

THE STATE OF FREE & OPEN SOURCE SOFTWARE IN INDIA

Key Findings



WRITTEN BY:



SUPPORTED BY:



OMIDYAR NETWORK INDIA

ABOUT US



CivicDataLab works with the goal to use data, tech, design and social science to strengthen the course of civic engagements in India. We work to harness the potential of open-source movement to enable citizens to engage better with public reforms. We aim to grow data and tech capacity of governments, nonprofits, think-tanks, media houses, universities etc to enable data-driven decision making at scale.

Our Methodology

51

FOSS practitioners
were interviewed

63

Case Studies
were analysed

26

Reports related to
FOSS were studied

8

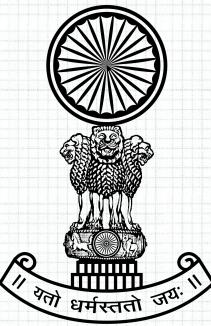
FOSS Experts
reviewed the work

How we are defining FOSS?

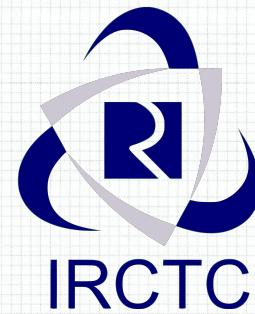
Free and open-source software (FOSS) is software that is freely licensed to use, copy, study, change, improve, and redistribute.

FOSS is an inclusive term that covers both *free software* and *open-source software*, which despite describing similar ownership models, have differing cultures and philosophies.

