Moving Research into Practice: How do we get from here to there?

- FLATE 2020
- Future of Work for Technicians

Research, Results, Realization

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FLATE Vision

FLATE will drive Florida's world-class manufacturing workforce

FLORIDA FLATE ADVANCED TECHNOLOGICAL EDUCATION CENTER

part of the FloridaMakes® network

FLATE's Work

Curriculum

Outreach

Professional Development

What’s Next?

The Road Ahead

- ✓ Unprecedented change in economy and nature of work due to rapidly advancing technologies
- ✓ Current education and training systems have not been very agile
- ✓ Stackable credentials could play a larger role in the workforce development ecosystem
- ✓ Lifelong learning needs to start NOW

Project Team

Preparing Technicians for the
FUTURE OF WORK

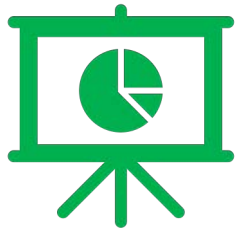
- Ann-Claire Anderson, Principal Investigator
- Hope Cotner, Co-Principal Investigator
- Mike Lesiecki, Co-Principal Investigator
- Richard Gilbert, Co-Principal Investigator
- Marilyn Barger, Special Advisor

CORD
Leading Change in Education

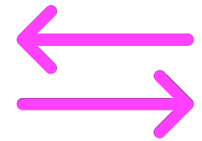
Simple Research Process

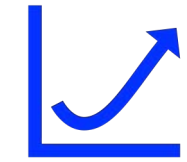
RESEARCH

RESULTS



REALIZE

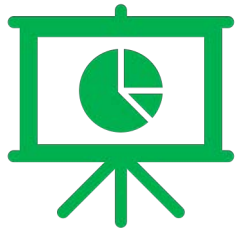




Simple Research Process: RESEARCH

RESEARCH

RESULTS



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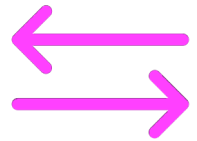
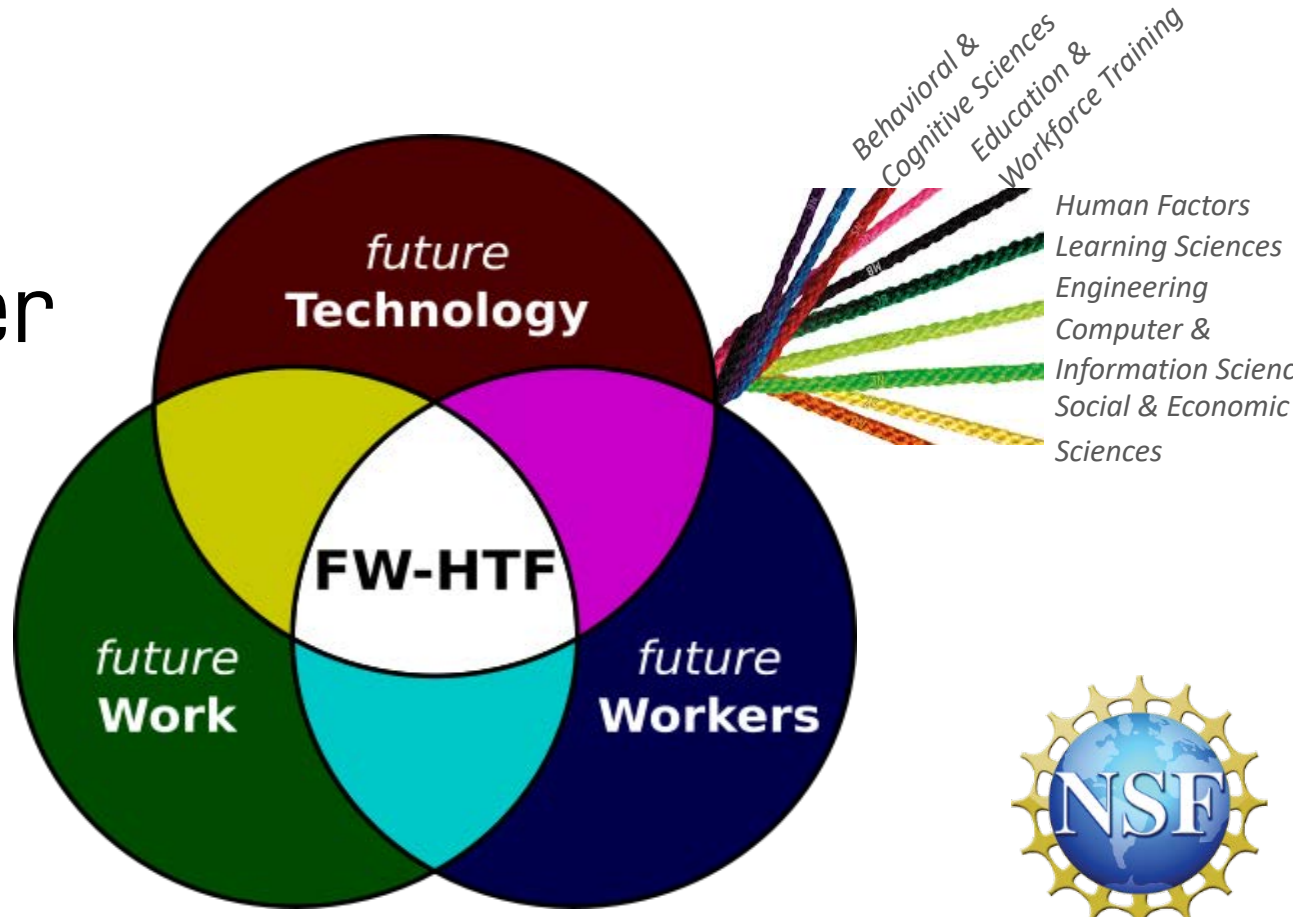


