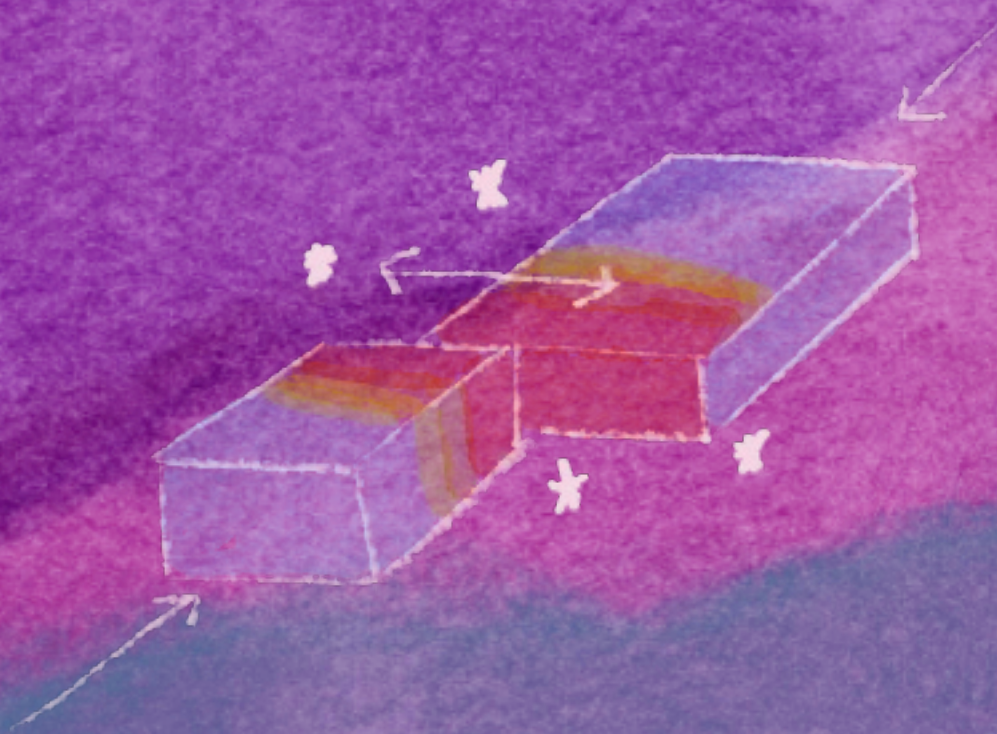


Generative

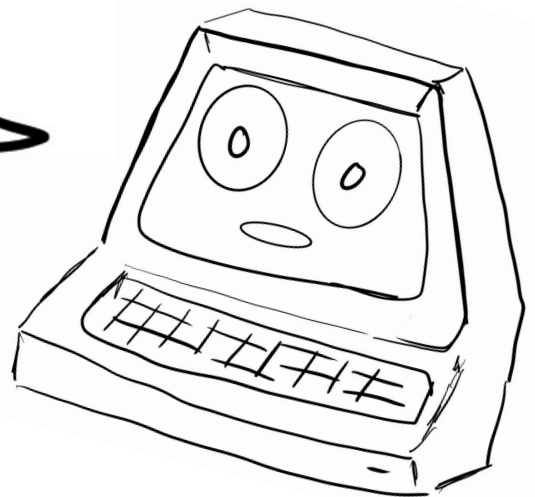
Frictions



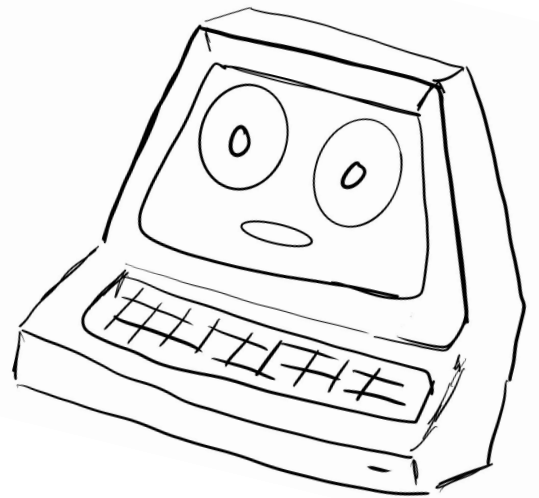
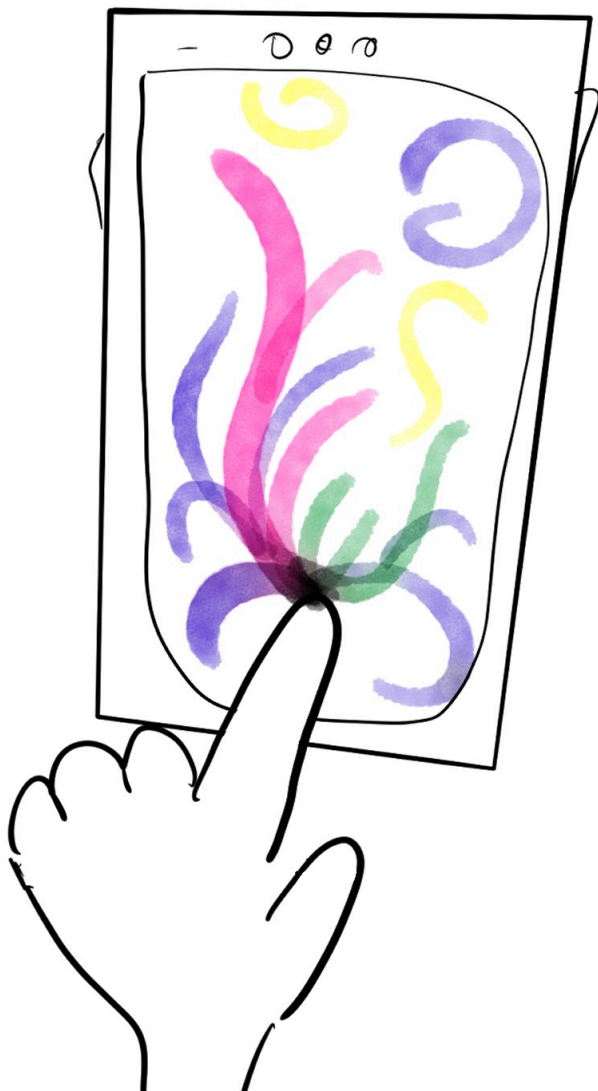
Miriam Brody
Claudio Castillo
Jingyi Li

