
America's Stone Age Ports

Video Length: 5:29

Lesson Description:

What happens when innovation and automation replace traditional jobs and how does society adapt? *America's Stone Age Ports* explores the clash between union workers resisting automation and the economic forces driving progress. Through real-world examples and the concept of "creative destruction," this video examines how new technologies disrupt industries, create opportunities, and challenge us to rethink the balance between job security and innovation.

Objectives:

Students will be able to:

- identify the main arguments for and against automation in American ports.
- analyze how automation impacts both individual jobs and the entire economy.
- evaluate the concept of "creative destruction" and its relevance to technological progress.
- propose solutions for balancing automation advancements with worker concerns.

Concepts & Key Terms:

Automation: the use of machines and technology to perform tasks without human intervention.

Creative Destruction: the process where new innovations or methods replace outdated ones, leading to economic growth and change.

Union: an organized group of workers formed to protect and advance their rights and interests in the workplace

Preview Activity:

Use Think, Pair, Share to have students answer and discuss these preview questions: What are some ways automation has changed the jobs people do today? How can technology make jobs safer or more efficient? What might be some challenges or concerns workers face when their jobs are replaced by machines?

OR

Distribute copies of the K-W-L worksheet to the class. Have students fill in the K and W sections. After showing the video, have students complete the L section and answer the questions at the bottom of the worksheet.

Viewing Guide:

We recommend that teachers show the video twice: first to allow students to view the video and focus on the issues presented, and second to allow them time to complete the viewing guide. After they complete the viewing guide, allow students a few minutes to work in pairs to share and verify answers.

Answers to Viewing Guide

1. priority

2. dangerous
3. faster
4. toilets
5. better
6. protect

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Viewing Guide

Name _____

Date _____

Class _____ Period _____

Teacher _____

Directions: As you watch the video, fill in the blanks with the correct words.

1. They lose their job. (sic) He doesn't care because his only _____ is how do I enhance my special interest group.
2. The jobs on the waterfront are very _____. We've had seventeen people killed in the last three years.
3. Other countries have used automated cranes for years. They're 80% _____ than human-operated cranes.
4. Under the union's logic, we should've banned things like flush _____. I used to have to clean people's toilets.
5. ...that worker gets a new job. And on average, a _____ job.
6. By fighting machines, union leaders don't _____ workers. They hold us all back from a safer, wealthier future.

Take a few moments to reflect on the video and answer these questions.

How does inefficiency at ports affect the cost of goods for consumers? _____

Should job creation take priority over efficiency and safety at ports? Why or why not? _____

Discussion and Analysis

1. What is automation and how is it used in ports?
2. What are the main arguments unions make against automation?
3. How does automation impact workers' safety at ports?
4. Why do some people call American ports "stone age ports"?
5. What examples from history show how new technology has replaced old jobs?
6. How does the concept of "creative destruction" explain changes in the job market?
7. What are the long-term consequences of banning automation at ports?
8. How does the media influence public opinions about automation?
9. In what ways might automation create new jobs in the future?
10. Why do some experts say automation can improve wages over time?
11. How does automation in other countries compare to automation in the U.S.?
12. What do you think the video means when it says unions might "hurt their members" by opposing automation?
13. How do the dangers of manual work at ports support the case for automation?
14. What do the union leader's words reveal about his attitude toward workers outside his union?
15. What ethical concerns arise from the union leader's willingness to harm others to protect union jobs?
16. Should job creation take priority over efficiency and safety in industries like construction? Why or why not?
17. If banning machines at construction sites created more jobs, what might be the economic trade-offs?
18. How does inefficiency at ports affect the cost of goods for consumers?
19. How might inefficiency at ports slow down economic growth for the entire country?
20. If shippers move to other ports, how could this affect workers at the union-controlled ports?

Discuss These Lines from the Video:

No humans is why some longshoremen are mad.

We can't have automation.

They're saying, we don't care if these other jobs are destroyed, as long as we get what we want.

Banning automation will also *hurt* his members.

Over the long run, we're actually going to see less business and less activity in the stone age ports.

By fighting machines, union leaders don't protect workers. They hold us all back from a safer, wealthier future.

The media are bad at paying attention to all the new jobs that replace them.

Quotes for Discussion:

47% of total US employment is in the high-risk category, meaning that associated occupations are potentially automatable over some unspecified number of years, perhaps a decade or two. – Carl Benedikt Frey & Michael Osborne, 2013

As progress continues, tasks that were once thought to require uniquely human capabilities are increasingly being performed by machines. This trend is likely to continue, leading to significant disruptions in the job market.

– Martin Ford

We believe firmly that machines should not replace hard-working men and women who have dedicated their lives to this industry.

– Harold Daggett

With machines around us, we can extend our reach, we can amplify our strength, we can refine our precision.

– Daniela Rus

It may seem paradoxical that innovation should increase both the share of income of the richest 1 percent (top income inequality) and social mobility.

