I would like to acknowledge the traditional territories of the people of the Treaty 7 region in Southern Alberta, which includes the Blackfoot Confederacy (comprising the Siksika, Piikani, and Kainai First Nations), as well as the Tsuut'ina First Nation, and the Stoney Nakoda (including the Chiniki, Bearspaw, and Goodstoney First Nations). The City of Calgary is also home to the Métis Nation of Alberta, (Districts 5 and 6).

Calgary Unix Users Group

Technocreep Plus Ten – Or to the Tenth Power?

Dr. Thomas P. Keenan, FCIPS, I.S.P., ITCP

Professor, School of Architecture, Planning and Landscape

Calgary, Alberta

October 28, 2025

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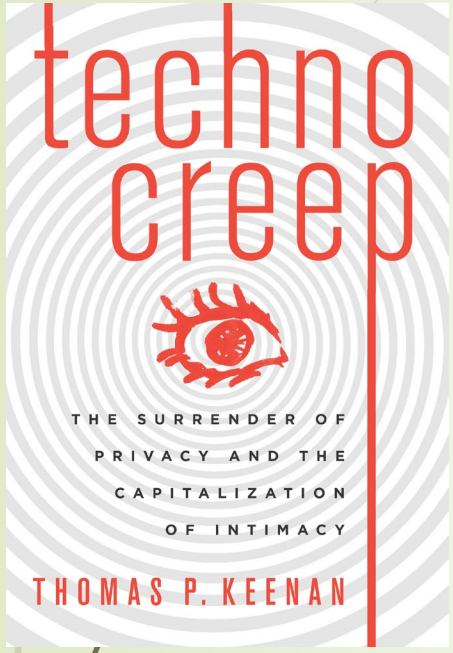
What are We Doing Here?



- Update *Technocreep (2014)* after a decade
  - Spoiler alert: everything in it is more true than ever -- but there are new, even creepier examples!
- Give you some news you can use
- Not require that you have a PhD in Comp Sci
- Have some fun!

- "Begin with the End in Mind" Stephen Covey, *The 7 Habits of Highly Effective People* (1989)

Is my phone eavesdropping on me?
(based on a true story)

- Over breakfast, you and your significant other, out of the blue, talk about a vacation in Belize
- Neither of you has made any travel bookings or inquiries, or even searched for Belize or watched any Belizean content on YouTube
- You go to work and find a story in your inbox "Great Times in Belize" touting a vacation there. It has a publication date of today and is clearly written by AI

- What happened?

Scenario One: Your phone listened in to your breakfast conversation

- Every phone has a microphone
- It is supposed to be under control of software
  - Not absolute, try “find my phone”
- Rogue software *could* circumvent that
- How would I get rogue software on my phone?

Example App: Dingtone – Call & Text App

Region	Price	Notes
Canada (App Store)	$3.99 CAD (for premium features)	Free to download, but in-app purchases apply
China (App Store)	Free	Many features unlocked without payment [1] [2] [3]

Scenario Two: Even creepier!
They don't need to eavesdrop!

- There is so much information about you out there
  - Example: $500 payday loan in my name
- Remember: We are connected to so many people (co-workers which can be deduced from LinkedIn; Facebook "friends"; people who comment on our posts)
- Think back as to *why* you raised that trip to Belize. Perhaps because a co-worker just came back and raved about it.

Where it gets ugly…
The "grandparent scam"

- A decade ago, somebody could have figured out that you have a grandchild named Sally and obtained your number from phone book
- They could also spoof the caller ID (Technocreep, p. 222)
- Back then voice changing was pretty basic

  e.g. man to woman, kid to adult

Now, from online sample, it's exactly your grandkid's pleading voice in real-time