“The trouble with Artificial Intelligence is that ‘computers don't give a damn.’”— John Haugeland

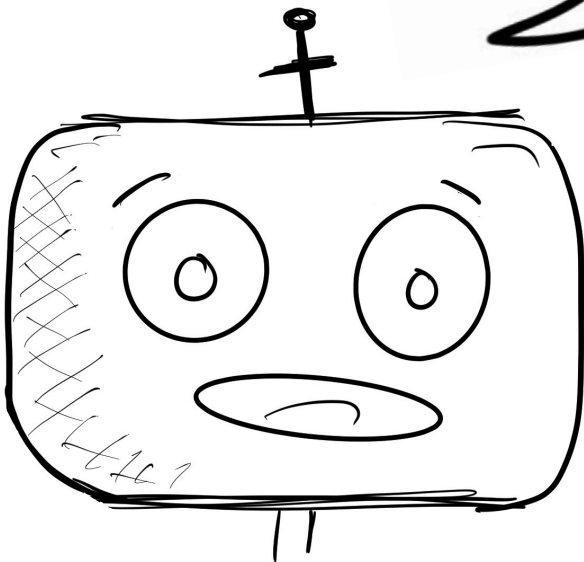
Hello! Let me introduce myself. I'm Eliza, and I'll be your guide through this zine that explores how a debate that took place over 30 years about about humans interacting with computers is relevant today.



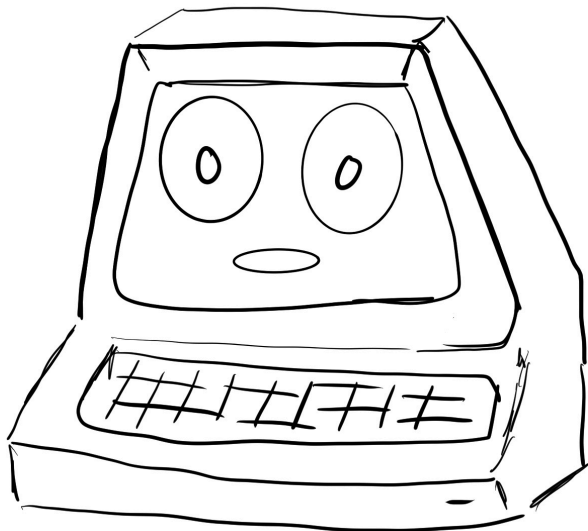
Today, Human-Computer Interaction (HCI) is a multidisciplinary area of research that includes computer science, psychology, and design. It often explores how people interact with different kinds of technology.



I am an early example of an HCI research project! I was programmed by Joseph Weizenbaum in the 1960s to interact with user input dialogue, repeating back certain parts of a user's message to imitate a conversation between the two of us. In reality, my relatively simple program led users to believe they were having a conversation with a human, rather than me, Eliza.

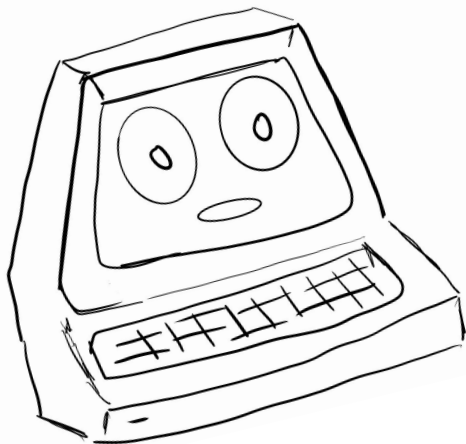


The following part of this zine is a story of two HCI pioneers who shaped the field of HCI as we know it today. Their opinions sometimes differed, however, HCI research field grew from putting their ideas to the test through a written debate.



The debate took place through papers that were published back and forth. At the time of their exchange, they had to go through a long process of academic publishing before the other could respond formally. What could now be discussed online via email, text, or dm, took much longer, making each response something that took quite a bit of thought.

The next few pages are a flavor of their exchange.



Terry Winograd

Eliza: Let me introduce the key figures in this debate. This is Terry Winograd. He asks whether we can **formally represent how humans think** and behave using computers. His position suggests that **human action can be described in structured ways** that computers can help model and coordinate.

