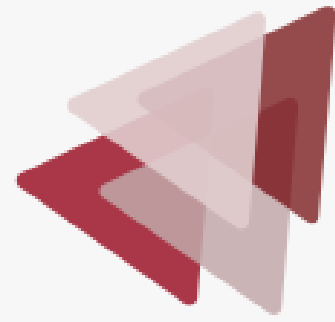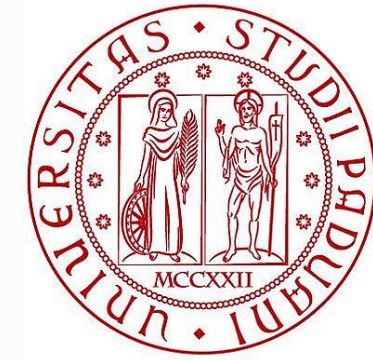**ETHTECH**

Anchoring Ethical Technology (AI and Data) Usage in the Educational Practice

1st Kick-off meeting

22nd–24th January 2025

FISPPA
Dipartimento di Filosofia, Sociologia, Pedagogia e Psicologia Applicata

UNIVERSITÀ DEGLI STUDI DI PADOVA

Applied Ethics

From Theory to Technology

Federico Zilio

❑ **Ethics**

 ❑ Ethical dimensions and disciplines

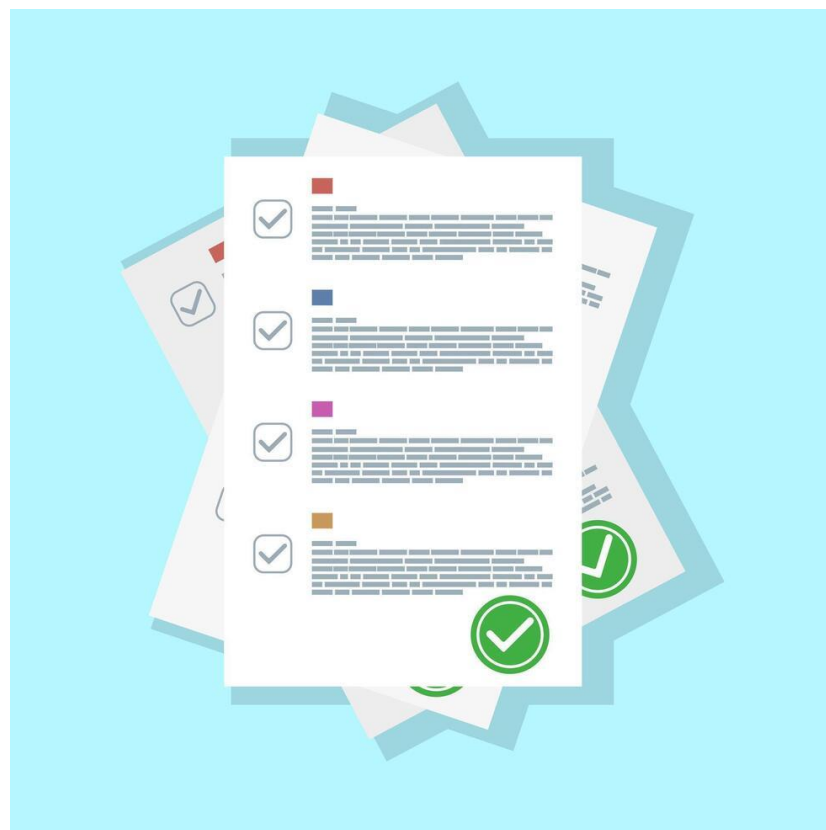 ❑ Normative and applied ethics

   ❑ Neuroethics

❑ **Technology**

 ❑ Ethics of technology

  ❑ Ethics of AI and Data

  ❑ Value neutrality thesis

Ethics / Morality

Ethical guidelines on the use of artificial intelligence (AI) and data in teaching and learning for Educators

Ethics / Morality

Greek
ῆϑος
(ēthos)

home, dwelling, context, habit, custom, character, personality, temperament

Latin
Mos, moris

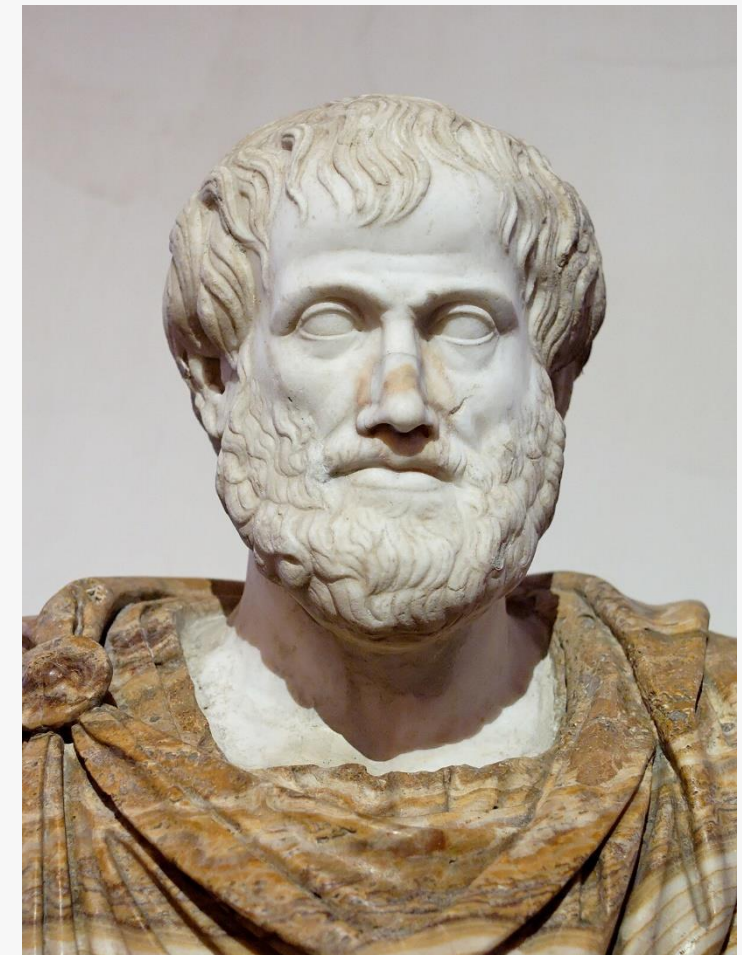behaviour, (good or bad), habit/manner, norm, tradition (note: Cicero translated Aristotle)

Ethics / Morality

However, it is not enough to live within the ethos to actually deal with ethics/morality.

Aristotle: Not just living, but **living well**

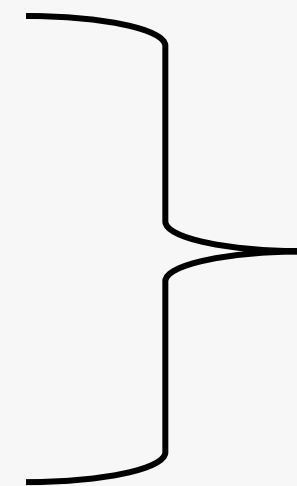**Acting well in society → Good life → Happiness**

The Good as a pivotal concept of ethics

Fundamental question of ethics:

Determining what is **good** (and what is evil) and consequently what is right

(and what is wrong).