NSF: The Future of Work at the Human-Technology Frontier

Technicians sit at the center of much of this "disruption"



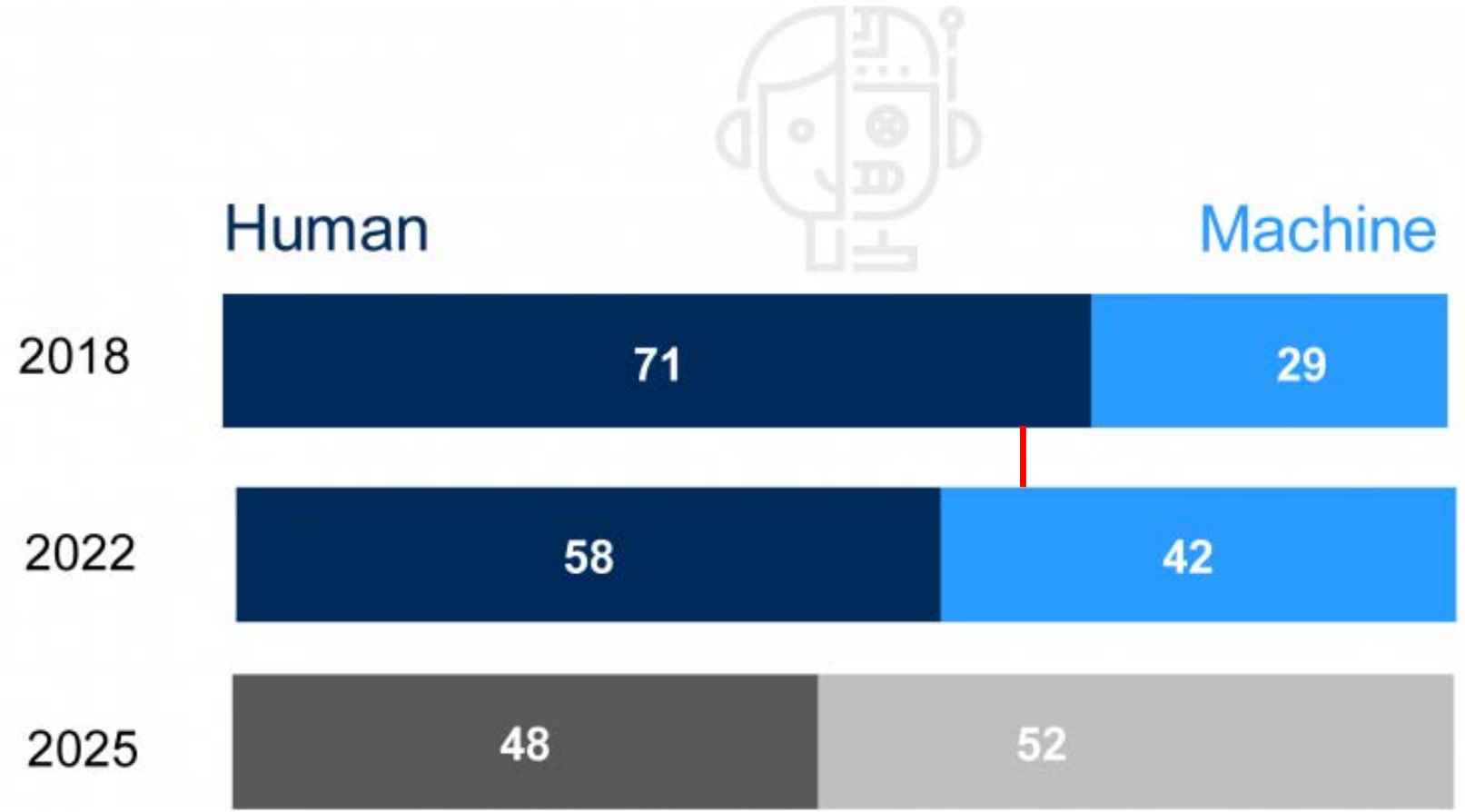
Research Focus and Early Findings

www.preparingtechnicians.org

This material is based upon work supported by the National Science Foundation under Grant DUE1839567. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

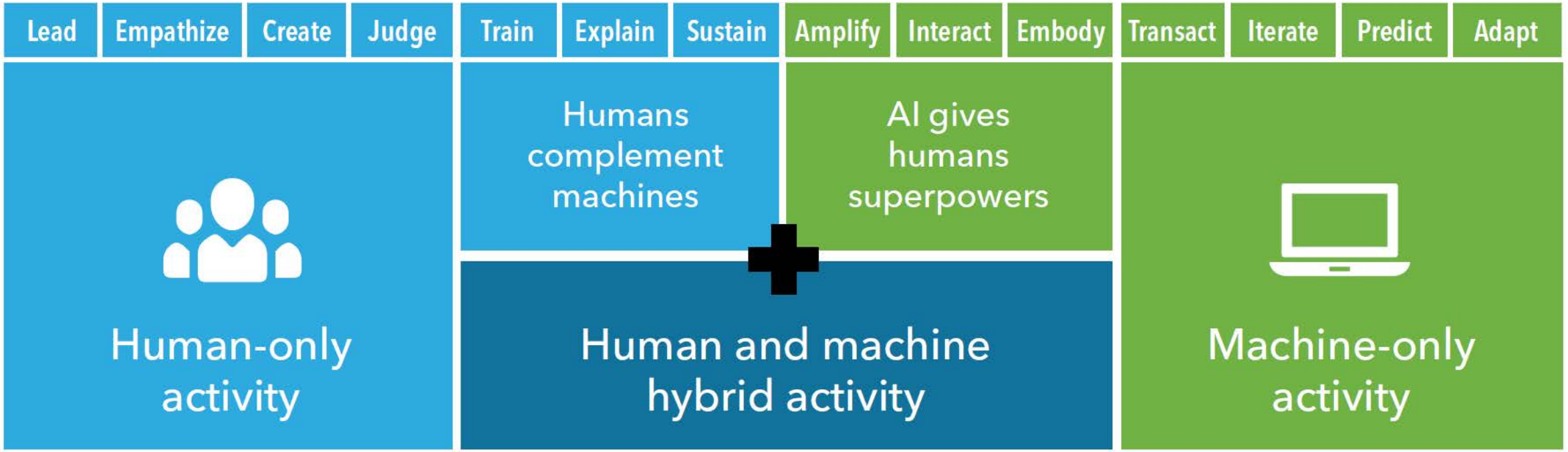
Rate of automation

Division of labour as share of hours spent (%)



Humans and Machines

Roles of Humans and Machines in the AI Era[73]

