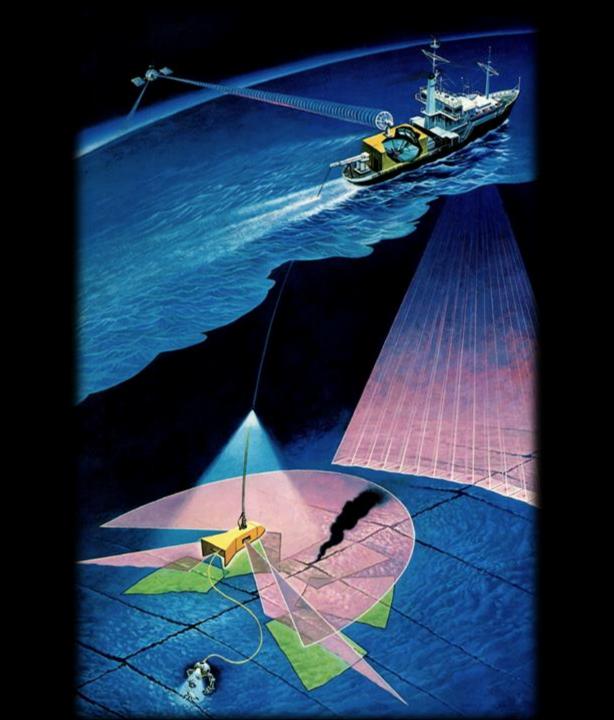
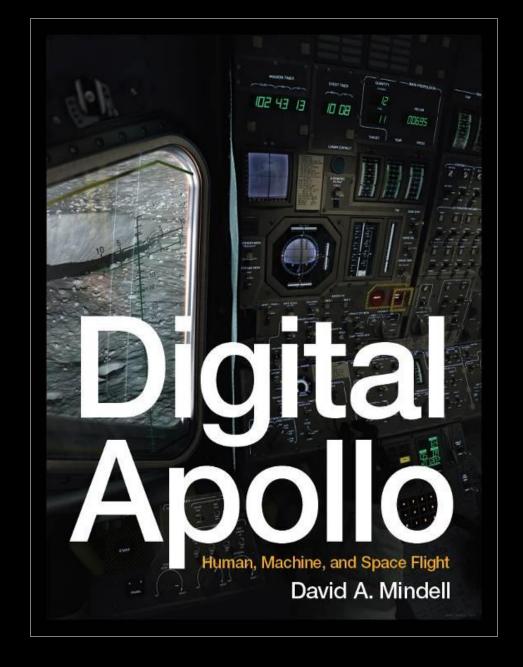


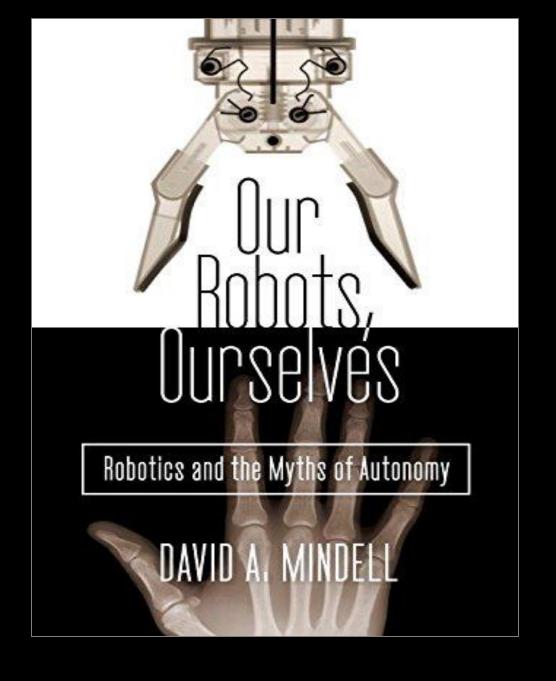
#### **David A. Mindell**

Dibner Professor of the History of Engineering and Manufacturing Professor of Aeronautics and Astronautics Founder and Executive Chairman, Humatics Co-Founder, Unless

