

Digital freedom with youth and education

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Introduction

Benedict Suska

- ▶ 17 years old
- ▶ Wuppertal, Germany
- ▶ Student in 11th grade
- ▶ Member of Teckids e.V.
- ▶ Interests:
 - ▶ Home automation
 - ▶ Working on projects in hacker spaces with friends
 - ▶ Making music

Kirill Schmidt

- ▶ I am 16 years old
- ▶ Regular visitor of a local Hackerspace
- ▶ Free Software Enthusiast since beginning of 2020
- ▶ Audio and lights technician at school
- ▶ Project leader of schul-frei

Dominik George

- ▶ Older than the average speaker in this talk
- ▶ Founder and chairman of Teckids e.V.
- ▶ FOSS enthusiast and contributor
- ▶ Systems and database administrator at credativ Germany
- ▶ Python/Django developer

Teckids e.V. & schul-frei

- ▶ Teckids e.V.
 - ▶ Probably the only free software youth organisation
 - ▶ Headquarters in Germany, but works internationally
 - ▶ Goal: Set up a free software community for children and adolescents
 - ▶ Hosting stuff for educational organisations (Moodle, BigBlueButton, Jitsi)
 - ▶ Contributing to and maintaining educational FOSS
- ▶ schul-frei
 - ▶ German pun (“school” + “free” literally meaning “off school”)
 - ▶ Free, open and secure digitisation for educational organisations
 - ▶ Selection of high-quality educational FOSS
 - ▶ Bringing schools, developers and consulting companies together
 - ▶ Opportunities for adaptation and participation

Free software in education - Why?

- ▶ Independence from single suppliers
- ▶ Freedom in using the software
 - ▶ No unnecessary restrictions
 - ▶ No hidden costs
- ▶ Sustainability
 - ▶ Long term support
 - ▶ Usage of old hardware
- ▶ Adaptability
- ▶ No commercialisation of education

Children in FOSS

Young people as users and contributors

- ▶ Education is an important use case of many software packages
- ▶ Software is also used heavily by young persons in their free-time
- ▶ Functionality and user stories can vary a lot by target group
 - ▶ Welcoming young users and education as a target audience adds an important point of view to development

Participation of children and adolescents

- ▶ All users should be considered contributors
- ▶ The smallest contributions are valuable (for the project and especially for contributors as a „stepping stone“)
- ▶ Simplest contribution: Questions of understanding
- ▶ Young users are a marginalised minority in the FOSS world

Negative examples

- ▶ GitHub, GitLab.com, Slack, Zoom
- ▶ Development, discussion and conferences should choose free, open platforms that do not exclude any group of people
- ▶ Children and young people are just one example of such groups, but those cannot even legally defend themselves
- ▶ “Our events are for adults aged 16 years and over.” ;)

Contributing to FOSS in education and as a youngster

- ▶ Projects, conferences, hackathons:
 - ▶ Adapt an open, minor-friendly development process and platforms
 - ▶ Include young people in your code of conduct
 - ▶ Scrutinise the Terms of Use of your platforms
- ▶ Community members:
 - ▶ Raise awareness for FOSS as a learning opportunity in schools
 - ▶ Raise awareness for young users and contributors in FOSS communities
 - ▶ Actively encourage young people to get involved and help them
- ▶ Teachers: Integrate development of the used software in lesson
 - ▶ e.g. apps for daily life at school
- ▶ Universities:
 - ▶ Be multipliers
 - ▶ Teach importance of community aspects to every IT student
 - ▶ Lead by example, let students contribute to FOSS

Use of FOSS in education

Difficulties of FOSS in education

- ▶ Overwhelming amount of solutions for everything
 - ▶ Unclear pros/cons of solutions
 - ▶ Unclear support offers
 - ▶ Unclear goals and stage of development
- ▶ Different kinds of support
 - ▶ Mailing lists, IRC, other service provider
- ▶ Inobvious integration with other software

