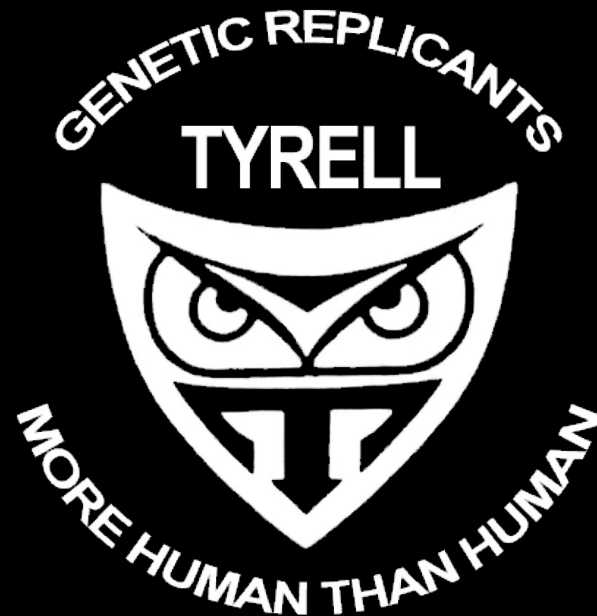


REGULATING THE TYRELL CORPORATION: PERSONHOOD, COMPANIES, AND THE FUTURE OF INTELLIGENT LIFE

Dr. David Lawrence & Dr. Sarah Morley



WHAT? WHO? WHY?

Dr Sarah Morley:

Company Law

Corporate Governance

Protection of stakeholders

David:

Enhancement/ Ethics of biotechnology and
consciousness/ Neuroscience

Artificial General Intelligence

'Novel Beings'

What makes beings significant to the law?

