



Men Against Fire

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Plot summary

- Main character is a soldier nicknamed “Stripe”
- Everyone in the military has an advanced MASS implant
- “Roaches” plague society
- Stripe encounters a malfunction with his implant
- Stripe learns an ugly truth about his role in a much bigger evil
- After a torturous encounter with one of the men in charge, Stripe is returned to his old life...



What Stripe sees (top)

What reality is (bottom)

Group Conclusion

Warning from the author:

As a species the most important thing we can do is to learn from the past, and not to use computing technologies to repeat history.

- Eugenics makes a resurgence with the DNA Screening in the movie
- Media propaganda used to make a genocide acceptable (Nazism)
- Big brother surveillance with the MASS implant



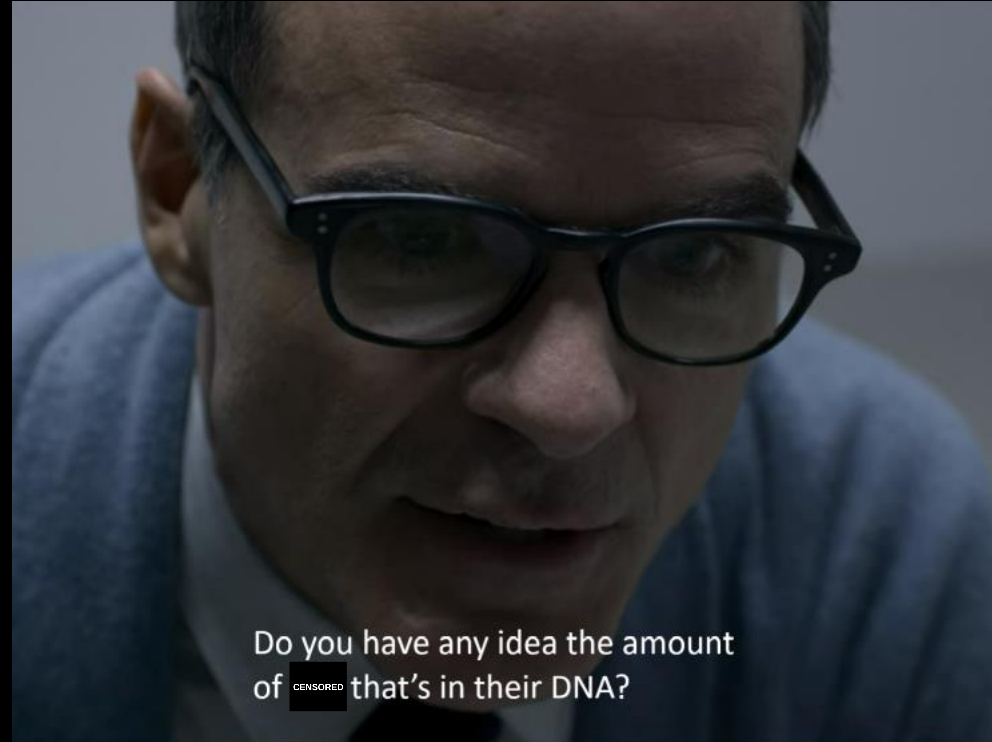
History repeats itself, but in such cunning disguise that we never detect the resemblance until the damage is done.

— Sydney J. Harris —

AZ QUOTES

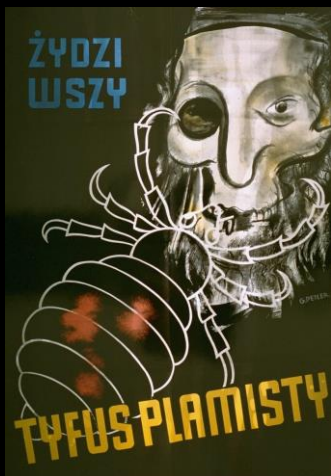
Eugenics

- **History of Eugenics**
 - Definition [1]
 - Positive and negative eugenics [2]
- **DNA Screening (Fiction)**
 - "Higher rates of cancer. Muscular dystrophy, MS. SLS. Substandard IQ. Criminal tendencies. Sexual deviances."
- **Current DNA Screening Technologies**
 - Types of current genetic testing [3]
 - Can detect more than 1,200 disorders and disease [4]



Propaganda

- Propaganda against human with DNA “defects”
- Nazis persecuting Jews for “spreading disease” direct parallels to the propaganda in the movie.
 - 6 million Jews killed [5]



