

5 Programs That Should Be On Your Radar for 2021

January 2021

www.GrayAssociates.com

Esports



Autonomous Vehicles



Quantum Computing



Cannabis



Microbiome



Today's Presenters

GRAYASSOCIATES

Bob Atkins, CEO



Ned Caron,
Marketing Director



Lisa Piatek,
Regional Vice President



Pete Morton
Reg. Vice President



Monica Bilson
Analyst/Writer



Jamie Allsbury
Business Dev

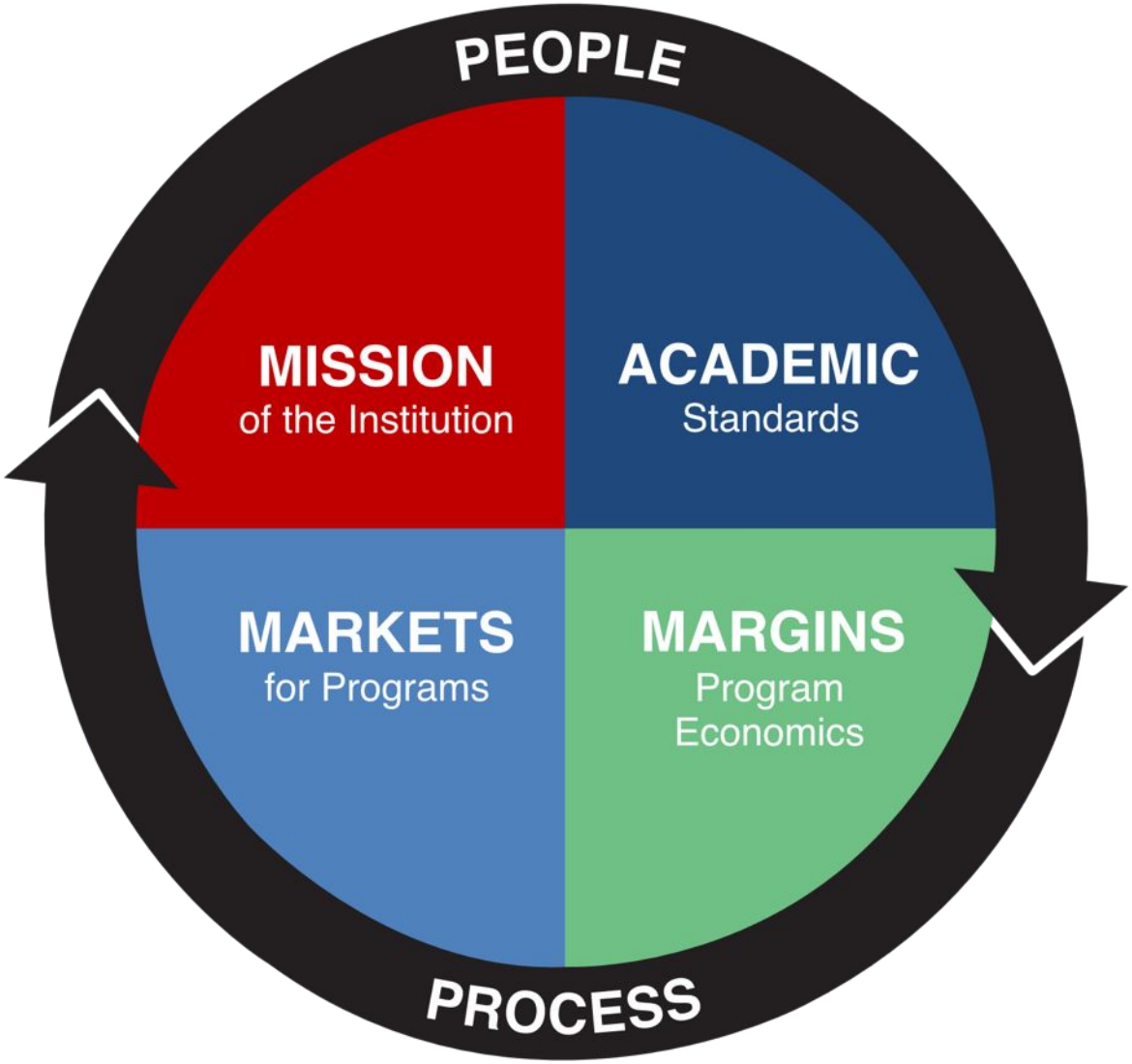


Matt Colbert
Business Dev



Who is Gray Associates?

GRAYASSOCIATES



Evaluating the potential of emerging programs is an art and a science.

