When was the Free Software Movement set up in India? What was the agenda back then?

Difficult to say. Only "Unix" hackers knew something about this before mid-nineties, rest zero. My own cnxn: heard talk on patents in sw after I finished PhD. Just happened to mention to some friends (left!) about patent probs around '92 and a suggestion came up that we do it more systematically wrt Dunkel Draft. I then studied the issues (no web then!) and wrote a "brief" that I sent to Stallman. Afterwards, we approached IISc/JNCASR for some basic funding along with other researchers such as Prof. Narasimhan. Note that at time it was only a "top" level movement with academics only in India.

The Free SW movement is against patents in software as it makes the development of software difficult: patents protects ideas rather than expressions of ideas. Copyrights are not as serious a problem as they do the latter only so that people are free to still express their ideas differently.

Note that JC Bose was against sw patents as early as the beginning of the 20th century.

The Intellectual Property Rights in Software-93 conf at IISc can be said to be a success. About 150 people came incl executive director of CDOT. The talks by Stallman were attended by many. Stallman would then come to India regularly as India was a more promising country wrt sw and IPR! I was handling most of these (eg. workshop on IPR in biotech/CS/biodiversity) till about 2002 when there was a plan for FSF India from Stallman. He suggested that I be involved but I did not want to run this and so it was picked up by some TIFR people. However it remained a minor affair.

Prabir Puryakastha in Delhi and many Science Forums/movements (eg. TN, Kerala) also have been involved post mid-95 when Web exposed people to Internet/digital communications and some intellectual discussions started on free sw. After the NDA govt in '98 relaxed controls on Internet, many Indian web portals such as rediff, sulekha, samachar etc got started and discussions groups, blogs, etc started proliferating. Of course all in English, so only the top 1/2% or so had some exposure.

Around 2005 or later some other people (esp Swachha in AP) were independently looking into these issues in a sw-focussed manner and there seem to have been some mtgs (I was not involved). Swechha took up ground level issues (such as livelihood for operators of "PC parlours" who had to spend lots of money if non-free sw was to be used) and from a strictly academic movement it started having some popular aspects.

All the streams came together in the 2010 National Conf where I was its chairman and FSMI and FSMK were setup. Lots of energy which surprised me. Since then, there have been campaigns on free sw and technical education, free sw and "piracy" (video, goonda act), IT2000 (Art 66a) act, now net neutrality issue.

What do we mean by Net Neutrality?

There are many definitions: all bits transmitted equally fairly is one. ie. the application using Interent (eg. Skype) or its content (video) should not determine how it is treated by the internet infrastructure. Originally, Internet was a peer2peer design, so every entity connected would use protocols till the TCP/IP level, so it was appl-neutral. Once ISPs started proliferating to handle

non-institutional users, some kind of centralization (due to commercial aspects) began. Now each ISP or core carrier could examine data flows and possibly enforce policies for better mgmt or profit. While net neutrality wrt some content such as audio or video, or protocol (UDP/TCP) may not be reasonable, it is reasonable across applications such as facebook or Google search. Also note that pornography and spam is a good part of Internet (say almost 1/3 rd or more), so net neutrality is difficult to defend if this perspective is brought in. From a technical pov, net neutrality is difficult to defend at the systems level (below appl level) as most opt or mgmt functions depend a bit on the type of traffic (for eg. audio/video).

From an Indian perspective, popular apps are from outside the country and data collected from consumers is also outside the country without any Indian legal scrutiny while Indian telecom operators/ISPs are regulated by Indian laws. This privileges Google/Facebook, etc.

Zero rating (Airtel/Facebook/Reliance); Wiki zero, equal rating schemes (Mozilla) "brought to you by" attribution with 20MB free; toll free data (developers pay for the data) (similar to Toll free numbers)

Fundamental issue: if net neutrality is compromised, does it discourage openness? Only at the appl level. At the systems level, however, I think it is atleast defensible (for eg, HD video vs email).

If strict NN: technically also opts handicapped, so will turn to caching solutions such as Akamai but this costs money and only "moneybags" can afford it) (essentially Free market models)

Everybody is talking about Facebooks Free Basics? What exactly, according to FaceBook, is Free Basics? What are the advantages of Free Basics?

Once you have access to some cellular plan, certain data applications become free. Facebook is proposing this program so certain applications that are part of it are supported by carriers at zero cost for data. It is said that anyone (carrier/developer/content developer) can join the program (for eg, Reliance has Facebook/messenger, Accuweather, BBC news, Daily Bhaskar, etc). Indic perpective? Advantage is of course for those who find data plans expensive (alternative to ad-based freeware). Ideally such a program should be supported by society/govt, just like bcast/radio/TV originally were supposed to be. "Socially desirable" programs were funded by Govt/society so that public has access to good quality programming ("BBC model"). Such programs (eg. DD till say early '90s) have been dispensed with and private models (cable TV, indep TV, business TV, policital TV, private FM stations, unlicensed Wifi spectrum) have proliferated with private capital with only minimal oversight.

Free Basics is in this tradition.

