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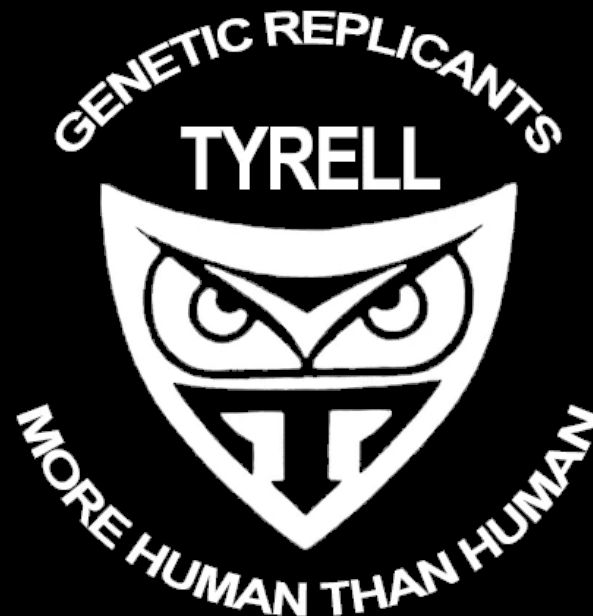


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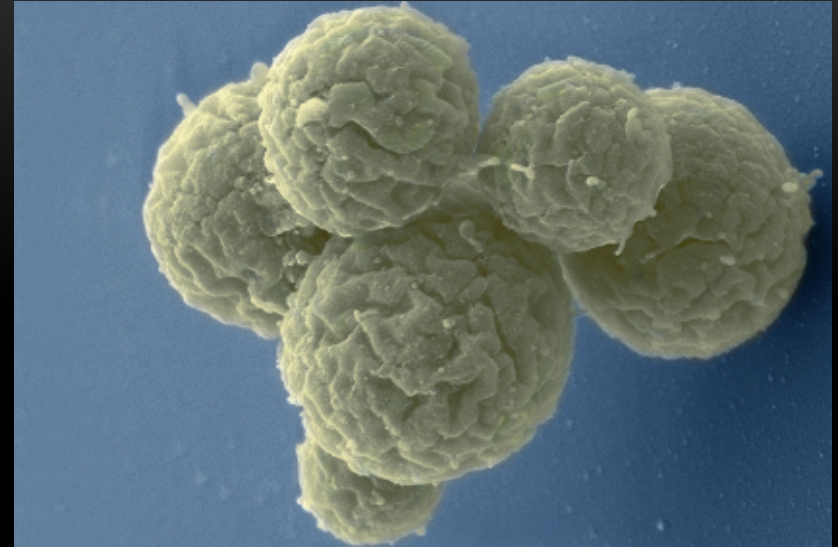
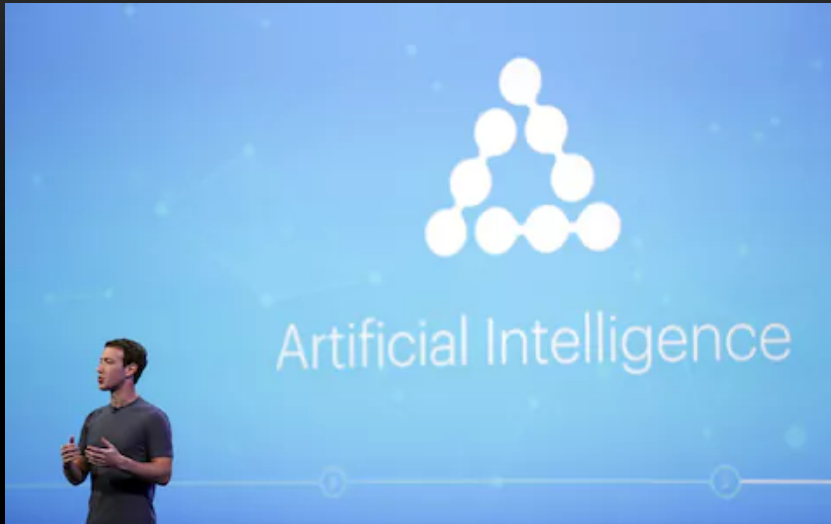


