



KNOWLEDGE SCOUT

HOW TO TURN A CONFERENCE INTO LIVING KNOWLEDGE

SFSCON 2025

PETER AICHNER - BCOMMONSLAB.ORG

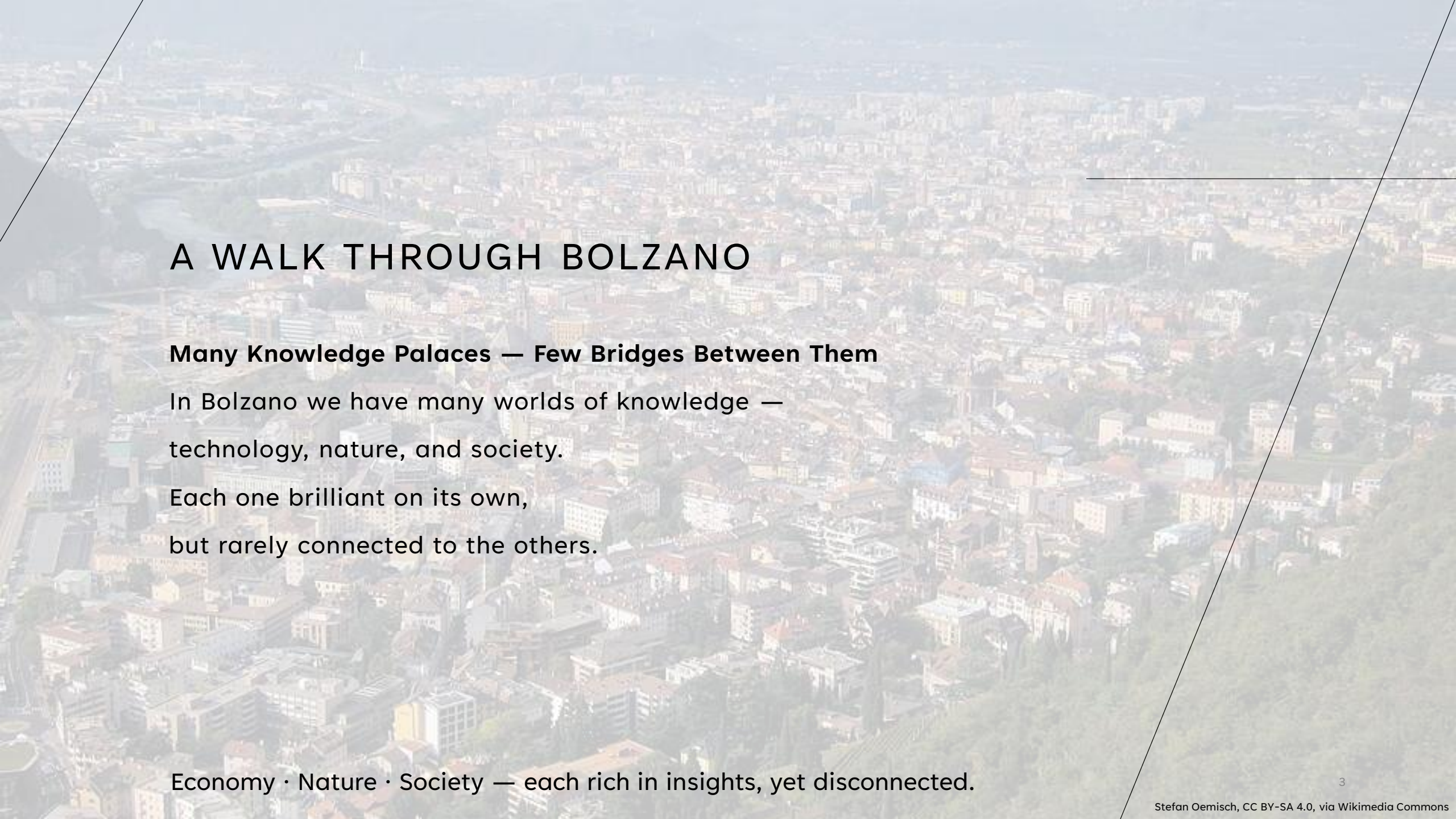
KNOWLEDGE SCOUT

How to Turn a Conference into Living Knowledge

Passion for free software & open source

- Every year, hundreds of great talks vanish in archives.
- Knowledge Scout transforms them into something alive — searchable, comparable, and open for everyone to explore

An adventure project exploring how technology can help us think together.

An aerial photograph of Bolzano, Italy, showing a dense urban landscape with numerous buildings, streets, and green spaces. The image is semi-transparent, allowing the text to be clearly visible. A thin black line runs diagonally from the top left to the bottom right, and another thin black line runs horizontally across the top right.

