

THE FUTURE OF WORK



Goals for tonight

- Some realities of the world today
- Where innovation trends are heading
- What is the GIG economy?
- How this changes everything
- Where does rural America stand?
- Workforce and education

DIGITAL LIFE IN 2025

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The central question of 2025 will be: What are people for in a world that does not need their labor, and where only a minority are needed to guide the 'bot-based economy?

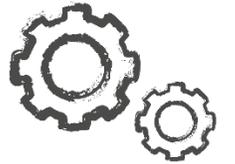
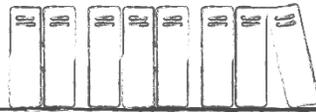


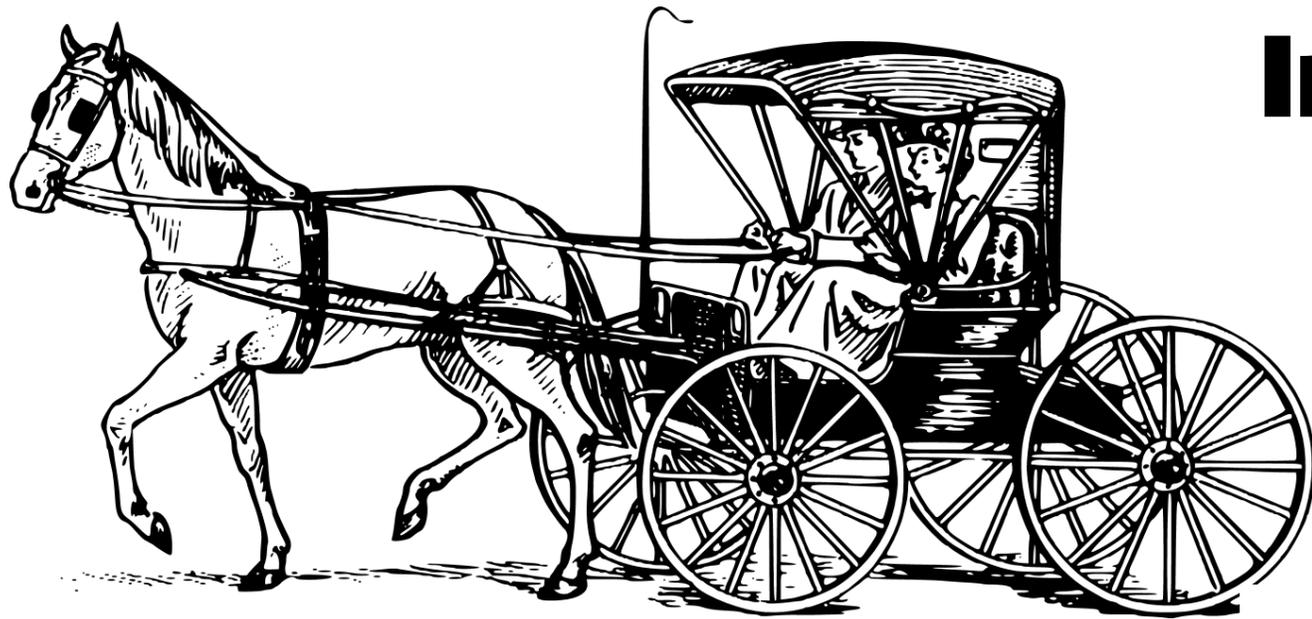
