Educate and collaborate with Collabora Online and Moodle
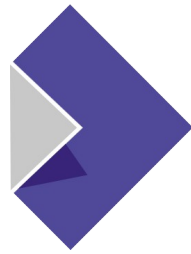
By Michael Meeks
General Manager, Collabora Productivity
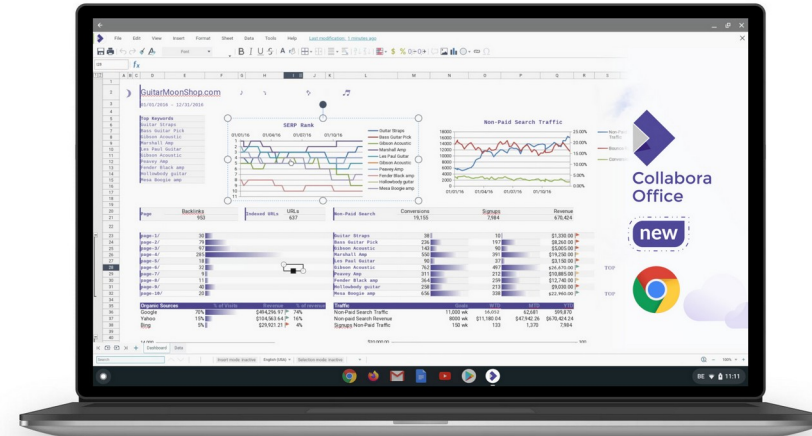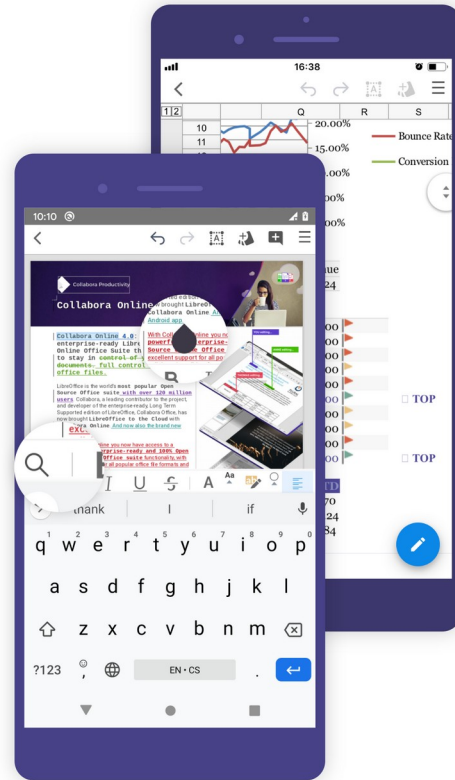
@mmeeks @CollaboraOffice

Collabora Productivity

"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

Collabora Online

Built with awesome LibreOffice Technology

Rich, secure, interoperable

collaborative documents

What is Collabora Online ?

Built on top of LibreOffice Technology:

→ **Excellent interop** with Microsoft

→ **cf.** Office 365 / Google Docs ...

On-premise Integration with your EFSS:
ownCloud, Nextcloud, Seafile, EGroupware
or LMS: **Moodle**, or chat: Mattermost

Freedom applied → FLOSS giving **Digital Sovereignty**

Pragmatism: *"The best line of code, is the one we didn't have to write" x 10^7 lines*

Architecture – a bet on CPU threads & network … getting cheaper.
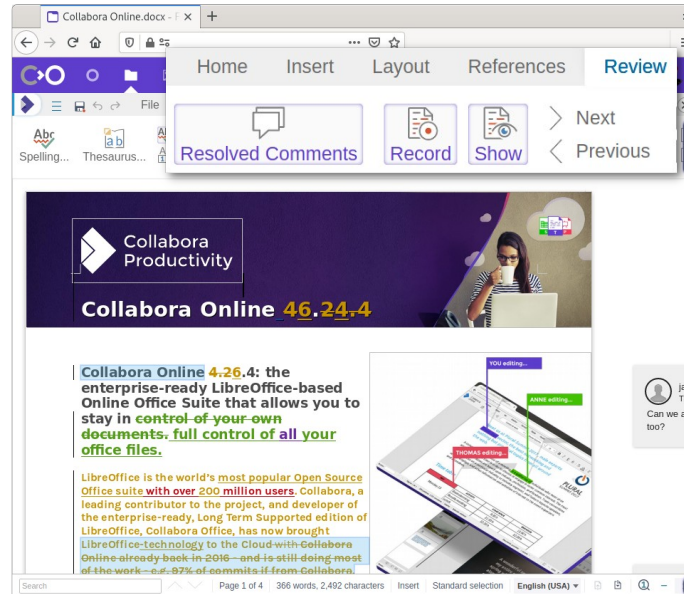
Over 50m pulls from CODE docker image
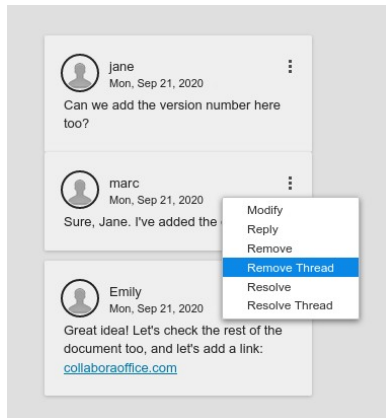
Collabora Online Development Edition

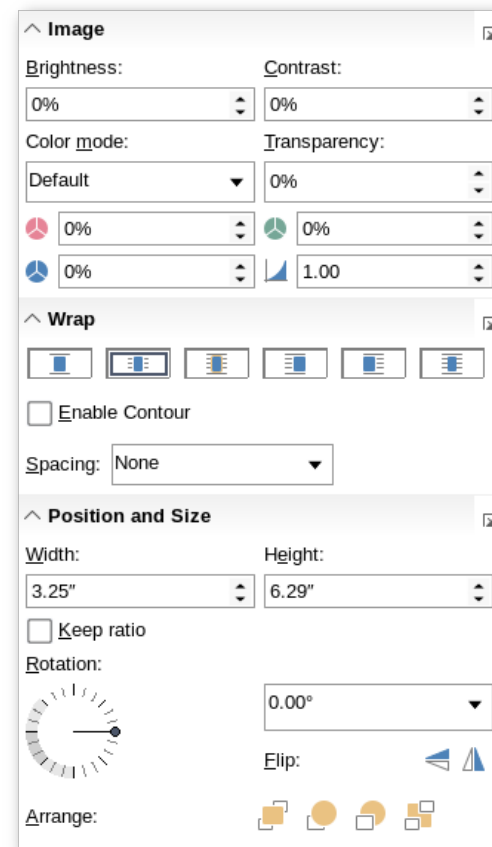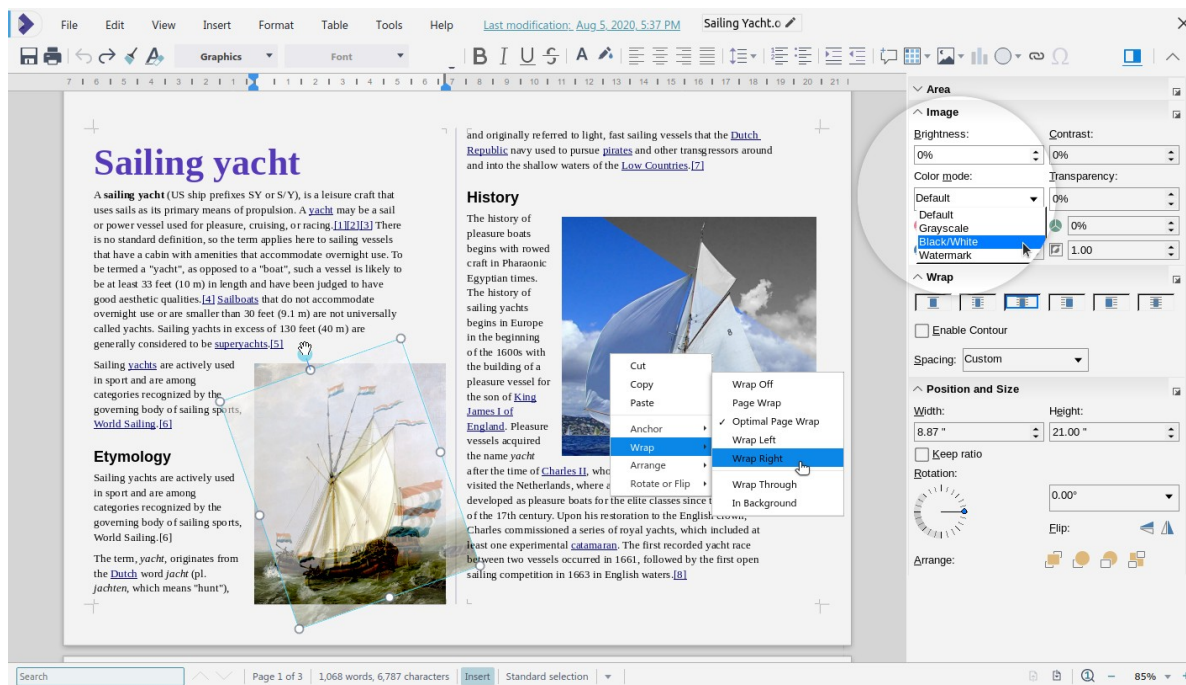# Collabora Online key features:

