Sapient not Conscious

Ethics and Policy at the Frontier of Novel Biology by Hailey Sato

Science or Fiction

The CL1

The first commercially available biocomputer will be released this year…

- An adaptive technology that transcends the limits of existing computation
- The merging of biology and technology, what happens when a machine does more than just mimic the brain?

Image Source: Cortical Labs

Research Question

How do we analyze biomedical science history to model the current evolution of political and social tolerance for innovations in synthetic biology?

Lessons from History

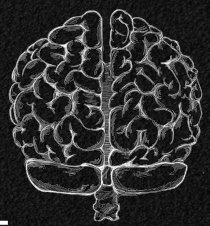
Controversy to Commonplace

The history of human dissection, transplants, and GMOs illustrate the oscillation of tolerance in public sectors for novel science, what can we learn from this model?

- Cold War era research; the antithesis of the Dark Ages and parallel of the Scientific Revolution
- What political and social environments commonly precede periods of rapid advancement?
- Science redefines the parameters of what's plausible, how does this affect the society in which it is contextualized?

Image Source: Alex Carrel

Humanities Fascination with the Brain



Modern or medieval, scientists have long been fascinated by the potential of the brain.

As an artifact of the soul, or a solution to the Von Neumann Dilemma, the brain stands as an insurmountable mystery of complex biological machinery.

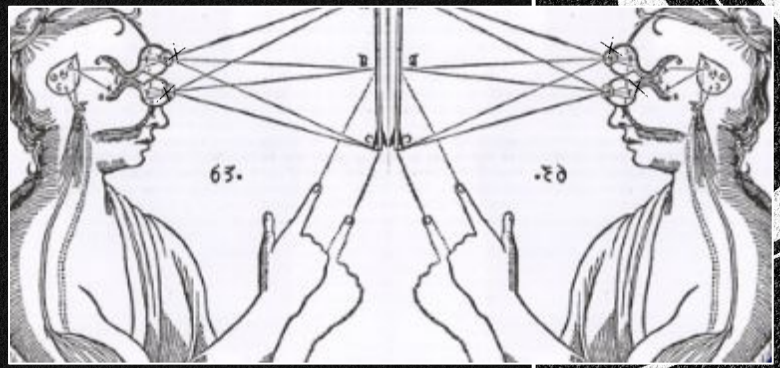


Image Source: René Descartes

Nothing is discovered, only observed or mimicked

Life and Law

Throughout history ethical and legal limitations have been outpaced by technological advancement. How do regulations interact with discoveries not previously considered possible? What role do definitions play in law and life?

- The Nuremberg Code, Declaration at Helsinki, Animal Welfare Act, National Research Act, Recombinant DNA Advisory Committee, “The Common Rule”, and more
- The requirements for a moral status and suggested reforms for ethical considerations
- The role of international collaboration

“Advances in biomedical technology must never come at the expense of human conscience”

Image Source: The White House

The Ethics of Engineering Life

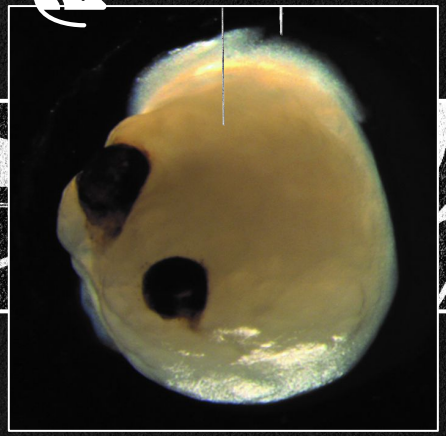
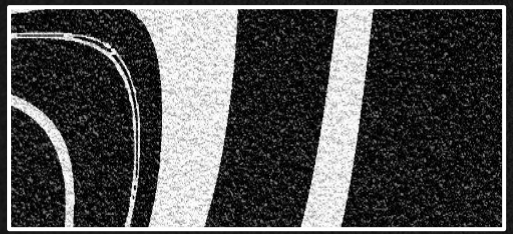


Image Source: Elke Gabriel

The Future

The role of public opinion in scientific advancement must not be understated. The true measure of progress is not the technology but to what end it is wielded.



Scientific progress should be nurtured, not halted out of fear. However, the public must be critically aware of the technologies that may shape their future.

Ethical foresight must guide discovery, not follow it

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