Let’s talk about Software Patents

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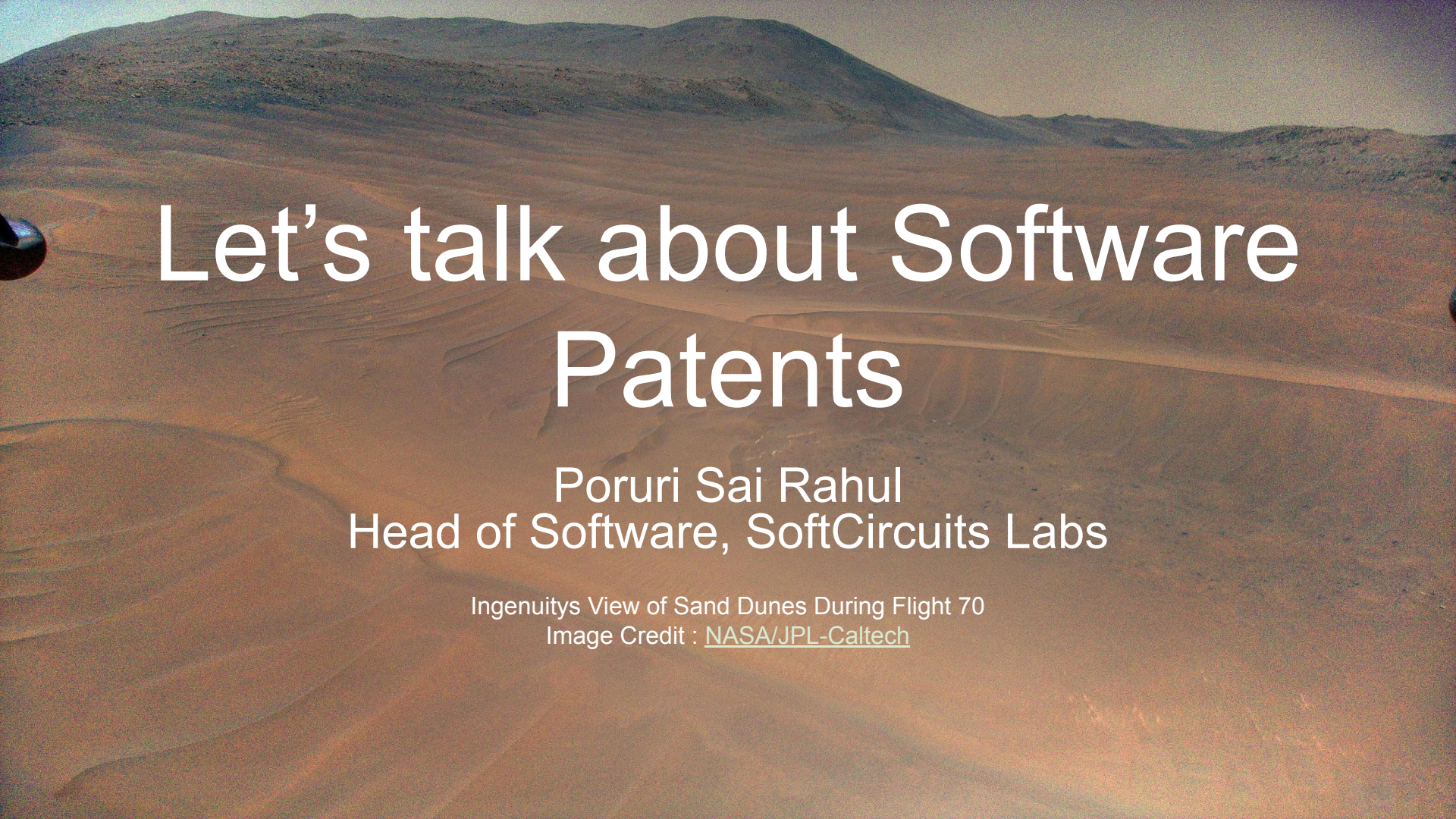

Ingenuitys View of Sand Dunes During Flight 70
Image Credit : NASA/JPL-Caltech

Back to basics

How many of you have a Patent?

What did you get as a Patent holder?

How many of you want a Patent?

Why do you want a Patent?

Back to basics

Examples of Software Patents?

Patent vs Copyright vs Trademark?

