Foss for Public Use: Free and Open Source Software for Digital India

SFLC.in, in collaboration with the International Centre for Free and Open Source Software (ICFOSS) and Center for Internet & Society(CIS) organized a conference on 'FOSS for Public Use: Free and Open Source Software for Digital India' which was held at India Habitat Centre, New Delhi on 29th May 2015. It commenced with welcome address by Ms. Mishi Choudhary, Executive Director, SFLC.in. She elaborated on the idea of the round table conference and explained how sharing of knowledge and experience of the stakeholders will help and assist the people responsible for framing this policy. She then introduced the various dignitaries who participated in this endeavour.

Session 1: The Open Source Policy- Enabling Digital India

The first session was on the topic, The Open Source Policy- Enabling Digital India, with Ms. Mishi Chaoudhary being the moderator. She explained about the "Policy on Adoption of Open Source Software for Government of India" that was launched in March 2015 by Government of India. She enumerated the policy principles and also how the mobile communication and digital data has overpowered the nation and it is the need of the hour to focus on providing software infrastructure for private innovation by Small Medium Enterprises (SMEs) and various Government sectors to boost Indian Digital Economy. She also described how important government initiatives like Make in India, Digital India, etc., and all the current technological advancements in mobile communication, big data, cloud computing depend on FOSS. She then invited remarks for everyone on the policy.

Dr. Nagarjuna G., Chairman Free Software Foundation India offered his insights first, primarily emphasizing on two points. First, he said that it was disappointing that although the policy speaks of freedom, it does not address the crucial question of whose freedom is being spoken of. He elaborated on how the discussions around permissive and restrictive licenses often cater to developers' perspectives alone and not the users' perspective. He emphasized on the need to highlight users' perspective and advised a cautious approach when using certain terms in policy documents. Second, he also emphasized on the participative potential that freedom provides for everyone but stated that former attempts of the GOI to implement FOSS projects have not succeeded in providing upstream contribution. Finally, Mr. Nagarjuna stressed on the need for public money to be spent in a

manner that products resulting there from reach people, which is often not the case. He also emphasized that we should be Creative Producers and not just Consumers.

Thereafter, Cmdr. L. R. Prakash, Director, C-DAC Chennai, started his speech with introduction about FOSS in Indian Navy. He spoke about the issues of fear, uncertainty and doubt which pose as challenges in a shift to FOSS. He stated that the users' fears have mostly been addressed now, given the increased awareness. Moving on, Mr. Prakash stated that despite the fear being alleviated, the persons running organizations and those in the IT hierarchy continue to be affected by uncertainty and doubt. Uncertainty, Mr. Prakash stated often led to questions about whether the shift to FOSS will be a beneficial one. The doubts pertained largely to the support that may be available if one uses FOSS and the legality of issues that may arise. These issues, Mr. Prakash emphasised were not insurmountable and have been addressed to a certain extent. He further emphasized on the need to look at value for money over merely economic considerations when making the decision of using FOSS. He also highlighted the recognition that FOSS gives to merit and innovation. He concluded with an overview of the initiatives being undertaken by C-DAC, Chennai, both in terms of putting forth proposals as well as in the form of collaboration with educational institutions.

Dr. Andrew M Lynn discussed on how FOSS is meritocratic and not merely democratic. He elaborated on employee driven attitude and supported the position Government as a consumer. He also spoke of the need to tap into the potential offered by nomadic professionals, based on merit and expertise. At this point, **Ms. Mishi** highlighted that page 33 of the Framework Guidelines speak of the contributions that are sought from the academia and suggested that Mr. Andrews's inputs would certainly valuable in that regard.

Prof. Arun Mehta, President of BAPSI, drew and analogy between FOSS and Sanskrit and questioned as to how many people really know the language of FOSS and how many people can really read it. He explained only one percent of the students who graduate are able to understand open source software. He mentioned that India is not producing appropriate level of intellectual developers and low percentage of women participating in this field. He also mentioned about software development movement taking place in other countries. **Mr. Vikram Vincent**, thereafter, shared his views. He stated that in terms of the student community engaging in FOSS, the students continue to be apprehensive. He

called for a change in pedagogy in way so as to encourage thinking and innovation. He further voiced his concerns about the monopoly of CSS creeping into FOSS, even with the Policy in place. He emphasized on the need for a favourable legal support system for FOSS to flourish.