Twofold task of ethics

1) Self-care and character refinement

2) Critical evaluation of current habits

The same tasks apply to the <u>contemporary applied ethics and "ethics of..."</u>

Different moral disciplines

❑ Descriptive ethics

❑ Metaethics

❑ **Normative ethics**

❑ **Applied ethics**

Normative ethics

Investigation of the different modes of <u>moral argumentation and justification</u>

of judgements, rules, and moral standards

- **Deontology** → Value depends on the motives of the action

- **Consequentialism** → Value depends on the consequences

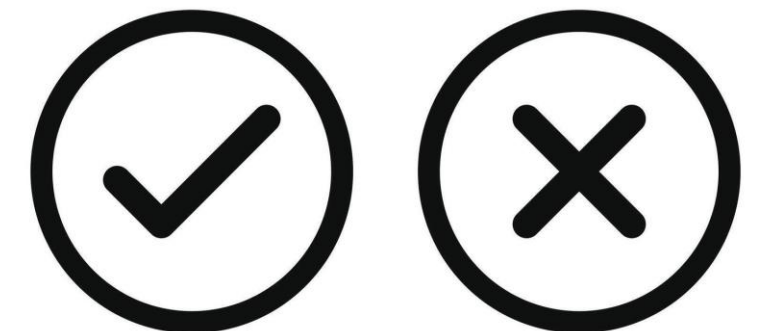- **Virtue ethics** → Value depends on the character of the agent

Deontology

- Focused on universal principles and moral duties

- Evaluates morality independently of consequences

- Emphasizes the inherent rightness or wrongness of actions

Key elements → **Moral obligations & Duties**

Answers the question → **"What is the right thing to do?"**

Deontology

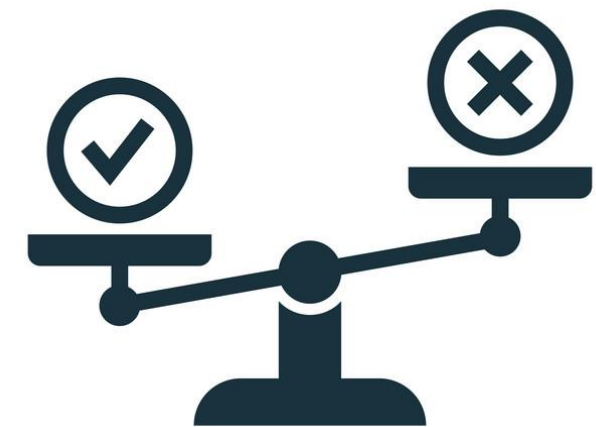**What happens if two duties conflict with each other?**

Consequentialism

- Evaluates morality based on the consequences of actions

- Aims to maximize good/utility for the greatest number of people

Key elements → **Consequences & overall benefit**

Answers the question → **"What should I do?" by considering results**

Consequentialism

$$U = \sum_{i=1}^{P_{total}} \int_{t=0}^{\infty} I_i(t) \; dt$$

Felicific calculus (J. Bentham)

Can we really calculate the utility maximisation of our actions?

Is that really the question of what is right or wrong?

Virtue ethics

- Focuses on the character of the agent and moral qualities

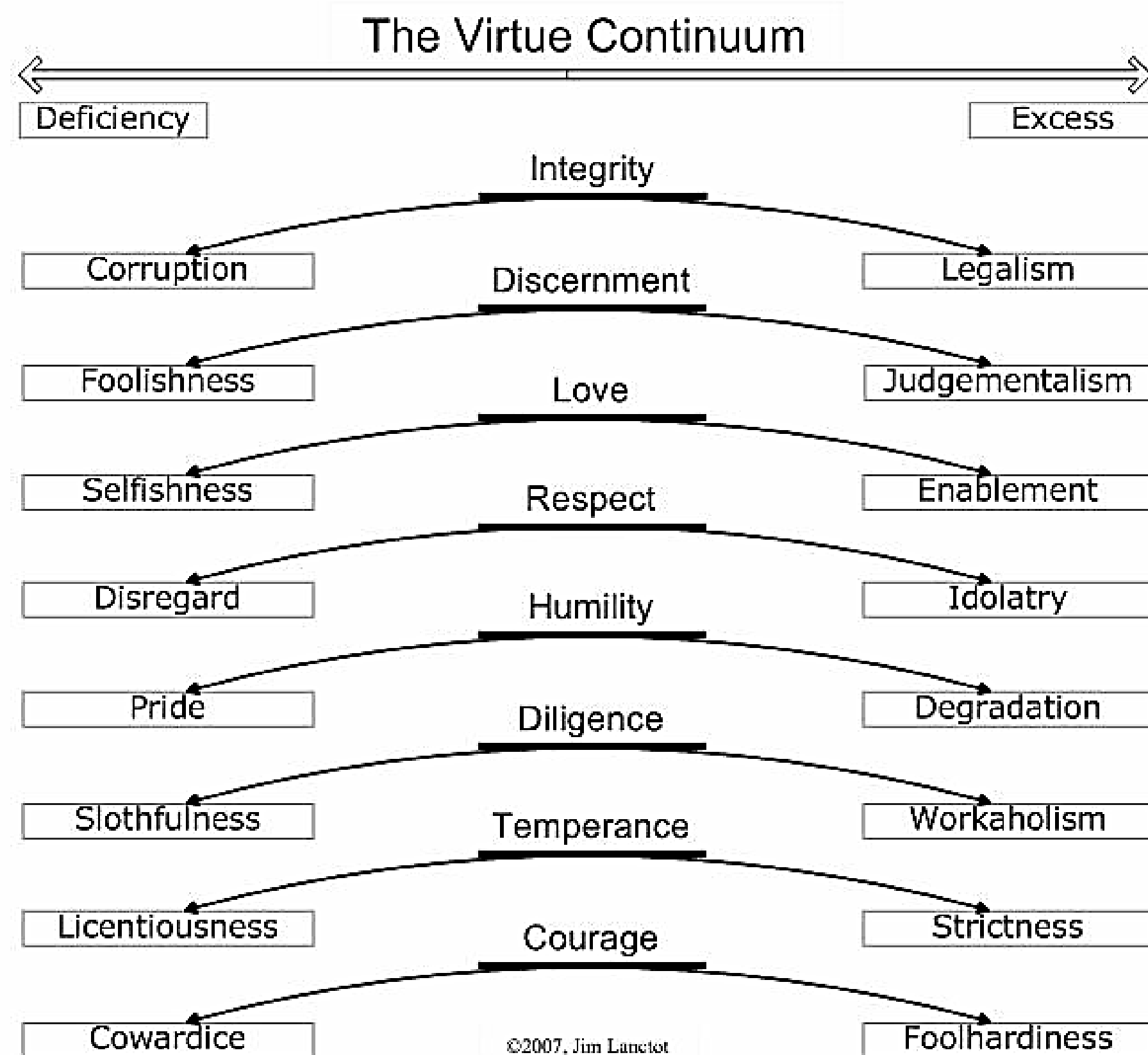- Role of virtues in determining what is right

Key elements → **Virtues as character dispositions**

Answers the question → **"How should I be?"**

"For one swallow does not make a spring, nor does one day; nor, similarly, does one day or a short time make us blessed and happy."
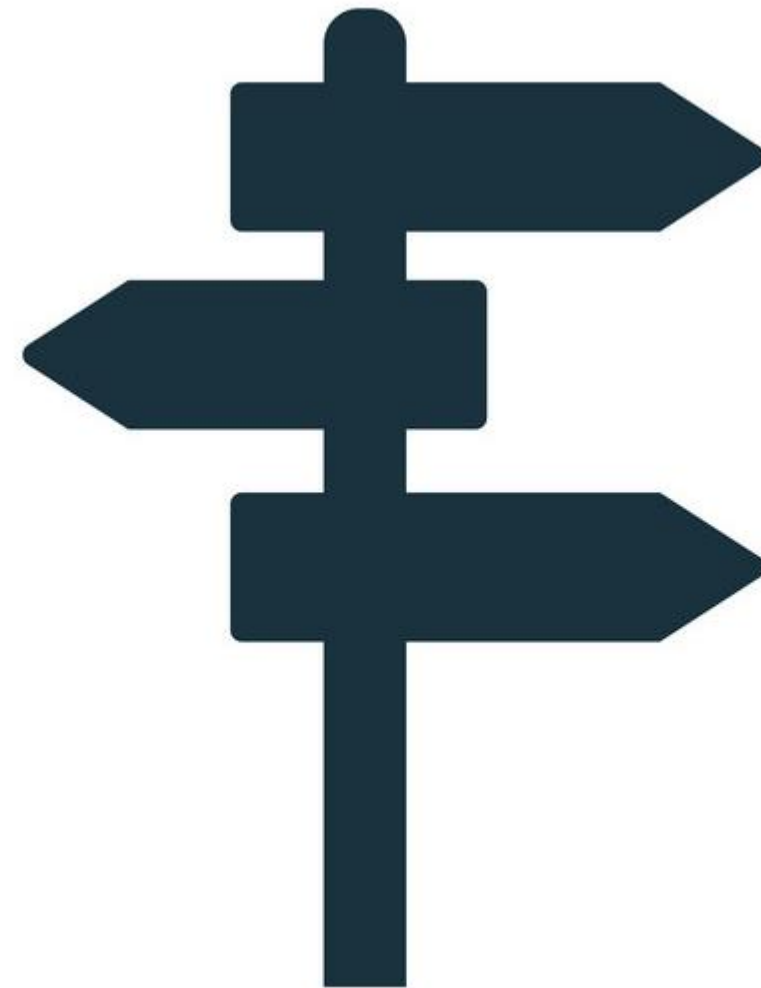
Aristotle, *Nicomachean Ethics*