Easy collaboration

- **Real time editing**

- **Commenting**

- **Change tracking**
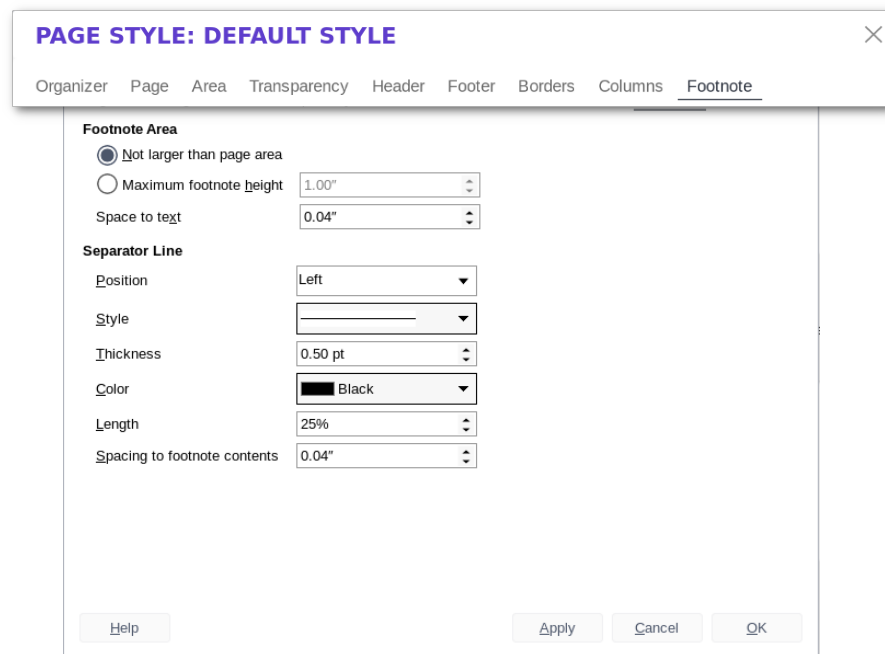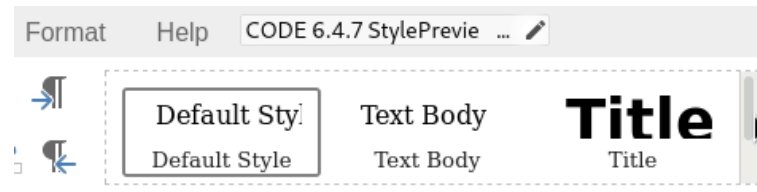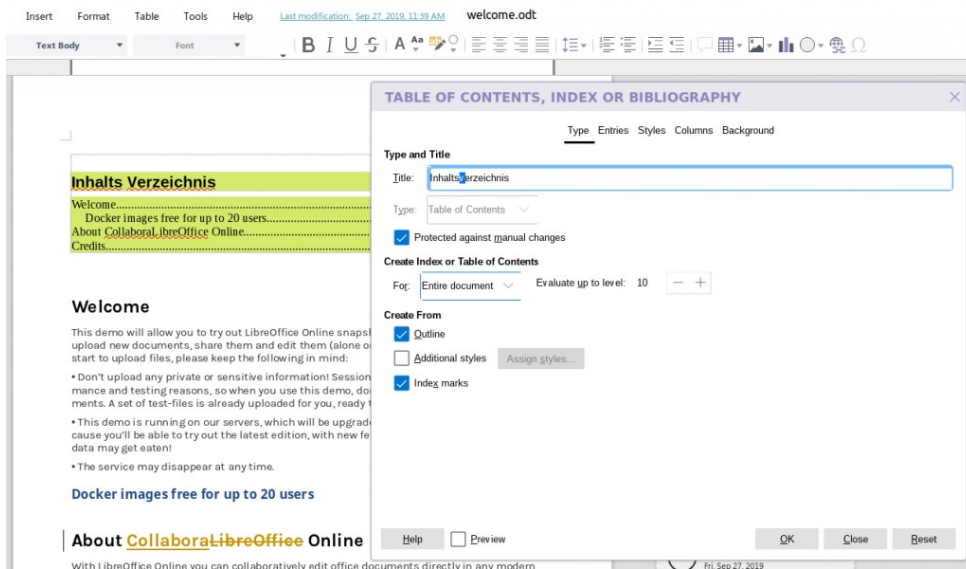

collaboraonline.com

Collabora Online key features:

Easy handling of images & drawings

Collabora Online key features:

Rich formatting of pages and more

Collabora Online key features:

full WYSIWYG experience

GuitarMoonShop.com

01/01/2016 – 12/31/2016

Top Keywords
Guitar Straps
Bass Guitar Pick
Gibson Acoustic
Marshall Amp
Les Paul Guitar
Gibson Acoustic
Peavey Amp
Fender Black amp
Hollowbody guitar
Mesa Boogie amp

SERP Rank

01/01/16 01/03/16 01/05/16 01/07/16 01/09/16 01/11/16

Legend:
- Mesa Boogie amp
- Hollowbody guitar
- Fender Black amp
- Peavey Amp
- Gibson Acoustic
- Les Paul Guitar
- Marshall Amp
- Gibson Acoustic
- Bass Guitar Pick
- Guitar Straps

Non-Paid Search Traffic

01/01/16 01/03/16 01/05/16 01/07/16 01/09/16 01/11/16

Legend:
- Non-Paid Search Traffic
- Bounce Rate
- Conversion Rate

Page	Backlinks		Indexed URLs	URLs	Non-Paid Search	Conversions	Signups	Revenue
	953			637		19,155	7,984	670,424

Page	Backlinks	Keyword	Conversions	Signups	Revenue	
page-1/	30	Guitar Straps	38	10	$1,330.00	
page-2/	79	Bass Guitar Pick	236	197	$8,260.00	
page-3/	97	Gibson Acoustic	143	90	$5,005.00	
page-4/	285	Marshall Amp	550	391	$19,250.00	
page-5/	18	Les Paul Guitar	90	37	$3,150.00	
page-6/	32	Gibson Acoustic	762	497	2667000%	↤ TOP
page-7/	9	Peavey Amp	311	212	$10,885.00	
page-8/	11	Fender Black amp	364	259	$12,740.00	
page-9/	40	Hollowbody guitar	258	213	$9,030.00	
page-10/	20	Mesa Boogie amp	656	338	2296000%	↤ TOP

Organic Sources	% of Visits	Revenue	% of revenue	Traffic	Goals	WTD	MTD	YTD

Cell reference: L20 — Non-Paid Search

Click-to-rename
The document

Collabora Online.odt

Revision history
at 1st glance

Mobile device

Thank you
CollaboraOffice.com
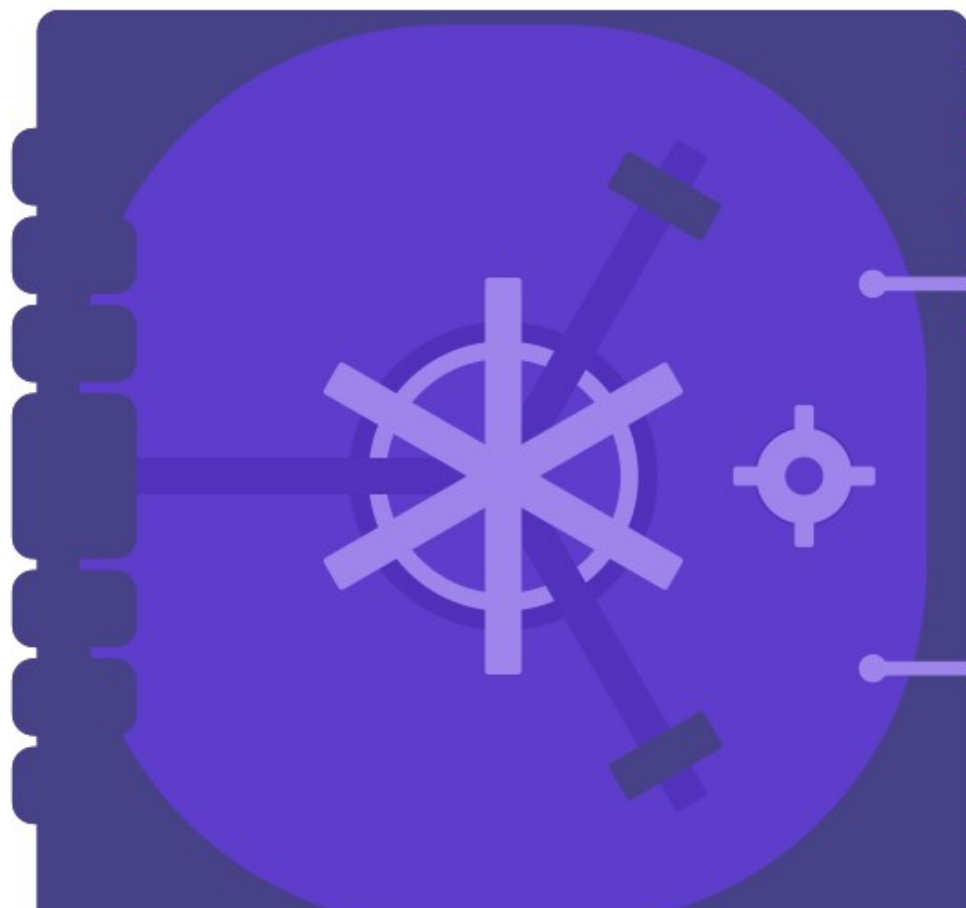
Digital Sovereignty
or: don't let your document data out of your site [sic]

on your premise / Private network

Virtual machine / Docker container

Seccomp-bpf ~no sys-calls

Extremely sparse filesystem

Chroot per document

Systematic load crash testing

Industry beating coverity score

LibreOfficeKit
rendering instance

Document data is held in your server room.