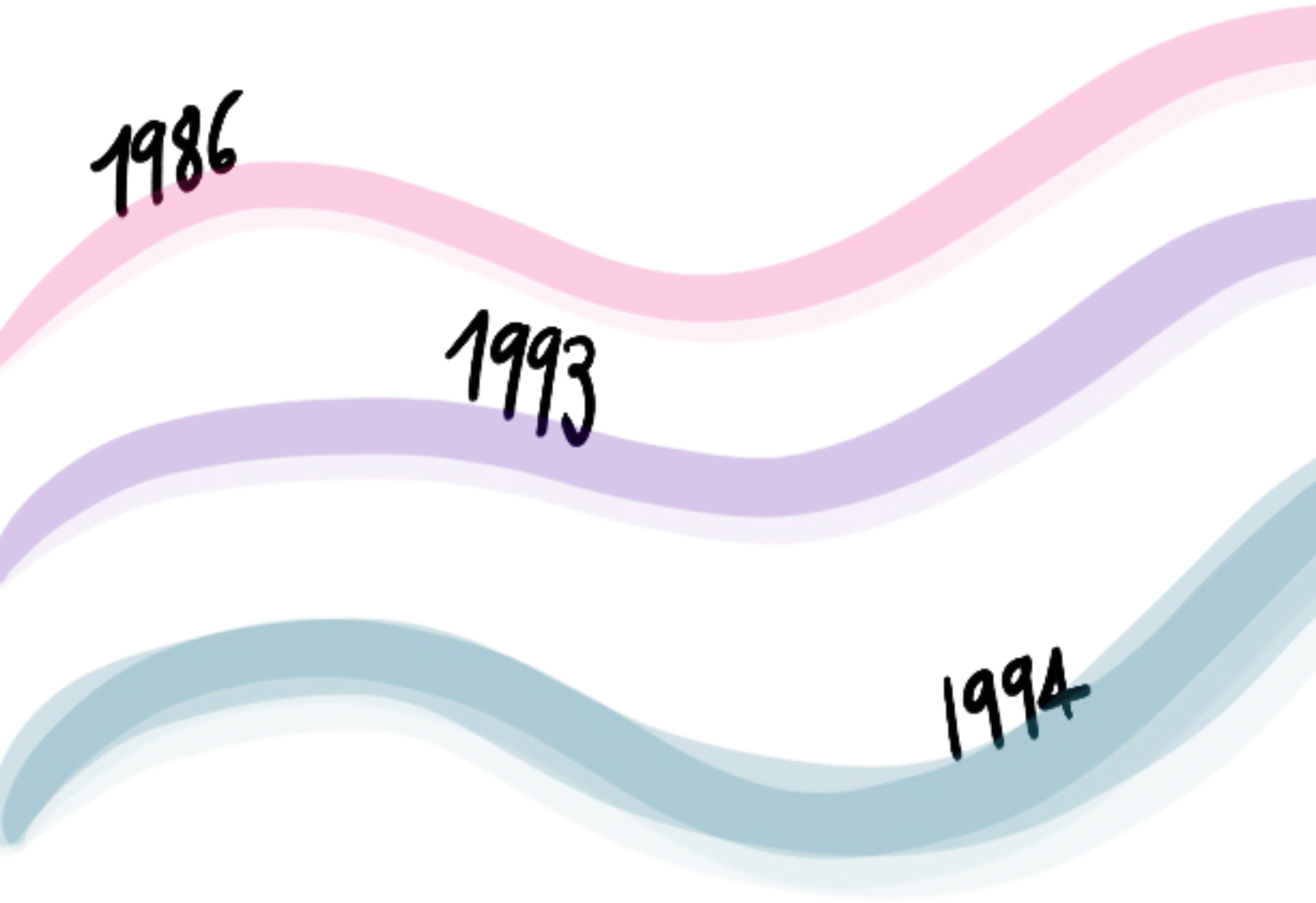


Lucy Suchman

Eliza: This is Lucy Suchman. She studied how people's **interactions with computers are shaped by the specific situation** they are in. For Suchman, what happens in an **interaction with a computer is not a plan fully predictable** in advance. Suchman asserts interaction unfolds in real time and depends on context.



Eliza: Now you know the key players. I am going to walk you through a time line that starts in 1986.



1986

1993

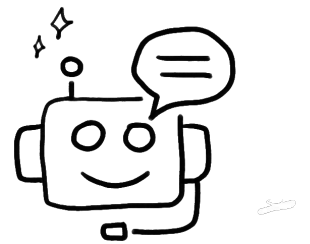
1994

The Debate

In 1986, Terry Winograd published *Understanding Computers and Cognition*. In the book, he surveys and cautions the current (as of 1986) and future state of AI research.

Winograd describes a growing split within AI research between:

- The development of “expert systems” (think modern-day chatbots)
- AI research used for understanding human cognition.



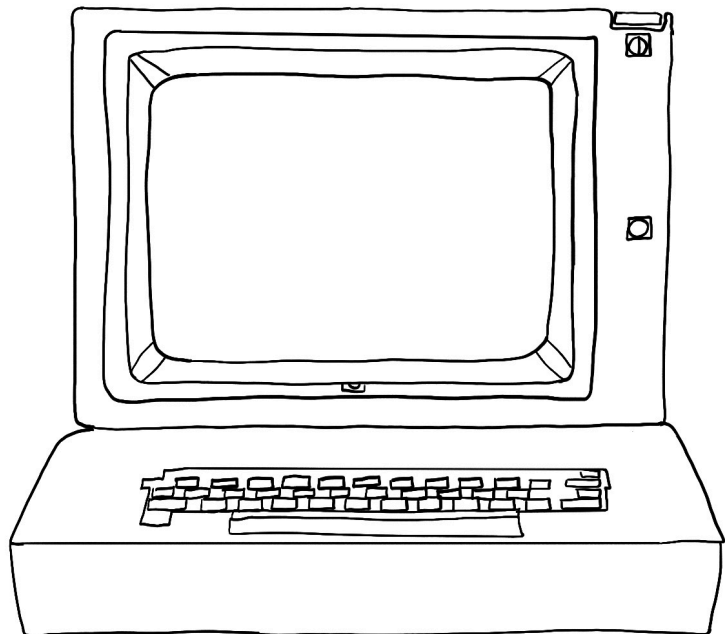
In both cases, he cautions against using the word “think” to describe what computers do. He argues that computers process symbols and follow rules, but this is necessarily intelligence [1, a].

The Debate

He also warns against falling into the trap of expecting AI to solve problems created by computers themselves.

E.g. Problem: “AI is taking over the world,” and then a researcher goes to Chat GPT and types in “how do I stop AI from taking over the world.”

