UiO **Department of Technology Systems**
University of Oslo

Raspberry Pi - Intro Sep2022

Raspberry Pi (RPI) - good to know

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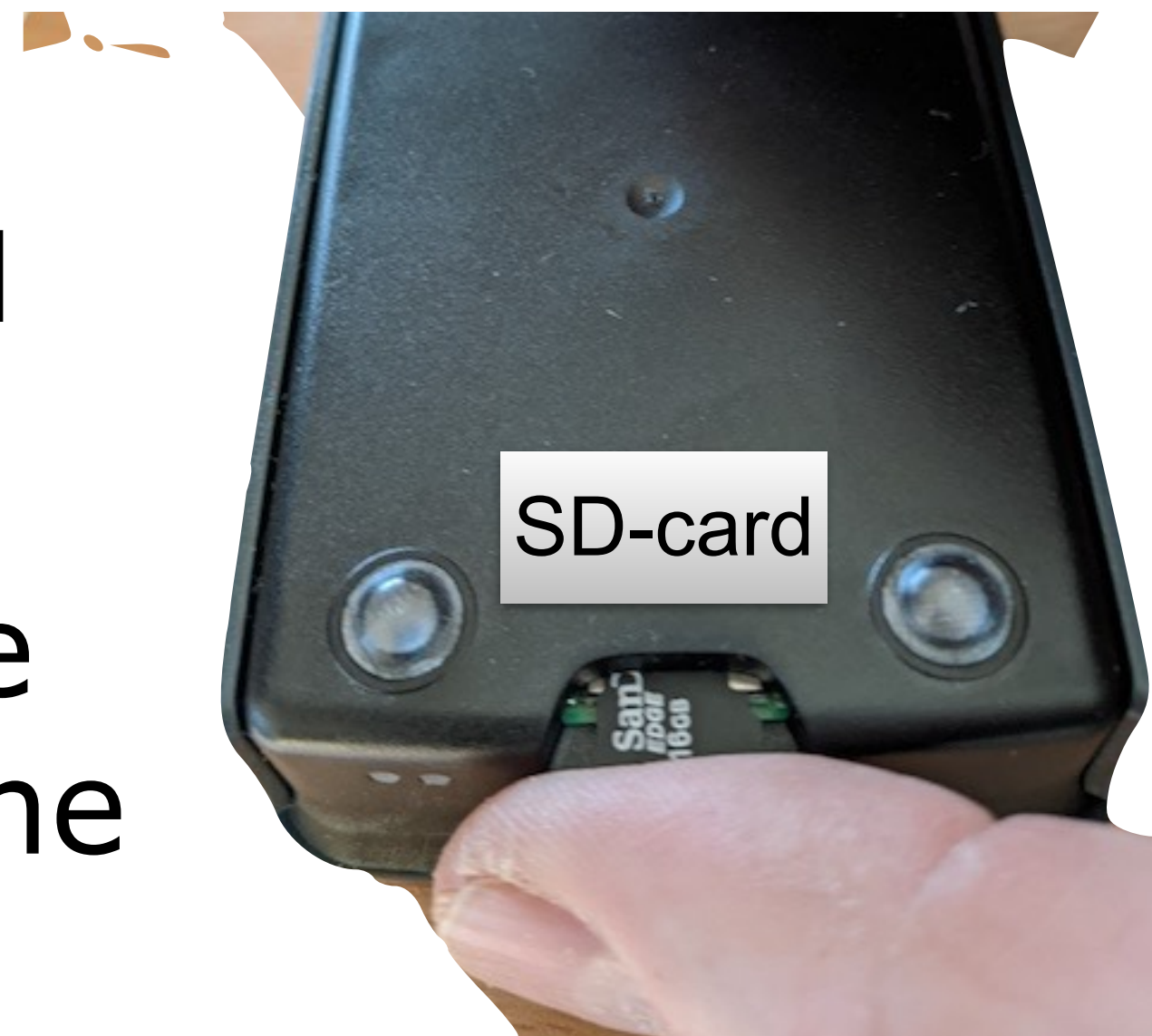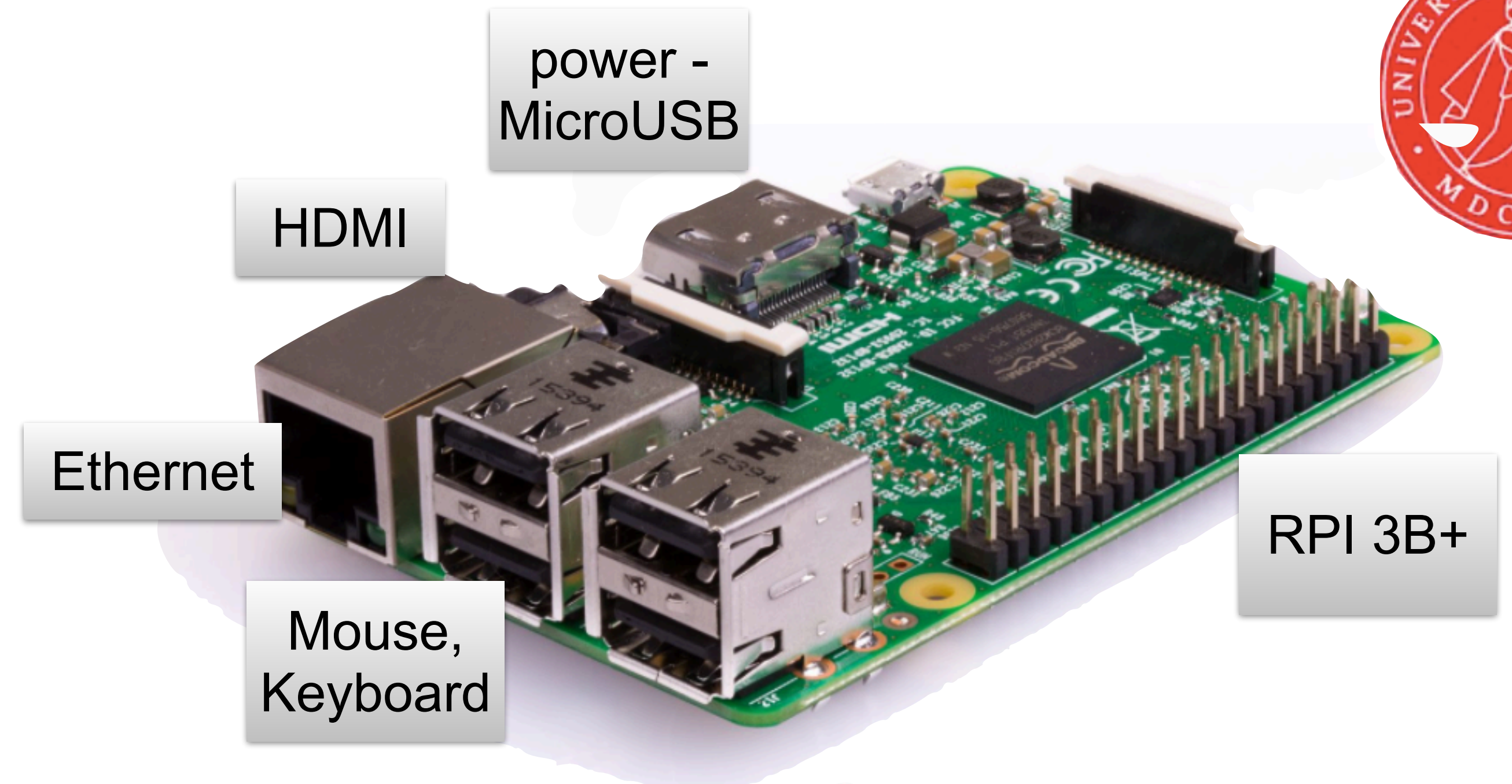
Kjeller, Norway, m: +47 9083 8066, e: josef@jnoll.net

Raspberry Pi (RPI)

➡ A mini computer
➡ comes i different versions
- RPI 3B+
- RPI 4
- RPI 4 integrated

➡ ensure that the SD-card is in the slot

power - MicroUSB

HDMI

Ethernet

Mouse, Keyboard

RPI 3B+

SD-card

integrated RPi 4

Prepare for the session
# Alternative A connect to an external screen

➡ connect the RPI with a keyboard and a mouse

▪ connect to an external screen (HDMI cable)

▪ power up the RPI

➡ you should see <u>yeboo.com</u> (page 5)