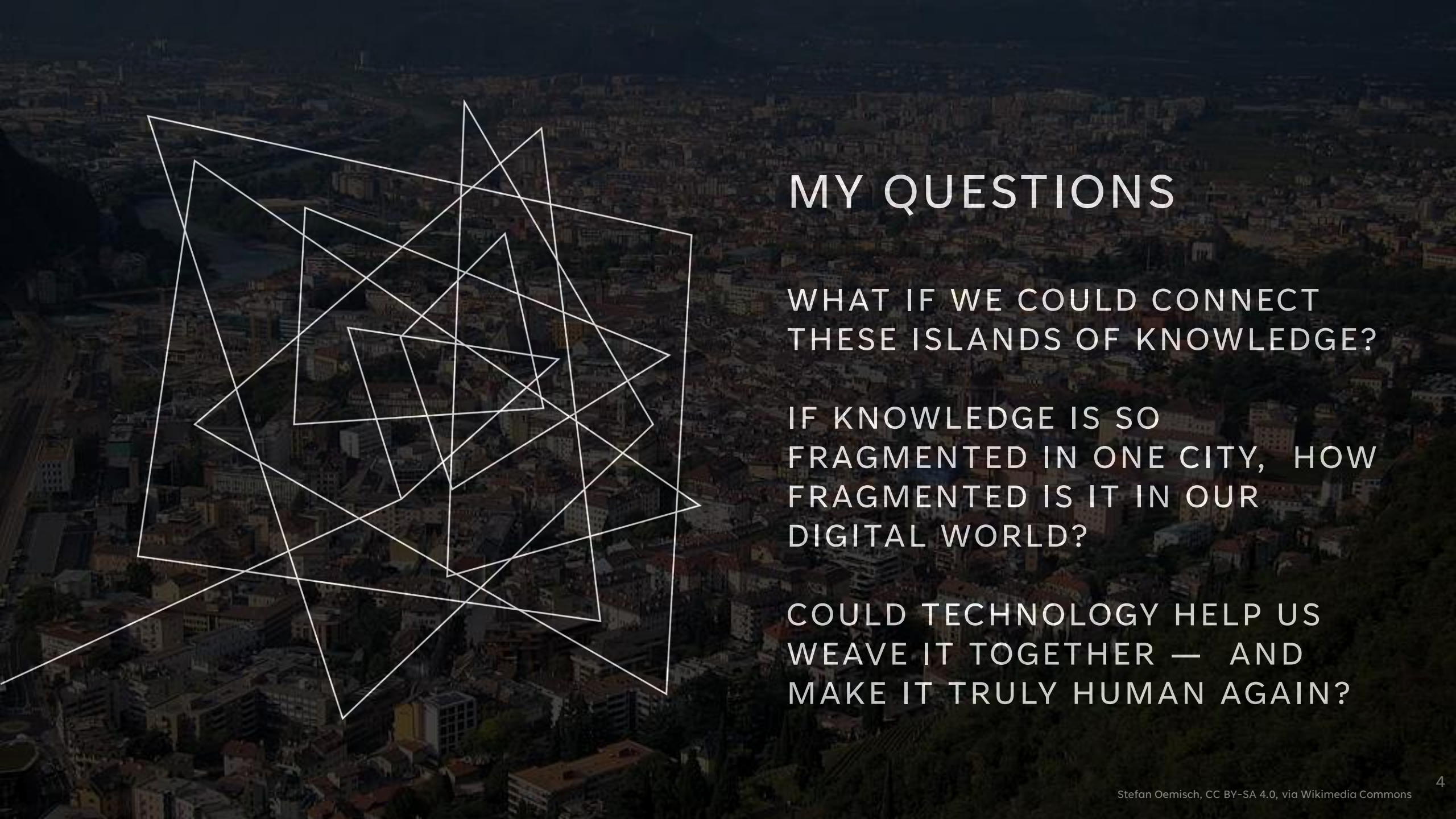
A WALK THROUGH BOLZANO

Many Knowledge Palaces — Few Bridges Between Them

In Bolzano we have many worlds of knowledge —
technology, nature, and society.

Each one brilliant on its own,
but rarely connected to the others.

Economy · Nature · Society — each rich in insights, yet disconnected.



MY QUESTIONS

WHAT IF WE COULD CONNECT
THESE ISLANDS OF KNOWLEDGE?

IF KNOWLEDGE IS SO
FRAGMENTED IN ONE CITY, HOW
FRAGMENTED IS IT IN OUR
DIGITAL WORLD?

COULD TECHNOLOGY HELP US
WEAVE IT TOGETHER — AND
MAKE IT TRULY HUMAN AGAIN?

THE CHALLENGE

Great Ideas, Lost in Silos

After every conference, knowledge is scattered across slides, videos, and PDFs. Valuable content — but fragmented.

We can't see the full picture anymore

- Hundreds of talks
- Scattered data
- No unified access

SFSCON NOV. TECHPARK - BOLZANO/ITALY NOV. 7TH-8TH 2025 REGISTER MENU

Programme 2024

NOVEMBER 8-9TH

A 2-day festival on Friday, 8th November and Saturday, 9th November 2024

Please note that the programme is subject to change and will be continuously updated until the conference opens. All times are expressed in **Central European Time (CET) UTC+01:00**.

Registrations are now open!