> MIT Press, February 2025



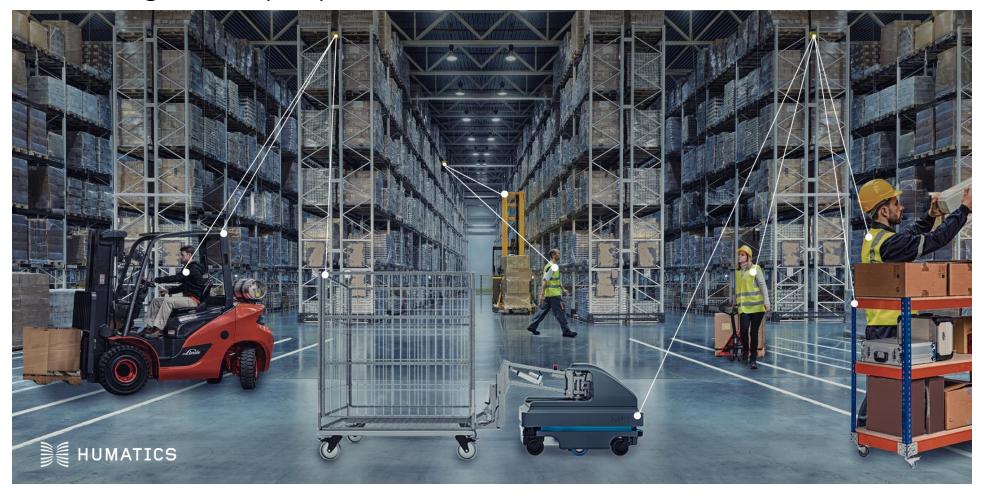


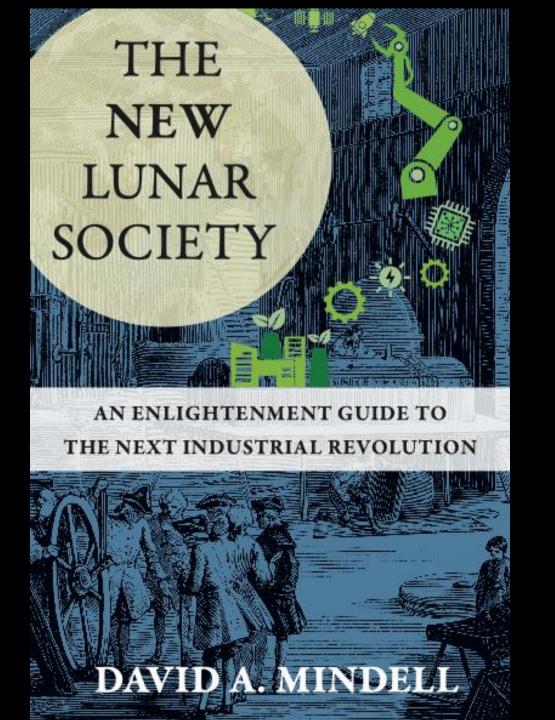






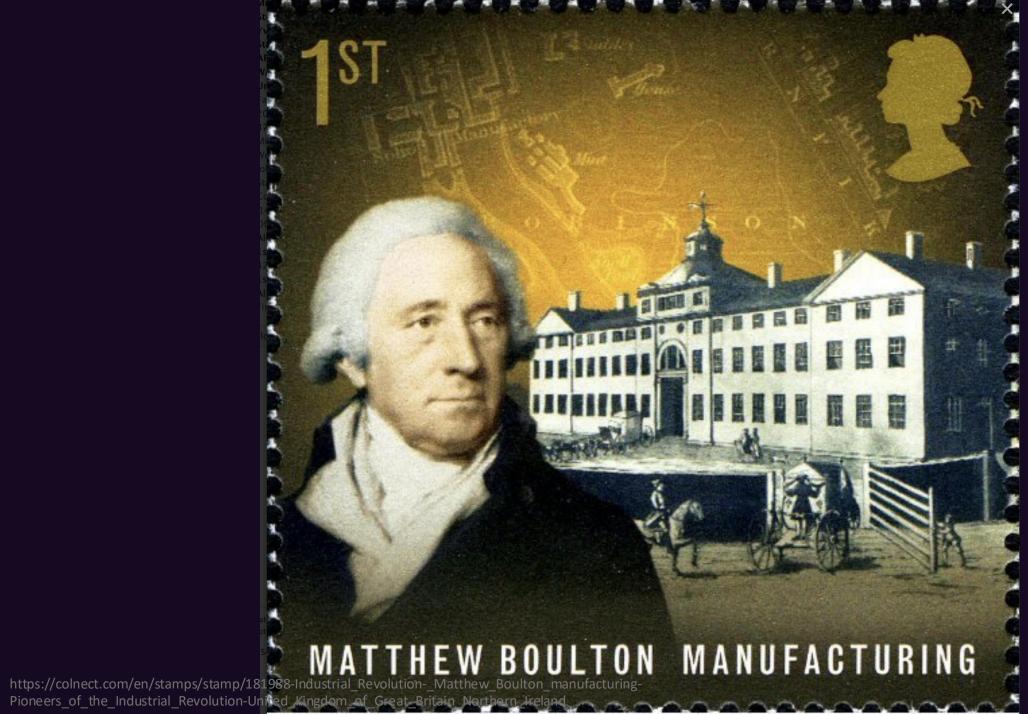
#### Navigation = people, robots, and infrastructure







