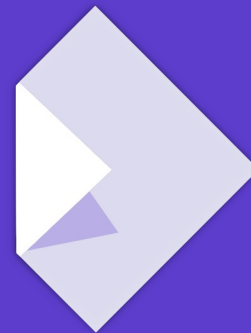


# The history & pre-history of LibreOffice

Michael Meeks <[michael.meeks@collabora.com](mailto:michael.meeks@collabora.com)>

**General Manager at Collabora Office**

@michael\_meeks, mmeeks #libreoffice-dev irc.freenode.net



Collabora  
Office

OPENSUSE-LIBREOFFICE CONF'20

*"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*



After ten years but really 20 years ... or 35 ...





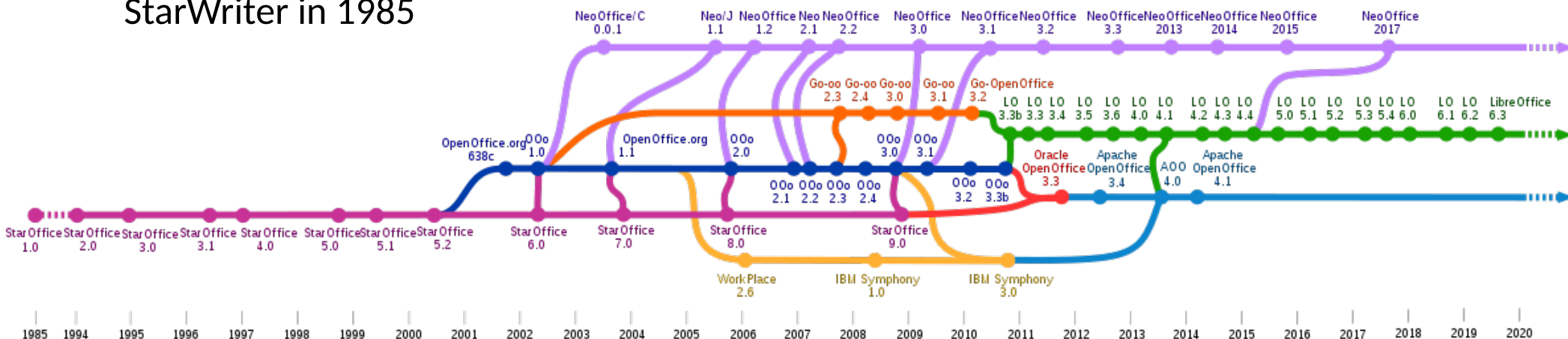


# Grown alongside FOSDEM:

20<sup>th</sup> year of OpenOffice.org too.

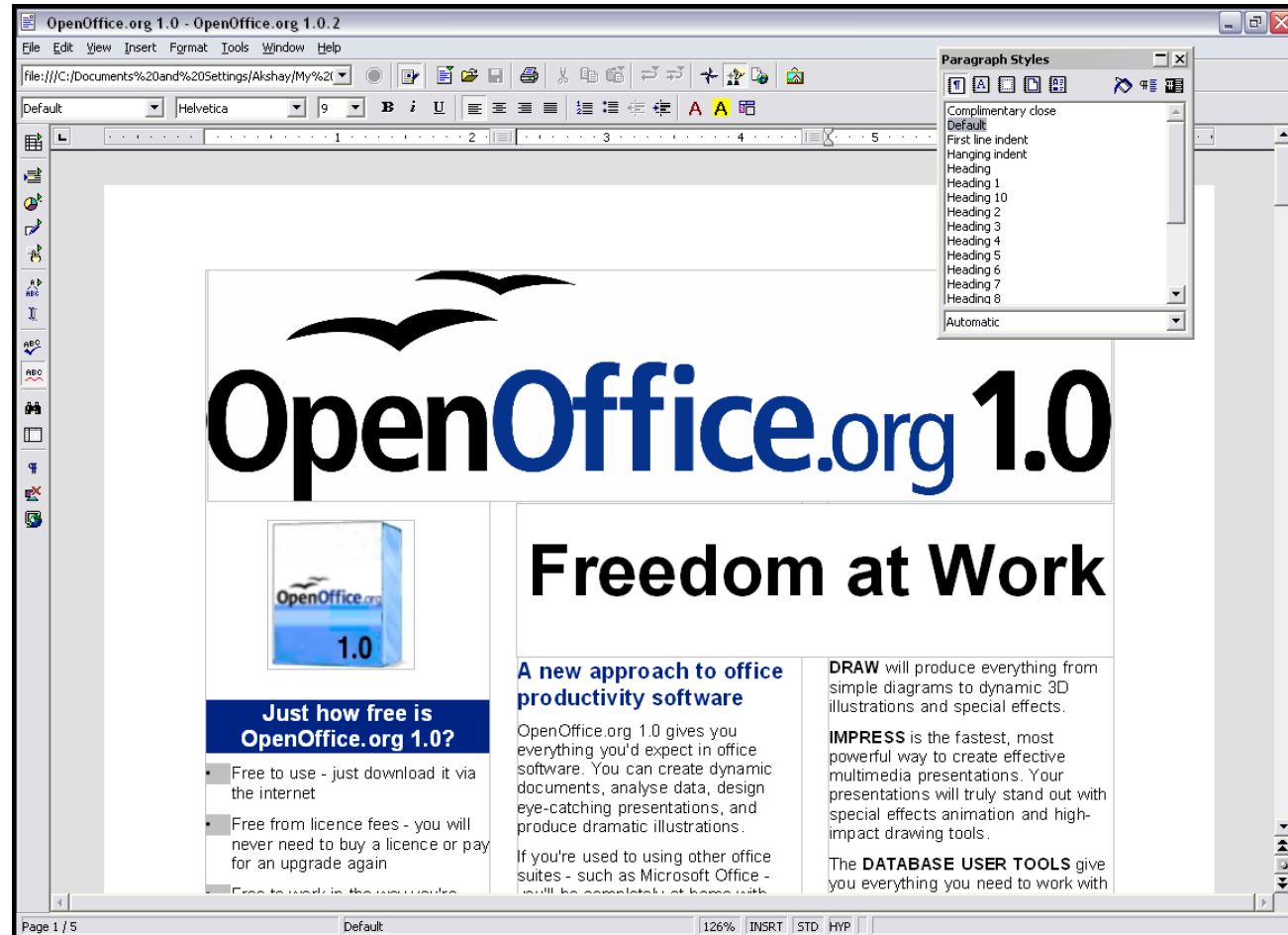
- Luckily we have a museum of old code so you can compare !

45<sup>th</sup> year since **Marco Börries** releases the first version of StarWriter in 1985



# The heady days of FLOSS fixing everything !

- 1999:
  - Sun buys StarDivision
- Marco Open-Sources StarOffice in 2000
  - Dropping E-mail & the desktop for
  - GNOME + Evolution





# CollabNet: FOSS Community Mgmt consultancy ...

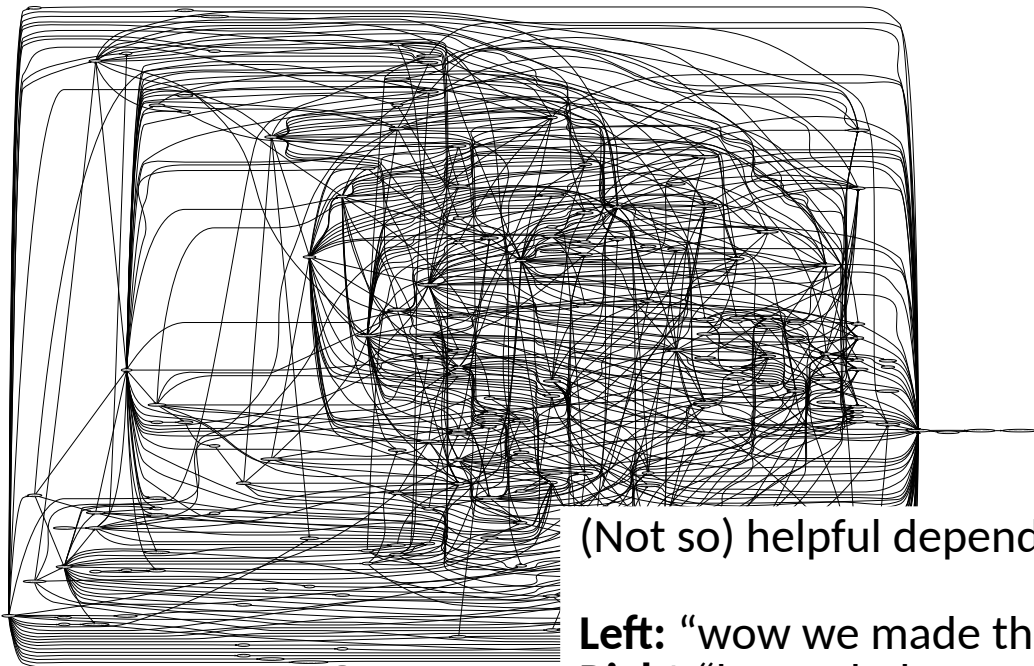
**Louis Suarez-Potts**

- Tough gig: paid by Sun, working for the Community ...
- Social scientist, with at the time ~no FOSS experience.
- Taught StarDivision how FOSS works, inflated rhetoric, poor approach.
- LXF interview: “*The Linus Torvalds of OpenOffice*” (!)
- gerrymandered Governance setup on his watch.
- deep **'strategy' focus** – de-coupled from development / developers
  - eg. re-assured IBM in Koper: *no-one in the community thinks not-releasing your OO.o code-changes is anti-social*