Search for a talk All tracks and events All locations

Day 1 Friday, 08th November 2024

08:30 **MAIN TRACK**
Check-in SFSCON 2024

09:00 **MAIN TRACK**
Opening SFSCON 2024
Ulrich Steffner
NO Techpark

09:15 **MAIN TRACK**
Greetings
Dustin Dierkes
Vincent Maurin
NO Techpark
Giorgio Allasia
PSC Spa
Sergio Srijan
Venetic
Remont

09:30 **MAIN TRACK**
Open Source Businesses as an Independent, Sustainable way to Fund Open Source
Where Seminar 1
Duration 20mins
Emily Omier
Emi Omier Consulting

10:00 **MAIN TRACK**
European SFS Award 2024
Free Software Foundation Europe (FSFE) and Linux User Group Baden-Baden-Baden assign the "European SFS Award"
Where Seminar 1
Duration 20mins

10:15 **MAIN TRACK**
SFS Award 2024
Linux User Group Baden-Baden-Baden assign the "South Tyrol Free Software Award"
Where Seminar 1
Duration 20mins

10:30 **MAIN TRACK**
Open Source in EU policy
Working lunch with the Open Source community in mind
Where Seminar 1
Duration 20mins
Jordan Maris
OpenSourceEurope

10:30 **SIDE EVENT - School Reading**
Ada & Zangemann
by Mathias Kirschner, illustrated by Sandra Breckelmeier
A tale of Software, Students, and Raspberry Pi Green
This illustrated children's book tells the story of the famous inventor Zangemann and the girl Ada, a curious inventor. Ada begins to experiment with hardware and software, and in the process, her passion leads her to far and others to control technology.
Ada & Zangemann will inspire children's interest in tinkering and encourage using technology.
The reading will be performed in German.
Where Auditorium (K2)
Supported by FSFE - Free Software Foundation Europe

10:50 **MAIN TRACK**
AlmaLinux in brief
Where Seminar 1
benito vasquez
Architect of Innovation

SFSCON NOV. TECHPARK - BOLZANO/ITALY NOV. 7TH-8TH 2025 REGISTER MENU

Open Source Businesses as an Independent, Sustainable way to Fund Open Source

Seminar 1

09:30
Duration 20 mins

Idealists will say that open source contributors and maintainers are all volunteers, but the truth is that developing open source projects costs money. Relying on all-volunteer teams is a risk for individual projects and the ecosystem at large; relying on charity doesn't accurately reflect the value that open source project create. In this talk, Emily will talk about why the open source community should embrace a more commercial approach to funding open source projects, and the key questions project maintainers who want to support their project by building a business around it should ask themselves to increase their chances of success.

Video

 **EMILY OMIER**
EMILY OMIER CONSULTING

OPEN SOURCE BUSINESSES AS AN INDEPENDENT, SUSTAINABLE WAY TO FUND OPEN SOURCE

Presentation

Download slides (1.2 MB)

HOW I TACKLED THIS CHALLENGE

Turning Chaos into Context

I built a system that listens, reads, and connects.
It collects every talk, transcribes it,
and turns isolated files into shared understanding.

I built an automated pipeline to collect, transcribe, and connect everything.

DATA COLLECTION PIPELINE

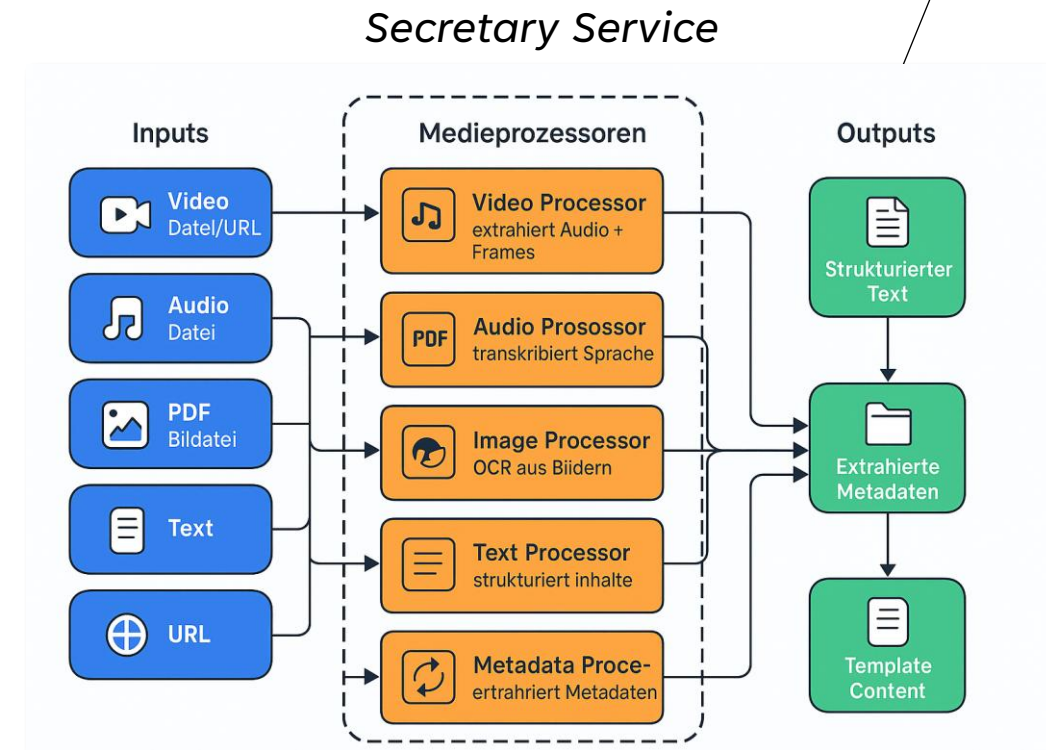
From Webpage to Structured Knowledge

Web pages are scraped automatically.

