

# Sustained Digital Sovereignty with Free Software

By Michael Meeks

---

General Manager



Collabora  
Productivity

@michael\_meeks michael.meeks@collabora.com

*“Stand at the crossroads and look; ask for the  
ancient paths, ask where the good way is, and  
walk in it, and you will find rest for your souls...” -*

*Jeremiah 6:16*

# Overview

---

- Digital Sovereignty
  - State of the world
  - State of the network
  - Sovereign Software
  - A sovereign workplace.
- Sustainable FLOSS.
  - FLOSS Business model ingredients
    - There are many.
  - Takers vs. Makers
  - Community challenges
- Document goodness
- Conclusions

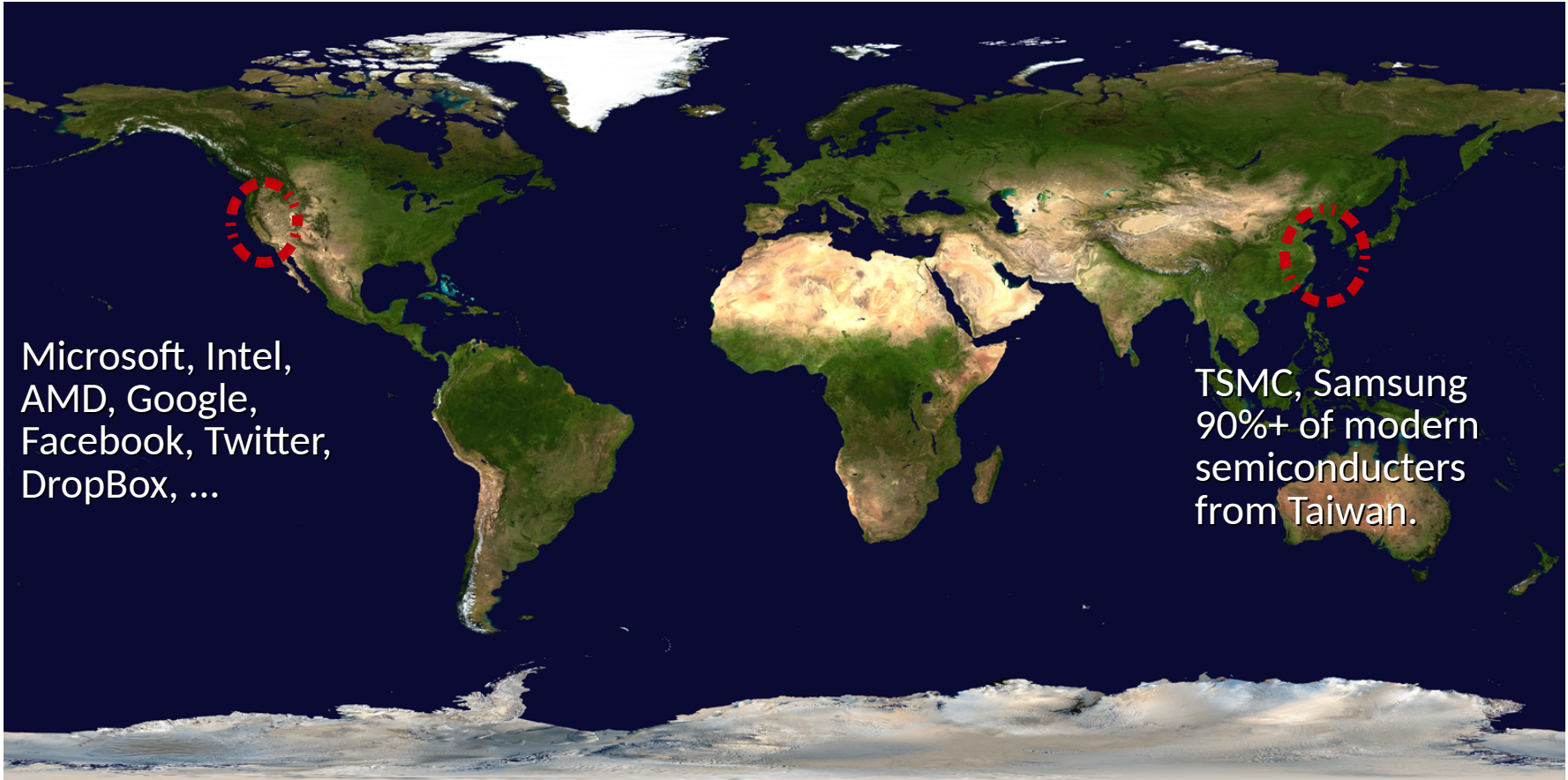
*Digital Sovereignty - refers to our ability to act independently in the digital world*

