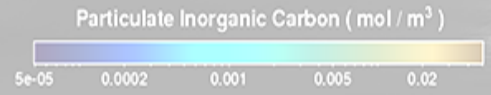
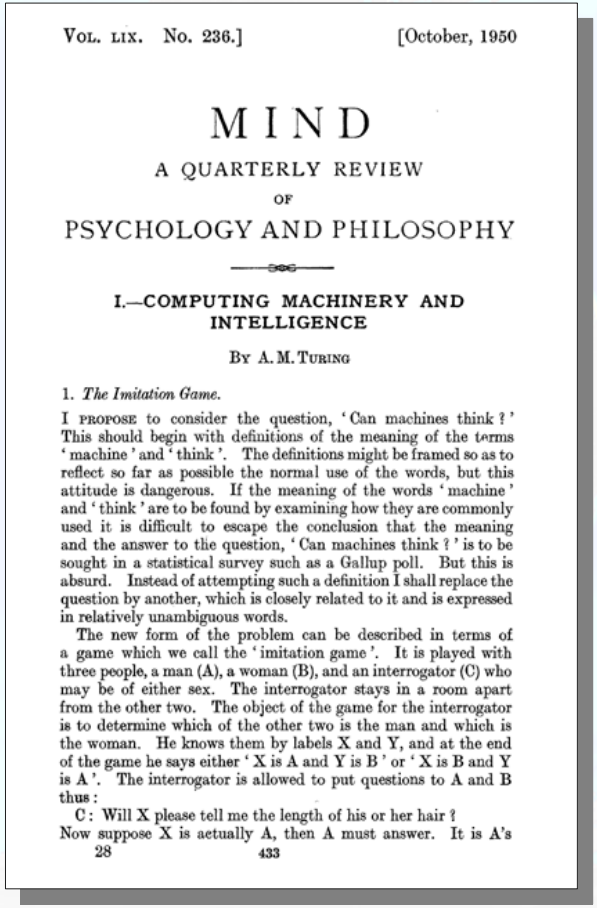
Conversational computing:

Freedom from the flow chart!

Peter Coffee
President, Foundation for Intelligent Life on Earth
13 April 2026



Conversation: the canonical "thinking" criterion



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MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY

I.—COMPUTING MACHINERY AND INTELLIGENCE

BY A. M. TURING

1. *The Imitation Game.*

I PROPOSE to consider the question, 'Can machines think?' This should begin with definitions of the meaning of the terms 'machine' and 'think'. The definitions might be framed so as to reflect so far as possible the normal use of the words, but this attitude is dangerous. If the meaning of the words 'machine' and 'think' are to be found by examining how they are commonly used it is difficult to escape the conclusion that the meaning and the answer to the question, 'Can machines think?' is to be sought in a statistical survey such as a Gallup poll. But this is absurd. Instead of attempting such a definition I shall replace the question by another, which is closely related to it and is expressed in relatively unambiguous words.

The new form of the problem can be described in terms of a game which we call the 'imitation game'. It is played with three people, a man (A), a woman (B), and an interrogator (C) who may be of either sex. The interrogator stays in a room apart from the other two. The object of the game for the interrogator is to determine which of the other two is the man and which is the woman. He knows them by labels X and Y, and at the end of the game he says either 'X is A and Y is B' or 'X is B and Y is A'. The interrogator is allowed to put questions to A and B thus:

C: Will X please tell me the length of his or her hair?