India runs on FOSS



भारतीय जीवन बीमा निगम
LIFE INSURANCE CORPORATION OF INDIA

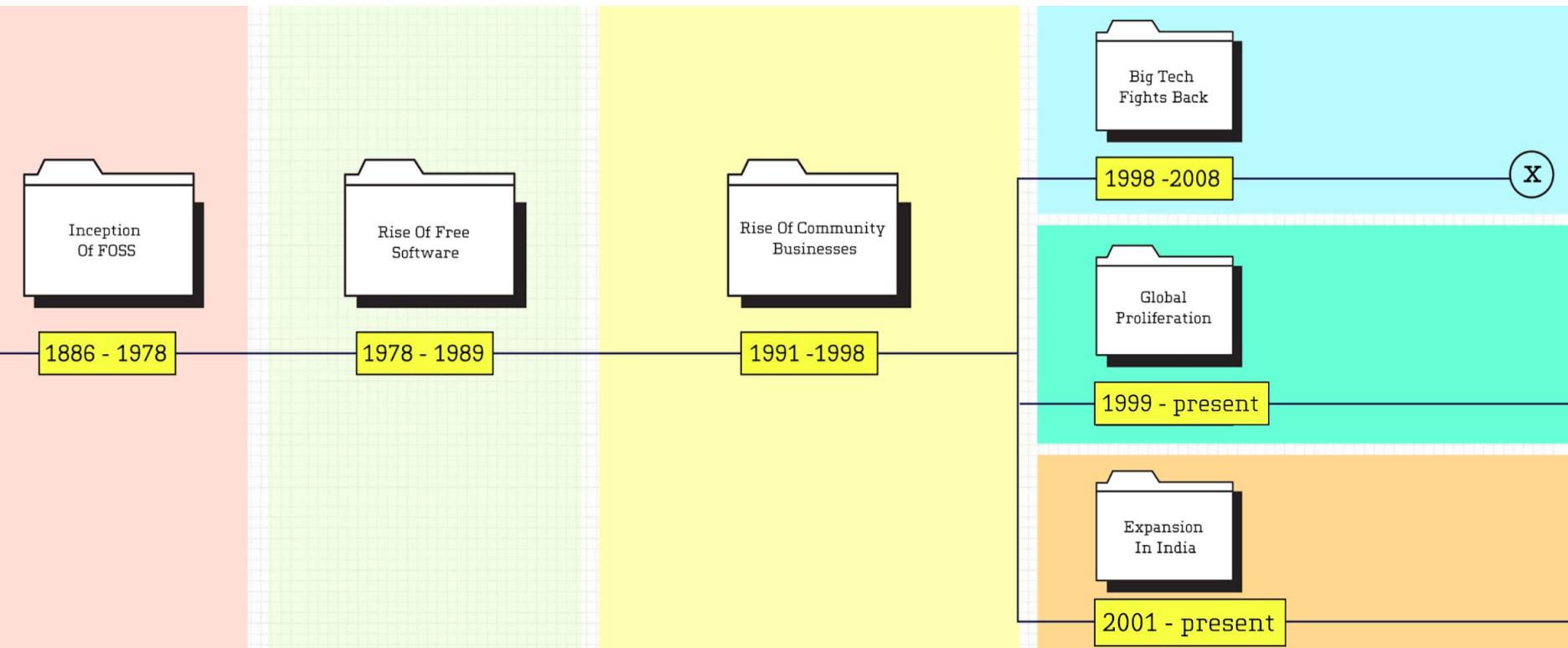


More than
85%

of India's
internet is
powered by
FOSS

The FOSS Timeline

Explore here: state-of-foss.in



Expansion In India

§_ The Open Source Initiative is set up in 1999 by Bruce Perens and Eric S Raymond to promote the use of FOSS. Both VA Linux and Red Hat become publicly traded companies indicating the mainstreaming of FOSS with large IPO's.

§_ The early 2000s also saw the set up of many foundations such as the Linux foundation, Apache Software Foundation, Mozilla Foundation.

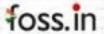
§_ The Mid2000-s sees Git (a distributed version control software) being released by Linus Torvalds and soon after GitHub, a closed version of the same.

§_ In 2008, Google enters the fray by open-sourcing the AndroidOS, Chromium and Chromium OS

§_ And finally around 2014, Microsoft does a 180 by adopting more FOSS: Open the .Net framework, gets a seat in the Linux foundation, sponsors the Open Source Initiative, and finally acquires GitHub. Meanwhile IBM acquires Red Hat.

§_ Now, more than half of top 10 projects on Github (w.r.t contributions) are owned by large corporations such as Google, Facebook, Amazon, Microsoft etc...

Richard Stallman inaugurates Free Software Foundation India, the first in Asia at the Freedom First! Conference on Free Software



First FOSS.in conference which would become one of the biggest events in Asia



Fig 05: Linux Bangalore Conference (later FOSS.in)

2001

2002

NRCFOSS set up by GoI to popularize FOSS in India

The National Resource Centre for Free/Open Source Software (NRCFOSS) was the first initiative by the GoI towards increasing the acceptance of FOSS at a national level.

The 4th International GPL v3 conference takes place



BOSS Linux is released in four editions

IT@School by Kerala govt. creates Free Software based IT trainings in 12,000 public schools

IT@School project bags 'The World is Open' award



The Public Works Department in Kerala moves to FOSS



SMC is formed: the biggest language computing developer community in India

Byju Muthukadan

Swathantha Malayalam Computing (SMC) has been involved in the Malayalam translation of GNOME KDE, and Mozilla projects like Firefox.

Explore here: <http://www.state-of-foss.in/>

The Kerala State Electricity Board moved to a FOSS platform called ORUMA



Fig 06: KSEB moves to ORUMA

sflc.in

The Software Freedom Law Centre sets up its India base

SFLC.in brings together lawyers, policy analysts and technologists to fight for digital rights, protect the freedom of the software and reports on the state of the Indian internet, and also has a productive legal arm.

ICFOSS

ICFOSS is set up by Kerala Govt. to promote FOSS usage

Conceptualised to popularize FOSS for universal use; consolidating the early FOSS work done in Kerala; and networking with different nations, communities and governments to collaboratively promote FOSS.