Audio is transcribed with Whisper,

slides are read by OCR —

and everything is stored as structured Markdown.



Web Scraper → Audio (Whisper) → Text → PDF (OCR) → Markdown Files

FROM RAW TEXT TO MEANING

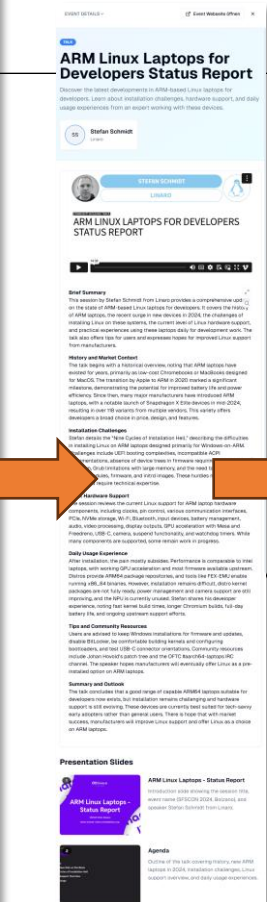
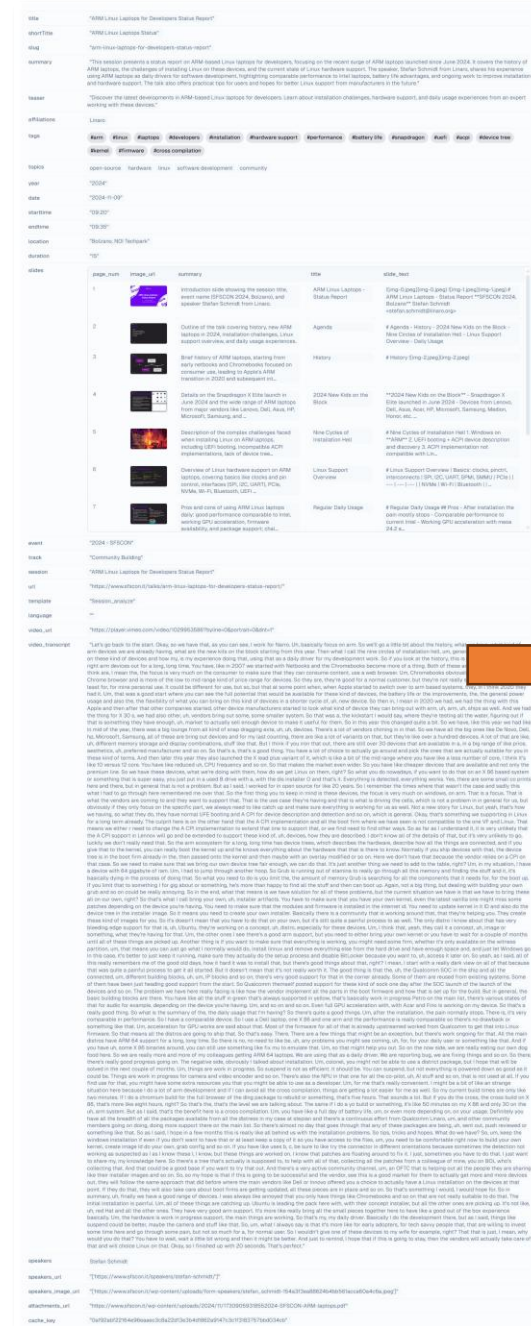
Different Layers of Understanding

Each talk exists in three versions:

- the full transcript,
- a readable summary,
- and a compact insight.

Depth when needed — clarity when not.