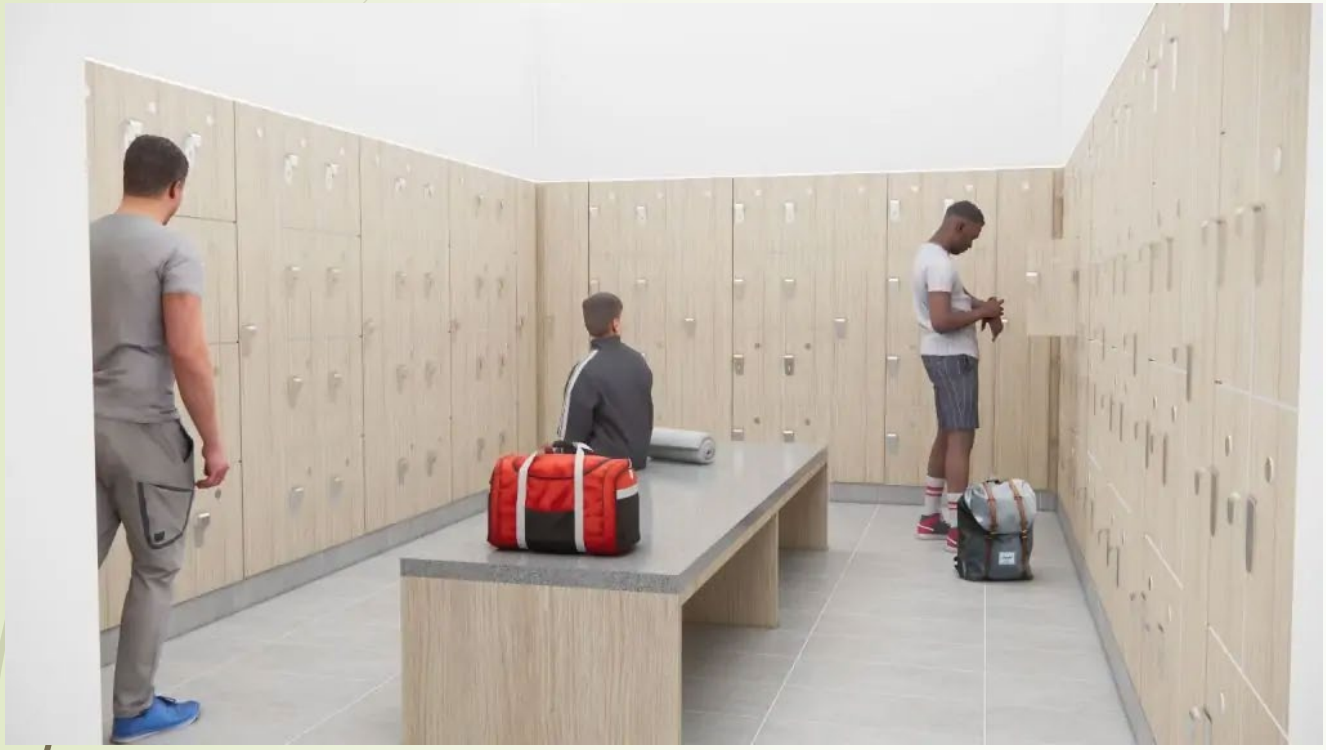
CALL THEM OR SOME WHO KNOWS THEM

Long before AI, I did some research on Clive Beddoe, former CEO of WestJet

- I easily his found:
  - Home address
  - Phone number
  - Value of his house (City of Calgary shut down and then changed their website after I did this – I am not claiming causation!)
  - Posts from his family, including where they were going on vacation
- WestJet's (former) Chief Security Officer hired me to do the same to him, since "he's not on the Internet"

Lessons from the Westside Rec Centre

If you think the Louvre robbers were brazen and had a good M.O.
Meet the locker room banditos!



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Calgary rec centre reassures members after security breach

Single photo found on shared drive in 2013 lights up social media

Natasha Frakes · CBC News · Posted: Oct 04, 2016 4:00 AM MDT | Last Updated: October 4, 2016

Westside Recreation Centre is defending its response to a 2013 security breach that drew many comments in a recent Reddit post. (Natasha Frakes/CBC)

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I predicted "smart shelves" that would recognize you and send you coupons

Mondelez International, whose "brand family" includes Chips Ahoy and Oreo cookies, is planning a 2015 launch of "smart shelves" which, according to the *Washington Post*, will work out your gender and approximate age in order to sell you products calculated to appeal to your demographic group.[134]

Technocreep, p. 80

What we actually got (at Chinook Centre, Market Mall, etc.)