Mouse, Keyboard

power - MicroUSB

HDMI

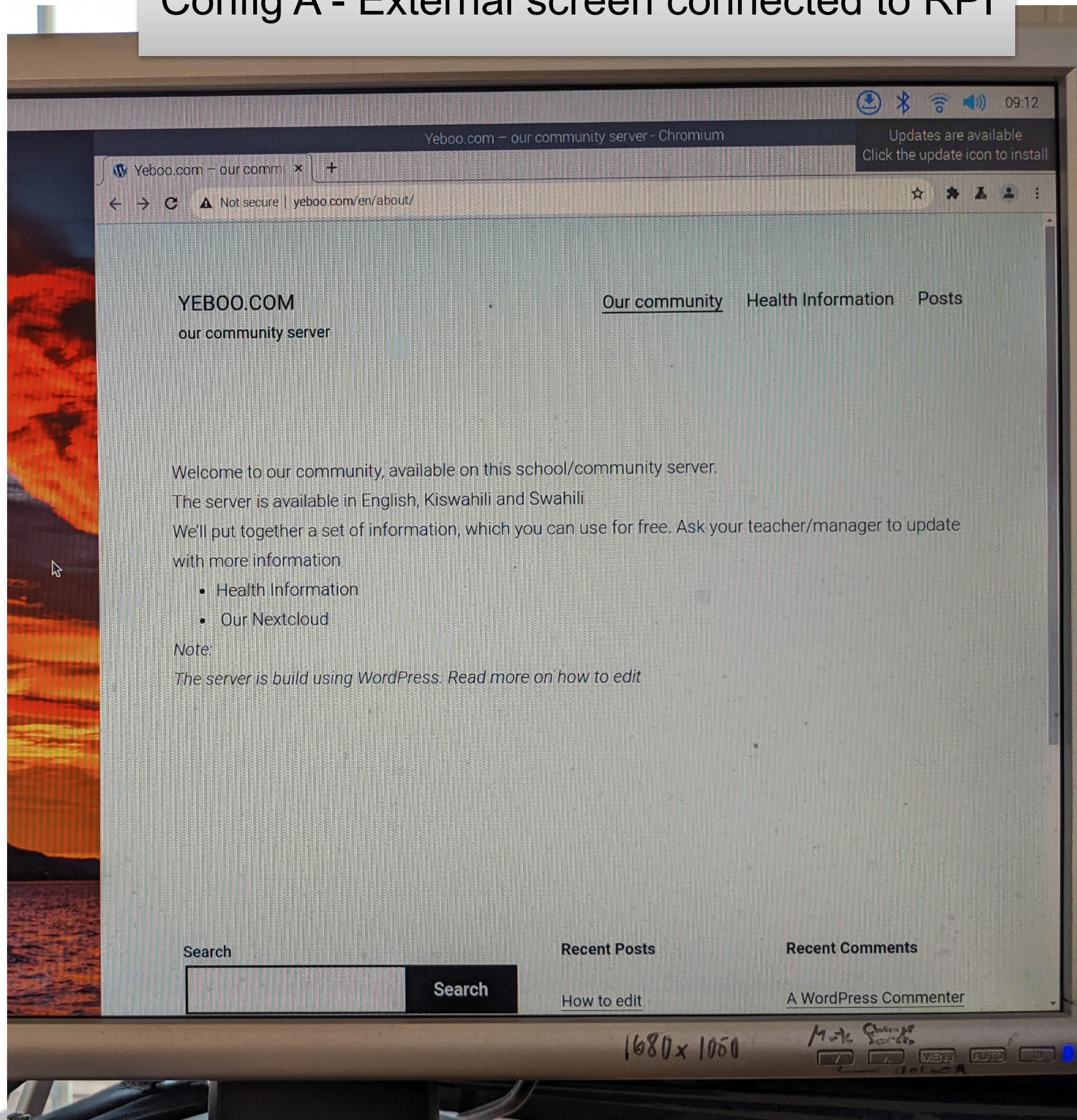# Prepare for the session
Alternative B: connect an LNCC

➡ Connect the RPI to a LNCC (port 2) using an Internet cable

➡ connect your laptop/mobile phone to Wifi "BasicInternet"

▪ Note: LNCC is the local network control center, which is configured as BasicInternet, see: solutions.basicinternet.no
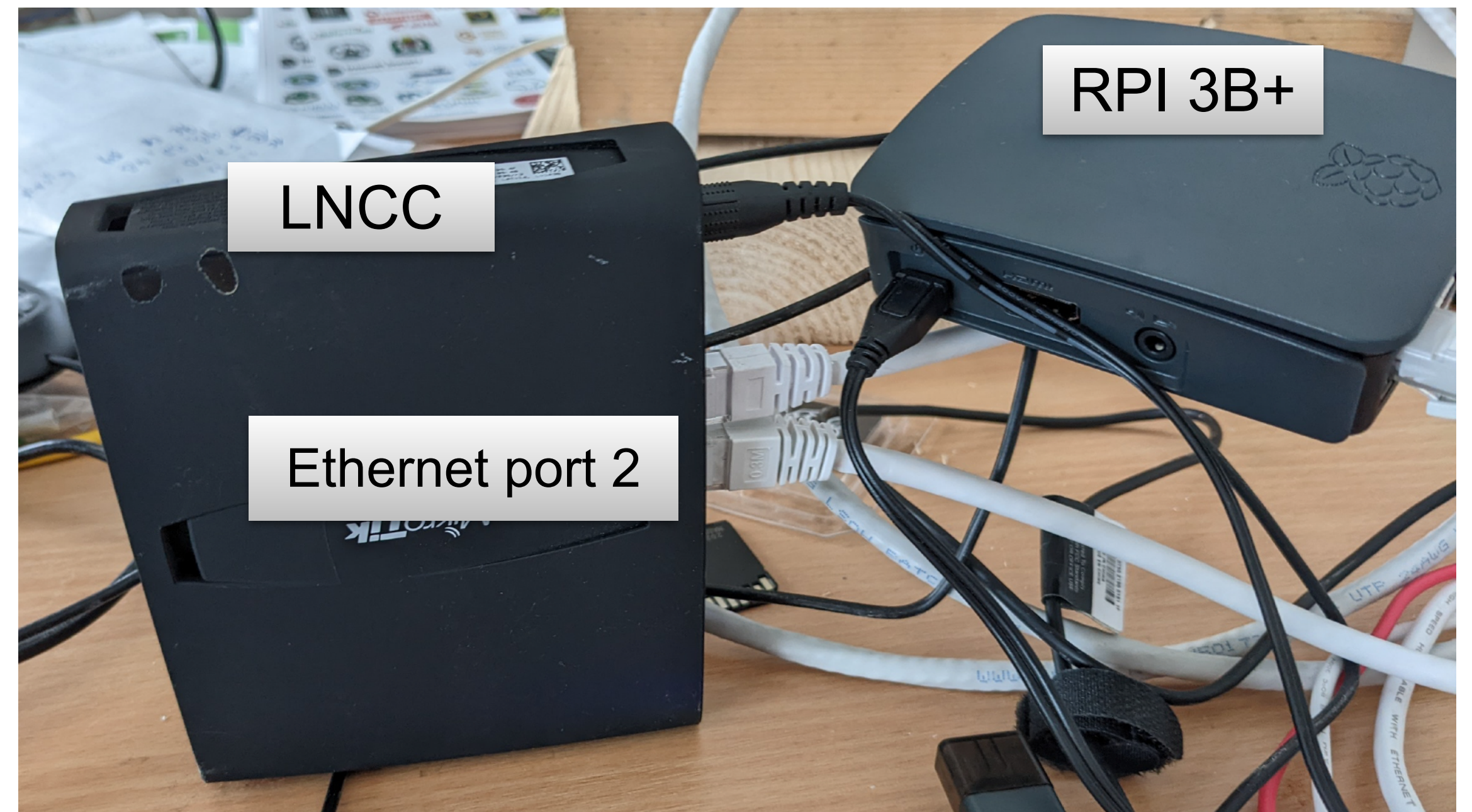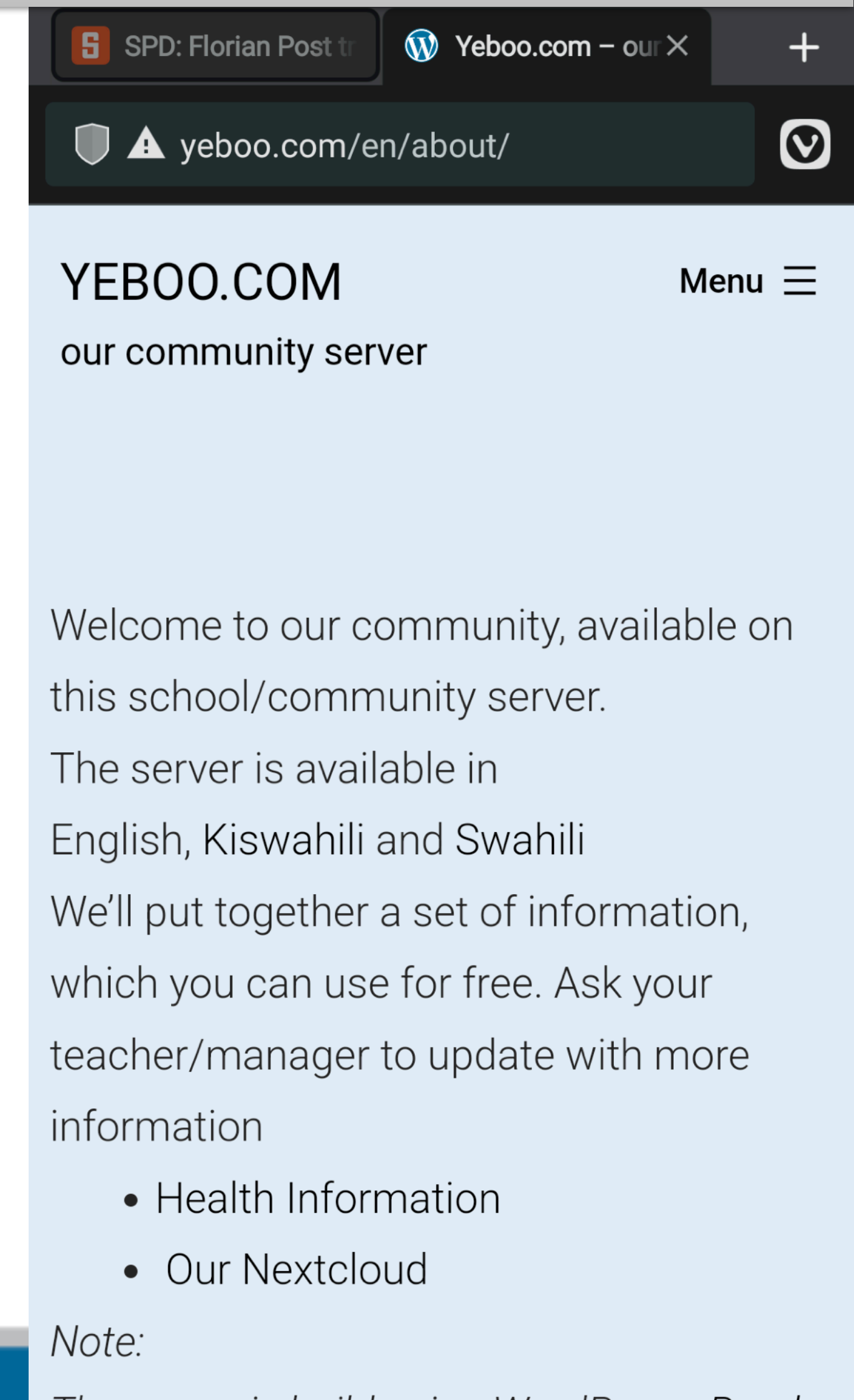
Welcome page yeboo.com