— STOWE BOYD,
LEAD RESEARCHER AT GIGAOM RESEARCH

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INNOVATION

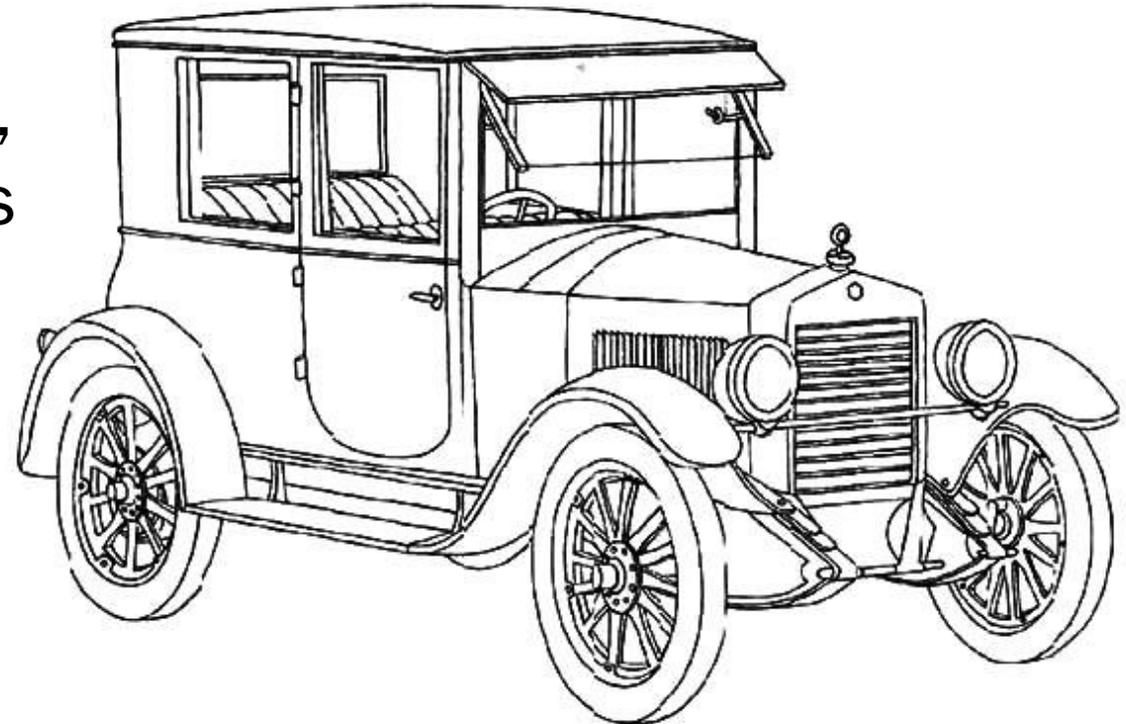




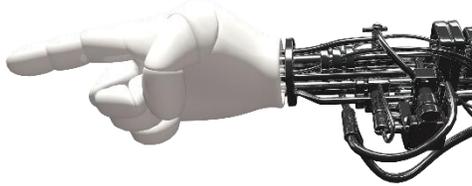
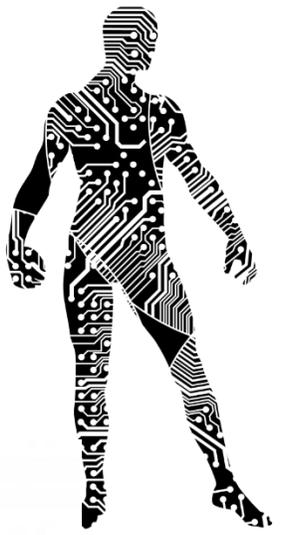
Innovation is tricky

100 YEARS AGO, SOME PEOPLE WERE REALLY HOSTILE TO THE INTRODUCTION OF THE AUTOMOBILE OR "DEVIL WAGONS"

- No paved roads, gas stations, road signs, street maps, streetlights or traffic signals
- Noisy and stirred up dust
- Threat to pedestrians, bicyclists, horses
- Max speed was 30mph
- Broke down frequently
- Expensive (\$825, or \$18,000 today)