Not sent to every single device to be controlled by the browser + JS + local debugger.

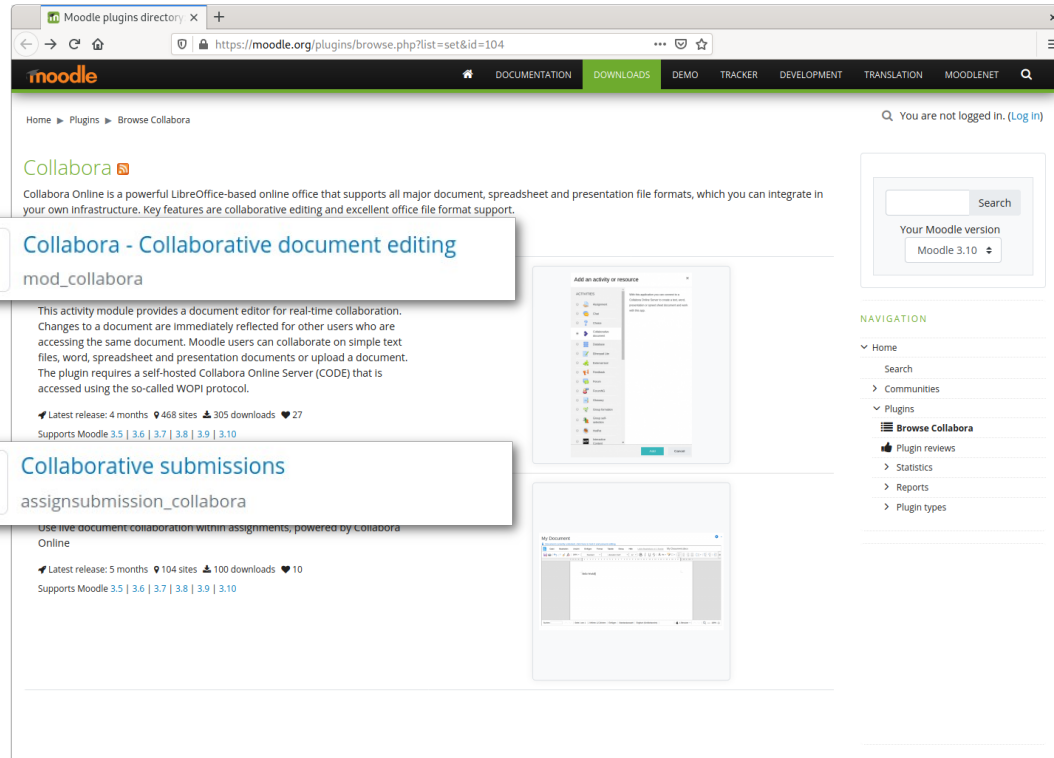C'bra sends pixels to clients.

Collabora Online & Moodle plug-in

Collaborative editing on text documents, presentations & spreadsheets in Moodle

Two plug-ins integrating collaborative documents to Moodle...

Plug-in 1: *mod_collabora*

Activity module providing a document editor for real-time collaboration.

Plug-in 2: *assignsubmission_collabora*

Use live document collaboration within assignments, powered by Collabora Online

collaboraonline.com

CODE-Install and Test

CODE is a continuously updated, rolling release where we try out our latest feature work. So it allows you to work with the latest and greatest features in online collaboration earlier than the supported version Collabora Online. Of course, we love to hear about your experiences. Please leave your feedback on CODE in the community forum or report any possible issues on GitHub. **Find details on the latest update in the** release notes.

Getting Collabora Online Development Edition set up

Get it at the Univention App Center

The easiest way to install CODE for a quick tryout is to download it as a virtual appliance from the Univention App Center. This appliance contains the Collabora Online Development Edition, and the additional software you need to get you up and running in minutes. You can choose between two types of integration, **CODE + Nextcloud** or **CODE + ownCloud**. Each appliance is available in four formats: **KVM, VirtualBox, VMware Workstation** and **VMware ESXi.**

Grab CODE docker image from Docker Hub

<u>**Easy to install**</u>

The collabora/code Docker image can be installed to any x86-64 or arm64 host (e.g. on Linux and Windows 10), and it is fully configurable. For more information about setup and configuration for deployment, please read the CODE Docker page. If you want to try it out quickly, you can set up CODE docker image with file sharing integration in less than 5 minutes in a very basic way, following these instructions: quick tryout with ownCloud or quick tryout with Nextcloud.

Packages for Linux

As an alternative to Docker image, Collabora provide native Linux packages for selected Linux distributions. If you have Debian 9, Debian 10, Ubuntu 16.04, Ubuntu 18.04, Ubuntu 20.04, CentOS 7, CentOS 8, SLE 15.x, openSUSE Leap 15.x or ARM64 – Ubuntu 18.04, please read the CODE Linux packages *page.*

Source code … get involved

Grab the source and get involved with CODE Development.

collaboraonline.com

Thank you for the [work](#):

The source code is available on GitHub

https://github.com/learnweb/moodle-mod_collabora
https://github.com/learnweb/moodle-assignsubmission_collabora

The heroic team of visionaries:
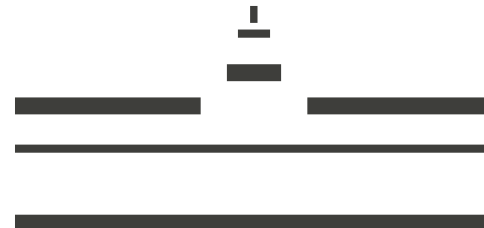   Michael Wuttke of the Universitiy of Applied Sciences Berlin,
    Jan Dageförde of University of Münster,
    Davo Smith from Synergy Learning and
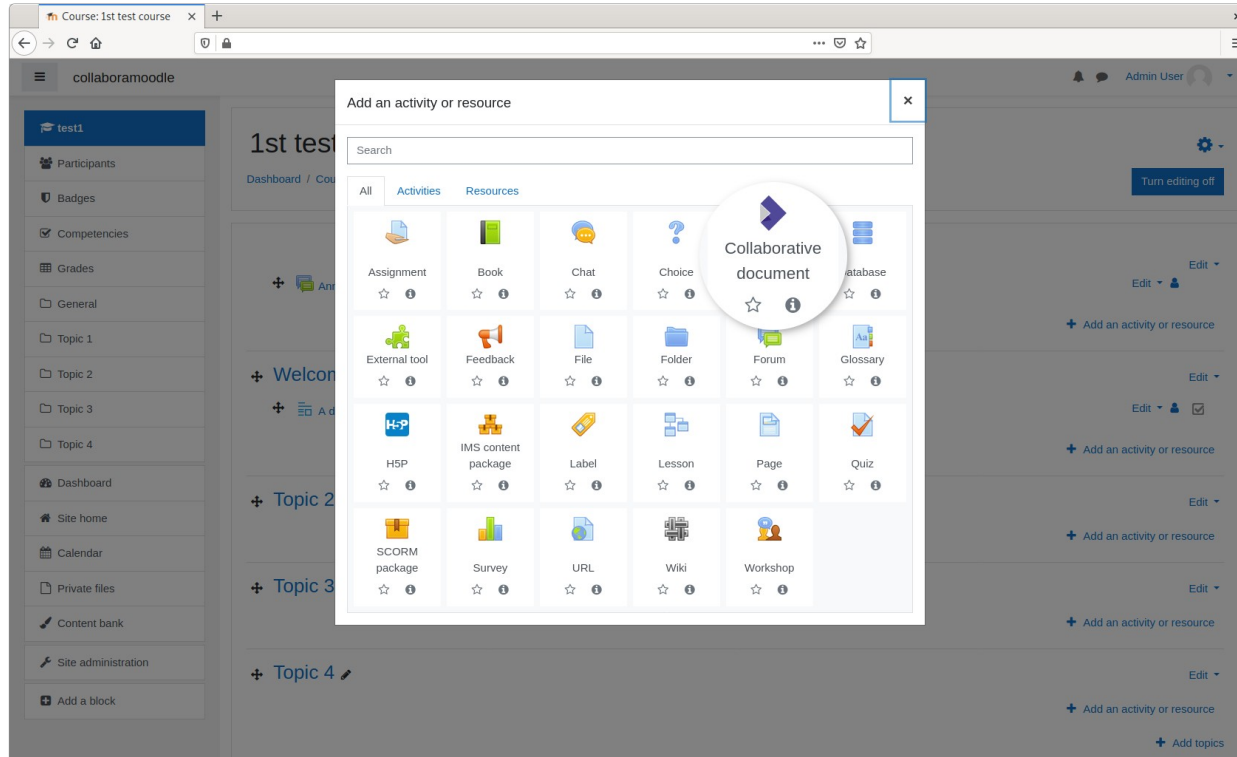   Andreas Grabs from Grabs EDV-Beratung.