**vs. Linus Torvalds: “Talk is cheap. Show me the code.”**

# Attracting developers:

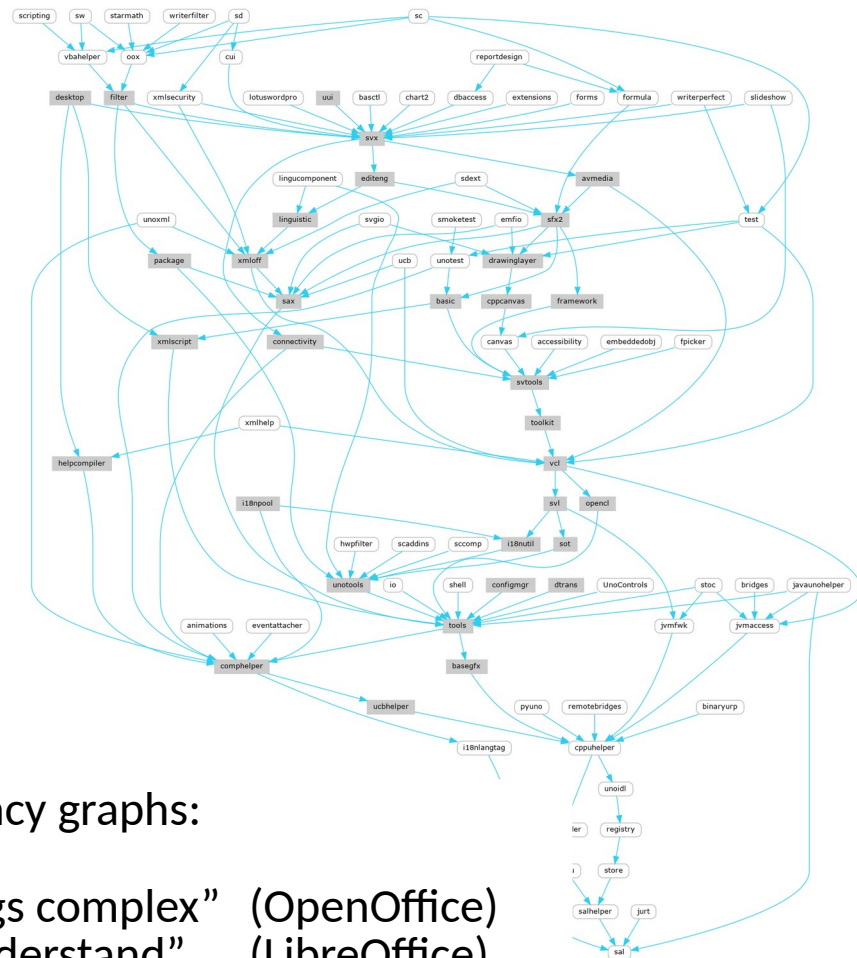
**Top tip:** get a developer to write & even test your build instructions ...



collaboraonline.com

(Not so) helpful dependency graphs:

**Left:** “wow we made things complex” (OpenOffice)  
**Right:** “let me help you understand” (LibreOffice)





# Development Process ...

## Crazy stuff

- Fundamental libraries – change API randomly
- Low-level library authors mail everyone:
  - *“I just re-ordered the parameters in:*  

```
void copyFile(string src, string dest);
```

*to*  

```
void copyFile(string dest, string src);
```
  - **“please update all your code !”**
- Before moving onto their next master-stroke.

## Top tip:

Platform / API churn can rapidly overwhelm the ability of application authors to keep up.

But don't worry, re-writing in Java, C#, Haskell, Rust, will make everything better ...



# Amazing !?

## Build tree in a permanent state of brokenness

- Release engineering:
  - Would branch the tree
  - Try to make it build
  - Chase engineers to fix things
  - Merge all of that
  - After a week or so produce a binary snapshot
  - People would re-base their work on that and ...  
life would continue.

Top commit counts in the world: StarDivision Releng



# Getting a first build ... a month.

## Incredibly pleased to have built OpenOffice !

- With aforementioned, un-tested build instructions  
`$ cvs update # ... wait 10 minutes`
- Weeks more work to get something working again

## Created ooo-build

- Maintain a public set of patches & fixes necessary to compile the beast in the 1<sup>st</sup> instance.
  - Built on Frederic Crozat's work for Mandrake (RIP)
- ~Immediately adopted by ~all Linux distros.



# Something you can actually package:

~immediately built a distro / packager community behind ooo-build:

- +24 hours into the build – it is not supposed to suddenly fail ...





**Some historic snapshots**



# StarDivision / OpenOffice bits ...

## Visionary leader Marco Börries

- Open-sourced, and left the building ... → **Joerg Heilig** → **Michael Bemmer**

## 2003-06 Ximian Desktop 2 ...

- Pretty OpenOffice UX / changes, contribute back ! acquisition (in August) ...

## 2004-12 SISSL license dropped

- IBM mis-behaving, not contributing back, → LGPLv2 + CLA

## 2005-01 StarDivision

- *Giving almost everything away has almost destroyed their revenue stream*
- Budget cuts; threatens Novell with a change in the license to GPL
  - → bad for plugins, but ... what can we do ?

## StarDivision - cuts staff ...



# Evangelism / new contributors

## 2005-03 Intel's Open-Source group

- Dhananjay Keskar, Mike Leibowitz
- On-site training in Cambridge, still friends ...
- **Complement motivation (?)**
  - Did some performance work: I/O, CPU locking improvements

## 2006-01 Google starts hiring (Zaheda went from Sun → Google)

- Kai Backmann hired, on-site training/punting in Cambridge, still friends
- Started to do amazing work accelerating build times / VCS → SVN etc.

## 2006-03 Novell / Microsoft announcement → OOXML filters etc. → tough times.



# Ongoing problems ...

## 2006-05 Process burden

- iTeams, horrible RCS, QA barrier, poor release schedule, treacle like community discussion excluding developers ...  
“Polluter Pays”, “Pro-active Engagement”, “Decisive Leadership needed”, “Who dares wins”.

## 2006-09 Intel leaves

## 2007-01 Google: +1 year

- Kai – moved to Hamburg, face-to-face with amazing conservatism, and stasis.
- Urged me to fork, then moved inside Google.

## Distressing ...



# ODF Coalition

## 2007-03 IBM / OpenOffice Foundation talks

- IBM leans towards an OEM license instead.

## 2007-04-28 Kendal Meeting

- Novell meeting beforehand @ Legal Seafood / Kendall Sq.
  - *Oracle (Peter Lord), RedHat (jrb), Novell (me), Google (Zaheda), Michael Bemmer (Sun), Kay Ramme (Sun), Simon Phipps (Sun)*
  - Unequivocal support for Sun: “Show me the code”
- OpenOffice Foundation talks fall apart ...

## 2007-0? IBM gets an OEM license ... - non-fork provisions ?

- connected announcement: **Sun Solaris on IBM servers** → market feedback ....
- **Novell - investing in Sun's IP** → used to compete against us [!], no open solution [!]



