



Free/Open Source Movement in Iran

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Free/Open Source Software is an area which has left a considerable impact on the growth and advancement of Information Technology worldwide. The Free/Open Source Software Movement has reached its maturity after a twenty-year period of trying for the freedom of software around the world and has created huge advances and deep development in the field of IT.

In Free/Open Source Software, often abbreviated as FOSS, free is a matter of the users' freedom to run, copy, distribute, study, change and improve the software. In other words, given the fact that these software provide open and public access to the sources code, and being developed by and based on the needs of its users they are deemed as reliable, durable, and secure software. Production of such software is not restricted to any specific company and users do not have to pay obtaining the license of use for them. These freedoms will give birth to many benefits for various uses in the society including education, flourishing innovation, bridging the digital divide, transferring technology, self-sufficiency, promoting software industry, as well as preventing from vendor lock-in in ICT services.

One of the oldest open source moves to expand and develop these kinds of software in Iran has been carried out by the FarsiTex group (www.farsitex.org). This group was started from Sharif University of Technology (www.sharif.edu) in 1992 with an aim to add the Persian language support in the well-known type setting software, TeX. Some members of this project joined together to form Farsi Web Sharif Group in January 1999 (and then Farsi Web Sharif Company) and made some attempts in the University Computation Center to develop Persian language in computing environments. This movement was supported and sponsored by the High Council of Informatics (HCI) making it more organized; such that this group was appointed to work as the council's representative to Unicode Unicode Consortium. Another academic FOSS advocate was Isfahan Linux Lab. The lab gathered enthusiast students in Isfahan University in order to localize some tools and applications on GNU/Linux.

In February 2001, Advanced Information and Communication Technology Research Center of Sharif University (AICTC) submitted a proposal for Persian localization of GNU/Linux operating system and widely used tools of this operating system to HCI. Regarding Iran's plan to join the World Trade Organization (WTO) (requiring the observation of international copyright law), and due to long-term economic benefits, the proposal was approved by the HCI in November 2001. Other influential reasons for such a move include the countries needs in importing software in the future and in lowering total costs of ownership, the government's policy for software diversification in order to prevent monopolization of software industry, providing alternative an Operating System and prompting and as well as boosting domestic software industry. The proposal which was called "Farsi Linux" was put into effect on January 2003 under the technical management and supervision of AICTC, steering and policy making of the HCI, and the Supreme

Council of Information (www.takfa.ir) as the government. The approved sub-project has been assigned to private companies through a bidding process.

The project pursues three goals:

- To set the ground for an alternative operating system in Iran based on the localization of GNU/Linux and the most widely used Free/Open Source software.
- To eradicate the essential problems associated with the Persian language in the GNU/Linux internationalization process and most popular FOSS.
- Enhancing people awareness and promoting the culture of using FOSS

According to GNU/Linux localization process three different technical phases have been recognized in the project.

- Basic tools and libraries to support Persian language in the GNU/Linux. At this phase five projects including "Unicode Bi-directional Algorithm and Joining," "Persian Sorting, Loose Searching and Persian Locale Requirements", "The Jalali Calendar", "Persian Keyboard", and "Persian Open Type and Reference Font," were defined.
- Applying the results of the first phase to the important GNU/Linux libraries and applications such as GNU C library (glibc), KDE base library (QT, KDEBase), GNOME base library (gtk+) and NOVELL Evolution. In this phase some server-side Persian language support in MySQL, PostgreSQL, IMP (Web-based mail client) were also considered.

The other project was Shabdix which is a live GNU/Linux CD based on the KNOPPIX with Persian interface. The CD is intended to familiarize users with GNU/Linux.

The Persian Graphical User Interface Specifications and Guidelines project and a reference translation dictionary project will make the development activities of the projects to be standard and compatible.

