Artificial Intelligence for All

Letizia Jaccheri – Tromsø, October 2, 2025

1960s – Beginnings

In November 1961, Pisa witnessed the inauguration of a large electronic calculator for scientific research. This initiative, supported by Olivetti, marked a milestone in Italian computing. I was born in the mid-1960s, into a world where technology was just beginning to shape the future.

1970s – First Encounters with Technology

In high school, we had only two hours of math per week, but my teacher, Annamaria Bastianoni, was a pioneer. She taught us to program the Texas T57 calculator and treated it with respect, often saying, “Think about it.” Math came easily to me, but Greek translations were a challenge.

1980s – Defining Choices

This was the decade of important decisions: I chose computer science, then software engineering, and eventually moved to Norway. These choices shaped my career and life.

1990s – Academic Growth

I returned to Italy and lived in Torino for five years. During this time, I published my first journal paper with my Norwegian professor, Reidar Conradi. It was a significant step in my academic journey.

2000s – Interdisciplinarity and Motherhood

In 2000, with two children under two years old, I wrote Kjærlighet og Computer and discovered the world of interdisciplinarity. I began exploring the intersection of software engineering and art.

2010s – Leadership and Reflection

I became department head and helped establish the NTNU AI Lab with Telenor. Despite being surrounded by influential people, I realized my passion lies in working with students. My research focused on integrating student studies with teaching.

2020s – Inclusion and Impact

I contributed to projects that use software to motivate individuals with intellectual disabilities to engage in outdoor activities. Sixty years after Pisa’s first computer science program, we continue to explore how technology can serve society.

Reflections on AI

Learning Objectives

Should we develop AI or simply use it?
Is AI inclusive or exclusive?
Who is developing AI?
What do you want to do with AI?

Software Engineering and AI

Computer science began in the early 1960s. Its subfields are deeply interconnected. Software engineering both uses AI tools and contributes to the development of AI systems.

AI for Accessibility

Apps like Be My Eyes, VoiceOver, Wheelmap, and TapToTalk demonstrate how AI can empower people with disabilities. These tools enhance communication, mobility, and independence.

Intersectionality and Bias

Kimberlé Crenshaw’s concept of intersectionality helps us understand how overlapping identities—gender, race, disability—shape experiences of discrimination. AI must be developed with awareness of these complexities.

Women in AI

Women play crucial roles in AI, from Fei Fei Li to Francesca Rossi. Yet, biases persist—like gendered voices in virtual assistants or discriminatory CV processing. We must ensure AI works for women, not against them.

Understanding AI

AI is a field within computer science focused on intelligent machines. It includes subfields like machine learning and deep learning. AI systems can recognize speech, make decisions, and generate content.

History of AI

From Turing’s 1950 paper to ChatGPT’s release in 2022, AI has evolved rapidly. Key milestones include expert systems, neural networks, and virtual assistants. In 2024, AI researchers received Nobel Prizes for breakthroughs in physics and chemistry.

Why Now?

Advances in hardware, software, and data have accelerated AI development. GPT models, trained on vast datasets, exemplify this progress.

Challenges in ICT

Despite growth, only 19.4% of ICT specialists in the EU are women. At this rate, gender parity remains a distant goal. We must address skill gaps and biases.

Creating New Networks

We cannot change old networks, but we can build new ones around AI. Initiatives like IrthApp and EmpowHerAI aim to make AI inclusive. The AI Act emphasizes accessibility and non-discrimination.

Best Practices and Projects

From ADA to TECHLARP, European and Norwegian projects have promoted gender equality in tech through mentoring, networking, and anti-bias training. Activities include welcome days, workshops, and role model engagement.

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