

WORK AND AUTOMATION

Kate Vredenburg

April 3, 2018

ME!

- Kate Vredenburg, a philosophy graduate student
- kvredenburg@fas.harvard.edu
- OH: Wednesdays 12-2, Emerson 306

THE
WORKPLACE
OF THE
FUTURE



THE END OF WORK?

....the potential for simultaneous and rapid disruption, coupled with the breadth of human functions that AI might replicate, may have profound implications for labour markets. We conclude that economists should seriously consider the possibility that millions of people may be at risk of unemployment, should these technologies be widely adopted.

01 MARCH 2017 · 9:00 AM

Should economists be more concerned about Artificial Intelligence?

Mauricio Armellini and Tim Pike.

Bank Underground is a blog for Bank of England staff to share views that challenge – or support – prevailing policy orthodoxies. The views expressed here are those of the authors, and are not necessarily those of the [Bank of England](#) or its policy committees.

Follow this blog

[Follow](#)

Top Posts & Pages

FETCH



DESCRIPTIVE QUESTIONS

- What will jobs be like in the future?
- Will advances in robotics lead to *more* or *less* job creation?
 - More: technological progress has always been labor-augmenting, since increases in GDP per capita lead to more service industry jobs.
 - Less: Technological progress will be more disruptive than in the past, due to the speed of technological progress.

NORMATIVE QUESTIONS

- What should governments and the private sector do in response to widespread job loss?
- Why is work good for people?

TWO-PART FOCUS

- Robotics and the changing nature of the workplace
- Robotics and the labor force

BIG QUESTIONS FOR TODAY

- How can we change work to make it an activity where people can realize important values?
- What reasons are there to make or encourage people to work?

GOALS FOR TODAY

- Learn a framework for thinking about these questions (from John Rawls)
- Apply the framework to the two big questions.
 - Start thinking about material for your final exam.

PHILOSOPHICAL FRAMEWORK: LIBERALISM

LIBERAL PICTURE OF SOCIETY

Society is a “cooperative endeavor for mutual advantage.”

(Rawls, *A Theory of Justice*)

COOPERATIVE ENDEAVOR

We need to work together to

- Produce material goods.
- Have a healthcare system.
- Build infrastructure.
- Protect ourselves.

An idea of social life based on *reciprocity* and an identity of interests.

BENEFITS AND BURDENS

Society produces stuff (benefits) by the collective action of people with different responsibilities and tasks (burdens).

CONFLICT OF INTERESTS

Citizens are not indifferent to how the benefits and burdens of social cooperation are distributed.

HOW CAN WE RESOLVE THIS CONFLICT?

A set of principles that we all agree upon for the *fair* division of these burdens and benefits.

PRINCIPLES OF JUSTICE

The principles that govern the distribution of the benefits and burdens of social cooperation, respecting all individuals as free and equal.

PRINCIPLES OF JUSTICE HELP TO

- Choose among various possible social arrangements that determine the division of advantages from social cooperation.
 - Different tax systems.
- Serve as a common standard for judging complaints against those arrangements.

RAWLS' PRINCIPLE

All social goods should be distributed equally, unless an unequal distribution will help those who are worst off.

WHAT ARE “SOCIAL GOODS”?

The things that are constitutive of or important means to pursue one's conception of the good.

- Money.
- Living among people who share your values.
- Freedom of occupation.

THE LABOR MARKET

The labor market distributes certain benefits (income) and burdens (providing socially necessary services). How should those be distributed?

BENEFITS AND BURDENS

To answer this question, we need to look in more detail at the benefits and burdens of work.

THE VALUE OF WORK

PURPOSE AND WORK

“Today I want to talk about three ways to create a world where everyone has a sense of purpose: by taking on big meaningful projects together, by redefining equality so everyone has the freedom to pursue purpose, and by building community across the world.” (Mark Zuckerberg, Harvard commencement speech)

WHAT SHOULD WORKPLACES BE LIKE?

Why is work good or bad for people?

WHY THIS QUESTION IS IMPORTANT

- Most people have to spend a significant portion of their lives engaged in paid work.
- Public institutions regulate the benefits and burdens from paid work.

BADS OF WORK

- Health risks
- Lack of discretionary time and time flexibility
- Oppressive hierarchies in the workplace
- Inadequate pay and lack of benefits
- Deadening

DEADENING JOBS

Because some jobs are extremely dull and repetitive, they exhibit a:

- Lack of opportunity to develop any skills.
- Social isolation.

