AI and Robotics in day to day life

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"The Science of making computers do things that require Intelligence when done by humans."


Let's look at results
What AI needs in order to work

1. A sea of data
2. Computational power
3. Domain-specific focus
4. Special (human) expertise required to "tune"
“It’s still magic even if you know how it’s done.” – Terry Pratchet

“Any sufficiently advanced technology is indistinguishable from magic.” – Arthur C. Clarke
You search for "mesothelioma"
Lung disease common among asbestos plant workers
What determines what you see?
Google and Facebook account for the majority of digital advertising

"mesothelioma"

In milliseconds you're auctioned off

To the highest bidder

Most expensive search term!
Every time you search google.
Original idea: advertisers pay for "likes" (and other user actions)

But, to advertiser, what's a "like" worth?

Unclear connection between money spent and resulting revenue
You visit Facebook
FB knows what you've been up to!
FB offers to sell and ad
In milliseconds, you are auctioned off to the highest bidder
AI?

Yes. Every time you are in Facebook
If the product is free, YOU are the product
Do robots involve AI?
What's AI about this?
It looks easy. Is it?
Where am I? (localization)
Where am I going (planning)
How do I get there? (navigation)
Thought experiment

In your own house!
Figure out how to get to the kitchen
Blindfolded
How would you do it?

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How does it work?

Sensors (laser, video, others)
Create and update a detailed map
Triangulate to determine location
Rinse and repeat
"We tend to overestimate the effect of a technology in the short run and underestimate the effect in the long run."

(Roy Tamara: Cofounder of Institute for the Future in Palo Alto)
• Sinnovation Ventures: China Embraces AI
• ZDNet: What is AI?
• McKinsey: Skill Shift: Automation and the future of work
• Guardian: Robots could take more than 65m jobs warns OECD Report
• Chaos Monkeys Pears through opacity of online advertising
• Technology Review: The Seven Deadly Sins of AI Predictions
• Standford: What is AI