









## P&M Robotics Debate 4th session - 15/04/2020

# Is robotization going to raise social inequalities?

Dynamics of the debate are as follows: a poll among the attendants is performed to know the a priori opinion. Each advocate has 2 minutes to present some of their points of view. Then, there is around 30 minutes of open debate, where the moderator will encourage particular questions of the public to the advocates. At the end, each advocate has 2 minutes for the closing remarks. Finally, a new poll will take place.

Advocates for NO	Rishab Jangir and Miguel Arduengo
Advocates for YES	Júlia Pareto and Adrià Colomé
Moderator	Guillem Alenyà
Note taking	Júlia Borràs, Guillem Alenyà

Because of the confining due to the COVID crisis, this debate is safely handled virtually.

## Initial voting

YES	9
NO	2

# Opening remarks

#### Júlia opening remarks (for YES)

- Social inequality should be defined in terms of unjustified treatment difference.
- Social inequality does not necessarily contradict justice.
- Robotization represents the externalization of jobs, industrial and social.

#### Rishab opening remarks (for NO)

- No inequalities boosting if we assume:
  - i) All labour force will be robots:
  - ii) Appropriate policies are established;
  - iii) Universal basic income and enough energy.
- Human needs will be fulfilled by robots. No need to fight for resources.

## Adrià opening remarks (for YES)

- Increase in production, in consumption, and in productivity leads to less employment in low-qualified jobs.
- The ones who suffer are the vulnerable people.

#### Miguel opening remarks (for NO)

- Technological progress destroys primarily dangerous and hard tasks in workplaces.
- Robots will help in having better conditions, provided availability and proper administration are guaranteed.

## Debate

Excessive attention is devoted to jobs. What about the required resources and the limited environmental reserves? It seems that building robots, compared to building trains, buildings or large infrastructures is not a big deal.

Fewer jobs will be needed, which will have to be counteracted by universal basic income as well as by improving education quality and opportunities.

Are we going to robotize every aspect of human activity? Are we going to do so only with efficiency in mind? We should be careful, as we are talking about service robots with cognitive capabilities. We should ask who's interests robots will be serving.

But we cannot stop research. It seems that a mechanism for redistribution should be designed.

Robots are tools. Create inequalities like other technological inventions do, have done, will do. In fact, inequalities were worst before having technology. People had fewer opportunities before.

Robots are not good or bad for inequalities. Can be a disaster or an opportunity.

We need societal changes, but are governments going to support them?

We may consider that what robots are going to do is changing the type of inequalities.

Technology in general will change people, change the moral principles. We are going to be different people. But are we humans going to be able to adapt to the new paradigm?

# Closing remarks

#### Miguel

Robots can help us to do more human jobs, avoiding repetitive, hard, non-imaginative duties. Let's take advantage of it.

## Adrià

Robots are good for progress. However, the lack of adaptation of society brings inequalities.

#### Rishab

Cognitive robots adapt to people, based on large datasets. This can introduce bias, but humans already are biased.

#### Júlia

Robotization poses new questions. Efficiency should not be the unique objective. We should ask who benefits from robotization. May robots help to perpetuate inequalities?

## Final vote

YES	5
NO	7

## Conclusions

It is very difficult to distinguish between effects of robotics and technology in general. It seems clear that changes are to come: some positive because of the new opportunities; some challenging because of the potential change in the type of inequalities, and potential changes in morality.

Robots are useful tools. But new cognitive robots may be a source of inequality because it is not clear how are they going to be used. Technology has the potential to reduce inequalities, but it is difficult to believe that governments and power in general will perform the required supervision.