“Jews are lice they cause Typhus”



Promotional poster for the movie



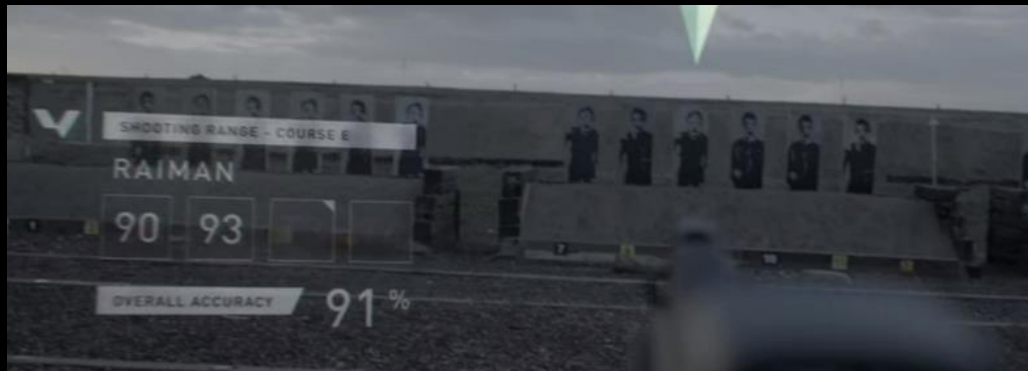
A female “roach” explain how media was used for propaganda

MASS Implant

Fiction

- *MASS Implant* – A device used by the government to assist a soldier in performing their duties
 - Intelligence
 - Conditioning
 - Communication
- Complete control over sight, sound, smell, and possibly touch.
- Records these senses to a server for later memory playback

Target Acquisition tool built within the Mass System



“94% of shooters improve after using MantisX for just 20 minutes” [\[6\]](#)

HOW DOES MANTISX WORK?



ATTACH THE DEVICE



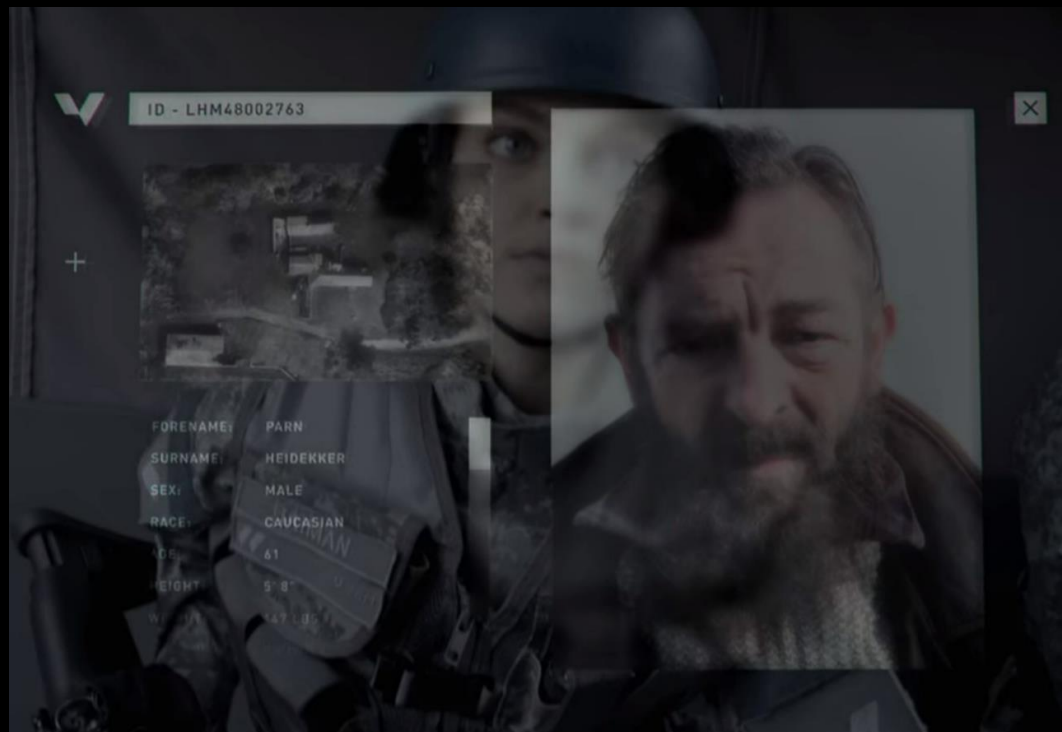
CONNECT THE PHONE



COLLECT THE DATA

Big Brother Surveillance

- Boomer – get a layout of any structure
 - seismic prospecting (reality) [\[7\]](#)
- Drone – observing surroundings
- Information about individual
- 24-7 Monitoring on soldiers
 - Found out intimate desires to reward soldiers for killing
 - No “turn-off” button
 - Police body cameras (on-duty)