TECHNOLOGY



STEM

SCIENCE | TECHNOLOGY | ENGINEERING | MATHEMATICS

STEAM

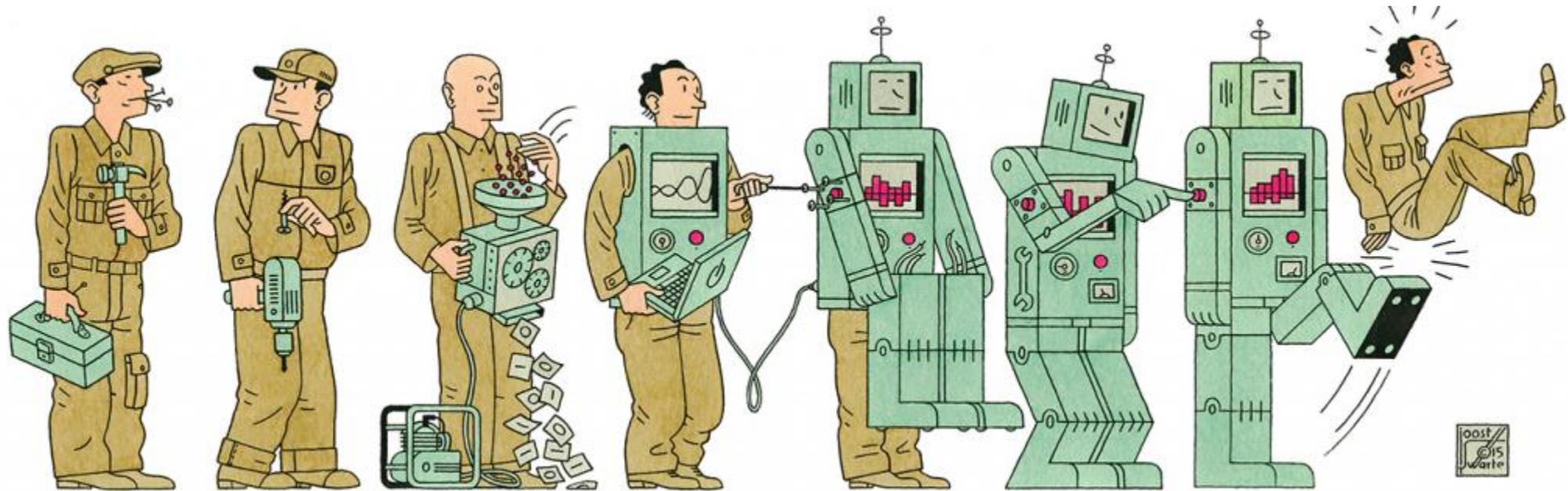
SCIENCE | TECHNOLOGY | ENGINEERING | ART | MATH



SOCIAL MEDIA

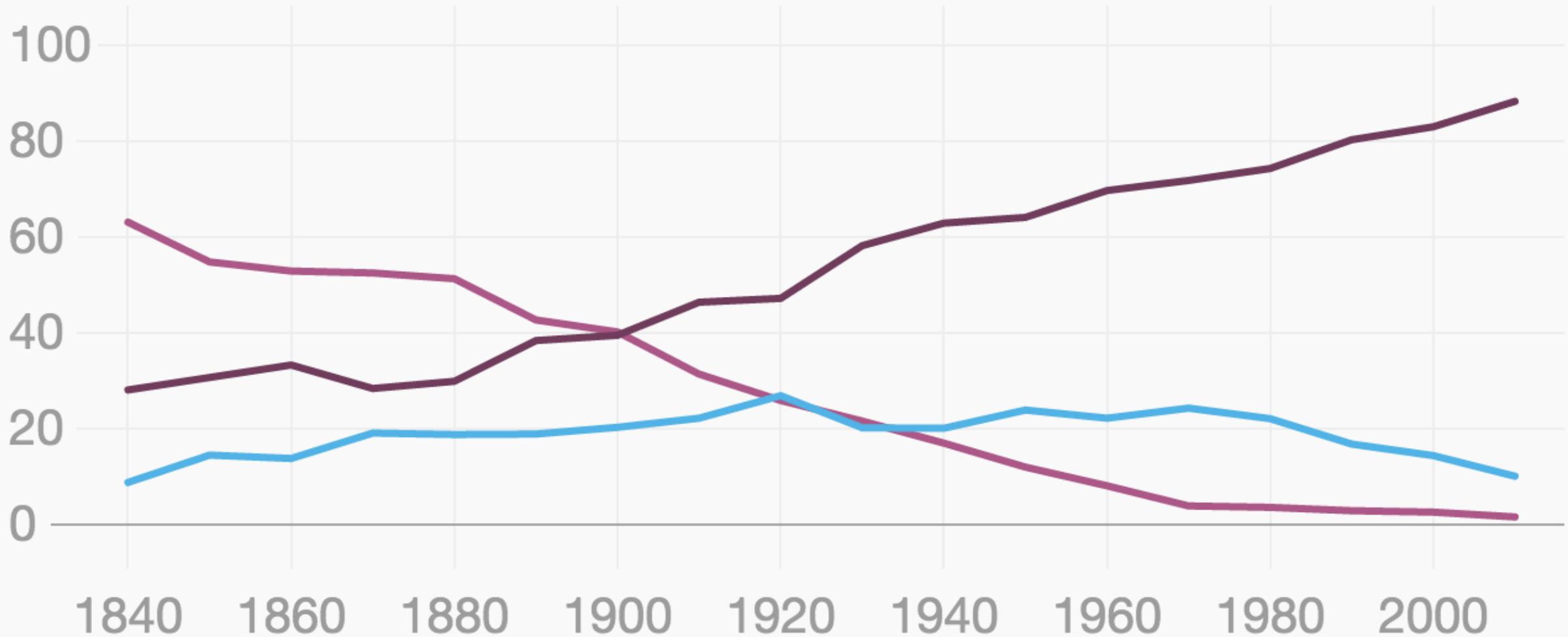


A word on automation

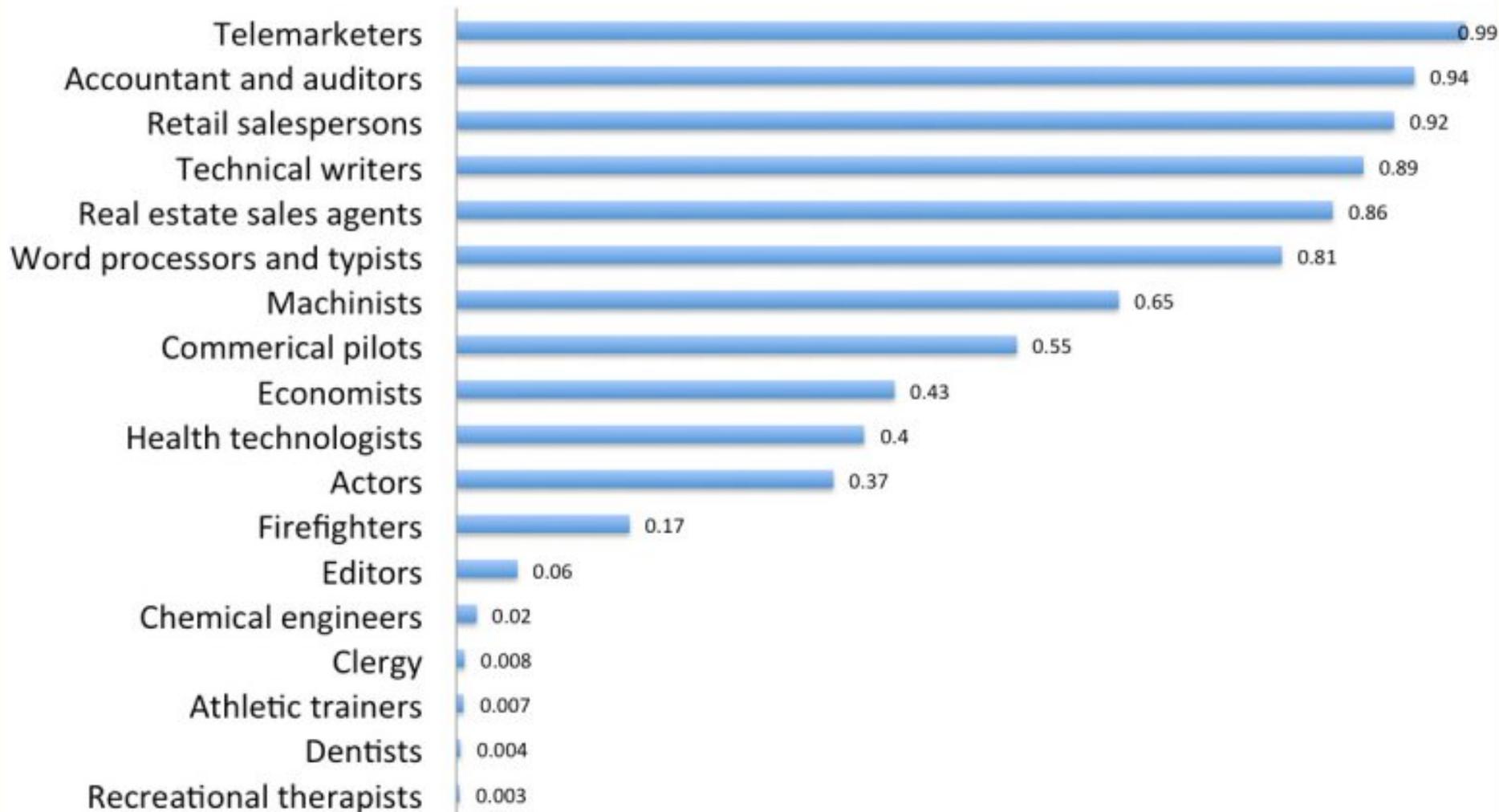


Employment in agriculture has fallen to less than 2% of workers

■ Agriculture ■ Manufacturing ■ Rest of economy

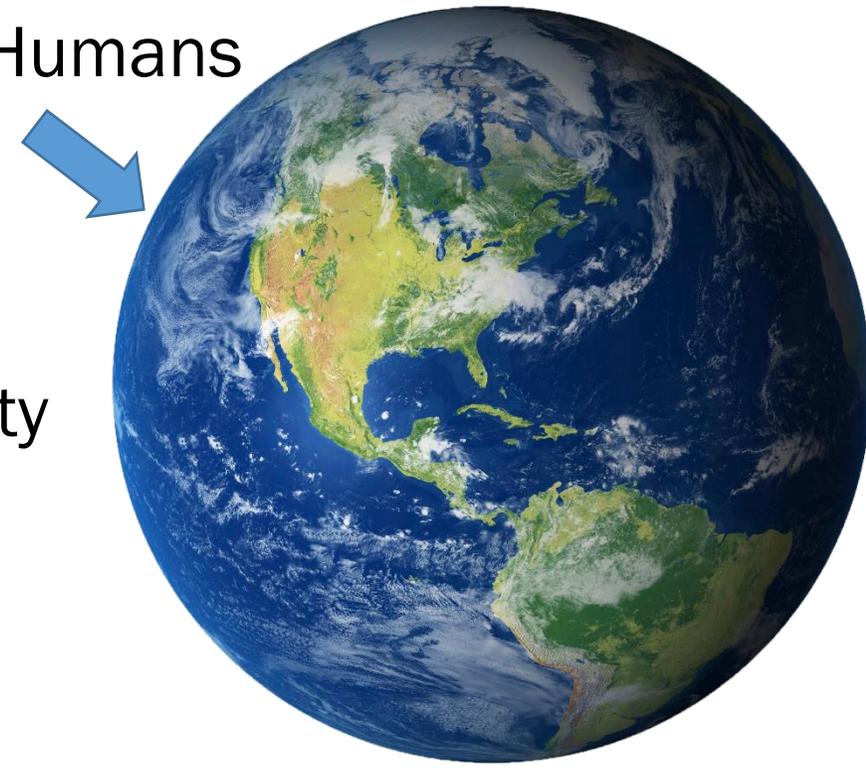


Probability Robots Will Take Your Job In Next 20 Years, 1=Certain



7.4B Humans

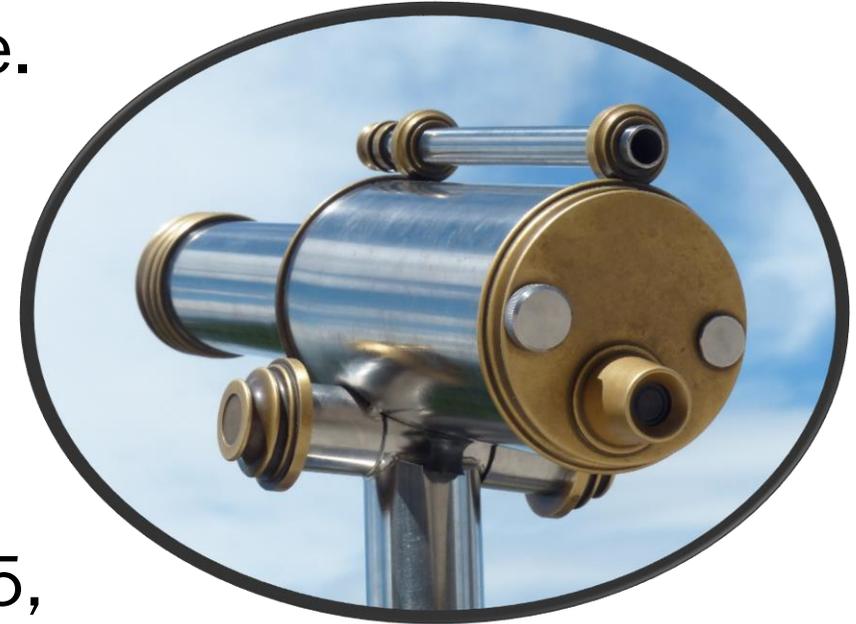
Some workforce realities



- Today = 1,300,000,000 people without electricity
- Today = 2,400,000,000 people without toilets
- Today = 7,600,000,000 active cell phones