**SFSCON**  
**2022**

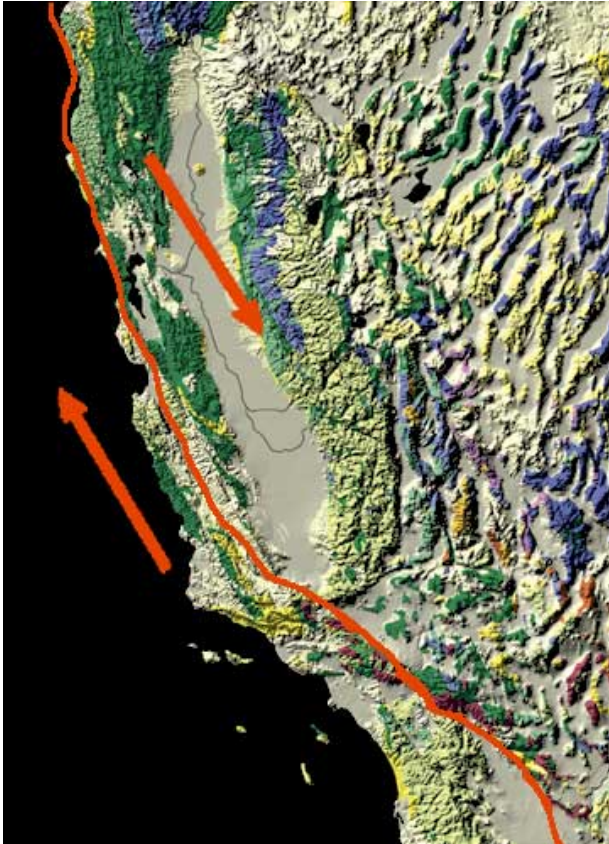
# **Digital Sovereignty**

*The physical side*

# Technology industry concentrations



# Either a hot seismic zone ...



**“Cascadia subduction zone.** The largest active fault that will affect Washington (and the whole Pacific Northwest) is the Cascadia subduction zone. **This fault produces some of the largest and most damaging earthquakes in the world (M9).”**

Washington State  
Department of Natural  
Resources

# or Taiwan / South Korea

*"Solving the Taiwan question and realising the **complete reunification** of the motherland are the unswerving historical tasks of the Chinese Communist Party and the common aspiration of all Chinese people" - President Xi Jinping*

- *"Biden says U.S. forces would defend Taiwan in the event of a Chinese invasion"*
- 2m active Chinese military