Config A - External screen connected to RPI

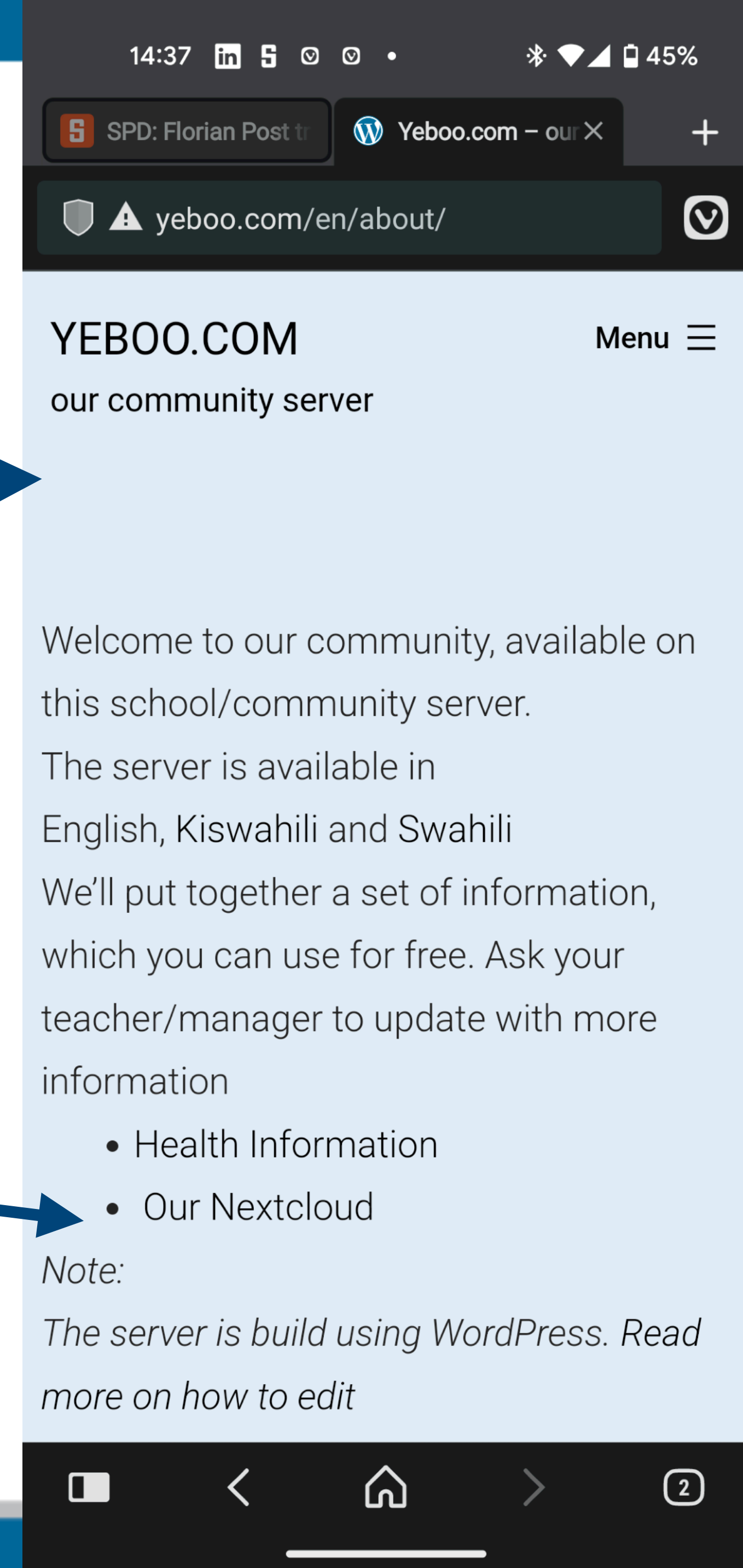Config B - Mobile Phone connected to SSID BasicInternet on LNCC

Goal
Use the RPI

➡ Create a **web page**

- edit wordpress
- add new sections (see health information)

➡ Share content with people

- Add to Nextcloud
- Add new videos/information

this is a web page on te RPI

Web page creation
- use wordpress
- on RPI: http://Yeboo.com

Edit a web page

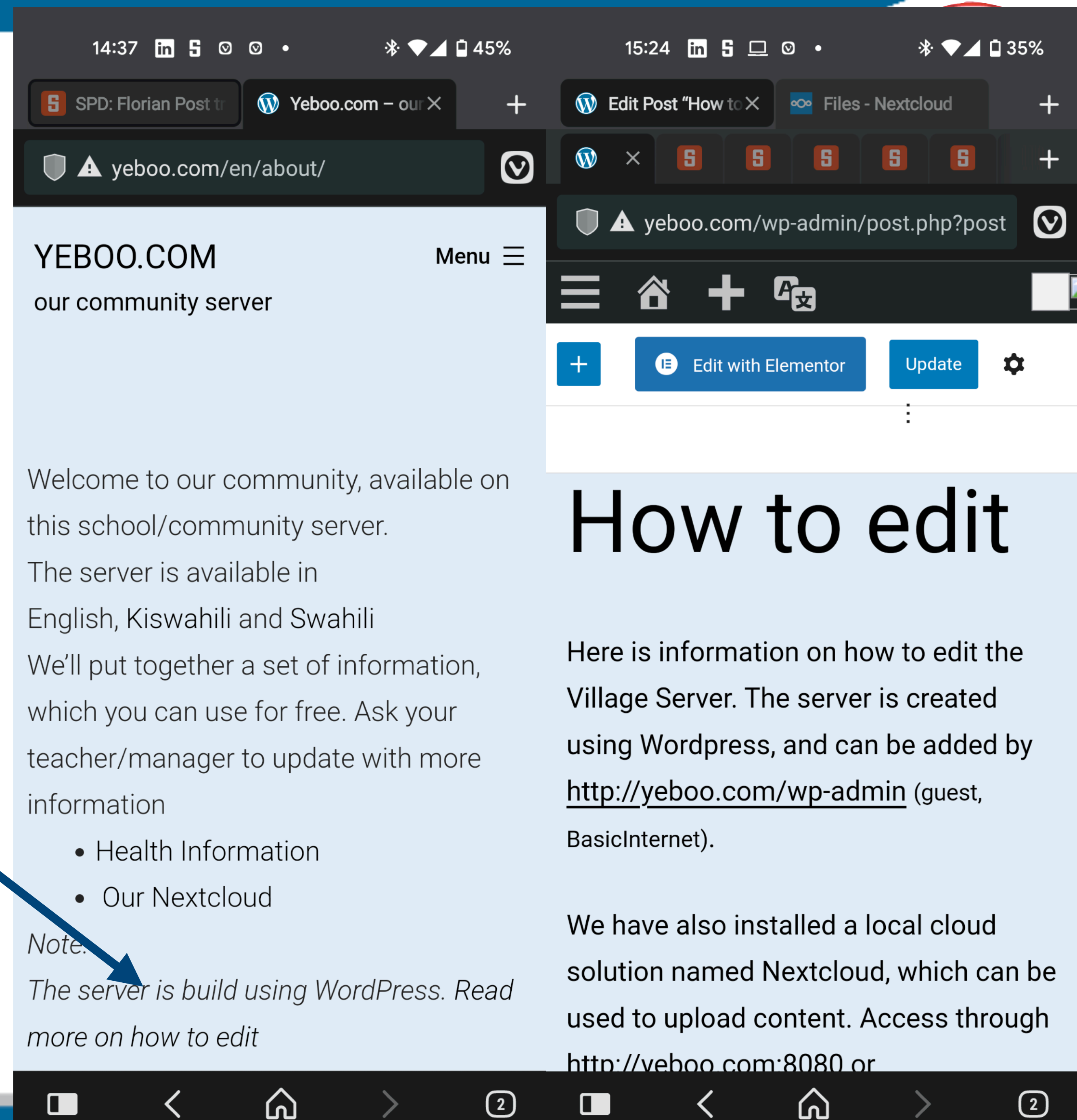➡ **yeboo.com** is the local web page on your Raspberry Pi

