

ICCECIP 2023

The impact of COVID-19 on adoption of self-driving cars

Péter Szikora PhD Associate Professor *Óbuda University, Hungary*

5th International Conference on Central European Critical Infrastructure Protection 13-14 November 2023 / Budapest, Hungary



ASIMOV LAWS - ROBOTS

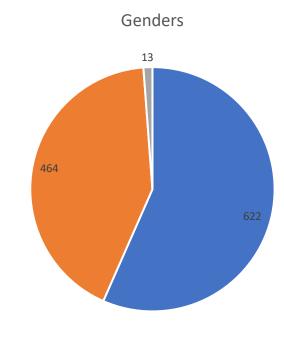
0 - A robot may not harm humanity, or, by inaction, allow humanity to come to harm.

1 - A robot may not injure a human being or, through inaction, allow a human being to come to harm.

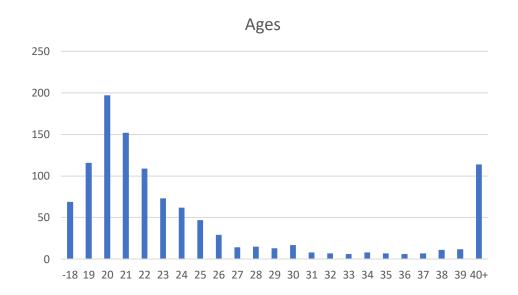
2 - A robot must obey the orders given it by human beings except where such orders would conflict with the First Law.

3 - A robot must protect its own existence as long as such protection does not conflict with the First or Second Law.

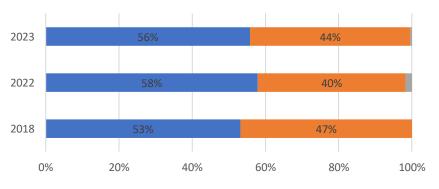




■ Men ■ Women ■ Other



Genders



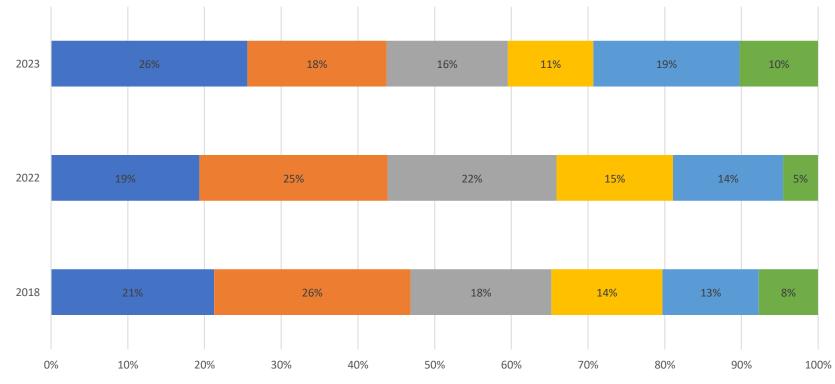
■ Men ■ Women ■ Other



Self-driving cars levels

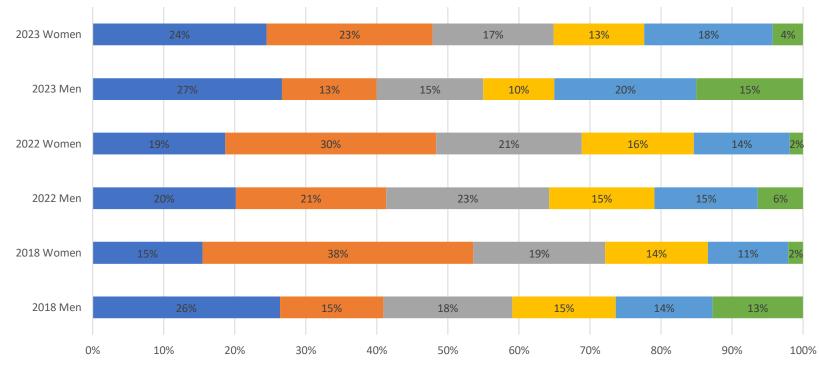
- 0 The driver is in full control
- 1 The driver is in control, the car is either parking or heeding the speed limit on its own
- 2 The car can take control of the pedals and the steering wheel at the same time, but the driver keeps an eye on it and intervenes if necessary
- 3 The car can change lanes and react to the environment. The task of the driver is to pay attention; take back control.
- 4 The car is in control, but can ask for human help
- 5 The car is in full control