Or  
North  
Korea



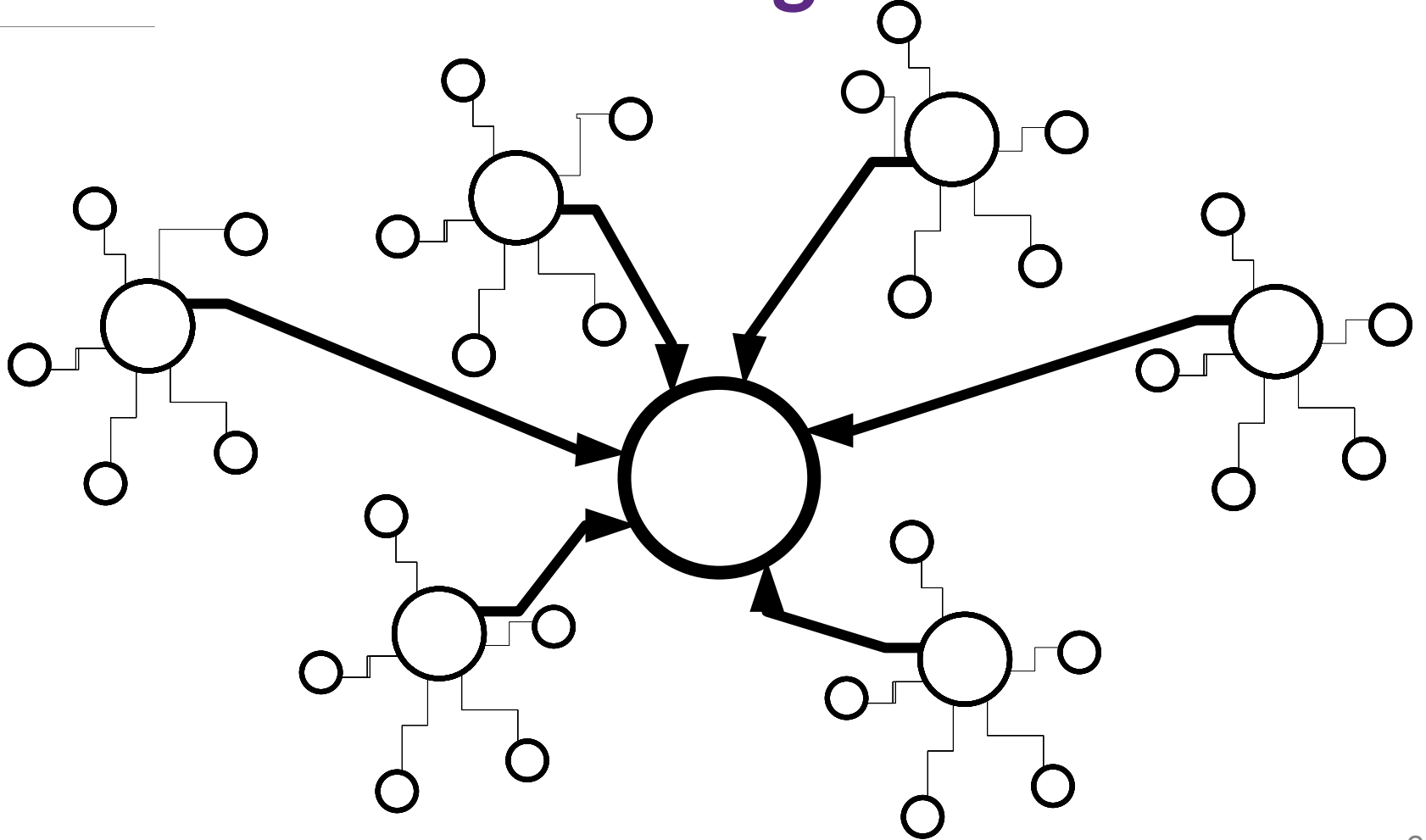
**SFSCON**  
**2022**

# **Digital Sovereignty**

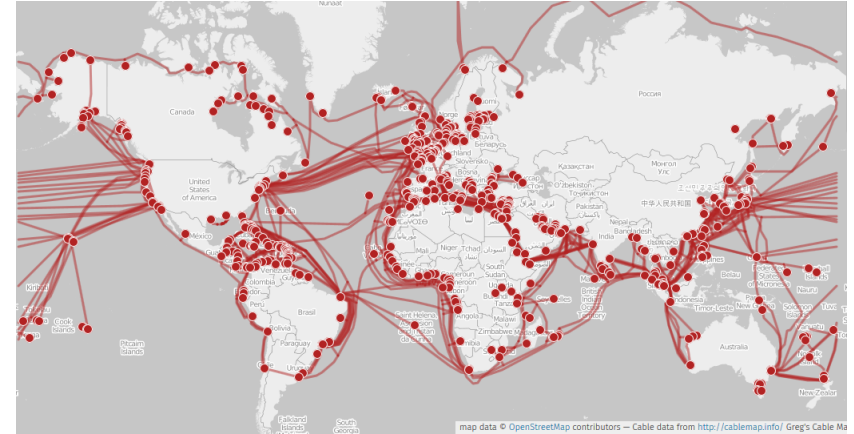
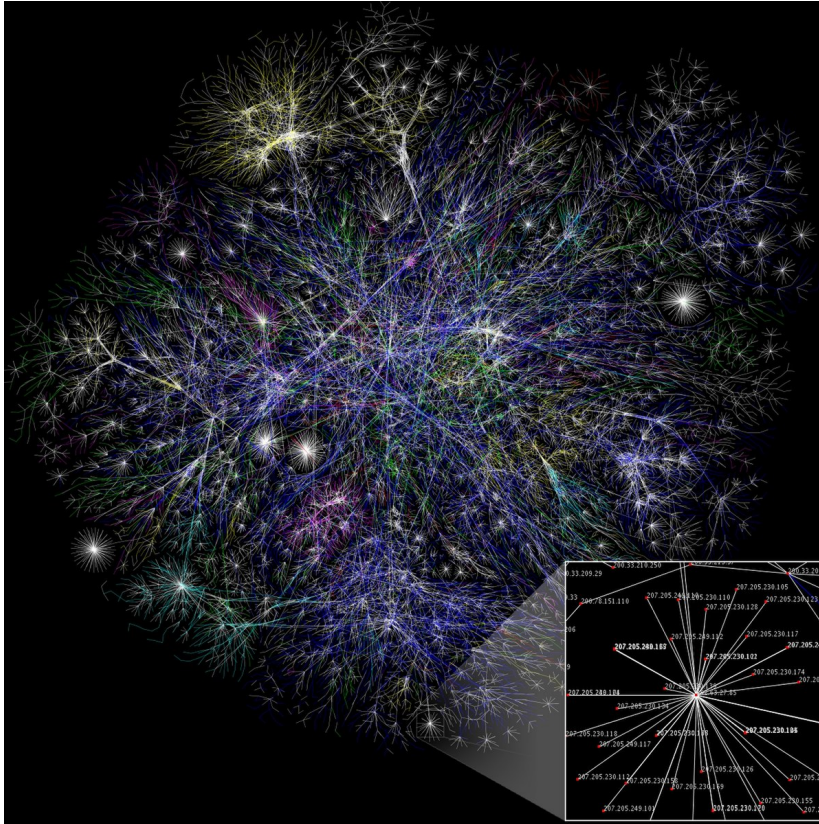
*The network side:*



# Powerful centralizing network effects



# The internet – virtual & physical



OpenStreetmap - CC license  
Infrapedia.com

# Our networks are vulnerable



Telecom News / Latest Telecom News / Internet

## French police probe multiple cuts of major internet cables

*The disruptions in Marseille were a taste of what analysts warn could be far larger problems in other cases if cables are systematically attacked. The vulnerability of fiber-optic cables, especially those underwater, and other key infrastructure was highlighted by the sabotage last month in the Baltic Sea of natural gas pipelines from Russia.*

AP • October 22, 2022, 07:45 IST

The subsea cables to Shetland are both damaged



Last month's  
fun.



**SFSCON**  
**2022**

# **Digital Sovereignty**

*The software side*

# A Sovereign Workplace ...

- Alternative to GDocs / O365 / etc.
- strategic risks:
  - Privacy – enforce GDPR
  - Political - interference
  - Commerce & tax - selling
  - Innovation – make it fit
  - Security – fix it fast
- Network effects
- FLOSS
  - The only feasible solution
  - Distributed git
  - Distributed expertise
  - On-shore data
  - “*Anything is possible*” innovation
- Exciting work ongoing.
- Politically comprehensible

# A different perspective:

---

**Today's Digital Sovereignty framed negatively:**

*"The **data-trap is this**: that if you allow another country to gain access to really **critical data about your society**, over time that **will erode your sovereignty** - you no longer have control over that data."*

- Richard Moore (head of MI6) (James Bond's boss)

# How-to: build a sustainable sovereign workplace from lots of different FLOSS projects & vendors ?

**A root challenge:**

**building an economically  
sustainable Free Software  
business that works in symbiosis  
with its diverse community.**



# Punch lines:

Its hard.