➡ See the link "Read more on how to edit"
  - http://yeboo.com/wp-admin

➡ Users
  - guest, BasicInternet or
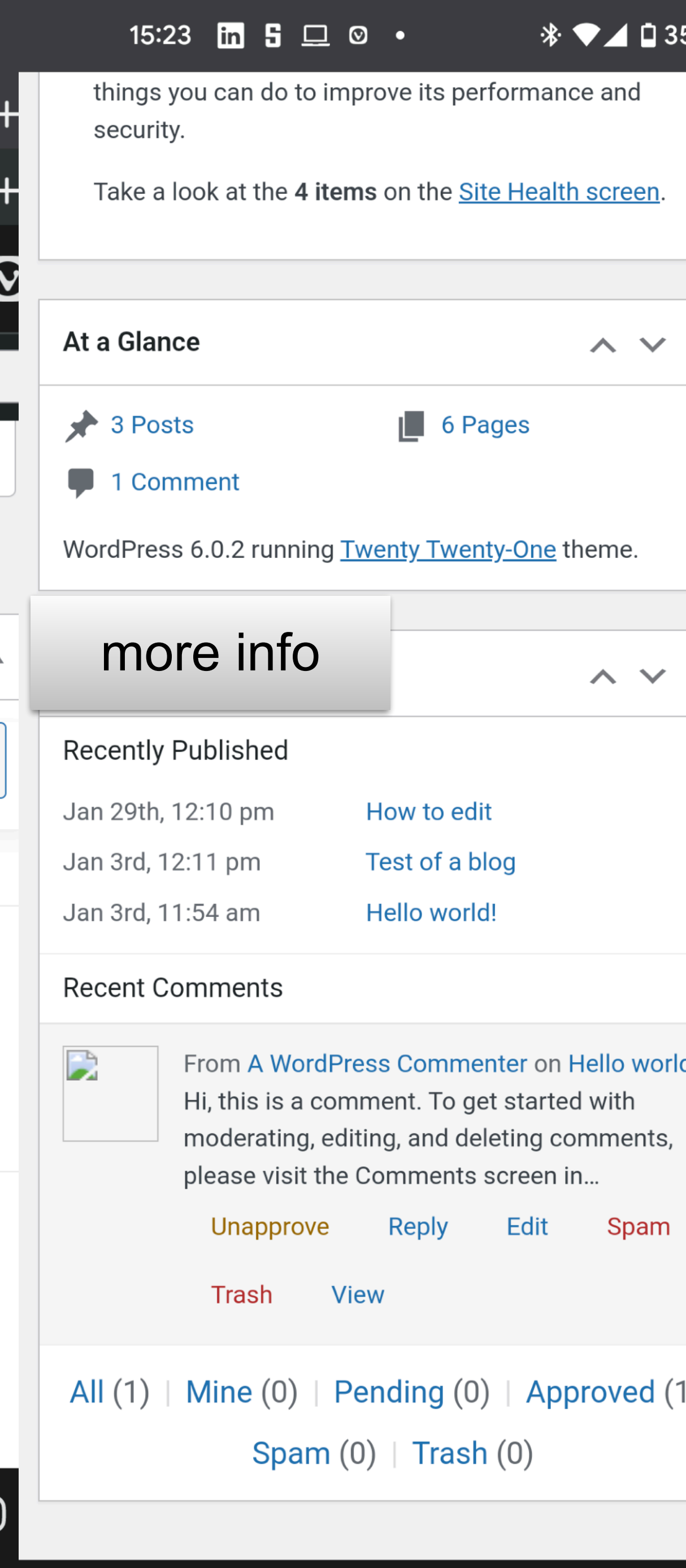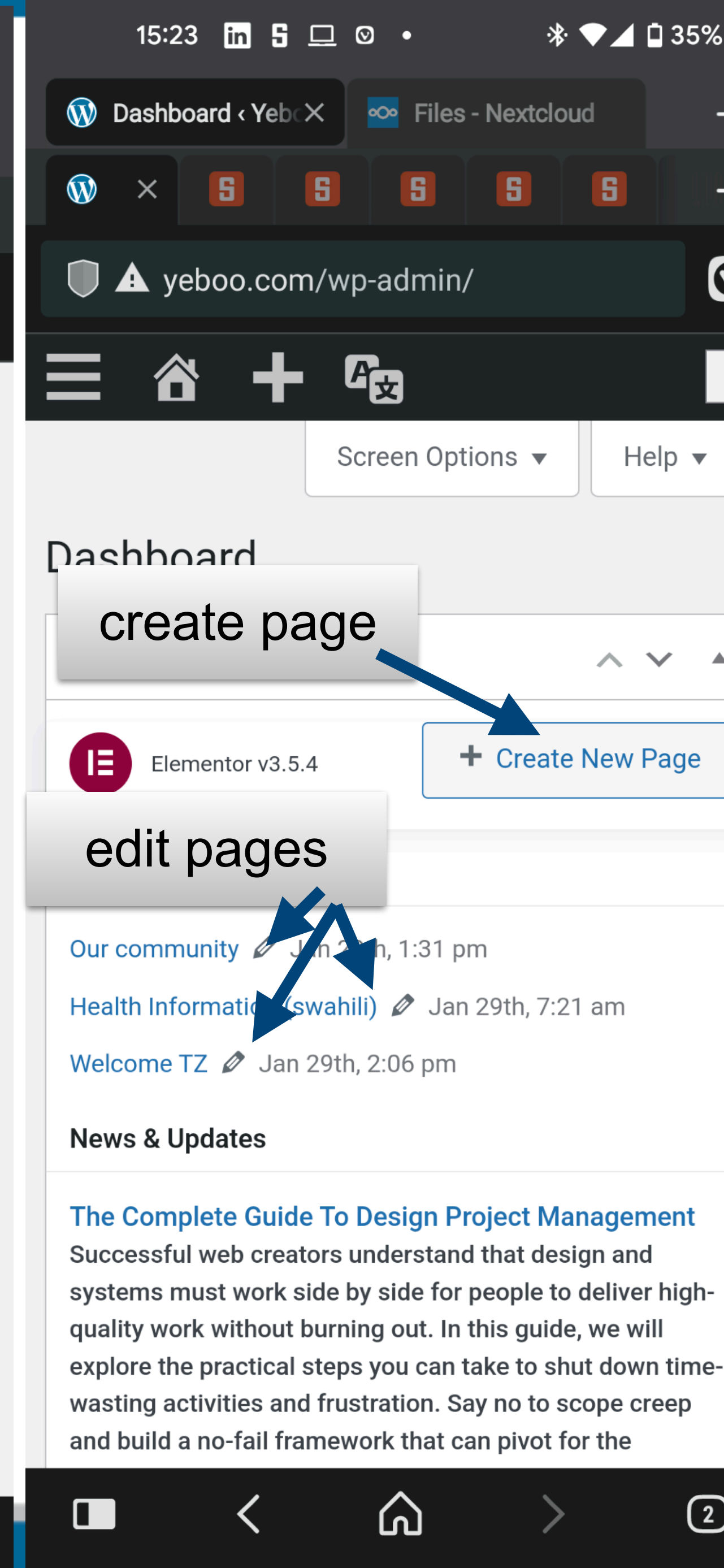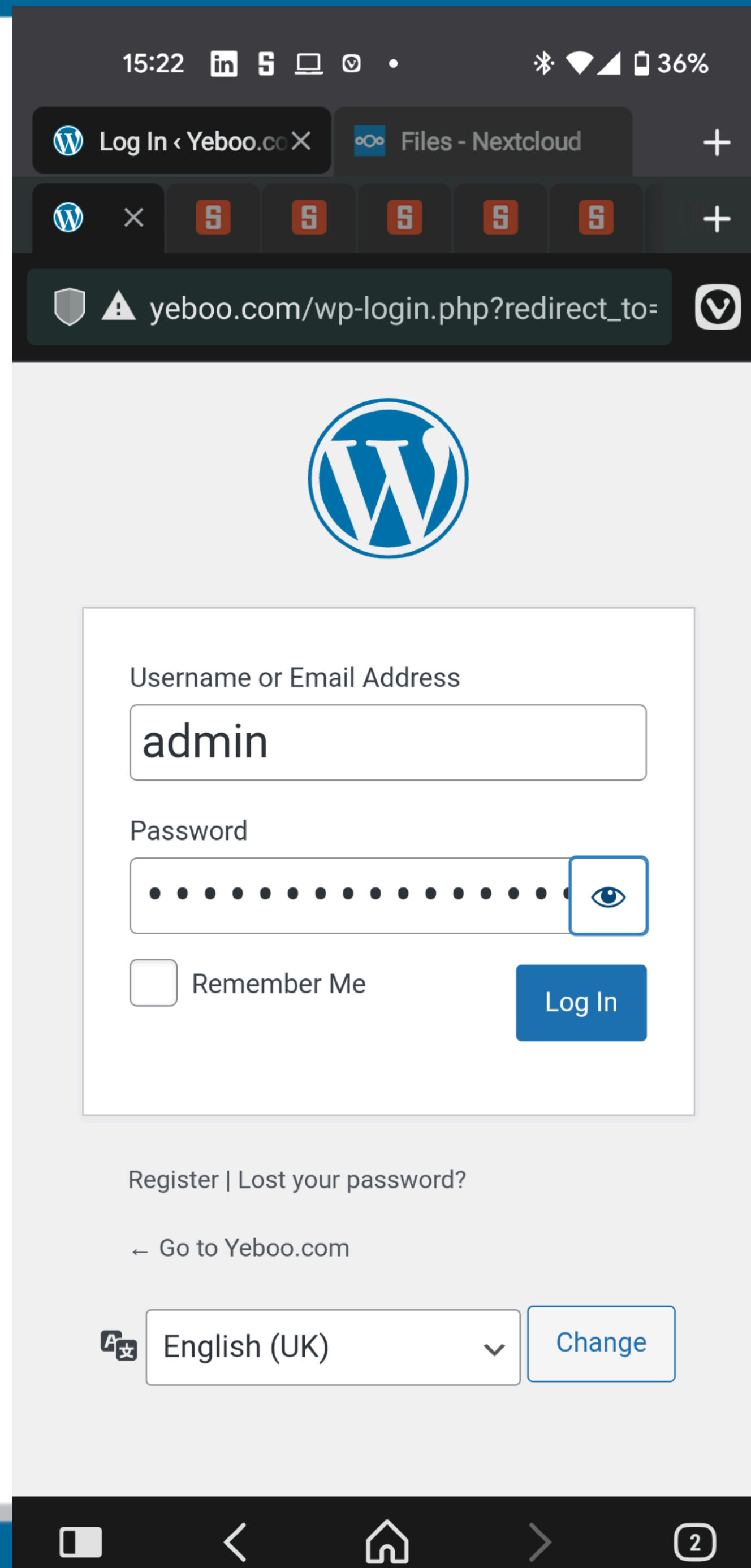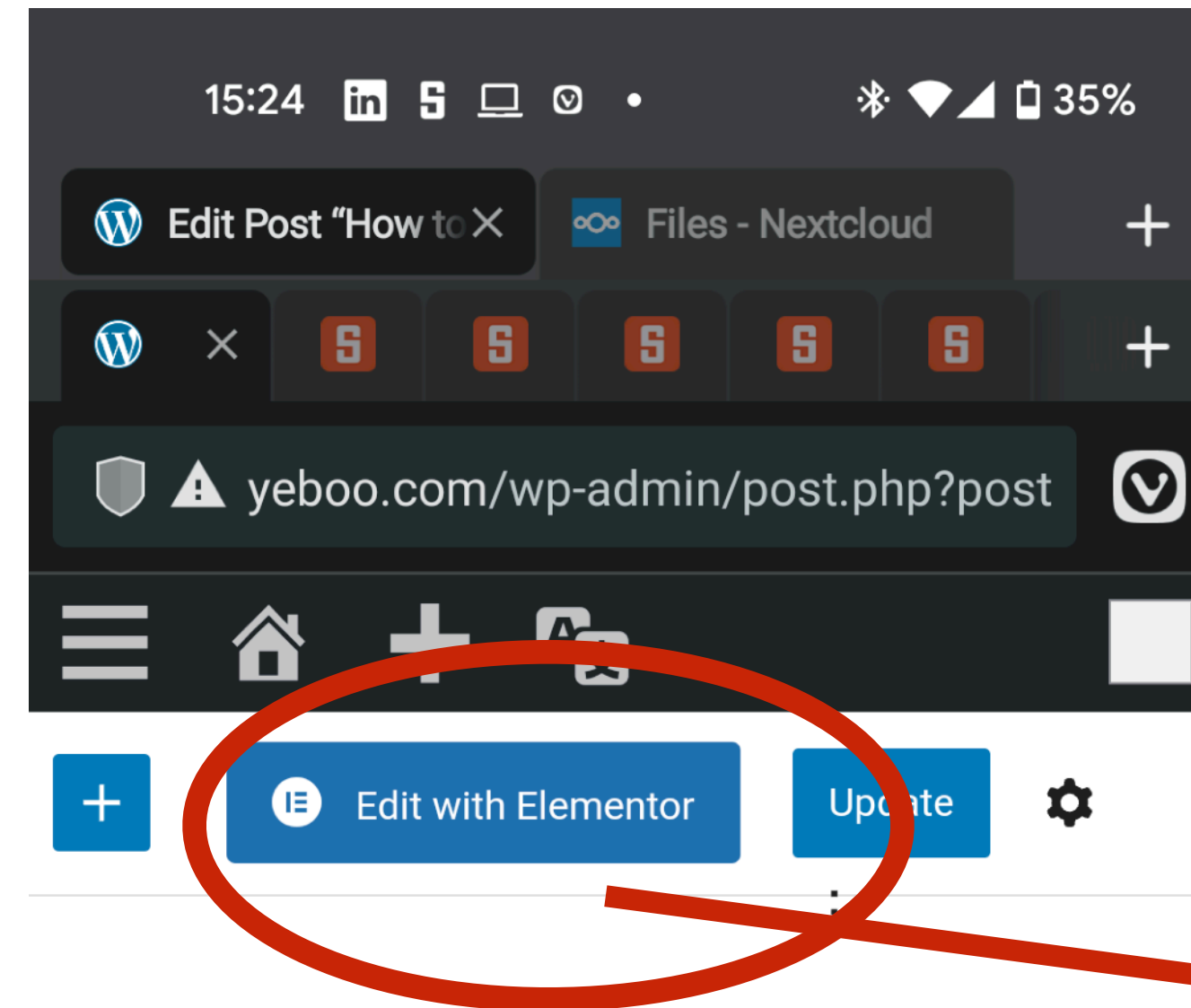 - admin, *********