# REGULATING THE TYRELL CORPORATION: THE EMERGENCE OF NOVEL BEINGS

Dr. David Lawrence & Dr. Sarah Morley



# COMPANIES + TECHNOLOGIES



Synthetic Genomics Inc- **JCVI-Syn3.0**

Partnerships with:

Novartis (vaccines)

United Therapeutics (organs)

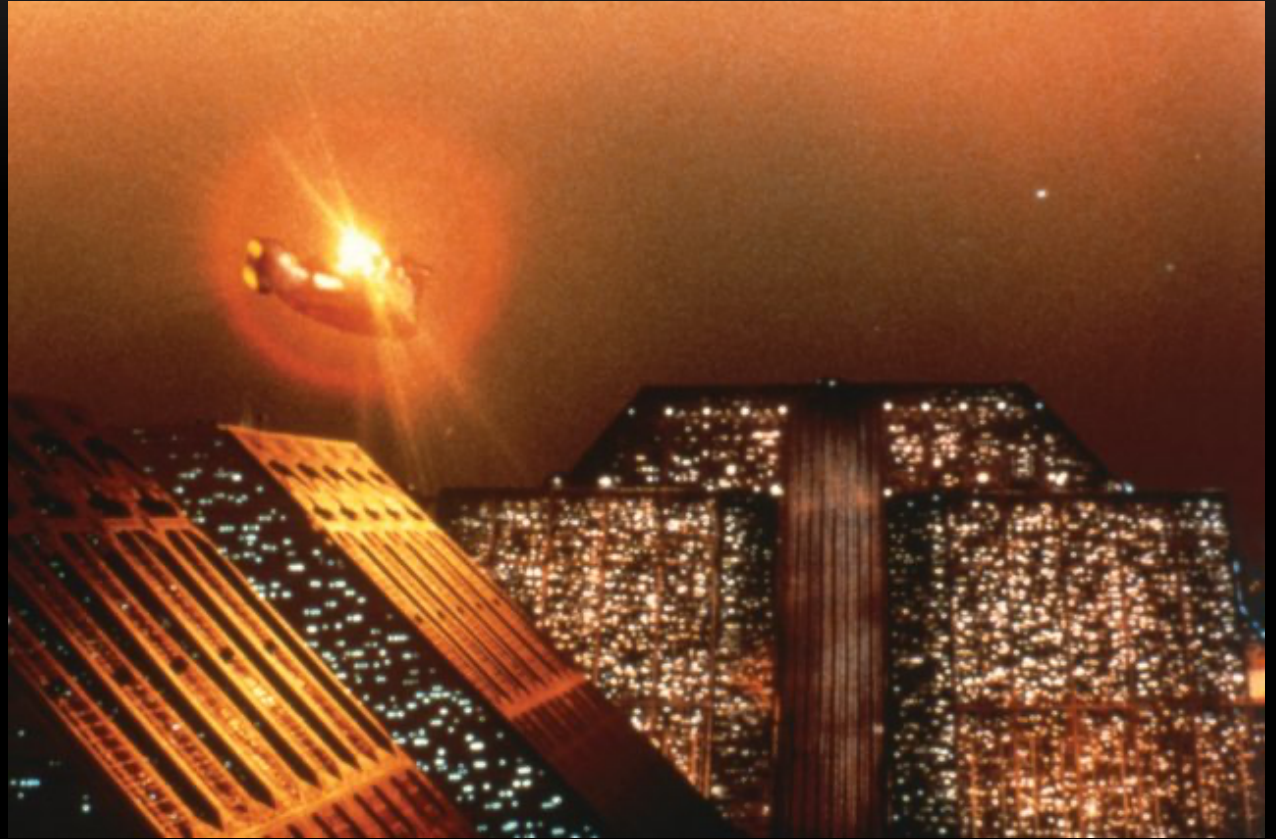
Monsanto (crops)