No magic one-size-fits all  
prescription.

SFSCON

2022

# FLOSS heresy 101:

economically sustainable ===

someone needs to pay something  
in return for something scarce

# Why a heresy ?

- The most amazing **volunteers** in our project.
- Humbled by their generosity, enthusiasm, thirst for learning & depth of contribution
- I was one once as a student
- If “*Floss is written by volunteers*”
  - perhaps no-one needs to pay anything ?
  - OpenSSL ... still amazing.
- Lots of businesses want:
  - To fund their programming addiction
  - Accelerate growth eg. Evolution.

# Volunteers – a digression ...

---

- You can be paid as a Government admin
  - And also volunteer as a Scout leader.
- You can be paid by a FLOSS company
  - And be a voluntary contributor to FLOSS
  - Even the same project.
- Be paid by a foundation, and go far beyond the call of duty
- eg. Apache:
  - Staff member in one context, a volunteer in another context.
  - On this definition any FLOSS can be made by (paid+non) ‘volunteers’

**Mix & match ingredients:**  
*so we can fund the code / revolution*

# Scarcity of skills: Consultancy

- eg. Cygnus, C'bra
- **Pros:**
  - The 'easiest' most compatible FLOSS model.
  - Represent your customer's interest in a project
  - Satisfaction of delivering well to a clear spec.
  - Skills are initially scarce.
- **Con:**
  - FLOSS Maintenance
    - hard to sell, badly needed
  - Hard to scale (risky)
    - estimating Fixed Price ...
  - The best eat their own market / customers.
    - Budgeting: renewal is not automatic / expected.
  - Sometimes no public git
  - **Scarcity of skills: off-shore?**

# Scarcity: Proprietary Periphery

- eg. evolution-exchange
- **known as Open-Core**
  - focus on selling & engineering the proprietary pieces.
  - Often great commitment to growing the open Core.
- **Pro:**
  - Brand-sharing:
    - FLOSS community as advertising / lead-gen
- **Con:**
  - © assignment necessary
  - FLOSS / competition focus on re-implementing the periphery piece-meal
  - Enterprise'y periphery

# Scarcity: exceptions

- eg. Qt, OpenOffice
- Use maximally commercially unfriendly FLOSS license
  - Collect © assignment
  - Sell back-channel licenses
- **Pro:**
  - Proprietary value
- **Con:**
  - Incentive alignment around license discussions.
  - Scales / collaborates poorly



# Scarcity of bandwidth: selling CDs

- eg. RedHat Linux
  - 4.2 – upgrade from slackware
- eg. SUSE Boxed sets !
- eg. Mandrake / Mandriva
- **Features:**
  - Proprietary (or just printed) Documentation: Manuals!
  - Physical media !
- **Con:**
  - Internet bandwidth growth – faster than a LAN.
  - One CD per individual or giant corporation.



# Scarcity of binaries: Enterprise distro

- eg. RHEL (2003), SUSE
  - Editorial compilation of FLOSS produced by others.
  - A pay-wall for old content: stable / enterprise versions
  - Latest & greatest is free: Fedora, openSUSE, etc.
- **Pro:**
  - Subscribe to our (old-)news-paper
    - Budget presumption: renew.
- **Pro:**
  - ARR / subscriptions
  - the holy grail.
- **Con:**
  - Cloning: CentOS, Oracle Un-breakable Linux.
  - **Cute-ness** Re: copy-left: per-copy / seat subscription licenses
    - Used to be controversial