It's happening worldwide

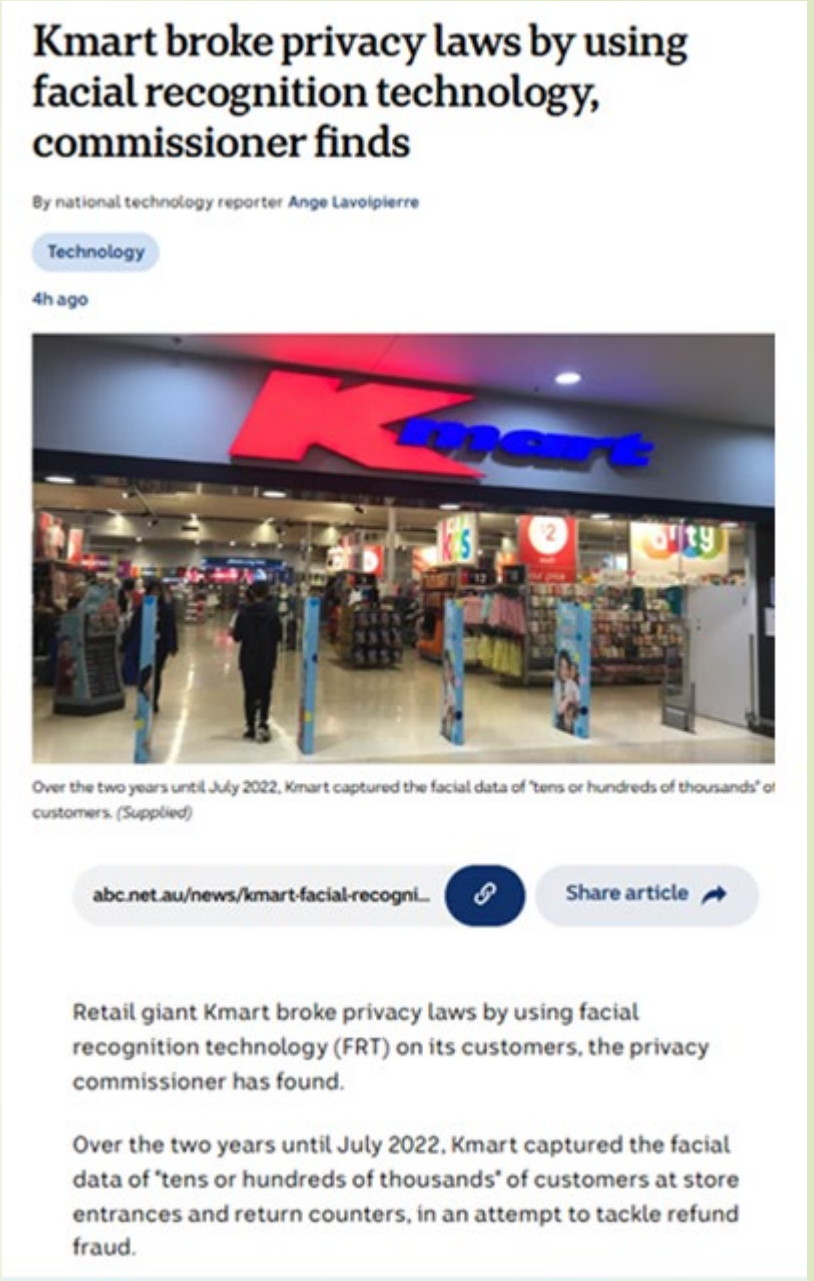
ABC story dated September 17, 2025

Kmart Australia captured facial data of "tens or hundreds of thousands" of customers

Systems would "crosscheck facial data of customers against a database of people who had committed refund fraud or were suspected of it."