# Preparation for the inevitable

## 2007-06 – Novell / TM searches & branding bootstrap

- Short-listing with Nat: *Fresh Office, Pure Office, Office Unbound*
- ooo-build / go-oo Windows builds ...
- Pointing at the CLA / asymmetric license → contribute to the core, hold some back eg. Calc / Solver: cf. [blog](#)
- *“Very disappointed to read Kohei's blog. Sun re-writing a contributor's code because they refuse to accept the licensing terms they give to other people: the LGPL; saddening. Sun chooses the licensing for OO.o; why choose a license they won't accept themselves ?”*
- *“Clearly, we recognise & salute Sun's huge investment here over many years, and for all our changes to the core (> 50% of our work) we assign rights to Sun outright, and plan to carry on doing so as we labour to improve up-stream OO.o.”*

**Unhappy to see Sun turn unequivocal support of their IP practices to harm contributors, and still no code.**



# OpenOffice brand → Sun

**OpenOffice brand – owned by Team OpenOffice ev.**

- Good people in the (opaque) governance there eg. Cor.
- Bounced into voting to transfer it to Sun
- *It looks as if the previously fairly benign non-profit that owned the OpenOffice.org trademark has just transferred it to Sun – apparently with the intent to use it to clobber people into not using the go-oo / ooo-build version of OO.o.*
  - Prospect of not just using the code ownership against contributors but also the Trademark.
- Lengthy TM guidelines discussion

**Sun → never used the OpenOffice brand effectively for its business**



# IBM repeatedly joins and contributes ?

**2005-Koper** – promoting a foundation; no code ...

**2007-09** [press release](#) “IBM joins the OpenOffice.org community to develop and promote OpenOffice.org technology”

- *“IBM will be making initial code contributions that it has been developing as part of its Lotus Notes product, including accessibility enhancements, and will be making ongoing contributions to the feature richness and code quality of OpenOffice.org”*
- Talk of a dedicated team of 35 programmers.

**2008-11 – Beijing** IBM: bad score-card, but “we will be contributing”

**2011-07** **press** “IBM Donates Lotus Symphony Source Code to the Apache OpenOffice Project”,

- At this point → still no code released & contributed
- **Sets the stage for license choice ...**

**2012-05** source code actually arrives at Apache – **58 months later**

**NB.** Be careful of taking serious pain now for future promises of investment from non-contributors

1k professional strategists ?

Worth noting that there were and are lots of other unhelpful non-contributors: RedFlag, and other Asian companies.

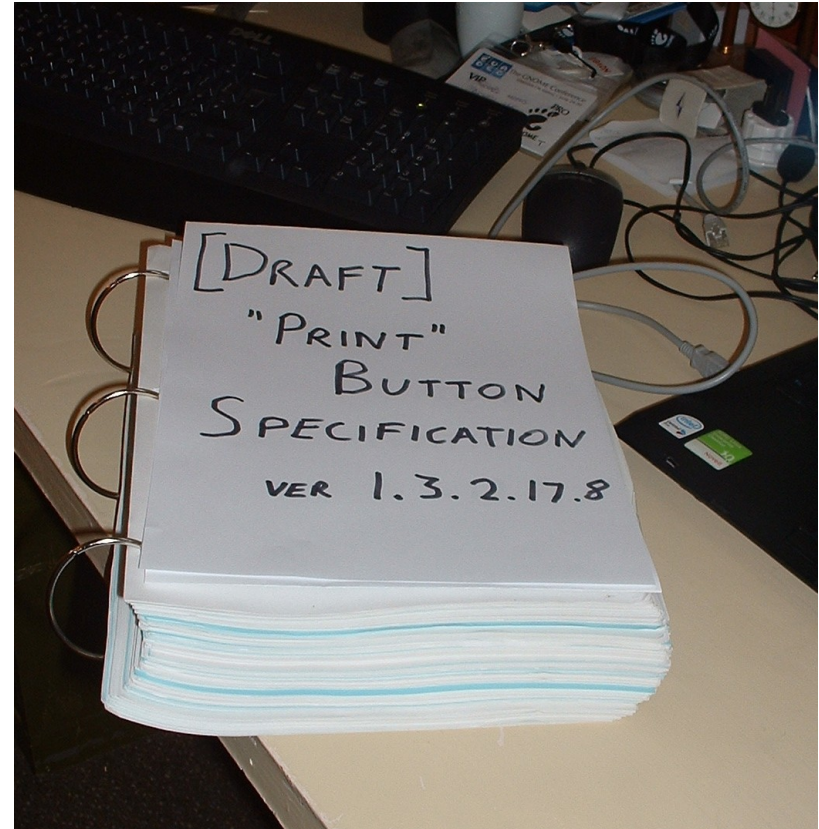


# Pre-LibreOffice

I visited a UK conference,  
everywhere I went I found frustration ...



## Heavy duty / run-away Process ...





## Heavy duty / run-away Process ... #2





# Lots of things not getting fixed ...





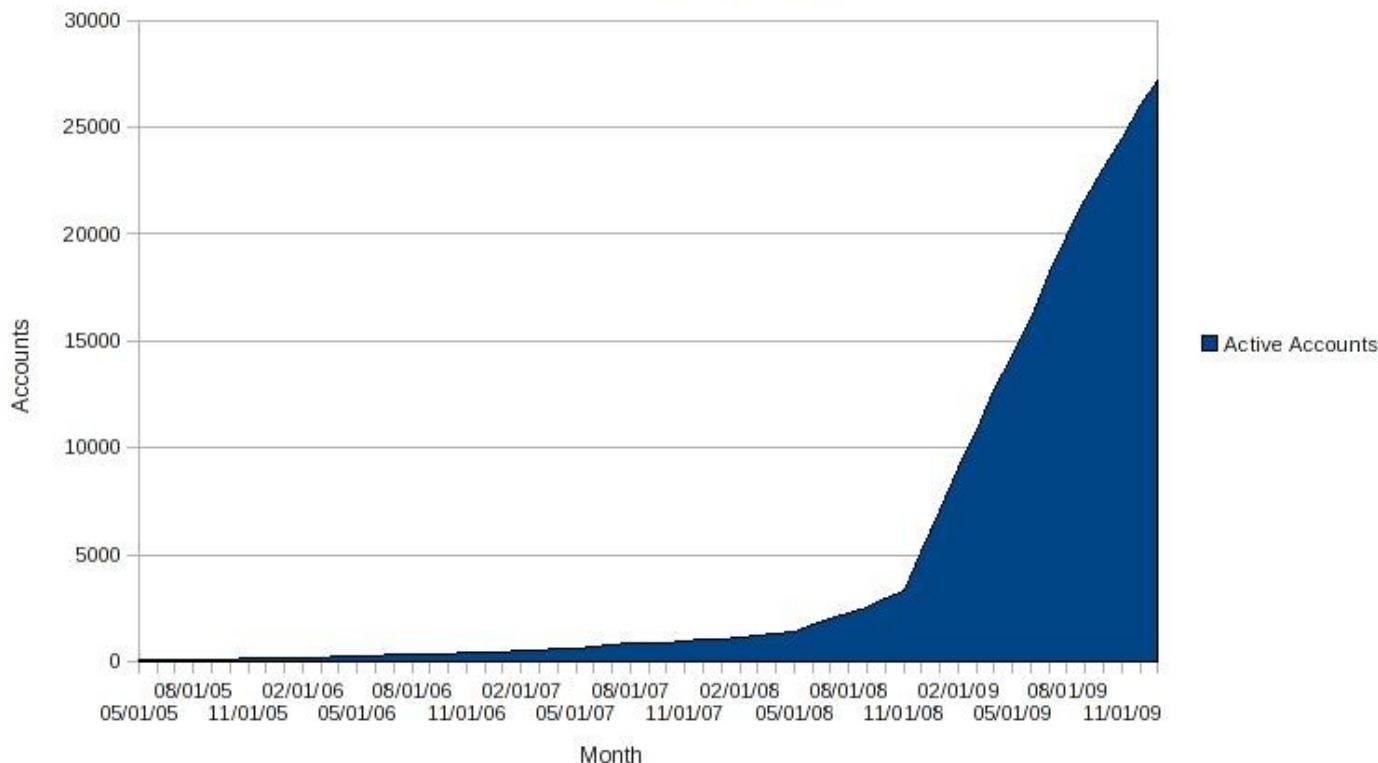
# On Contributor License Agreements ...