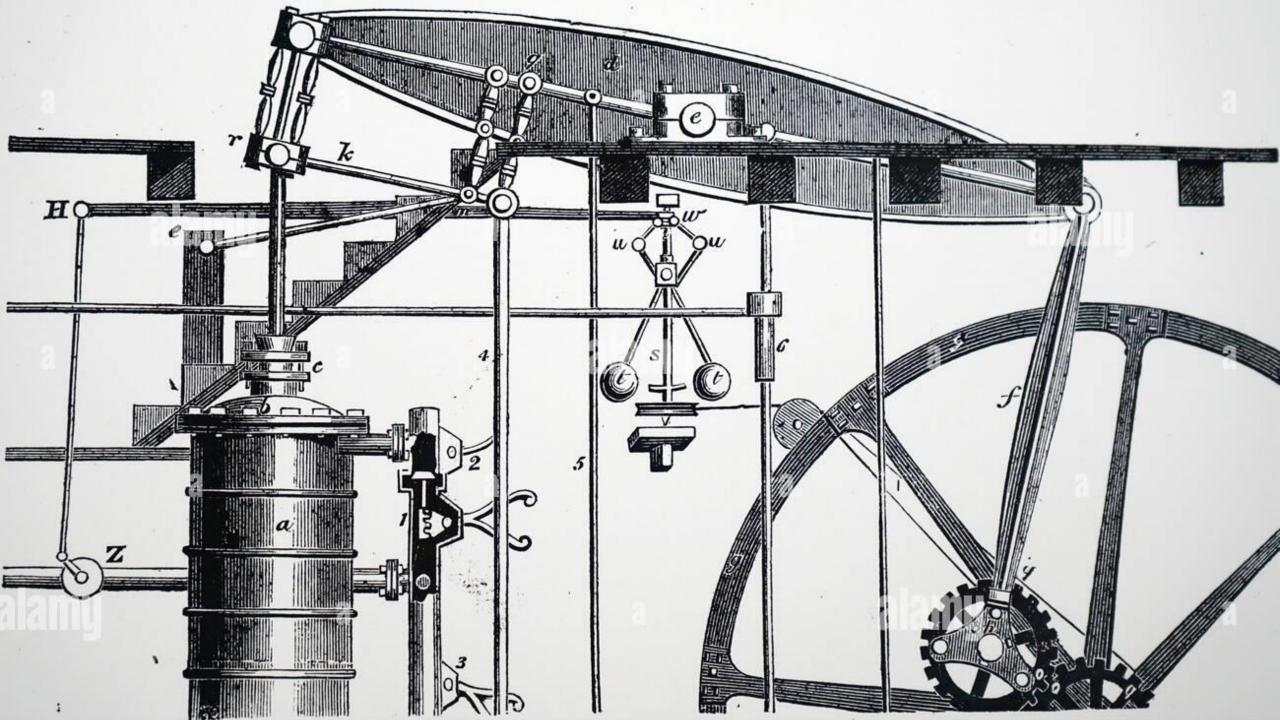
1795-1800 Victoria and Albert Museum

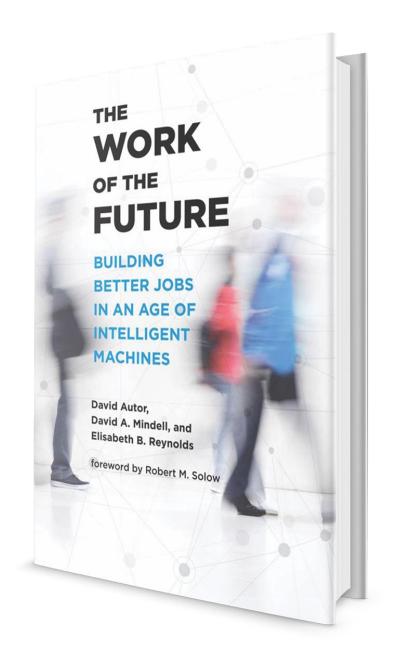


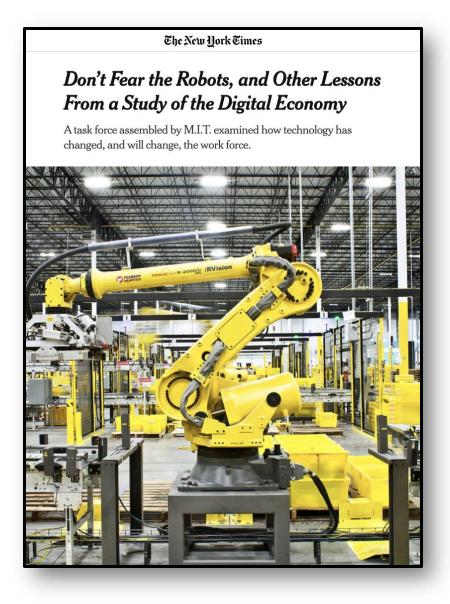






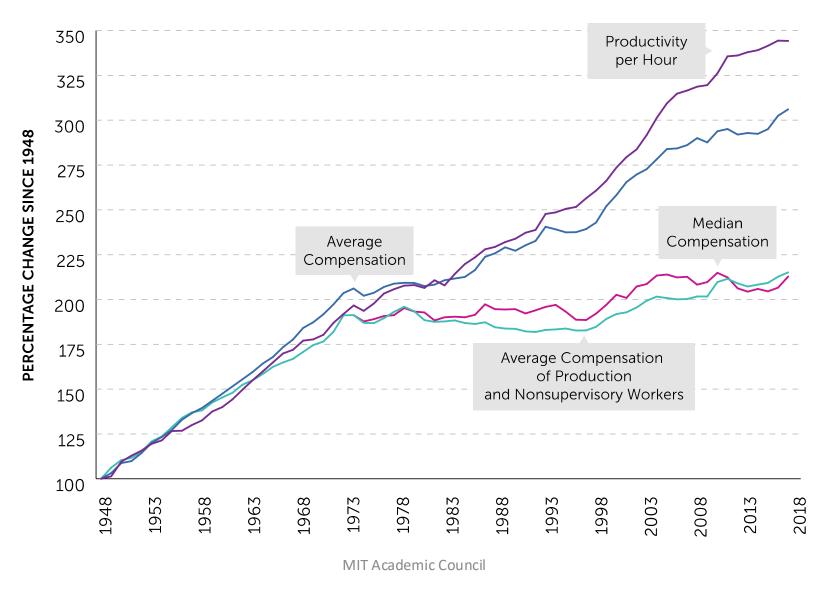






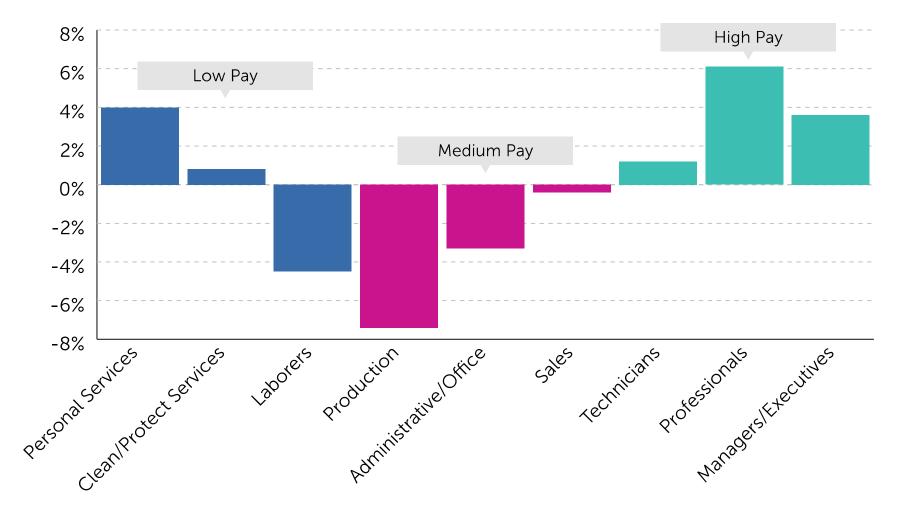