# Scarcity: enterprise binaries

- eg. (previous) CODE
- Binaries compiled with some reminder
  - *“it looks like you’re using this at scale without support”*
  - *“buy a key to unlock XYZ option”*
- **Pro:**
  - 100% Floss
  - Brand based sale
  - Scarce un-locked binaries
- **Con:**
  - Complaints about the warnings.
  - Easy to re-compile without
  - Requires brand visibility

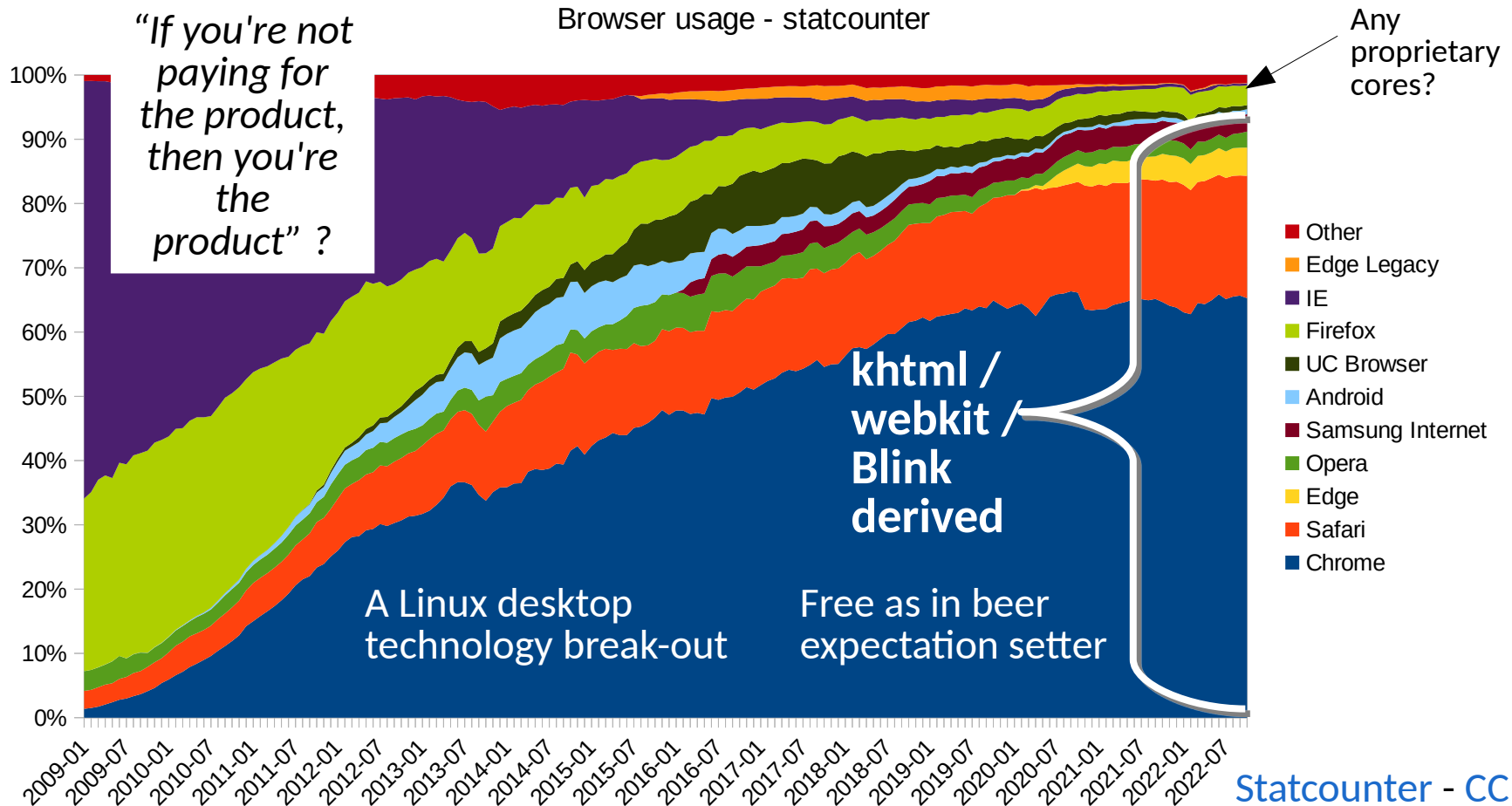
# Scarcity of confidence: scare-ware

- IP indemnity / insurance
  - eg. Microsoft / Novell.
  - License audit tools
- Certification
- SLAs
- Branding
- **Pro:**
  - Compliance driven sales
- **Pro:**
  - Differentiation in commodity markets eg. petrol / water?
- **Con**
  - Demand generation for IP indemnity profoundly problematic.
  - Fair certification processes
  - Branding / marketing
  - scale for 24/7 SLAs

# Scarcity of complementary services

- eg. Evolution
- VC funded – travel booking service monetized via selling flights / etc.
- FLOSS as a front-end to other things.
- **Pro:**
  - 100% FLOSS client
  - Investment potential.
- **Con:**
  - Proprietary server / services / agreements

# Ad. supported FLOSS: fat PC apps ...



# Abundance: donations

- Donation funded development
  - The *Sagrada Família* development model.
    - If we start building it
      - they will come ?
- **Pro:**
  - Free money – to invest.
- **Con**
  - Need a big brand & significant project
  - Shame – people feel they have to donate
  - Some think they are buying a product.
  - Low conversion rates: 10% of \$ yield vs. convenience sales

# Scarcity: convenience ...

- eg. gcompris, Krita
- Windows binaries:
  - a sin-tax turned into:
- App-store sales
  - Very simple route to market.
  - Sell binaries of FLOSS in app-store
- **Pro:**
  - **App-store Effective**
    - low to no cost of sales
- **Con:**
  - Differentiation problem: anyone can re-compile and ship.
    - cf. Windows app-store
  - Brand driven differentiation.
    - Need a known brand.



# Scarcity: setup / docs & know-how

- Extreme setup difficulty
- Limit this to scaling
  - Code is in git but
  - Keep your large deployment / scaling documentation closed.
- **Pro:**
  - Focus interest on large deployments
- **Con:**
  - Cloning of the documentation
  - Book publishers, community help / stack-overflow etc.
