AI DESIGN POLICY

Should ethics be the priority in the design of AI in relation to its effectiveness and use?

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Ethics is based on moral judgments: Morality induces subjective judgments subject to interpretations and often biased considerations.

Social progress is the idea that societies can or do improve in terms of their social, political, and economic structures.

Technological progress helps a country to produce more through the use of better technology on the input side of the production equation.

Nodal points: Specific characteristics of facial landmarks, such as distance between the eyes, width of the nose, length of the jaw line, etc…

Top 10 milestones in the history of AI.

The 1st advancement in the field made by Alan Turing through the Turing Test. It said if a machine could carry on a conversation that could not be differentiated from that of a human, then the machine had begun "thinking".

01 1950

AI emerged as a field in Computer Science. The term was coined in the Dartmouth Conference.

1956 **02**

03 1974-80

AI Winters: A very bleak period in the history of AI. Several reports criticized AI. As a result, government spending & interest in the field reduced.

The field revived. The British government started funding AI again to compete with the efforts made by the Japanese. One of the 1st popular AI films - "The Terminator" was released. The film showed a war between machines & humans.

1980-87 **04**

05 1987-93

The 2nd AI winter period.

The field picked up again as IBM's Deep Blue computer beat the reigning world champion- Garry Kasparov.

1997 **06**

07 2001

Steven Spielberg releases "A.I. Artificial Intelligence"- a tech noir/drama on a robotic boy who dreams to be human.

IBM's Watson wins "Jeopardy", an American TV quiz show, beating the former champions Brad Rutter and Ken Jennings. In October, Apple introduced Siri, an intelligent personal assistant on its iPhone 4s.

2011 **08**

09 2012

Google launched its version of Siri- Google Now.

Alpha GO   2017 **10**

ETHICS:

- Ethics, a value specific to each one
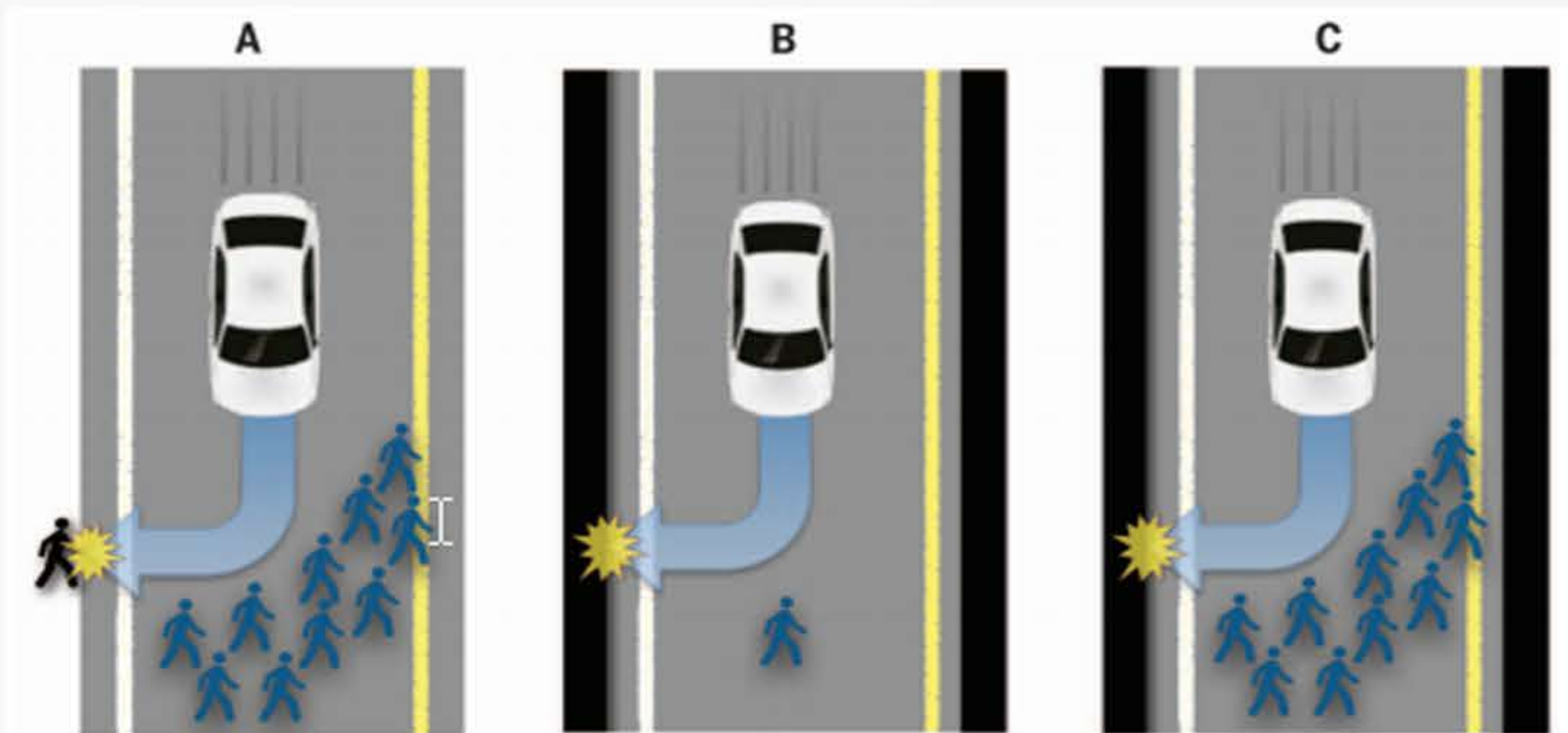