2008

2009

2010

2011

2013

2014

2015

2018

E

A FOSS Enterprise Resource Planning tool is created by Rushabh Mehta

India says no to OOXML as an open standard

The Bureau of Indian Standards (BIS), said the format was neither compatible nor interoperable with other formats such as the Open Document Format (ODF), the existing ISO standard for document interchange developed by the Free and Open Source Community.



All courts in India directed to switch to Ubuntu 10.04

The Supreme Court of India directed all courts across the nation to switch over to Ubuntu 10.04. The apex court also gave all the courts customised Ubuntu Linux DVD for installation.

The GoI drafts the framework for adoption of OSS in e-Governance systems

FSF India responds to the draft framework with feedback to replace OSS with FLOSS, among other concerns

Kerala Legislative assembly moves to GNU/Linux

Explore here: <http://www.state-of-foss.in/>



FOSS businesses grow in India

India becomes a fertile ground for businesses using FOSS technologies. Businesses like ERPNext, Zerodha, Chatwoot, Hasura leading their space with FOSS based products, and ventures like Hasura receiving large scale funding and support.

Major FOSS led Opportunities for India



- Become Global leader in Emerging Tech
- Build robust FOSS Stacks
- Focus on Privacy, Trust & Ethics

- Boost Financial Inclusion
- Onboard more MSMEs
- Contribute to Global Economy

- Commons based Knowledge
- Leadership & Collaboration
- Multilateral Partnerships

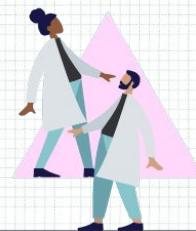
Indian FOSS Ecosystem

Key Stakeholders



FOSS Community

- FOSS Groups
- Funders
- Non Profit Organisations
- Volunteers



Educational Institutes

- Higher Education & Research Institutes
- Online Education
- Schools



FOSS Businesses

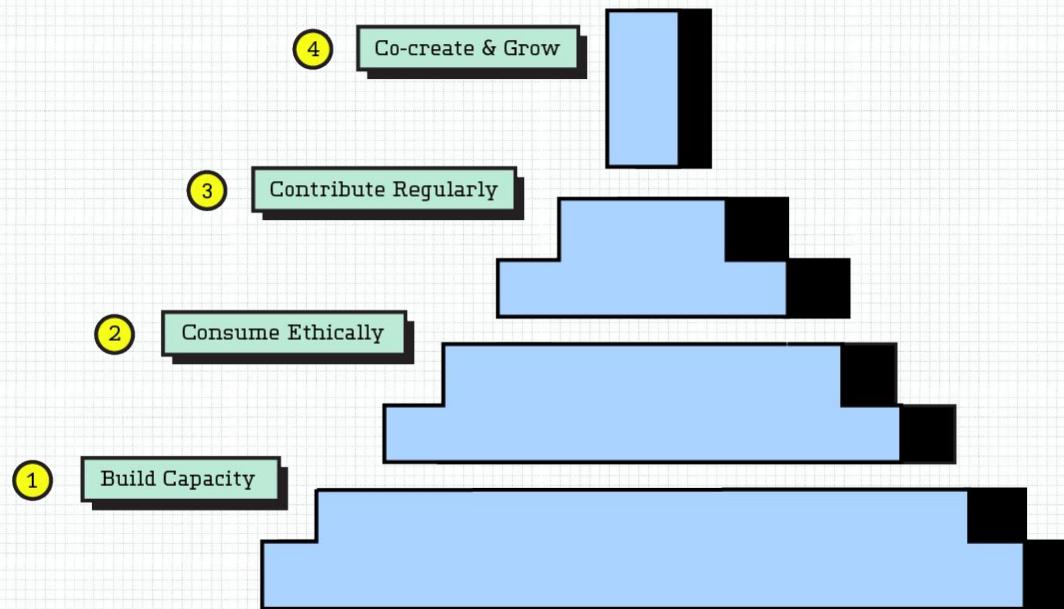
- Global Tech Firms
- Micro, Small & Medium Enterprises
- Consultants