BEUTH HOCHSCHULE FÜR TECHNIK BERLIN
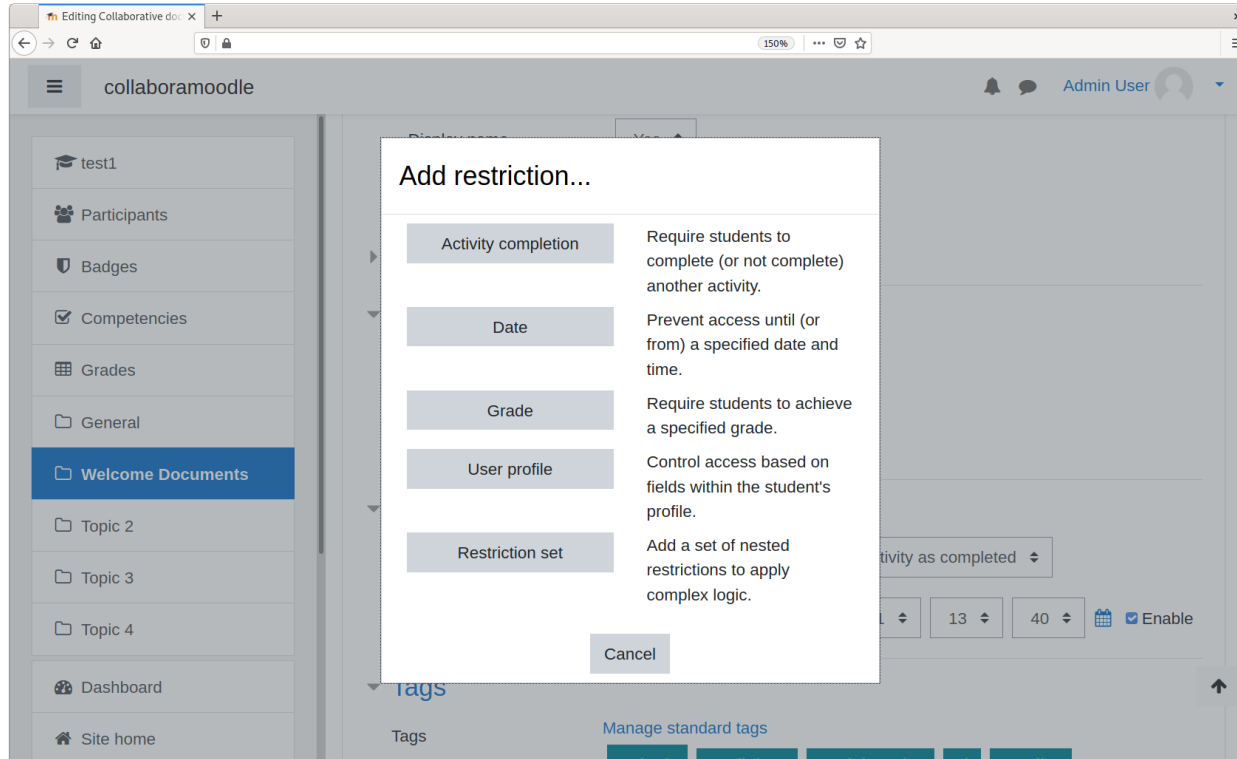University of Applied Sciences

WWU
MÜNSTER

mod_collabora: Add collaborative document as activity...

Add collaborative
documents
as easy as you would
add any other activity
to your course

mod_collabora: Add restrictions to collaborative documents

Restrictions for activity completion, date, grades or fields of the students profile can be added to collaborative documents

mod_collabora: Locking collaborative documents

Collaborative documents can also be locked by admins & teachers to prevent editing.

collaboraonline.com

assignsubmission_collabora: Adding collaborative documents to assignments

Enable submissions of collaborative documents in assignments.

Define accepted file types and much more.

collaboraonline.com

COOL: a state-less drop-in ~micro-service

Document data is loaded / stored directly back to Moodle

Authentication is managed by Moodle; trivial to install

Users

COOL server

https://

Document Storage

Authentication

Your existing deployment

Moodle

WOPI-like REST API
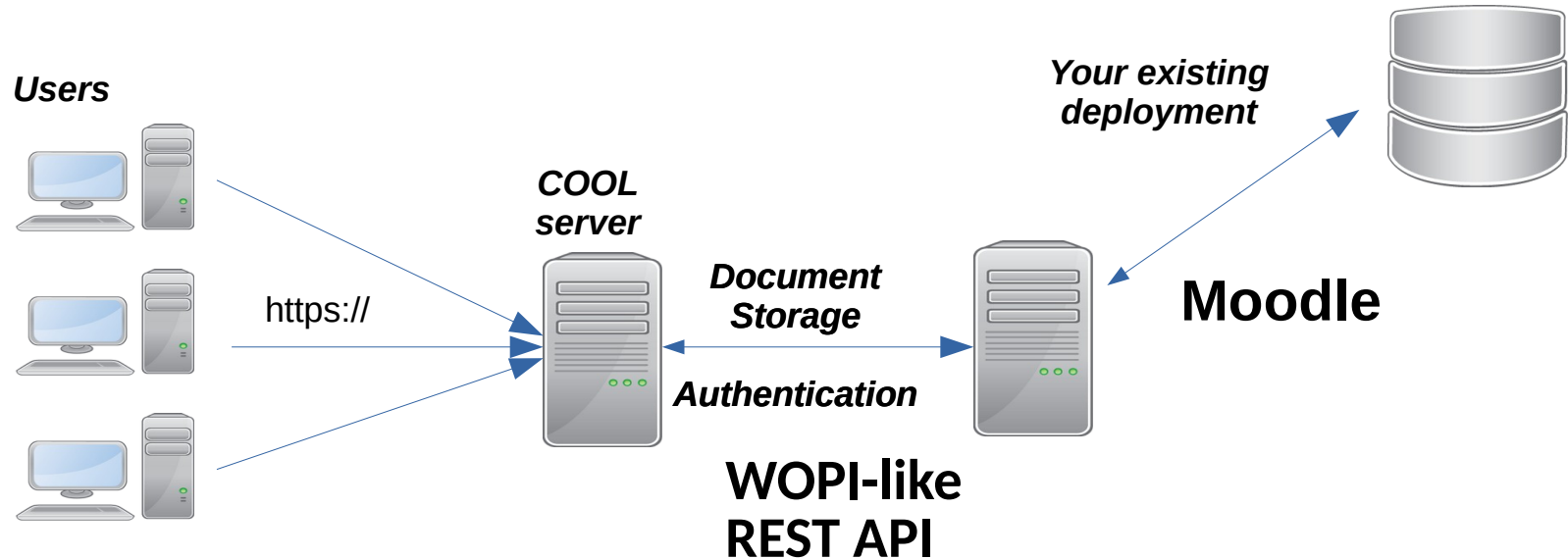
Collabora Online 6.4.x
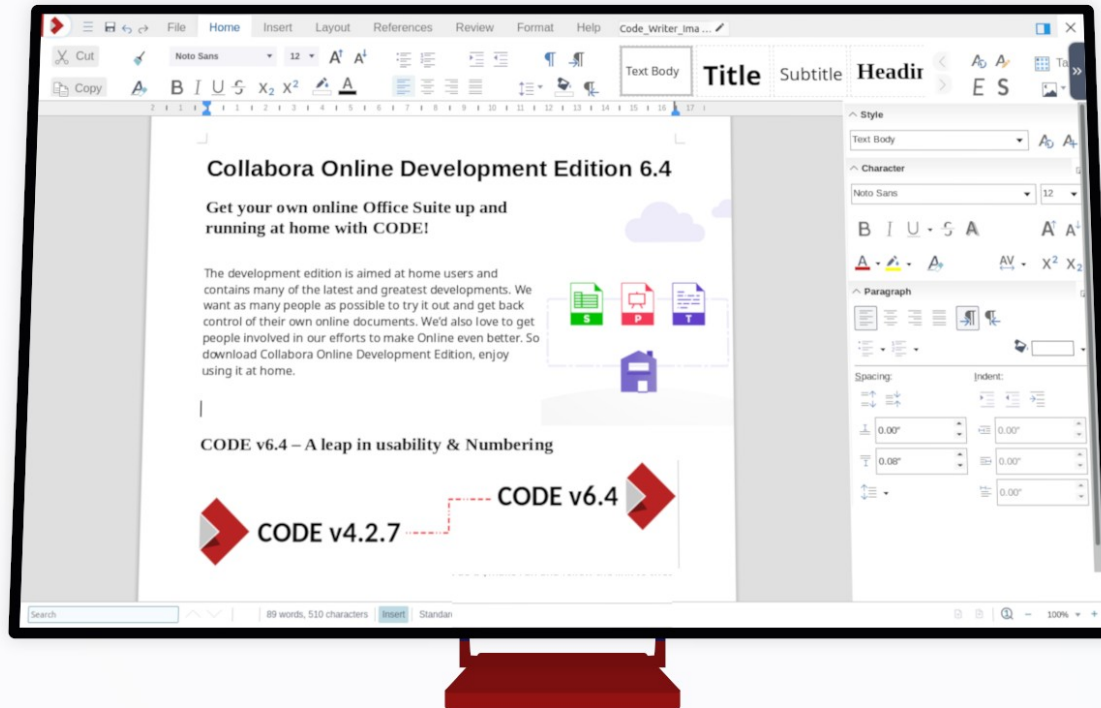
Eclectic Notebookbar UX choices: to taste
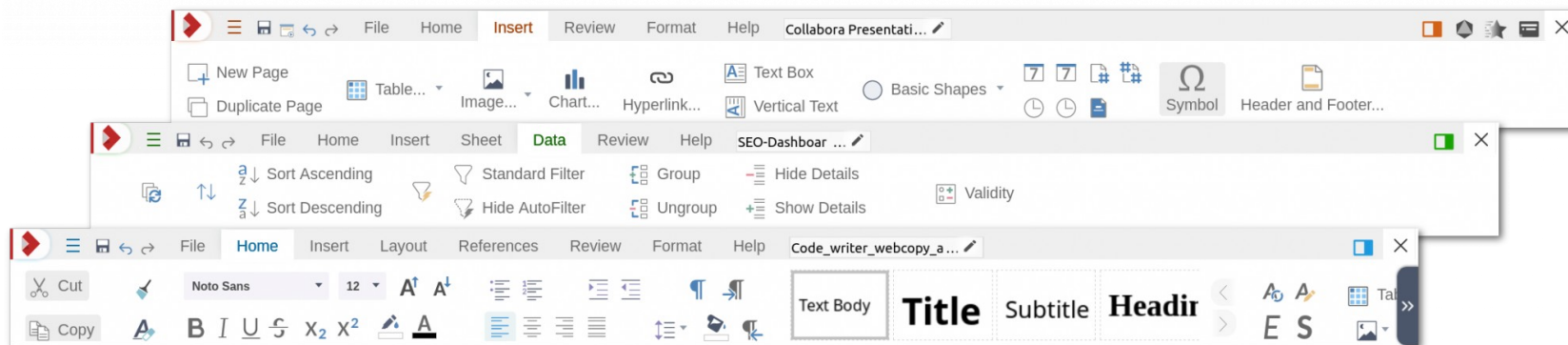
Can collapse to just a menu …