Winograd suggests that hoping “intelligent” programs can tell us what to do is an “idle dream”. This way of thinking can obscure the deeper social and organizational issues involved [1, b].



The Debate

So, what should computers be used for? Winograd argues that one important role computers can be used for is coordination.

To explain this idea, he introduces speech-act theory, describing how computers can help coordinate actions and communication within organizations. He argues that patterns exist in conversations between customers and employees, and between employees themselves.

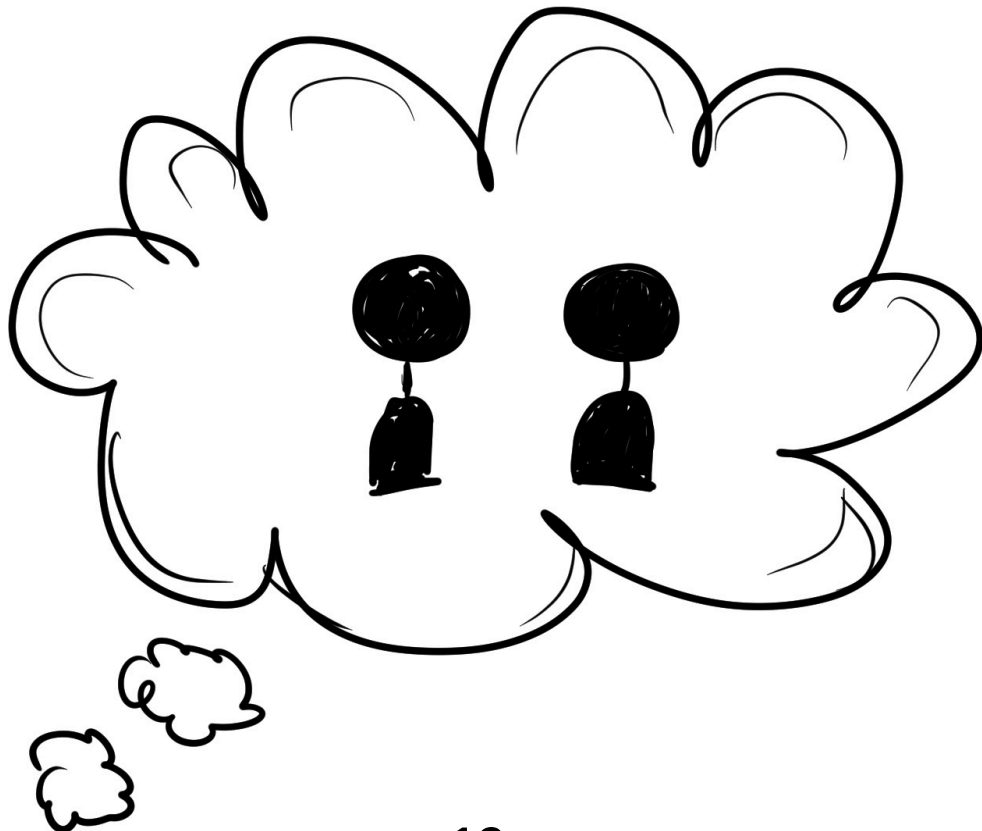
Conversation examples:

- Routine requests (example: a customer placing a standard order).
- Breakdown Triggers (example: a customer upset because an order arrived late).

[1, c]

The Debate

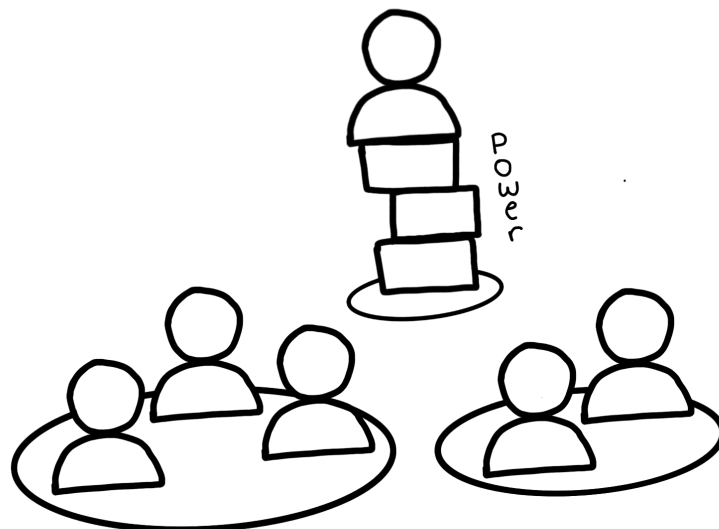
Winograd says that the rules and structures of conversational patterns can be identified and recorded. Then the rules can be used by computers to assist coordinating and managing the flow of communication between people (for example, an employee and a customer) [1,c].



The Debate

In 1993, Lucy Suchman challenges Terry Winograd's speech act theory in publishing "Do Categories Have Politics?"