GOODS OF WORK

- Income
- Attaining various types of excellence
- Making a social contribution
- Experiencing community
- Realizing one's many sided potential

EXCELLENCE

- Includes the development of one's skills and the accomplishments that result.
 - Example: Making a beautiful table.
- Because acquiring excellence takes a good deal of time, work is the primary domain where most people can acquire it.

SOCIAL CONTRIBUTION

- People want to make people's lives better through their work.
- Problem: many socially necessary jobs are not well paid (or paid at all) nor well regarded.

COMMUNITY

- People want to do things with people “with whom they stand in relatively free and equal relationships.”
- Working together involves collective agency.

REALIZING ONE'S MANY SIDED POTENTIAL

“In communist society, where nobody has one exclusive sphere of activity but each can become accomplished in any branch he wishes, society regulates the general production and thus makes it possible for me to do one thing today and another tomorrow, to hunt in the morning, fish in the afternoon, rear cattle in the evening, criticise after dinner, just as I have a mind, without ever becoming hunter, fisherman, herdsman or critic.” (Marx, *The Communist Manifesto*)

FAILURES OF WHAT?

The failure to evenly distribute opportunities for realizing the goods of work is a failure of....

- ...justice?
- ..goodness?

FAILURE OF JUSTICE

An economic system or job is unjust if it prevents people from obtaining the social goods they are owed (goods that are the means or constitutive of their conception of the good life).

TWO RESPONSES

1. Change the structure of work
2. Give people enough leisure to achieve these goods outside of work.

ROBOTICS IN THE WORKPLACE

STARTING OBSERVATION

There are
many
dangerous
and/or
deadening jobs.



DISRUPTIVE ROBOTICS

Robotics is rapidly changing the nature of work in agriculture, manufacturing, etc.

CHANGING WORK

How can we change work in order to promote the values we discussed?

CASE STUDY: YOUR FINAL!

Three options:

- Completely replace humans.
- Free humans up to do more rewarding and complex tasks.
- Make complex robots and give them human helpers.

AMAZON WAREHOUSE

The robots vaguely resemble giant beetles and scurry around with vertical shelves loaded with merchandise weighing up to 3,000 pounds on their backs. Hundreds of them move autonomously inside a large caged area, tailgating each other but not colliding.

On one edge of the cage, a group of human workers — the “stowers” — stuff products onto the shelves, replenishing their inventory.

There, human “pickers” follow instructions on computer screens, grabbing items off the shelves and putting them in plastic bins, which then disappear on conveyor belts destined for “packers,” people who put the products in cardboard boxes bound for customers.

TASK

Think through the advantages and disadvantages of each option.

That will depend on:

- Empirical speculation about what can be accomplished with technology, and
- Some normative considerations about work.

THE END OF WORK?

KEYNES AND THE END OF WORK

In *The Economic Possibilities for our Grandchildren*, Keynes argued that due to advances in technology and the accumulation of capital, the “economic problem” of providing the basic necessities of life was solved.

KEYNES AND THE END OF WORK

Keynes predicted that individuals would stop working (as we know it), and would devote their energies to other pursuits.

- New institutions and conventions would develop.

KEYNES WAS RIGHT!

...about the first part: If the gross world product were split equally, each person would have about \$14,000 (adjusted for ppp), enough to bring them above the world poverty line.

KEYNES WAS WRONG

We still work.

- Average weekly hours worked went from 24 in 1970 to 24 in 2004.
- Americans work far more hours than other countries at similar levels of development.

Stiglitz's analysis: preferences for consumption are endogenous to a country's set-up.

(Stiglitz 2008)

QUESTION

- What are good reasons to make people work?
- What are good reasons to set up institutions that encourage people to work?

SOME CANDIDATE REASONS

- More material consumption (continued economic growth)
- The provision of healthcare
- The provision of a police force

DISCUSSION

- WWRS? (What Would Rawls Say?)
- What do you think?

REFERENCES

Gheaus, Anca and Lisa Herzog. “The goods of work (other than money)”

Marx, Karl. *The Communist Manifesto*.

Rawls, John. *A Theory of Justice*.

Stiglitz, Joseph. *Revisiting Keynes*.