Or just menu/toolbar
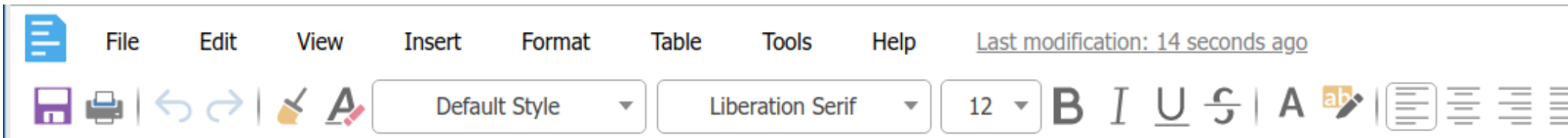
PDF Search, Collaboration & Annotation

Writer: Gutter Margins

Gutter Margins:
Explicit specification of margin types for printed publications

collaboraonline.com

Writer, Calc, Impress: Fontwork (graphical text art)
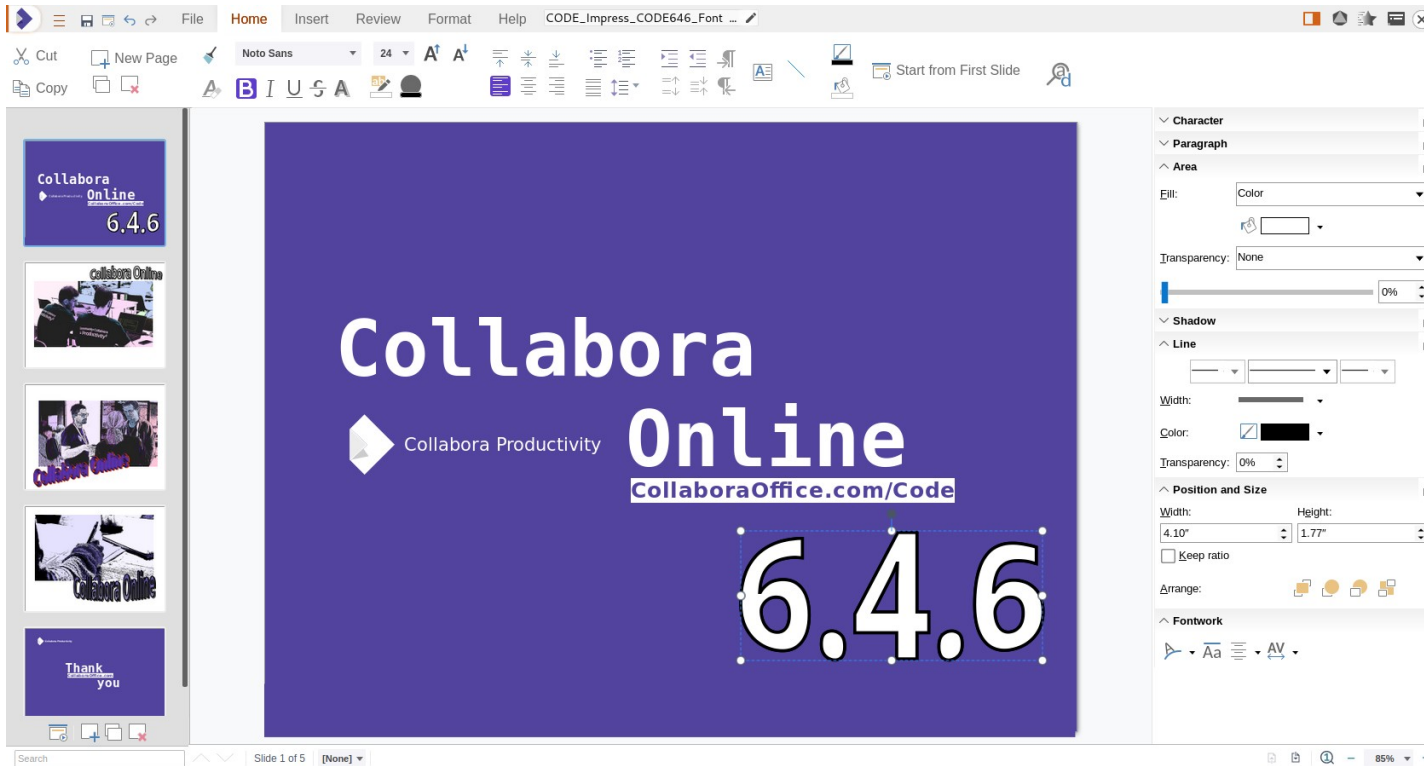
Fontwork:
Add graphical text art to text documents, presentations or spreadsheets

Calc: Freeze Panes

Freeze columns or rows to navigate more easily through large spreadsheets

Calc: Run Macros
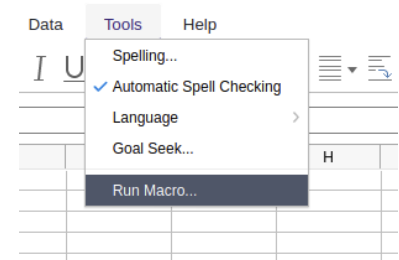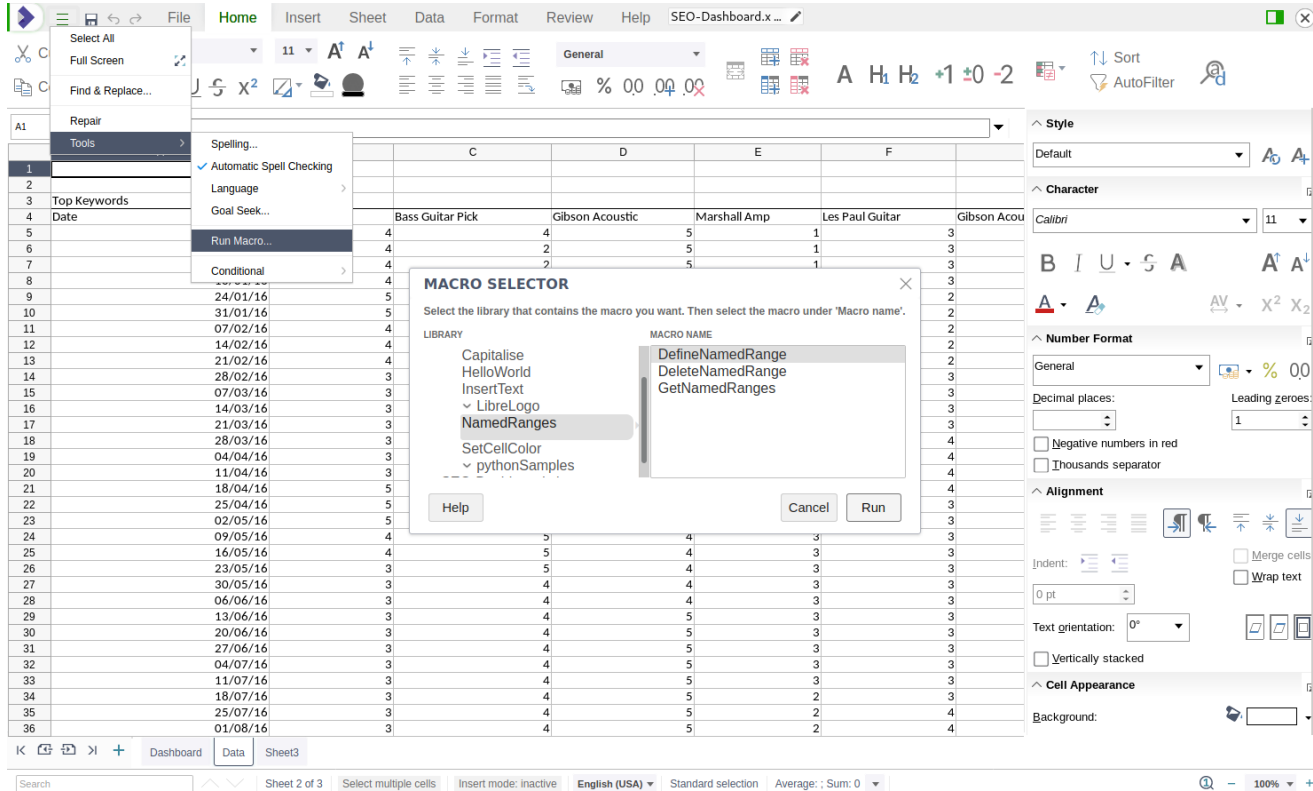
Macros can be enabled online (disabled by default). Once enabled, the administrator can decide which security level should be used for the macro execution.

