5th Grade Economics Inquiry

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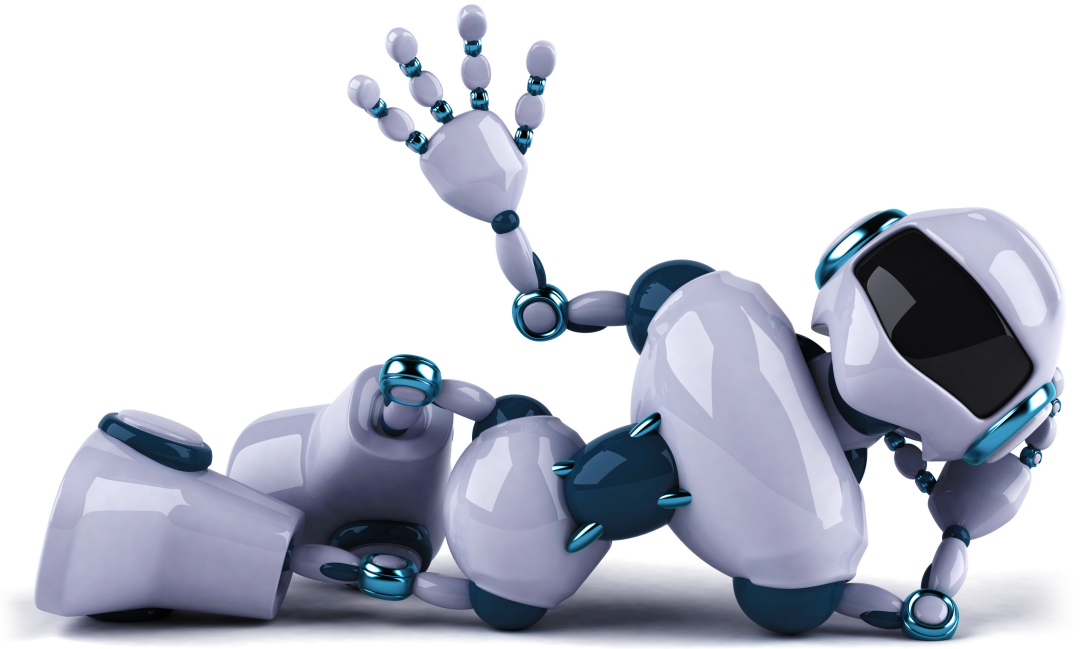
Should We Tax Robots?



Purdue School of Engineering, https://engineering.purdue.edu/IE/news/2017/new-3d-cad/martinez-3Drobot.jpg

Supporting Questions

#1 - What is the effect of technology in the workplace?

#2 - What is the effect of technology at home?

#3 - What is the effect of technology on employment in the U.S. economy?

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C3 Framework Indicator	**D2.Eco.13.3-5**. Describe ways people can increase productivity by using improved capital goods and improving their human capital.
Staging the Question	Show a video clip from a Bill Gates interview on taxing robots. Ask students what actually is meant by a "robot," and discuss the possible advantages and disadvantages of increasing technology in our society.

Supporting Question 1	Supporting Question 2	Supporting Question 3
What is the effect of technology in the workplace?	What is the effect of technology at home?	What is the effect of technology on employment in the U.S. economy?
Formative Performance Task	**Formative Performance Task**	**Formative Performance Task**
Make a Venn Diagram comparing and contrasting the pictures of mid-century and contemporary factories	Create a productivity report using data from the survey	Make a claim about the relationship between manufacturing and employment
Featured Sources	**Featured Sources**	**Featured Sources**
Source A: Picture of a factory in the 1960s **Source B:** Picture of a factory in the 2010s **Source C:** Excerpt from the transcript of an interview with Bill Gates	**Source A**: Data taken from a survey of the students' parents	**Source A**: U.S. Manufacturing: Output vs. Jobs Since 1975 **Source B**: U.S. Unemployment rate since 1975 **Source C (alternate)**: Manufacturing in the U.S.A.

Summative Performance Task	**ARGUMENT** Should we tax robots? Construct an argument (e.g., detailed outline, poster, essay) that addresses the compelling question using specific claims and relevant evidence with information from contemporary sources.
	EXTENSION: Interview an adult in the community about how technology is changing work.
Taking Informed Action	**UNDERSTAND** Examine the ways that their local economy is changing. **ASSESS** Consider options for helping others to know how the local economy is changing and suggests ways that the community can adjust. **ACT** Present findings to local business or political leaders.

Inquiry Description

"You ought to be willing to raise the tax level and even to decrease the speed" of automation. So said Microsoft founder Bill Gates in a February 2017 interview cited below. Gates is concerned about an issue that is befuddling politicians and economists all over the world—as innovation advances it replaces human work for many jobs. To be sure, it creates a lot more wealth. But wouldn't a tax designed to slow down innovation give people time to change jobs? And couldn't the income government got from such a tax help people who have lost jobs? Maybe. But such a tax could also discourage wealth-creation, and people need new wealth to increase their standard of living. What to do?

Two ideas animate this issue. Technology and productivity increase our standard of living. That is, they allow us to make more and better goods and services. But, technology and productivity also change the kind of work that we do—some jobs disappear, but other jobs are created. Losing a job is usually a very difficult experience.

Structure of the Inquiry

"Should We Tax Robots?" Answering the question requires students to understand a few things about how technology affects us as individuals and as a community. Technology holds the potential to increase people's standard of living, that is, their wealth. In that sense, "robots" might be thought of simply as improved "technology."

In this inquiry, students will collect and analyze data that is close to home—literally. They will survey their parents about which jobs in their house are done by hand, which are done by machines, and which are not done at all. The class can then analyze the data to see how innovation has affected people's lives in the past and present, and theorize as to what might happen in the future. This exercise, combined with the use of the economic concepts of *productivity, capital resources, opportunity cost,* and *scarcity* and several easy-to-access primary sources will help students form an educated response to the compelling question, "Should we tax robots?"

The core of the inquiry is designed to take three 50-minute class periods. Doing the extension work and community action would require more time. The sources that are provided in this lesson will help make these concepts vivid for students.

For more see Teaching the C3 Framework Part 2 available from C3 Teachers and NCSS Publications at http://www.c3teachers.org/publications/ and https://members.socialstudies.org/Scripts/4Disapi.dll/store/