Why barriers to entry can be **very** costly to erect:

Fedora Active Accounts

May 2005-Feb 2010

**When do you think  
Fedora dropped their  
CLA requirement ?**



# No Single Vendor Dominance



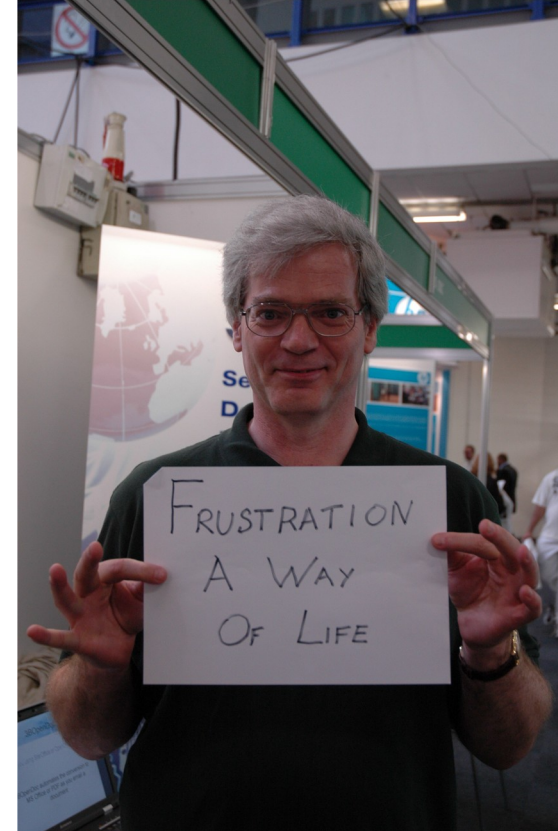
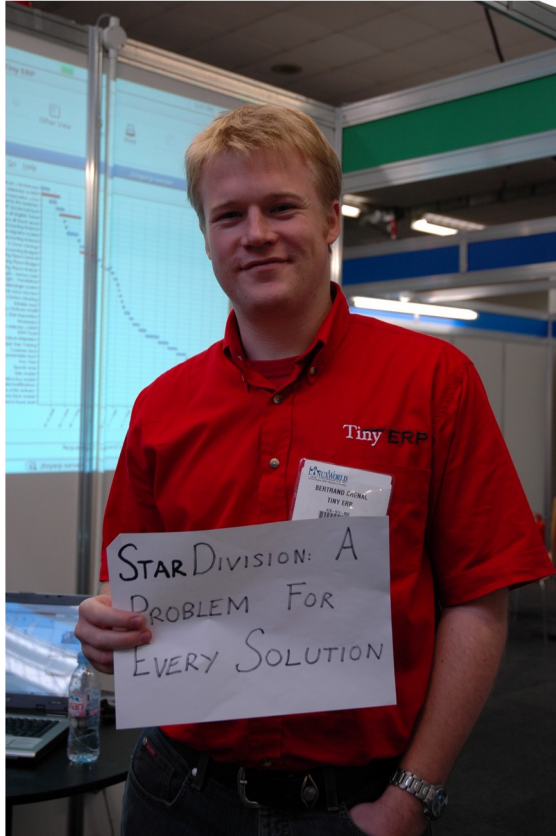
“No one can control more  
Than 30% of the votes in  
any statutory body of TDF!”

though often actually max ~10% eg. MC

- Turns out – it would be more useful to focus on actual diversity of participants – and solid ecosystem economics & get this for free.
- Marketing – useful, SUSE by far the largest contributor initially .



# Cumulative Frustration & Missed Opportunities ...







## And yet – some wonderful individuals ...



collabor

**Many heroic** StarDivision **individuals** went beyond the call of duty to work with, mentor, and try to ease their own internal process pain for 'external' developers.

**Many** StarDivision guys were **friendly**, helpful, respectful, understanding, encouraging and pleasant.

However, there were significant issues of **corporate** / divisional **culture**. It's hard to be the first to open up a huge project.





# TDF / LibreOffice launch.

Wonderful logo thanks to Christophe  
Noack.



# LibreOffice: planning it ... 26 days to launch

***Budapest, Sep 2, 2010***





# Launching is tough ... call in our collective favours ...

## Management from RedHat



*Bryan  
Stevens  
EVP & CTO*



*Jonathan  
Blandford,  
Sr. Eng. Mgr*



*Jan Wildeboer  
Evangelist.*



*Caolan  
McNamara,  
Hacker & Hero*

Re: ooofuture

ok, we're finally green over here in ... land, I've now (9pm Wed) got the formal go-ahead that ... involvement in LibreOffice ... is approved, something we've been **\*cough\*** actually lacking until now, so my ass is now covered again.

One quirk however is:  
**"RE: press release, we'll do it if google does it"**

**"After you" ...**  
**"no after you ..." ...**

## Management from Novell /SUSE



*Dr Jeff Jaffe,  
Novell CTO*



*Markus Rex  
SVP & GM OPS*



*Carlos Montero-  
Luque,  
VP Product Mmgt*



*Guy Lunardi,  
Awesome PM*

**Two professional PR agencies: Italo Vignoli + SitPub**



# Un-blocking the magic ... ~10 days to launch

Hi Chris & Jeremy,

The **slight downer** is that to get a ... supporting press release, they **require one from Google** too [ **out sourcing** your **due diligence** is great like that ? ;-] - is that something that can fly ? we go live 28<sup>th</sup> September; it seems you're the **press release king makers**. ...

We have RedHat and Novell management on-board (jrb being CC'd), and are trying to grow that corporate base. We are driving towards a press release [ of the form: "we plan to create a real foundation, and here is our source code & Beta binaries" ] ...

With such an aggressive timeline, anything that can be done is appreciated. Even without a supporting Google press release, it would be much appreciated to have a Chris DiBona quote, and/or one from Jeremy - who is more acquainted with the details.

Anything with **(double) rainbows and ponies** mentioned is **good** I guess and as yet - **just some vague commitment** to support the growth of the project (as you already do with GSOC) would be **great**.

... Thanks guys, Michael.

**THE FUTURE BELONGS  
TO THE FEW OF US  
STILL WILLING TO GET  
OUR HANDS DIRTY.**



# Google came up trumps: 7 days to launch

Michael and Charles,

It turns out Google can move very quickly when we want to. Here is an **approved quote** from Google you can attribute to: "**Chris DiBona, Open Source Programs Manager, Google Inc.**":

"The **creation** of the **Document Foundation** is a **great step forward** in encouraging further development of open source office suites. Having a **level playing field** for all contributors is **fundamental** in creating a **broad and active community** around an open source software project.

**Google is proud to be a supporter of the Document Foundation and participate in the project."**

Thanks a lot, let us know how we can help with the Foundation in future.

Cheers,

Jeremy.

**Bingo ... unlocked everything.**

*Chris  
DiBona*



*Jeremy  
Allison*





# Have a name – but no logo! 6 days to launch

Beautiful in its simplicity cf. Wikipedia's [Logo page](#) example

Thanks to  
Christophe  
Noack

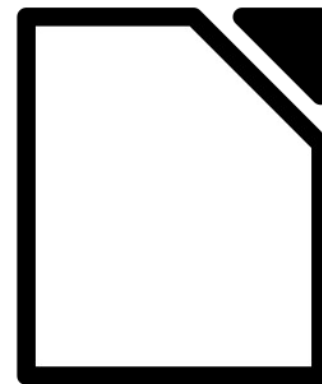


*[ooofuture] Proposal Christoph1 (was: Re: Artwork)*

This evening I tried a lot of different designs, e.g. using the current "dove" (see the Wiki), ... Well, I ended up with **something different** that **might be weird** - but **I like it** and it seems to fit to our naming and mission statement (but don't trust me at the moment, because I am really tired).

...

Question to all: Do you think its suitable in general? If it just requires some tiny changes ... then this can be easily achieved. And if you want to add some critique, then please feel free to **help me to improve it**. I'm **not experienced in graphics design**, although I know some requirements / pitfalls due to my day job.







# Website / Domain Names / Builds ...

Windows & Linux Builds produced by SUSE

- Petr Mladek, Fridrich Strba, Thorsten Behrens

Synchronized secretly to MirrorBrain network

- Thanks to Dr. Peter Pöml & friends

Infra setup / Domain registrations etc.

- Thanks to Alex Werner & Florian Effenberger

Website & PR / Marketing

- Guy Lunardi, Michael, Charles Schultz, Italo +++

*Petr  
Mladek*



*Fridrich  
Strba*



*Peter Pöml*









# OpenOffice.org community members launch the Document Foundation

## Other Supporters

- **FSF President** Richard Stallman welcomed LibreOffice release ...
- "Viva la LibreOffice", said Guy Lunardi, product management Director at **Novell**
- Jan Wildeboer ... **Red Hat** is proud to join this effort".
- Mark Shuttleworth ... the **Ubuntu** Project will be pleased to ship LibreOffice ... in future releases



# More lined up goodwill:

## Other supporters:

- Simon Phipps, a Director of the **Open Source Initiative**. *"We welcome The Document Foundation initiative and look forward to the innovation it is able to drive ..."*
- *"We welcome the LibreOffice project to the free software community ..."* says Stormy Peters, Executive Director of the **GNOME Foundation**.
- Patrick Luby, of **NeoOffice** says *"I am happy to see a new, independent LibreOffice foundation"*
- *"... **BrOffice.org** and The Document Foundation share the same values and objectives and we are more than happy to be part of it."*, says Claudio Filho
  - Tons more ... collected a vast page listing supporters ...