- Truly new fields are not yet in traditional taxonomies such as CIPs and SOCs.
  - Often do not fit into existing fields
  - Not yet counted in education and employment data
- Emerging areas are often cross-disciplinary – so they are difficult to classify.
- Thousands of discoveries and new concepts might become disciplines.
  - It is not feasible to explore them all.
  - Heuristic screens are required – and error-prone.
- Experts often identify emerging fields, but seldom agree on their promise.
- Sometimes, old programs re-emerge.

Gray uses a wide variety of sources to identify possibilities.























When evaluating a possible emerging field, consider these elements:

Timing

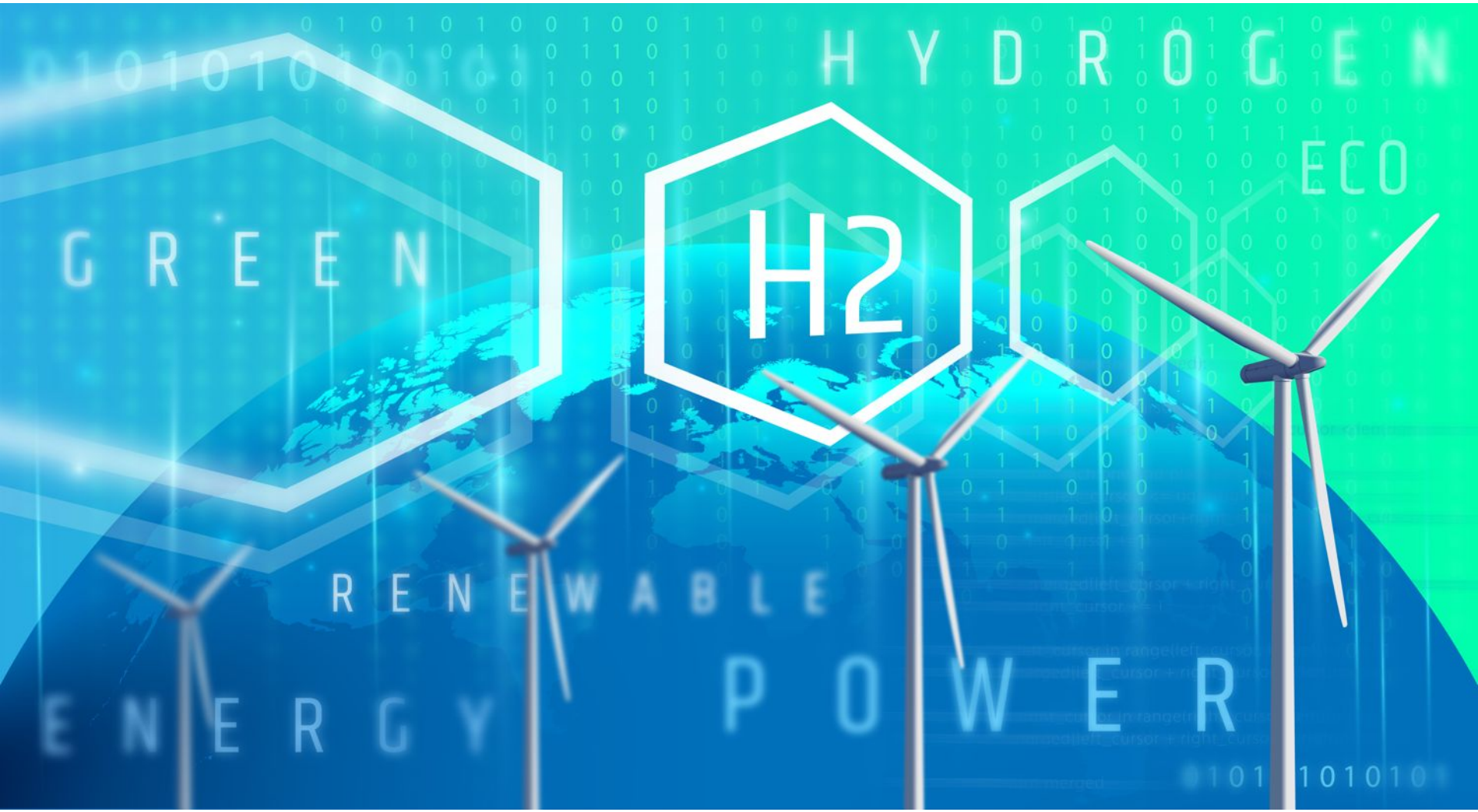
Degree Fit

Size

Difficulty

Mission

Funding


HYDROGEN
ECO
GREEN
H2
RENEWABLE
ENERGY
POWER

What Is It?