Self-driving cars levels

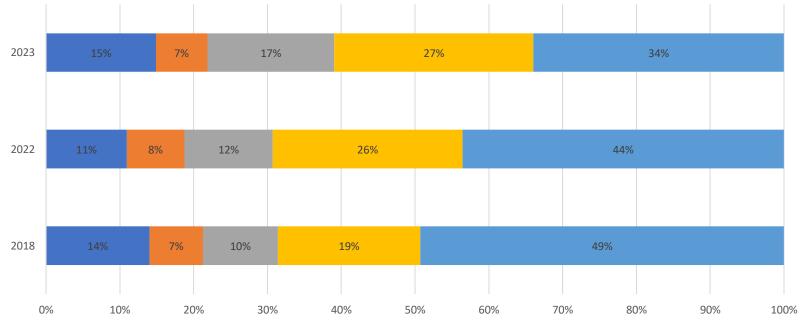




Self-driving cars levels - genders

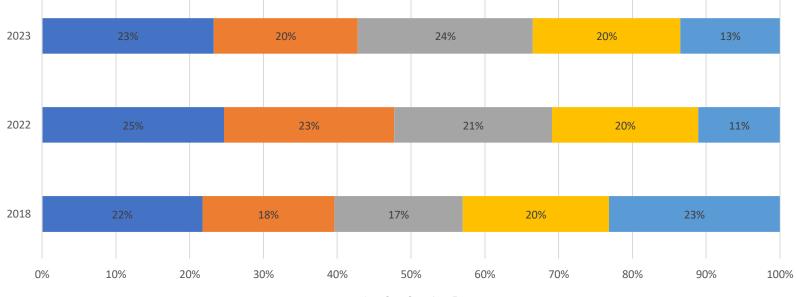
■ 0 ■ 1 ■ 2 ■ 3 ■ 4 ■ 5 ■ Adatsor7





I would love to try a self-driving car

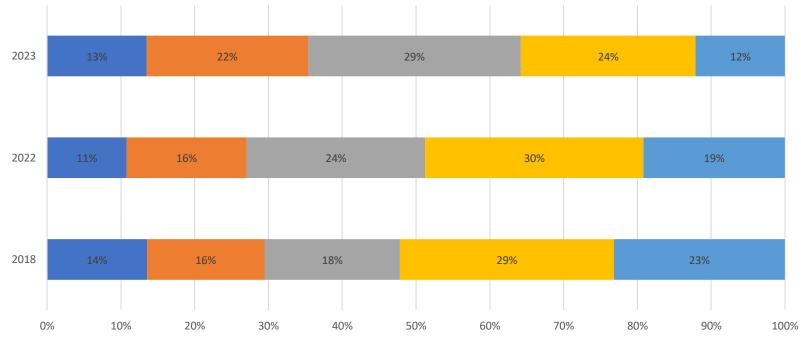




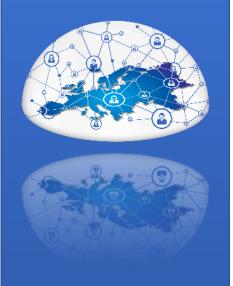
I would be afraid of self-driving cars in my environment

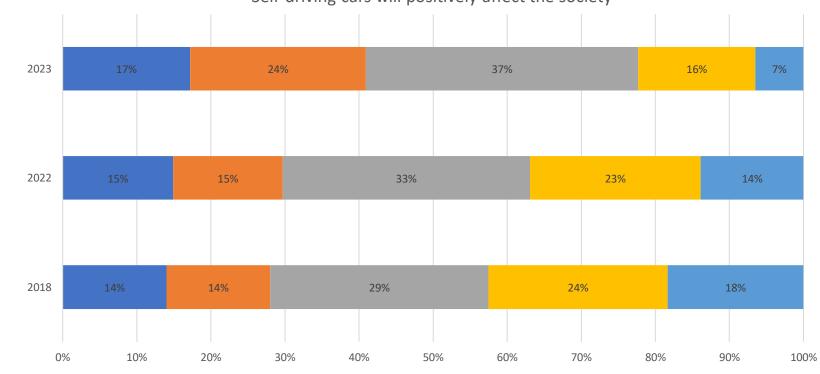
■1 ■2 ■3 ■4 ■5





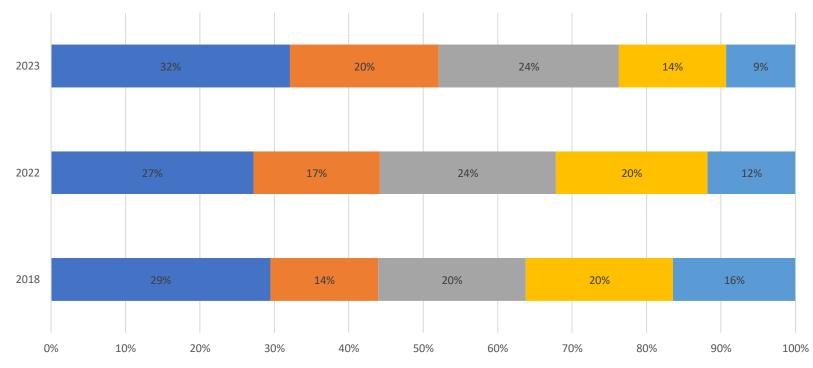
Self-driving cars will reduce the occurence of accidents