What are the disadvantages of Free Basics / Why are you against Free Basics?

Mostly it is a walled garden. Data of the consumers is with facebook: people can suffer loss of privacy (esp as most users accept terms/conditions by clicking without reading); worse, can these non-national commercial orgs use the data to get control of some part of the economy; the "Arab spring" is a good example. It is said that the British took over

India by understanding and manipulating credit markets in the 17th c.

A good example is Number portability; this avoids carrier lockin. Your
number is "data" and you should "own" it. But with facebook, your data
you have input as part of conversations is owned by facebook. If this
aspect is relaxed, ie the data you have owned is yours and it is
portable (ie can take it to any competing application or even
unrelated appl), then lockin is avoided. Free Basics may not be that
problematic if data portability is assured. Internet already has many
monopolies: Google search, Facebook, Intel, Microsoft, Apple, Android,
Wikipedia, ... and it is best to make it less so.

One argument for "Free Basics" is free access to some useful appls (for eg. if Google Maps bacame part of
Free Basics); even more basic is access to comm. that is not handled. Handled in the past mostly by
telecom policy of 1998 NDA govt and now Indians have some of the lowest cost
telecom. But higher BW and costly data needs to be handled just like
in '98: provide policies that make broadband (2-5Mbps access) more easily avlbl.

From an Indian pov, there is another monopoly, that of English and
Western cultural models that comes as part of Internet. Right now most
appls are in English, so about 70-80% of population is excluded and
the telecom/Internet revolution is only speech, video/music for the
majority of the population. Once Indian languages become more common
in Indian internet, and Indic content in Indian languages increases,
then only can Indian internet be said to be free of this massive
monoculture. Free Basics has nothing to say about this, as it only
understands monetary power of those providing free basics!

The Govt may try equivalent of Digital Bharati that attempts to
provide some competition (esp in Indic language space first). Such
competition can better Indian people. Eg. CDOT that reduced the cost
of telecom hw substantially.

**3 things you wish the govt (state or central) would change? (obviously
with regard to computers / internet / etc..)**

Many of our laws are antiquated and new ones/amendments are passed
without any proper analysis and often politically expedient. They are
not necessarily humane. In IT Act 2000, the language is very vague;
penalizes (vaguely defined) publication of obscene (vague!)
information, access or attempts to access a "protected" computer or
network, refusal to decrypt information, misrepresentation, and breach
of confidentiality and privacy. Karnataka tried recently to extend
Goonda act to "digital offenders" (some under vague terms such as
public order). In GATT, burden of proof of patent non-violation is on
the accused just as in dowry act, UPA2 draft bill on prevention of
communalism makes a member of majority community guilty by definition,
etc. The defamation act also can be misused to prevent free speech.

Recent example: In the SC/ST atrocities act, there is a contentious
clause that states that mere acknowledgement of the Scheduled Caste
and Scheduled Tribe status of a victim is sufficient to establish guilt.

It is not clear how such laws get drafted without any inputs from
concerned affected parties, scholars, and social groups.

1: Get inputs on legal aspects before drafting new laws/changes!

2: Give strong push to Free Software/HW and in general to Free
Knowledge models: such as open access journals (Digital Freedom in
Information age).

3: Ensure mechanisms to prevent identity theft (could aadhar be helpful here?). Also, to prevent (bad)
anonymous bullying/trolling or misusing defamation
laws, and at the same time provide for "good" anonymity
(whistleblowers, free discussion, etc), it is imp to have extensive
consultations for amending some of our current legal infirmities.

4: Work against media concentration (TN political channels, Reliance/Ambani, Western press)

**Bluru has become the primary city of choice to work for so many many
software professionals. 3 tips you have for them / 3 tips to becoming
a better programmer / 3 tips for all the internet-based start-ups? (we
can talk about Intellectual Property here)**

1: Become a bit more involved in legal policy matters. Others are
deciding what is good for you!

2: Experiment with free software models if you have not tried them
before. It is a good learning experience to understand that some
non-intuitive models are better!

3: Do systems analysis. For example, in the "Free Basics" who are the
actors? End-consumers, content providers, different segments of
society (English-speaking vs non, Indic vs non, rich vs poor, tech vs
nontech, etc), Govt, and how current decisions by them affect future
thought esp wrt freedom

Tips for being better programmers: be inquisitive, attend seminars, …
Bluru has good ecosystem but distance a prob (insist on video conf)

Tips for startups:
1: It is very hard work.
2: Your hard work may become the property of some VC someday!
3: Do something relevant: there are too many unmet needs of people, society or
govt... Health sector is a good area (diabetes mgmt, etc).
But do not create new needs!

**Message to all the software / computer related professionals in our
city? Message for the rest of us?**

1: Free models of enquiry are very interesting as one has to
understand the dynamics of cooperation and competition (coopetition!).

2: Given the current situation where information can flow with little
friction if so desired, understanding how these flows are controlled
and manipulated is a critical aspect of being an informed citizen of this
country or of this world.

3: Indic models of living and exploration (for eg. in the inner
sciences) are worth exploring as they emphasize moksha or freedom in a deep sense.