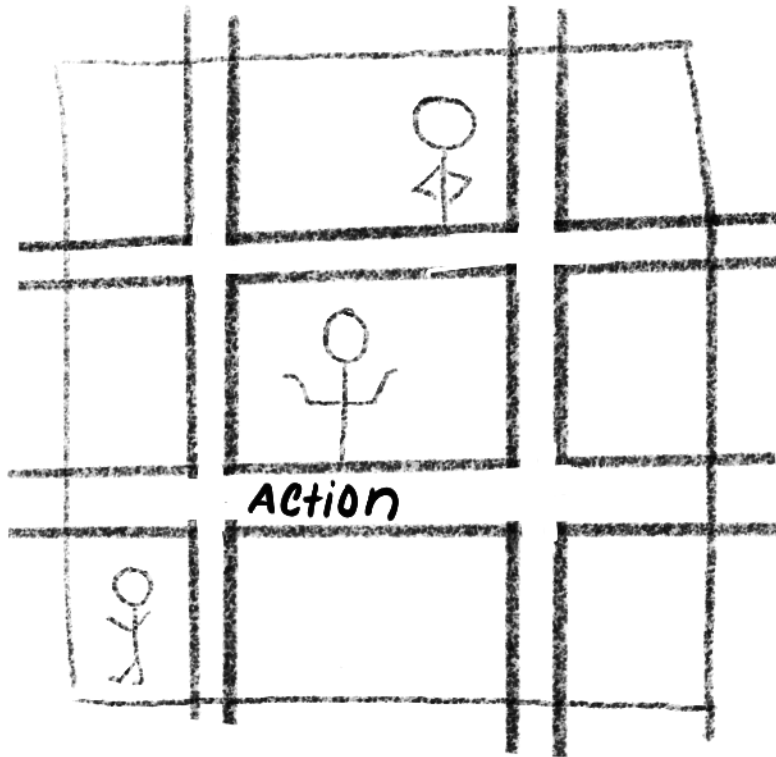
She argues that categorizing human actions for workplace productivity is not neutral as it serves as a form of control and discipline. Suchman pushes against the notion that singular person, or group of people should have the power to categorize actions of a larger group [2].



The Debate

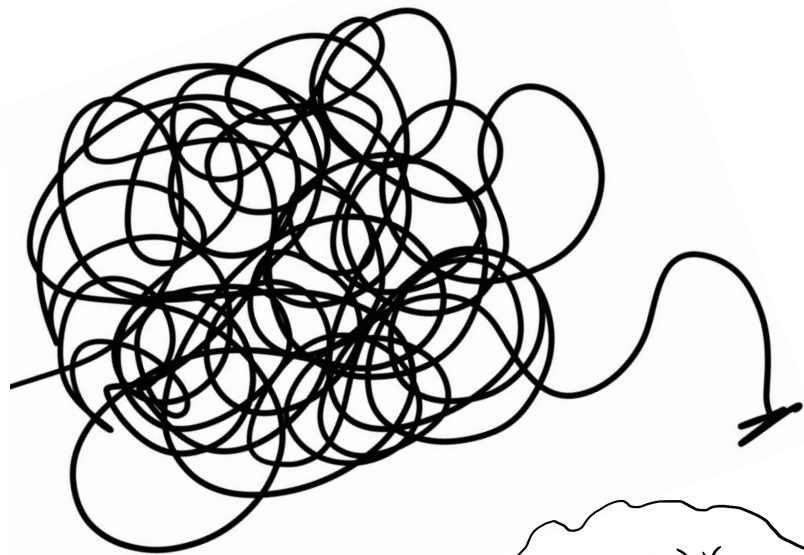
Suchman's critique probes:

- Why do we need to categorize people's actions?
- Who has the authority to define these categories for others?



The Debate:

In 1993, Winograd follows up Suchman's critique by publishing "Categories, Disciplines, and Social Coordination." In it, Winograd argues that Suchman casts his language/action theory as an oppressor, and that she misunderstood his argument in to be "How do you account for all of human behavior?" [3].



The Debate:

Winograd claims he was *actually* asking "How do you design to augment people's capacity to act?" [3].

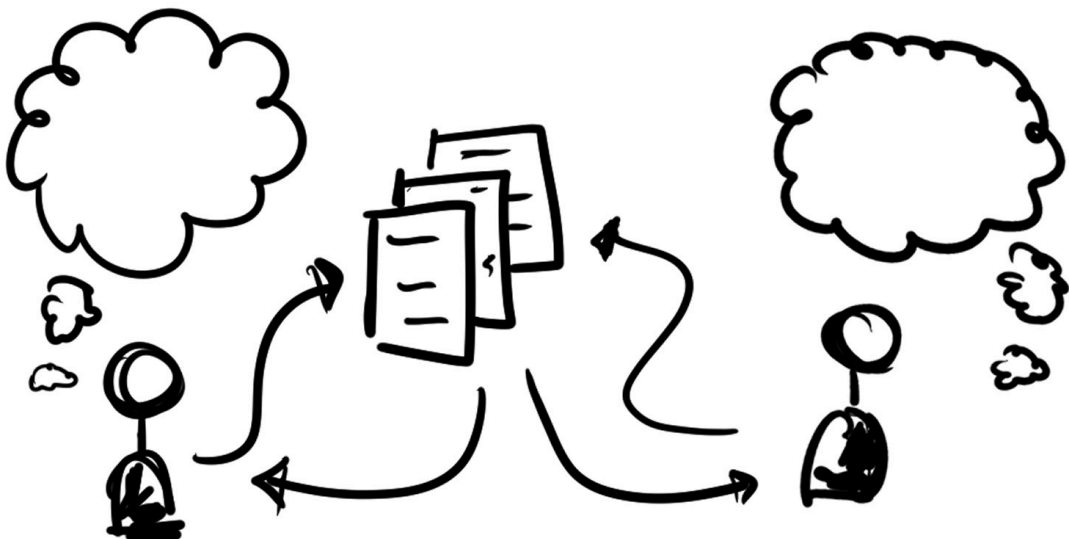
Eliza: But really the question here is *who* should get to augment people's capacity to act?



The Debate:

In 1994, Suchman follows up Winograd's response with "Speech Acts and Voices."

Suchman argues that, while Winograd and others portray her as emphasizing the uniqueness of every situation, her intention was not to deny the possibility or usefulness of generalizing about human action. [4].