No penalties were levied except a public apology and order to destroy data

Rumors of stores using cameras against known shoplifters and also VIP customers!



Kmart broke privacy laws by using facial recognition technology, commissioner finds

By national technology reporter Ange Lavoipierre

Technology

4h ago

Over the two years until July 2022, Kmart captured the facial data of "tens or hundreds of thousands" of customers. *(Supplied)*

abc.net.au/news/kmart-facial-recogni... Share article

Retail giant Kmart broke privacy laws by using facial recognition technology (FRT) on its customers, the privacy commissioner has found.

Over the two years until July 2022, Kmart captured the facial data of "tens or hundreds of thousands" of customers at store entrances and return counters, in an attempt to tackle refund fraud.

Good or Bad?

Photo credit: Martin Vorel via LibreShot

We are willing to trade off SOME of our privacy

for security, but not all of it

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SAPL is moving to 801 7th Avenue SW

Parking is controlled by automated license plate readers

Was fine for office tenants, but maybe professors care more about personal privacy

Of course, since I park in an outdoor campus lot, you could pretty much find out when I'm at work by looking for my car there

The difference is automation and the convenience of data access

A key issue will be data usage and retention

A magical picture from June 15, 2011

http://www.gigapixel.com/image/gigapan-canucks-g7.html

Remember: this was 2011!

The Vancouver Canuks lost 4-0!

On June 15th, 2011, downtown Vancouver was engulfed in riots after the home team lost the final game in the Stanley Cup hockey series. People were stabbed, police officers were injured, and there was extensive property damage. Digital devices helped to feed the violence, as rioters reacted to the presence of media and personal cameras. However, digital photos also played a key role in tracking down the offenders.

British Columbia's Information and Privacy Commissioner, Elizabeth Denham, had to decide if using the ICBC's motor vehicles registration database to try to identify offenders would violate the province's privacy laws.

T.P. Keenan, *Technocreep,* p. 30

There were lots of (professional and amateur) photos available

People look on amid rioting in downtown Vancouver following the Vancouver Canucks 4-0 loss to the Boston Bruins in Game 7 of the Stanley Cup final in 2011. (Ryan Remiorz/The Canadian Press)

What actually happened

Denham ruled against wholesale matching with ICBC database but would allow it on a case-by-case basis with judicial oversight

VPD opened up a "snitch on your friends" website

British Columbia

Vancouver police riot website gets lots of hits

CBC News · Posted: Aug 30, 2011 11:25 AM MDT | Last Updated: August 30, 2011

Featured Video · Still no charges after Stanley Cup riot, but police chief asks for patience

Vancouver police say a new website set up to help identify those who participated in the Stanley Cup riot in June is getting an extraordinary number of visitors since its launch early Tuesday.

The website, "has been receiving nearly 2,200 hits per hour since the launch," Const. Jana McGuinness said in a release.

More than 50 new tips have been generated by the site and have been forwarded to investigators for followup.

Popular Now in British Columbia

1. Metro Vancouver residents slapped with $166K in fines for defying water restrictions
2. Strike at Vancouver sugar refinery taking the sweetness out of the holiday season for businesses

https://www.cbc.ca/news/canada/british-columbia/vancouver-police-riot-website-gets-lots-of-hits-1.1028545