- Wellcome Trust small grant **WT 208871/Z/17/Z**
 - £29,925

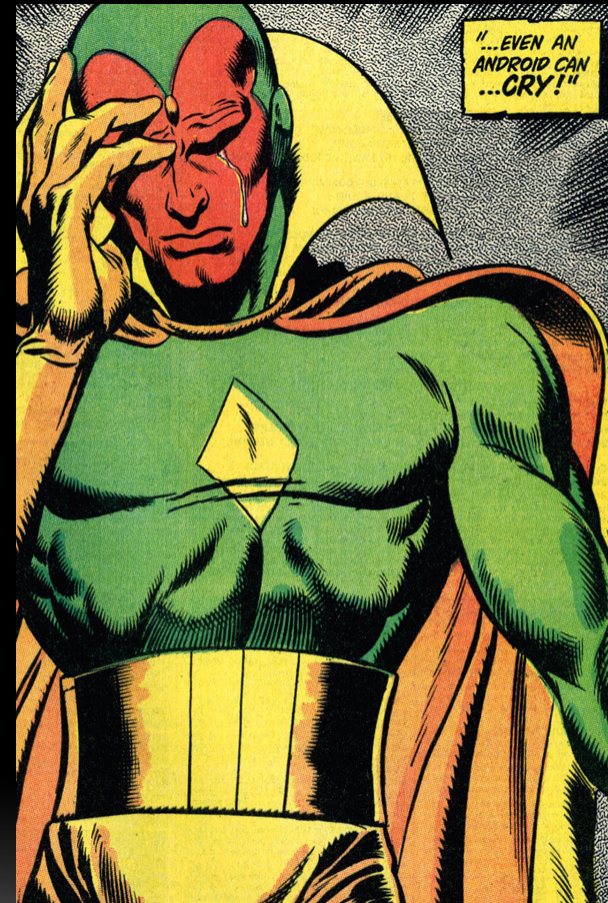


TECHNOLOGIES FOR NOVEL BEINGS

BIOTECHNOLOGY

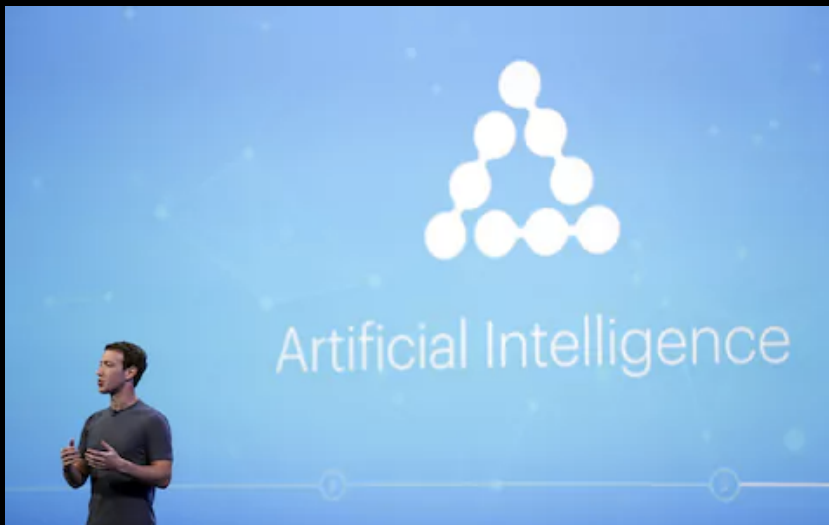
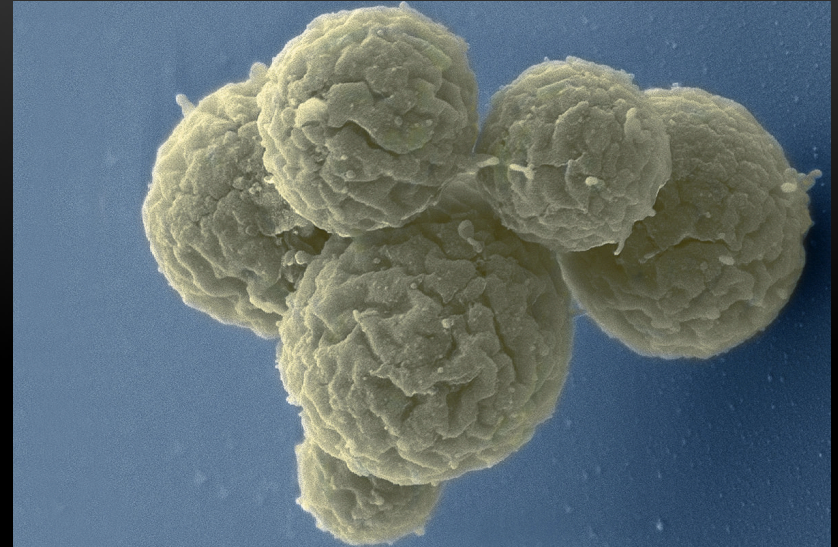


ARTIFICIAL INTELLIGENCE



COMPANIES

- Synthetic Genomics Inc- **JCVI-Syn3.0**
 - Partnerships with:
 - Novartis (vaccines)
 - United Therapeutics (organs)
 - Monsanto (crops)
 - Synpromics- Pharma, biotech
 - Spinout companies from Universities



- **CYC** (Cycorp)- AI with human-like reasoning, inference engine
- **Google Brain** (Alphabet subsidiary)- deep learning
- **FAIR** (Facebook)- language and memory
- Microsoft- logic, verbal reasoning- analogies and synonyms. High human IQ.