Mr. Gora Mohanty described about certain weaknesses of adopting FOSS such as lack of education and lack of support. He elaborated on the change that can be done by the government for example by modifying the educational curriculum. Mr. Gora stated that FOSS has certainly succeeded in a sense and Microsoft and others appear to be softening their stand but stated that the next set of questions that needs to be answered pertains to control over content- who owns the content, who accessed it and on what terms? In response to the questions being raised by Mr. Gora, **Mr. Venkatesh Hariharan** also agreed and spoke of how the mentality of wanting to use FOSS but also wanting to retain control persists.

Thereafter, **Mr. Kishore Bhargava,** shared his views on the Policy. Having worked in different fields, Mr. Kishore drew on his experience in highlighting the consumer v. contributor issue with FOSS as India has been a consumer of FOSS for years but has lacked in contributing. That people continue to wonder "what's in it for me?" when it comes to FOSS continues to be a problem, in his opinion. He further highlighted that even though FOSS has become fairly mainstream now, schools continue to teach products (like Photoshop) over concepts and that continues to be an issue. The lack of sufficient support was also highlighted by Mr. Kishore as he cited unfortunate instances of good FOSS projects shutting down as a result of such insuffiency.

Mr. Prabir Purkayastha, elaborating further on Mr. Kishore's point, pointed out two issues. First, he stated, that there exists no business model to support the FOSS ecosystem and second, that there is a pressing need to create a sustainable ecosystem. He further stated that an argument that the market will create such an ecosystem is futile because there is no market model for FOSS and, therefore, the use of public money to further FOSS is essential.

Thereafter, **Mr. Ashok T. Ukrani,** shared with all his experience of using FOSS in the E-Courts Project. He elaborated on the trajectory that they followed, starting from when they shifted from the server OS to currently using Ubuntu in over 2000 courts across the

country. Mr. Ukrani also elaborated on the experience of judges being given laptops with Reddit OS. He spoke of the various issues faced by the judges as a result of certain customizations and the campaign against FOSS that started as a result of the same. The judges who resisted using FOSS wrote to the CJI in this regard and the CJI called for a review of the decision, Mr. Ukrani stated. The result of the review and recommendations was that the CJI accepted the use of Ubuntu Linux and in 2010, the same was adopted as the official software. Further customizations were tried, without hiring outside persons, and laptops were sent to all officers in 2011. In fact, Mr. Ukrani stated that, since January 2015, Ubuntu 14.014 version is being used with requisite customizations. He also expressed interest in shifting to newer and better FOSS and shared with all the decision that has been taken to no longer purchase software but to take FOSS forward. There seemed to be great emphasis on capacity building within the organizations to ensure support for the FOSS being used. Moreover, in all tenders that are sent, Mr. Ukrani stated, it is always mentioned that Ubuntu and Linux drivers are essential. He also shared certain experiences of issues being faced with the digital signature software in use and stated that they continue to seek assistance and support to be able to use better FOSS.

This was followed by **Mr. Ganapathy Narayanan** sharing his views. With respect to the policy, Mr. Ganapthy stated that he saw it as a mere formalizing of the government's existing usage of FOSS, as had been prevalent for the past few years. He also highlighted certain contradictions in the implementation guidelines. For instance, he stated that use of hardened OS is promoted but hardened OS is often not FOSS. Moreover, Mr. Ganapathy also spoke about the prescribed procedures and processes being merely advisory and not mandatory. He appreciated the fact that the policy put FOSS on an equal footing as CSS. With respect to the ecosystem, he stated that is it certainly not necessary for all consumers of FOSS to be producers as well. He stated that there ought to be some overlap but not a complete overlap for the ecosystem to be a sustainable one.

At this juncture, **Mr. Venkatesh Hariharan,** emphasized on the need to give credit to the government for having adopted the Policy and highlighted that the challenges are now shifting from advocacy to implementation related issues.

Thereafter, **Mr. Anivar Aravind,** shared his experience of the SMC Project as being another success story for FOSS. Having started it in 2006 in NIT, Calicut, 2009 onwards, SMC started focussing on the web and advanced algorithm projects. Apart from sharing many details of the success of the SMC project, Mr. Anivar also echoed others' sentiments on there not being enough emphasis on preparing building blocks and a strong framework.