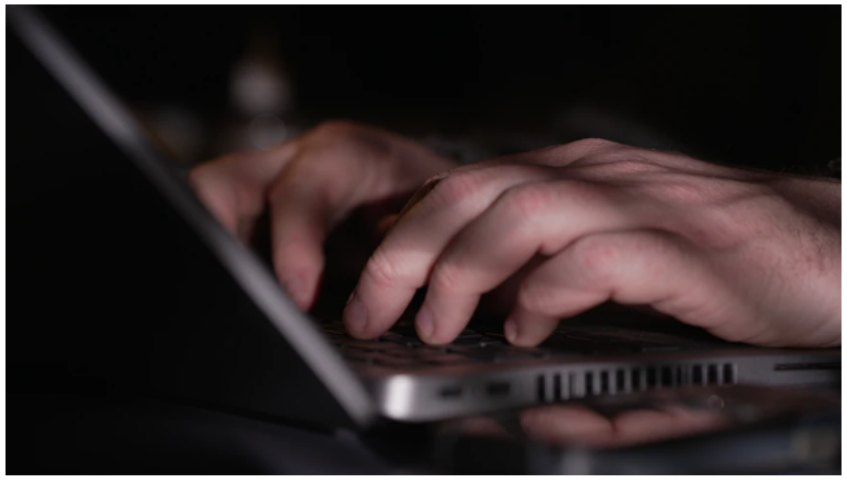
An update on photo sharing (and more news you can use)

Shocking survey into online predators prompts warning to parents about sharing photos of kids online

By political reporter **Matthew Doran**

Federal Government

Wed 1 May 2024



More than 100 parents who participated in a survey said they had been contacted by online predators about their children. *(ABC News: Jordan Young)*

abc.net.au/news/parents-urged-to-think-twice-a... Share article

In short:

A new survey has found online predators are targeting parents who share photos of their children on social media.

The more than 4,000 people who responded were asked about whether they had received demands for sexual images of their children, or even offers of payment for sexual images.

Child Creep

According to BabyCenter.com, "one in three children born in the United States already have an online presence before they are born. That number grows to 92 percent by the time they are two. In 2012 the average digital birth of children occurs at approximately six months."[290]

Technocreep, p. 170

News

Published: 03 May 2025 Updated: 03 May 2025 3 min read

AI deepfake abuse: Boys at Sydney schools caught selling sexually explicit images of female students

The images were reportedly being sold on social media for less than $5.

By Hayley Taylor

Male students at a Sydney private school have been caught selling deepfake nude images of female students on social media.