The U.S. Has Gotten Much More Productive since 1975, but Most Workers Have Benefited Little

U.S. Productivity and Compensation Growth, 1948 – 2018

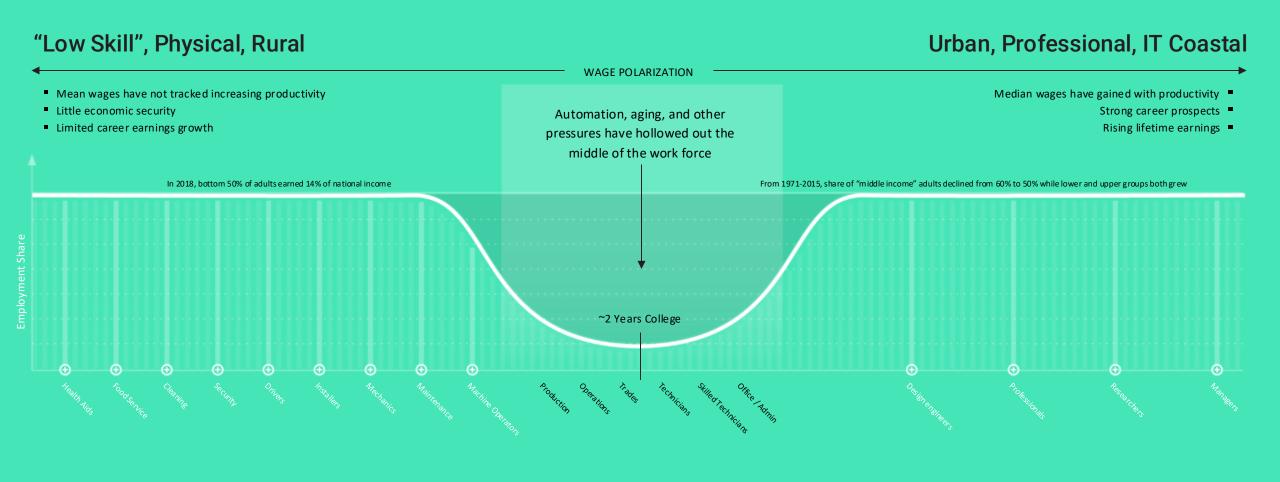


The U.S. Occupational Structure has 'Polarized'

Changes in Employment Shares in Low, Medium, and High Paying Occupations, 1980 – 2015