He also stated that there is not much intervention from the civil society in the field of language computing. He further spoke about how their work was entirely upstream and was of the opinion that upstream contributions need to be pushed. Further, Mr. Anivar also acknowledged that maintaining a code is a painful task and to keep updating it to keep it relevant for everyone is extremely crucial. On the aspect of funding, he shared that, till 2013, the SMC Project had not received any funding. Thereafter, ICFOSS and others have supported the project, he stated. The contributors to the project, Mr. Anivar said, included developers, analysts, students and others.

B. Session II

The second session was opened by **Mr. Satish Babu,** who emphasized on the Policy's stand that the ecosystem is more important than the code and stated that this ecosystem comprises of several stakeholders.

Thereafter, **Mr. Srinivasan Ramakrishnan,** appreciated the government's effort in having openly supported FOSS in the Policy, making it one of the few governments across the world to have taken such a stance. He also appreciated the fact that the Policy puts CSS on the defensive, stating that any person using CSS under the Policy must explain their reasons for doing so. This, Mr. Ramki stated, is a welcome change from FOSS always being in the defensive.

Mr. Rahul De, continued the discussion with his valuable insights on the economics of FOSS. He reiterated his findings from the 2009 Report in this regard as he stated that using FOSS results in savings of thousands of crores. He stated that software is unlike any other asset that appreciates or depreciates and must be dealt with as such. While discussing the benefits, Mr. Rahul stated that FOSS has several benefits, most of which continue to be intangible. Moreover, he cited the example of Kerala to drive home the point that community involvement through involvement of teachers and students carries immense potential. With respect to the steps that ought to be taken, Mr. Rahul emphasized on the need to enhance awareness. In the context of a sustainable ecosystem for FOSS, he argued that it would have to be in the form of a partnership between the government and the private players and now that the government has taken a pro-FOSS stand, professionals in private companies should follow suit and contribute.

Thereafter, **Mr. Ganapathy Narayanan,** expressed his apprehensions with respect to the maturity, or the lack thereof, of the FOSS ecosystem. He stated that this lack of maturity results in several hassles, be it on the technology front, the customers' front or the legality and licensing front. He also stated that the broadly worded Policy and guidelines need to

be interpreted meaningfully and should ideally be extended to fields other than e-governance as well. He concluded with his thoughts on how support for FOSS needs to be deliberated upon more in order for the ecosystem to mature.

This was followed by **Ms. Mishi Choudhary,** sharing her views on the possible implementation related issues with the Policy. First, she hoped that the Policy would not be rendered redundant by merely supporting a semblance of FOSS and hoped that the Policy wouldn't be just for appearance's sake but also be implemented in spirit. Moreover, she hoped that the exceptions in the Policy do not become ways of circumventing the Policy. Secondly, Ms. Mishi also highlighted certain issues with the language used on pages 20-21 of the framework guidelines as they seemed to use terminology incorrectly. Moving to the larger philosophical underpinnings of FOSS and the Copyleft, Ms. Mishi highlighted the issue of these initiatives often being painted in negative light. She also stated that, when in doubt, one must resort to the intention of those who drafted the copyleft license agreements, etc., and the intention is always freedom, freedom of the users from technological slavery.

Thereafter, **Mr. Nagarjuna G.,** spoke about the culture of FOSS, a culture that, in his opinion, is harboured by the producers. He emphasized on the need of a strong and vast base for any ecosystem to survive and stated that issues of increasing creative abilities of people need to be addressed in order to strengthen the base of the FOSS ecosystem.

This was followed by **Mr. Andrew Lynn** drawing everyone's attention to the problem of using the term 'mandatory' in that Microsoft and others will not let that be. The solution, he thought, could be to have people in NIC who have advisories so that when CSS is sought to be used, such advisories can step in. Moreover, he stressed on the incompleteness of the ecosystem on the level of good education.

Thereafter, **Ms. Mishi Choudhary,** spoke about how one could tackle patent people and patent trolls by becoming licensees to patent pools like those of Open Invention Network.

The session concluded with comments from **Cmdr. L. R. Prakash,** who stated that the devil lay in the details of the Policy. He emphasized, for instance, on the need for the Policy to fit into the broader procurement manual in order for it to be fruitful.

Ms Anubha Sinha CIS, then gave the idea of including best practices document in the policy. She also agreed to the view of improving skills as 30-40% of the students are not aware and know to use the code which is in the public domain and is freely available. She

then gave the vote of thanks and expressed gratitude towards all stakeholders from the community and the industry for being an essential part of this Conference. She also thanked SFLC and ICFOSS for this endeavour.