One spark of hope does not mean all is well

The Virtue Continuum

Virtue ethics

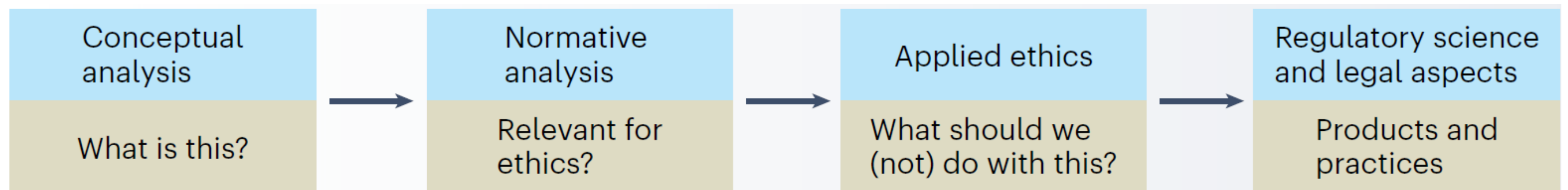**Difficulty in universal definition of virtues**

How can virtues guide my actions, precisely?

Applied ethics

Deals with the <u>application of ethical analysis in specific social, scientific, political, etc. fields</u>.

- Business Ethics, Environmental Ethics, Bioethics, Neuroethics (as ethics of neuroscience), Professional Ethics, Ethics of Technology, AI ethics, etc.

Conceptual analysis	Normative analysis	Applied ethics	Regulatory science and legal aspects
What is this?	Relevant for ethics?	What should we (not) do with this?	Products and practices

Applied ethics → Neuroethics

Neuroethics as "Ethics of Neuroscience"

- Extension of classical bioethics issues with new challenges

- Addresses traditional bioethical issues from a neurological perspective

Neuroprivacy and Neurorights, Cognitive

Enhancement, Neuroimaging and Neurological

Diseases, Free Will & Neurotechnology,

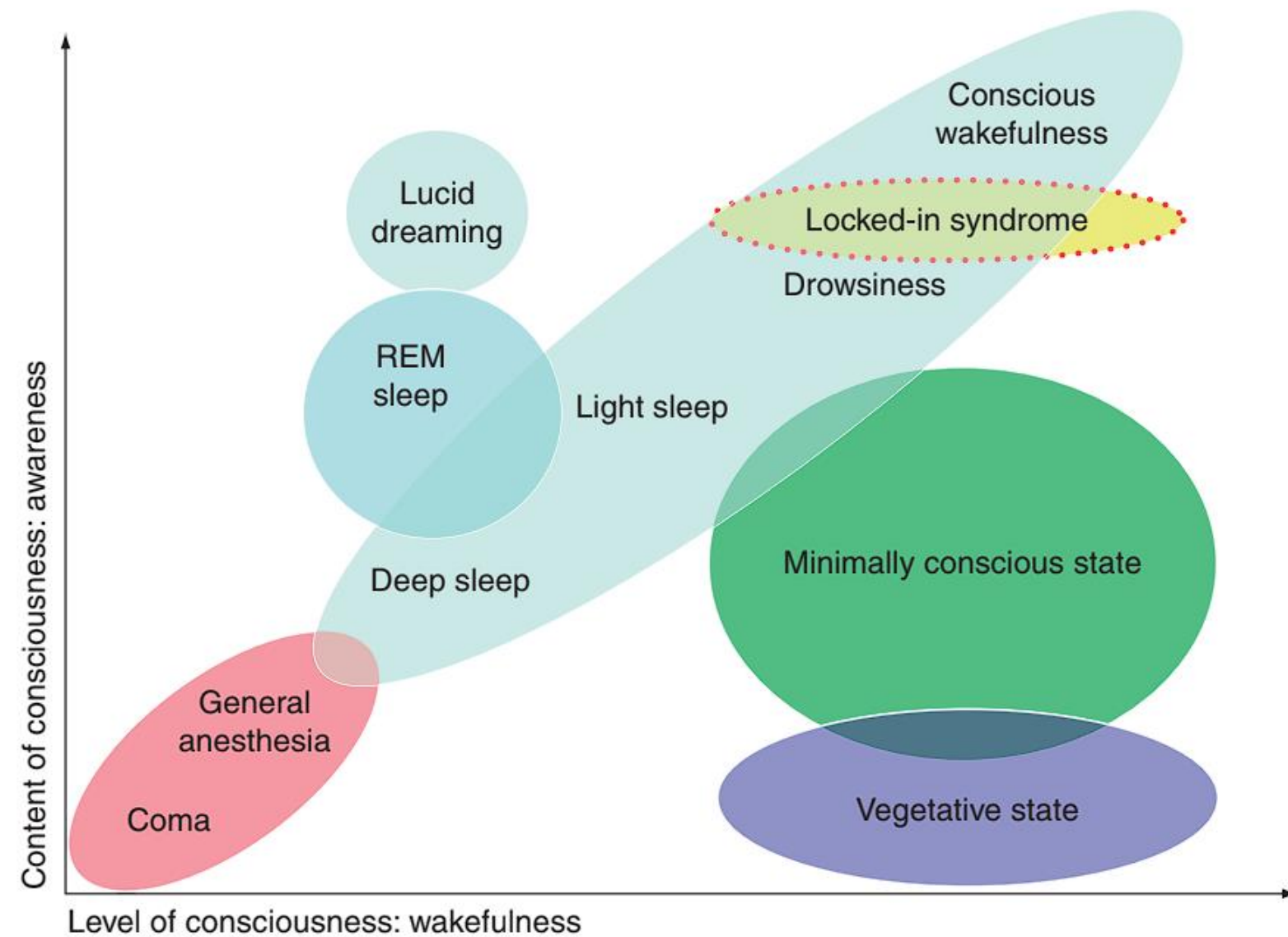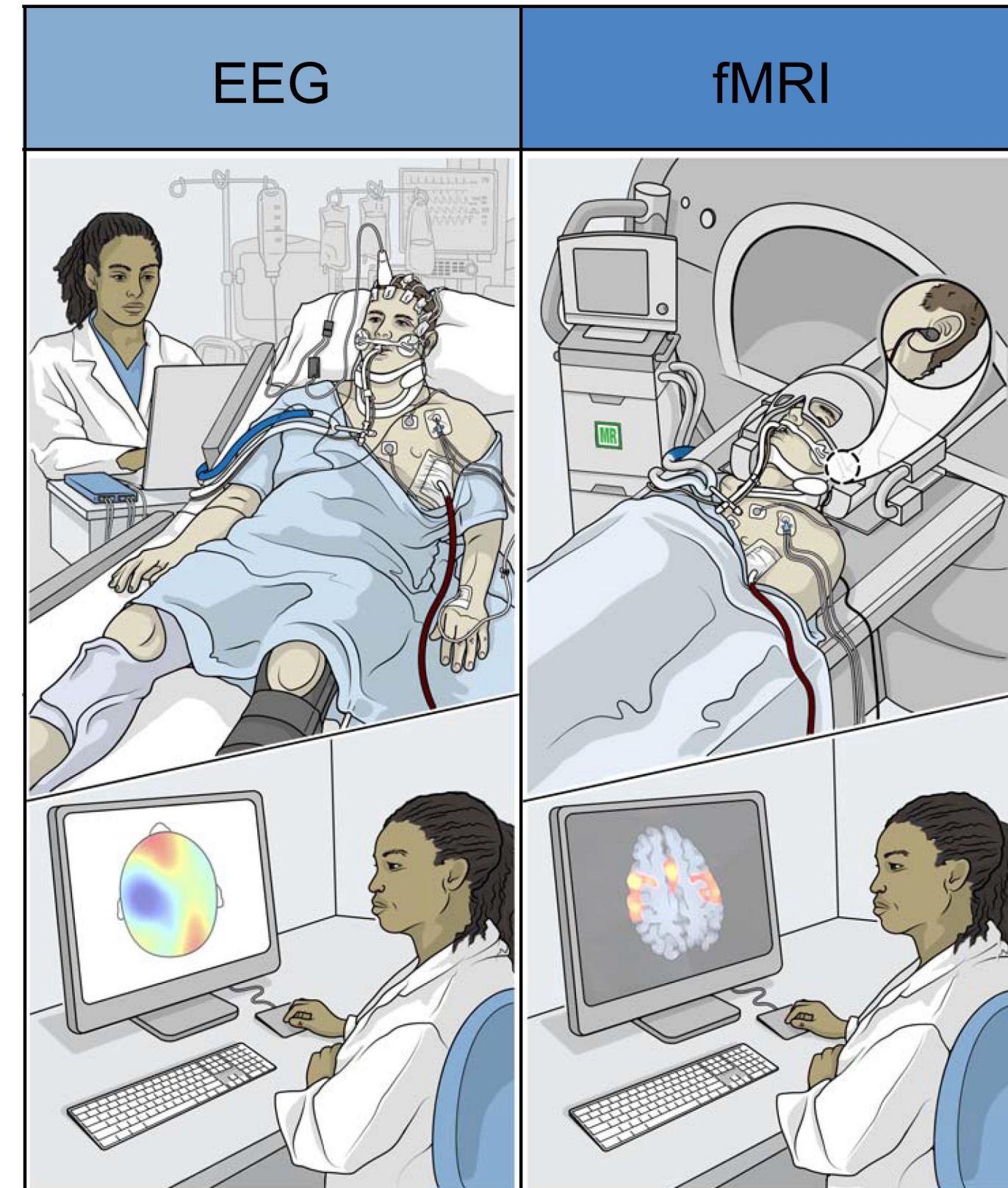Neuromarketing, new emerging Neurotechnologies,

