Identity Chips Implant

MIS537 Management Information System
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Introduction

What comes to mind when you hear the term

Cyborg?

Cyborg - cybernetic organism

A being that combines both biological and artificial components.

Project Cyborg

The first known use of implantable microchips in humans, August 1998

Professor Kevin Warwick, a British scientist, implanted a small RFID chip into his arm.

The chip allowed him to interact with smart home appliances (doors, lights, heaters) and access his computer without the need for physical interaction.

Now, let’s see this clip

Potential Benefits

Identification

A chip implanted at birth can prevent body mix-ups in hospitals and funeral homes, eliminating the need for less-capable persons to identify themselves.

Health metadata

A simple scan can tell your doctor what you're allergic to, what antibiotics you've been prescribed in the past, what medicines you're on now, and a wealth of other information that can be taken into account when you need medical attention — even if you're unconscious.

Shopping - credit cards

- Implanted chips can serve as a contactless payment method using NFC technology
- Similar to credit cards, individuals can make purchases by waving their hand over payment terminals
- No need for physical cards or devices, making payments more convenient

Memberships

Memberships. Baja Beach Club was the first club to offer microchipping to VIP clients. Benefits include easy access to membership features (no more carrying around a key-card), plus the ATM component lets you track and maintain food and booze tabs.

The club made worldwide news in 2004, when it began offering to implant VeriChips into its VIP customers for identification purposes.

Criminal Management & Law Enforcement

Implanting chips in criminals not only eliminates the possibility of prison breaks, but also enables better surveillance and information gathering within the prison system, by utilizing GPS tracking through the implanted chips.

A system that requires guns to be in close proximity to their owner to fire using GPS has been developed, preventing stolen firearms and accidental firing by unauthorized persons.

Potential Drawbacks

Uncertainty

What you know, you know, what you don't know, you don't know. This is true wisdom.

~ Confucius

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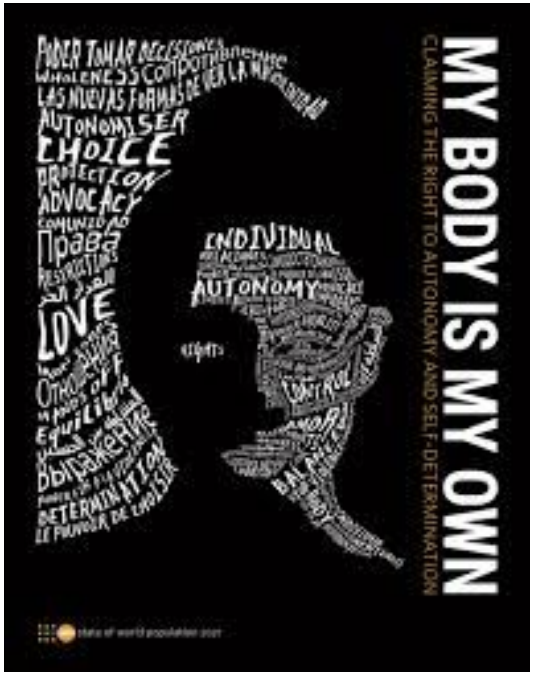
Access control

- Access control of data from human implant chips is currently unclear.
- There are concerns about who would have access to the information collected by the chip and how it could be used, potentially leading to discrimination based on personal information.
- It is important to approach the use of human implant chips with caution and consideration of the potential risks and benefits.

Ethical concerns about bodily autonomy

- Control by corporations or governments
- Loss of bodily autonomy and personal freedom
- Alteration of natural state
- Violation of the body
- Access to information leading to discrimination



Medical Concerns

- Implantation and removal procedures are not very painful.
- The implant should not interfere with MRI, airport security scanners, or metal detectors.
- The chips are durable and can withstand physical activity without being easily damaged.
- Implantation can pose medical concerns if not done correctly, leading to the risk of infection.
- Consulting a medical professional with experience performing aseptic procedures in a sterile environment is important to minimize the risk of infection.

Privacy and surveillance issues

- RFID chips are not powerful enough to be tracked and cannot connect to any satellite.
- They can offer convenience and ease of use for tasks such as unlocking doors or making payments.
- They can potentially improve medical care by storing important medical information.
- There are concerns that RFID chips could be used for surveillance or control by corporations or governments.
- The technology is not foolproof and could potentially be hacked, leading to security risks.
- The long-term health effects of having an RFID chip implanted in the body are not fully understood.