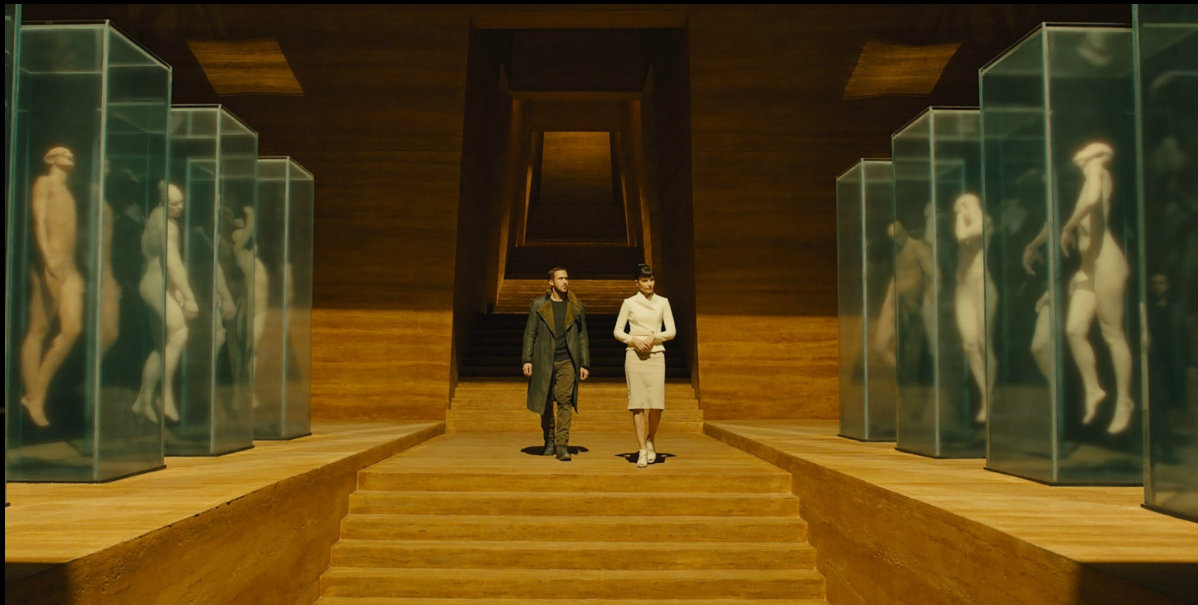
THE QUESTION

- To determine:
 - **Whether company law can, or should, be the primary means of regulating novel beings, and by extension their potential wide-ranging societal impacts.**
- Challenges for law posed by emerging technologies liable to give rise to morally significant beings
- Challenges for companies producing emerging technologies
- Untapped area of legal and philosophical scholarship
- Three key areas:
 - **Defining Status**
 - **Development**
 - **Operation and Disposal**



WHY THIS? WHY NOW?

- Jennifer Doudna on CRISPR
 - I felt... a responsibility to start a more open discussion about how do we as a culture, we as a species, how do we use a technology that gives us effectively the ability to control evolution?
- We can now see what is coming!
- Our context: Disruption to understanding of rights and moral status, and unregulated power of companies



30 GRAND FOR THAT!?

ROUNDTABLE:

REGULATING THE TYRELL CORPORATION: COMPANY LAW AND THE EMERGENCE OF NOVEL BEINGS

SYMPOSIUM 1:

REGULATING INTELLIGENCE: THE CHALLENGE OF CONSCIOUSNESS IN NEW FORMS OF LIFE

SYMPOSIUM 2:

REGULATING THE CORPORATION AND NEW MORALLY SIGNIFICANT TECHNOLOGY

CONFERENCE:

REGULATING THE TYRELL CORPORATION: COMPANY LAW AND THE EMERGENCE OF NOVEL BEINGS

ALSO: EGGS



PERSONHOOD AND RIGHTS

- How would we assimilate novel beings into existing society?
 - Should this even be a problem?
- What is the basis of the way we protect ourselves?
 - Are there universalisable reasons? Or ANY reasons?
- Legally Human?
 - Is personhood enough to confer human-equivalent rights?
- Cognitive equals?
 - When would novel beings warrant moral status/ personhood?
 - Threshold?
 - Taylor: “a sense of self, a notion of the future and the past, [an ability to] hold values, make choices” = personhood
 - Common fears presuppose human equivalent capacities
 - Or... personhood