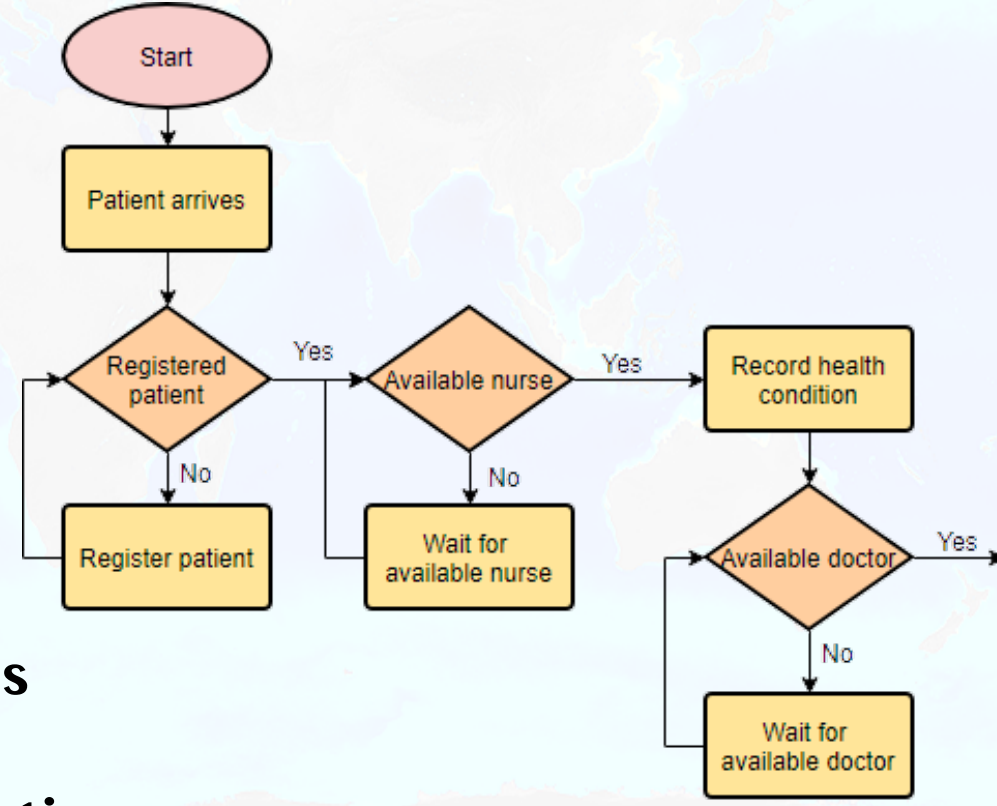
Now suppose X is actually A, then A must answer. It is A's

28 433

Would your customers' experience pass a Turing test?

- Do you demonstrate recognition of **context**?
- Understanding of **desires** and **concerns**?
- Readiness to **recommend useful action**?

It's *not* conversational if it's "computerization"



No recognition of **context**

No consideration of **desires** or **concerns**

No personalization of **recommended action**

It's *not* conversational if it feels like a chatbot

Scripted interactions

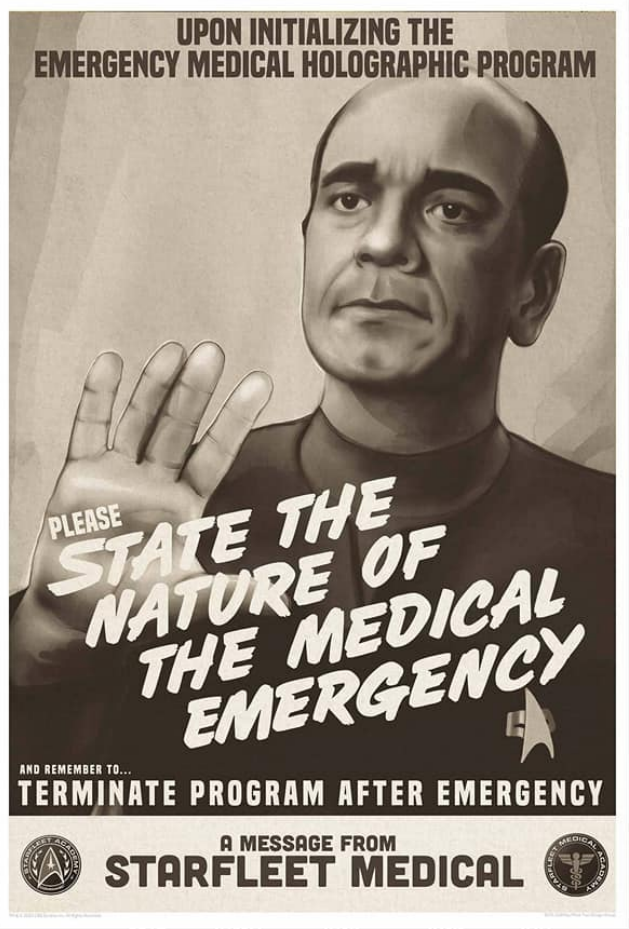
Superficial gloss on underlying decision tree

Sensitive to specific key words and phrases

Prone to endless loops

Oblivious to past history or current emotion

A FAQ page with a front end



It's *not* a conversation if it forgets past interactions

- What was the customer looking at *before* they placed a phone call?
- What's in the customer's shopping cart?
- How many times has this number called before this time?
- Is this a *different voice* than on previous calls?