The hydrogen economy refers to the use of hydrogen as a source of energy.

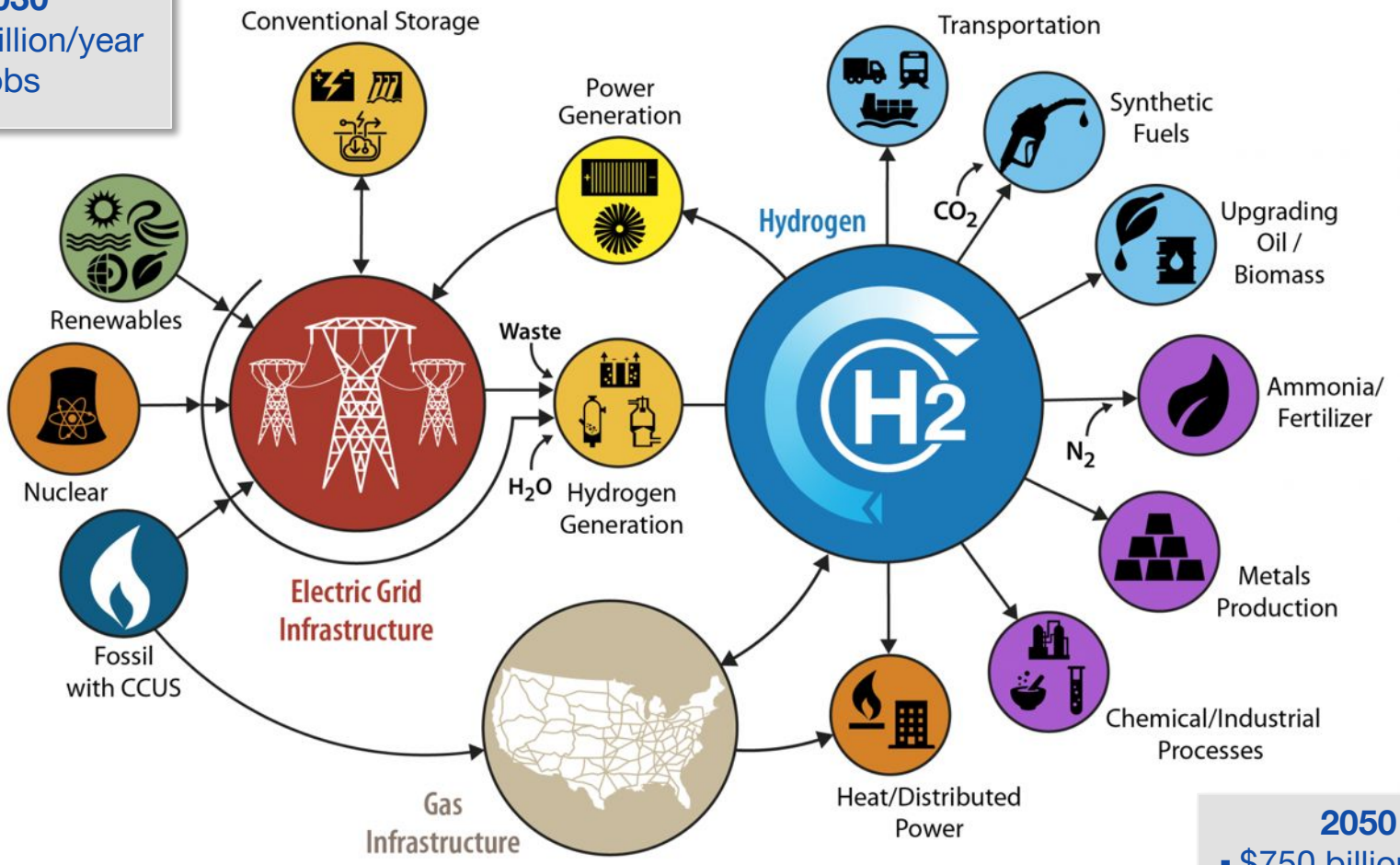
- A fully realized hydrogen economy could **decarbonize** transportation, industry, and buildings.
- The concept is not new, but interest is growing worldwide.
- The **DOE Hydrogen Program** coordinates efforts across government agencies to advance hydrogen research.
- The **Hydrogen Council** is a CEO-led global initiative to accelerate commercialization of hydrogen and fuel cells.