Are the chip implants hackable?

- Some biohackers suggest that implant hacking is not a significant concern.
- There have been no major hacks reported for RFID chips.
- RFID chips can provide convenient access to technology and devices.

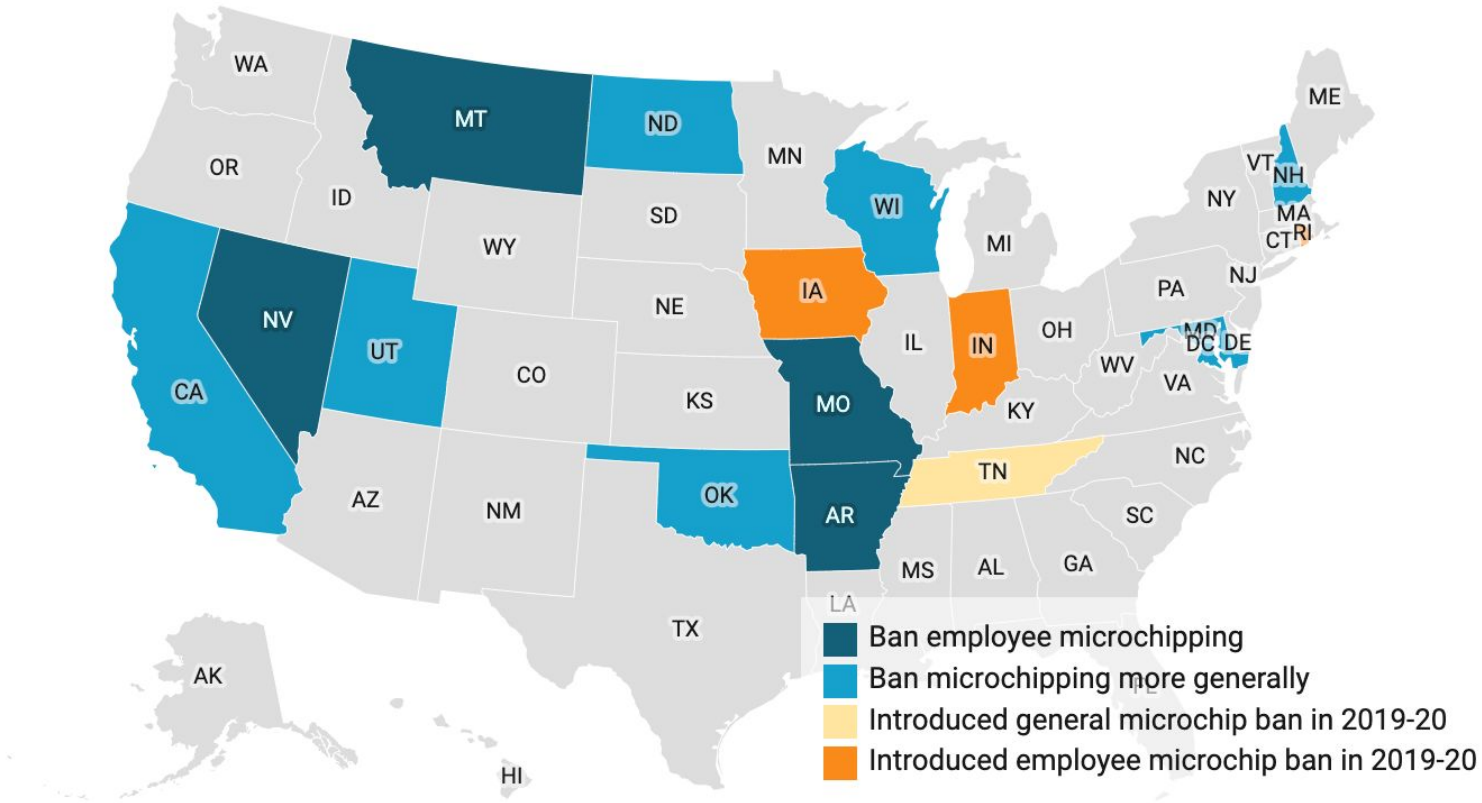
- There is a risk of RFID chip hacking, as seen with the individual who used the chip to hack into other people's phones.
- The potential for someone to cut off a person's hand to gain access to their implanted chip is a concern, although this is considered unlikely.
- There are potential privacy concerns with having personal information stored on an implanted chip.