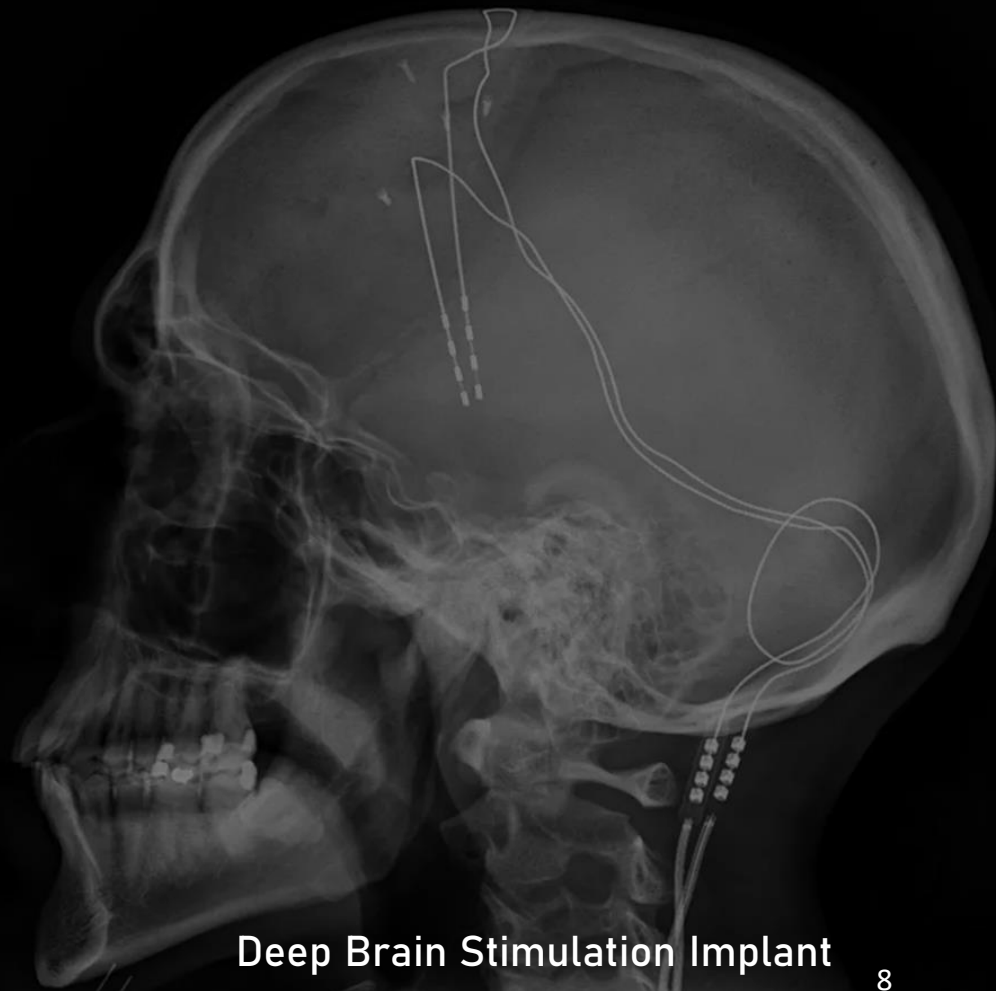


Personal info of a man who
hides “roaches” in his house

Brain Implants

Reality

- *Brain Machine Interfaces* - Will allow for a brain to communicate with machines in small capacities [8].
- *Neuralink implant (a form of BMI)* - Going to be used to help people with nerve damage reactivate the nerves for use again [9][10].
- *Deep Brain Stimulation* - An already approved method of treating Parkinson's disease via electric signals sent through the brain [11]. Has potential in memory erase [12].