Source: https://www.energy.gov/articles/energy-department-announces-approximately-64m-funding-18-projects-advance-h2scale; https://www.idtechex.com/fr/research-article/why-are-we-still-talking-about-hydrogen-economy-and-fuel-cells/20864

Applications are wide ranging and potentially transformative.

2030
- $140 billion/year
- 700k jobs



2050
- $750 billion/year
- 3.4 million jobs

Source: https://www.energy.gov/eere/fuelcells/h2scale

Significant obstacles must be addressed to fully realize the hydrogen economy.

Hydrogen embrittlement creates barriers for storage, transportation, and engine equipment.



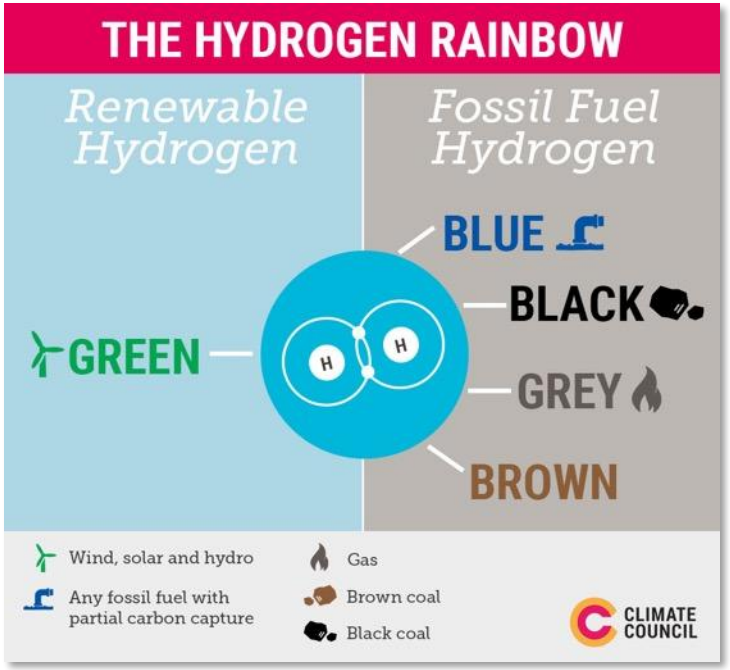
Production technologies are evolving; many still produce carbon emissions.

Engines and other equipment that effectively use hydrogen as fuel must be fully developed.

Infrastructure: Large-scale capital investments will be required to retrofit existing infrastructure or build new.

Safety: Hydrogen is highly reactive with oxygen.

Codes, standards, and **policies** need to be developed and implemented.



Sources: https://twitter.com/timinclimate/status/1263409355581353984/photo/1; https://en.wikipedia.org/wiki/Hydrogen_embrittlement; Roadmap to a US Hydrogen Economy:https://static1.squarespace.com/static/53ab1feee4b0bef0179a1563/t/5e7ca9d6c8fb3629d399fe0c/1585228263363/Road+Map+to+a+US+Hydrogen+Economy+Full+Report.pdf

Jobs Right Now

Hydrogen Economy Application Developer

Chemours is seeking an Hydrogen Economy Application Development Manager to join our growing Hydrogen Economy Venture Team. Lead a team of application development engineers that support the sale of existing and new products in support of the global hydrogen ecosystem. Work closely with R&D and Operations for production campaigns of prototype or precommercial products

Qualifications: MS degree or PhD in Engineering, Material Science, Chemistry, or related field or equivalent experience. 10+ years experience with new product or process development of fluoromaterials at commercial scale.

Corporate Counsel Patents - Hydrogen

We are looking for a Corporate Counsel Patents - Hydrogen to join our team specializing in Patents and Fuel Cells for Cummins Legal. Cummins is investing heavily in power train electrification and is now the number one global provider for hydrogen fuel cells for locomotives. Fuel cells form a key part of our portfolio of solutions for a carbon neutral future. Research, evaluate and advise management and other attorneys on recent or prospective changes in laws and regulations...

Qualifications: Bachelors in Electrical Engineering, Chemical Engineering, Mechanical Engineering (or similar degree) required. JD degree or equivalent. Intellectual property legal experience, 5+ years in a manufacturing organization, law firm, government, in-house or a combination.

Hydrogen Infrastructure Analysis Lead

NRELs Mobility Infrastructure and Impacts Analysis (MIIA) group in the Center for Integrated Mobility Sciences (CIMS) is seeking an accomplished and hydrogen vehicle and infrastructure researcher for a hydrogen analysis lead role. The MIIA group analyzes and models advanced vehicle infrastructure and integrated behind-the-meter energy systems to answer research questions for various federal and state clients.

