LibreOffice 10th Anniversary
the untold story of a global FOSS community

Italo Vignoli
July 19, 2000: Sun announces OpenOffice.org
Sept 28, 2010: OpenOffice.org community announces LibreOffice
Relaunch the Innovation
Visual Representation of the Fork

the community takes control to relaunch the innovation and develop a self-sustaining project backed by a solid ecosystem

LibreOffice

today

OpenOffice

risk of abandon by Oracle after 10 years of continuous growth backed by Sun and community
SEPTEMBER 28, 2010

OpenOffice.org Community announces
The Document Foundation

The community of volunteers developing and
promoting OpenOffice.org sets up an independent
Foundation to drive the further growth of the project

The brand "LibreOffice" has been chosen for the
software going forward
FREEDOM

never tasted so...

SUITE
Announcement to Release

September 28, 2010

Xmas + 3.3.0

Number of code commits

Known contributors  New Contributors  Novell  Oracle  Redhat
OpenOffice vs LibreOffice
The Document Foundation

Founding Principles

COPYLEFT LICENSE
NO CONTRIBUTOR AGREEMENT
MERITOCRACY
COMMUNITY GOVERNANCE
VENDOR INDEPENDENCE
The Document Foundation was born

TO PROMOTE free software
TO PROMOTE SW user freedom
TO PROMOTE document freedom
TO PROMOTE open standards
TO DEVELOP LibreOffice
The Document Foundation is an independent self-governing meritocratic entity, created by former leading members of the OpenOffice.org Community, in the form of a charitable Foundation under German law (gemeinnützige rechtsfahige Stiftung des bürgerlicher Rechts).

It continues to build on the foundation of ten years’ dedicated work by the OpenOffice.org Community.

It was created in the belief that the culture born of an independent Foundation brings out the best in contributors and will deliver the best software for users.

It is open to any individual who agrees with our core values and contributes to our activities.

It welcomes corporate participation, e.g. by sponsoring individuals to work as equals alongside other contributors in the community.

The Document Foundation is proud to be the home of LibreOffice, the next evolution of the world’s leading free office suite.
Incredible Easy Hacks
Easy Hacks Advantages

• Easy hacks are simple and accessible tasks for developers new to the project with little or no knowledge of the code

• Easy hacks have a twofold objective: easing the learning curve and solving a number of problems which would distract core developers from their main task

• Core developers are committed in mentoring newcomers and checking their work
Huge Mentoring Effort
LibreOffice Code Contributors

Contributors are Counted as New on Month of First Commit
Growth in unit tests over time

count of various CPPUNIT macros

- Orange: Asserts
- Blue: Tests
Detected lines of German comment
Ancient: Pre LibreOffice 4.2

ScFormulaCell → ScTokenArray

... Tokens

... RPN

... Tokens

... RPN

... Tokens

... RPN

... Tokens

... RPN

... Tokens
Modern: LibreOffice 4.2 / 4.3+

ScFormulaCell

ScFormulaCell

ScFormulaCell

ScFormulaCell

ScFormulaCell

ScFormulaCell

ScFormulaCell

ScFormulaCell

ScFormulaCellGroup

ScTokenArray

... Tokens

... RPN
Achievements

- Reduced footprint of the software
- Undertaken long awaited code renovation
- Removed tens of thousands lines of dead code
- Removed deprecated libraries
- Translated many German comments to English
- Many other code renovation actions
- All: paying down substantial technical debt
- Using 20'th Century C++ constructs
Git Commits by Organization

LibreOffice Git Commits (Last Two Years)

- Collabora: 37.01%
- Volunteers: 28.58%
- RedHat: 21.45%
- CIB: 6.27%
- TDF: 4.16%
- Munich: 4.16%
- SIL: 6.27%
- Others: 6.27%
Same Git Commits x Week

March 2018 – February 2020
Bugzilla Issues by Status

March 2018 – February 2020
Coverity Scan Score

- Oct 01, 2018: Last Analyzed
- 6,444,539: Lines of Code Analyzed
- 6,425,051: Lines of Code in Selected Components
- 0.00: Defect Density

Defect changes since previous build dated Sep 24, 2018:
- 0: Newly detected
- 0: Eliminated

Defects by status for current build:
- 25,432: Total defects
- 0: Outstanding
- 351: Dismissed
- 25,081: Fixed
Coverity Scan @ LibreOffice
Google’s OSS-Fuzz

1. Write fuzzers
2. Commit build configs
3. Sync and build from
4. Upload
5. Download and fuzz
6. File bugs, Verify fixes
7. Notify
8. Fix bugs

Upstream project
Builder (jenkins.io)
GCS bucket
ClusterFuzz
Developer
Issue tracker (monorail)
Sheriffbot
Fuzzing: the Take Home ...

• New tools find new bugs, and over time that reduces
• Hard to see: not everyone uses consistent git commit tooling references, eg. crashtesting is badly under-represented
Commits Based on Fuzzing

Commits per month easily attributable to various tools

- WaE
- valgrind
- ubsan
- ofz
- forcepoint
- crashtesting
- cppcheck
- coverity
- asan
- afl


0 50 100 150 200 250
COMMUNITY
Ask Q&A and Comments

March 2018 – February 2020
Mediawiki Edits

March 2018 – February 2020
Community

March 2018 – February 2020
Community by Numbers

People Outside - Contributions Inside

- Core: 690 (79.34%)
- Regular: 182 (23.08%)
- Casual: 69 (8.58%)

- Contributions: 690 (100%)
Ubuntu 18.04 LTS Default Desktops Applications Survey
Office Suites Category

- LibreOffice
- Google Apps
- WPS Office
- Apache OpenOffice
- Microsoft Office
- Latex
- Web
- OnlyOffice
- ABI Word
- Calligra
- FreeOffice
- Suite
- GNUmeric
- Emacs
- Others
LibreOffice User Base Estimate

In term of number of users worldwide, we provide the following estimate based on a global number of PC users between 2 and 3 billion (90% Windows, 8% macOS, 2% Linux):

- 100% of desktop Linux users (between 40 and 60 million)
- 10% of desktop Windows users (between 180 and 270 million)
- 10% of desktop macOS users (between 16 and 24 million)

So, we pick the lower figure of 236 million users worldwide, and we further reduce it to 200 million users worldwide to account for some duplications.
Donation Trends

Donations x Year

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<th>Year</th>
<th>Number</th>
<th>Amount</th>
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<td>2019</td>
<td>63,338</td>
<td>906,470</td>
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LibreOffice Community
Native-Language Communities

- Localization teams are growing (Weblate stats)
  - 145 active languages
  - ~119 shipping languages
  - 4605 users
  - 404532 translations made
- Thanks to so many for their hard work translating!
LibOCon Paris 2011
LibOCon Berlin 2012
LibOCon Milan 2013
LibOCon Bern 2014
LibOCon Rome 2017
LibOCon Tirana 2018
Albania: Community Meeting
Japan: LibreOffice Meeting
Taiwan: LibreOffice Hackfest
Turkey: GNU/Linux Conference
Nepal: Localization Sprint 2018
Paraguay: LibOCon LATAM 2019
LibreOffice Fresh vs Still
Target Users and Deployments

LibreOffice Fresh
individual deployment mostly unsupported

LibreOffice Still (LTS option available)
enterprise deployment based on professional support provided by certified individuals (development, migration, training)

Early Adopters
Individuals

Deployment for Production Professionals, SMBs and Enterprises
Providers of LTS Versions
Our Dream

THEN YOU WIN.

MOHANDAS GANDHI
Thanks

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