PREPARING THE NEXT GENERATION OF ENGINEERS

Ei Compendex benefits

- Publications, Funding and Ranking
    - Ei Compendex is used by the top engineering schools worldwide, including MIT, Columbia, Stanford, University of Michigan, New York University, Drexel, Tsinghua, Southeast, Shanghai Jiaotong University,
    - Ei Compendex is a powerful resource for engineering students and academics who need to search and discover relevant research published in over 190 subject areas.

- Students readiness to corporate world
    - Ei Compendex is used by the many Fortune 500 companies, and has been providing a bridge for engineering students to transition successfully from Academia to corporate life. Universities that have preferential pipelines to top employers reported that knowing how to use content, such as standards, found in Ei Compendex, supports a smooth transition into the corporate world.

Empowering Engineering Research

Help me find what I need...	Help me avoid what I don't...
Identify unique research	Unreliable quality, accuracy, credibility
Generate ideas	Missing content
Stay up to date	Duplication of effort
Understand new subject areas	Reading all content
Identify peers & collaborators	Accessing multiple databases
Track competition	

...as fast and efficiently as possible

The problems that engineers tackle are becoming increasingly complex

Globalized

95% of population growth is in developing or underdeveloped countries. How to manage the ensuing challenges with knowledge from developed countries?

Increasingly connected urbanization requires moving people and goods. What are sustainable infrastructure and transportation concepts for the future?

Multidisciplinary

Over 50% of the world population is concentrated in cities; how can they be socially and environmentally sustainable?

Food production must rise 60% by 2050 to meet needs. How to boost productivity with limited land, water and nature services?
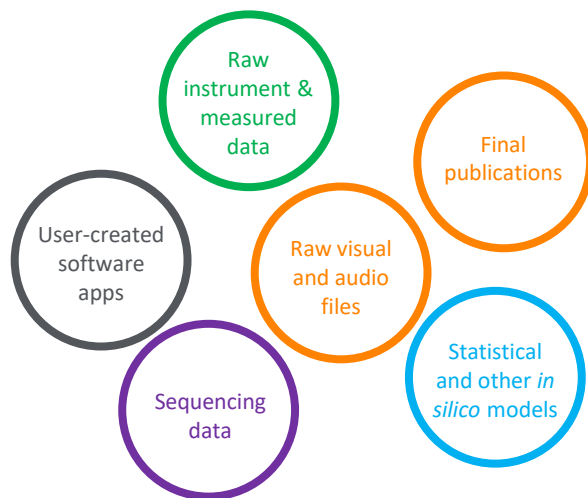
Integrative

Manufacturing defects cause compounding costs and waste. How can *virtual production* attain on-demand, zero-defect outcomes?
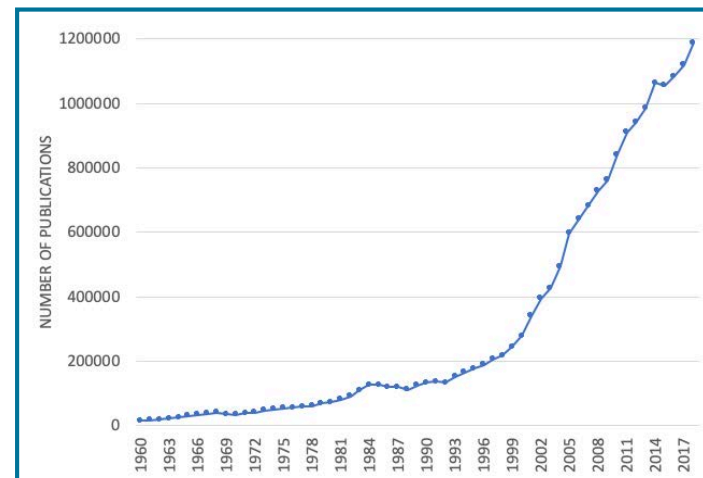
Data compromised by security breaches more than doubled in 2017 compared to 2016. How can computer systems guarantee privacy & security in a globalized economy?

How do you gather the knowledge needed to solve these complex problems?