Qualifications: PhD in Chemical Engineering, Mechanical Engineering, Economics, or related field – or - Master's Degree in Chemical Engineering, Mechanical Engineering, Economics, or related field and 3+ years of relevant experience. – or - Bachelor's Degree in Chemical Engineering, Mechanical Engineering, Economics, or related field and 5+ years of relevant experience.

Class A CDL Driver, Hydrogen

Team and solo drivers to haul compressed gas and liquid hydrogen to industrial gas and cryogenic customers.

Qualifications: High school diploma or equivalent preferred. 3+ years verifiable CMV experience required. Valid Class A CDL with Tanker and Hazmat endorsements

Hydrogen Technician

Responsible for performing a wide range of duties relating to installing, troubleshooting, repairing, and maintaining facility equipment within the Hydrogen Plant facility

Education and Experience: High school diploma or equivalent; vocational education/training is preferred

Source: Gray Associates Job Postings Dashboard

Jobs of the Future?

	R&D, Engineering, and Manufacturing	Operations and Management	Communications, Training, and Outreach
Advanced	▪ Engineering Manager	▪ Finance Manager ▪ Project Developer ▪ Attorney ▪ Regulatory Expert ▪ Economist ▪ Site/Plant Mgr ▪ Asset Manager ▪ Budget Analyst	▪ Communication Manager ▪ Professor
Mid-level	▪ Chemical Engineer ▪ Materials Scientist ▪ Environmental Scientist ▪ Software Engineer ▪ Civil Engineer ▪ Research Engineer ▪ Environmental Engineer ▪ Electrical Engineer ▪ Mechanical Engineer	▪ Project Manager ▪ Safety & Occ Health Specialist ▪ Computational Scientist ▪ Buyer ▪ Industrial Engineer ▪ Power Systems/ Transmission Eng'r ▪ Sales Engineer ▪ Power Marketer ▪ Logistician	▪ Public Affairs Specialist ▪ Editor ▪ Writer
Entry	▪ Electrician ▪ Instrumentation/Electronics Technician ▪ Advanced Manufacturing Technician ▪ Assembler and Fabricator ▪ Comp Numerical Control (CNC) Oper ▪ Plant Operator ▪ Industrial Equipment Mechanic	▪ Legal Assistant ▪ Salesperson ▪ Trade Worker ▪ Construction Worker ▪ Transportation Worker	▪ Education Aide

Source: https://www.energy.gov/eere/fuelcells/hydrogen-and-fuel-cells-career-map

University of South Carolina
College of Engineering and Computing
Hydrogen and Fuel Cell Center



Stanford | Bulletin
ExploreCourses

Stanford | Natural Gas Initiative
School of Earth, Energy & Environmental Sciences and Precourt Institute for Energy

ENERGY 205: Hydrogen Economy

This is a seminar course on the hydrogen economy as a critical piece of the global energy transformation. This course will introduce the unique characteristics of hydrogen, its potential role in decarbonizing the global energy system, and how it compares to other alternative and complementary solutions. We will cover the main ideas/themes of how hydrogen is made, transported and stored, and used around the world through a series of lectures and guest speakers.

Terms: Win | Units: 1

Instructors: Benson, S. (PI) ; Boness, N. (PI) ; Chen, J. (PI) ; Zheng, X. (PI)

Schedule for ENERGY 205

UNC CHARLOTTE
ENGINEERING TECHNOLOGY AND CONSTRUCTION MANAGEMENT
The William States Lee College of Engineering

HYDROGEN FUEL CELL LABORATORY

Sources: https://ngi.stanford.edu/content/research/hydrogen-economy; https://new.utc.edu/engineering-and-computer-science/research-and-labratories/cete/hydrogen-powered-transportation; https://www.sc.edu/study/colleges_schools/engineering_and_computing/research/research_centers_and_institutes/hydrogen_fuel_cell_center/index.php; https://et.uncc.edu/about-us/facilities-equipment-and-infrastructure/mechanical-engineering-technology-laboratories-and

Public Health



What Is Old Is New Again

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How Coronavirus Spotlights Public Health Majors

The COVID-19 pandemic promises to intensify the appeal of this hot field and its growing array of programs at the college level.