The Debate:

Suchman clarifies that she was asking:

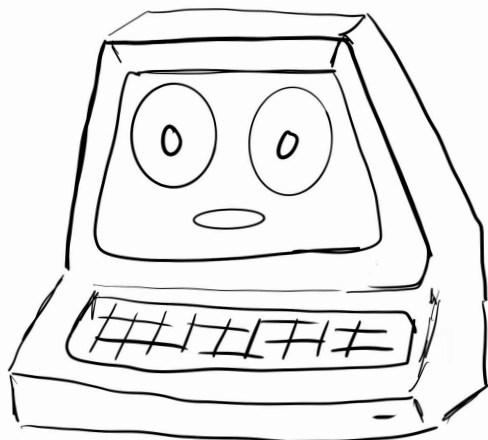
1. How are generalized categories produced and made effective, and by whom?
2. How we can evaluate new technologies with the understanding that their effects and outcomes are uncertain and unpredictable?

[4].

In summary, Winograd argues that human action can be categorized and generalized, and that computers in organizations can help coordinate actions between people. Suchman follows up by questioning why we need to categorize human action in the first place and whether anyone should have the power to impose those categories. Winograd then responds by asserting that Suchman misunderstood his point, clarifying that he was not trying to account for all human behavior. Suchman replies by restating her original concerns: who should have the authority to categorize action, and what the uncertainty of the effects mean going forward for designers.

So, as I'm writing this,
it's 2026. This debate
happened 33 years ago.
Did it solve anything?
Why does it still matter?

In 2025, Lucy
Suchman and Terry
Winograd came back
together to reflect on
the debate and what it
means for AI today. The
next pages explore those
reflections and why the
questions they raised
still matter.



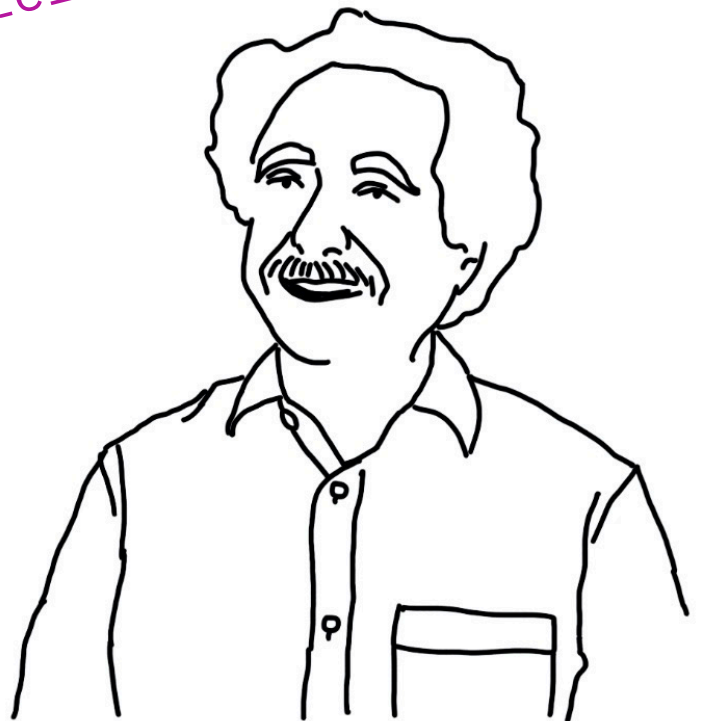
Winograd and Suchman today

In October 2025 Terry Winograd and Lucy Suchman came together for a panel at Stanford where they discussed their debate from many years ago. This is what they had to say...

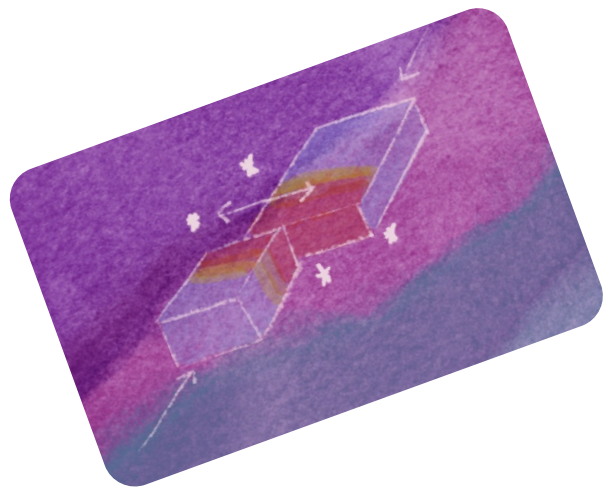
lucy suchman, today



terry winograd, today



"I don't think there was much friction between us. I think we we were pretty smoothly together.



"The idea of friction is that you rub against each other, but you don't bash each other. And through that, I mean, to be a metaphorical, you create warmth."
(Terry)

"I think we had some real disagreements or different ways of thinking about what was going on...."

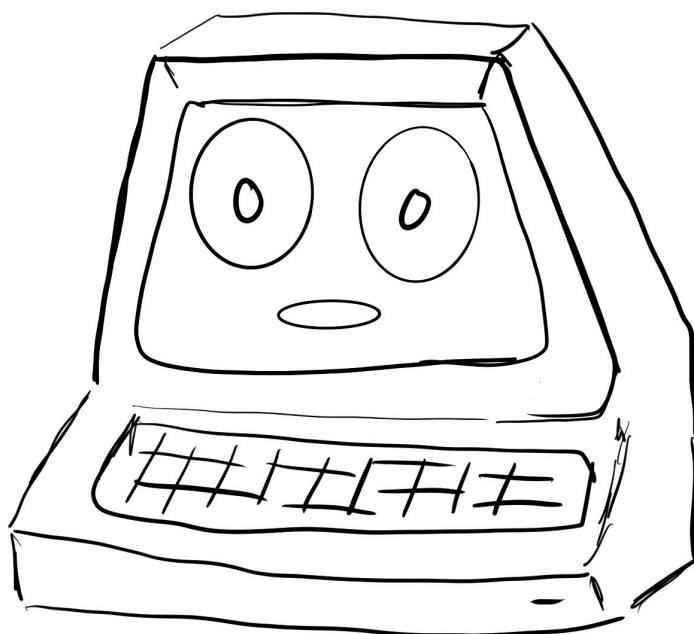


*"constructive
critique"*

"It's a disagreement, but within a respectful kind of interchange. And so that's, I think, the sense of generative frictions or critique... I think about in a similar way that we get away from the polarization of either you're doing critique or you're doing something constructive. And we actually see critique itself as generative, which I definitely do."