Deep Brain Stimulation Implant

Virtual and Augmented Reality

- Virtual reality – uses sense of vision and sound to transport user into a digital simulation
 - Potential to affect sense of touch, but more equipment is required [\[13\]](#)
- Augmented reality – displays graphical objects within the physical world [\[14\]](#)
- Both "realities" still require some type of headgear
- Combination of both can potentially replicate what is shown in the movie



AR/VR headset design

Conclusion

Fiction

- DNA screening
 - Mass implant
 - Boomer
- Target Acquisition
 - Memory erase
- Virtual display at eye

VS

Reality

- Genetic/DNA testing for diseases
 - Brain implants
- Seismic Prospecting
 - Mantis product
- DBS – potential in memory erasure
 - VR/AR

Reference

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- [2] Alan Templeton, "*Chapter 14-Human Population Genetics/Genomics and Society*," Academic Press, 2019. (Accessed 10/2/2021)
- [3] "*Genetic Testing*," Centers for Disease Control and Prevention. https://www.cdc.gov/genomics/gtesting/genetic_testing.htm (Accessed 10/3/2021)
- [4] Karen Norrgard, "Diagnosing Down Syndrome, Cystic Fibrosis, Tay-Sachs Disease and Other Genetic Disorders," *Nature Education*, vol.1, no.1, 2008. <https://www.nature.com/scitable/topicpage/diagnosing-down-syndrome-cystic-fibrosis-tay-sachs-646/> (Accessed 10/4/2021)
- [5] "*Documenting Numbers of Victims of the Holocaust and Nazi Persecution*." Holocaust Encyclopedia. December 8, 2020. <https://encyclopedia.ushmm.org/content/en/article/documenting-numbers-of-victims-of-the-holocaust-and-nazi-persecution> (Accessed 10/5/2021)
- [6] "*Improves shooting accuracy*." Mantis. <https://mantisx.com/> (Accessed 10/5/2021)
- [7] Qiu-Jing, Z., & Ming-Yue Zhai. "First break of the seismic signals in oil exploration based on information theory." *Neural Computing & Applications*, vol.31, no.12, pp.8229-8237, 2019. <http://dx.doi.org.ezpv7-web-p-u01.wpi.edu/10.1007/s00521-018-3955-6>

Reference (cont.)

- [8] Patil, P. & Turner, D. "The Development of Brain-Machine Interface Neuroprosthetic Devices." *Neurotherapeutics*, vol.5, pp.137-146, 2008. <https://link.springer.com/content/pdf/10.1016%2Fj.nurt.2007.11.002.pdf> (Accessed 9/30/21)
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- [10] "Applications of Neuralink." Neuralink, <https://neuralink.com/applications/>.
- [11] "Deep Brain Stimulation (DBS) for the Treatment of Parkinson's Disease and Other Movement Disorders." *National Institute of Neurological Disorders and Stroke*, U.S. Department of Health and Human Services, <https://www.ninds.nih.gov/About-NINDS/Impact/NINDS-Contributions-Approved-Therapies/DBS#reference26> (Accessed 9/30/21)
- [12] Glannon, Walter. "Brain Implants to Erase Memories." *Frontiers in Neuroscience*, 2017. <https://doi.org/10.3389/fnins.2017.00584>
- [13] Suvajdzic, M., Bihorac, A., Rashidi, P., Ong, T., & Applebaum, J. "Virtual Reality and Human Consciousness: The Use of Immersive Environments in Delirium Therapy." *Technoetic arts : a journal of speculative research*, vol.16, no.1, pp.75-83, 2018. https://doi.org/10.1386/tear.16.1.75_1
- [14] Aydınoğan, G., Kavaklı, K., Şahin, A., Artal, P., & Ürey, H. "Applications of augmented reality in ophthalmology." *Biomedical optics express*, vol.12, no.1, pp.511-538, 2021. <https://doi.org/10.1364/BOE.405026>

Image Reference

Slide 3: <https://www.azquotes.com/quote/952206>

Slide 5: (Left) <https://www.palestineposterproject.org/poster/%C5%BCydzi-wszy-typhus-plamisty>

(Right) <https://www.amazon.com/Black-Mirror-Against-Original-Soundtrack/dp/B06XS7RHLY>

Slide 8: https://commons.wikimedia.org/wiki/File:Xray_of_deep_brain_stimulation_in_OCD,_L.png

Slide 9: <https://www.stambol.com/2018/05/28/the-future-of-ar-vr-headset-design-is-hybrid/>