Original → Summary → Compact Summary

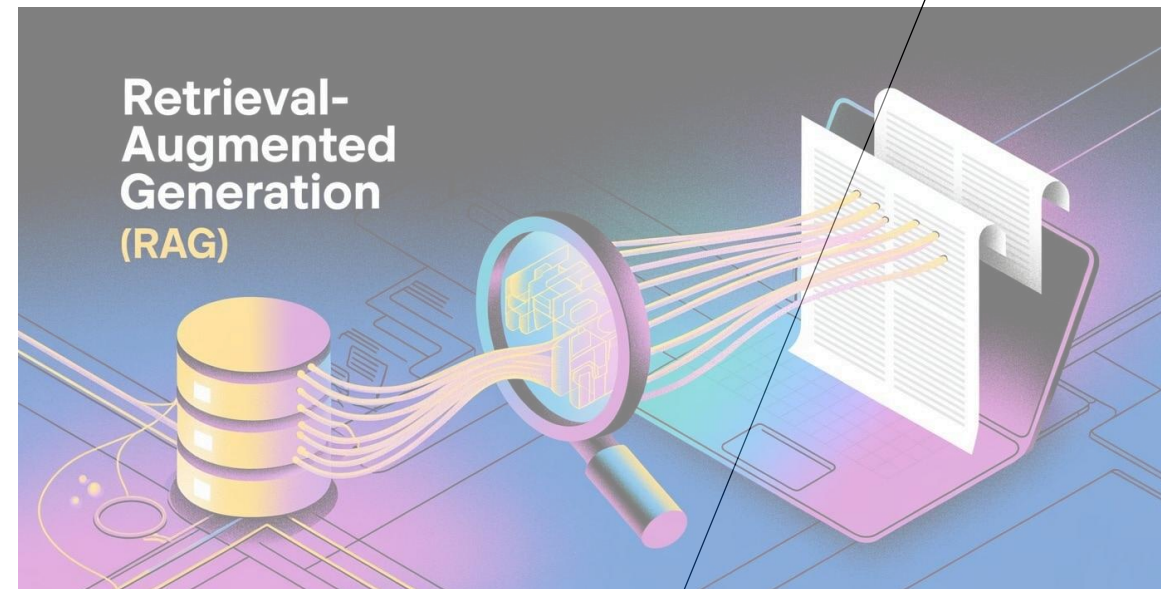


Brief Summary This session by Stefan Schmidt from Linaro provides a comprehensive update on the state of ARM-based Linux laptops for developers. It covers the history of ARM laptops, the recent surge in new devices in 2024, the challenges of running Linux on these systems, the current level of Linux hardware support, and practical experiences using these laptops daily for development work. The talk also offers tips for users and expresses hopes for improved Linux support from manufacturers.

THE RETRIEVER LOGIC

Smart Context Selection for Better Answers

When I ask a question,
the system picks only what matters.
It fits the best content into the model's memory,
and always keeps the sources visible.



Created by OpenAI - GPT5

Select relevant docs → Optimize token budget → Keep sources transparent

GALLERY VIEW

A Living Gallery of Knowledge

All SFSCon talks in one place.

Filter by topic, year, or speaker.

Each talk opens as a clean summary —
knowledge you can read in seconds.

Filter · Explore · Summarize · Discover Connections

The screenshot displays the SFSCon Gallery View interface. On the left, a sidebar contains filter sections for Event, Year, Track, Speakers, Topics, and Tags, each with a 'Zurücksetzen' (Reset) link. The main area shows a grid of talk cards, each featuring a speaker's profile picture, title, subtitle, and date. The right sidebar provides a detailed summary for the selected talk, 'Identikit of a Cloud for Learners', including speaker information, a brief summary, introduction and context, concept of a cloud for learners, challenges and pandemic impact, European initiatives and democratic digitalisation, and a call to action.

Home Docs Bibliothek **Gallery** Templates Event-Monitor Session-Manager Chat

Gallery

Durchsuchen und befragen Sie 197 Dokumente

Filter

Event Zurücksetzen

2023 - SFSCON	56
2024 - SFSCON	81
Programme 2022	56

Year Zurücksetzen

2022	56
2023	56
2024	81

Track Zurücksetzen

Artificial Intelligence tra...	4
Community Building	9
Community track	21
Cultural Change & Educ...	7
Cybersecurity	3

Speakers Zurücksetzen

Abid Munir Bajwa	1
agustin benito bethenco...	1
Alberto Pianon	2
Alberto Siliotti	1
Alessandro Agnati	1

Topics Zurücksetzen

accessibility	2
advocacy	1
agile methodologies	2
agriculture	1
agriculture technology	1

Tags Zurücksetzen

2022	1
2024	1
academia	1
academic incentives	1
accessibility	4

EDDIE in Oniro 2022

EDDIE - Enabling Distributed Intelligence in Oniro

3.11.2025

Practical Guide for Outbound OSS

A practical Guide for Outbound Open Source - can be adapted easily for companies of different sizes

3.11.2025

Yorange Governance 2022

Yorange - An Alternative to Corporate Governance

3.11.2025

The Experimentation Machine

The Experimentation Machine - A framework to assumption-driven entrepreneurship in startups

3.11.2025

What is Copyright 2022

What is Copyright

3.11.2025

What is a trademark

What is a trademark

3.11.2025

The ZOONOM European Project 2022

The ZOONOM European Project - 30s and IP Awareness Raising for Collaborative Ecosystems

3.11.2025

Free Software & Human Rights

Free Software and Human Rights

3.11.2025

Open Hardware POWER Architecture 2022

Start Enjoy Yourself with Open Hardware POWER Architecture Motherboard and Silicon

3.11.2025

Scalability in Microservices

Scalability assessment applied to microservices

3.11.2025

Oniro Project 2.0 2022

Oniro Project - release 2.0: What's new in the land of Oniro?

