THE STATUS QUO OF EDTECH ETHICS:

A SYLLABI ANALYSIS

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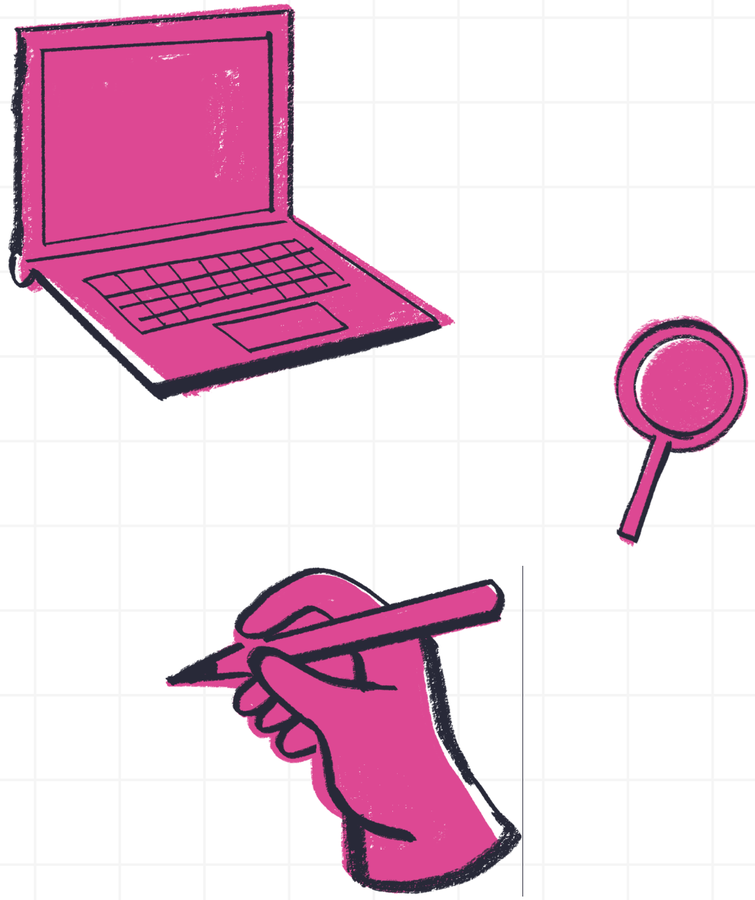

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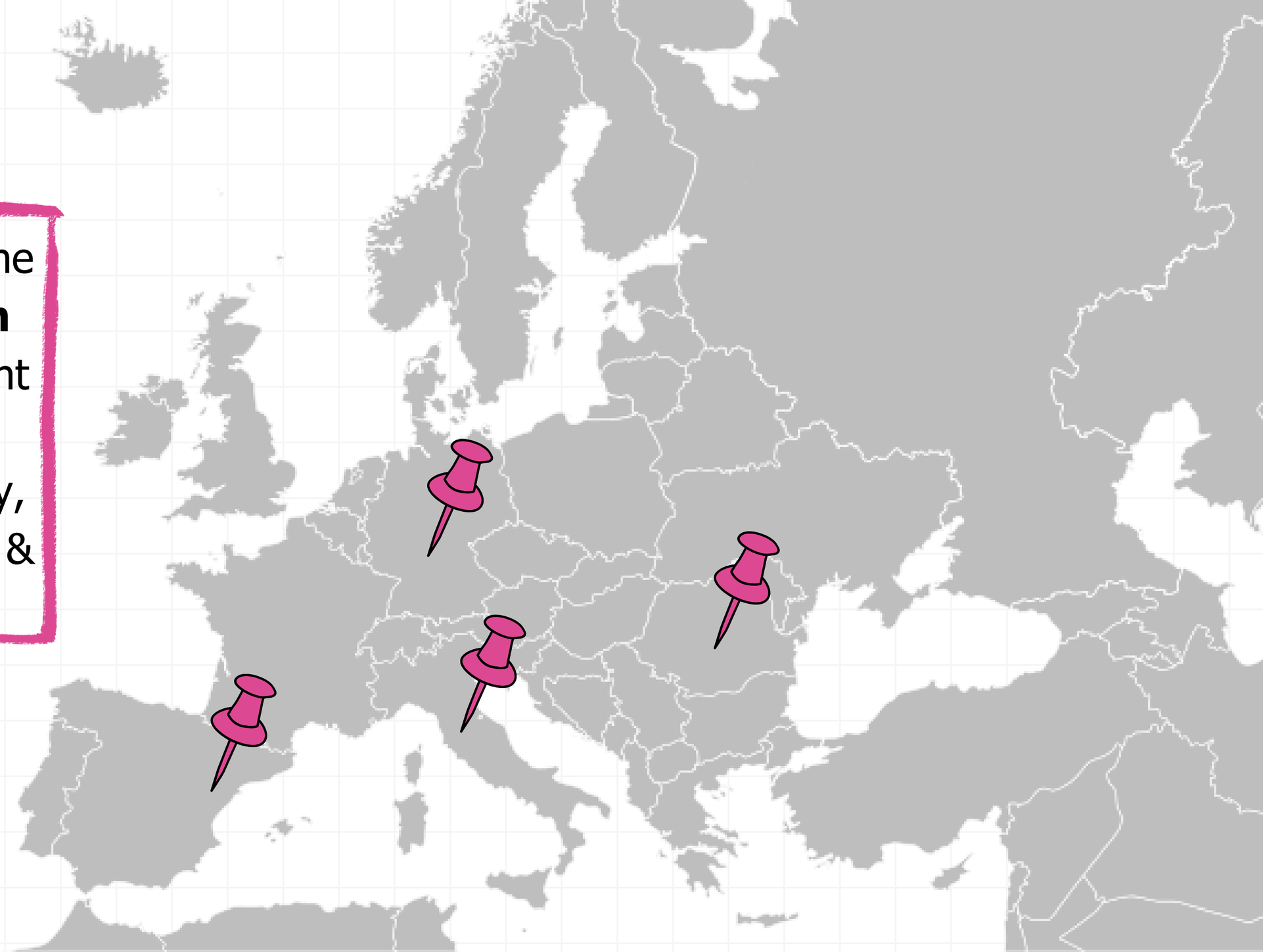
To what extent is the topics of **ethics in technology** present in initial teacher training across Italy, Germany, Romania & Spain?



