

Open Source Software – Opportunities and Challenges

*By Hon'ble Mr. Justice Dilip Gupta,
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(Speech delivered by Hon'ble Mr. Justice Dilip Gupta who was Chief Guest on the occasion of Seminar on "Open Source Software" organised by Computer Society of India Allahabad Chapter on 28.7.2007)

Dr. S. Srinivasan, who is associated with the Research Centre, Anna University, Chennai, Sri D.K. Dwivedi, Chairman, Computer Society of India, Allahabad Chapter and other Office Bearers of the Society, Respected Members of the Society present here today, ladies and gentlemen.

I am really honoured to have been invited to today's lecture on Free/Open Source Software. I am not an expert in this field and can hardly contribute to today's lecture but when I was told that Dr. Srinivasan would be speaking on Open Source Software, I immediately accepted the invitation. I am here also because of the persuasive qualities that Sri Dwivedi possesses on account of which it is very difficult to refuse any invitation.

The Computer Society of India, particularly the Allahabad Chapter has made enormous contribution to the field of Information and Technology. It has been holding various seminars and lectures throughout the year on various topics of general importance and I am sure, it will continue to do so in future. The Allahabad Chapter has a very able team and under its dynamic guidance, the members who are in some way or other related to the field of Information and Technology, will be greatly benefited.

Most experts are of the opinion that our civilization has graduated from being just an Industrial Society to an Information Society. Real-time information now holds the key to success in the 21st Century. Invariably all the Governments today are concentrating on this aspect because they know for sure that the country's overall development is so much dependent on it. People connected with Information and Technology have, therefore, to play a very important role.

As I said earlier, I am not an expert in this field and there is hardly anything relating to the field which I can add to the existing knowledge of this intellectual gathering. I will, therefore, inform you all about the use of Open Source Software in the High Court and the District Courts.

Indian Judiciary is in urgent need of re-engineering its processes, optimize the use of its human resources, and bring about change management by harnessing the potentiality of the availability Information and Communication Technology to its fullest extent. The objective of this exercise is to enhance judicial productivity both qualitatively and quantitatively as also make the justice delivery system affordable, accessible, cost effective, transparent and accountable. Similar objectives have been achieved in other parts of the world by use of technology but in India though its manpower is known for its technology expertise, the Information and Communication Technology benefits could not be fully explored and utilized in public service sectors like judiciary and other organs of the State.

In the Indian Judiciary, effort for computerisation of some of its processes has been going on since 1990. Need was felt to make the programme of ICT enablement of the Indian Judiciary mission-critical. There was an overwhelming realization in the judicial sector in favour of devising a National Policy and Action Plan with appropriate spread and phasing to implement ICT in courts across the country and their web-based interlinking.

Consequently, the Ministry of Law and Justice constituted the E-Committee which was required to formulate a National Policy on computerisation of justice delivery system and to draw up an action plan with appropriate phasing for time bound implementation. The E-Committee prepared the Report on Strategic Plan for Implementation of Information and Communication Technology in Indian Judiciary. The E-Committee found from the status report received from the various High Courts and the District Courts that the application software was not uniform and was being developed at the whims and fancies of the local developers on the platforms and database management tools of their choice and convenience. The E-Committee found that in the Supreme Court as well as the High Courts in the country, the National Informatics Center had initially developed softwares by using Unix as the operating system and Fox Base as the data base management tool.

Efforts were then made with the help of National Informatics Center for automating some of the judicial processes in Delhi District Courts by using Linux and Oracle.

At Allahabad High Court, its Bench at Lucknow and Subordinate Courts of U.P., use of Open Source Software is being promoted. Allahabad High Court is the only High Court in the country to have commissioned its own Web Server & Mail Server with indigenous technical expertise in its premises using Linux Operating System, other Open Source Softwares & tools. All the Judges of the Court have been provided with Laptops in dual boot with Linux Operating System in one partition. All the Private Secretaries are using Open Office Writer for word processing purpose for typing Judgements and Orders. All the Bench Secretaries in Courtrooms are using application software running in Linux Operating System. For browsing and accessing e-mails, Mozilla Firefox and Thunderbird is being used by Judges.

In Subordinate Courts of U.P., Servers are under Linux Operating System running application softwares for various Court related business. Recently, under E-Court project, about 1500 Laptops under Linux have been distributed to all the subordinate Court Judges in U.P.

However non-availability of legal databases for searching judgements/ orders of Supreme Court of India and other High Courts is one of the setback in the direction of promotion of Open Source Software amongst Judges and Lawyers. For example SCC online is not available in Linux Operating System while

AIR CD can only be loaded in the Linux lower versions.

We all know what Open Source Software is and, therefore, I would not like to delve any further on this aspect. I would, however, like to point out some of the advantages which the Open Source Software has but in order to appreciate this we must first understand the difference between the Open Source Software and Proprietary Software. The Open Source Software is copylefted while the Proprietary Software is copyrighted. Under the Open Source Software the source code is always disclosed while in Proprietary Software the source code is generally never disclosed. There is a freedom to modify source code and thus the programme also in the Open Source Software but this is not so in the Proprietary Software. The Open Source Software is royalty free while the Proprietary Software is generally not royalty free and costs money.

The advantages of Open Source Software are as follows:

(i) **No Copyright infringement:** Open Source Software is copylefted; there is no copyright in Open Source Software and there can not be any copyright infringement. Intellectual Property Right infringement is a global issue and adopting Open Source Software will obviate it. One can always use Open Source Software without any guilt.

(ii) **Lesser cost:** Open Source Software is royalty free; it does not cost anything. The only cost is for services or support for the same. Utilising Open Source Software will reduce the cost of any project. Due to historical reason, our English and Maths have always been a plus point. These the two subjects are necessary for providing services in this field. Adoptions of Open Source Software may open new job opportunities in the service sector. The cost reduction has an impact on the proprietary software too. In order to be competitive, their cost has to be reduced.

(iii) **Customise software:** Software can be modified if source code is disclosed and there is permission to modify the same. In every Open Source Software, source code is disclosed and there is permission to modify the software. This permits everyone to participate in the software movement and also provides opportunity to every one to customise almost all regional languages; its adoption offers us opportunity to take Information Technology movement to the grass root level.

(iv) **Avoid IPR:** In the modified software created from Open Source Software it is possible to have Intellectual Property Rights but the authors of any Open Source Software do not claim any Intellectual Property Rights in the Open Source Software written by them. This is clear from the fact that they permit everyone to use/modify/distribute it without any royalty. This not only leads reduction in the Information Technology cost but avoids future conflicts in this area.

(v) **Stable:** Virus is nothing but a computer programme which affects any other computer programme or computer data. In Open Source Software there can be viruses however there have not been many viruses in Open Source Software as its source code is open. Experts say that it is safe and provides stable environment.

Increasingly governments, especially outside America, are mandating open source. Open source is chosen by governments and IT managers for essentially the same reasons: to reduce the expenses relative to closed source solutions; to obtain source code so that they may have the ability to maintain the software independent of the original supplier; and to encourage the increased opportunities and innovation for local companies.

In the case of developing economies such as Asia, open source provides the opportunity to leverage their inexpensive highly educated labour pool with open IP which enables them to quickly develop services and products which are strong alternatives to established IT vendors especially for their rapidly growing local markets. Recently Asian governments have opted to develop home grown independent software and hardware IP for wireless, security and media compression. The global availability of expertise also reduces the economics of commercial open source product development in developed countries substantially.

In the end, I again thank the organisers for having given me an opportunity to participate in today's function.