Back to basics

Distributed computer architecture and process for virtual copying

The purpose of the Virtual Copier invention (“VC”) is to enable a typical PC user to add electronic paper processing to their existing business process. VC is an extension of the concept we understand as copying. In its simplest form it extends the notion of copying from a process that involves paper going through a conventional copier device, to a process that involves paper being scanned from a device at one location and copied to a device at another location. In its more sophisticated form, VC can copy paper from a device at one location directly into a business application residing on a network or on the Internet, or visa versa. The VC invention is software that manages paper so that it can be electronically and seamlessly copied in and out of devices and business applications (such as Microsoft Office, Microsoft Exchange, Lotus Notes) with an optional single-step Go operation. The VC software can reside on a PC, LAN/WAN server, digital device (such as a digital copier), or on a web server to be accessed over the Internet.

DATA PROCESSING SYSTEM FOR HUB AND SPOKE FINANCIAL SERVICES CONFIGURATION

A data processing system is provided for monitoring and recording the information flow and data, and making all calculations, necessary for maintaining a partnership portfolio and partner fund (Hub and Spoke) financial services configuration. In particular, the data processing system makes a daily allocation of assets of two or more funds (Spokes) that are invested in a portfolio (Hub). The data processing system determines the percentage share (allocation ratio) that each fund has in the portfolio, while taking into consideration daily changes both in the value of the portfolio's investment securities and in the amount of each fund's assets. The system also calculates each fund's total investments based on the concept of a book capital account, which enables determination of a true asset value of each fund and accurate calculation of allocation ratios between the funds. The data processing system also tracks all the relevant data, determined on a daily basis for the portfolio and each fund, so that aggregate year-end data can be determined for accounting and for tax purposes for the portfolio and for each fund.

Mythbusters

- The success of the Software/SaaS industry in the US is thanks to Software Patents
- Indian startups/companies are granted more Software Patents than MNCs (Multinational Companies)
- Patent Litigation in India is not costly
- Patent Litigation cases are settled quickly (within a few months)

Mythbusters

- The success of the Software/SaaS industry in the US is thanks to Software Patents
  - Organizations in the US have been calling for the elimination of software patents, as early as 2012
- Indian startups/companies are granted more Software Patents than MNCs (Multinational Companies)
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Mythbusters

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- Indian startups/companies are granted more Software Patents than MNCs (Multinational Companies)
  - Between 2021-2022 ~74% of patents were granted to Multinational Companies. In the years prior, MNCs were awarded a greater % of patents (close to 90%). See SFLC In report on “Software Patents in India”
- Patent Litigation in India is not costly
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Mythbusters

- The success of the Software/SaaS industry in the US is thanks to Software Patents
- Indian startups/companies are granted more Software Patents than MNCs (Multinational Companies)
- Patent Litigation in India is not costly
  - Patent Litigation, if you're lucky can cost as little as 50 Lakhs, but as much as 2-3 Crore rupees, not including the opportunity cost
  - See Software Patent Litigation: A (Very) Costly Affair by End Software Patents, FOSS United
- Patent Litigation cases are settled quickly (within a few months)

Mythbusters

- The success of the Software/SaaS industry in the US is thanks to Software Patents
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- Patent Litigation in India is not costly
- Patent Litigation cases are settled quickly (within a few months)
  - If you're lucky, a patent litigation might be settled within an year, but it could take upto 7 years
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Mythbusters

Year	Patents granted	Patents granted to Foreign entities	Patents granted to Indian entities
2014-2015	344	312	32 (9.30%)
2015-2016	295	263	32 (10.84%)
2016-2017	331	293	38 (11.48%)
2017-2018	842	789	53 (6.29%)
2018-2019	721	672	49 (6.79%)
2019-2020	1192	1107	85 (7.13%)
2020-2021	743	590	153 (20.59%)
2021-2022	558	414	144 (25.80%)
2022-	222	169	53 (23.87%)

Image credits - “Results of the Study” chapter of the SFLC India report “Software Patents in India: Law and Practice”

Threat to Innovation

"Various 'non-practicing entities,' and other intellectual property rights holders have asserted in the past … and may attempt to seek in the future, to monetize the intellectual property rights they own to extract value through licensing arrangements or other settlements," Reddit added.

- Nokia sues Reddit for patent infringement ahead of going public

Threat to Innovation

As with many patent trolls, Sable IP has never made or sold products and doesn't employ a single person to create or design actual technology. Sable IP was created as a shell entity in 2020 to monetize the patent portfolio of Sable Networks, which itself was formed in 2006 and allegedly acquired the assets–including the patents–of Caspian Networks, a router company that had shuttered its operations.

Cloudflare wasn't Sable's only target. Sable sued a number of other companies, including Cisco, Fortinet, Check Point, SonicWall, Juniper Networks, and others, each of which eventually resolved the lawsuit against them out of court. Cloudflare took a different approach.

