



ENGINEERING OUR FUTURE

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**THERE'S REASON TO
BE HOPEFUL**

AT McMASTER, WE HAVE A SOCIAL CONSCIENCE

Should engineers and educators lag
technology and society? **NO**

Should engineers anticipate
advances and prepare to create a
beneficial future? **YES**

How should engineering education
evolve?

THAT'S THE MILLION DOLLAR QUESTION



McMaster University

ENGINEERING

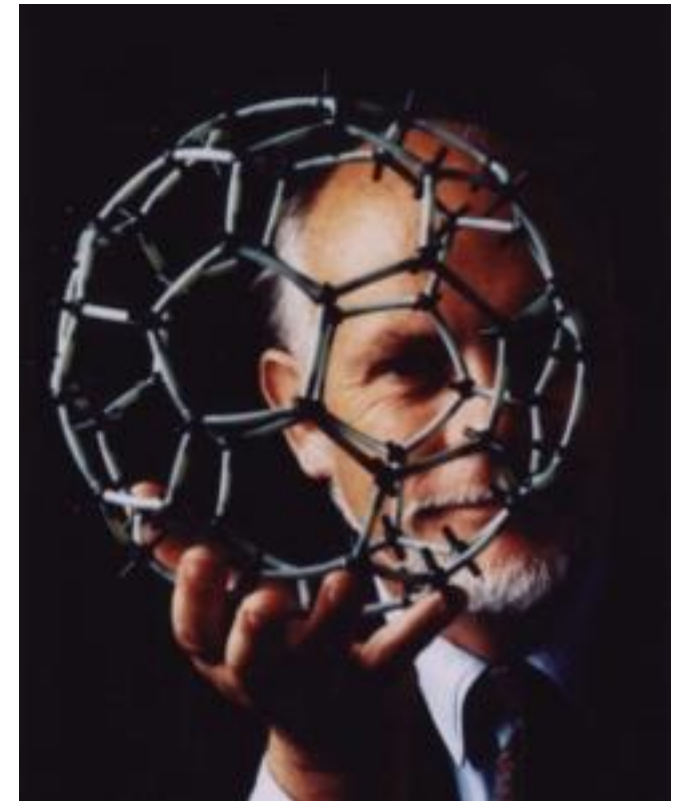


ENGINEERING



GLOBAL NEEDS

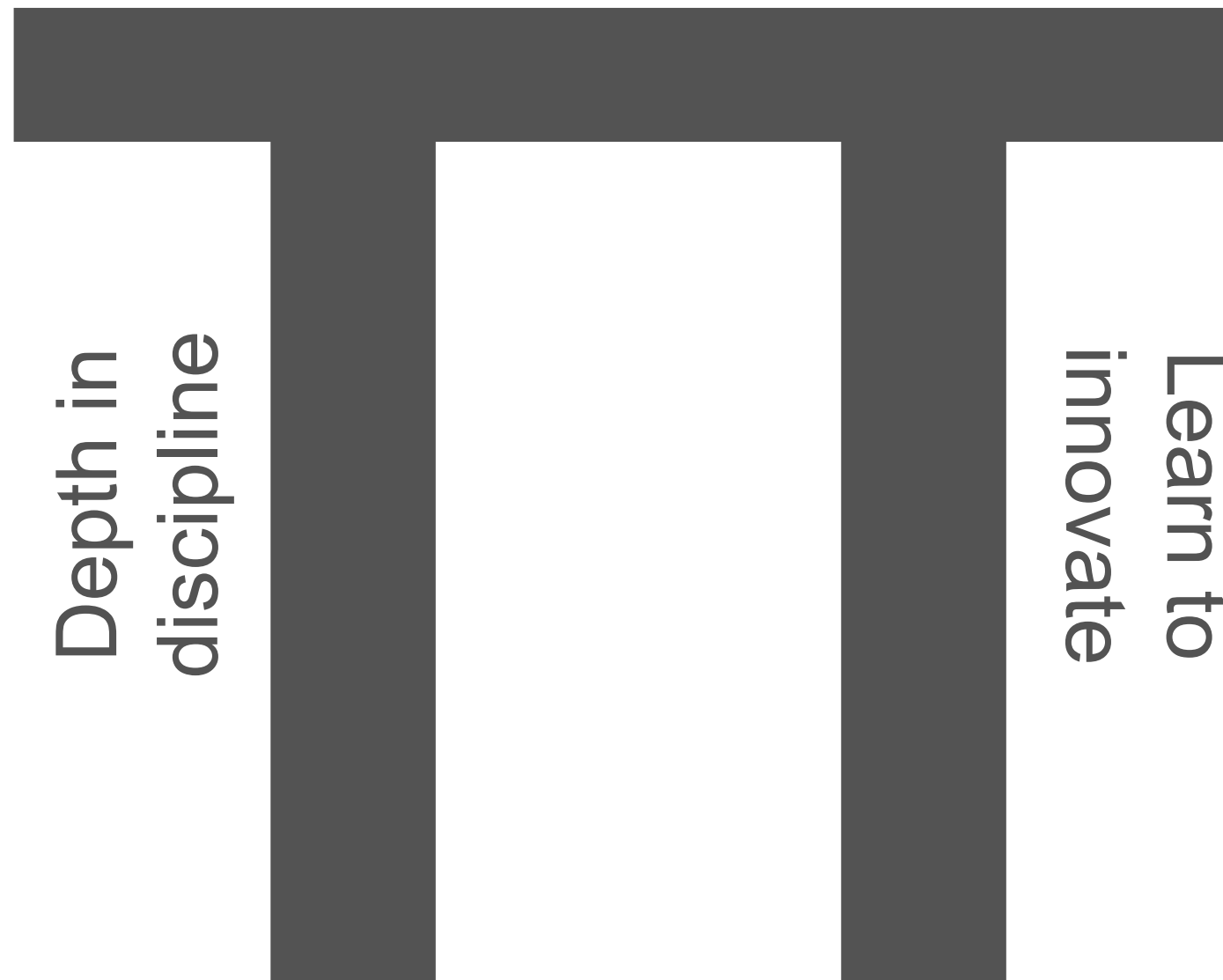
- Energy
- Water
- Food
- Environment
- Poverty
- Terrorism & War
- Disease
- Education
- Democracy
- Population