- Today = 1,600,000,000 people on Facebook
- Today = 5,000,000,000 people entering the middle class
- Today = 45% of the world's workforce are contingent workers
- Today = 63,000,000 Americans (43% US workforce) work from home
- Today = 16,500,000 Virtual Reality VR headsets sold

Some workforce predictions

- By **2020**, millennials will be 50% of the workforce. By **2025** they will be 75%
- By **2020**, 50% of US workforce will be freelancers
- By **2020**, the size of Asia's middle class will be 3,200,000,000 (triple that in 2009)
- By **2025**, 4,000,000,000 people coming online
- By **2025**, 1 in 3 jobs will be robo-replaced by 2025, displacing 140,000,000 workers
- By **2030**, demand for energy and water is forecast to increase by as much as 50% and 40% respectively
- By **2030**, the UN projects that 4.9 billion people will be urban dwellers and, by **2050**, the world's urban population will have increased by some 72%



We could be on the brink of the largest job creation period in humanity

- Location doesn't matter
- Work is competitive – no one will pay just for a degree. Based on merit, not location
- % of college degrees on the rise (college = new high school)
- Informal education is valuable
- Crowdsourcing vs individuals
- On-demand vs 30 year pension
- The word “career” is as outdated as “typewriter”



Who is this workforce?



A new generation

1. Motivated by meaningful work