etc.
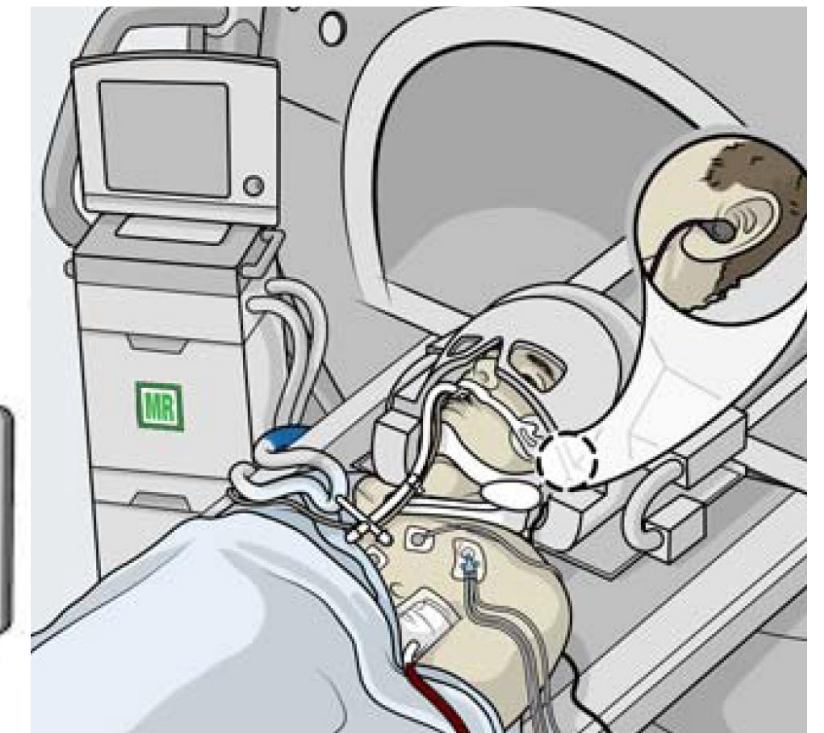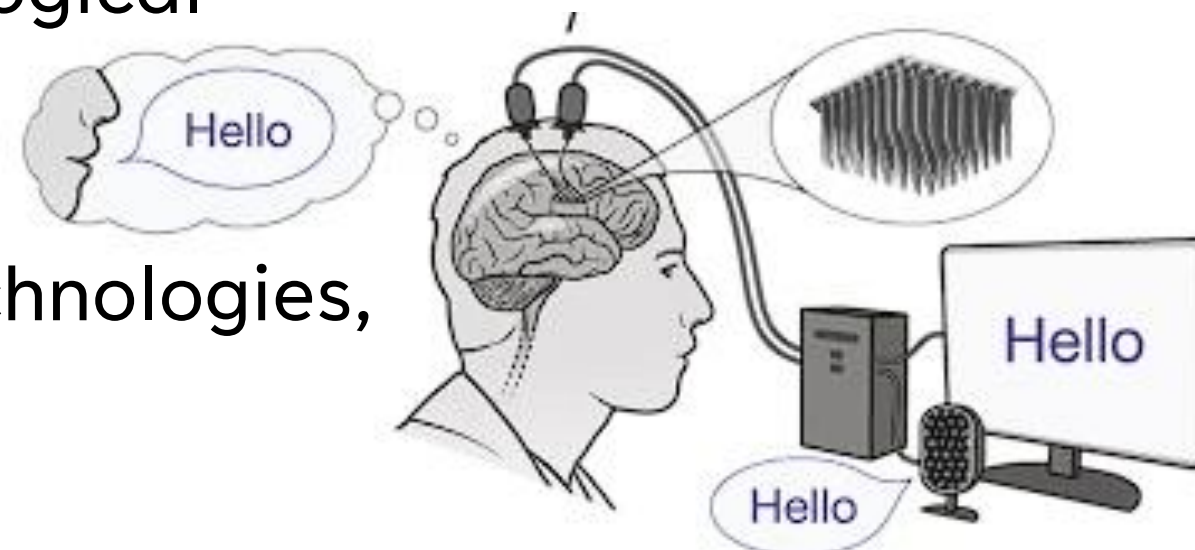
Applied ethics → Neuroethics