– Phippe Aghion

The natural process of creative destruction — a cycle where new firms innovate and replace outdated giants — naturally handles market dominance, making political fixes unnecessary and counterproductive.

– Ken Fisher

In these crises, a great part not only of existing production, but also of previously created productive forces, are periodically destroyed.

– Karl Marx

Although short-term job losses are bad for those involved, people often forget the less visible new jobs created during the economic change. In the long-term, periods of labour market change have enabled rising real wages.

– Tejvan Pettinger

Activities:

1. Have students complete the K-W-L chart in class or for homework. (Recall that the K and W sections are to be completed before watching the video and the L section after watching the video.)
2. Have students complete the political cartoon activity in class or for homework.
3. Have students complete the PMI chart in class or for homework.
4. Have students complete and submit the Exit Ticket as they leave class.
5. Divide the class into small groups to discuss whether automation in ports is beneficial or harmful. Each group presents their consensus to the class.
6. Organize a classroom debate where one side argues for automation in ports, and the other argues against it, using evidence from the video and other sources.
7. Have students write a short essay expressing their opinion on whether automation should be embraced or restricted in industries like shipping.
8. Individually or in pairs, students research and create a timeline showing key moments in the history of automation and its effects on jobs.
9. Students work individually to create a chart listing the pros and cons of automation as presented in the video.
10. In groups, students analyze a specific example of automation from the video and predict its long-term impact on workers and the economy.
11. Assign roles (union leader, economist, worker, port owner) to small groups and have them act out a negotiation about automation at the ports.
12. Students individually write a critique of how the media covers automation, using examples from the video and other sources.
13. In groups, students brainstorm a list of new jobs that could emerge from increased automation and share their ideas with the class.
14. Individually, students create a bar graph comparing U.S. port efficiency to international ports based on the video's details and independent research. Encourage them to carefully choose their sources.
15. In groups, students design a future port using automation technologies, explaining how they would address safety and job concerns.

16. Students work in groups to create an ad campaign promoting either the benefits or drawbacks of automation in ports, including slogans and visuals.

Name _____
Class _____ Period _____

Date _____
Teacher _____

America's Stone Age Ports K-W-L Chart

Directions: Complete the **K** and **W** sections prior to watching the video. After you have seen the video, complete the **L** section and answer the questions below the K-W-L chart.

| K | W | L |
|--|--|--|
| What I know about automation and creative destruction... | What I want to know about automation and creative destruction... | What I've learned about automation and creative destruction... |

How could improving port efficiency benefit workers, businesses, and consumers at the same time? _____

How might the union leader's demands for banning automation hurt his own members in the long run? _____

Name _____

Date _____

Class _____ Period _____

Teacher _____

America's Stone Age Ports PMI Chart

P = Plus: What might be some positive effects of automation in these ports?
M = Minus: What might be some negative effects of automation in these ports?
I = Interesting: What is interesting about automation in these ports?

| + Plusses + | - Minuses - | I |
|-------------|-------------|---|
| | | |

What might be the long-term consequences of banning automation at these ports? _____

Should job creation take priority over efficiency and safety at ports? Why or why not? _____

Name _____

Date _____

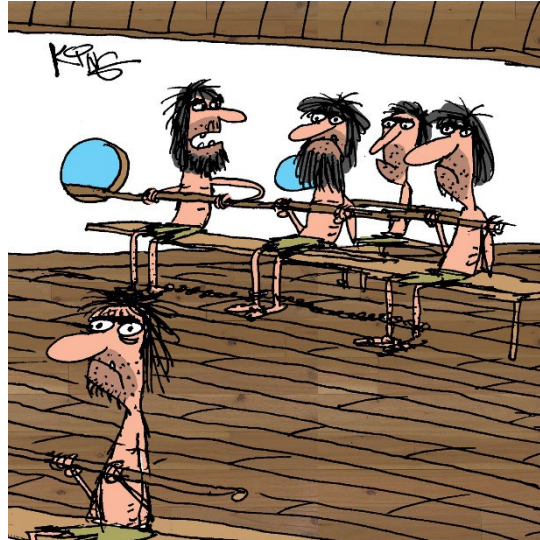
Class _____ Period ____

Teacher _____

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Political Cartoon Activity

Directions: Use the political cartoon to answer the questions.



"I've got bad news: The captain has assured us that we're NOT being replaced by automation, and that we have job security."

CartoonStock.com

How does this cartoon humorously illustrate concerns about job security and resistance to automation? _____

In what ways does the captain's assurance reflect attitudes like those of the union leader in the video? _____

How might the rowing crew's situation compare to the inefficiencies mentioned in ports that avoid automation? _____

What message do you think the cartoonist is trying to convey about progress, innovation, and job security? _____

Name

Admit One

Do you agree with the union leader that these U.S. ports should ban automation? Why or why not?

Admit One

EXIT TICKET

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