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 TYRELL CORPORATION



# MORAL VALUE- PERSONHOOD

- Charles Taylor:
  - “A person is a being with a certain moral status, or a bearer of rights. But underlying the moral status, as its condition, are certain capacities. A person is a being who has a sense of self, has a notion of the future and the past, can hold values, make choices; in short, can adopt life-plans. At least, a person must be the kind of being who is in principle capable of all this, however damaged these capacities may be in practice.”
- That is:
  - Self-awareness
  - Moral Agency
  - Narrative identity



Taylor C. *The Concept of a Person. Philosophical Papers, Volume 1.* Cambridge: Cambridge University Press; 1985 at 97.

For discussion of Novel Beings as persons, see:

Lawrence DR, More Human Than Human *Cambridge Quarterly of Healthcare Ethics* 2017 26:476

Lawrence DR, Brazier M. 'Legally Human? The Status and Challenge of Novel Consciousness in Law' *Medical Law Review* 2018. 26(2): 309-327



# ***SPECTRUM OF CONSCIOUSNESS (SPOONMOUSE SCALE)***

**R  
I  
G  
H  
T  
S**

**INANIMATE**

**SPOON**

**SENTIENT**

**MOUSE**

**SAPIENT**

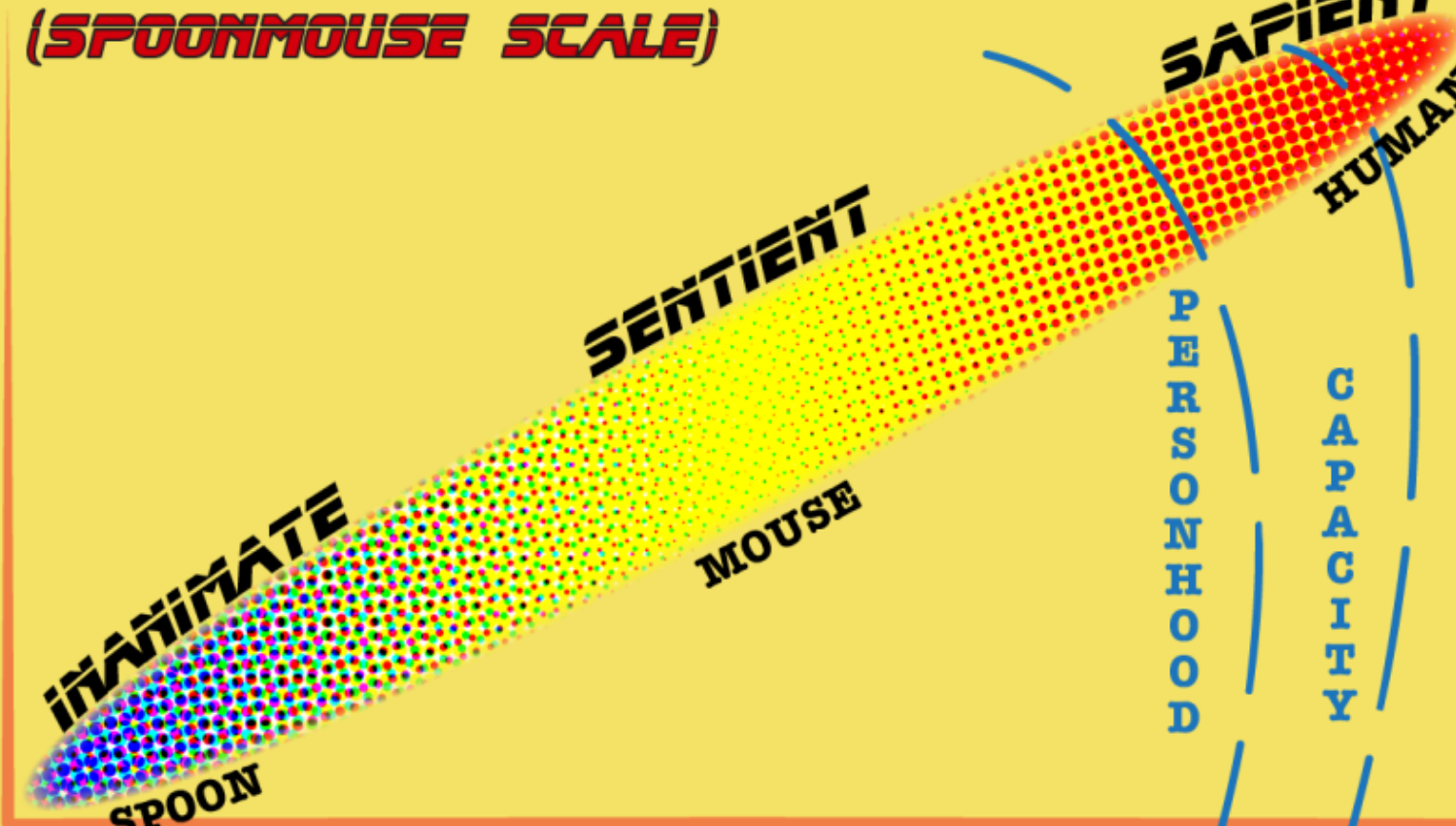
**HUMAN**

**P  
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S**

**CONSCIOUSNESS**



# ANIMAL PERSONS



## 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)

## Sandra

'Una persona no humana'

'Non-Human Person'



# 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

## COMPANY LAW



## BIOLAW



## AI/ DATA LAW





# COMPANY LAW

- Corporate Governance Code 2018:
- Companies Act 2006:
  - s.172 - promote the success of the company
  - s.174 - exercise reasonable care, skill and judgment



## Scope and application?

- s.172: The directors' actions will be judged as 'bona fide in what they consider, not what a court may consider is in the interest of the company.' (Re Smith & Fawcett Ltd (n241) Per Lord Greene MR [306])
- S.174: courts are often cautious about judging directors harshly when making business decisions (See Regentcrest v Cohan [2001] 2 BCLC 80; Hedger v Adams [2015] EWHC 2540 (Ch) at 44 )