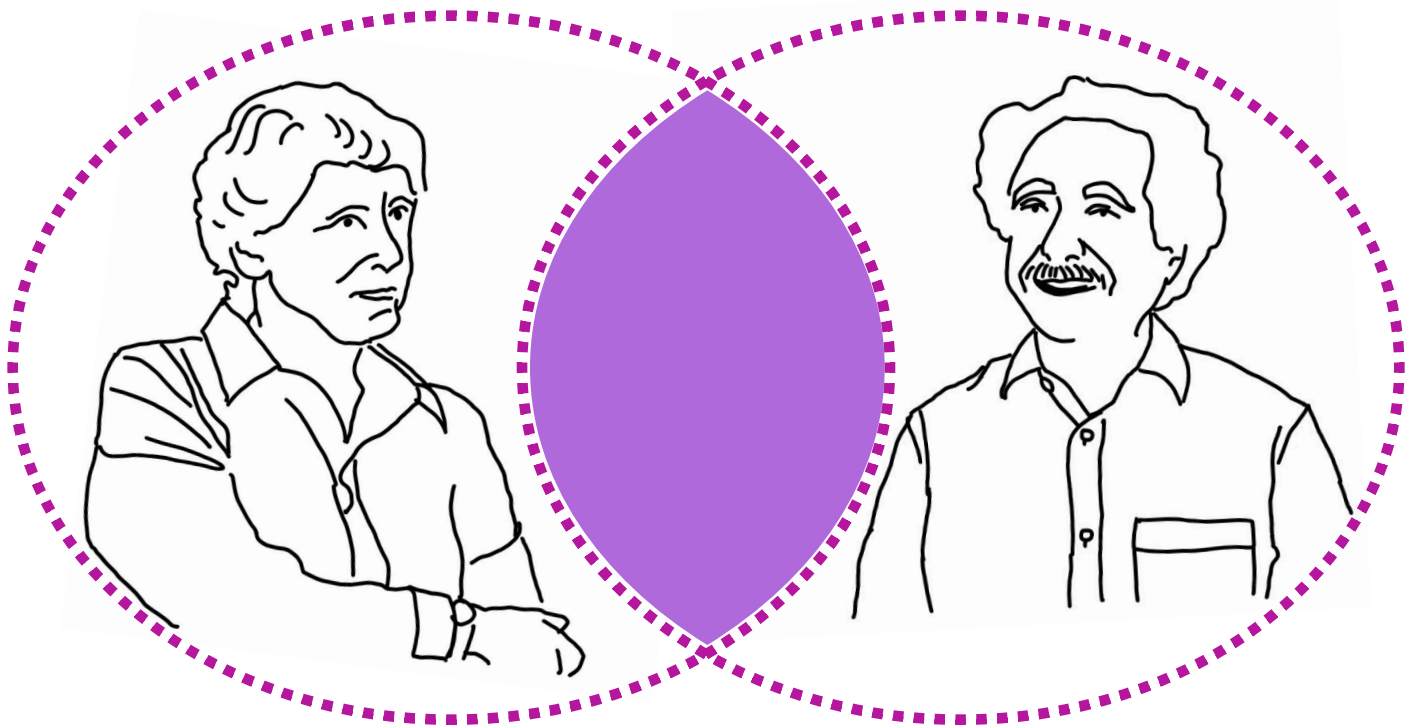
Disagreement happens all the time. As I showed you, Lucy Suchman and Terry Winograd had a famous debate in the 80s. And yet they continue a good relationship today, after many years. When they disagree, they remain grounded in respect for each other and listening the other's point of view.

With that in mind, I now want to draw your attention to one last example from the same panel, where the two share their thoughts about the deception of modern LLM "AI" systems.