Wordpress Dashboard

➡ Information on Wordpress installation

- update wordpress
- create users
- add pages

# Using Elementor to create/add a new page

➡ Wordpress has two page editors

- Block editor (default)
- Elementor (easier to use)

➡ Suggest to use a PC/Mac to edit, too small on a Phone

Elementor in praxis, editing How to edit

How to edit

Here is information on how to edit the Village Server. The server is created using Wordpress, and can be added by http://yeboo.com/wp-admin (guest, BasicInternet).

We have also installed a local cloud solution named Nextcloud, which can be
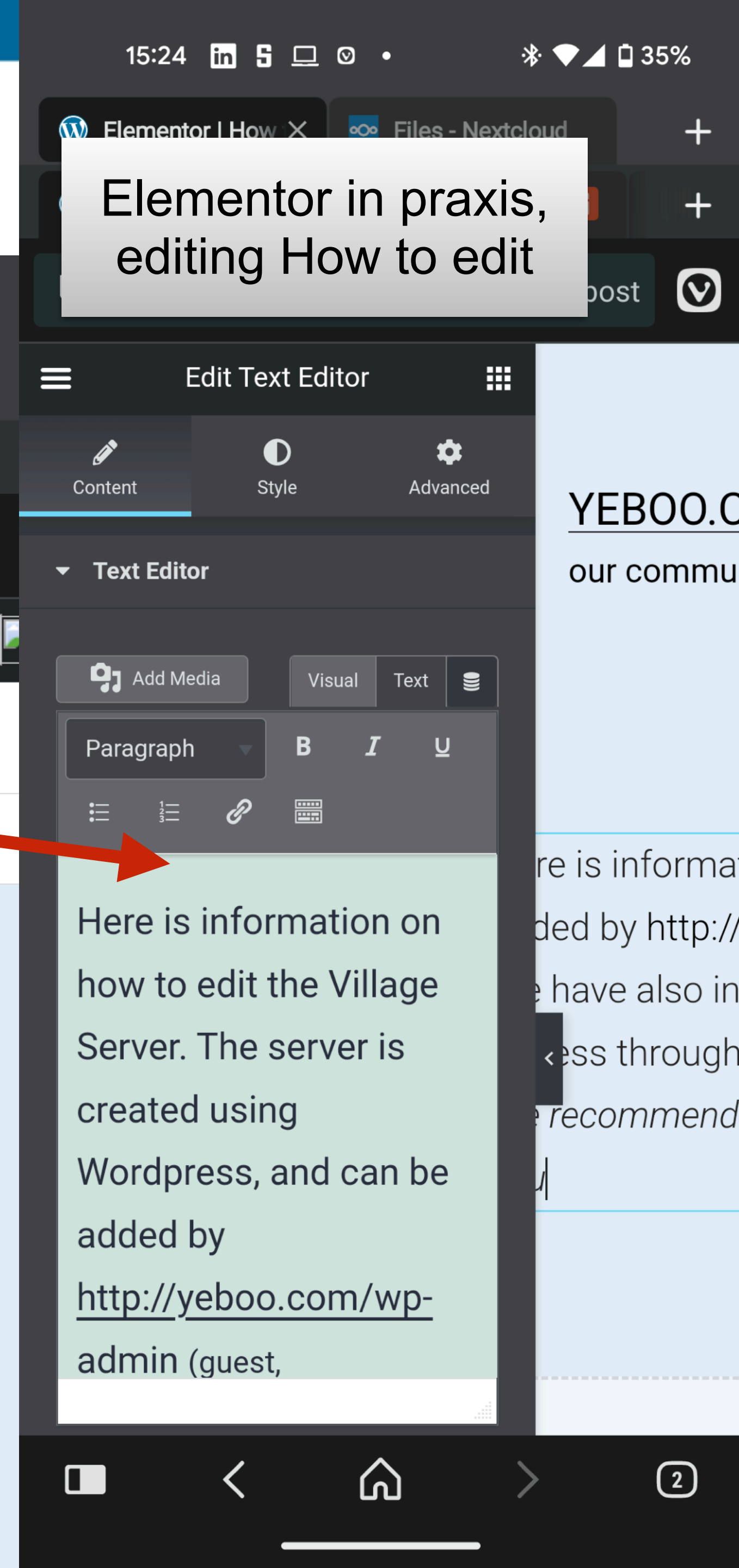
Tasks

➡ Create a new blogg entry
- use guest, BasicInternet for the login

➡ Edit a page
- E.g. health information

➡ Create new user
- login as admin, ********

Sharing information
- use Nextcloud
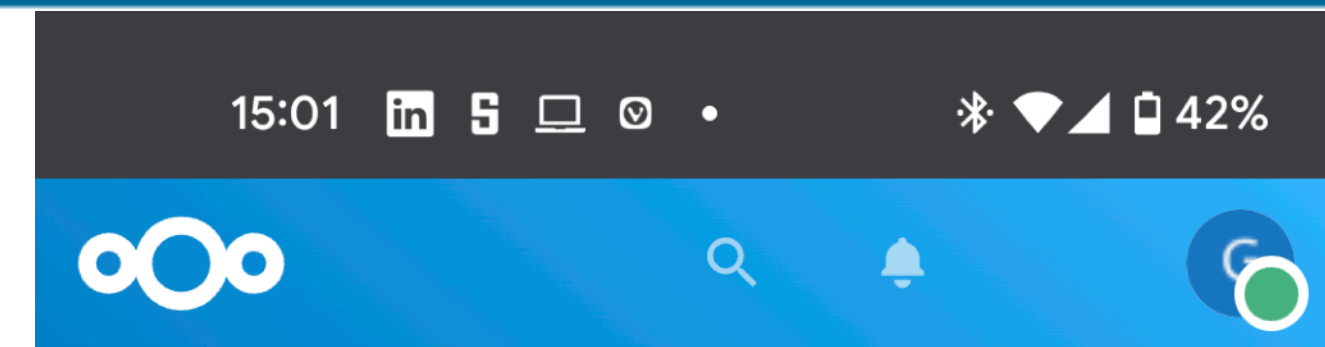## - on RPI: http://Yeboo.com:8080

Nextcloud
http://Yeboo.com:8080

➡ Sharing files/information with others
- have your own information space
- Dashboard shows new information

➡ create users (admin)
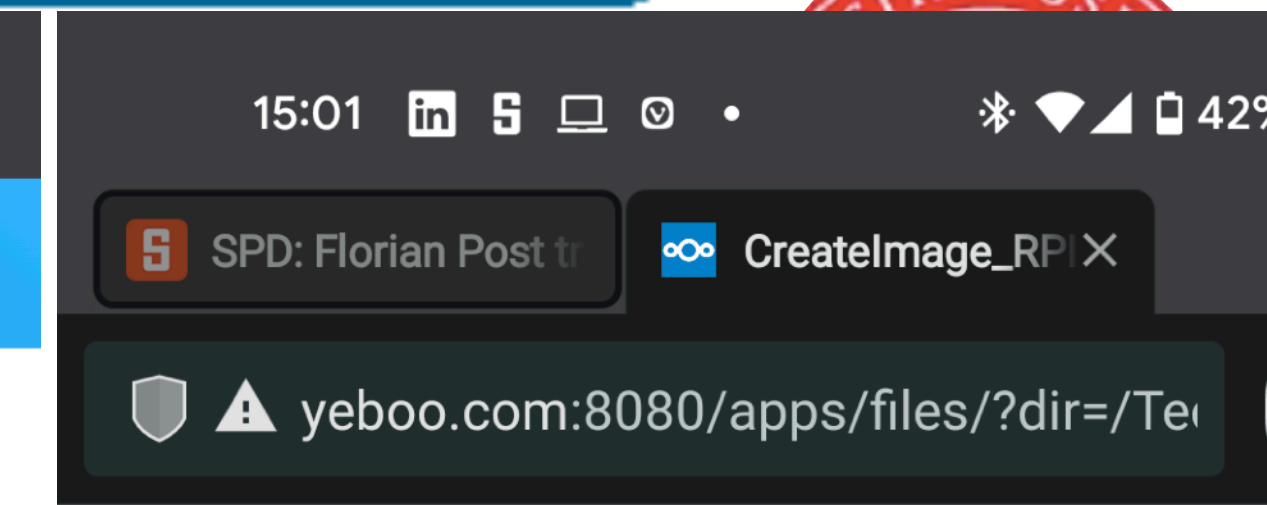➡ common folders (admin)