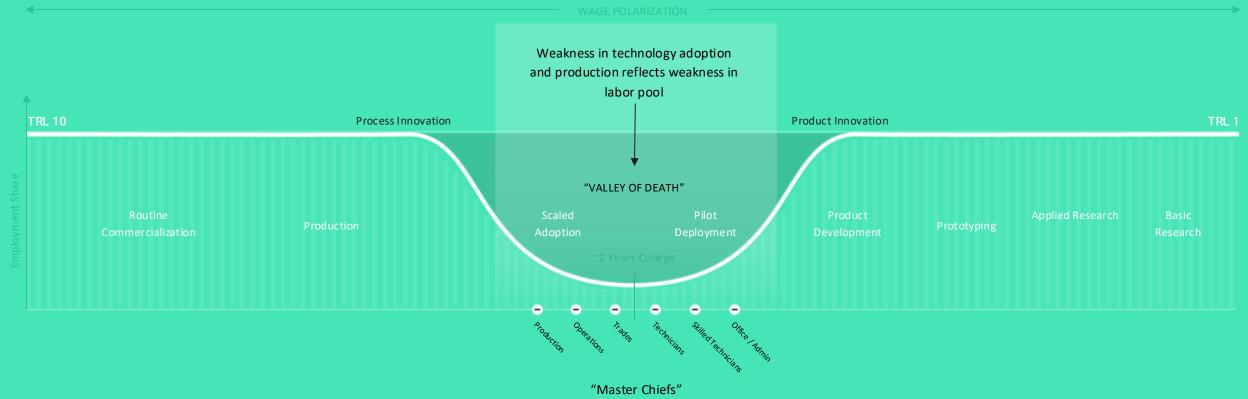


## The Missing Middle



# The Missing Middle

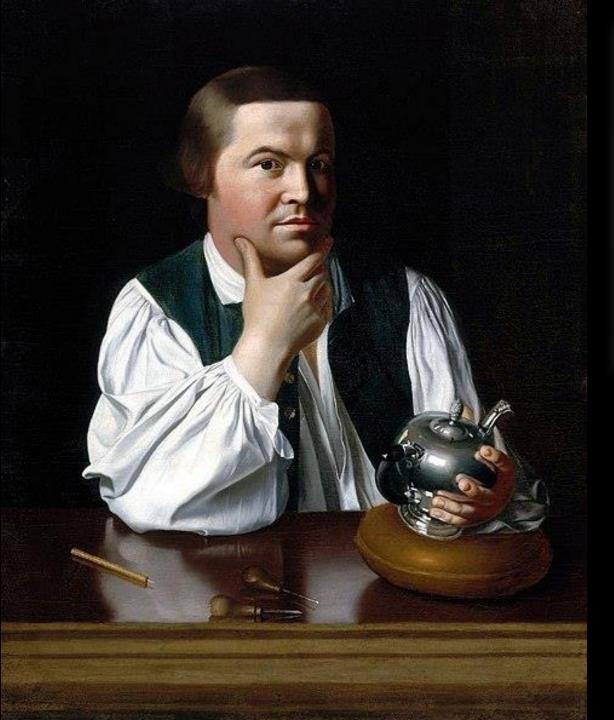
#### **Technology Readiness Levels\***



\* Technical Readiness Levels are usually pictured increasing left to right, mirrored here