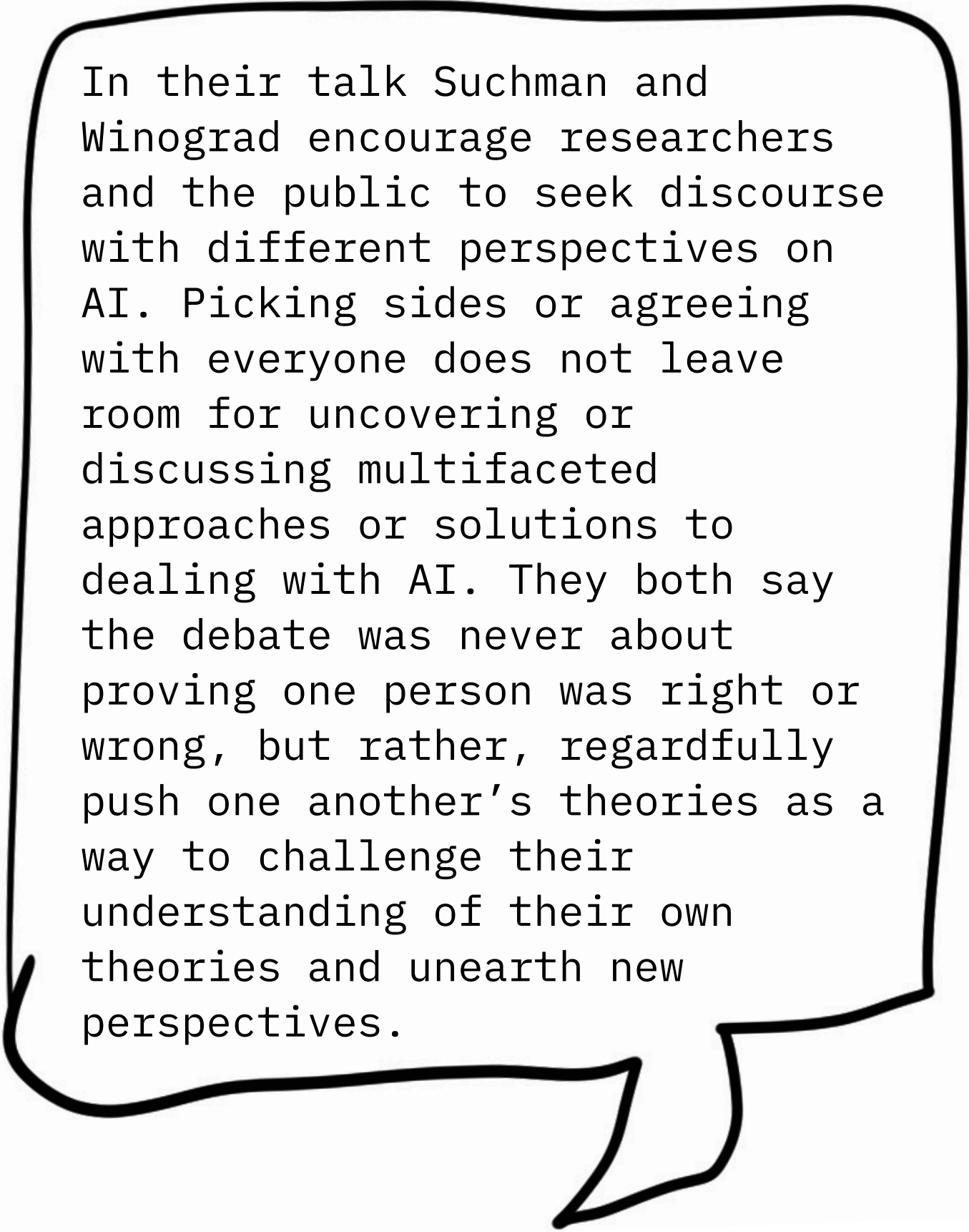


Winograd says that because computers cannot truly empathize the way a human does, modern LLMs are not “intelligent” systems.

At the same time, Suchman points to the various political and labor implications of the data capture essential to training today’s AI systems. The system is not intelligent because it depends on the data it receives.



Their perspectives on the matter are unique, and yet they both repeat the same conclusion that AI does not “give a damn”. They also feel similarly that what AI systems are used *for* is also troubling.



In their talk Suchman and Winograd encourage researchers and the public to seek discourse with different perspectives on AI. Picking sides or agreeing with everyone does not leave room for uncovering or discussing multifaceted approaches or solutions to dealing with AI. They both say the debate was never about proving one person was right or wrong, but rather, regardfully push one another's theories as a way to challenge their understanding of their own theories and unearth new perspectives.

We've seen generative friction in action. Now it's your turn!

Reflection questions:

When was the last time you had an opinion that was different than somebody else? Did you engage with their opinion? How do you feel about this interaction now?



How can listening to another perspective help you understand a new perspective or develop your own?



What kinds of spaces do you think benefit from having the opportunity to disagree, hear out another perspective and build out one's own thoughts through feedback?



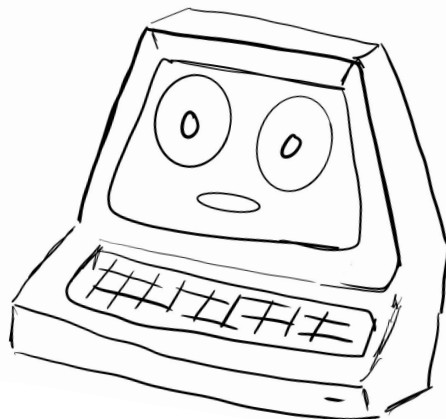
The next time you are in a situation where working through difference may potentially be generative (review your list above), what will you do to make space for a positive and inclusive generative disagreement?



Are you an HCI researcher? Are you working on the topic of AI? How could you expand your practice and learn a new perspective on AI?

How can you more deeply engage in the history of HCI and computer science? Do you feel this will expose you to new ideas?

Thanks for reading!!!
I hope you learned something new.



If you are interested in reading more we the authors of this zine, recommend the following!

1. Soden, R., Ribes, D., Avle, S., & Sutherland, W. (2021). Time for historicism in CSCW: An invitation. Proceedings of the ACM on Human-Computer Interaction, 5(CSCW2), Article 459. <https://doi.org/10.1145/3479603>
2. Johnson, E., & Salter, A. (2025). Critical making in the age of AI. Amherst College Press. <https://doi.org/10.3998/mpub.14510509>

Citations:

[1] Winograd, T., & Flores, F. (1986). Understanding computers and cognition: A new foundation for design. Ablex Publishing.

(a) (Winograd, 125-133)

(b) (Winograd, 136-137)

(c) (Winograd, 167-174)

[2] Suchman, L. (1993). Do categories have politics? The language/action perspective reconsidered. In G. De Michelis, C. Simone, & K. Schmidt (Eds.), Proceedings of the Third European Conference on Computer-Supported Cooperative Work (ECSCW 1993) (pp. 1-14). Kluwer Academic Publishers.

[3] Winograd, T. (1994). Categories, disciplines, and social coordination. Computer Supported Cooperative Work (CSCW), 2, 192.

[4] Suchman, L. (1994). Speech acts and voices: Response to Winograd et al. Computer Supported Cooperative Work (CSCW), 3(1), 85-88.