# LibreOffice 3

The Document Foundation



Release Beta 3

Looks familiar ? ...

Office



## LibreOffice 3

The Document Foundation

LibreOffice 3.3.0  
OOO330m19 (Build:6)  
tag libreoffice-3.3.0.4

Copyright © 2000, 2010 LibreOffice contributors and/or their  
affiliates. All rights reserved.

**Technical wins:**  
*under the hood*



# Engineering Steering Committee ... - Peace

**Talking & ensure everyone is heard**

**Many large FLOSS projects fight tooth & nail**

- Module 'maintainers' Rampant waste & re-writing
- Bickering, and passive aggression.

**Whole team are peers ... no-one 'owns' modules**

- Respect input from local experts: of course !

**Calls live transcribed to reduce English listening needs**

- Avoids the "Confused IRC wait-fest" problem.

**Magic conflict  
reduction tool**

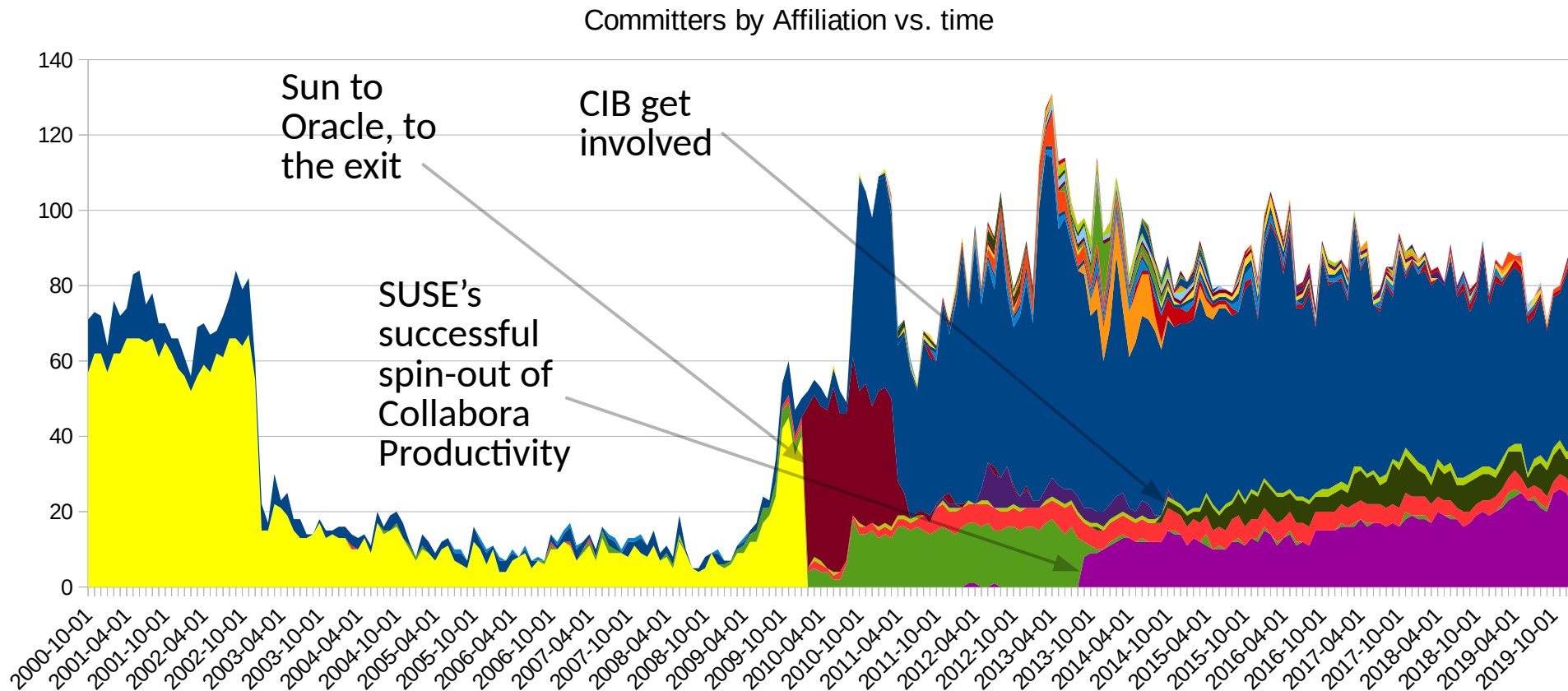


**Using Email to Resolve Conflicts Is a Reliable Way of Making Everything Worse**

# Volunteers!



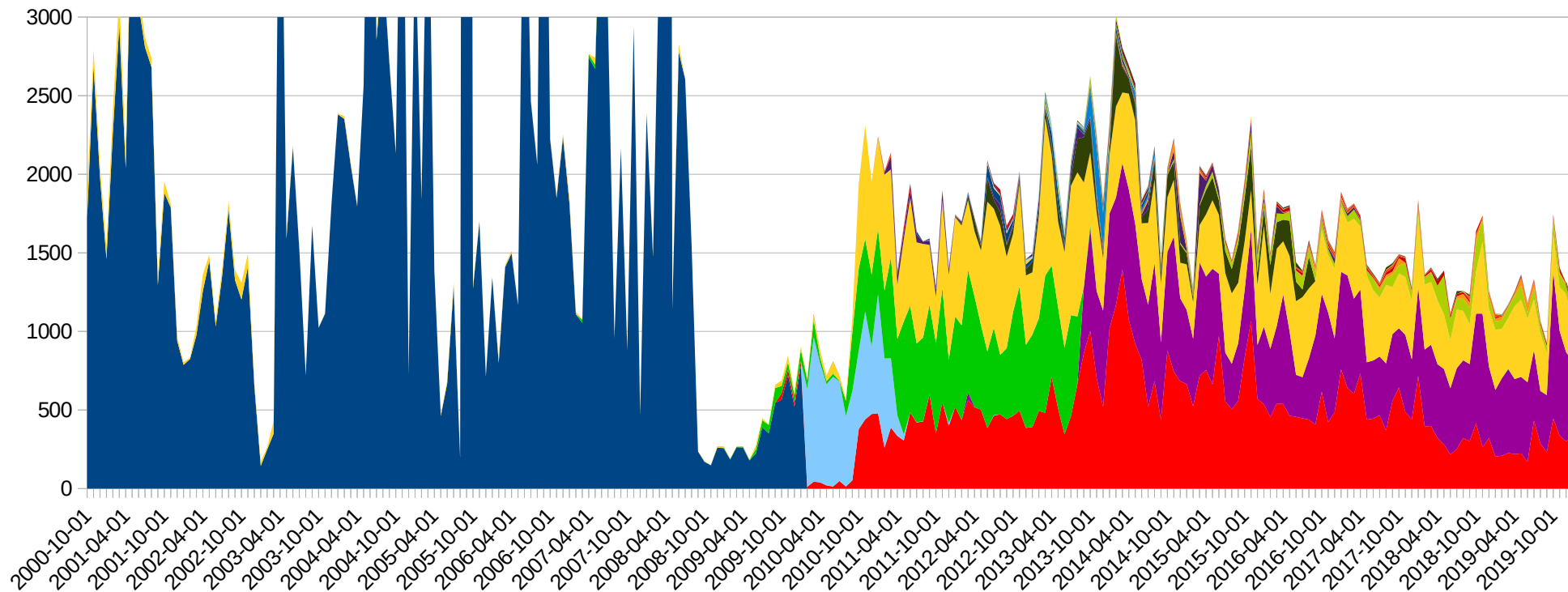
# Active code committer count per month ...



