Open source software:
Good bye to digital divide

THE TECHNOLOGICAL development has the sharp impact on formation of social order, social relationships and sociological discourse. The invention of microprocessors in 1980s and subsequent birth of PC have facilitated the wide use of computers over the globe. Parallel invention of TCP/IP protocol for the Internet has added a new dimension to the arena of computer communications by compressing time and geographical distances which, in turn, has coined the buzz word globalisation in sociological discourse.

Though this post modern technology, namely Information and Communication Technology (ICT), has been transforming the world into a knowledge-based society since its inception, still it has side effects too. Due to disparity in use of ICT, the world is now distinctly digitally divided. Though the UN has recognised the access to information as one of the basic rights, the majority of the people in the Third World countries are deprived of this right even in this information era. The causes of this are manifold. However, two major causes that have been identified, so far, are: the high price of ICT technology and the linguistic barrier.

Regarding the price of the ICT technology, it may be mentioned here that the prices of hardware since the introduction of microprocessors have been going downward but conversely the prices of software are spiralling abruptly. This, in turn, has revealed that the resulting prices of the ICT technology are showing a upward thrust. However, if we survey the Third World countries like Bangladesh, then it may reveal surprisingly that despite the price-hike of software in the global market, the number of computer users has been increasing at an exponential rate since the last decade. This is, in fact, possible due to the availability of pirated software in the local market. Still, in our country the use of computers are limited to some segments of the society. It may be claimed that the percentage of the computer users has not exceeded 1.0% of the people, considering the English enabled population of the country. (Statistics suggests that less than 1.0% people can read and write English!)


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Apparently, the availability and the use of the pirated software, due to lack of enforcement of software copy right act, seem to be a blessing for the Third World countries though morally this trend is not acceptable. However, this trend will not persist in the near future. Already the leading proprietorship software company, Microsoft has opened its branch office in Dhaka. It is understandable that following the footstep of Microsoft, other such companies will come forward to find new business opportunities. Eventually with the increase of computer users, these entrepreneurs will exert pressure on the government to enforce proper copy right act for software as a vanguard for their business interest. Facing this reality, the Government of China has cleverly decided to replace the Closed Source Software with the Open Source Software (OSS) paradigm, at least, at the government level. Malaysia has also opted for OSS envisioning the future debacle if it sticks to the Closed Source Software development paradigm. Not only the developing countries, even the developed countries -- for instance, France -- have also emphasised on OSS with a view to cutting down its budget for ICT development. Perhaps, understanding the new technological doctrine, the United Nations Development Programme (UNDP) has also started to promote the OSS by initiating some global projects. In essence, it may be argued that the OSS has paved the way to cut down the ICT cost abruptly and this pro-poor technological discourse has the capacity to eradicate the curse of digital gap from the societies worldwide.

A Glimpse of Open Source Software Development Paradigm: According to an Internet definition, software are written coded commands that tell a computer what tasks to perform. For example, Word, PhotoShop, MS Windows and Oracle are software programmes. Software may come with either in human understandable written codes (or source codes) or machine understandable binary formats (or executable files). The traditional closed source software (or proprietary software) does not include human understandable source code, rather it includes the binary formatted codes. So, any modification or enhancement in this type of software is not possible without assistance from the manufacturers who keep the source coded with them. The primary motivation of such non-delivery of source code is commercial one. Such software has the strict licence agreement at the time of purchasing which restricts the users in copying, modifying or redistributing the product. The sojourn of Open Source Software started in 1991 and onward, with development of Linux operating system, including source code and providing free licence for copying, modifying and redistributing. Inspired with the success story of Linux, OSS facilitates the end users with a licence that gives the end-users the right to use OSS for private or commercial use. OSS comprises of features such as the users' right to a) inspect and modify the underlying source code, b) sell or