Increasingly open, diverse information is difficult to assimilate and assess

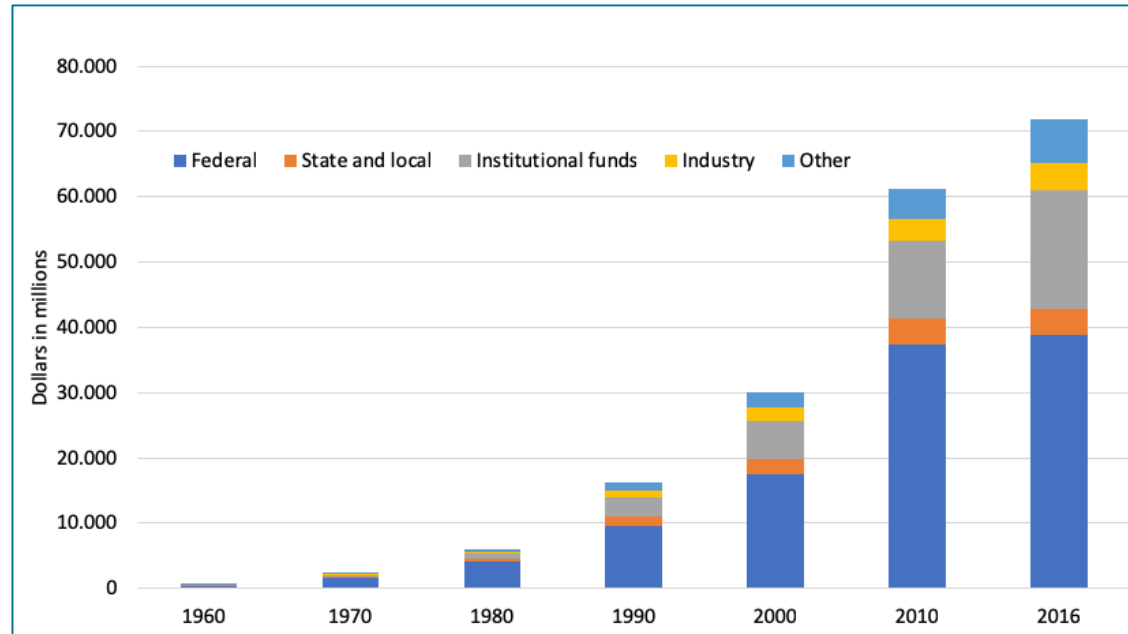**Available data and information come in diverse types and formats**

Source: Engineering Village

Rapidly growing number of engineering publications

How do you ensure that research is based on high-quality information?

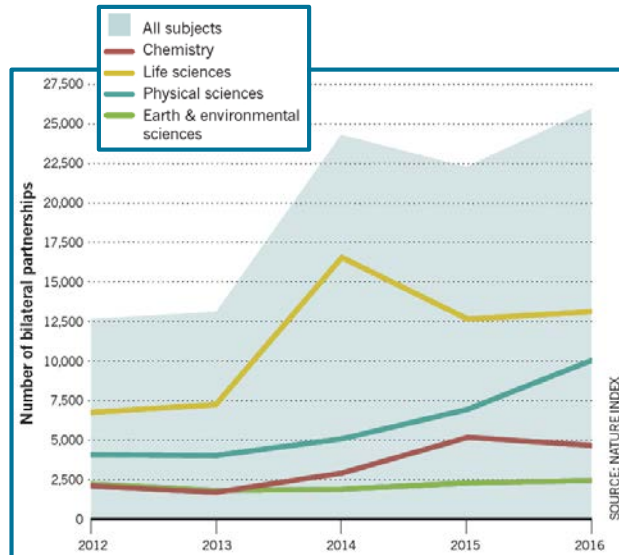# Research funders have diversified and often have specific priorities

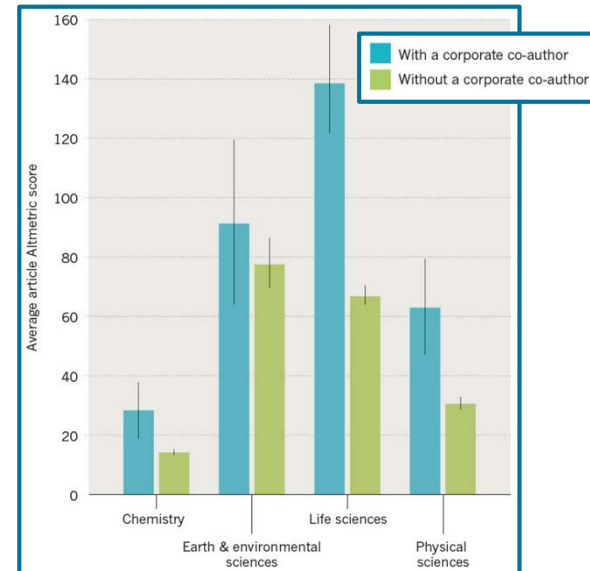Source: U.S. National Science Foundation

Federal funding gap filled by industry and other sources

How do you position a research program to match priorities of funders?

Academia-industry collaborations are increasingly common and impactful

Source: nature Index 2017. A firm shift.

Marked rise in academic-industry collaborations

Papers co-authored by academic and corporate researchers in 2016 were more widely publicized

How do you find collaborators to boost research visibility and impact?

Successfully navigating these trends ensures relevance of research and teaching programs

IN ORDER TO:	YOU NEED TO:
1 Solve today's complex problems (globalized, integrative, multidisciplinary)	• Learn about new areas & applications • Get up to speed on new topics • Explore interdisciplinary interfaces
2 Build research on solid foundational knowledge and high-quality insights and innovations	• Stay abreast of developments • Find relevant standards & best practices • Employ data to drive decisions
3 Identify and construct research projects that match funding priorities	• Extract trends in research & applications • Identify and vet white spaces • Review funding sources of published work
4 Find collaborators to boost the reach, quality and impact of research	• Examine research interests & direction • Review author or affiliation publications • Visualize impact of published work

Engineering Village™

HELPS SUCCEED WITH:

QUALITY CONTENT

Empower researchers, faculty and students with high-quality, comprehensive knowledge about engineering and its applications

TOOLS TO EFFICIENTLY CONSUME INFORMATION

Enable fast and efficient assessment of global engineering literature, whether for targeted questions or systematic review

POWERFUL ANALYTICS

Provide the tools to examine trends, identify novel areas of impact, connect research with funding priorities and build collaborations