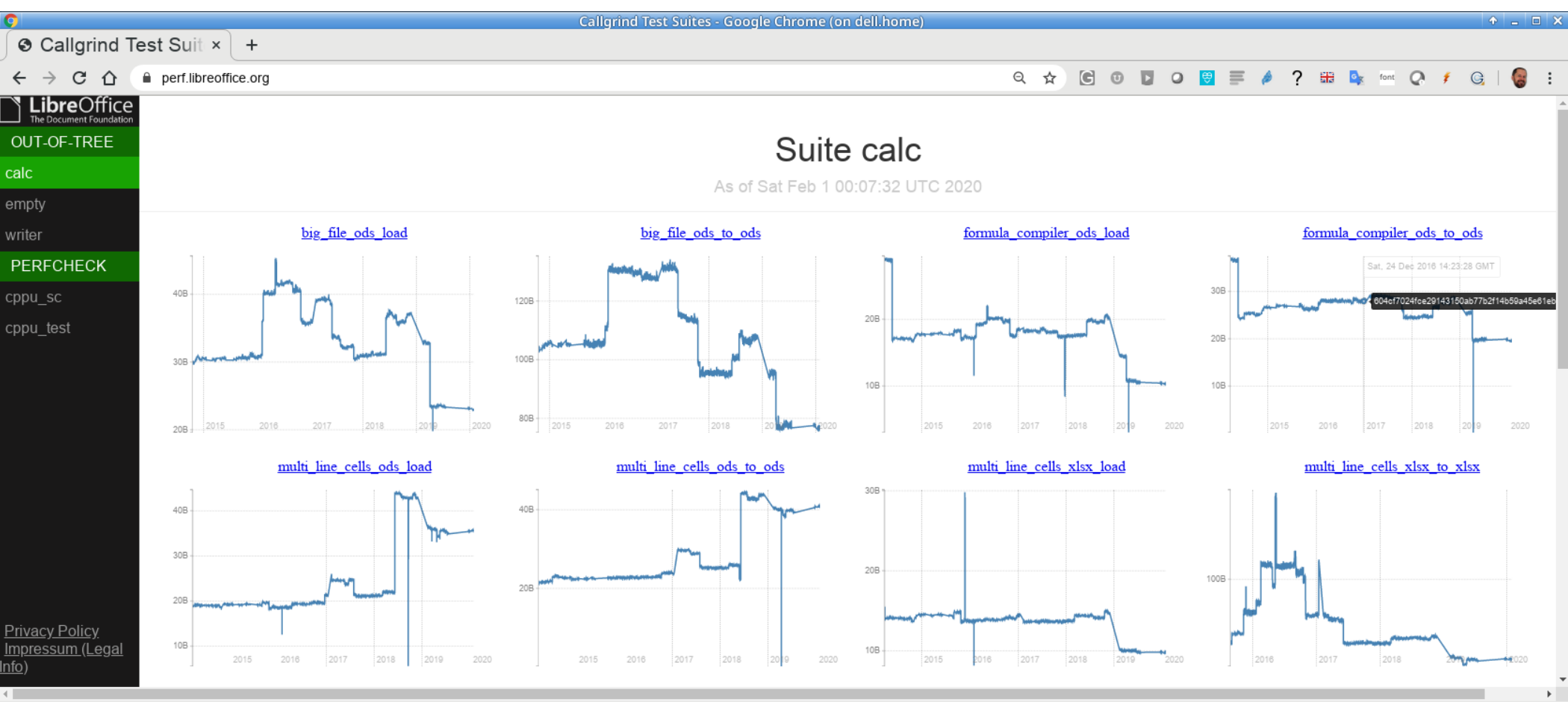


# Commits (pre-git in 2010 ~unreliable)

Commits by affiliation vs. time

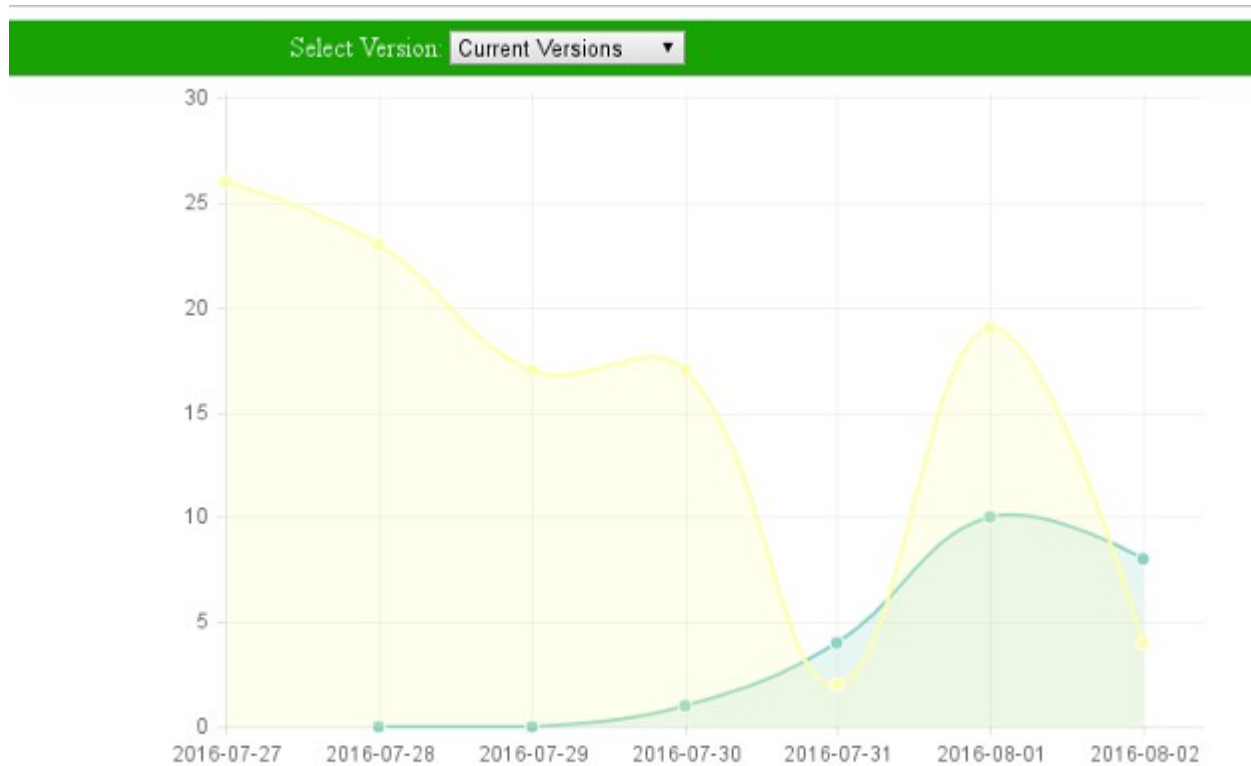


# Callgrind based automated performance testing.





# Built-in crash-reporting: nailing the worst bugs ...

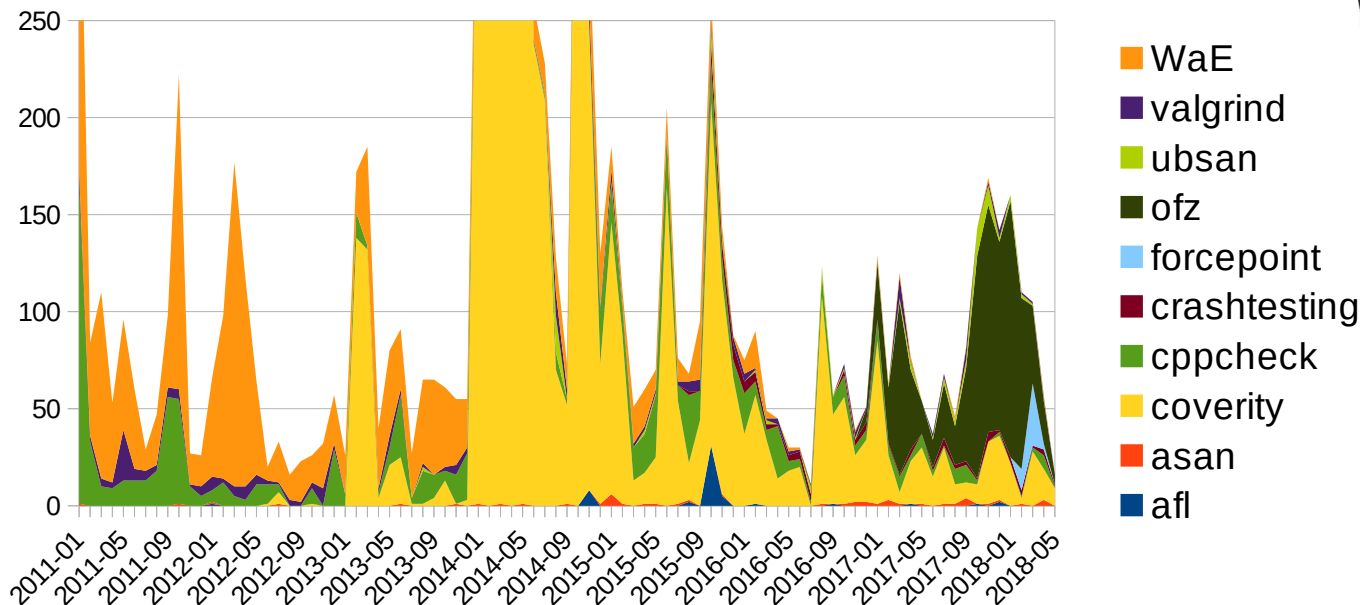


# Code quality improvement ...

New tools find new bugs – and over time that reduces

Use lots of  
different  
fuzzers /  
checkers !

