

Felienne Hermans

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In a world that's increasingly dominated by Artificial Intelligence (AI), everyone should know the basics of programming. So says Professor Felienne Hermans (39), who developed a programming language for teenagers. Text Marieke Verhoeven Photography Brenda van Leeuwen

What sparked your interest in computer science? When I was six years old, my father – who ran a financial consultancy firm – purchased our first home computer. I was instantly fascinated by it. I've always been a maker, whether I was drawing, making clothes, or inventing something on the computer. By the time I'd got to high school, where I was the only female member of the computer club, it was clear that my hobby was going to become an academic endeavour. My sights were set on studying computer science and that's what I went on to do at university.

Why did you eventually focus on programming languages? For my PhD thesis, I was challenged to think about a programming language for people

working in finance, and I jumped at the chance. I've always thought that it's incredibly important for everyone to know the basics of programming because software is everywhere. AI chatbot ChatGPT, which generates answers to pretty much everything, is the big topic now, but apps such as Instagram and TikTok have been around for longer and they also have a huge impact on our lives. These apps monitor our behaviour and try to influence what we consume. If you learn how AI works, you'll be more aware of the risks and you can adjust your choices accordingly.

What are the risks? These algorithms generate content for the viewer that's based on their interests and prior behaviour, effectively narrowing what

they consume. That's fine if you're interested in cute cat videos, but it becomes more dangerous if it's political or health-related content. People should at least understand how algorithms work and that they're fed by just a fraction of the information that's out there. Tech entrepreneurs, such as Tesla's Elon Musk and Sam Altman of OpenAI, have warned us that robots might take over the world, but I don't think that's necessarily the biggest risk. In my opinion, it's more about people losing their ability to think for themselves and to communicate with others. Take the supermarket for example. Some employees have essentially become security guards for the self-checkouts. Whereas in the past they'd scan the products and perhaps have a friendly chat with the customer, a »



computer now prompts them to perform random checks and they're often dealing with angry customers who don't like being policed. This has led to a customer-employee communication breakdown. The written form is another example. By replacing human-generated content, such as this interview, with fake content created by an AI, we're in danger of losing what it is to be human in the long run because communication is a big part of what makes us human. Another danger is the negative effect that technology has on our climate. Data centres use huge amounts of energy, and that's not widely recognised.

What's the solution? You can encourage people to be more conscious about their technology use, but the big corporations and governments need to make the significant changes. Luckily, the EU is working on regulations to create a legal framework for AI, which is critical. The companies responsible for making this technology have ethics departments, but, as a company, it's hard to work against your own core values. There's no technical reason why Instagram couldn't tell you to stop scrolling after 30 minutes, but that's not profitable. It's no secret



that Google recently fired a lot of people in their ethics department, such as Ethiopian-born Timnit Gebru, who's been very critical about AI and who already sounded the alarm about the risks two years ago.

Tell us about the programming language you designed. After my thesis, I wanted to do something that served a concrete purpose, so I decided to take a teaching job at Lyceum Kralingen in Rotterdam, one of the few high schools in the Netherlands with a mandatory computer science course. I noticed that the available programming languages were too advanced and complicated for my students. So, I built a basic programming language that they could work with. I named it Hedy and made it available for everyone to use for free. And then something funny and unexpected happened: people from other countries started uploading their languages on the website, and before I knew it, there were French and Spanish versions as well. Hedy is now available in 47 languages, even in other alphabets, and has 300,000 monthly visitors.

Do you use social media? Yes, I'm also on Instagram and I'm a sucker for videos about handicrafts and running. But since I work in this field and know quite a bit about it, I'm perhaps more conscious of my technology consumption than others. Still, that doesn't mean it's easy. That's why I think that regulations, such as an age limit for social media use, might work. Compare it to smoking; it took us years to regulate that, but we all know it's bad for you nowadays. If it's about our kids' health, as a society we seem more inclined to make changes.

What are you currently working on? The focus of my work as Professor of Computer Science Education at the Vrije Universiteit Amsterdam is thinking about ways to make programming

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languages inclusive, understandable and accessible for as many students as possible, including those with disabilities such as blindness.

When will your mission be completed?

When most people worldwide have a sense of how AI works. You don't need to know everything; I don't know everything about a car, but I know enough to drive one. If you have a basic understanding of how a computer works, you're already a lot further than most people. With that understanding, we'll be able to think consciously about the choices we make. And crucially, we'll also be better able to decide if we want all these technological innovations, or if we should reject some of them. «

TIERRA			
SPANISH FOOD & DRINKS			
Table: 30		12.06.2023 16:06	
Served by: Rosa			
Qty	Description	U.P.	Total
1	Brownie	2,25	2,25€
1	Muffin	2,95	2,95€
1	Café Crème	3,50	3,50€
1	Iced Latte	4,50	4,50€
Grand Total:			13,20