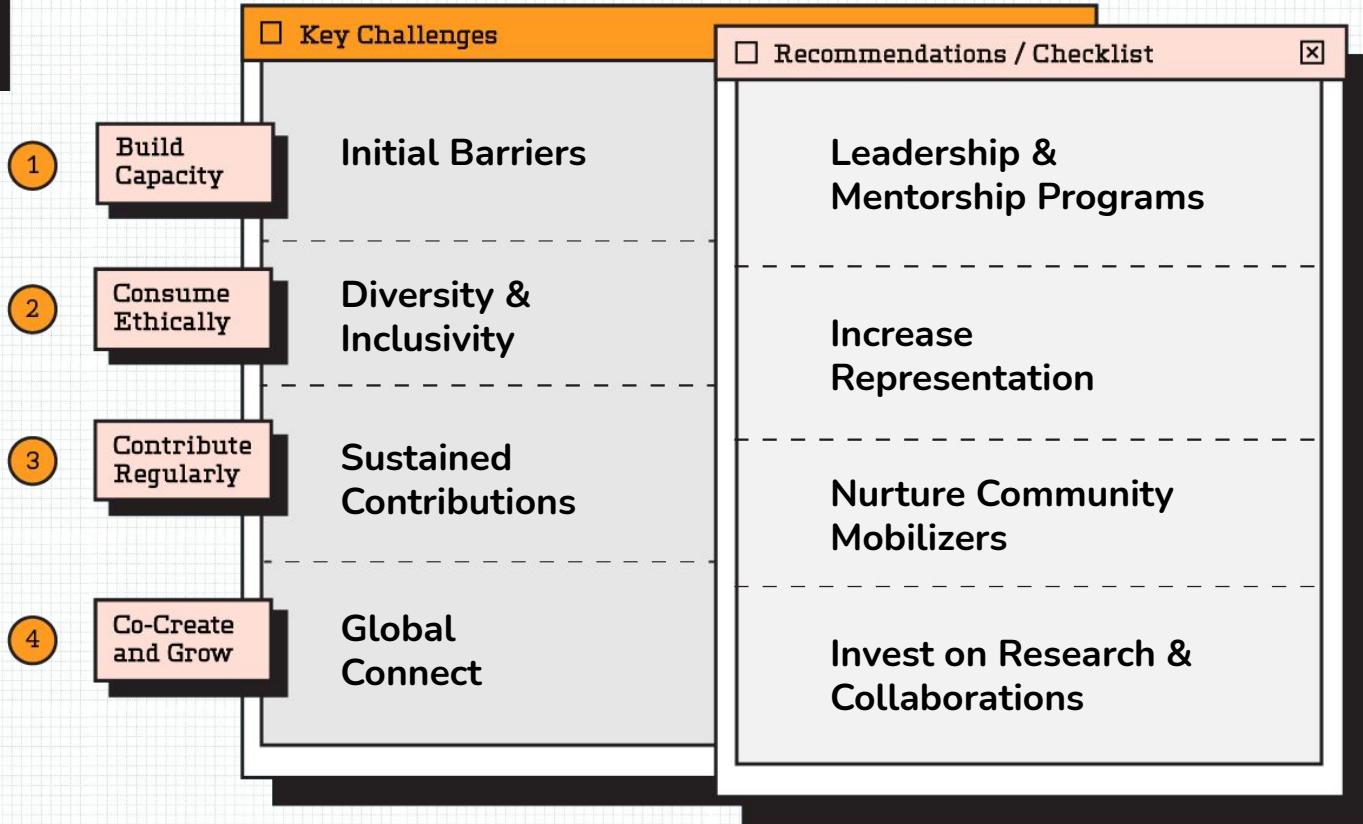
FOSS Governments

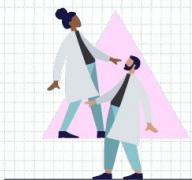
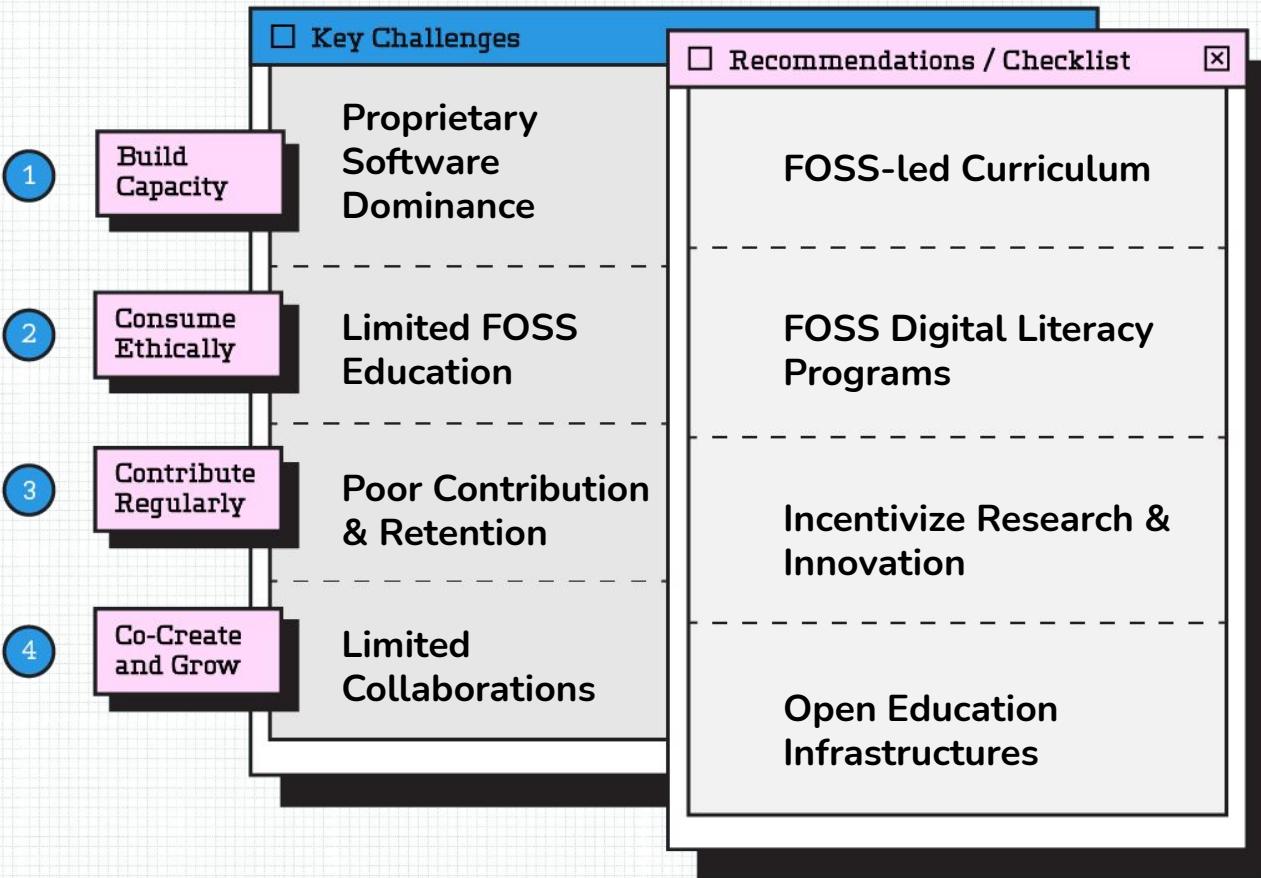
- National Governments
- State & Local Governments

4Cs of Growth for FOSS



FOSS & Communities





- 1 Build Capacity
- 2 Consume Ethically
- 3 Contribute Regularly
- 4 Co-CREATE and Grow