Commits per month easily attributable to various tools



Google:  
OSS-Fuzz





# Native-language communities

**10n teams are growing**, we have currently (Weblate stats)

- 145 used languages - ~119 shipping.
- **4605** users
- 404532 translations made

**Many thanks to so many for their hard work translating !**

# Technical leadership:

*in a fashion based industry*

# Getting an early lead:



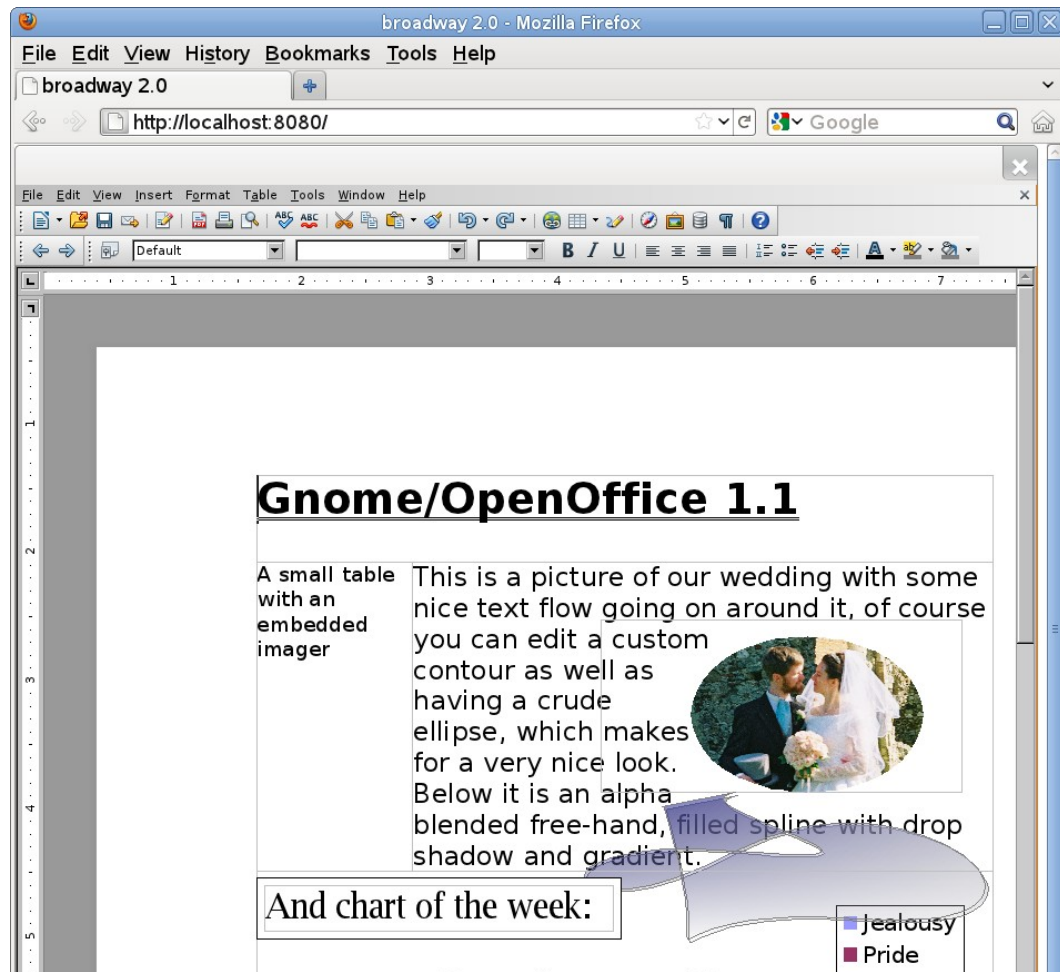
## 2011-07 Browser Version:

- Based on Alex Laarson's GDK-Broadway
- Demo'd at our 1<sup>st</sup> Paris Conference
- Sun's StarPortal was first [!]

## 2015-03 Finally funded:

- IceWarp, then Collabora investment in making it real.
- Plus ~8 years → we have it

## Get ahead of the narrative





# Ahead of the narrative:

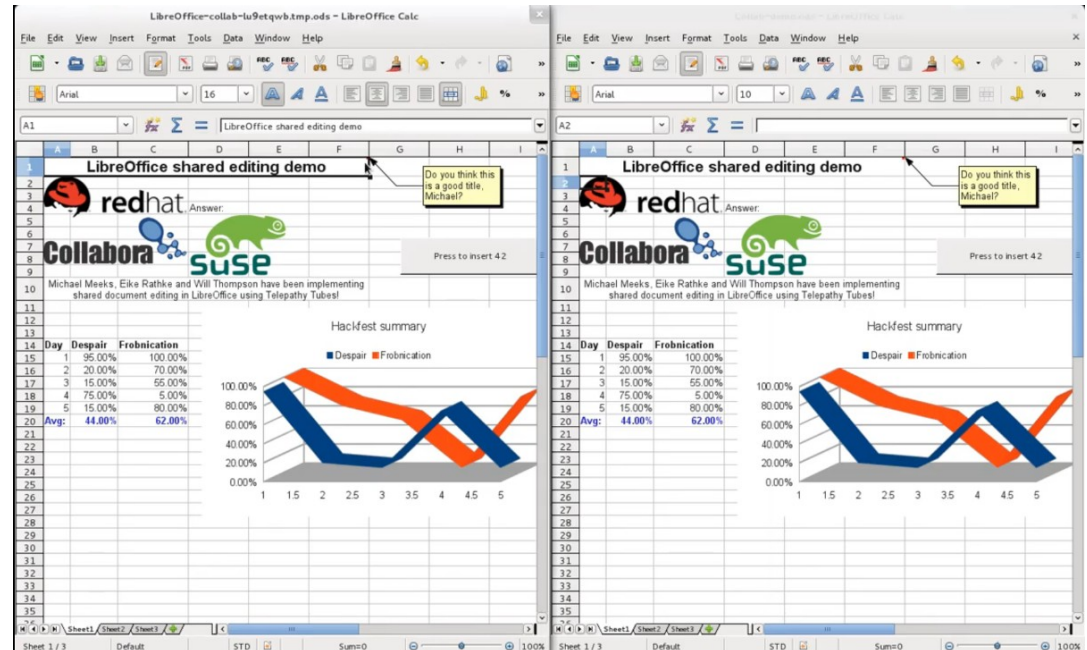
2012-03 Collaborative Editing



- 1<sup>st</sup> Collabora contributions ... + RedHat/SUSE
- Telepathy 'Tubes', D-Bus, Bootstrapped over IM
- Will Thompson, Rob McQueen, Eike Rathke, Yours truly.