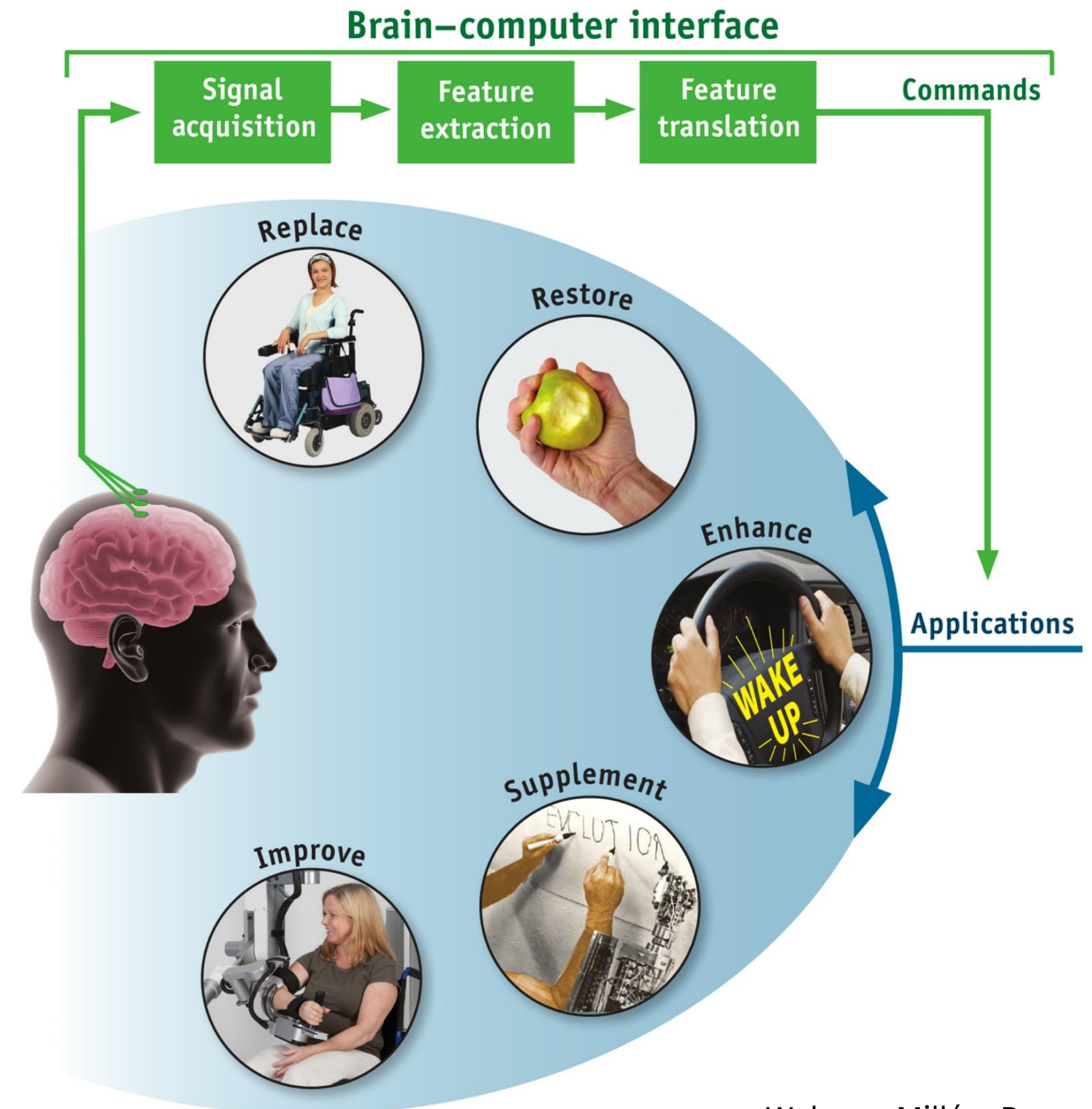## Clinical neuroethics

Disorders of consciousness

C. Coma 2008

Edlow et al. 2020

Applied ethics → Neuroethics

Ethics of neurotechnology

Gu et al. 2021

Wolpaw, Millán, Ramsey 2020
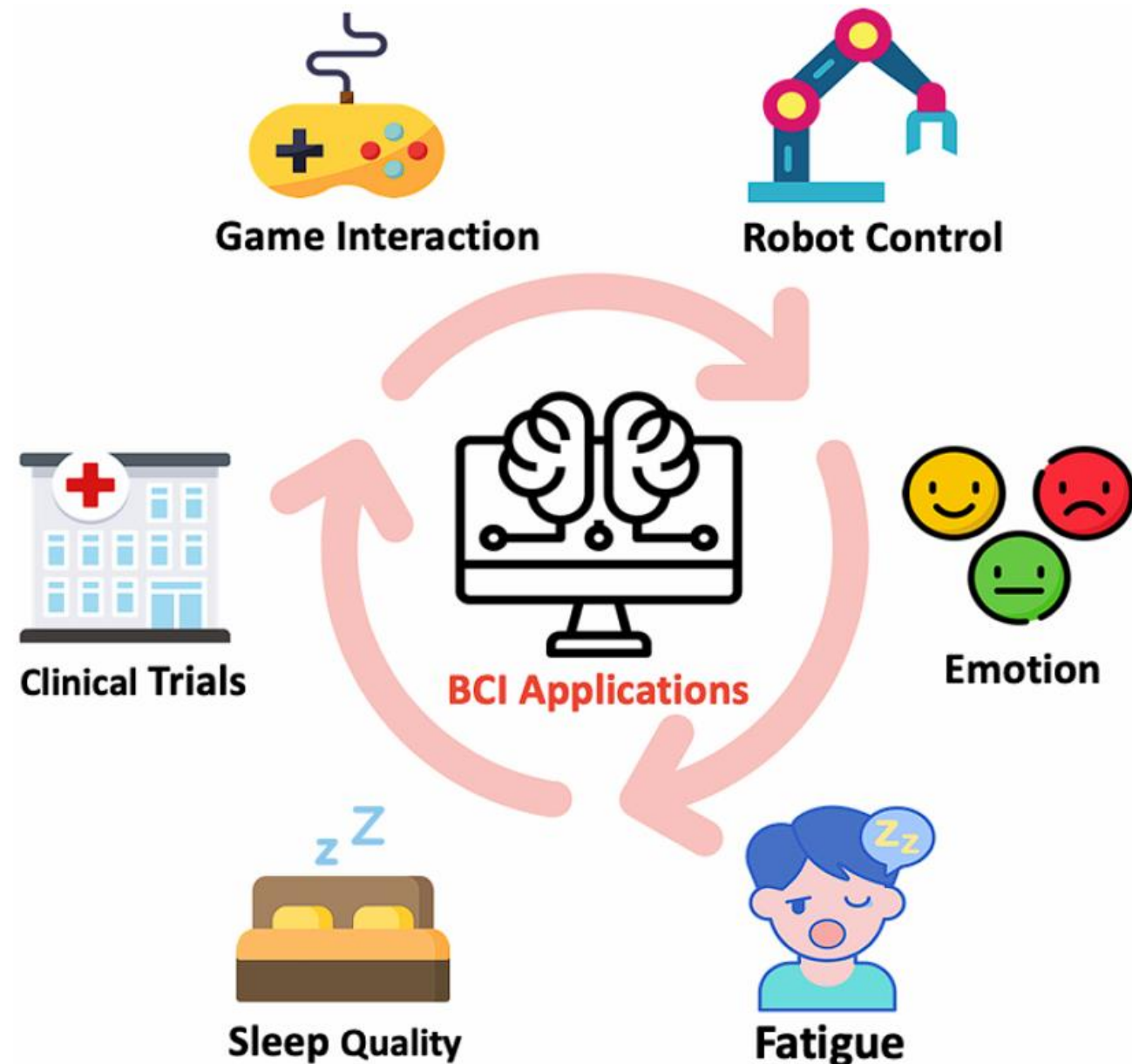
Ethics of Technology

- The moral implications of technological developments

- "Of":
  - Technology as the subject of ethical inquiry (design → final use)
  - Analyzing the ethical challenges created by technological advancements

How can ethical values shape technology?

How can technology influence ethical standards and questions?

What direction do we want to give to innovation and technological development? → Opening a space for social critique

Normative ethics applied to technology

Domains	Questions
Deontology	What are the moral duties of tech developers, companies, and users? How to choose when two obligations are in conflict?
Consequentialism	How do we assess the impacts of tech innovations on society? How can we balance risk and benefits?
Virtue ethics	What virtues should tech developers, companies, and users cultivate? How can virtues guide us in the development and use of technologies?

Beware of certain forms of (un-)ethics (Floridi 2023a)

Ethics shopping	Choosing ethical principles to justify existing behaviors a posteriori rather than changing behaviors to align with accepted standards.
Ethics bluewashing	Making misleading claims about the ethical benefits of a solution to appear more ethical than one actually is.
Ethics lobbying	Exploiting technological ethics to delay, revise or avoid necessary legislation on technologies
Ethics dumping	Exporting unethical research practices to contexts where they would be unacceptable at home and importing outcomes of such unethical research.
Ethics shirking	Doing less ethical work in a context where the perceived return of such work is (mistakenly) low.