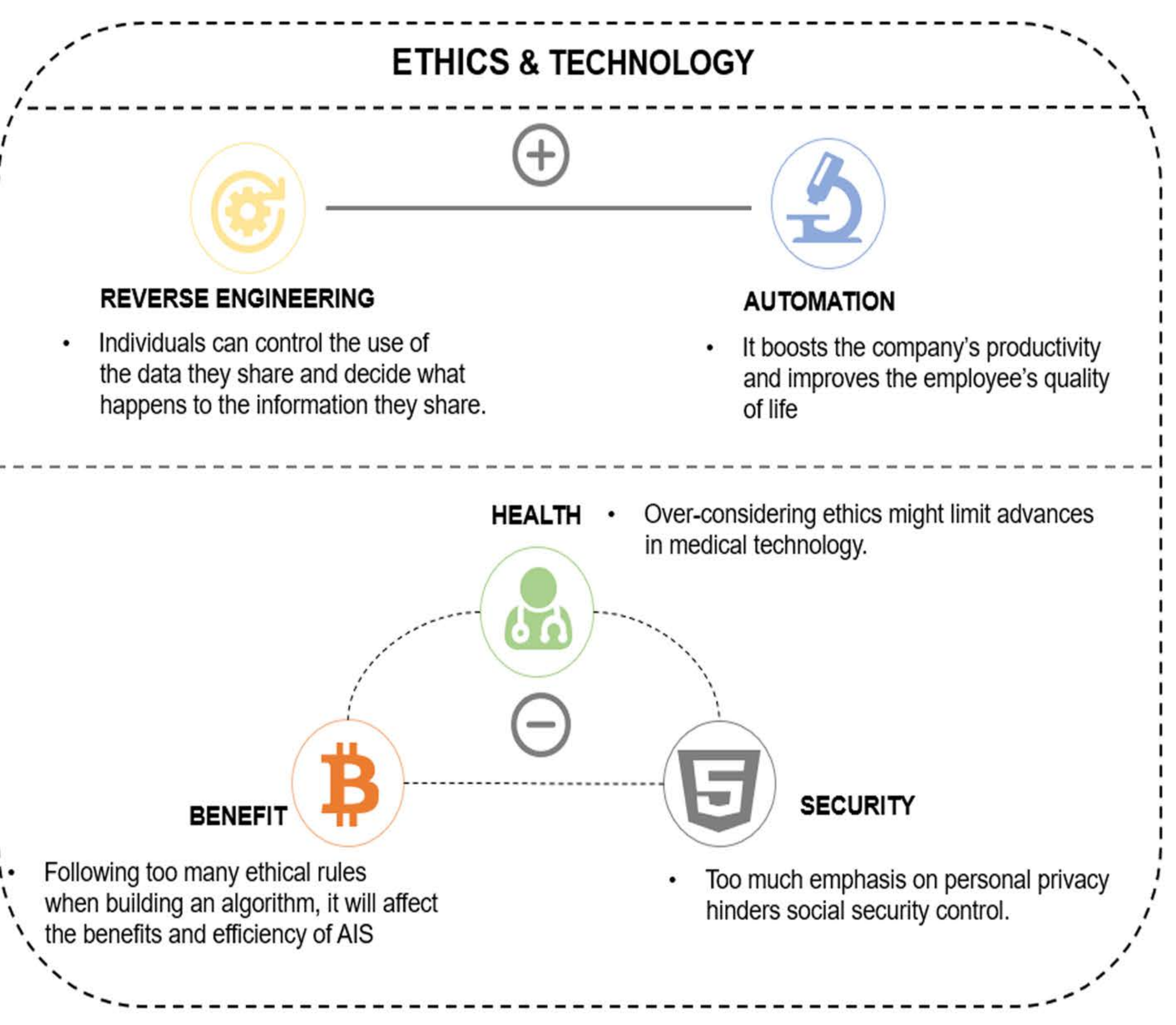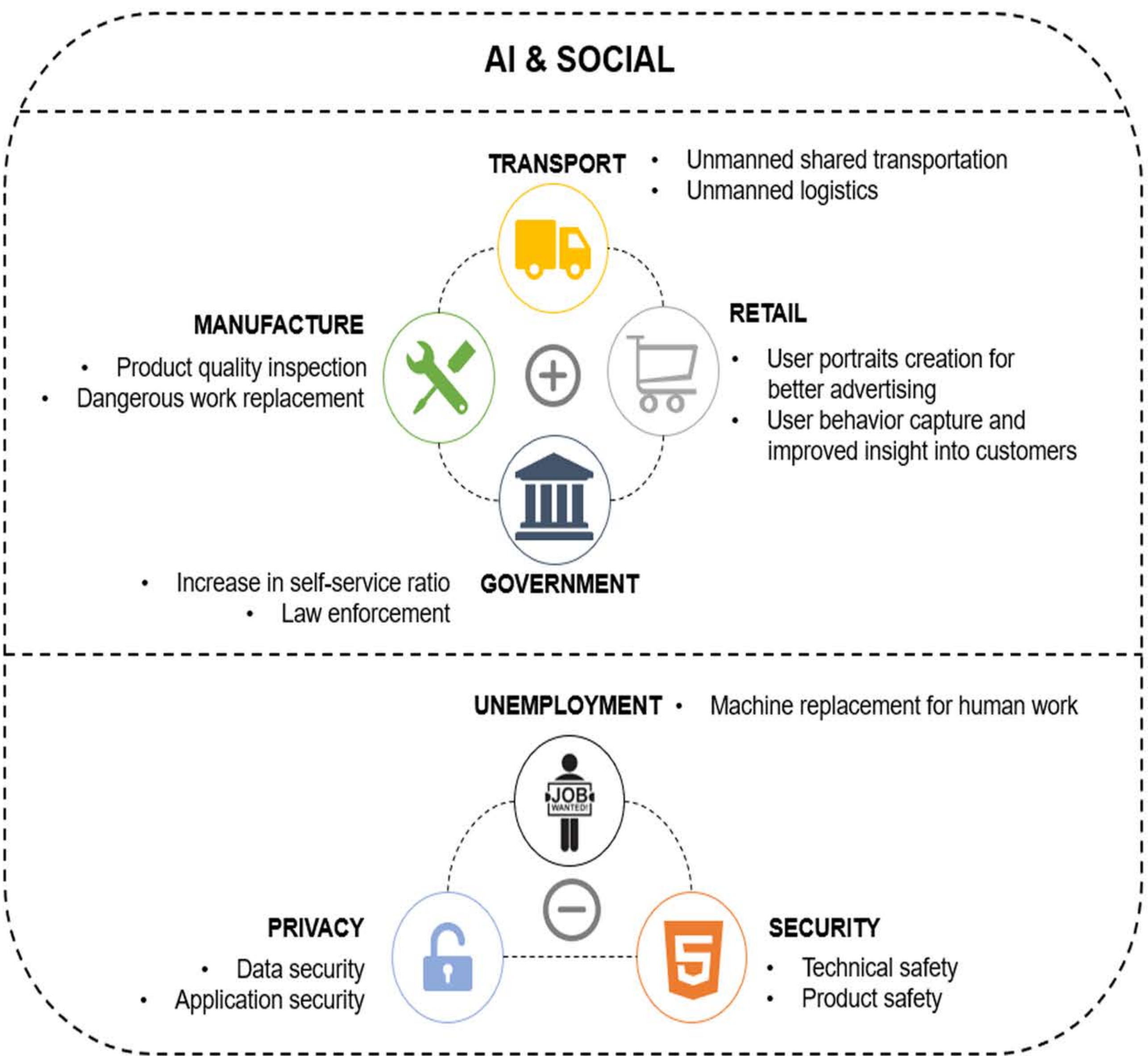- Facial recognition in China, an ethical problem of state