Technical workers who can translate between management and production are key for adopting new technologies into production









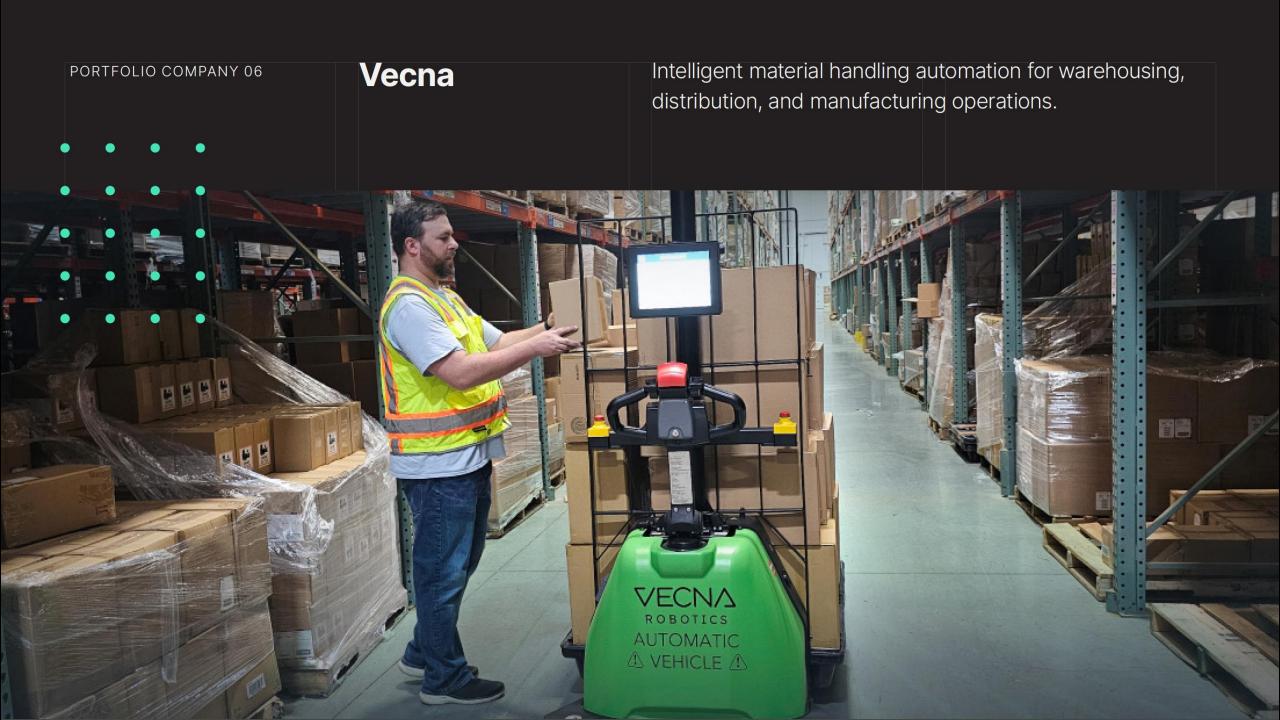
Copper Sheathing of USS Constitution, 2016