Limited FOSS Understanding

FOSS Licenses
& Business Models

Sustained Contributions

Community Connect

Key Challenges

Recommendations / Checklist

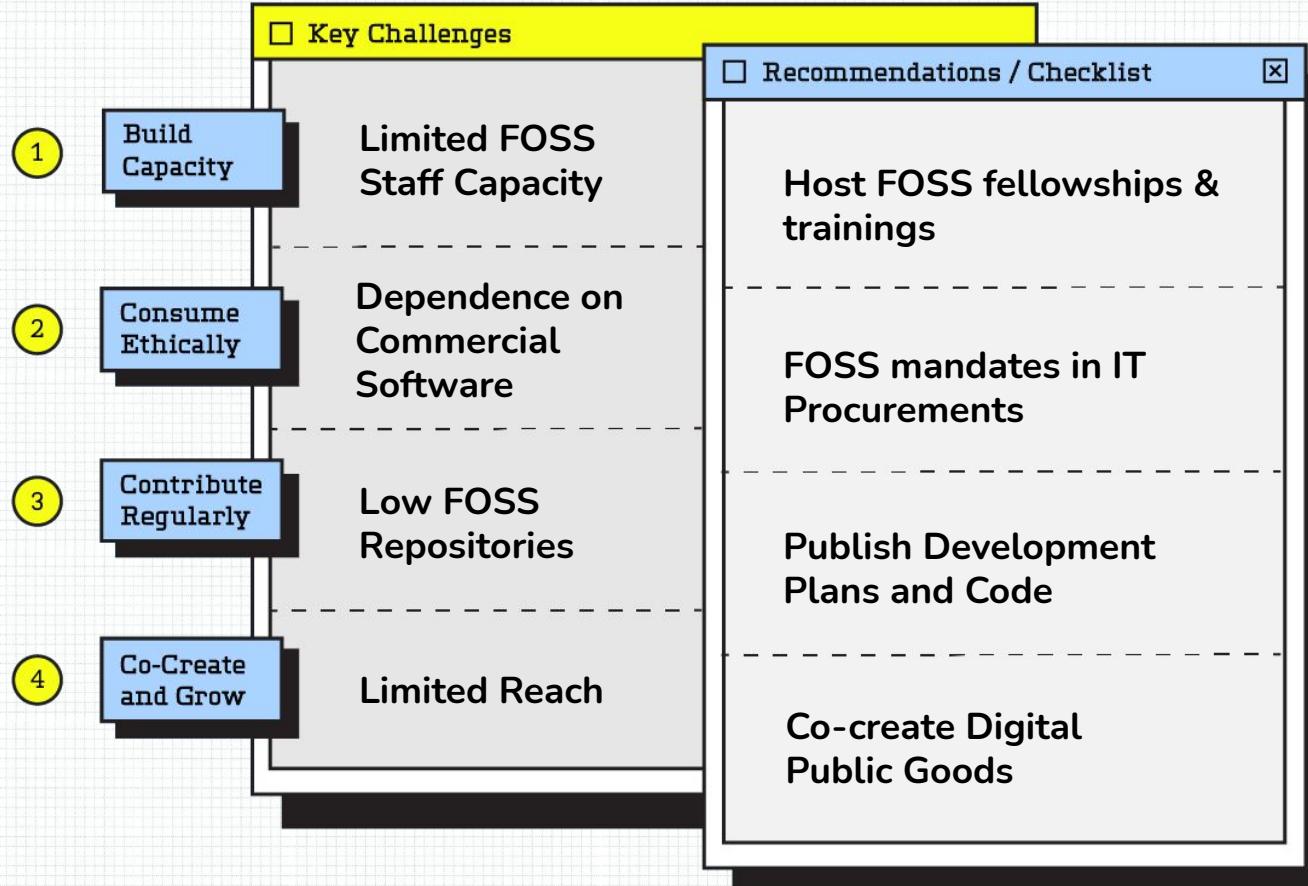
FOSS Workshops

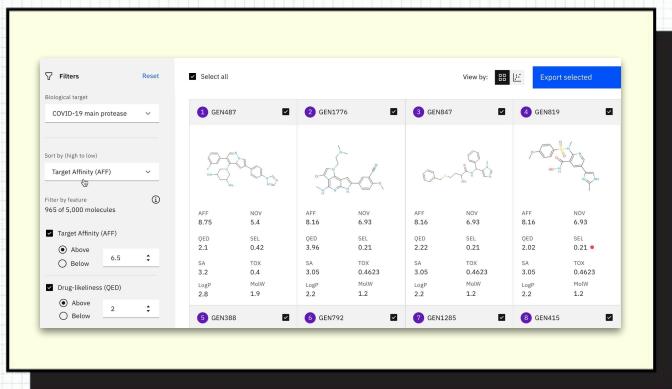
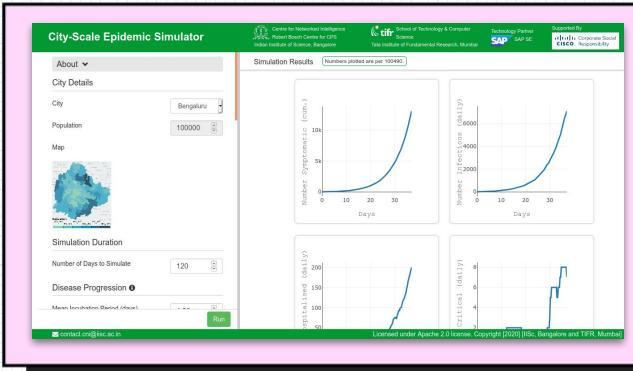
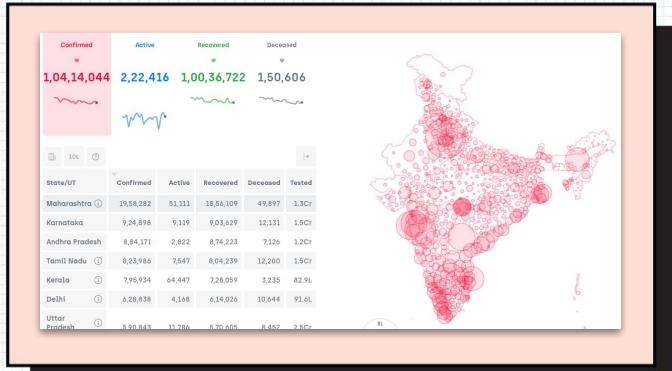
Legal & Policy Support

Sponsor FOSS
Community Initiatives

Collaborate with
FOSS Academia &
Communities







FOSS & the Pandemic



What could be a

Possible Future ?



Shaping a National FOSS Alliance powering growth

Bringing all the key Stakeholders together with a shared vision

- Build Capacity
- Activate Leaders
- Bring More Diversity

- FOSS Literacy
- Foster Research
- Build Talent

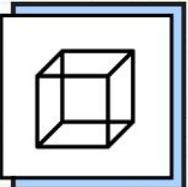
Shaping a national
FOSS Alliance

- Incubate More FOSS
- Create Marketplace
- Support Talent Pool

- FOSS-led Initiatives
- Build FOSS Stacks
- Localize GovTech



Anala Tanmaya
Independent
Illustrator



Arpit Arora
Statistician
CivicDataLab



Charley Vincent
Design Researcher
CivicDataLab



Divya Rani
Designer
CivicDataLab



Gaurav Godhwani
Director
CivicDataLab



Govind Shivkumar
Omidyar
Network India



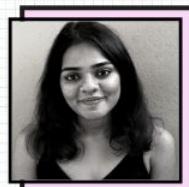
Kriti Mittal
Omidyar
Network India



Preethi Govindrajan
Researcher
CivicDataLab



Shashank Sharma
Developer
CivicDataLab



Shivani Kannan
Independent
Designer



Shreya Agarwal
Developer
CivicDataLab



Umang Prabhakar
Independent
Researcher



Varad Pande
Omidyar
Network India



Venkatesh Hariharan
Open Invention Network

A BIG Thanks to
the team

Questions?



Contact us:
foss@civicdatalab.in

DOWNLOAD



state-of-foss.in