Self-driving cars will positively affect the society

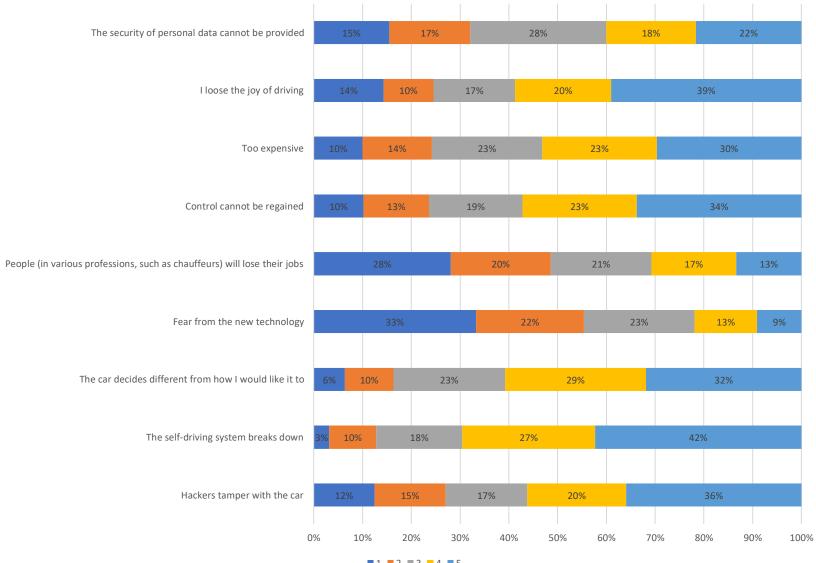




I would love to buy a self-driving car later on

■1 ■2 ■3 ■4 ■5





Fears

■1 ■2 ■3 ■4 ■5

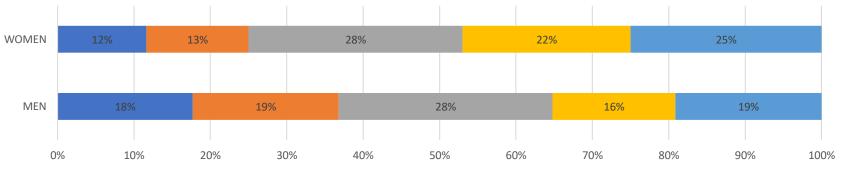


Response	Gender		Age				
	Female	Male	18-29	30-44	45-59	60+	Total
No self-driving	48.4	43.1	41.3	35.2	50.6	56.2	45.8
Partially self-driving	39.8	37.5	39.9	42.6	37.8	34.2	38.7
Completely self- driving	11.8	19.4	18.8	22.2	11.6	9.6	15.6

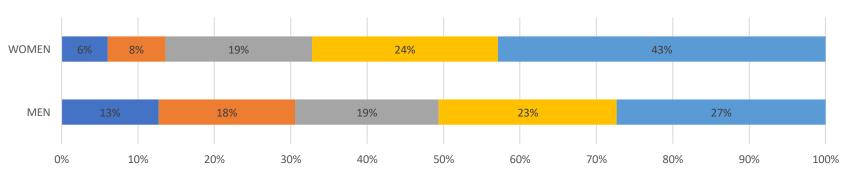
Source: (Schoettle, Sivak, 2015)



The security of personal data cannot be provided



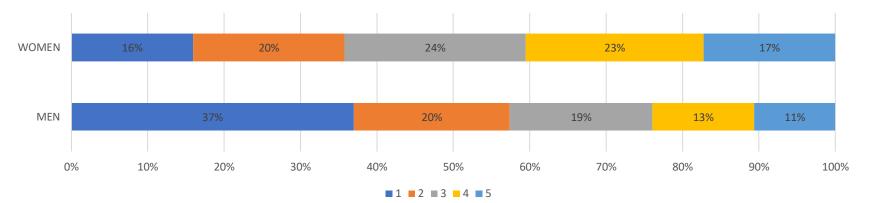
■1 ■2 ■3 ■4 ■5

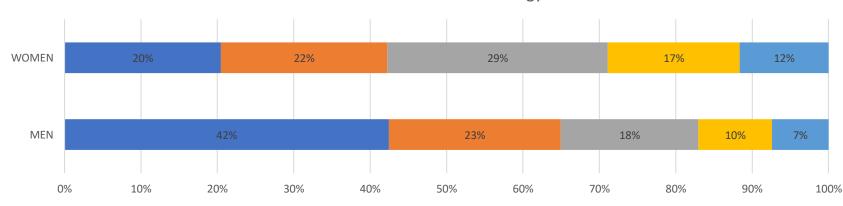


Control cannot be regained



People (in various professions, such as chauffeurs) will lose their jobs





Fear from the new technology

■1 ■2 ■3 ■4 ■5



Hackers tamper with the car 42% WOMEN 13% 17% 20% MEN 21% 32% 16% 17% 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%



ICCECIP 2023 Thank you for the kind attention!

5th International Conference on Central European Critical Infrastructure Protection 13-14 November 2023 / Budapest, Hungary