Pandemic drives surge of interest in public health field

'Fauci Effect'

Pandemic's ravages kindle interest in public health

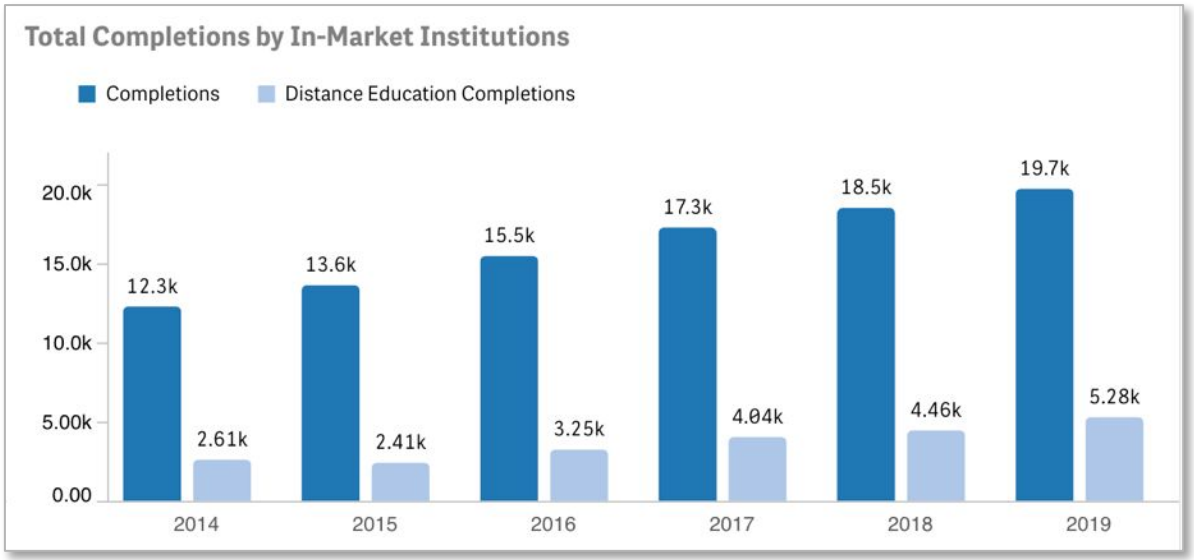
WMU says COVID-19 pandemic sparked students' interest to study public health

A Unique Opportunity?

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Completions of Public Health programs **increased 61%** from 2014 to 2019.

- Master's programs accounted for over half **(54%)** of 2019 completions.
  - 31 net new entrants
  - Average program grew to **47 completions**.
- The fastest growth has been at the bachelor's level (**+142%** from 2014 to 2019).
  - 90 net new entrants
  - Average program size fell slightly to **49 completions**.
- Online completions (all award levels) increased **103%.**
- 13 new Public Health programs were announced in 2020.