INVOCA

Conversational Analytics

- Call outcome (purchase made, application submitted, appointment made, quote given,etc.)
- Spoken keywords

Contextual Data

- Calling page
- Shopping cart activity

It's *not* conversational to be randomly inconsistent

- Generative models frustrate when they give wildly different answers to similar questions
- If a situation is reliably recurring, standardize the parts that need consistent handling
- "Prompt templates" for a large language model can maintain output format, usefully suggest next best action, and evaluate a case for current state and sentiment

FiLoE

It's *not* transformation if it feels like cost reduction

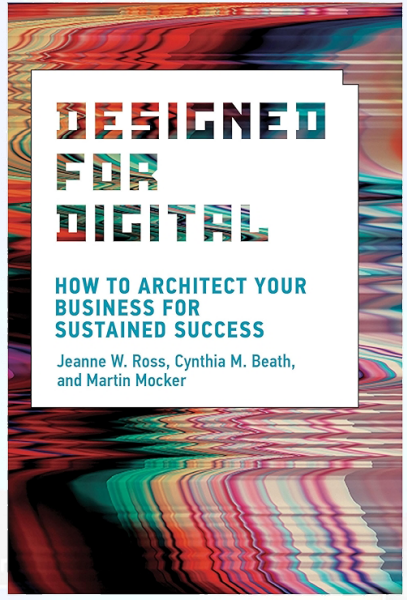
$4.7 trillion of "digital transformation" yielded **only 19% of customers reporting significant improvement in their experience**

– Tom Davenport & Andrew Spanyi

MIT Sloan Management Review

Companies must embrace information-enriched customer solutions delivered as a seamless, personalized customer experience. **The alternative is to try to succeed in a digital economy with a pre-digital value proposition.**

– Jeanne Ross, MIT CISR



I've *avoided* the phrase, "Artificial Intelligence"

- "Artificial" is never a compliment
- "Artifice" is usually an insult
- "Intelligence" is almost always a debate

AI illusions can be startlingly shallow…

"Wristwatch"

"Wristwatch showing a time of 3:25"

In Tuesday night's edition of the "Jimmy Kimmel Live!" segment called Can You Do It?, a group of teens and college students found themselves looking at an analog clock like it was an artifact from Mars while attempting to decipher the time. "Oh, no," one girl immediately said with a look of pure fear. "No. I can't."

– The "Today" Show, 29 May 2019

"Digital wristwatch showing a time of 3:25"

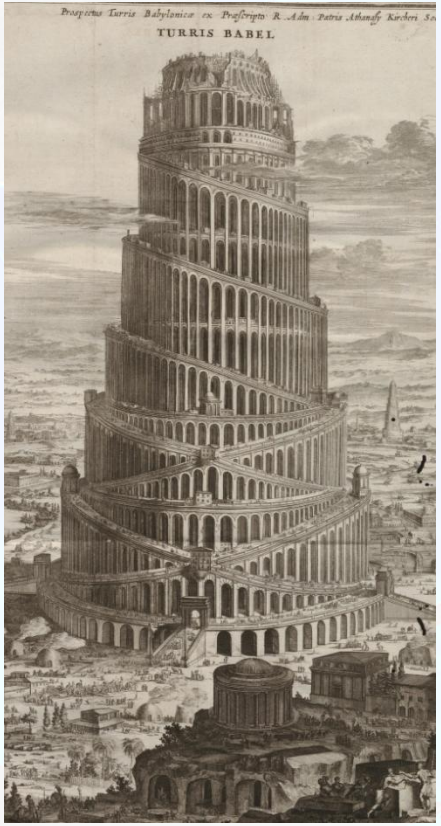
Let's pursue "APPROPRIATE Improvements"

- **A**utomate (and autonomate) - delegate low-value, high-attention tasks to machines
- **P**redict - use machine learning and pattern recognition to anticipate rather than react
- **P**lan - lay out a sequence of tasks in ways that maximize results at minimum cost
- **R**ecognize - minimize false positives & negatives in diagnosis and troubleshooting
- **O**ptimize - explore every corner of feasible regions without preconception bias
- **P**rotect - detect and address the errors and oversights that put data and processes at risk
- **R**ationalize - streamline and simplify processes
- **I**terate - continually review and refine operations based on new data and analysis
- **A**ctuate - focus sensory input through customer-experience lenses: differentiate & delight
- **T**rust - elevate from black-box mystery to informative explanation of results
- **E**nlighten - don't replace people; rather, augment them and empower