**Svante: still trying to sell it to investors ...**

collaboraonline.com





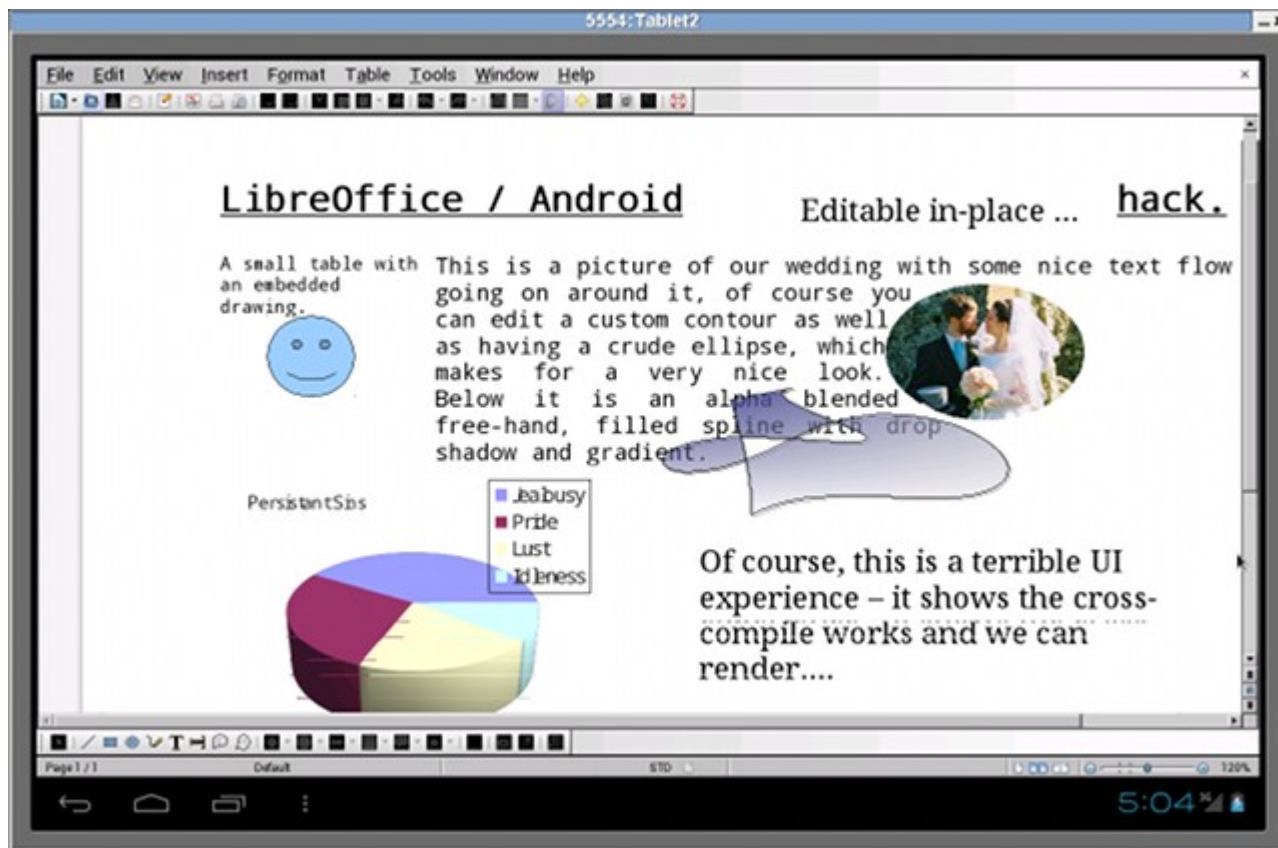
## Another early lead:

2012-07 Android:



- Lots of people responsible, see [full credits](#)
- Not quite there:

**+7-8 years before  
we could get the  
investment to  
productize.**





# Android: interesting ...

**2013 - CloudOn** - funds tiled rendering infra iOS app

**2014 - Smoose / Collabora** - fund viewer

**2015 - TDF** - funds base framework for Android with basic editing

**2016 - hope for community work**, Cloph battles bit-rot nobly.

**2017 - hope some more** - Collabora invests in GSOC initiatives

**2018 - stagnant development**

- TDF community - video evangelism / call for developers
- more GSOC mentoring from Collabora

**2019/20 - Collabora & Adfinis** invest in a re-write for iOS & Android based on Online

***4 year gap here ...***

*Hard problems,  
not fixed by hope  
and marketing de-  
coupled from  
investment ?*

**What is a Foundation ?**



# What did we mean by a foundation:

28 September 2010 ([announced](#))

- Meeks' take: *"Finally we have a project that will be fun to hack on, and not beset with keep out signs (many sadly still invisible to the existing owner)."*
- Press release: *"After **ten years**' successful ... the project launches an **autonomous independent foundation** called **"The Document Foundation"**. The **foundation** will be the cornerstone of a new ecosystem where individuals and organisations can contribute to and benefit from the availability of a truly free office suite."*

**What is a foundation ? And where ?**

- **USA, UK, Germany, Italy, etc.** ... lots investigation & proposals → 16 months of work ...
- **FSF, GNOME Foundation → 501(c)(3), Associations:**
  - *"No, a Stiftung in Germany, or I quit."*

17 February 2012 ([legally established](#))

- Lots of consequences: **writing our statutes in stone at speed.**



# The world changed since 2010, so did we

## 2010 - Linux Desktop is the future

- Expectation of ~50 Sun/Oracle Developers, and ~10 IBM developers
- 2010 - The future! - 20 - 25 devs
- Economics is someone else's problem - all is well ...

## 2012 - Becomes clear: [Linux Desktop economics suck](#)

- Routes to market, aggressive competition, subsidised drivers / enablement
- **The Ubuntu effect:** guts desktop teams: Marketing ~without Engineering.

2013 - SUSE → spins out half its 15 dev team → Collabora

2017 → Canonical → 1 to 0 devs.

2018 → Redhat → 5 to ~2 devs

**Meeting up to plot the future !**





## FOSDEM – firm but gentle community steerage:



Doing the right thing.





# Cakes, Hack-fests, a 1<sup>st</sup> joint conf. with SUSE





# LibreOffice Conferences: Paris 2011

*Thanks to La Cantine and IRILL*



# LibreOffice Conferences: Berlin 2012

*Thanks to German Federal Ministry of Economics and Technology.*







# LibreOffice Conferences: Milan 2013

*Thanks to The University of Milan*





# LibreOffice Conferences: Bern 2014

Thanks to University of Bern & Matthias Stürmer



# LibreOffice Conferences: Aarhus 2015



Thanks to: Leif Lohdahl & the Aarhus municipality





# LibreOffice Conferences: Brno 2016

Thanks to: RedHat, OpenAlt & Brno University of Technology





# LibreOffice Conferences: Rome 2017

Thanks to: Italo Vignoli & team, and the City of Rome





# LibreOffice Conferences: Tirana 2018

Thanks to: Jona Azizaj & team, and OFICINA



# LibreOffice Conferences: Almería 2019



Thanks to: Víctor Suárez, Ismael Olea & University of Almería





# Virtual conference: Nuremberg 2020

2020



**Features: too many to list ...**

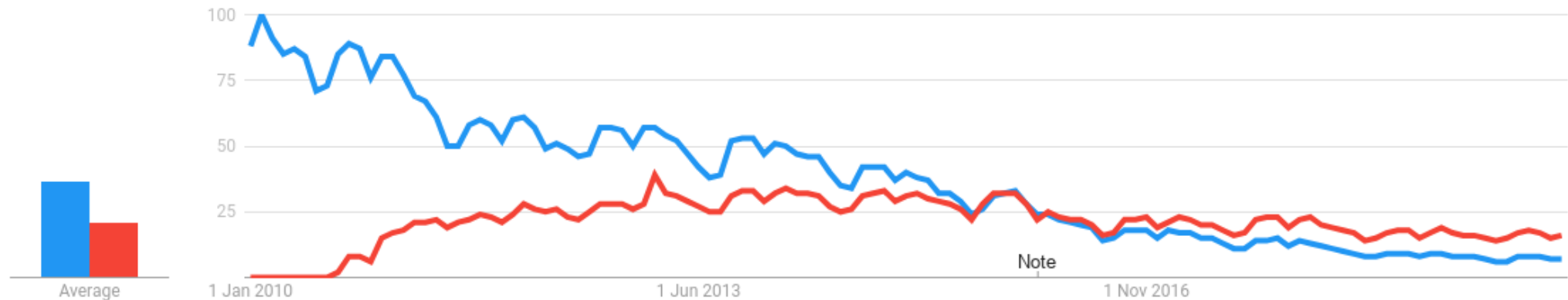


# Trademarks / Brands / Marketing – important ...

## Took 5 years to overtake OpenOffice.org's Google Trend

- Software Features, Quality, UX, all hugely better but ...
- Still serving ~250,000 [downloads](#) per week to disappointed users.

Interest over time ?





**The Future ... ?**



# Need smart people to help us create the future

- An **Artificial Intelligence**
  - of stunning subtlety,
  - of conversational brilliance
- That can understand what you're doing
- And can suggest cool new things to do.
- “Trained on Documents” (TM)

**Investment needed:**





# What's next ? - my advice:

## **Focus the community on development**

- Everything we market, translate, document, etc.
- All: flows from a strong technical focus, technical leadership etc.
- TDF: has to invest in development mentoring / education
- TDF: has to revitalize the fun of contribution.
- Focus on primary production, not tertiary strategy
  - Unless that strategy drives primary production: more investment etc.

## **Improve User Experience**

- -Still- tons of paper-cuts, significant wins & good things to do
- Also – Documentation: to keep up with that !



# Conclusions & Questions ...



- Did what we had to to make this code-base survive & thrive.
- Thank you to all the many, many people I didn't name for their amazing contributions.
- Economics bites:
  - Beware of incredible promises of future contribution.
  - Beware of 'its all free' lunch.
  - Investment shapes the future.
- Be careful how you use collectively created assets
  - Trademarks, Code-licensing etc.
- Professional strategies can fall foul of development realities.

*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*