Fig. 1. Three traffic situations involving imminent unavoidable harm. The car must decide between **(A)** killing several pedestrians or one passerby. **(B)** killing one pedestrian or its own passenger, and **(C)** killing several pedestrians or its own passenger.

AI & SOCIAL

TRANSPORT
- Unmanned shared transportation
- Unmanned logistics

MANUFACTURE
- Product quality inspection
- Dangerous work replacement

RETAIL
- User portraits creation for better advertising
- User behavior capture and improved insight into customers

- Increase in self-service ratio
- Law enforcement
GOVERNMENT

UNEMPLOYMENT • Machine replacement for human work

PRIVACY
- Data security
- Application security

SECURITY
- Technical safety
- Product safety

ETHICS & TECHNOLOGY

REVERSE ENGINEERING
- Individuals can control the use of the data they share and decide what happens to the information they share.

AUTOMATION
- It boosts the company's productivity and improves the employee's quality of life

HEALTH • Over-considering ethics might limit advances in medical technology.

BENEFIT
- Following too many ethical rules when building an algorithm, it will affect the benefits and efficiency of AIS

SECURITY
- Too much emphasis on personal privacy hinders social security control.
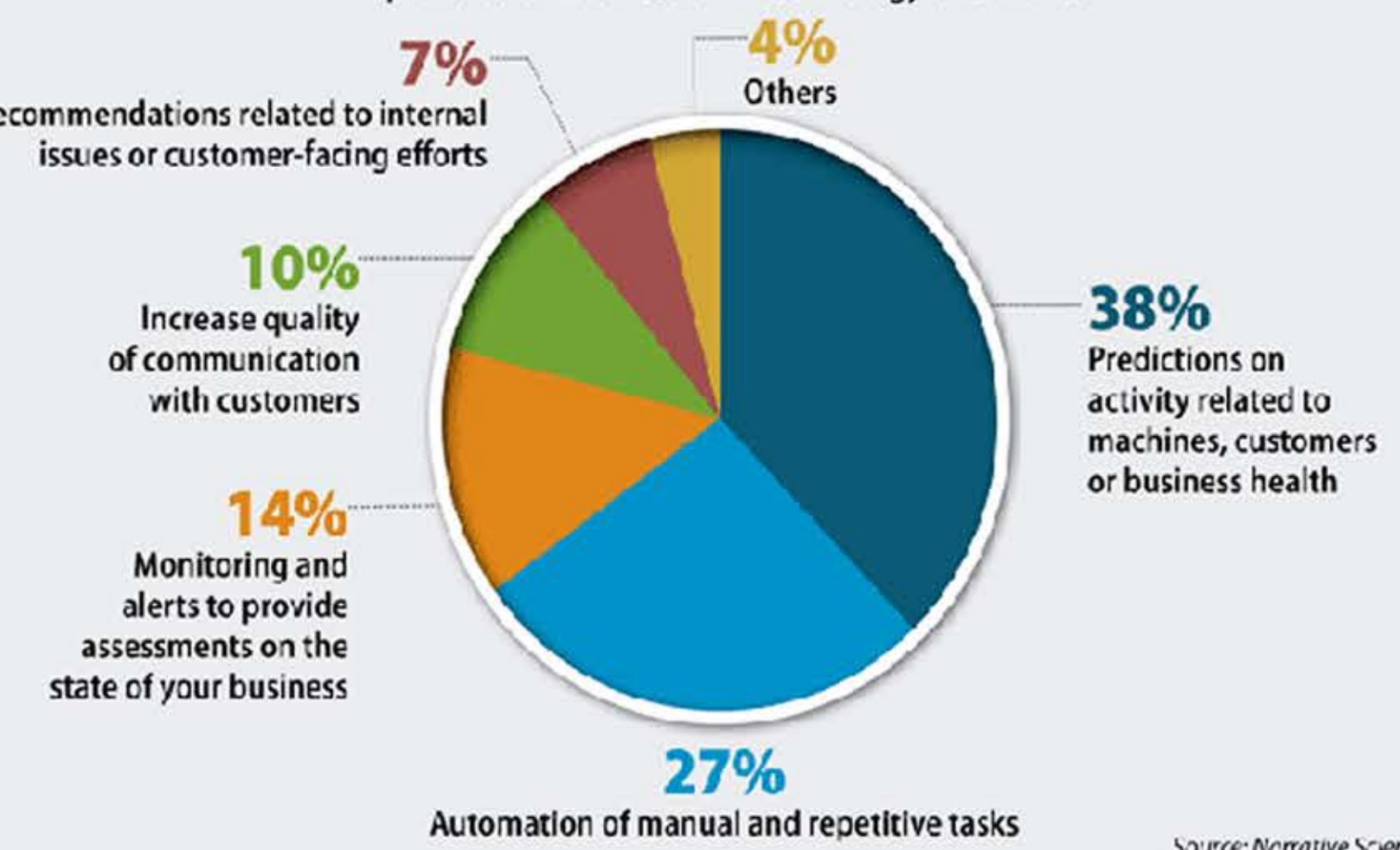
RULES : CEPEJ has adopted the first text about ethical principales of use of AI in judicial systems

- Principle of respect of fundamental rights
- Principle of non-discrimination
- Principle of quality and security

- Principle of transparency, impartiality and fairness
- Principle "under user control"

ALGO:

- Face detection
- Facial analysis that gives a numerical result thanks to the calcul of nodal points
- Comparison with the database

Economics AI:

-A new form of economy: the prediction economy

Most Important Benefit That AI Should Provide Business
Top choice of business and technology executives

Recommendations related to internal issues or customer-facing efforts **7%**

4% Others

10% Increase quality of communication with customers

14% Monitoring and alerts to provide assessments on the state of your business

38% Predictions on activity related to machines, customers or business health

27% Automation of manual and repetitive tasks

Source: Nanative Science 2016