



Open Discussion #1

LISBON
2025

AI-based Tools and Überveillance Awareness

Coordinator

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Überveillance is a coined term (by M. G. Michael & K. Michael, mid-2000s) that combines über (German for “over” or “super”) with surveillance.

29-10-2007 | A note on A Note on Überveillance, M.G. Michael & Katina Michael, University of Wollongong, Australia

<https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://ro.uow.edu.au/ndownloader/files/50433678&ved=2ahUKEwi7yt7n8u2PAxX9L1kFHaomJ4sQFnoECC4QAQ&usg=AOvVaw0InAMu4qEflkW-6rnfPVr>

Überveillance and the Social Implications of Microchip Implants: Emerging Technologies

M.G. Michael & Katina Michael, University of Wollongong, Australia

<file:///C:/Users/owner/Downloads/Surveilling-the-Elderly--Emerging-Demographic-Needs-and-Social-Implications-of-RFID-Chip-Technology-Use.pdf>



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It refers to an **all-encompassing, pervasive, and ubiquitous surveillance** that goes beyond cameras or tracking apps — reaching into implantable devices, wearables, and embedded sensors that monitor individuals continuously.

In Context of Implantable Devices

- > **Implants** (like pacemakers, RFID chips, or even dental/medical sensors) can transmit health, location, or identity data.
- > **Überveillance** describes the fusion of these technologies into a system where a person's movements, health status, biometrics, and even thoughts/actions (indirectly, via neural interfaces) are continuously monitored.
- > It is not just surveillance “from above,” but surveillance “from within.”

Key Concerns

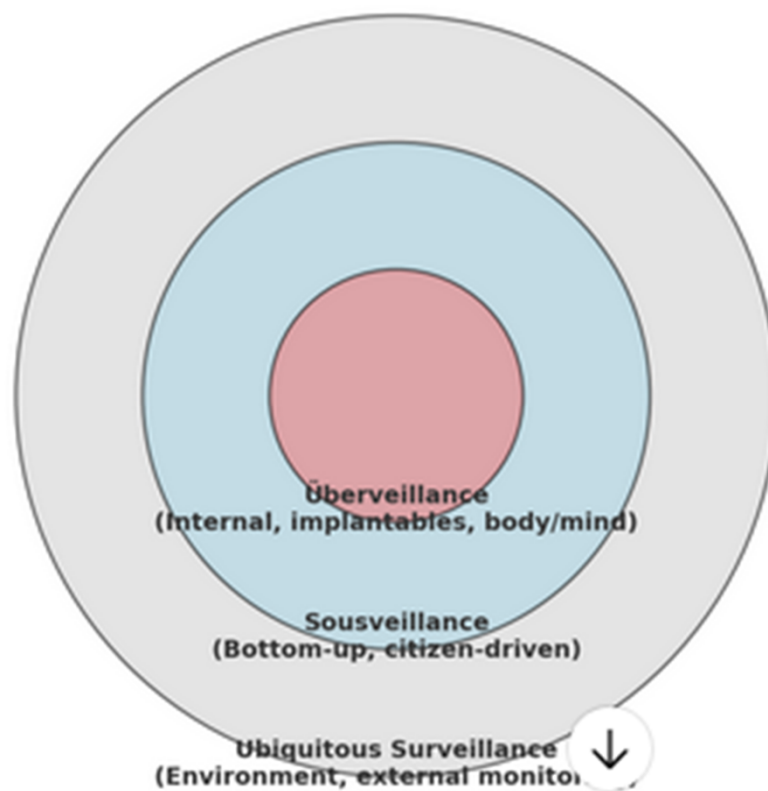
- > **Privacy erosion**: constant monitoring of body and behavior.
- > **Autonomy risks**: potential for control or manipulation via data from implants.
- > **Security threats**: implantable devices becoming vectors for hacking or unauthorized tracking.



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Surveillance Concepts: Environment → Society → Body



Outer layer (grey) → **Ubiquitous Surveillance** (environmental, external).

Middle layer (blue) → **Sousveillance** (citizen-driven, social accountability).

Inner core (red) → **Überveillance** (implantables, body/mind level).

The progression: from monitoring the **world around us**,
to **peer-to-peer watching**,
and finally, to **surveillance inside us**



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Ubiquitous Surveillance

Meaning: Monitoring that is present everywhere through pervasive technologies (CCTV, IoT sensors, mobile tracking).

Focus: External environment and activities.

Example: Smart cities using cameras and connected streetlights to track traffic and crowds.

Sousveillance (Steve Mann, early 2000s)

Meaning: “Watching from below” — individuals monitoring authorities or each other, often with personal devices.

Focus: Empowerment and accountability through recording (e.g., smartphones, bodycams).

Example: Citizens live-streaming police interactions.

Überveillance (M.G. & K. Michael, mid-2000s)

Meaning: All-encompassing, layered surveillance that penetrates beyond the external into the intimate and internal (biological, medical, cognitive).

Focus: Implantables, biometrics, and embedded sensors that monitor from within the body.

Example:

- RFID implants for access control.

- Pacemakers with wireless telemetry.

- Brain-computer interfaces transmitting neural signals.



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real-world
examples into
each layer:

CCTV

vs.

bodycams

vs.

**pacemakers
& BCIs**

Outer Layer : Ubiquitous Surveillance (environment, external)

CCTV networks in cities and transport hubs (Closed Circuit TeleVision)

IoT smart sensors (traffic flow, air quality, crowd counting).

Mobile phone location tracking by telecom providers.

Retail analytics (RFID tags, shopper movement tracking).

👉 **Focus:** external monitoring of spaces and populations.

Middle Layer : Sousveillance (citizen-driven, bottom-up)

Smartphone recordings of police/civic interactions.

Bodycams worn by activists or journalists.

Dashcams in vehicles (citizens monitoring roads/accidents).

Social media live-streaming for accountability (protests, political events).

👉 **Focus:** empowering individuals to monitor authority or peers.

Inner Core : Überveillance (internal, implantables, body/mind)

Medical implants (pacemakers, insulin pumps, neurostimulators with telemetry).

RFID/NFC chips under the skin for identification or access.

Wearables with bio-tracking (ECG watches, continuous glucose monitors).

Brain-computer interfaces (BCIs) capturing neural activity.

👉 **Focus:** surveillance that penetrates into the body and mind, often invisibly



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SO

Ubiquitous surveillance: watches where you are.

Sousveillance: watches what *power* does.

Überveillance: watches who you are, inside and out.

AI – Tools (personal data)

Explainability

Ethics

Accessibility

Privacy

Accessibility

Personal invasion

Your turn!