BUT... WHY FOCUS ON SYLLABI?

Syllabi are more than technical guides, they are **institutional artefacts** that capture how knowledge is structured, what is considered valuable, and how learning is expected to take place. For instance: What knowledge is considered legitimate? Which teaching practices are encouraged? And how do these choices reflect broader cultural and institutional values?

Our standpoint: **curriculum is never neutral and always shaped by relations of power** (Apple, 2004; Tadeu da Silva, 1999; hooks, 2021).

Why are syllabi valuable as a research object?

- **Macro level.** Syllabi allow us to explore broader institutional and cultural patterns → move beyond individual accounts to see broader patterns.
- **Meso level.** Syllabi show disciplinary traditions → defines what counts as central knowledge.
- **Micro level.** Syllabi are pedagogical contracts → framework for daily teaching practice (Objectives, readings, assignments, assessments).

SAMPLE

- **150 syllabi** on educational technologies & digital learning
- **Context**: future teachers, educators, and trainer undergraduate's education
- **Countries**: Germany, Italy, Romania, Spain

Data, codebooks, and analysis scripts are documented and available in open access on Zenodo (https://zenodo.org/communities/eth-tech/)

After a preliminary review to identify common key terms → a minimal or negligible to unclear presence of the term "Ethics"

FOCUS OF ANALYSIS:

- **A)** Presence of "Ethics".
- **B)** Alignment content ↔ assessment dealing with ethics (Biggs, 2003).

POPULATION & SAMPLING STRATEGY:

- **Target:** syllabi on educational technologies (teacher/educator education).
- **Stratification criteria:**

1. Public vs. private institutions.
2. Presence of education science/pedagogy degrees or units.
3. Regional diversity (high vs. low GDP regions).

CORPUS ANALYSIS:

- **Qualitative text analysis (per partner)**
- **Some Common Keywords:**

1. Core themes: ethics, data ethics, AI ethics, data justice, technological sovereignty/divide, accessibility.
2. Operational terms: robust*, transparency, black box.
3. Pedagogical concepts: critical thinking.