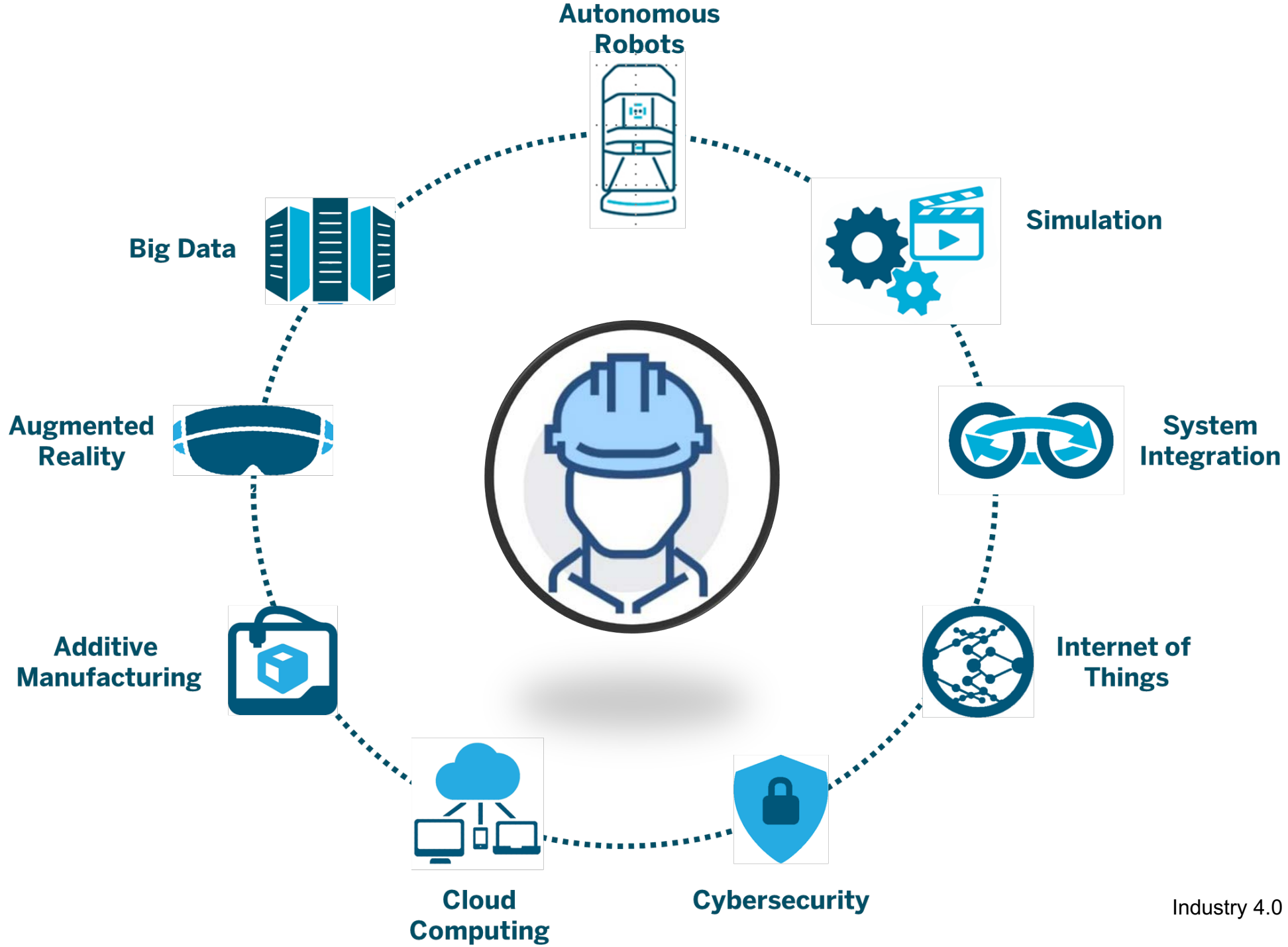


Graphic based on diagram from Daugherty and Wilson, *Human + Machine: Reimagining Work in the Age of AI*