➡ login
- guest, BasicInternet
- admin, *********
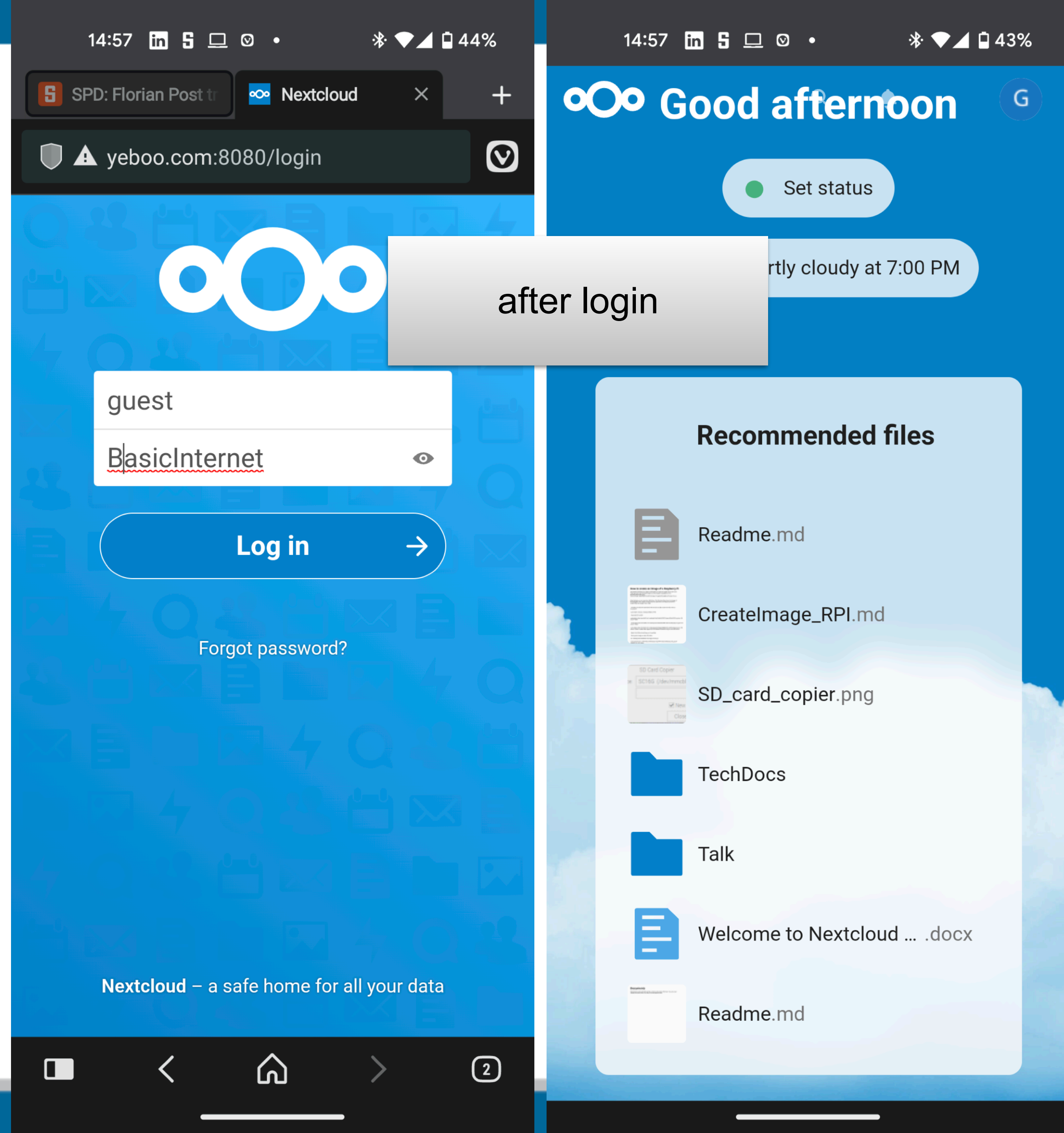
File examples

➡ TechDocs is a directory shared with everyone

➡ Readme.md files are the ones that are automatically shown (if exist) in each directory

▪ .md is the markup language, allowing **bold**, *italics*, lists, tasks and include pictures

▪ see CreateImage_RPI.md as example
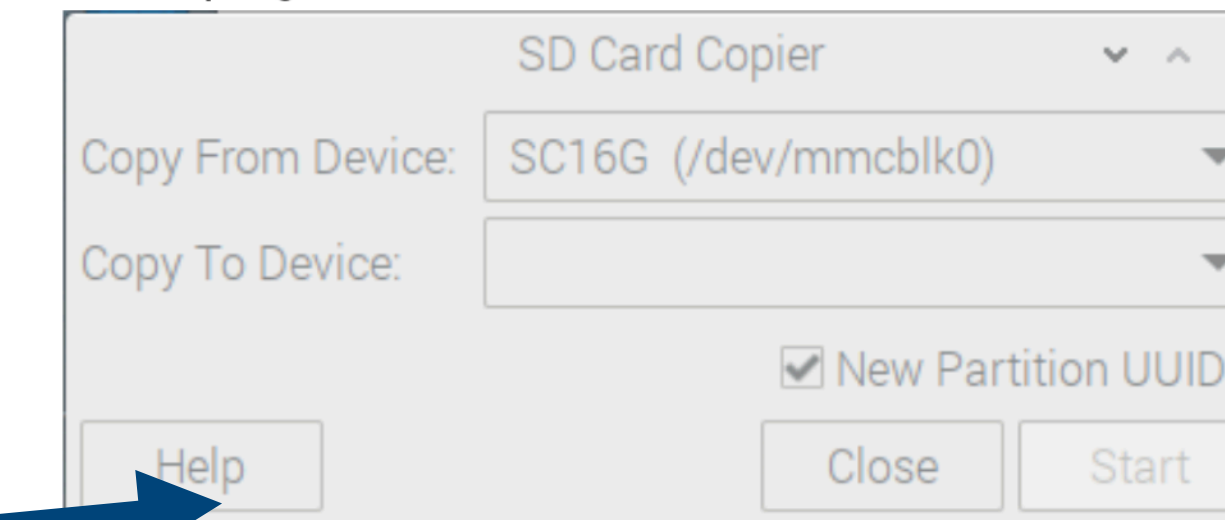
Basic file handling

➡ Upload files

➡ Create folders

➡ Create new text (.md) document

➡ Share files & folders

- with existing users (here: guest)