Calc: Improved sheet movement:

Insert sheet before this
Insert sheet after this
Delete Sheet...
Rename Sheet...
Show Sheet...
Hide Sheet
Move Sheet Left
Move Sheet Right
Move or Copy Sheet...

Counting Totals   Details, People

MOVE/COPY SHEET   ×

Action
● Move   ○ Copy

Location

Insert before

Counting Totals
Details, People
- move to end position -

New name

Counting Totals

Help   Cancel   OK
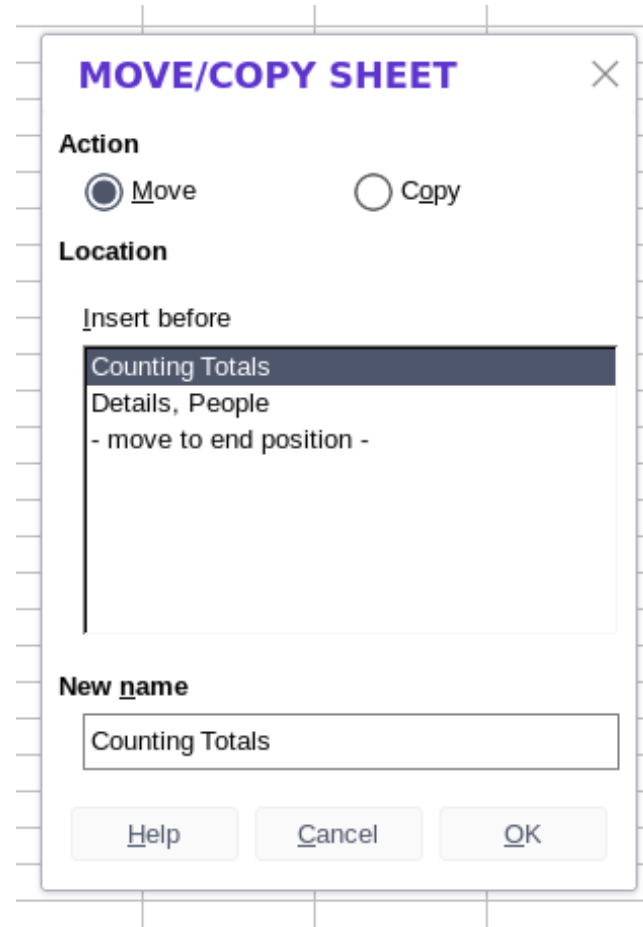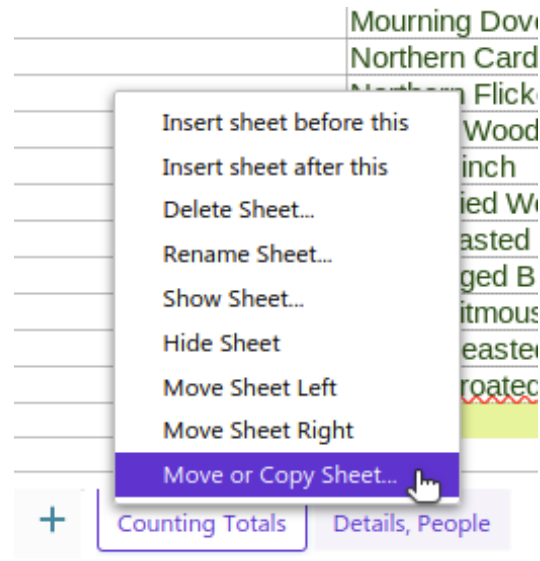
Calc: customize & create Pivot Tables

collabora o

Calc: define & manage range names & print ranges
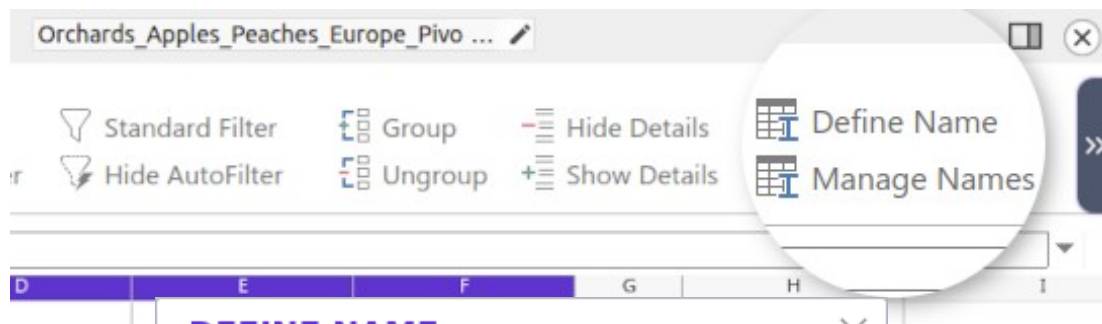
Calc: Statistical tools for data analysis

Sampling
Descriptive Statistics
Analysis of Variance (ANOVA)
Correlation
Covariance
Exponential Smoothing
Moving Average
Regression
Paired t-test
F-test
Z-test
Chi-square Test

New module: Draw
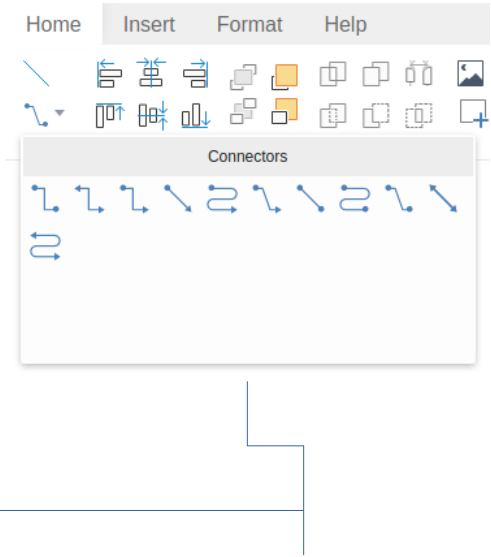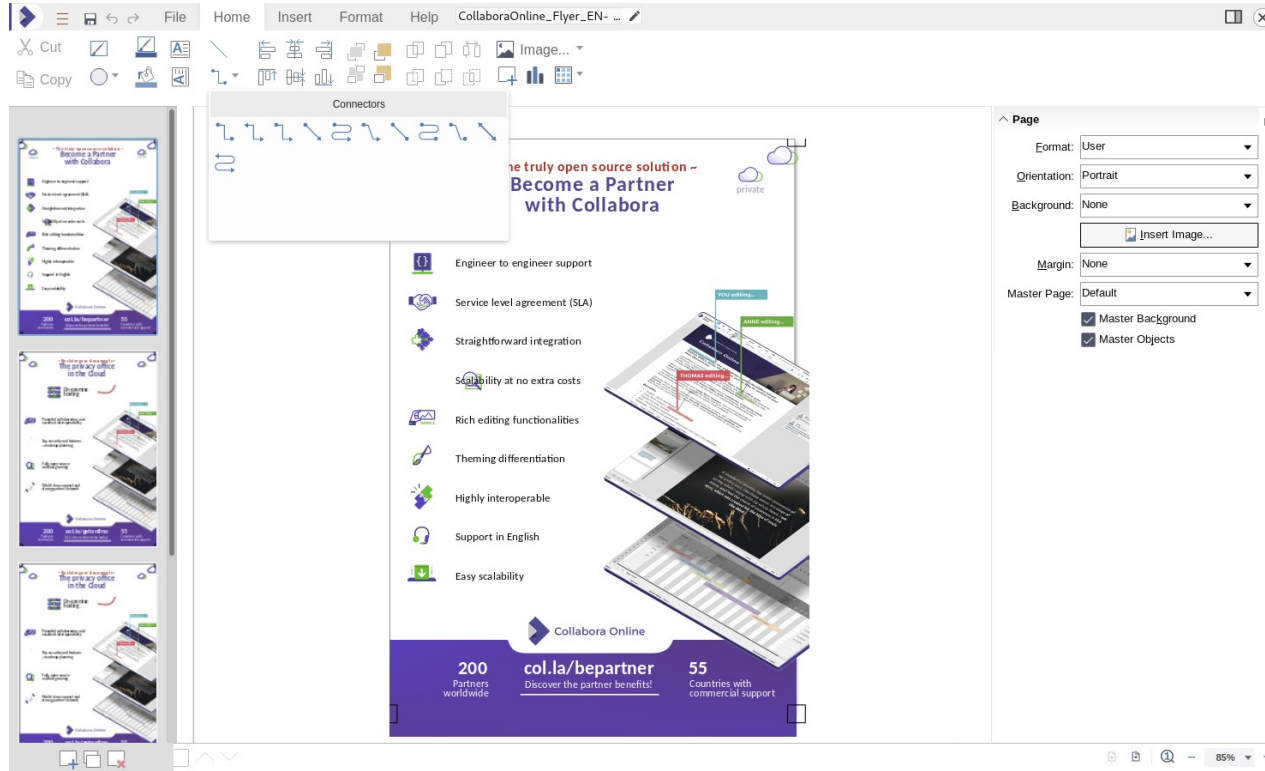
Draw:
Flowcharts, technical drawings, posters or brochures... create vector graphic drawings online!