By 2022 everyone will need an extra

101 days of learning

Source: Future of Jobs Report 2018, World Economic Forum

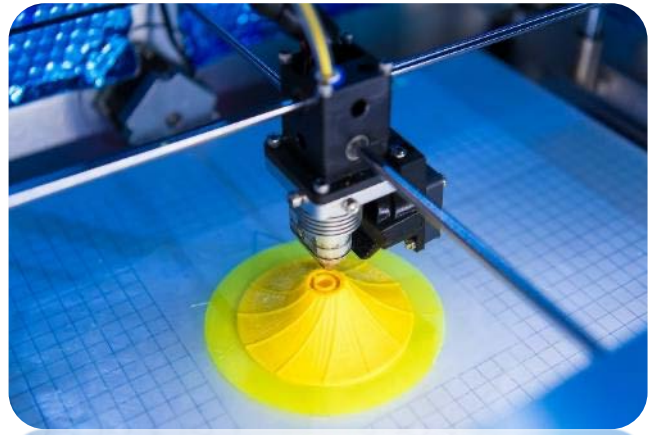


Industry 4.0 Visualization - Aethon

Gathering Information for New Foundational Competencies for STEM Technicians of the Future

Gathering Data from Multiple Sources:

- Industry Advisory Board
- ATE Leadership Caucus input
- Industry/education focus groups
- Recent business news and research
- Existing competency models
- Industry site visits and interviews
- Regional convenings
- Surveys