- Cloudflare defeats patent troll using crowdsourced prior art search

Threat to Innovation

A system for filing applications with an institution from a plurality of remote sites, and for automatically processing said applications in response to each applicant's credit rating obtained from a credit reporting service comprising a series of self-service terminals remotely linked via a telephone line to a first computer at the institution and to a second computer at the credit reporting service headquarters. Each remote terminal comprises a video screen and a video memory which holds image-and-sound-generating information arranged to simulate the aspect and speech of an application loan officer on the video screen. The simulated loan officer is used to acquire loan request data from the applicant by guiding him through an interactive sequence of inquiries and answers. The system may be utilized as a trading network whereby stations are used by sellers and buyers to place and accept offers for securities, the central installation acting as a central computerized database where all transactions are processed and the various data items stored and automatically updated.

In just one 18-month period, the ‘508 patent was the subject of more than 1,800 patent demand letters sent to more than 1,100 different businesses. All of these businesses were told to pay up—typically $65,000—for using basic e-commerce technology like home pages, customer login pages, and product-ordering pages.

EFF article on Assault on E-Commerce

Why talk about this now?

C.2.1 The deep tech startup ecosystem in India lacks specialised support in terms of filing and obtaining patents for frontier technologies. The intellectual property (IP) regime faces several challenges in this regard including: a) Ensuring the novelty of inventions. b) Managing conflicts related to open-source technologies. c) Ensuring the security of trade secrets. d) Conducting comprehensive prior art searches. e) Navigating international IP laws. f) Risk of intellectual property being lost to foreign entities. These challenges obstruct the effective protection and management of IP rights in the Indian deep tech sector which hinders innovation protection thereby leading to trade secret breaches, and limited IP enforcement. A deep tech centred Single Window Platform should be developed to enable:

Excerpt from the draft National Deep Tech Startup Policy (NDTSP)

Why talk about this now?

C.2.4 The current National IPR Policy 2016 does not extensively address the eligibility of “computer programs per se, or algorithms” for patent protection. Most deep tech startups in India rely on advanced digital frontier technologies, which is heavily dependent on algorithms and APIs as the primary source of novelty. To ensure Indian deep tech startup competitiveness in the global market, it is imperative to recognise this uniqueness in the National IPR policy. Therefore, a well-defined mechanism should be established for evaluating the suitable amendments that encompass unique characteristics of digital frontier technologies within the scope of patent eligibility.

Excerpt from the draft National Deep Tech Startup Policy (NDTSP)

Can we do anything about it?

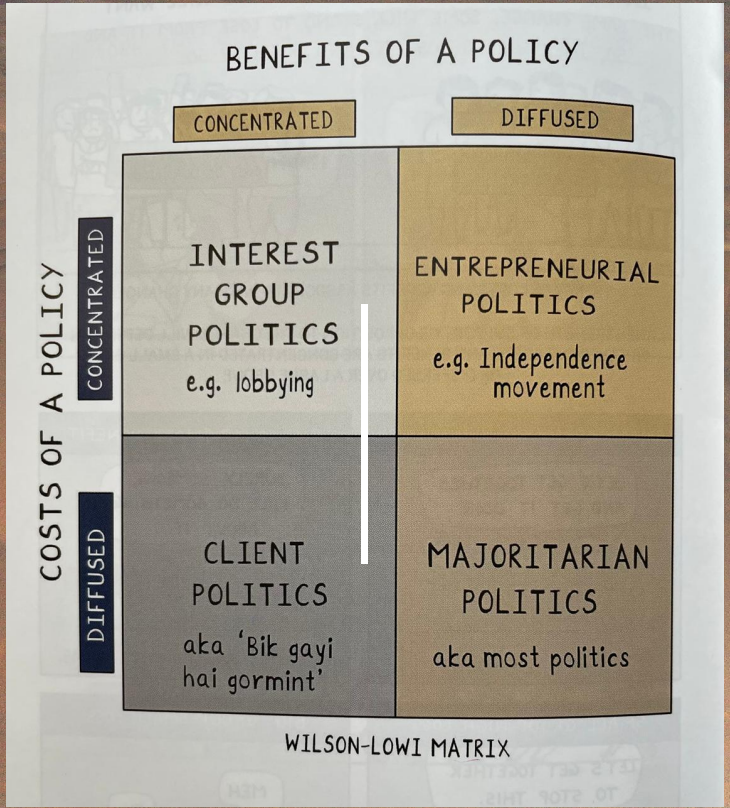

Image credits - “We, the Citizens” by Khyati Pathak, Anupam Manur and Pranay Kotasthane