2. Challenge Hierarchical Structures
3. Want a Relationship with Their Boss
4. Are Tech Savvy, To Say The Least
5. Are Open to Change
6. Are Task (Not Time) Oriented
7. Have a Hunger for Learning
8. Crave Constant Feedback
9. Want Recognition
10. (Don't Just) Want To Have Fun!



So what is a GIG?



GIG

Think of making a film

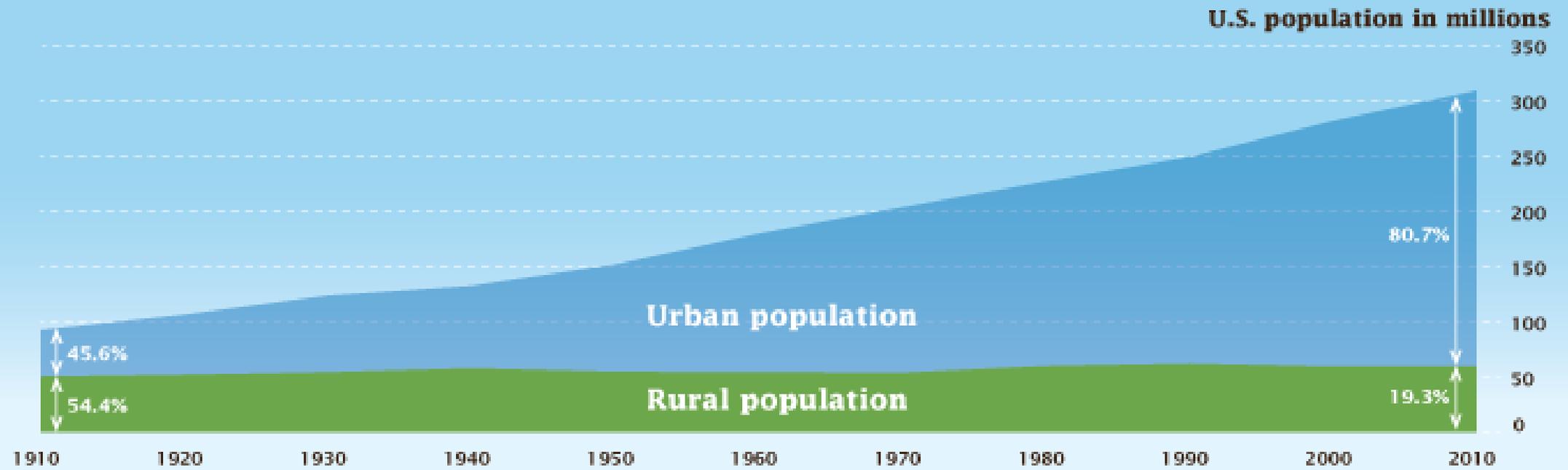
- Project based
- People with unique skillsets come together to produce an outcome
- Then they take their skills to the next project.
- Workers have portfolios rather than resumes
- Virtual teams across time, space and organizational boundaries to collaborate using technology
- Networks and connections in the industry are vital to getting hired