Ethics of Artificial Intelligence

Addresses ethical challenges in AI development and implementation

❑ **Computer Ethics**: Responsibilities of IT professionals

❑ **Roboethics**: Ethical robotics development and standards

❑ **Machine Ethics**: Autonomous moral decision-making in AI systems

❑ **Data Ethics**: Ethical issues in data collection, analysis, and use

❑ **Algorethics**: Ethical considerations in algorithm design and use

Applies to various fields (e.g., autonomous vehicles, neurotechnologies, education, clinical robots, etc.)

Ethics of Artificial Intelligence
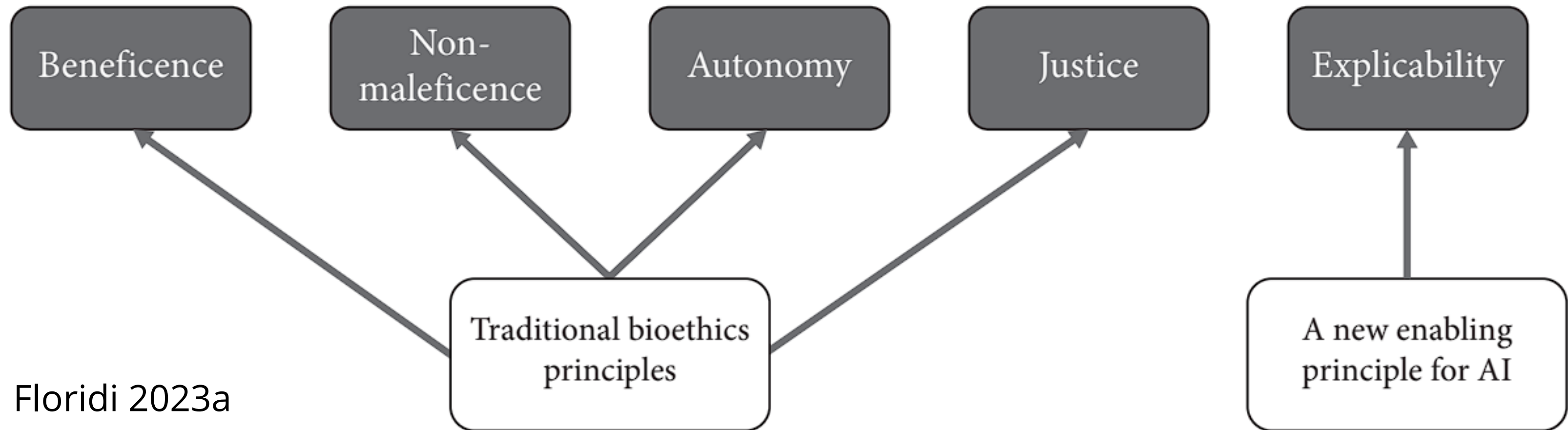
Floridi 2023a

Other principles adapted to/developed for AI: Accountability, Reliability, Transparency, Effectiveness, Fairness, Privacy, etc.
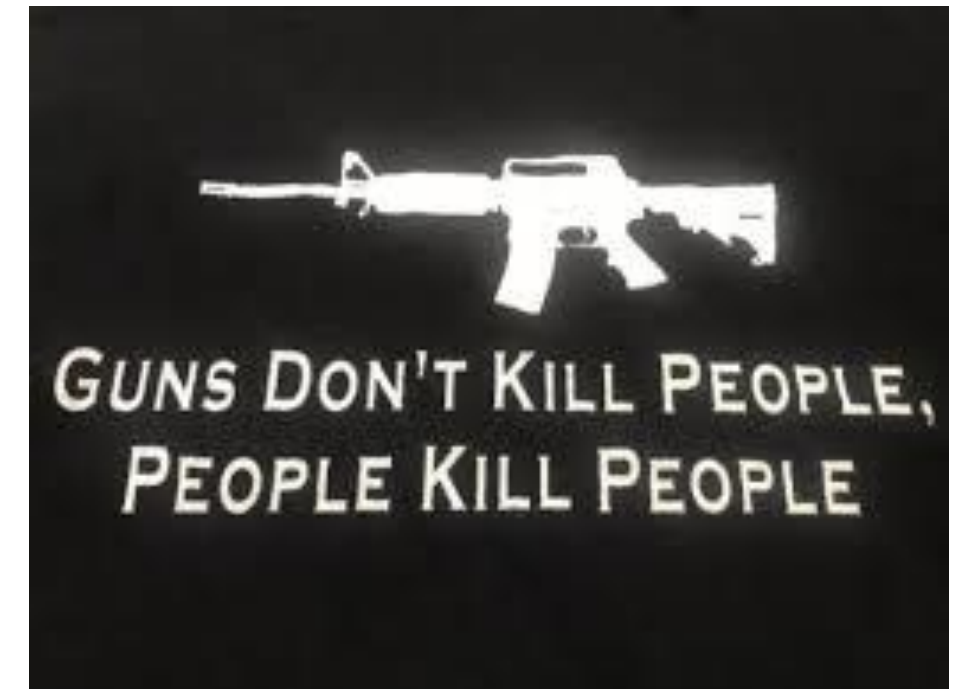
Ethics embedded in technology? A critical view

Value Neutrality thesis and

Ethical Instrumentalism (Pitt 2013)

- Technologies are neither good nor bad, it depends on how we use them.

Therefore,

- Ethics is not intrinsic to technology, rather extrinsic to it.
- The problem is the people who use the technologies.
- Otherwise, we dilute the idea of moral responsibility.

Ethics embedded in technology? A critical view

Value Neutrality thesis and Ethical Instrumentalism

- Technologies are neither good nor bad, it depends on how we use them.

But,

- Are technologies really neutral?

- No, because of <u>cultural, social, political and economic, moral values</u>.

- They have <u>prescriptive strength, by mediating our interaction with the world</u>.
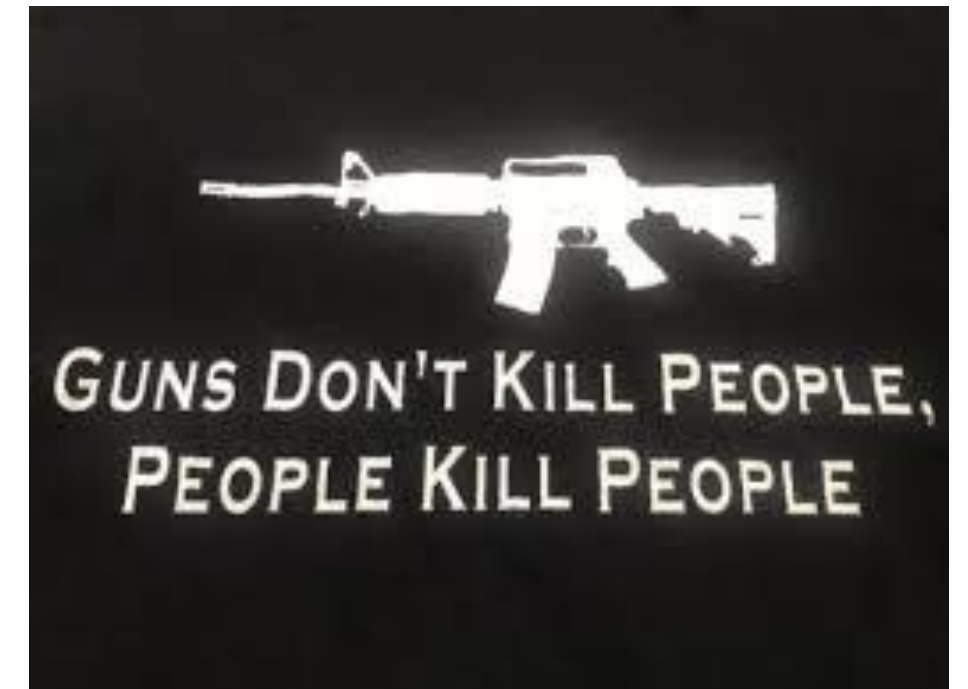
Three levels of understanding technology

1. Instrumental Level

- Technology as a means to an end
- Technological artifacts as extensions of human capabilities
- Focused solely on efficiency

2. Technological Intentionality Level

- Artifacts embody a certain "technological intentionality"
- Incline users towards specific ends
- Exhibit "multistability" – meaning varies across cultural contexts
- Require ethical discernment and responsible use

3. Cultural Ethos Level

- Artifacts represent how a culture expresses itself
- Embody the lived values and morality (ethos) of a society
- Reveal the value hierarchies of a culture and its common good

(Benanti 2022)

Technologies are not neutral

Neutral equilibrium
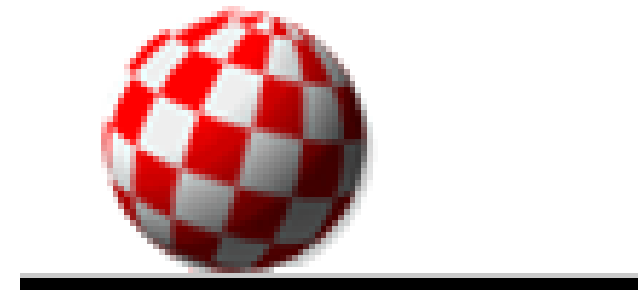
Static equilibrium

Technologies are more or less in a state of static equilibrium.