- At the final phase, some popular FOSS such as OpenOffice.org and Mozilla will be extended to support the Persian language. Translation of the well-known GNU/Linux desktops i.e. KDE and GNOME and Webmin (web-based server management) will also be done in this phase. Design of fancy fonts is also an essential part of this phase, which is under currently progress.

Currently, most of the projects of the second phase (except KDE and GNOME libraries) have been completed and the third phase projects although their dependencies have been satisfied are still in progress.

So far, a total of 34 technical and non-technical projects have been carried out. Information regarding these projects can be accessed in Persian at www.foss.ir and its summary is also available in English at the Open/Free source international website <http://www.iosn.net/south-asia/countries/iran>.

The outputs of all sub-projects are required to be accepted by the international maintainers of the source code. Therefore, all results of the project are available not only at the Iran FOSS project site (<http://projects.FOSS.ir>) but also from the international distributors. In this regard, the support of the Persian language will gradually be added to all well-known international distributors of the software.

The name of the Farsi Linux project has been appropriately changed to "Free/Open Source Software Project" in October 2005 to reflect the activities of the project more clearly.

Some local Iranian companies such as DPI (the highest ranking Iranian IT company) have just started to package the results and create their own commercial distribution for local use. It seems also nice to note that at least six live and installable GNU/Linux distributions namely Shabdix, Learnux, Parsix, Farlix, Karamad® and SharifLinux® have been made available inside the country using the projects output.

Furthermore, in line with raising public awareness regarding Free/Open Source software, some promotional activities have been performed. Among them, holding more than 24 conferences and workshops in the last three years, setting up conferences in different cities, producing multimedia educational materials for FOSS, making 2200 educational slides ranging from basic to advanced GNU/Linux training, producing 103 hours of Linux electronic training (<http://elearning.foss.ir>), publishing a Linux printed newsletter "Linux Horizon", as well as publishing 14 various books (available in pdf format through www.foss.ir).

As for electronic publications, Iran's electronic monthly IranTux (www.IranTux.com) has been launched by a group of open/free source software enthusiasts since October 2004 and has proven to be an invaluable technical reference for those interested in GNU/Linux distributions and other open/free source software.

Active groups in FOSS area including Iranian Linux User Group (www.Lugir.org) with branches in Tehran (<http://www.tehlug.org/drupal>) and different cities such as Mashhad, Isfahan, and Tabriz by setting up conferences and other various events like International Free Software Day, Linux installation fest and weekly educational meetings have created a suitable environment for the promotion of Open/Free source software. Among the activities of this community one can refer to preparing and distributing live and installable GNU/Linux distribution called Parsix, (www.parsix.org) as a public distribution and also its maintenance and development.

Websites such as www.LinuxIran.org, www.technotux.org, www.hezardastan.org, www.ubuntu-ir.org, www.iranphp.net, www.python.ir, www.iossd.org, and www.tux-world.com act as a connection point for interested individuals to keep up with the latest technical news, have access to Persian documents about FOSS, solve their problems through forums, and satisfy the different users needs, have helped quite a lot to provide precise information and familiarize young people with these software.

Presently, because of Iran embargo on Microsoft products, some foreign companies branched located in Iran use GNU/Linux supported by Iranian companies at their Tehran offices. The pilot project of Persian desktop GNU/Linux for migration the system of 100 computers from Windows to GNU/Linux and other FOSS has been launched in Iran's Telecommunications Research Center in April 2006. Iran's Data Processing Company is also considering the migration of 800 of its computers to its own produced GNU/Linux distribution.

Among academic activities in Open/Free source field one can refer to the developed and distributed university administrative software by Ferdousi Mashhad University (www.um.ac.ir). The software is distributed under a special license for other educational institutions. Moreover, using Linux for fast and parallel processing is popular at universities and research centers especially for mechanical engineering.

Many Internet Service Providers and some governmental organizations and banks run GNU/Linux for its high security and efficiency in various functions especially Internet services. There have also been companies that have made some products for certain uses including that of Set-top-box, Firewall, and Cache by customizing an Embedded Linux.