- **Beneficiary of the duties** – the company (shareholders can bring derivative claim)



# BIOLAW

- **Human Fertilisation and Embryology Act 2008 (HFEA)**
  - Permits research on admixed embryos- forbids implantation
    - Human Fertilisation and Embryology Act 2008 4A(1)(a)
- **Human Tissue Act 2004 (HTA)**
  - “removal, storage, and use of human organs and other tissue”
    - Human Tissue Act 2004 Part 1
- **Genetically Modified Organisms (Contained Use) Regulations 2014 (GMOR)**
  - ...the removal of nucleic acid sequences from a cell of an organism which may or may not be followed by reinsertion of all or part of that nucleic acid (or a synthetic equivalent), whether or not altered by enzymic or mechanical processes, into cells of the same species or into cells of phylogenetically closely related species which can exchange genetic material by homologous recombination...
    - Schedule 2, Part 3, Para 4(a)
- Synthetic biology/ synthetic genomics?
- Global Context?

# AI/DATA LAW

- **Computer Misuse Act 1990**
    - Possibly could apply to actions of an AGI?
  - **Data Protection Act 1998/2018**
    - 1998: Does not engage with responsible use- just subject protection
    - 2018: Does not address responsible development
  - **The House of Commons Science and Technology Committee's Fifth Report, Robotics and Artificial Intelligence 2017**
    - Some suggestion of development regulation- not taken up
  - **Automated and Electric Vehicles Act 2018**
  - Addresses deployment of extant (and outdated) technologies
  - Ignore moral dimensions; ignores future development context
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# CONCLUSIONS

- Novel Beings are increasingly likely
  - Animal-equivalent? *Homo sapiens* equivalent?
- Extant law and regulation insufficient for likely issues arising
  - Legal Personhood?
  - Company behavior?
  - Responsible development?
- Enormous questions requiring wide interdisciplinary response over many years to begin to address