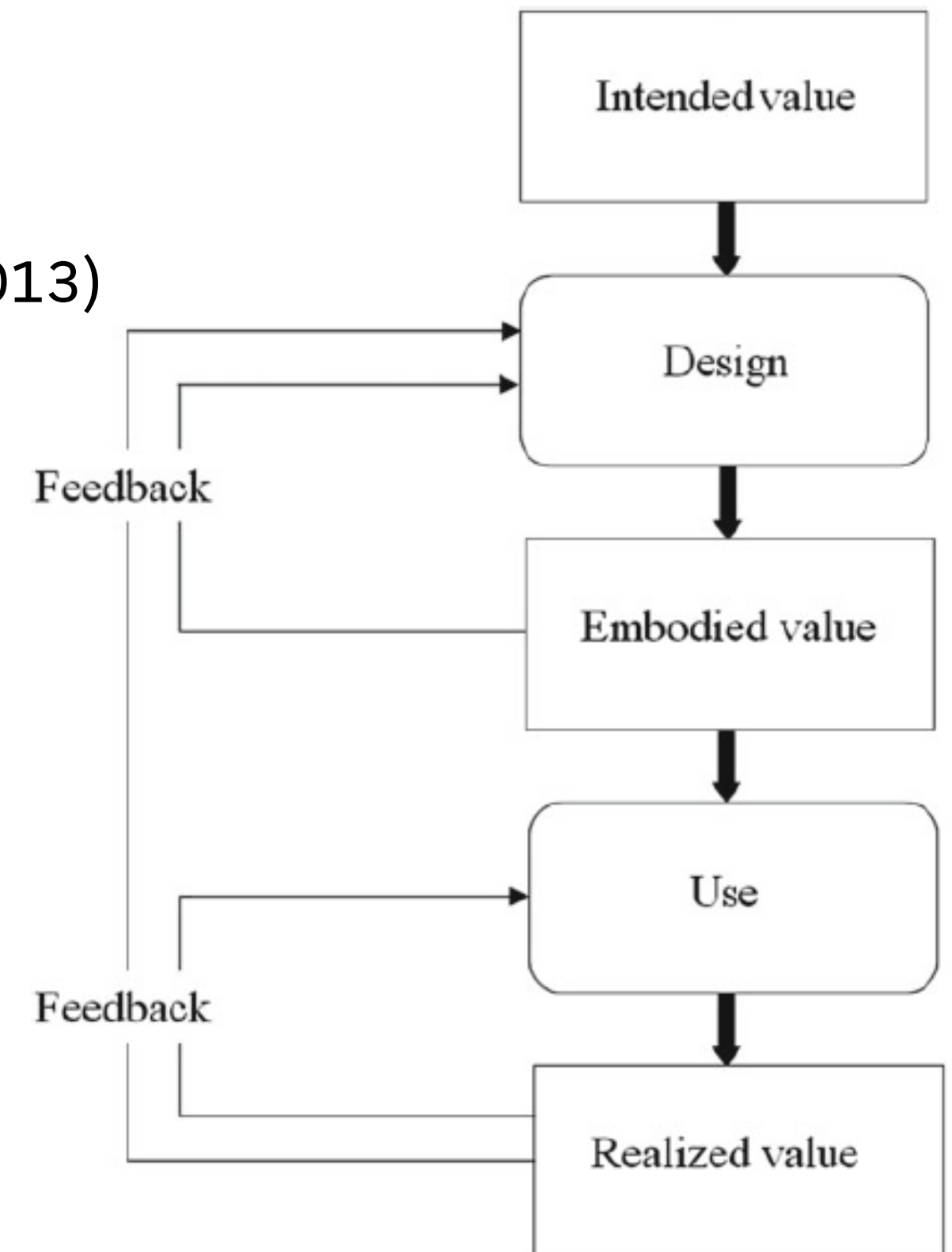It depends on which vector is stronger.

(Floridi 2023b)

Technologies are not neutral

- Reflect values and goals of designers and users
  - Intended, embodied, realized (van de Poel & Kroes 2013)
- Influenced by who designs it and why (and for whom)
- Shape relations between human beings and the world

Distributed responsibility (Floridi 2023b)

- Designers
- Distributors
- Those profiting from technology
- Those enabling AI availability
- End users

A strong neutrality thesis risks unfairly shifts responsibility to end users.

van de Poel & Kroes 2013

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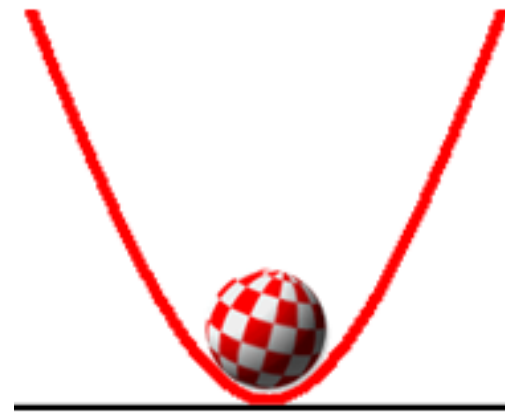A strong neutrality thesis risks unfairly shifts responsibility to end users.

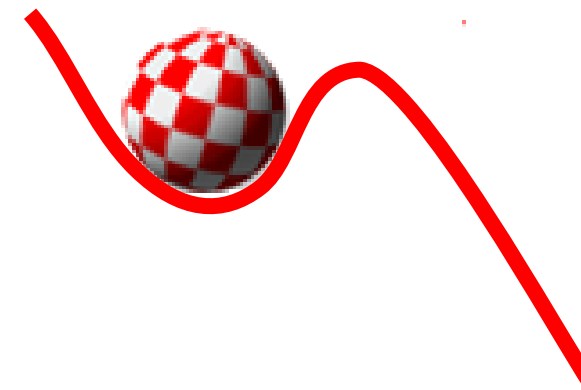# Technologies are not neutral → Different kinds of stability