  - Public searchable docs are the expectation.
  - Automation: the Helm-chart.

# Scarcity: required data / config

- eg. wine setup(?)
- 100% open code
  - Harder to get config / deployment.
- Artificial Intelligence
  - Banal code / layers
  - Proprietary weights ?
  - Proprietary training data ?
- **Pro:**
  - Fully FLOSS
- **Con:**
  - Code much less useful without required data.

**Lots of good people:**

create minimal scarcity to

drive their project's development.

some compromise is inevitable.

SFSCON

2022

**Sustainable Digital**

**Sovereign solutions:**

*need to unify these approaches.*

# How do you make money in Free Software

Bob Young - Founder of RedHat (sold for \$34 billion) Open Sources:

**"No one expects it to be easy** to make money in free software. While making money with free software is a challenge, the challenge is not necessarily greater than with proprietary software. In fact you make money in free software exactly the same way you do it in proprietary software: by **building a great product, marketing it with skill and imagination, looking after your customers, and thereby building a brand that stands for quality and customer service.**"

SFSCON

2022

**Whatever you do:**

owning the brand is key to  
attracting customers

# Add on diverse community challenges:

*Working together with others  
with different perspectives*

# Some challenges:

- Time perspective conflict
  - Schedule – eg Eazel/Ximian
- Scarcity is not a big un-paid volunteer motivator
  - But many appreciate results: mentoring, team feeling, new features etc.
- Brand sharing / lead flow
  - Diverse perspectives ...
- Competition
  - Takers vs. Makers
- Integrators:
  - Happy to integrate FLOSS without support & brand the bundle
  - Zero priced complements
- Scarcity inevitably makes someone unhappy
  - But brings huge benefits



# LibreOffice experiments:



- Real Challenges:
  - The LibreOffice brand is much loved & respected.
  - TDF ship binary builds.
  - Incredibly hard for ecosystem to sell Desktop services & support products
    - ‘Community’ tag experiment
- Unifying brand: LibreOffice Technology
  - For the great engine.
- New things:
  - Scope for new things to grow independently with own business model.
- Remove competitive tension from TDF.

