



Enhancement of ICT Education through FOSS Solutions in Developing Countries in Terms of Sri Lankan Observation

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Abstract

ICT education is a human right in which regards every country should provide quality Information Communication Technology (ICT) education to the school student community because their skills and knowledge form the key ingredients in the development process of any country. When one implements ICT education, Software is one of the most critical ingredients in its implementation. For Sri Lanka, as a developing country, the cost of licensed software involves a massive financial commitment against the allocated funds for education from the Gross Domestic Product (GDP). Most schools in Sri Lanka use different versions of branded proprietor's software for ICT education while on some occasions students use pirated software also. As a solution to the above issue, Free and Open Source Software products (FOSS) can be substituted with a lot of benefits and reliability. Inclusion of FOSS based activities in the school curriculum is of paramount importance in developing countries. However, FOSS usage for teaching ICT/ Computer Science in schools is minimal today but it has greater capabilities than non-FOSS products and also it is economically sound. This study highlights the importance of ICT education and how FOSS could be introduced to the curricular activities of schools as a gateway to connecting to higher education as well as to industry. Moreover, Feasibility and productivity of FOSS with ICT education is also discussed against Non-FOSS products through a survey. In addition to this, from ICT literacy to ICT specialization subject software requirements is also explored and suitability proven through the use of FOSS products.

Finally, how to enhance the quality ICT education through the use of FOSS products in a sustainable manner to achieve the expected outcomes and how to compete with global challenges without affecting the economy of developing countries by introducing research facilities and an ICT culture among the school community is discussed.