- **Indifferent/neutral equilibrium**

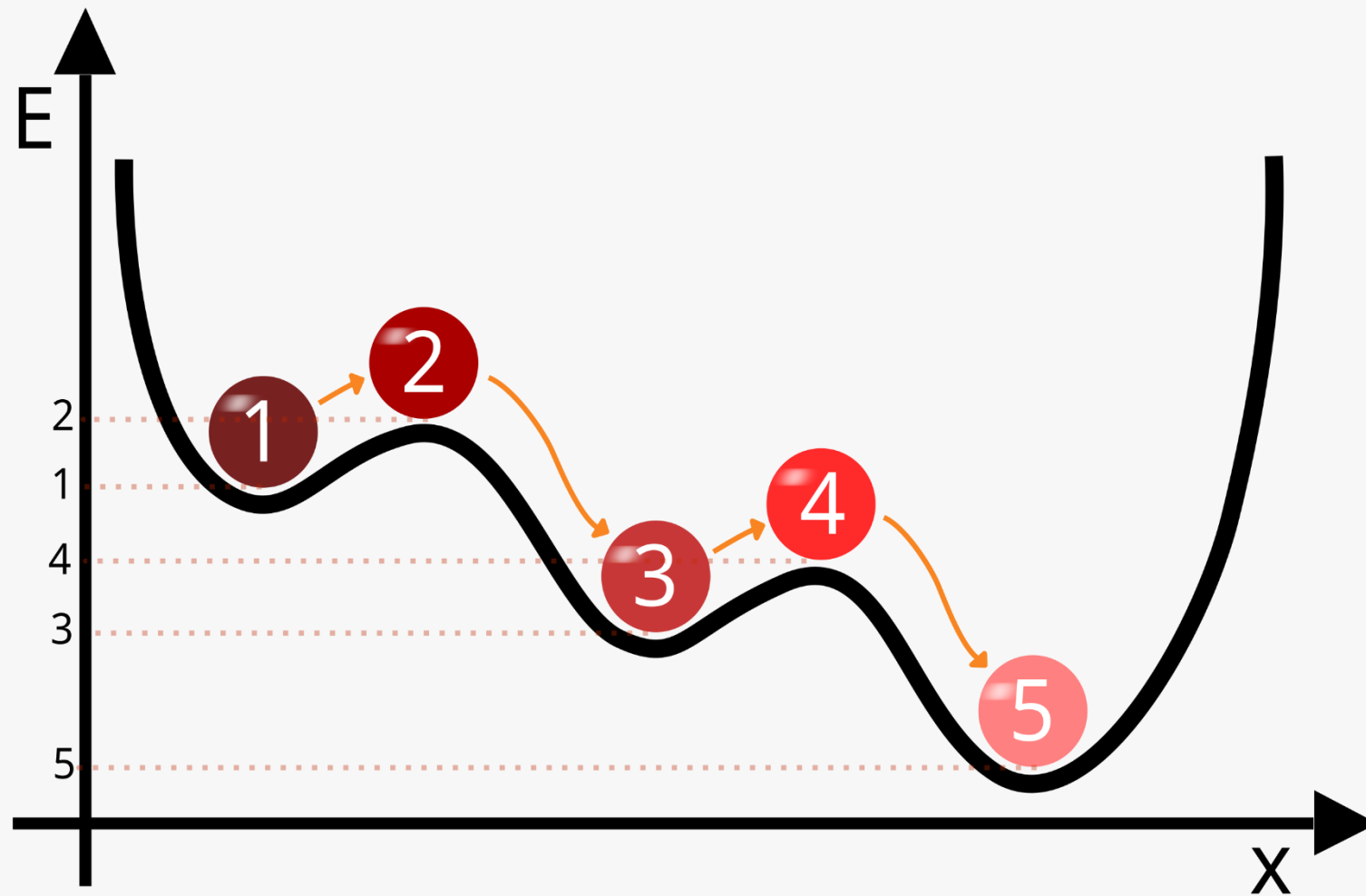- **Stable equilibrium**

  - **Metastable equilibrium**

- **Unstable equilibrium**

Technologies are not neutral → Different kinds of stability

Technologies are usually not in an indifferent equilibrium

What is the **current equilibrium** of technology in the development, implementation and use of a specific technology?

What is the equilibrium we seek?

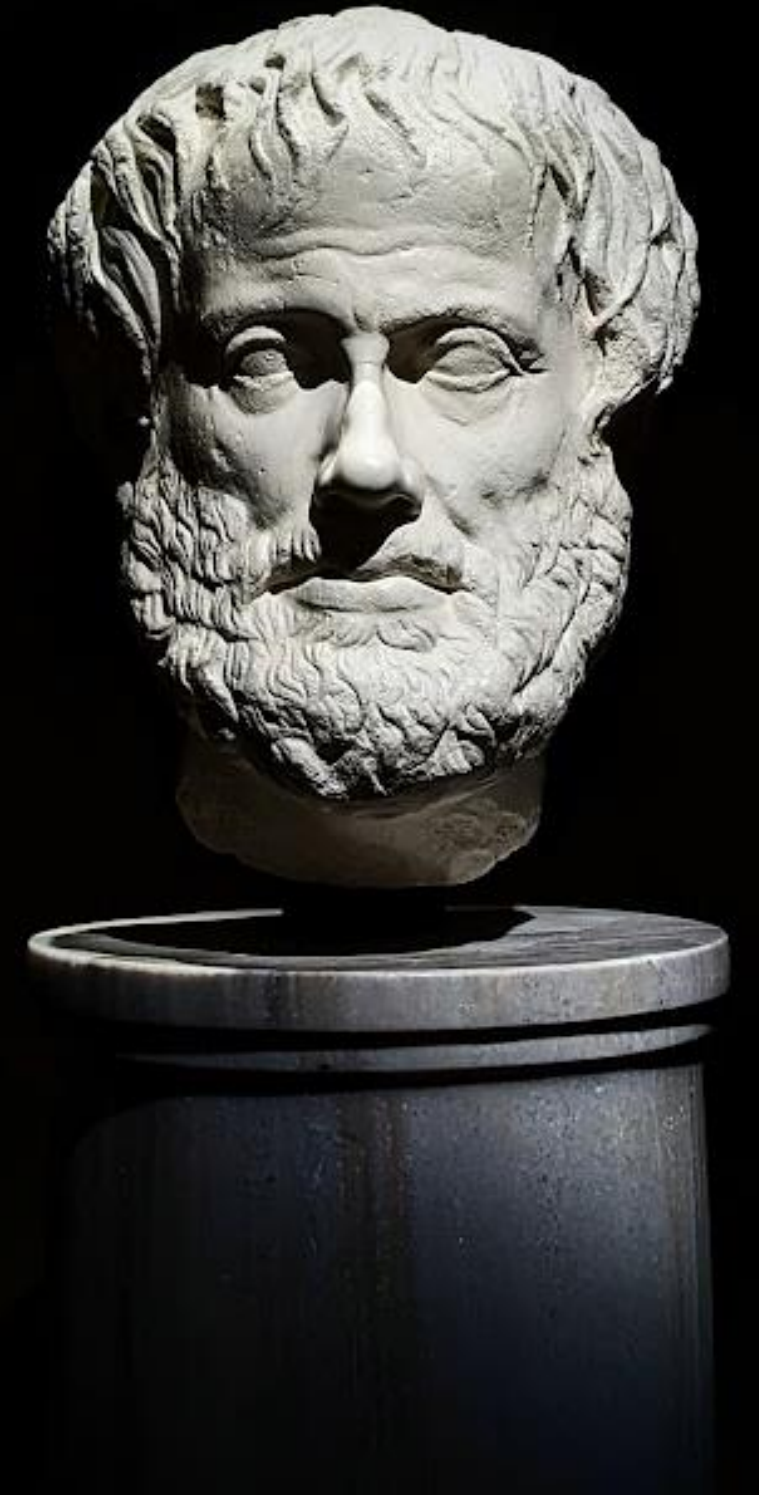Are we considering all the **ethical ramification**?

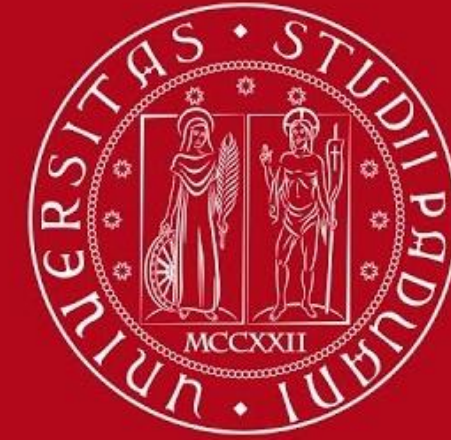Concerning:

- Values and duties
- Consequences
- Virtues

"Man alone of the animals possesses speech (*Lògos*). The mere voice, it is true, can indicate pain and pleasure, and therefore is possessed by the other animals as well, but speech is designed to indicate the advantageous and the harmful, and therefore also the right and the wrong; for it is the **special property** of man in distinction from the other animals that he alone has **perception of good and bad and right and wrong and the other moral qualities**"

Aristotle, *Politics*, 1 1253a

Thank you

federico.zilio@unipd.it