No universal standards

The lack of standardization in digital identification systems means that multiple chips would be required for different purposes, such as one for subway access and another for credit cards or library cards. Alternatively, a rewritable chip could be implanted, but it would require frequent updating.

Legal and Regulatory Considerations

Source: National Conference of State Legislatures, LexisNexis State Net



Map: LexisNexis State Net • Source: National Conference of State Legislatures • Get the data • Created with Datawrapper

At present, there are no U.S. federal regulations specifically addressing human chip implants. However, some states have introduced legislation related to the technology. For example, in 2006, California passed a law that prohibits employers from requiring their employees to have a chip implant. Similar bills have been introduced in other states, such as Nevada and Virginia. Additionally, some states have laws that regulate the use of RFID technology in general, which could potentially apply to human chip implants as well.

Meanwhile, many state governments are passing laws to prevent forced microchip implants on employees and others. For example, Wyoming just passed such a bill.

According The Hill, “to date, at least 10 state legislatures in the United States have passed statutes to ban employers from requiring employees to receive human microchip implants.”

In the United States, many states such as Wisconsin (as of 2006), North Dakota (2007), California (2007), Oklahoma (2008), and Georgia (2010) have laws making it illegal to force a person to have a microchip implanted, though politicians acknowledge they are unaware of cases of such forced implantation. In 2010, Virginia passed a bill forbidding companies from forcing employees to be implanted with tracking devices.

Conclusion

Pros

- Improved medical care and monitoring of patients
- Increased personal security through identification and authentication
- Potential for more efficient and streamlined access to facilities and services
- Ability to store important personal information in case of emergency
- Enhanced convenience for tasks such as contactless payment and access control

Cons

- Potential for loss of privacy and security if personal information is accessed without consent
- Risk of discrimination based on personal information
- Ethical concerns about bodily autonomy and the potential for coercion or control by corporations or governments
- Lack of clear regulations and standards for implantable technology
- Medical risks associated with implantation procedures

Where do we go from here?

Human implant chip technology has the potential to revolutionize the way we interact with the world around us by enhancing our natural abilities and making us more efficient and connected.

Neil Harbisson

- Became a **cyborg** in 2004.
- Implanted an **antenna** implanted in his skull.
- To perceive **colors through sound**.

Founded the Cyborg Foundation in 2010 with Moon Ribas in Barcelona.

- The Cyborg Foundation helps people become cyborgs and promotes cybernetics for human evolution.
- They raise awareness about the cultural implications of cyborg technology and promote acceptance of diversity in human perception.

Others on cyborg-related technologies and concepts:

- Neuralink
  - Focus on developing brain-machine interfaces
- OpenBCI
  - Develop open-source tools for neurotechnology
- Cybathlon
  - International competition that showcase the latest advancements in assistive technologies
- Grindhouse Wetware
  - Produce human-implantable devices
- HPlus Nano Teoranta
  - Develop nanotechnology-based implants

More to ponder …

What are the benefits of implanting the chip(s)?

Is implanting chips physically and emotionally safe?

Who owns the data on the chip?

Who has access to the data — and when?

Do the chips communicate, somehow, with outside networks?

How are chips updated when flaws are found?

Can the chips be hacked? Assuming yes, what security is in place to stop unauthorized access to data and manipulation of data?

Do religious beliefs forbid the practice?

Is implanting the microchip truly voluntary? Will it still be voluntary tomorrow or in 10 or 20 years?

Is the practice medically necessary?

Are incentives offered to those who participate?

Are penalties coming for those who don’t participate?

Will being chipped start as an exception and become the rule?

Will ethical and moral processes and procedures be breached by hackers? (No way to stop the bad actors once you begin.)

What laws are put in place on this implanted chip topic?

What company policies are affected?

Thank You

Appendix

- https://en.wikipedia.org/wiki/Microchip_implant_(human)
- https://www.bbc.com/news/business-61008730
- https://thehill.com/opinion/technology/3817029-human-microchip-implants-take-center-stage/
- https://dangerousthings.com/
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- https://www.youtube.com/watch?v=Ksw-arKvMPk
- https://www.bbvaopenmind.com/en/technology/innovation/technology-under-your-skin/
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- https://www.shrm.org/resourcesandtools/hr-topics/technology/pages/indiana-bans-employers-from-requiring-microchips-workers.aspx
- https://medicalfuturist.com/rfid-implant-chip/

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