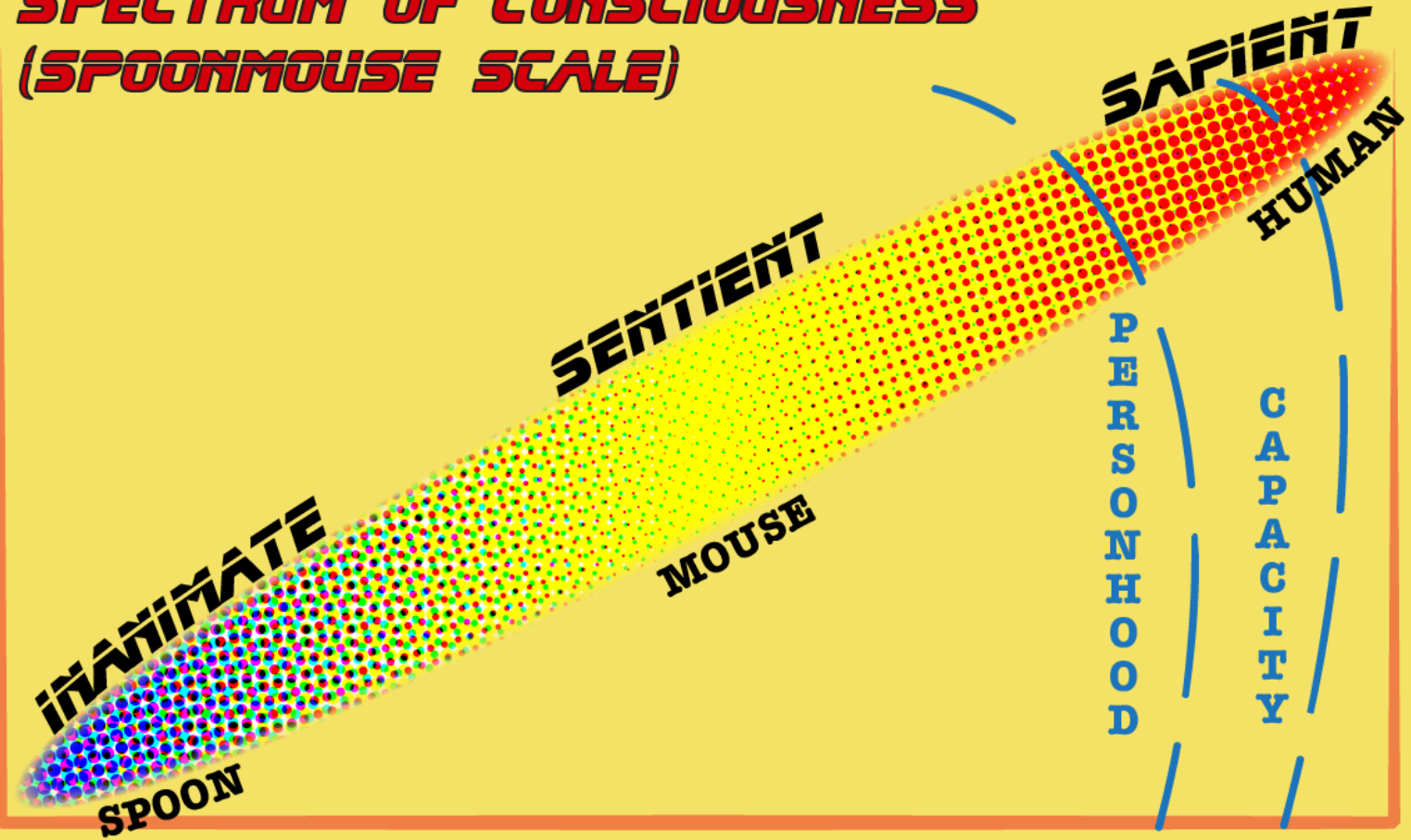


(NOVEL) CONSCIOUSNESS

- Locke- 'The perception of what passes in a man's own mind'
- **Sapience**= Awareness - Sentience - Subjectivity - Knowledge - Intention - Introspection - Experience- ...
 - All presumed for *Homo sapiens*!
 - Highly likely we will create- or cause creation of- sapient beings that aren't *Homo sapiens*
 - How do we test for consciousness? Criteria? Reporting?
 - Mirror test- Gallup
 - Turing Test- Dennet/ Hofstader +ve view vs Chalmers -ve view
 - Duplex! [1](#) [2](#)
- How conscious does something need to be to matter???

**SPECTRUM OF CONSCIOUSNESS
(SPOONMOUSE SCALE)**

**R
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ANIMAL PERSONS

- **Habeas corpus**
- **Sandra**
 - 'Una persona no humana'



- **Modern animal personhood cases**

- Nonhuman Rights Project, Inc., On Behalf Of Tommy, V Patrick C. Lavery. 518336, (State of New York Supreme Court 2014).
- Matter Of Nonhuman Rights Project, Inc. V. Stanley. N.Y. Slip Op 31419, State of New York Supreme Court 2015
- Expte. Nro. P-72.254/15 "Presentación Efectuada Por A.F.A.D.A Respecto Del Chimpancé "Cecilia"- Sujeto No Humano" (2016)
- Expte. A2174-2015/0 "Asociacion De Funcionarios Y Abogados Por Los Derechos De Los Animales Y Otros Contra Gcba Sobre Amparo" (2016)

- **Probably not responsible!**



GAPS IN REGULATION


- Gaps in specific regulation that exists already and is directly relevant to the technology
- There is no substantive position on the moral issues of concern

- **BIOTECH**

- Human Fertilisation and Embryology Act 2008 (HFEA)
- Human Tissue Act 2004 (HTA)
- Genetically Modified Organisms (Contained Use) Regulations 2014 (GMOR)

- **AI**

- Computer Misuse Act 1990
- Data Protection Act 2018
- Genetically Modified Organisms (Contained Use) Regulations 2014 (GMOR)
- The House of Commons Science and Technology Committee's Fifth Report, Robotics and Artificial Intelligence 2017
- Automated and Electric Vehicles Act 2018



YOU'VE TOLD ME ONLY
WHAT **POWERS** I
POSSESS---NOT WHAT
I WISH TO KNOW!