Let's assemble *enablers* of *real* intelligence

- **Collaboration intelligence**: environments and tools that *help people innovate together*
- **Context intelligence**: reduce content duplication, and support synchronous and asynchronous *content creation*
- **Data intelligence**: help people locate, combine, intersect, visualize and analyze data to *improve decisions*
- **Process intelligence**: enable people to do tracking and automate *planning, resourcing and approval* workflows

- www.techrepublic.com/article/digital-workplace-human-centric/



Bonus Round: *four* WINDy* terms

Data: its roots are not about "observations" or "records" – but about "a thing given." If it's never been **given with purpose**, it has yet to mature from (maybe) "fact" to "data."

Information: "to inform" was a verb, and "inform-ation"—the **alteration of another person's understanding**—was a thing before people petrified that action into bits.

Intelligence: an act of information (remember, that's a verb) must be **focused into the possible actions of decision-makers**. Much of the impact of intelligence therefore depends on thoughtful presentation, and not merely delivery, of the bits.

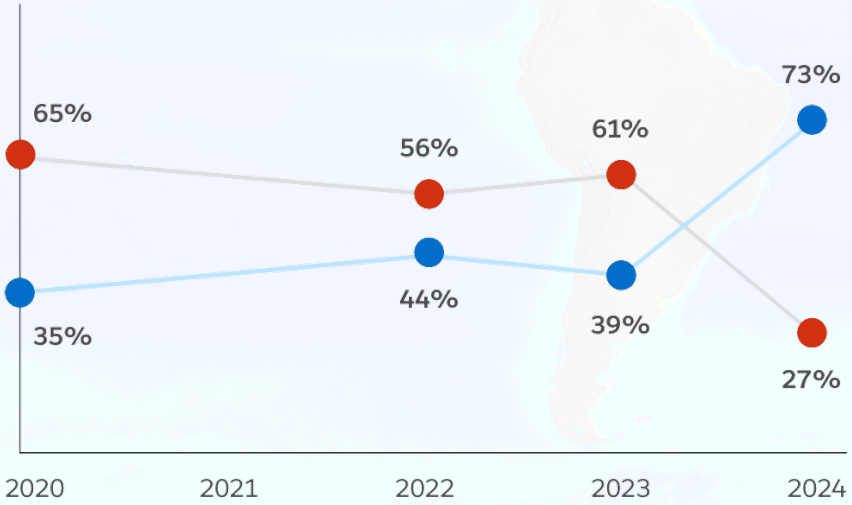
Technology: if a pile of rocks is not a "geology," and a bunch of animals in cages is not a "zoology," then why is a box of microchips a "technology"? Answer: "technology" is **the process, enabled and nurtured in a culture of inquiry and experiment, that repeatably makes new products possible** – and **makes the needed behavior changes appealing**.

* **WIND** = **W**ord **I**n **N**eed of **D**efinition

Customers' expectations are rising – *quickly*

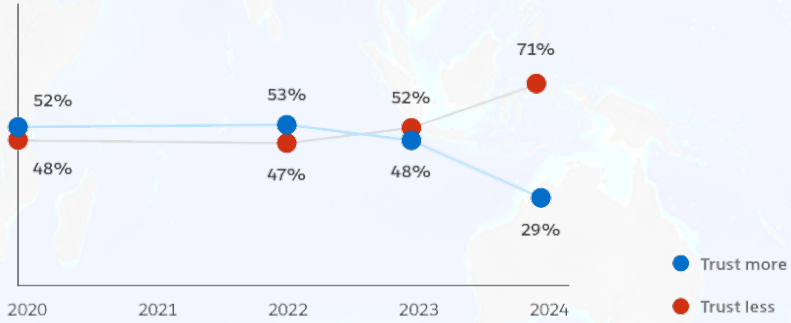
Personalization Has Hit an Inflection Point

Which statement do you agree with more: "Most companies treat me as a unique individual" or "Most companies treat me as a number?"



Trust Is on the Decline

Which statement do you agree with more: "I trust companies more than I did a year ago" or "I trust companies less than I did a year ago"?



salesforce

Build *your* foundation for a future that's now

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Science Advocacy • STEAM Education
Exploration of Earth and Space