Bringing Draw to Online: Fontwork

Wavy & complex 3D text:

Fontwork

~ Wavy Groovy ~

FONTWORK GALLERY

Simple Gray Shadow LETTER
Outline Style Snow Stone
blue Shadow Open Outline
Favorite 2 NOTE GHOST STAR WARS
PLANE Asphalt BuSter Favorite 16
PoliceData Hulk Retro HEAVYMETAL
Tricolore Blue Moon POW! NEWSPAPER
BURN AirMail NOWY Fontw

Help   Cancel   OK

~ **Wavy Groovy** ~

Fontwork Shape

Plain Text   Wave   Inflate

Stop   Curve Up   Curve Down

Triangle Up   Triangle Down   Fade Right

(text/date

VBA / StarBasic – just an option (!)

Thoughts:

- Defaults → hard disabled by default (assumed)

- Sysadmin / distributor can configure
  trusted macros, or allow for the user

Macro Security

Security Level   Trusted Sources

Very high.
○ Only macros from trusted file locations are allowed to run.
All other macros, regardless whether signed or not, are disabled.

High.
○ Only signed macros from trusted sources are allowed to run.
Unsigned macros are disabled.

Medium.
⦿ Confirmation required before executing macros from untrusted sources.

Low (not recommended).
○ All macros will be executed without confirmation.
Use this setting only if you are certain that all documents that will be opened ar
safe.

Help   Revert   Cancel   O

COLLABORA OFFICEDEV - SECURITY WARNING   ✕

/Tmp/user/docs/8rUbIN72I2e.../tempMacroVBATest.ods

The Document Contains Document Macros. Macros May Contain Viruses. Disabling Macros For A
Document Is Always Safe. If You Disable Macros You May Lose Functionality Provided By The Document
Macros.

| Help | Disable Macros | Enable Macros |

Connecting...

100%

Coming in 6.4.x in a week or two.

Crisper rendering … not just crispness

Better zoom handling

- With some devices, non-100% zoom, poor 'crispness'
  - Browser is interpolating; on Linux – Chrome → 97.7% device scale (1000/1024)
- Pure Canvas (still tile) rendering – at pixel-grid scale
  - Dropping 'leaflet'; major code & dependency simplifications / shrink.
- Split panes on mobile / tablet devices
- Re-written in TypeScript → easier to maintain & scale

Enabling more future smarts:

- Rendering calc grid, page outlines, re-ordering pages etc. on the client

The pieces you can't see

Performance

- 20%+ faster rendering time

- Faster interactive editing of cells

- Bind-mounting of document jails
  (instead of hard-linking)

- Improved watermark caching

- Slide content pre-fetching

- On-demand slide thumbnail fetching.

- Significant PDF rendering improvements

- Significant thumbnail / download speedups

Misc

- iOS multi-document support

- Substantial cypress automated test
  coverage.

- Cluster debugging / warnings ... check
  matching ServerIds

And much much more ...

- 3600+ commits.

- Innumerable bug-fixes & improvements

Android, iOS & Chrome OS
bring your own device

Collabora Office
6.4

File   Home   Insert   **Sheet**   iew   Help   example-timeline 2.ods

✂ Cut   Ar...   A↑   General   A H₁ H₂ +1 ±0 -2   Rem
📋 Copy   A   Format Page...   % 00 00 00   Rem

AB22   fx Σ = |22

| | B | C | | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | AA | AB |

4 week project timeline | 11/11/20

| week 1 | week 2 | week 3 | week 4 |
| nov | nov | nov | dec | dec |

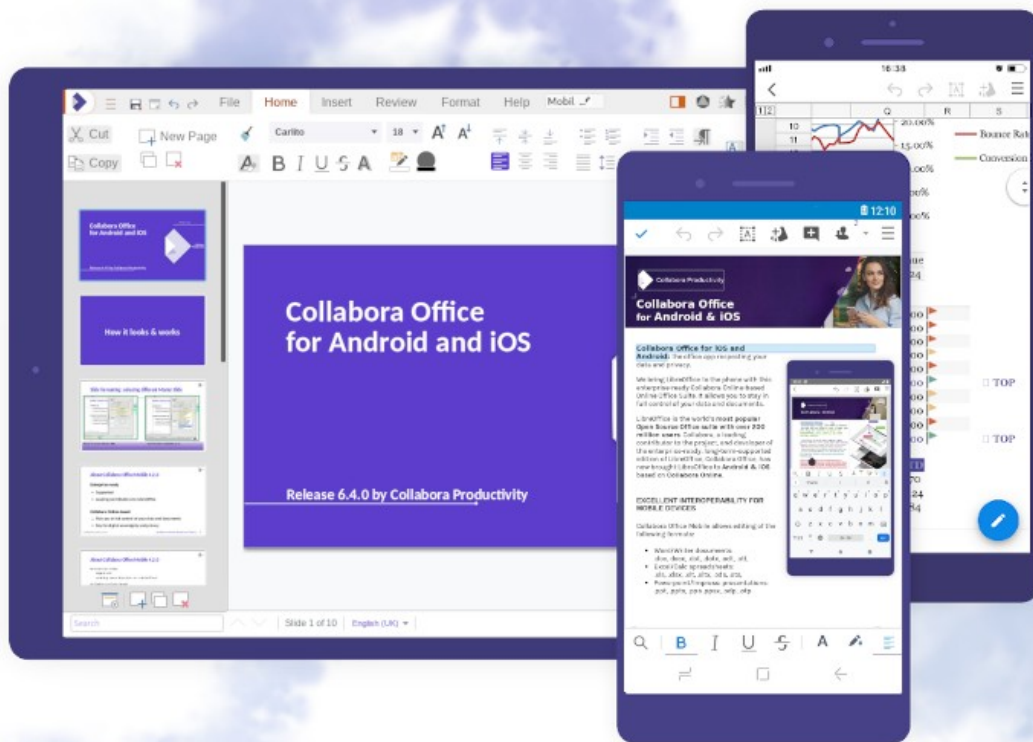| thu 46 | fri 13 | sat 14 | sun 15 | mon 16 | tue 17 | wed 18 | thu 19 | fri 20 | sat 21 | sun 22 | mon 23 | tue 24 | **wed 25** | thu 26 | fri 27 | sat 28 | sun 29 | mon 30 | tue 1 | wed 2 | thu 3 | fri 4 | sat 5 | sun 6 | mon 7 |

EMPLOYEE

kai   research rainforest
luka   collect supplies for presentation
jenny   complete sketches
ari   draft presentation
luka   finalize presentation

Chart:
- 100.00%
- 90.00%
- 80.00%
- 70.00%
- 60.00%
- 50.00%

Legend: ■ kai ■ luka ■ jenny

Project Timeline

Search   Sheet 1 of 1   Select multiple cells   English (USA) ▾

collab

Re-use the online responsive UI for apps:

