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OSS & High Schools: Inside / Outside Perspective

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Key topics for today

1. Why?
2. High School Curriculum: What does it look like?
    a. Framework and School Educational Programmes
3. Where Open Source fits the Czech curriculum?
    a. Secondary Technical vs General Schools
4. Limitations and expectations
    a. Teacher vs. outside perspective
5. Filling the gaps!
    a. Common misconceptions and what you can do!

High School Curriculum

- What does it look like?
  a. State level ⇒ Framework Educational Programmes (RVP)
     i. There is an FEP for every field of education
     ii. Generic, **competency-based curriculum**
     iii. It set objectives and length, but not the detailed content of subjects
  b. School level ⇒ School Education Programmes (ŠVP)
     i. Implementation of FEP is prepared by every school
     ii. School has a lot of **freedom in how subjects are structured**
  c. Subject level ⇒ Thematic Plans
     i. Planning of subject instruction on quarterly/lesson-to-lesson basis
     ii. Here, you can find a teachers doing their job :)

One note...

- Have you ever heard Czech word “osnovy” recently?
  - Just to let you know: **there is nothing like “osnovy”** for – a lot – of years
    - FEPs (RVP) are based on law from 2004 and started to be implemented by schools since 2007. Every single school in Czech Republic has been using it for a pretty long time.
- The change is not only about terminology...
  ...the whole system is different!

Where Open Source fits Czech curriculum

- Secondary Technical vs General Schools
  a. Let's pick one FEP (RVP) for each type of school as an example:
     i. 18-20-M/01 – Information technology
     ii. RVP G – Secondary general school (gymnázia)

     … and research a bit for keywords like: Linux, Open Source, GNU:
     iii. **Result? None!** And it is correct as **FEP (RVP) is a general document**
     ⇒ In theory, students can be educated – almost – without mentioning OSS
     iv. **But you can find:** operating systems, licenses, application software, networking etc. (In case of Information technology)

- Key document is SEP (ŠVP)
  a. **Every school decides on its curriculum** and specific technology to be used. (In theory, schools should remain technologically neutral.)

Another note…

- Are you a parent? **Ask your school about** SEP (**ŠVP**)!
  - Some schools may consider SEP to be their intellectual property that is unwilling to share it with… anyone.

    (Let's hope that's just rare nowadays.)

Limitations and expectations

- Being a teacher
  a. You wish to fill the thematic plans with useful, relevant and interesting stuff for the students...
     ...but **do you know what that really is**?
  b. Also you need to match SEP (ŠVP) expectations and reach an agreement with your colleagues on thematic plans
- Company employing a graduate (or intern)
  a. Fully integrated and qualified team member since day one :)
  b. Onboarding including mentoring of basic things... takes time
     ...but **are these "basics" the same as they were 10 years ago**?

Filling the gaps!

(Common misconceptions, part I)

- “Contributing to Open Source means via code only.”
  a. We know it is not true (**my first contribution was documentation**), but let’s pass it to the teachers so they can pass it to the students!
- “Linux and Open Source are just a hobby projects.”
  a. (Yes, this one still lives!) **Show the example**. I worked in banking industry, and it was a lot about open source technologies for key critical systems (e.g. RHEL, JBoss).

Filling the gaps!

(Common misconceptions, part II)

- “Open Source won’t pay your bills.”
  a. As a teacher, I took my students to Red Hat to show them that **Open Source** actually **can be your job**.
- “I cannot teach because of… (law|qualification|etc).”
  a. No, there is **no legislative obstacle** for an expert from the IT industry wishing for a part-time job in high school.
- “I will just teach a few hours…”
  a. No, **it is never just a few hours**. You have plenty of other responsibilities you are expected to do.
    i. So importantly ⇒ Do it, or do not. There is no try![1]

1. Reportedly nine of ten Jedi masters confirms this statement.

Filling the gaps!

(What you can do, part I)

- You can help teachers to clarify what is important from perspective of an expert from IT industry.
  a. Which topics and technology is relevant for students?
  b. How to **embed it** into subject instruction?
     i. **Make it natural part of learning**, don't just add another topic. (Trust me, their thematic plan is already long.)
     ii. And you can **embed** new tech **into existing education fields** like ansible (operating systems), git (multiple areas), containers (programming, operating systems).

Final note...

- Just... **do not create another topic**, that's a tragedy of any education system.
  - Is there something new? ⇒ Hey let's create some new shiny subject!
  - Is there a new tech? ⇒ Put it as topic into thematic plan!

(and make Seymour Papert cry)

Filling the gaps!

(What you can do, part II)

- You can:
  a. show teachers and students how your company works, invite them a visit to **show how you use Open Source**!
  b. do **talks and workshops for high school students**. Technical schools are eager for that. Just... don't only sell your product to them. They saw it multiple times. Try to **inspire them** instead!

Filling the gaps!

(What you can do, part III)

- But… don’t overthink that:
  a. Let’s take an example, contributing to Open Source projects requires at least basic knowledge of English, so there is **relation between** informatics and language **education fields**.
     (and **Czech curriculum welcomes this approach!**)
     …but what about following:
     i. Do you reach an agreement on it on multiple levels?
     ii. What are the expected outputs?
     iii. How do you measure that (yeah, grading)?
  b. Contributing to **OSS projects** as a part of **matriculation exams**?

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Do the change!

There is nothing big blocking you.