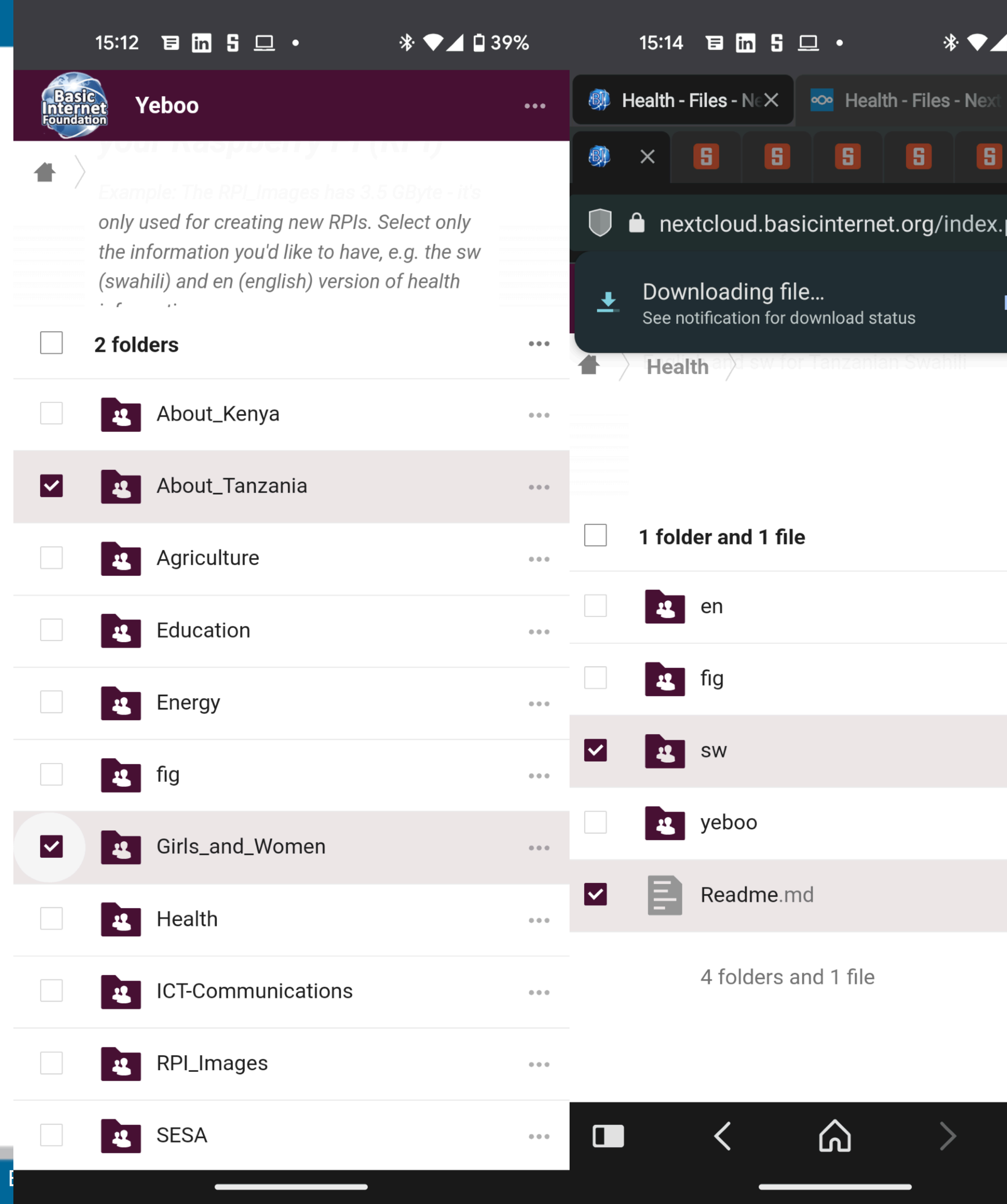- through a public link (can be added to wordpress)
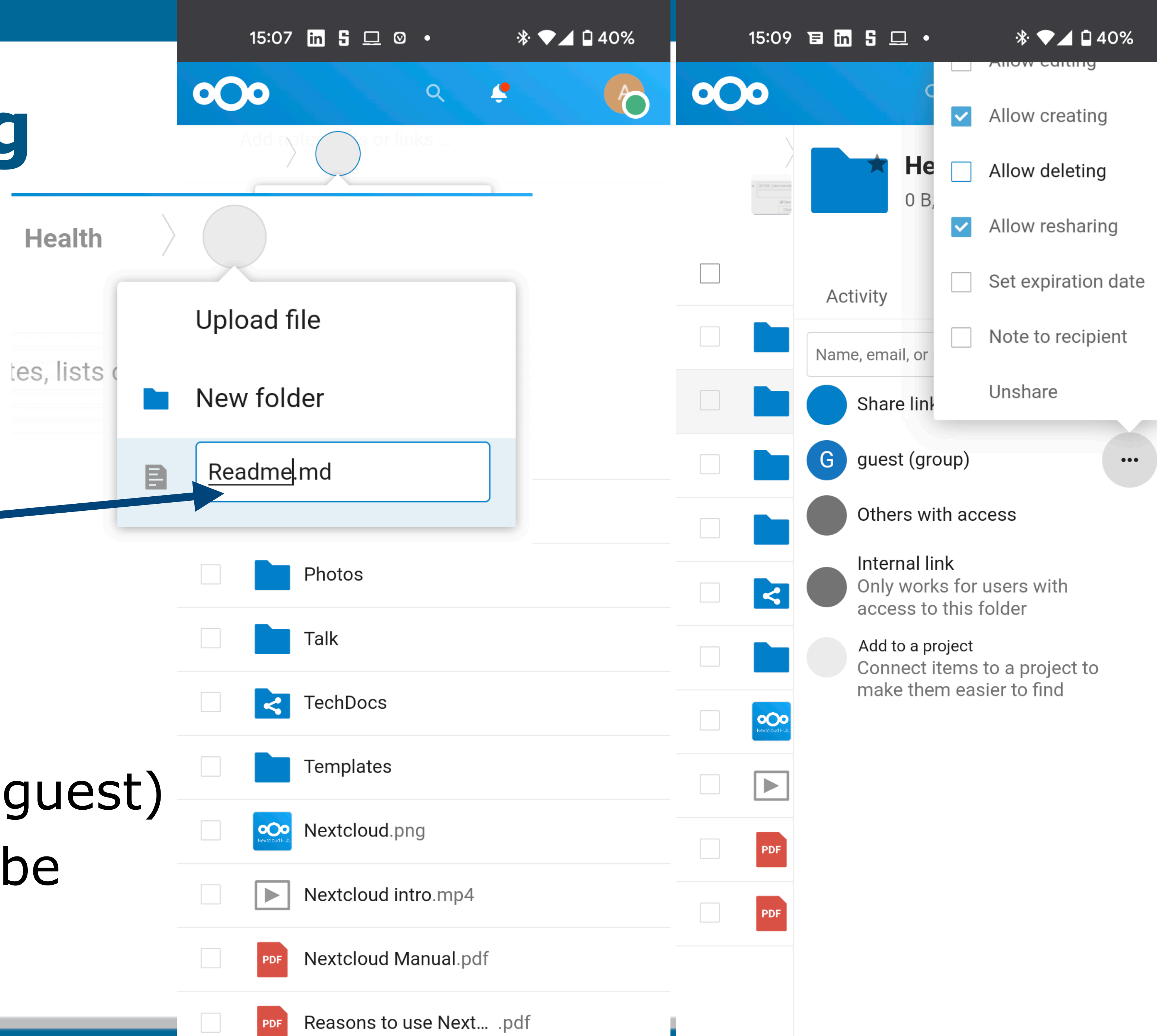
Download files from the Internet
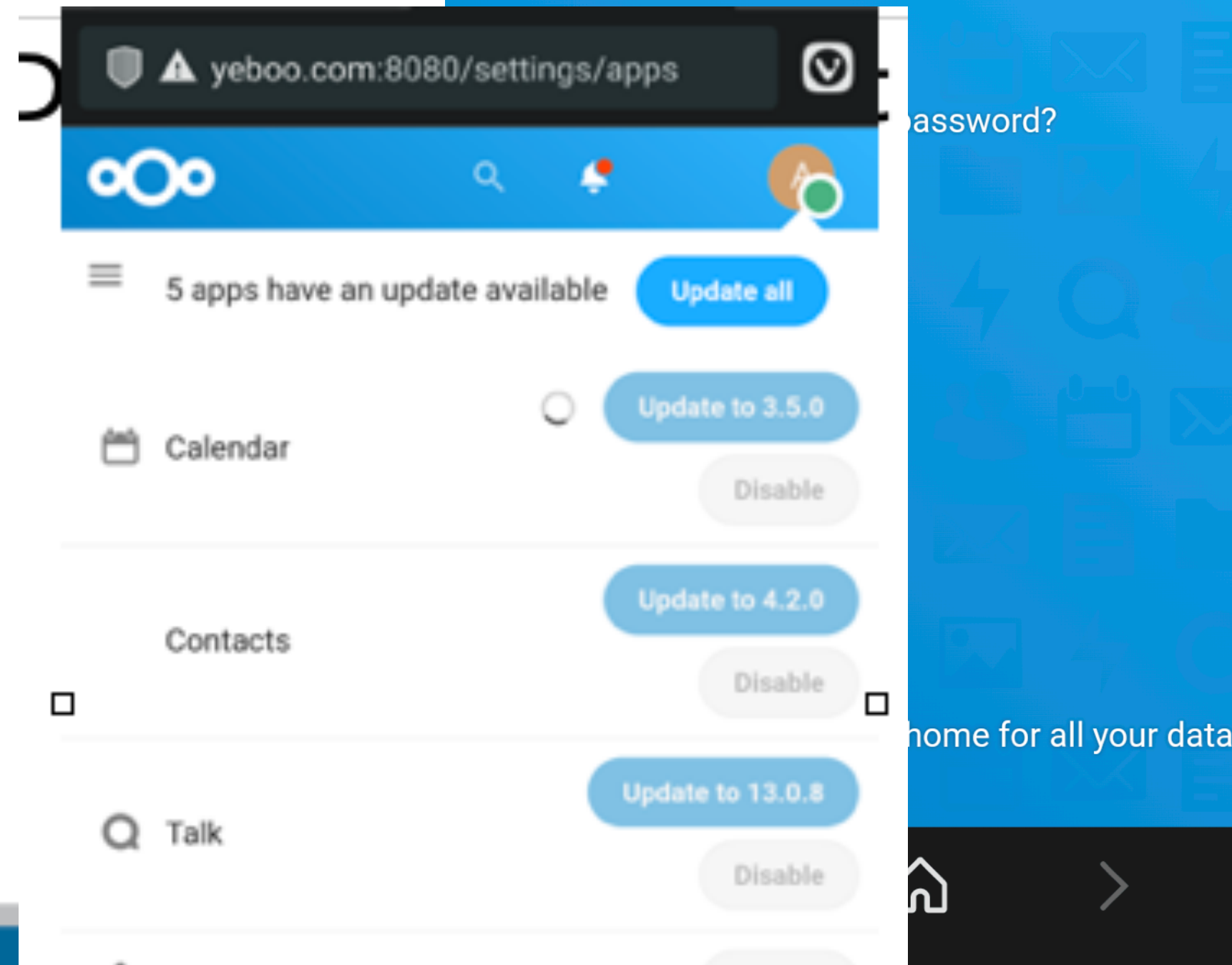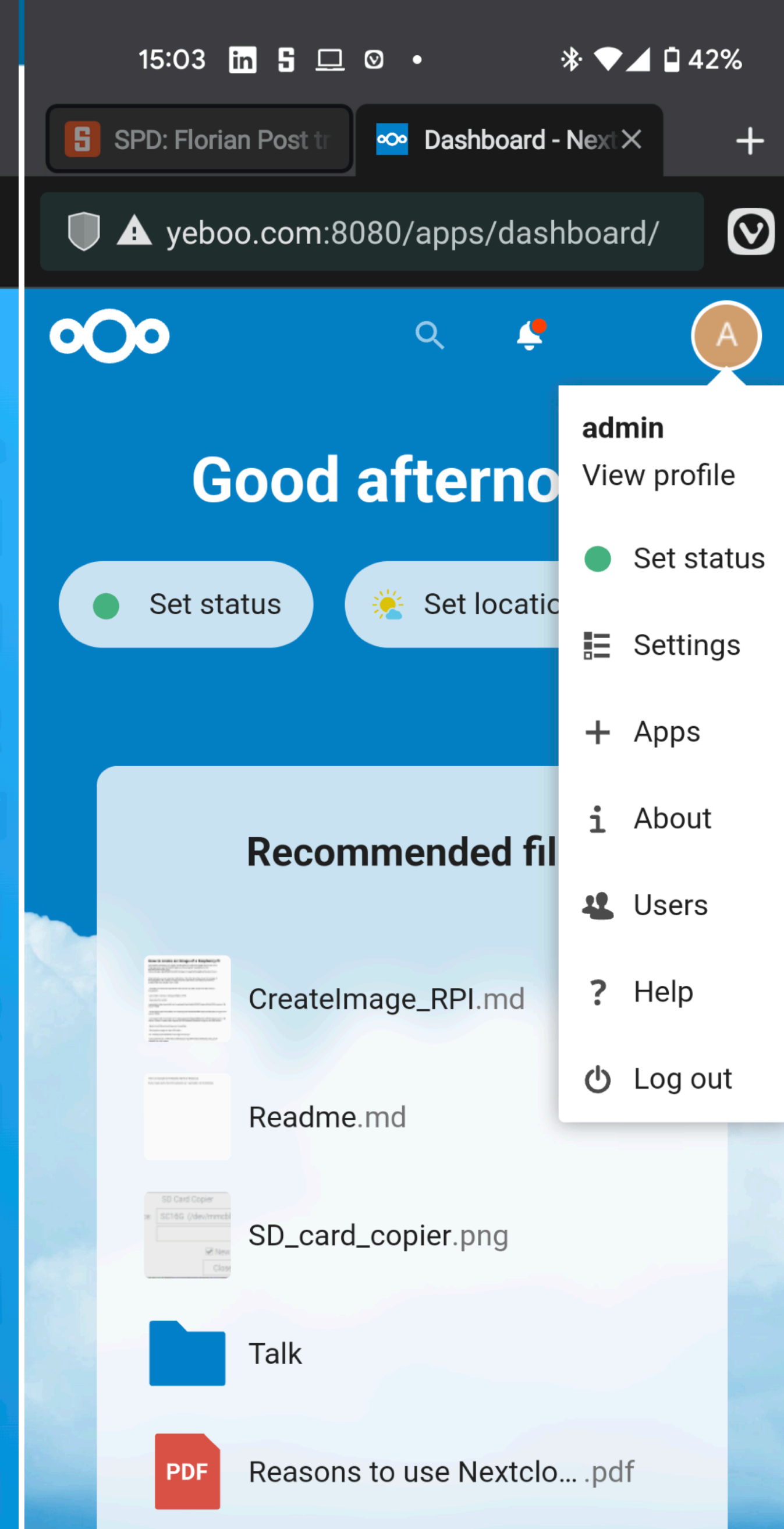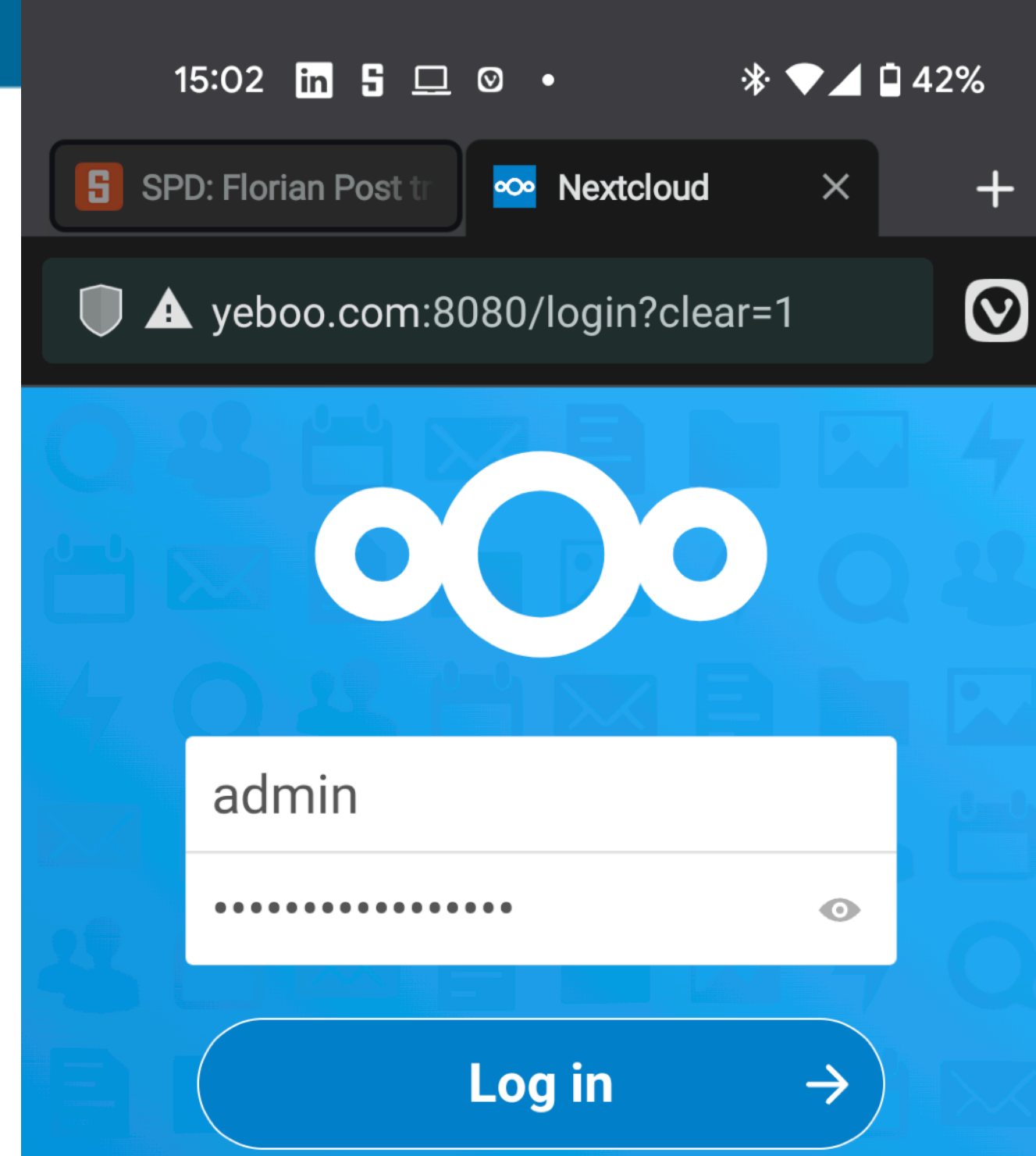
➡ Example:
yeboo.BasicInternet.org