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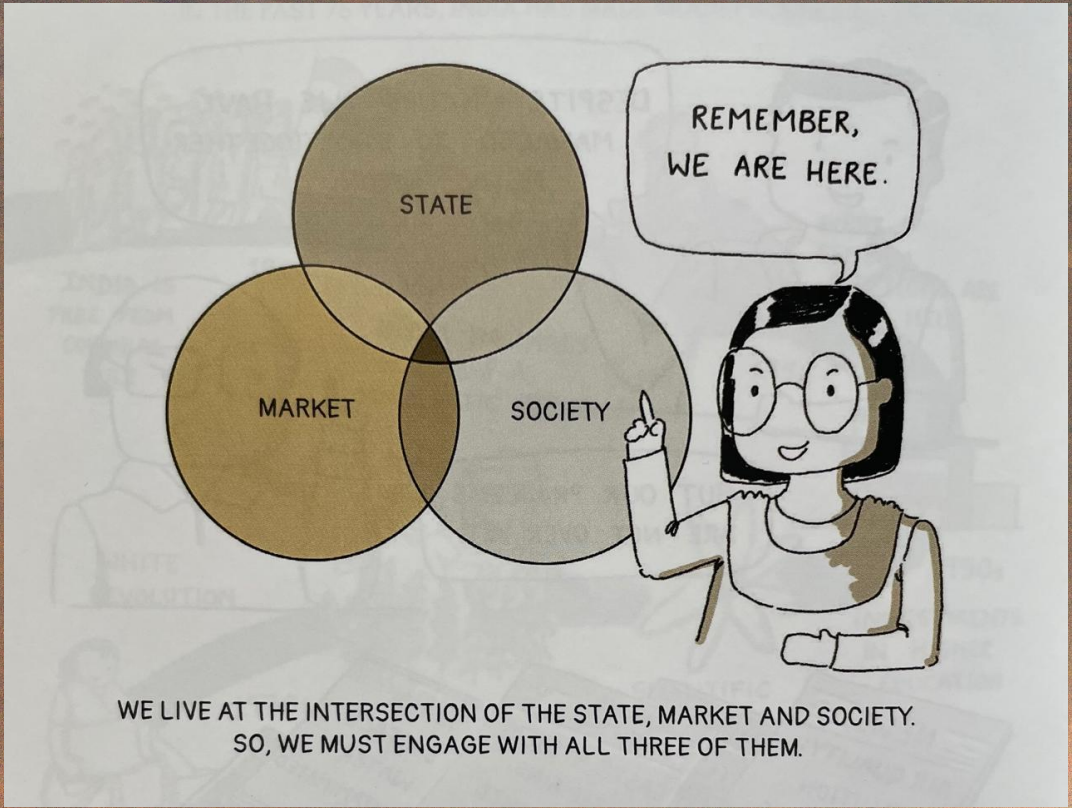

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What you can do

- Talk to the people about Software Patents
- Dig up “dumb” software patents granted by the Indian Patent Office
- Review patents granted by the Indian Patent Office & invalidate some of them through prior art
- Outreach to Industry, Academia, and Government
- Expand the End Software Patents effort
- Checkout the Graduate Certificate in Public Policy (Technology & Policy) course by the Takshashila Institution

Take home assignment

- Watch the IndiaFOSS 3.0 talk “Can FOSS and Software Patents coexist?” by Venkatesh Hariharan
- Checkout the End Software Patents effort by FOSS United and End Software Patents global initiative of the Free Software Foundation
- Read the full report by Software Freedom Law Center (India) on “Software Patents in India: Law and Practice”
- Read our comment to the Principal Scientific Advisor, Government of India on the draft National Deep Tech Startup Policy (NDTSP)
- Read Electronic Frontier Foundation (EFF) Stupid Patent of the Month
- Read Attack of the Scanner Patents series of articles by ArsTechnica

Policy Proposal: End Software Patents

- Reintroduce three-part test for patenting software in the Computer Related Inventions (CRI) Guidelines
- Remove/reduce priority that Patents, especially software patents, have on measures of industrial development/growth
- Direct Government agencies (e.g. MHRD) to remove/reduce priority of Patents, especially software patents, on Ranking and other quantitative measures of institutional growth

Why?

- Every software program combines a multitude of programming methods. Impossible to search for every method prior to writing software
- Software Patents are abstract ideas. Impossible to conclusively verify if one is violating or not. Just pick a software patent at random and read it to believe
- Damages for willful infringement can be very high
- Defending patent lawsuit can cost INR Rs 3 crores or more
- Unlike copyrights, independent invention is not a valid defense
- Patent trolls or Non Practicing Entities (NPEs) are a growing threat