Top Headlines

Don’t look at page 168 of Technocreep if you are under 16 -- especially in Oz

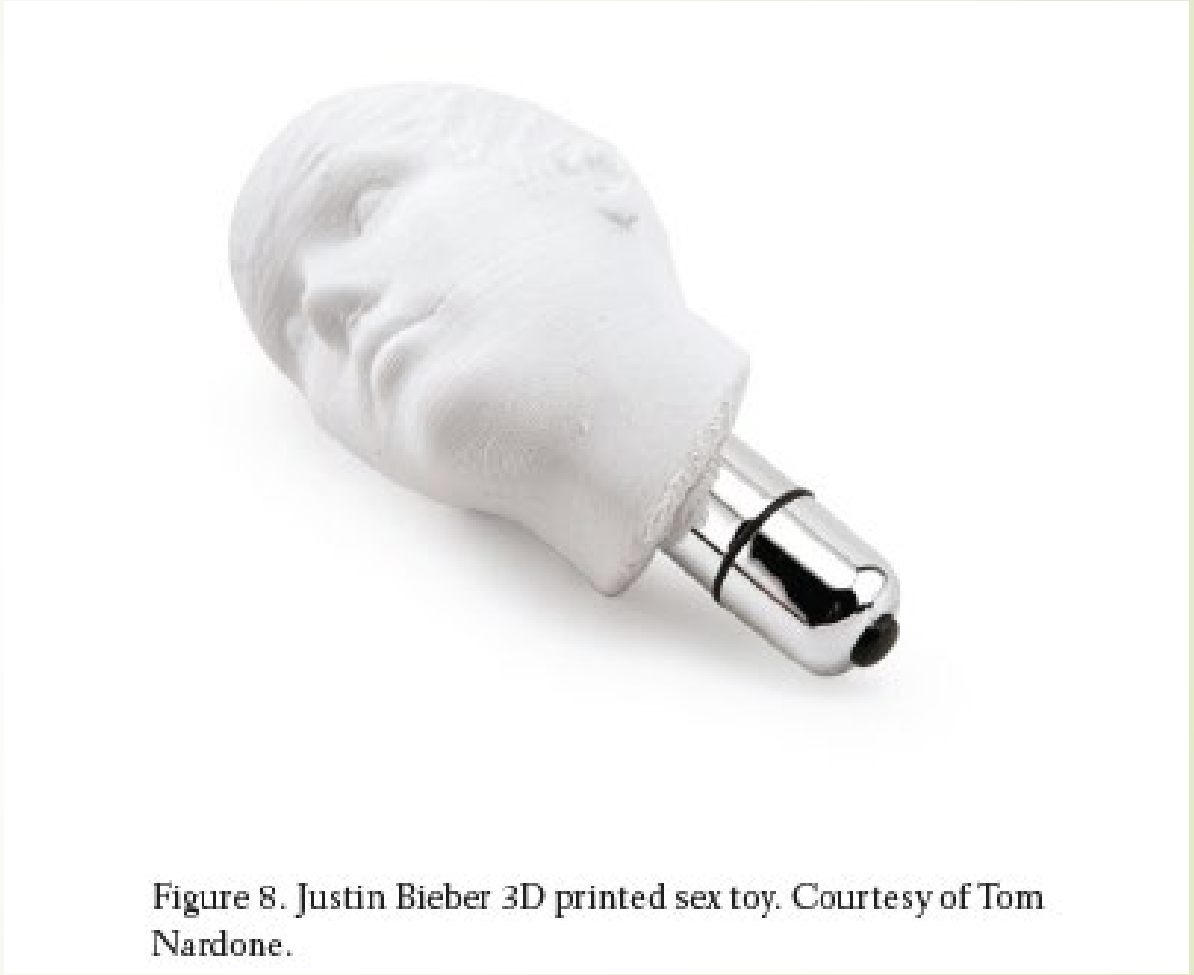


Figure 8. Justin Bieber 3D printed sex toy. Courtesy of Tom Nardone.

How a Canadian Sex Toy Made Legal History

Vibrator Maker To Pay Millions Over Claims It Secretly Tracked Use

March 14, 2017 · 1:52 PM ET

CAMILA DOMONOSKE

The We-Vibe classic is one of several Bluetooth-enabled We-Vibe products that can be paired with an app and controlled remotely. Customers alleged that the company that makes the vibrators was secretly tracking their use.
Courtesy of Standard Innovations

The makers of the We-Vibe, a line of vibrators that can be paired with an app for remote-controlled use, have reached a $3.75 million class action settlement with users following allegations that the company was collecting data on when and how the sex toy was used.

Standard Innovations, the Canadian manufacturer of the We-Vibe, does not admit any wrongdoing in the settlement finalized Monday.

https://www.npr.org/sections/thetwo-way/2017/03/14/520123490/vibrator-maker-to-pay-millions-over-claims-it-secretly-tracked-use

What would be in Technocreep 2025? (I ask AI…)

AI-Powered Surveillance & Facial Recognition

- **Social scoring, untargeted facial data scraping, and AI-driven tracking** are being curbed by laws like the **EU AI Act**, which banned these practices from February 2, 2025, and began requiring risk assessments and cybersecurity safeguards for general-purpose AI models as of August 2, 2025
- These developments reflect technocreep unfolding at a broader, institutional level: sophisticated, often invisible tech creeping into how we're observed and categorized.

Unintended consequence: Bad guys are using the large fines in the EU's GDPR privacy law to threaten and extort money from companies

Is your home smarter (or creepier) than you?