# Takers vs. Makers – Dries @Aquila

- **Makers:** Some companies are born out of OSS, and ... **believe** deeply and **invest** significantly ... With their help, OSS has revolutionized software for the benefit of many.
- **Takers:** Now that OSS adoption is widespread, lots of companies, from technology startups to technology giants, monetize OSS projects without contributing back to those projects.
- **Takers** reap the benefits of the **Makers'** OSS contribution [...]. The **Taker** is likely to **disrupt** the **Maker**.
- On an equal playing field, the only way the **Maker** can defend itself is by investing more in its proprietary offering and less in the OSS project.
- To survive, it has to behave like the **Taker** to the detriment of the larger OSS community.
- **Takers** harm OSS projects.
- An aggressive **Taker** can induce **Makers** to behave in a more selfish manner and reduce or stop their contributions to OSS.
- Cheap complement to a Cloud !

# Conclusions

# An exciting time:

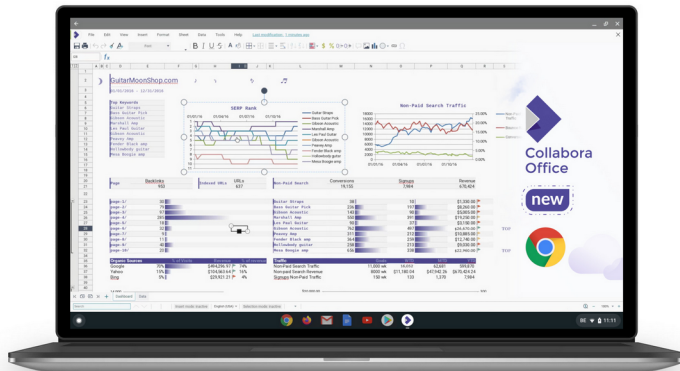
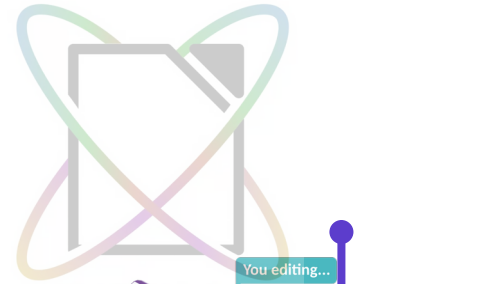
- Digital Sovereignty
  - Big opportunities Government & industry
- Beware of breakage:
  - Deliberately fragile ecosystems that create the software.
    - Hopefully designed to minimize scarcity to maximise fun.
- Engagement & procurement:
  - Beware of maintenance & sustaining cost
    - Unless you can credibly commit to holding the baby.
  - eg. tendering @least-cost
    - Avoid privileging Takers

# Liberating Documents



## FLOSS Document editing

- Decisively un-breaking lock-in
- Coalition of partners working to restore people's freedom
- Excited to work here: come & see me for a demo.



# Working together a magic bullet ?

Specialization - brings efficiency

Building robust commercial partnerships



# Conclusions

- **Digital Sovereignty**
  - Best delivered by FLOSS
  - Use / Study / Share / Improve
- **FLOSS** restores our ability to act independently in the digital world
  - But we need to work together to succeed sustainably.
- Documents are getting unlocked: help us
  - With LibreOffice and CODE
- **Thank you** for your work:
  - **Your support makes a huge difference**
- **A pleasure** to be able to sponsor SFSCON !

*Oh, that my words were recorded, that they were written on a scroll, that they were inscribed with an iron tool on lead, or engraved in rock for ever! I know that my Redeemer lives, and that in the end he will stand upon the earth. And though this body has been destroyed yet in my flesh I will see God, I myself will see him, with my own eyes - I and not another. How my heart yearns within me. - Job 19: 23-27*