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Unless we catalyze the new industrial revolution.

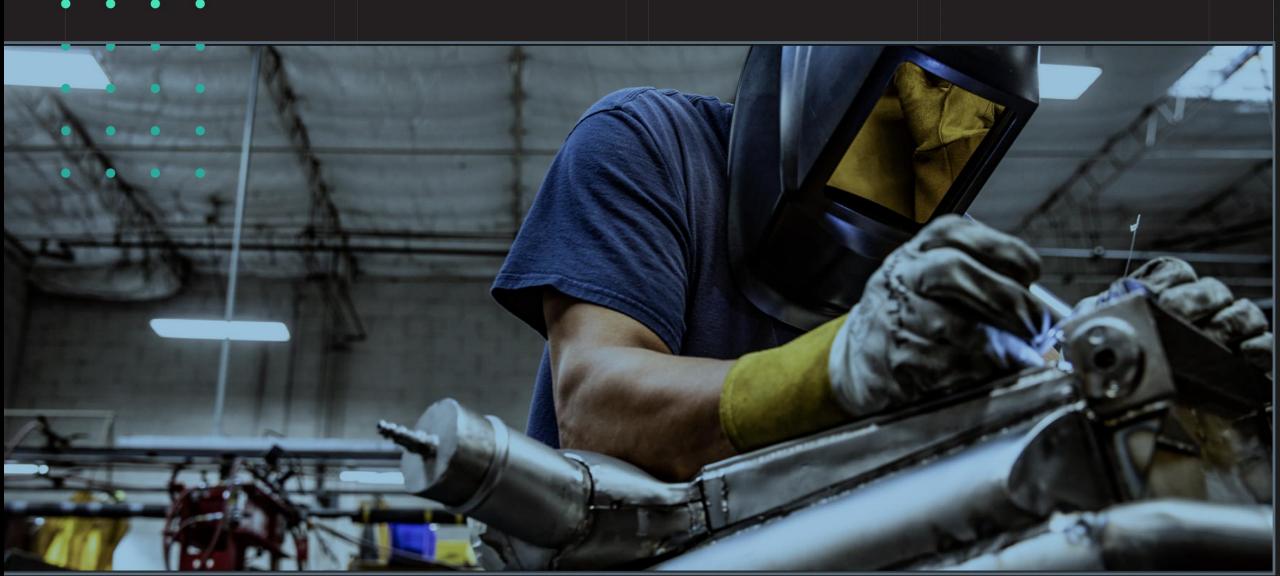




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# Thank you.

Unless.co 1023 Walnut Street Boulder, CO 80302 Trevor Zimmerman
Co-founder & Managing Partner
trevor@unless.co
720.598.2951

David Mindell, PhD.
Co-founder & Unless Collective of Experts Lead
david@unless.co
617.642.1836