FOSS in education - Culture Clash

- ▶ FOSS scene
 - ▶ Diversity
 - ▶ Freedom of choice
 - ▶ Everyone helps everyone
 - ▶ Commercial is evil
- ▶ Decision makers
 - ▶ Marketing
 - ▶ Clear offers
 - ▶ Numbers
 - ▶ Direct support
 - ▶ Put off responsibility
 - ▶ Liability

schul-frei - Approach

- ▶ Curating
 - ▶ Naming fields of endeavour — What is software used for in schools?
 - ▶ Choosing solutions by certain criteria
- ▶ Integration
 - ▶ Linking components between each other
 - ▶ Exchange of data, Single Sign-On, etc.
- ▶ Presentation
 - ▶ Website, talks, booth
- ▶ Support
 - ▶ Offers and technology with agreed upon standards
 - ▶ Create a network of professional consulting companies

Current solutions in schul-frei stack

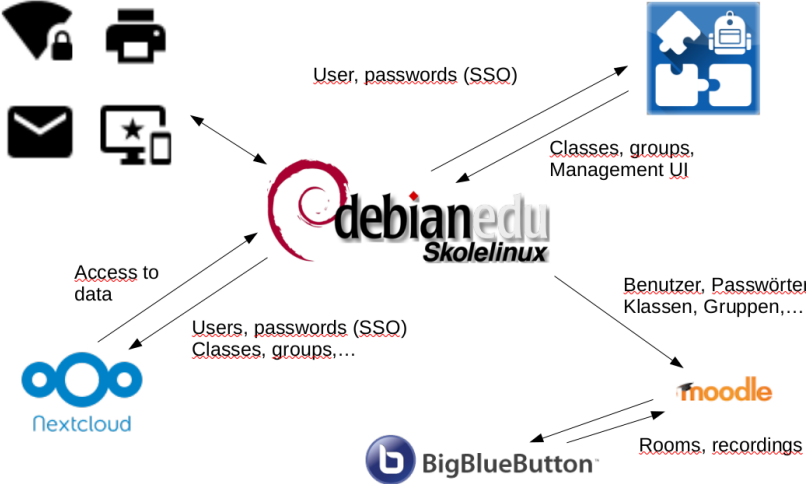


Figure 1: Integration of schul-frei components

Example 1: Debian Edu

- ▶ Full-featured solution for school networks
 - ▶ Servers and clients (Laptops, dsktops)
- ▶ Debian Pure Blend
- ▶ User management, LDAP/kerberos, Basic network services
- ▶ Pre-configured LTSP (netboot) environment
- ▶ Desktop and pre-selected apps for student and teacher workstations

Example 2: AlekSIS

- ▶ School Information System
- ▶ Extensible with (Django) apps
- ▶ Developed by professional developers and students together
- ▶ Standard distribution:
 - ▶ Persons, groups, courses
 - ▶ Timetables, substitution, room plans
 - ▶ Class register with flexible transparency
 - ▶ Support, issue reporting system
- ▶ Development goals:
 - ▶ High quality software
 - ▶ Text book example to make development in CS courses easy

Participate

How you can help

- ▶ Help FOSS projects to become friendly towards education and youngsters
- ▶ Help youngsters to become users and contributors
 - ▶ Let schul-frei / Teckids help you help us!
- ▶ Spread the word and do marketing
 - ▶ Improve website and texts
 - ▶ Give talks and run booths
- ▶ Administration
 - ▶ Help with Ansible roles, test deployments, bugfixes
- ▶ Service provider
 - ▶ Become a dedicated schul-frei consultant company
- ▶ Sponsoring and donations

Communication channels

- ▶ Matrix room: `#schul-frei:matrix.teckids.org`
 - ▶ IRC: `#schul-frei` on Freenode
 - ▶ XMPP: `schul-frei@conference.mercurius.teckids.org`
- ▶ Website: <https://schul-frei.org>
- ▶ Development: <https://edugit.org/schul-frei>