3.11.2025

Oniro and IoT Revolution

Oniro: How an Open Source Project can revolutionize market/industry

3.11.2025

Reproducible ML for Medical Data 2022

Heading towards reproducible machine learning research for medical data

3.11.2025

HA*Proxy Front Proxy Management

HA*Proxy - Ansible Swiss Army Knife to Manage Available Front Proxies

3.11.2025

Independent BLE beacon 2022

Creating an independent BLE beacon

3.11.2025

Blockchain & Multicast Encryption

Blockchain Smart Contracts and Multicast End-Encryption for a Trustless Data Economy

3.11.2025

Temporal Data in PostgreSQL 2022

Integrating Temporal Data in PostgreSQL

3.11.2025

Integrating Dynamic Data & APIs

Integrating Dynamically-Computed Data and W

Identikit of a Cloud for Learners

Explore a cloud infrastructure designed for learners that prioritizes digital sustainability and data sovereignty. Learn how free software tools and local data centers can create a secure and democratic educational cloud. Discover examples from South Tyrol and Barcelona that inspire a new approach to digital education.

Anton Auer SchoolSwap

Maria Pia Dall'Armellina Bus Cardini Arts School, Vicenza

Paolo Dongilli Italian School Board

Karl Lunger FUSS Project - Autonomous Province of Bozen-South Tyrol

ANTON AUER SCHOOLSWAP

MARIA PIA DALL'ARMELLINA HIGH SCHOOL TEACHER

PAOLO DONGILLI AUTONOMOUS PROVINCE OF BOLZANO

KARL LUNGER HIGH SCHOOL TEACHER

BRIEF SUMMARY

This session explores the concept of a cloud designed specifically for learning, focusing on digital sustainability, data sovereignty, and the use of free software in education. The speakers present a vision of a cloud infrastructure that respects privacy, is interoperable, accountable, and compliant with GDPR. They discuss challenges faced during the pandemic and highlight the example of Barcelona's Democratic Digitalisation of Education as a pioneering initiative.

INTRODUCTION AND CONTEXT

The session begins with an introduction of the speakers and the motivation behind the project. The speakers represent various educational and technical institutions in Italy and South Tyrol. They emphasize the importance of understanding digital sustainability and data sovereignty in schools, advocating for a cloud infrastructure that uses free software tools hosted locally.

CONCEPT OF A CLOUD FOR LEARNERS

The speakers describe the components of their proposed cloud, including tools like Nextcloud, LibreOffice, Moodle, ILIAS, Chamilo, and Big Blue Button. They stress that this is not about reinventing technology but about adopting and spreading an idea of a democratic, sustainable cloud for education. The cloud must be sustainable, interoperable, accountable, sovereign, and GDPR compliant.

CHALLENGES AND PANDEMIC IMPACT

The discussion addresses the challenges schools faced during the COVID-19 pandemic, where many relied on big tech solutions that did not fully respect data sovereignty or privacy principles. The speakers note delays in data protection authorities' responses and the risks of using centralized commercial cloud services.

EUROPEAN INITIATIVES AND DEMOCRATIC DIGITALISATION

The session highlights the city of Barcelona's Plan for the Democratic Digitalisation of Education, developed by Xnet and families, which integrates free and auditable software tools to protect digital rights. This project serves as a model for Europe, encouraging public administrations to support and reuse such initiatives.

CALL TO ACTION

The speakers call for increased public funding for public code in education and urge experts, parents, and young people to collaborate in building a democratic digital education infrastructure. They emphasize the need for greater awareness and sensitivity among authorities, especially in Italy, to adopt free software solutions and support digital sovereignty.

CHAT VIEW

From Exploring to Conversing

I can now ask questions —
not just search for words.

The Scout combines insights from many talks
and shows exactly where each answer comes
from.

*All talks in one gallery · Ask natural questions ·
Get answers with citations*

The screenshot displays the Scout application interface, which is a chat-based search tool. The top navigation bar includes links for Home, Docs, Bibliothek, Gallery, Templates, Event-Monitor, Session-Manager, and Chat. The main interface is divided into three primary sections:

- Filter (Left Panel):** A sidebar with various filters including Event (2023 - SFSCON, 2024 - SFSCON, Programme 2022), Year (2022, 2023, 2024), Track (Artificial Intelligence tra..., Community Building, Community track, Cultural Change & Educ..., Cybersecurity), Speakers (Abid Munir Bajwa, agustin benito bethencio..., Alberto Pianon, Alberto Silitti, Alessandro Agnati), Topics (accessibility, advocacy, agile methodologies, agriculture, agriculture technology), and Tags (2022, 2024, academia, academic incentives, accessibility).
- Chat Archiv - Beta (Center Panel):** A chat window titled "What is open source education?". It shows a message from a user asking the question and a response from the system. The response includes a detailed definition of open source education, core principles (Community and Collaboration, Transparency, Open Licensing, Open Standards), practical examples (Open Educational Tools, Open Hardware and Data, Community-Driven Initiatives), and benefits (Empowerment, Equity and Access, Sustainability). The response is cited with references [4], [7], [16], [18], [22], [40], [43], and [129].
- Legende und Verwendete Dokumente (Right Panel):** A section titled "Legende und Verwendete Dokumente" showing a grid of document thumbnails. Each thumbnail includes a title, a year, and a small image. The documents are organized into categories like "SFS Award 2022", "Open Source & Open Standards...", "What is Copyright", "What is a license", "Open Hardware POWER...", "Educational design research and Twine", and "SFS Award 2024".

The interface is designed to be user-friendly, with clear navigation and a focus on providing context and citations for the information presented.