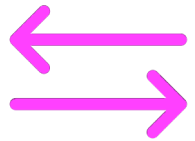


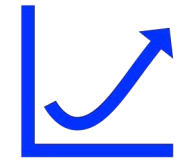
Research Focus and Early Findings

RESEARCH

RESULTS

REALIZE





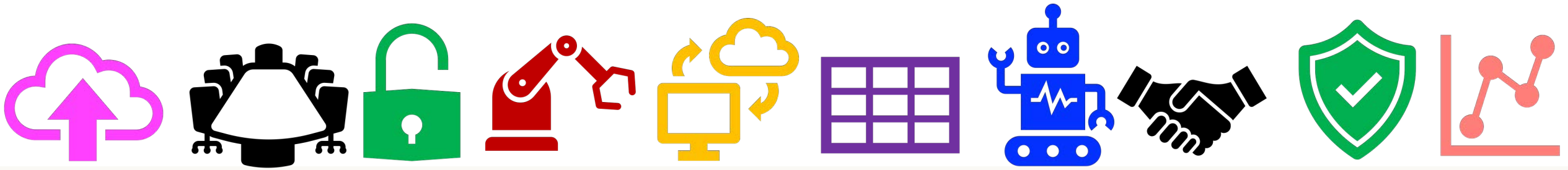
FoW Skill Areas for STEM Technicians

1: Advanced Digital Literacy

2: Business Knowledge and Processes

3: Data Knowledge and Analysis

50+ specific skills collectively in the 3 categories



Simple Research Process: REALIZE

RESEARCH

RESULTS

REALIZE

Realizing the Results

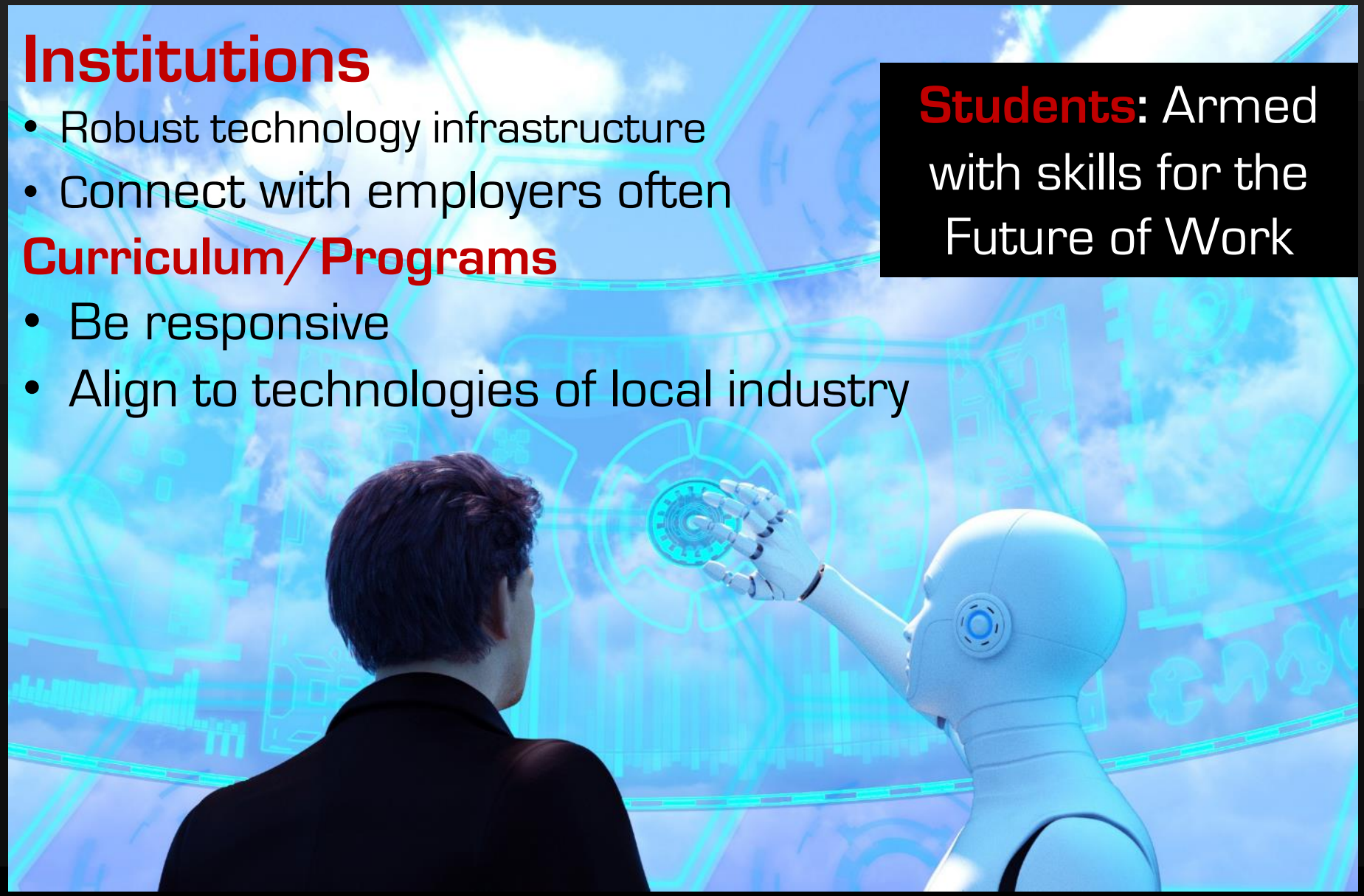
- Engage Experts
- Develop Resources
- Disseminate
- Mentor
- Provide Educator Workshops
- Building Regional Networks

Integrating Industry 4.0: Next Steps for Colleges

