even the implications to higher education. In these works, the authors envisage that fresh HTML, PNG, Audio, and even MPEG clips and associated driving computer programs will be downloaded daily via Wi-Fi from the One Laptop Per Teacher (OLPT).

Figure 1. One Laptop Per Child
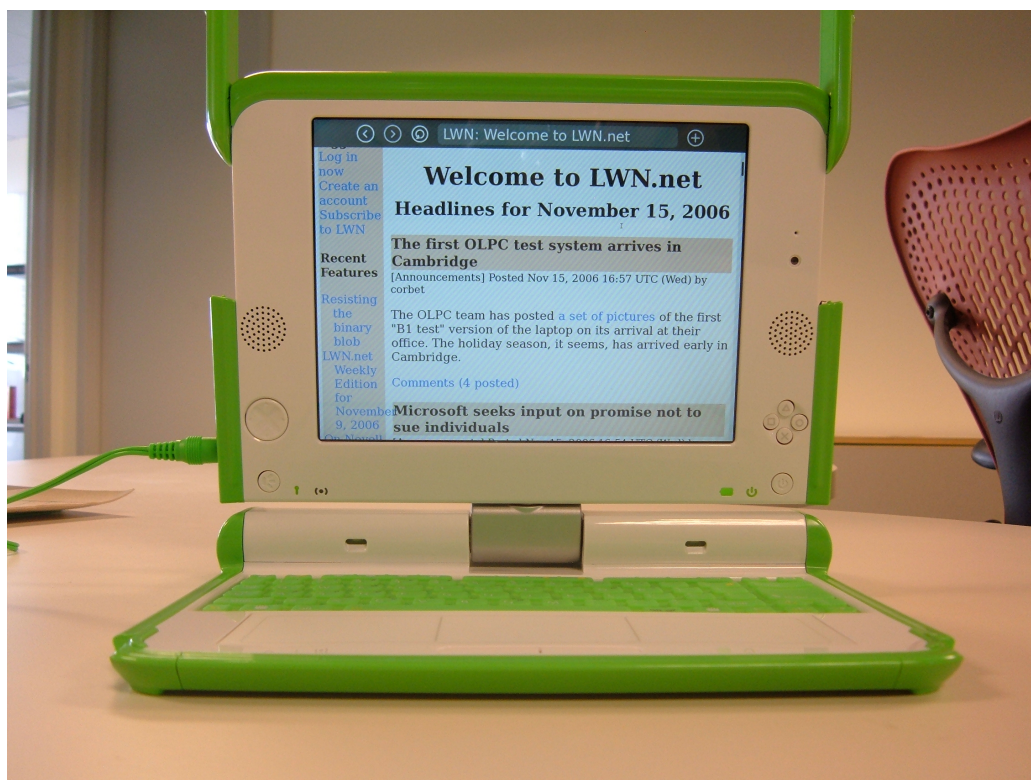
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