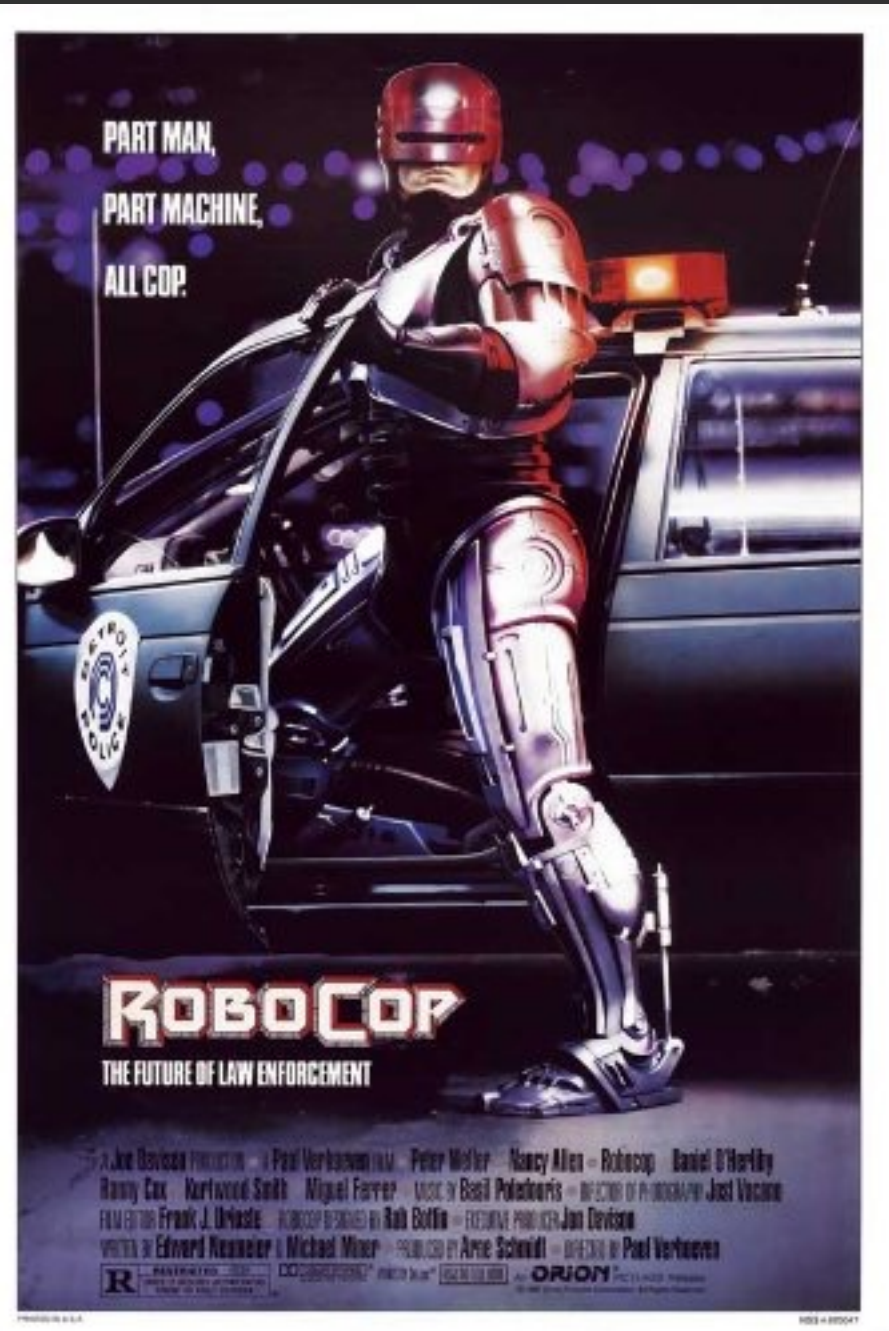
WHO AM I? WHAT
NAME IS MINE?

NO NAME, CLOWN!
WHAT NEED HAS AN
INHUMAN **SLAVE** OF
A NAME--- EVEN A
NUMBER?

I GAVE YOU A MIND
SO THAT YOU COULD
OBEY ME---NOT
DISPUTE ME!

REGULATORY OPTIONS

- **SOFT LAW**
 - Codes/ Self-regulation
 - Flexible
 - Lacks Teeth
- **HARD LAW**
 - **INTEGRATED**
 - Adapting existing norms
 - Reactive
 - **NON-INTEGRATED**
 - New bespoke regulation
 - Regulatory body(?)
 - Slow/ Costly
 - Inflexible
- **C-C-C-COMBO!**
 - All of the above
 - Cornerstones + Flexibility



FORTHCOMING:

- Cambridge Quarterly of Healthcare Ethics
 - “Symposium” section edited by Sarah and David
- Publications galore
- Active network of ~110 academics across 11 countries
- Future bid!