CHANGE OF PERSPECTIVE

Same Question — Different Meaning

The same data can sound very different.

Ask it as a student, an entrepreneur, or a citizen —
and the system highlights what matters most
for that point of view.

Antwortlänge:

Methode:

Zielsprache:

Charakter/Perspektive:

Sozialer Kontext/Sprachebene:

Developer-orientiert

Technisch-orientiert

Open-Source-spezifisch

Naturwissenschaftlich

Ökosozial-orientiert

Sozial-orientiert

Bürgerschaftlich-orientiert

Politikwissenschaftlich-orientiert

Kulturell-orientiert

☒ Business-orientiert

Unternehmerisch-orientiert

How prompt design shapes the knowledge we see.

How is open-source discussed in education?

Open Source in Education: Policy, Regulation, and Societal Impact

Open source in education is increasingly discussed as a strategic policy tool to foster digital sovereignty, inclusivity, and sustainability within educational systems. From a political science and policy analysis perspective, open source is not just a technical choice, but a governance decision with far-reaching implications for regulation, public investment, and societal outcomes.

Policy and Regulatory Frameworks

- Public Money? Public Code:** There is a growing movement, especially in Europe, advocating that publicly funded software should be released as free and open source. This initiative aims to increase transparency, reduce vendor lock-in, and ensure that educational institutions can adapt and reuse digital tools according to their needs. Monitoring tools like TEDetective help track the real-world implementation of such policies, revealing gaps between policy intent and practice [6].
- Digital Sovereignty:** Open source is positioned as a key enabler of digital sovereignty in education. By using and developing open source software, educational institutions and governments can maintain control over their digital infrastructure, data, and educational content, reducing dependence on foreign or proprietary vendors [3], [40].
- Legal and Licensing Education:** Open source in education often involves teaching about copyright, licensing, and intellectual property. This empowers students and educators to understand their digital rights and responsibilities, promoting a culture of legal and ethical software use [43].

Governance Structures and Implementation

- Community-Driven Models:** Open source projects in education frequently rely on collaborative governance, where teachers, students, and external contributors co-create and maintain digital tools. This participatory approach aligns with democratic values and can serve as a model for broader civic engagement [4], [43].
- Open Standards and Interoperability:** Adopting open standards is crucial for ensuring that educational tools and content can work together, avoiding vendor lock-in and promoting long-term sustainability. Policy frameworks increasingly emphasize interoperability as a requirement for public sector procurement [4], [40].

Societal and Political Implications

- Inclusivity and Accessibility:** Open source lowers barriers to participation, making educational technology accessible to diverse and under-resourced communities. Projects like MiniBZ and Bitz FABLAB demonstrate how open hardware and software can empower children and teachers, fostering digital literacy and environmental responsibility through technology reuse [4], [129].
- Sustainability:** By promoting the reuse of hardware and software, open source supports environmental sustainability and responsible resource management in education [129].
- Empowerment and Digital Citizenship:** Teaching with and about open source tools helps students become active digital citizens, capable of shaping technology rather than just consuming it. This aligns with broader societal goals of empowerment, critical thinking, and democratic participation [43], [40].

Conclusion

Open source in education is a multifaceted policy issue that intersects with regulation, governance, and societal values. Its adoption can drive transparency, inclusivity, and sustainability, but requires supportive policy frameworks, investment, and ongoing community engagement to realize its full potential. [3] [4] [40] [43] [6] [129]

Legende (6) Explain Debug

Weitere Fragen:

- What are the main barriers to implementing open source policies in education?
- How do open source initiatives in education support digital sovereignty?
- What role do open standards play in educational technology policy?
- How is open source governance structured in educational projects?
- What are the environmental impacts of open source adoption in schools?
- How does open source contribute to inclusivity and accessibility in education?
- What policy recommendations exist for increasing open source use in public education?

How is open-source discussed in education?

Open Source in Education: Business Perspective

Open source in education is discussed as a strategic lever for efficiency, innovation, and long-term value creation. From a business standpoint, open source enables educational institutions and companies to reduce costs, avoid vendor lock-in, and foster a culture of digital sovereignty and sustainability.

Efficiency and ROI

- Cost Reduction:** Open source software and hardware lower licensing and procurement costs, allowing organizations to allocate resources more efficiently. Projects like MiniBZ demonstrate how recycled hardware running open source software can extend device lifespans and reduce e-waste, directly impacting operational budgets [129].
- Avoiding Vendor Lock-In:** By adopting open standards and open source solutions, educational organizations maintain flexibility and control over their digital infrastructure, reducing dependency on proprietary vendors and enabling easier integration of new technologies [40].

Market Opportunities and Competitive Advantage

- Innovation and Customization:** Open source allows for rapid prototyping and adaptation of educational tools to specific needs. Initiatives like Bitz FABLAB and digital storytelling platforms based on Twine illustrate how open source fosters experimentation and tailor-made solutions, giving institutions a competitive edge in delivering modern, engaging learning experiences [4][43].
- Community-Driven Development:** Collaboration with open source communities accelerates problem-solving and knowledge sharing. This approach not only reduces development time but also ensures continuous improvement and security through peer review [4][43].