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CODEBOOK

Variable	Description	Values	Type
OCourse	Original Course's Name	Label	Nominal
Website OCourse	Website of the Syllabus	Link	Nominal
DegreeENG	Degree from which the Course/Link to the Syllabus is extracted	Label	Normal
University	Full original Name of the University from which the Degree, Course and Link to the Syllabus is extracted.	Label	Nominal
Un_Dim	University Dimension according to the number of students, where: Less than 10000 is Small, 10001 to 20000 is Medium, 20001 and more is Big	Big Medium Small	Ordinal
Un_Geog	Localisation within the Country according to the GDP: High (above 30k for Rumania, 40k for Spain, 60k for Italy, 70k for Germany); Medium (between 10 and 30k for R, 12-40k for S, 15-40 for I, 30-70 for G); Low (less than 10 for R, 12 for S, 15 for I, 30 for G)	High Medium Low	Ordinal
Teaching/Learning Model	The model adopted to teach and learn, onsite or online based.	Onsite/Blended Fully Online	Nominal
Type	Funding and access	Public Private	Nominal

GERMANY

- 422 universities - 2 teacher training/general education courses per federal state → **final sample: 32 universities**
- courses relevant for ETH-TECH (syllabi mentioning technology, digitization, media) → final sample: **9 courses from 9 universities**
- Courses coded per project guidelines - **Module handbooks (29–144 pages)** analyzed using keyword list

ROMANIA

- 56 universities → **final sample selection: 8 universities.**
- Courses relevant for ETH-TECH: "Computer-assisted instruction" (mandatory curriculum for teacher trainig decided by the Ministry of Education) → **final sample: 12 courses from 8 universities.**
- Each syllabus read; general themes identified → **qualitative analysis.**

ITALY

- 89 universities (60 public, 29 private; 11 private offer fully online programs) - sample selection: 30% → **final sample: 35 universities**
- courses related to educational technology in education degrees (lifelong learning trainers, teachers, educators, other educational professions) → final sample: **77 syllabi**
- Each syllabus read; keywords and general themes identified → **qualitative and quantitative analysis**

SPAIN

- 91 universities (65 including undergraduate degrees in educacion-related fields) → **final sample selection: 38 universities.**
- Syllabi mainly related to Primary and Early Childhood Education (primarly mandatory courses) → **36 syllabi identified.**
- Each syllabus read and analyzed; general themes identified → **qualitative analysis (emerging topics).**

SOME **RESULTS**

Syllabi Analysis: Preliminary Results		
Country/Sample	**Methodological Approach**	**Main Findings**
Germany 9 Documents* *Handbooks	Theoretical sampling Coverage of main geopolitical areas in the country Qualitative/Thematic Analysis	• Highest presence of media education, digitization effects and technology's impact (digitalization reshaping society). • Strong emphasis on promoting competences in media pedagogy and to teach responsible use. • Critical-reflective or ethical perspectives less prominent. • Terminological ambiguity (e.g., "media literacy" can be practical or reflective-critical)
Italy 77 documents	Stratified Quantitative sampling Coverage of main geopolitical areas in the country Quantitative Analysis General qualitative discourse analysis	• Focus is on practical application and inclusion, especially for learners with special needs. • Virtual environments' design and implementation, class orchestration with EdTech is the most represented element. • Ethics rarely integrated in educational technology content, but it appears as a full subject in the degrees.
Romania 12 documents	Theoretical sampling Coverage of main geopolitical areas in the country General qualitative discourse analysis	• Ethics included only as "professional deontology". • Strong focus on technical use of digital tools. • Ethical discourse in digital contexts is minimal and implicit.
Spain 36 documents	Stratified Quantitative sampling Coverage of main geopolitical areas in the country Quantitative Analysis General qualitative discourse analysis.	• Ethics mostly included as "professional deontology" but never in connection with digital or technological contexts. • Strong focus on technical use of digital tools, but also the pedagogical intengration of technology. • Ocassionally, students are expected to reflect critically on the social and cultural implications of technology in education → usually appears in the learning outcomes, not in the actual course contents.

DISCUSSION
AND CONCLUSION

INSUFFICIENCY OF ETHICAL SOLUTIONISM & INDIVIDUAL RESPONSIBILITY

→ **FOUR ETHICAL-PEDAGOGICAL FUTURES:** technological diversity, collective agency, planetary care, and truly "good" pedagogical technologies.

FROM MULTI-CASE STUDY …

- These values **are neither centered nor expressed** in the syllabi.
- Syllabi do not prepare future educators for the systemic nature of technology in education.
- Missing are critical discourses that challenge the exclusive use of technology as a pedagogical tool, or the mere reference to EU frameworks as a guarantee of "good use."
- "Ethical literacy" = not just risk assessment or compliance → but reflective, relational, and imaginative capacities to critique technosolutionist paradigms.

IT'S NECESSARY…

- Reframe ethics as a **situated educational practice** → entangled with global politics, local pedagogies, and lived experiences of teachers and learners.
- Rethink ethics beyond policy recommendations → cultivated through curriculum design, professional learning, and participatory processes.
- Move beyond exploiting digital tools → **technology as a complex cultural artifact.**

THANK YOU

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