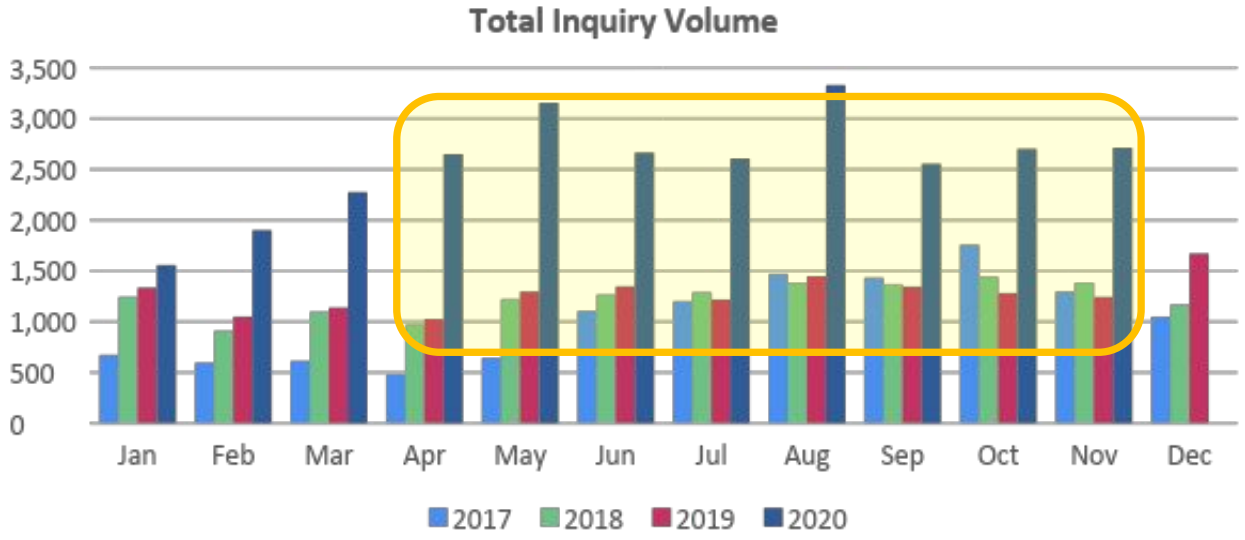
61%

Source: Gray Associates Program Evaluation System Plus

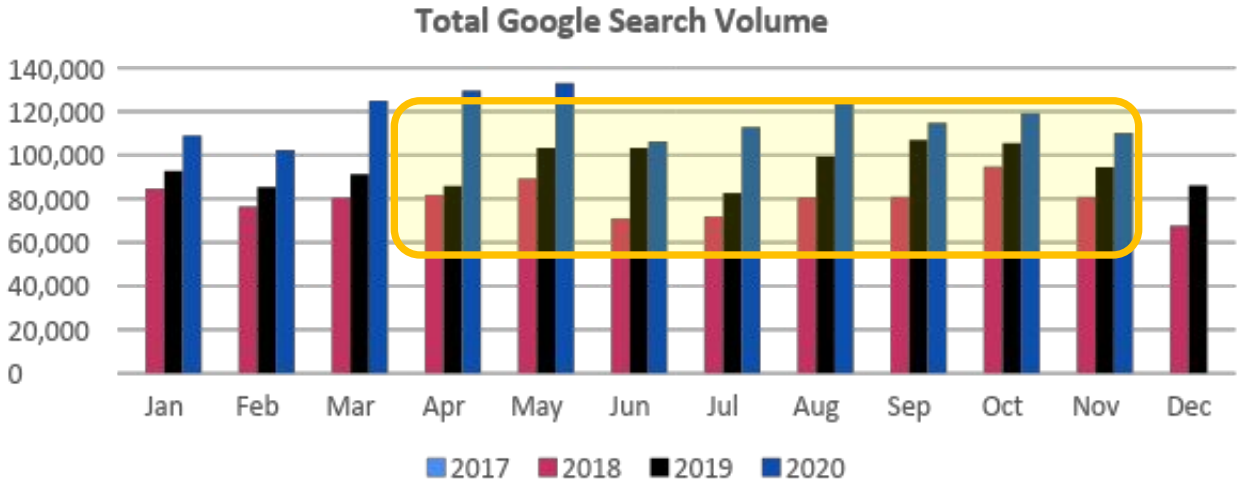
A Unique Opportunity?

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Inquiries and keyword searches rose by double digits in 2020.



- Student inquiries are up **119%** YoY* in 2020.



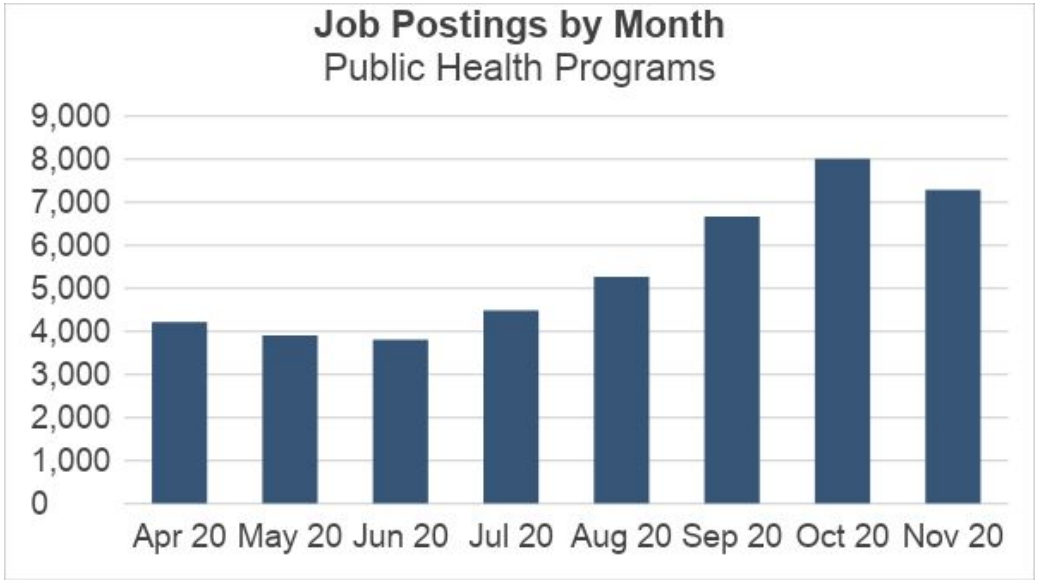
- Google keyword searches are up **22%** YoY* in 2020.