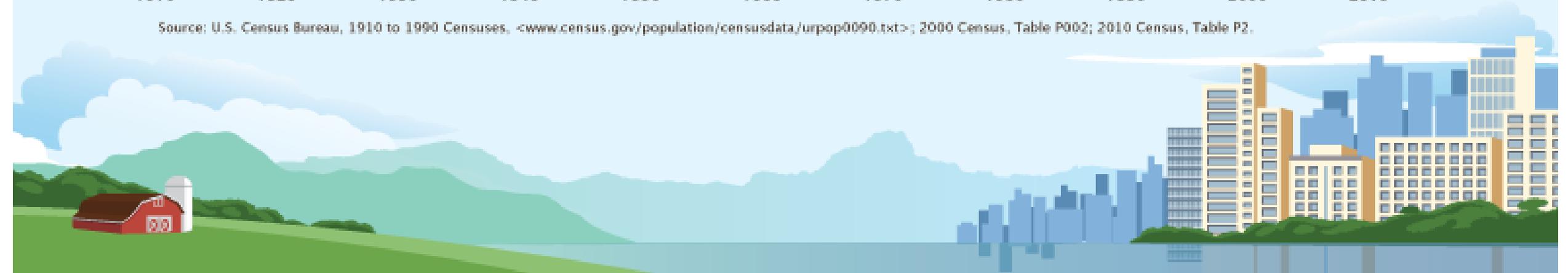
Urban/Rural Realities



Change in Rural and Urban Population Size: 1910–2010



Source: U.S. Census Bureau, 1910 to 1990 Censuses, <www.census.gov/population/censusdata/urpop0090.txt>; 2000 Census, Table P002; 2010 Census, Table P2.



Symptoms of Rural Poverty

Barriers to Upward Mobility



- Drug & alcohol use
- Mental health issues
- Low wages (no wealth)
- Huge wealth disparities
- Lack of skilled workforce
- Rampant nepotism
- Limited educational opportunities
- Limited access to broadband
- Limited expertise
- Limited activities for young people
- Limited access to health care
- Limited local businesses (dying main streets)
- Limited voting impact (ability to design laws)
- Exportation of wealth (banks)
- Exportation of natural resources
- Food deserts
- Traditional (manual) work

Now to education



What can Adult Education do?



Community Colleges...

- Recognize that **small businesses** are asking for new-hire soft skills training
- Understand that the **entrepreneurial mindset** *teaches* soft skills
- Support the infusion of **entrepreneurial skills** for students across all programs
- Provide **real-world experiential learning** to reinforce technical and soft skills training

Technical skill + “soft skills”+ experience = high value

Real world learning

- Critical thinking
- Problem solving/troubleshooting
- Emotional intelligence
- Soft skills/marketing
- Design thinking
- Coding and machine learning
- Process management
- Economics and business
- The entrepreneur mindset
- Networking/Teambuilding

CAREER & TECHNICAL EDUCATION







**Success
Ahead**

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