➡ Other download

 ▪ YouTube downloaders

Nextcloud - admin

➡ Admin login allows administration

- update of nextcloud
- create users
- create common folders
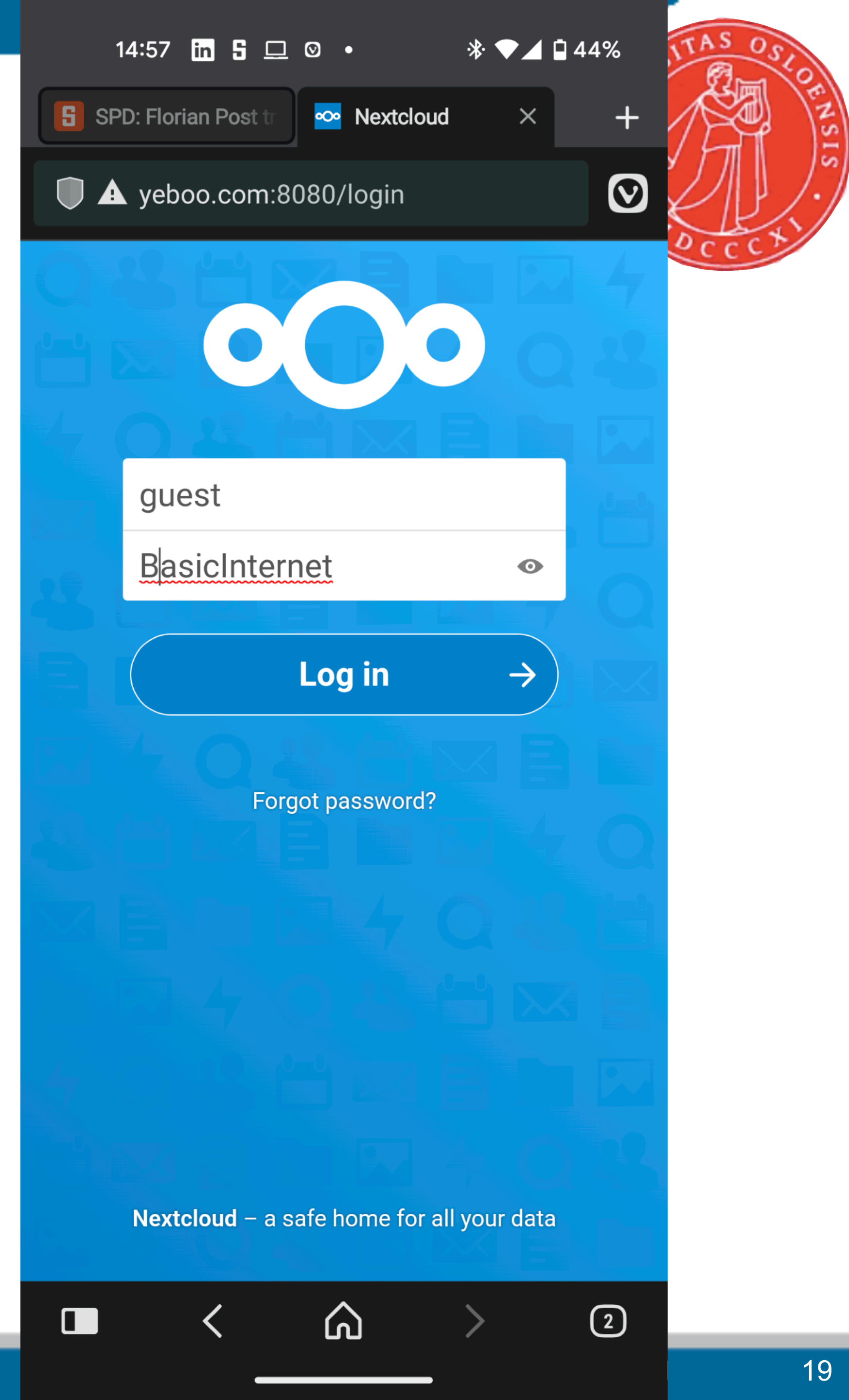-

Admin: User creation

➡ See existing users

➡ Create new users

- click on the the 3 bars

Tasks

➡ Create a directory

➡ Create a Readme.md and write some text

➡ Download a video from yeboo.BasicInternet.org and place it on Nextcloud

➡ Share you file with others
  - create a public link

Lessons learned
Use the Raspberry Pi as School server

➡ What is a Raspberry PI

  ‣ nothing else than a small computer

  ‣ all information is stored on the SD-card

➡ Edit a web page

  ‣ http://yeboo.com/wp-admin

➡ Add a video or other educational material

  ‣ Use Nextcloud

  ‣ create users

  ‣ Share content