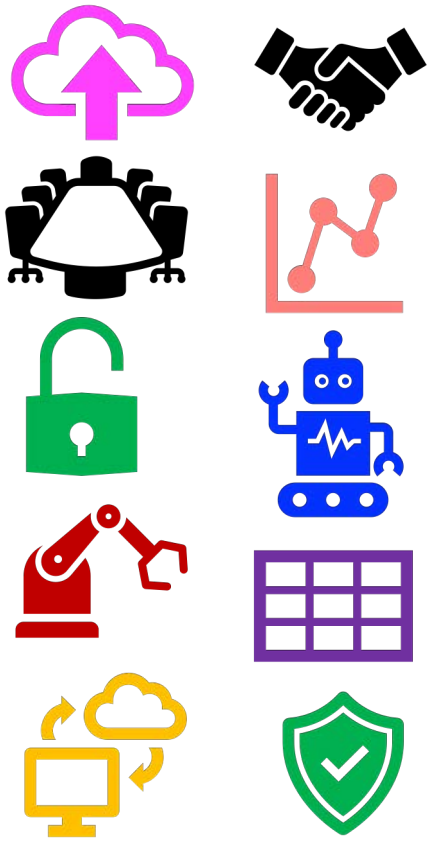
- ✓ Find out what I 4.0 means to your employers emerging workforce needs
- ✓ Take an audit of what I 4.0 components are already being taught
- ✓ Determine which existing curricula can be leveraged across the college
- ✓ Define professional development needs and get it
- ✓ Form interdisciplinary teams
- ✓ Use stackable credentials and emerging certifications as tools for upskilling/reskilling/lifelong learning as well as connecting to credit programs

NCATC Industry 4.0 Toolkit

FOW Considerations for Community & Technical Colleges



Thank you!



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