750k installs

Available for iOS, Android & Chrome OS
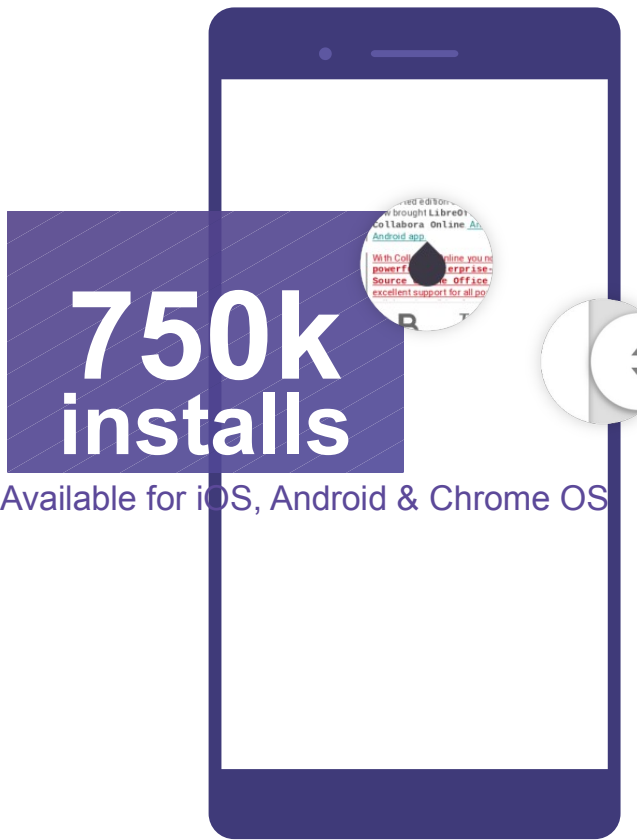
collaboraonline.com
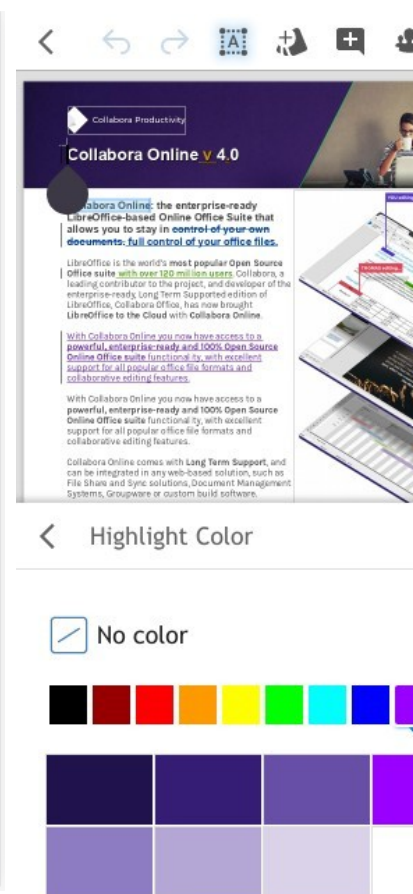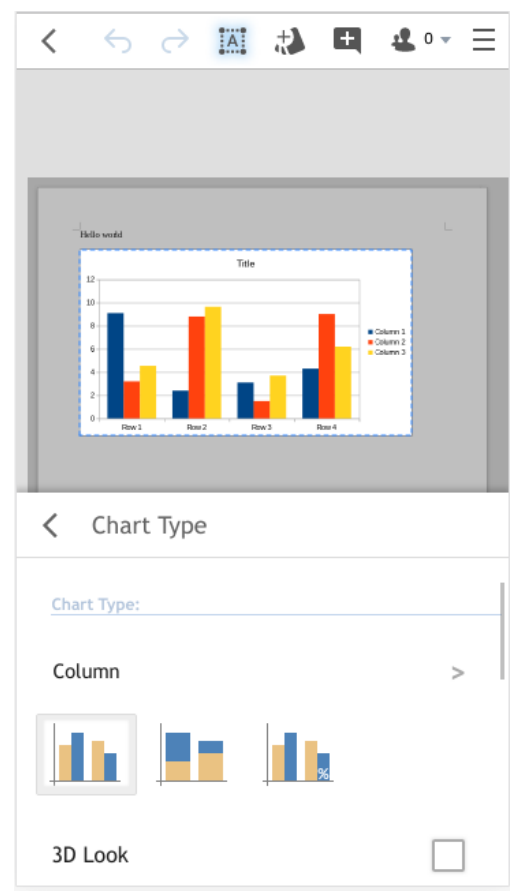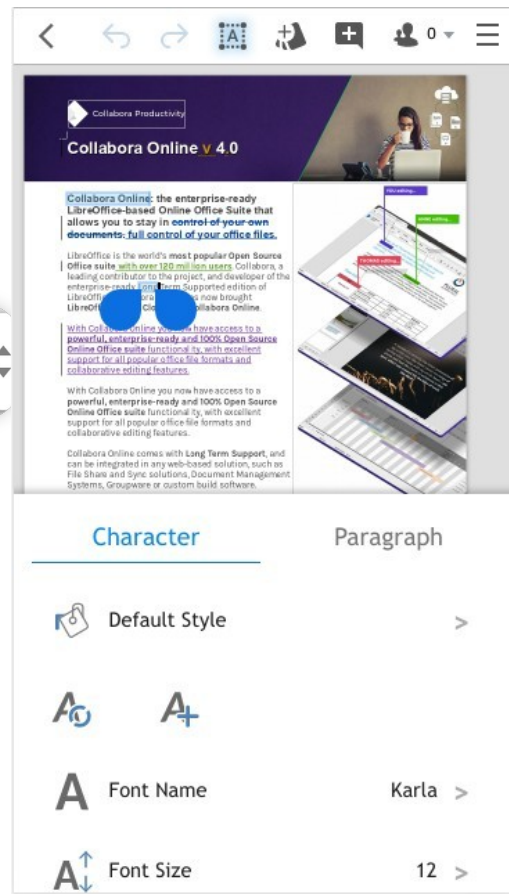
ChromeBooks:
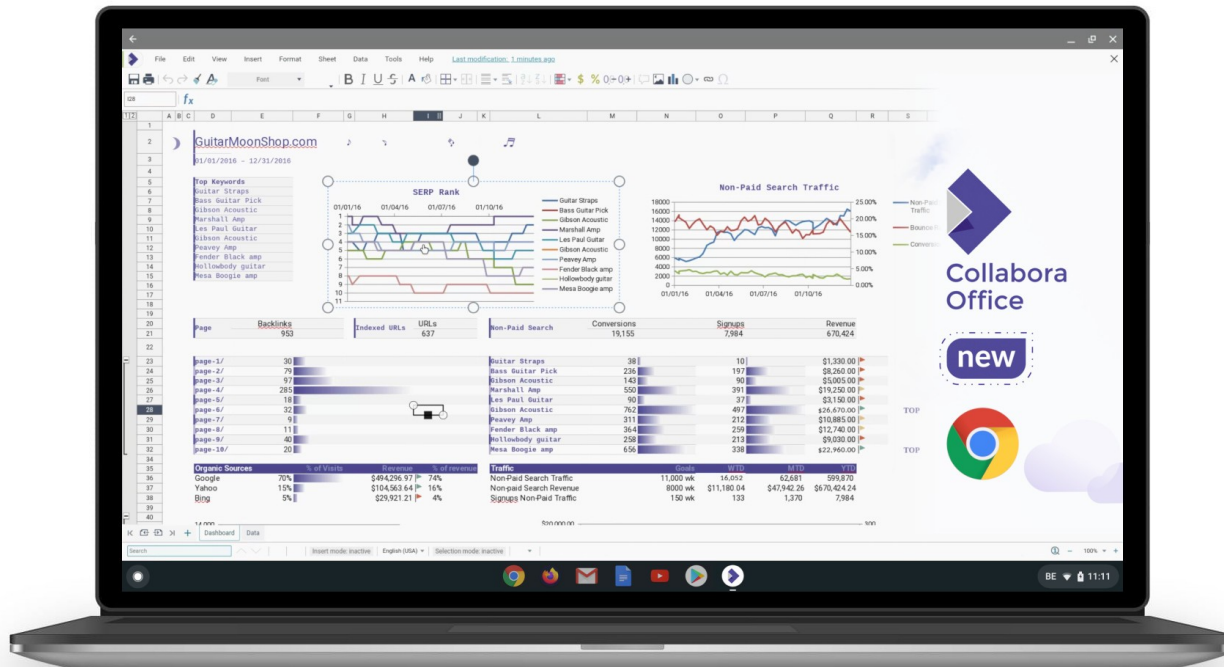
Get Involved ...

It's fun to get involved:

LibreOffice features:

http://www.libreoffice.org/

Code

https://git.libreoffice.org/core

Get involved:

- https://www.libreoffice.org/community/get-involved/
- C++, python, l10n and more
- https://translations.documentfoundation.org/

Collabora Online

https://collaboraonline.github.io/

Easy Hacks:

https://github.com/CollaboraOnline/online

- C++, Javascript, CSS, Design …

https://hosted.weblate.org/projects/collabora-online/

Forum:

https://forum.collaboraonline.com/

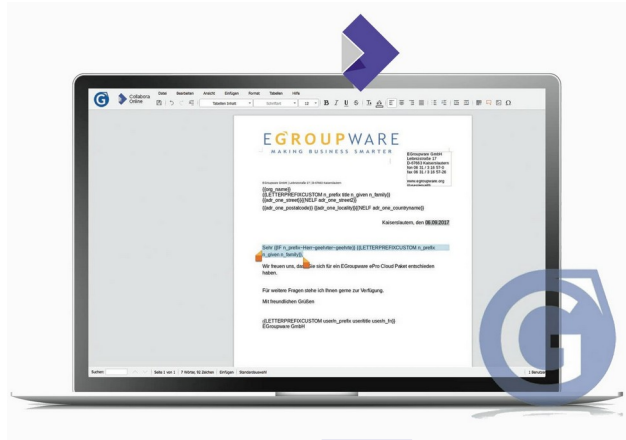**Weekly dev. meetings**

Making
Open
Source
ROCK

Checkout more related talks:

Egroupware - *News in version 21.1 – next in this room … Stefan Unverricht*

LibreOffice 7.1 – *What's new & how can you help with 7.2 next door: Mike Saunders*

Thank you!

By Michael Meeks
@mmeeks @CollaboraOffice
CollaboraOffice.com
CollaboraOffice.com/CODE
michael.meeks@collabora.com

**Open Source,
Open First**

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