- At 2025 Consumer Electronics Show Samsung booth

- **AI Home Ecosystem**: Samsung presented an integrated vision of the smart home powered by SmartThings—covering appliances, pet care, energy saving, routines, and more
- **Pet-Centric Tech**: The "Home for Loved Ones" zone featured pet-care solutions such as Galaxy SmartTag2 for activity tracking and sensors for sending alerts about unusual pet behavior
- **Ballie Robot**: The home robot was demoed performing tasks like projecting visuals and interacting seamlessly with users and their environment. It's built around AI that can interpret visual, audio, and environmental inputs to assist with tasks and deliver personalized interactions

I saw them catch a dog stealing a burger off the counter

From "Glassholes" to "Metaphiles"

- In Technocreep (p.44) I discuss the first arrest recorded on Google Glass

> Barrett loves wearing his high tech eyewear in places it is not supposed to go. He has reportedly filmed inside an Atlantic City casino and, in a stroke of luck, apparently became the first person to record an arrest with Google Glass. This little documentary was quickly posted to YouTube.[68]

September 2025:
Meta Ray-Ban display glasses,
$795 USD

Heads up display

White LED recording light

"Tamper protection"

What happened to Sentinel (SystEm for Notification of Threats Inspired by Neurally Enabled Learning)

A brain pattern called P300 is a lot easier to capture, and is definitely being used in military and intelligence settings. P300 is a measurable electronic event, called an "evoked potential" that occurs about 300 milliseconds after a stimulus, and is associated with recognizing this stimulus. The U.S. military believes that determining evoked potential will be very useful in helping soldiers rapidly recognize dangerous situations. They are using this approach in a set of smart binoculars called Sentinel (SystEm for Notification of Threats Inspired by Neurally Enabled Learning). Through what is being called a "brain-machine interface," these "cognito-neuro" binoculars tap into the unconscious ability of the soldier to identify threats, and appears to speed up the process by about 30%.[220]

Technocreep, p. 126

🧠 **SENTINEL: What Happened to the DARPA-Backed Threat Detection System**

Phase	Details
Launch & Funding	Initiated around 2009 with DARPA funding. HRL received Phase 2 support to continue development Microwave Journal +1 .
Core Concept	Combined brain-inspired algorithms with real-time sensory input to detect threats like IEDs or ambushes before human operators could consciously react.
Technology Stack	Integrated EEG sensors, adaptive machine learning, and visual processing to mimic intuitive threat detection—like a "sixth sense" for soldiers BBC .
Outcome	The project did not transition into widespread deployment. It served as a proof-of-concept for neuroadaptive systems but was likely absorbed into broader DARPA neurotech and battlefield AI programs.
Legacy	Influenced later research in **neuroadaptive intrusion detection**, **brain-computer interfaces**, and **autonomous threat hunting** ResearchGate .

Microsoft CoPilot, October 2025

Do you have a right to "brain privacy"?

Neural & Biometric Data—More Sensitive Than You Think

Wearables, VR headsets, and brain–computer interfaces are capturing neural or biometric data that are deeply personal. California and Colorado extended privacy protections to cover such data in 2024—and 2025 saw increased scrutiny and advocacy for stricter consent standards.

"We know what you are thinking"

Minority Report style "precrime"

Passthoughts instead of passwords

“Google’s creepiest idea ever”

- Google’s Regina Dugan has suggested with a straight face that you may soon swallow a password pill or sport a digital tattoo to log on to computer systems.[3] Both ideas are technologically feasible right now, but should our employer be allowed to brand us or make us take a pill?

Technocreep, p. 13

Source: slate.com

What's actually happening now – Passkeys and Biometrics

Passkeys

Imagine a world where you never have to remember a password again. That's the promise of passkeys. Instead of relying on passwords, passkeys use cryptographic keys stored on your device to log you in. Pair your smartphone, computer, or password manager with a trusted service, and there you have it—password-free access.

Even better, passkeys are incredibly secure against phishing attacks. Since they don't involve you typing in your login details, scammers can't trick you into giving them away. Combined with not having to store and retrieve dozens of complex passwords, it's understandable why tech giants are pushing passkey integration pretty hard.

But before you celebrate the demise of passwords, there are a few hurdles to overcome. Companies need to upgrade their systems to make use of passkeys, and user education will take some time. Many older systems will also be incompatible with passkeys until they're updated to modern standards—which will take both time and money.