Sustainability and Practical Implementation

- Sustainable IT:** Open source supports environmental goals by promoting hardware reuse and energy-efficient software. Educational projects that upcycle devices and use free software contribute to sustainability targets and can be showcased as part of ESG (Environmental, Social, Governance) strategies [129][9].
- Scalability and Accessibility:** Open source solutions can be deployed at scale, supporting diverse educational environments from local schools to international collaborations. Tools like Nextcloud, Moodle, and open hardware platforms are adaptable and accessible, making them practical for wide adoption [40][4].

Legal and Policy Considerations

- Compliance and Digital Sovereignty:** Open source aligns with public policies advocating for transparency and digital autonomy. European initiatives such as "Public Money? Public Code" encourage the release of publicly funded software as open source, ensuring that investments benefit the broader ecosystem and not just individual vendors [6][40].
- Licensing and Governance:** Understanding open source licenses and governance models is crucial for risk management and legal compliance. Training educators and IT staff in these areas mitigates legal risks and supports responsible technology adoption [43][4].

Conclusion

Open source in education is not just a technical choice but a strategic business decision. It drives efficiency, innovation, and sustainability, while opening new market opportunities and strengthening digital sovereignty. Successful implementation requires investment in skills, community engagement, and alignment with policy frameworks. [4] [9] [40] [43] [6] [129]

Legende (6) Explain Debug

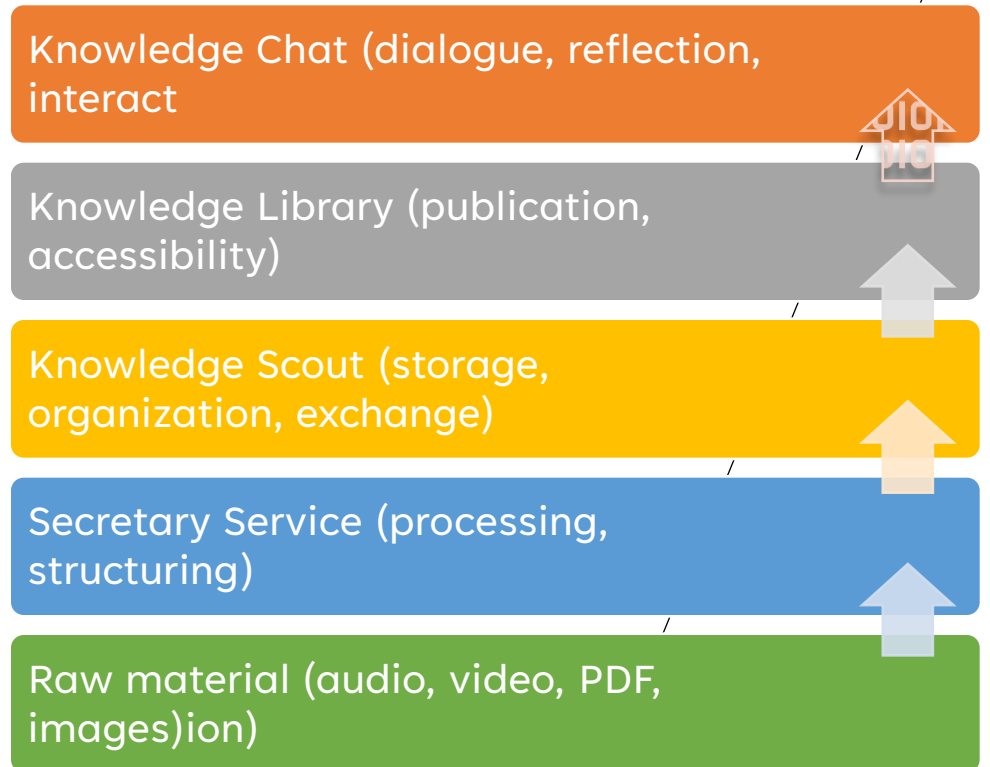
Weitere Fragen:

- What are the main challenges for educational institutions adopting open source solutions?
- How can open source contribute to digital sovereignty in the education sector?
- What are the best practices for managing open source compliance in schools and universities?
- How does open source impact the total cost of ownership in educational IT projects?
- Which open source platforms are most widely used in education, and why?
- How can businesses support open source adoption in education for mutual benefit?
- What role do public policies play in promoting open source in education?

YOUR PERSONAL STACK

Personal Knowledge Stacks — The Architecture Behind the Perspective

Each of us keeps knowledge in our own filesystem.
We can share parts of it with trusted peers
or publish common knowledge openly —
a network of connected personal worlds.



Where context lives and how we share it.

VISION

From Individual Insight to Collective Intelligence

We can't face complex challenges alone.

**Our real progress begins when we
perceive, reflect, decide and act —
not as individuals, but as a collective mind.**





CALL TO ACTION



Let's Build Common Knowledge Space Together

The Knowledge Scout is open to everyone.

If you have meaningful data or stories,
let's make them accessible —
so you and others can learn, connect, and act.

*Peter Aichner - bcommonslib.org
<https://knowledgescout.bcommonslib.org/>*



KNOWLEDGE
IS NOT A POSSESSION —
IT'S A MOVEMENT.

Thank you for being part of it.