Over 2002 and 2003, Professor Richard E. Smalley, 1996 Nobel Laureate for Chemistry, developed a list of the Top Ten Problems Facing Humanity over the next 50 Years

PI-SHAPED GRADUATES

Interdisciplinary thinking



**WE WANT OUR GRADUATES
TO RIDE DISRUPTION**

SMART SYSTEMS: INTERNET OF THINGS

INTERNET OF THINGS (*CISCO*)

- Twenty five billion devices connected to the Internet by 2015 and fifty billion by 2020 (*Cisco*).
- Will drive \$14.4 trillion in value for companies and industries worldwide in the next decade.

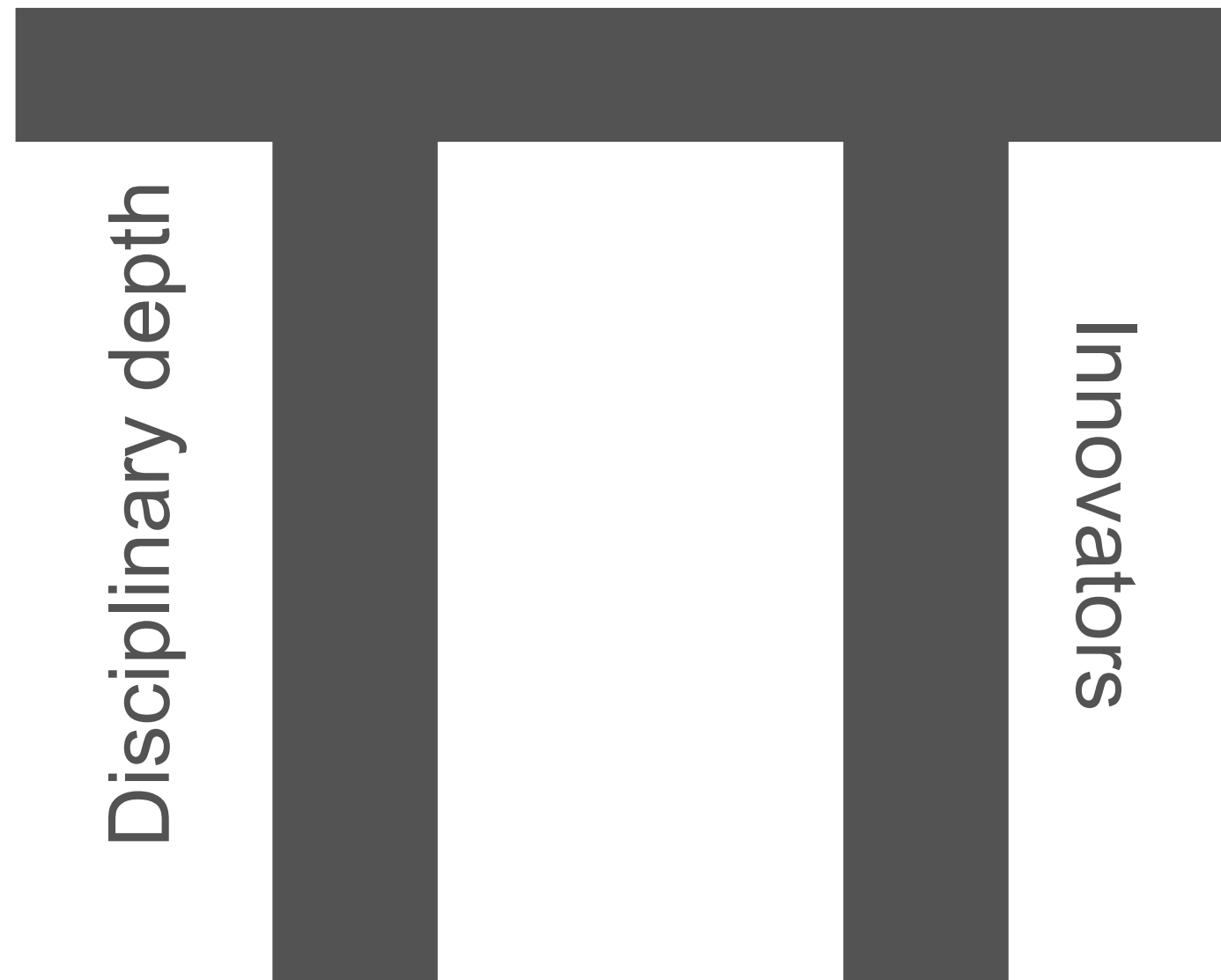
INTERNET OF THINGS

- Pill-shaped microcameras in human digestive tract send back thousands of images to pinpoint sources of illness
- Precision farming equipment links to data from satellites and sensors and adjusts how a part of a field is farmed
- Billboards in Japan peer assessing passersby fit consumer profiles, and change displayed messages

**EDUCATE ENGINEERS TO ALSO
BE INTEGRATORS WHO
CONCEPTUALIZE SYSTEMS**

PI-SHAPED EDUCATION

Systems integrators



Disciplinary depth

Innovators

WE EDUCATE ENGINEERS FOR THE FUTURE

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