Hey, that smells like Frank – body odor ID is on its way

By Ben Coxworth
February 4, 2014

4 Comments

Scientists are investigating BO as an additional form of biometric identification (Photo: Shutterstock)

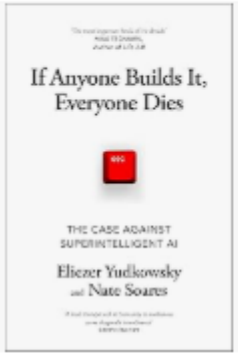
Move over, fingerprints, iris scans and facial recognition, because a new form of biometric identification may soon be joining you – body odor. According to scientists at Spain's Universidad Politécnica de Madrid, peoples' unique scent signatures remain steady enough over time to allow for an ID accuracy rate of approximately 85 percent.

First of all, why is another form of biometric ID even needed? Well, as the

Source: Gizmag

Maybe they won't need your password, or body odor, or anything else

- The creepiest possibility is that in a few seconds of just "you being you" -- your identify can be validated.
- Years ago, I tested typing rhythm for this, with some success (I could see if typer changed)
- The creepy part is that this can all happen invisible without our knowledge or consent, and will get better and better.
- This was the motivation for writing Technocreep – "There are things going on under the hood that people don't know about"



If Anyone Builds It, Everyone Dies: The Case Against Superintelligent AI

by Eliezer Yudkowsky and Nate Soares

4.7 ★★★★☆ (90)

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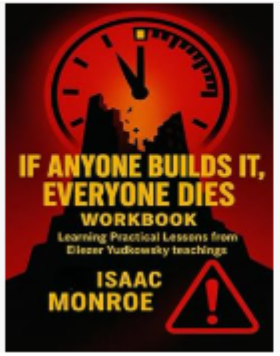

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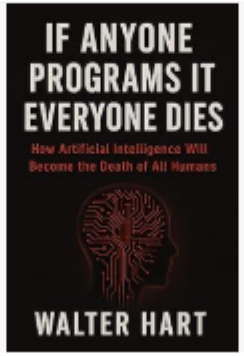

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by Walter Hart

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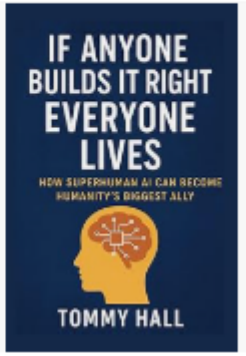

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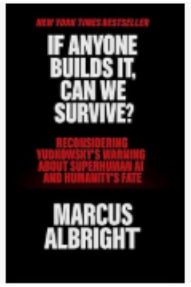

IF ANYONE BUILDS IT, CAN WE SURVIVE?: SURVIVE? "Reconsidering Yudkowsky's Warning About Superhuman …

by Marcus Albright

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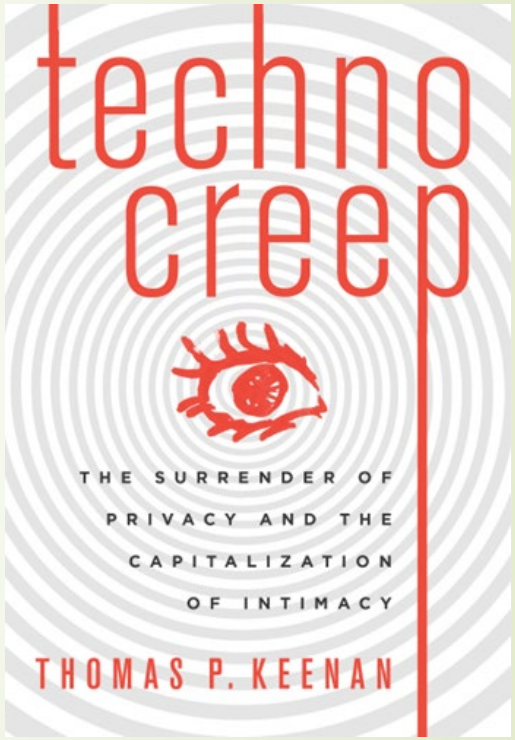
Thank you!

keenan@ucalgary.ca
@drfuture on X, Bluesky



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