*April-Nov 2019 versus April-Nov 2020
Source: Gray Associates Keyword Search Dashboard and Student Inquiry Dashboard

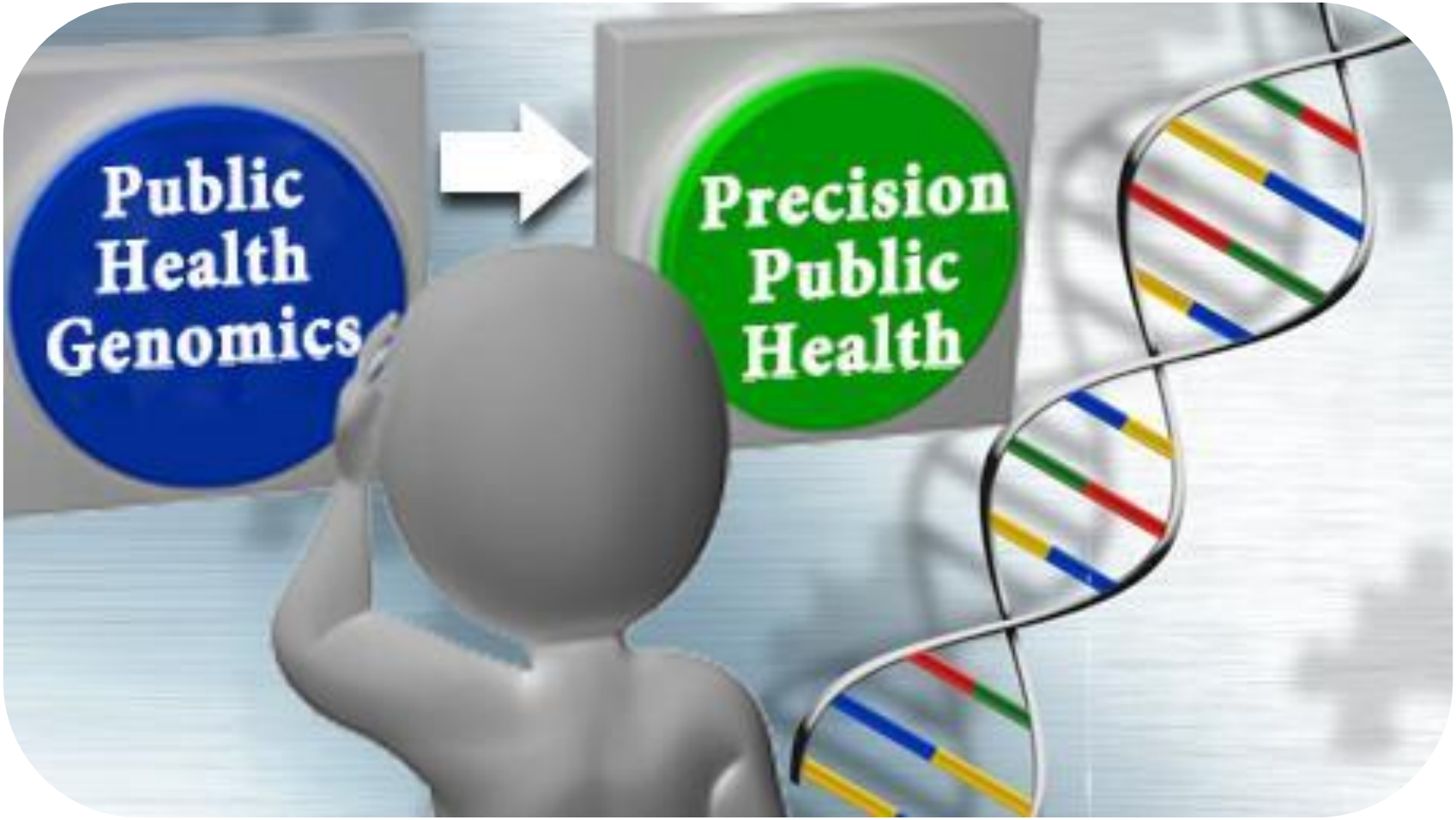
Demand for public health workers is also expected to grow.

A deficit of more than 250,000 public health workers is no way to fight Covid-19

Tyson joins growing list of companies hiring chief medical officers amid pandemic



Source: https://thehill.com/business-a-lobbying/530379-tyson-joins-growing-list-of-companies-hiring-chief-medical-officers-amid; https://www.statnews.com/2020/04/05/deficit-public-health-workers-no-way-to-fight-covid-19/;

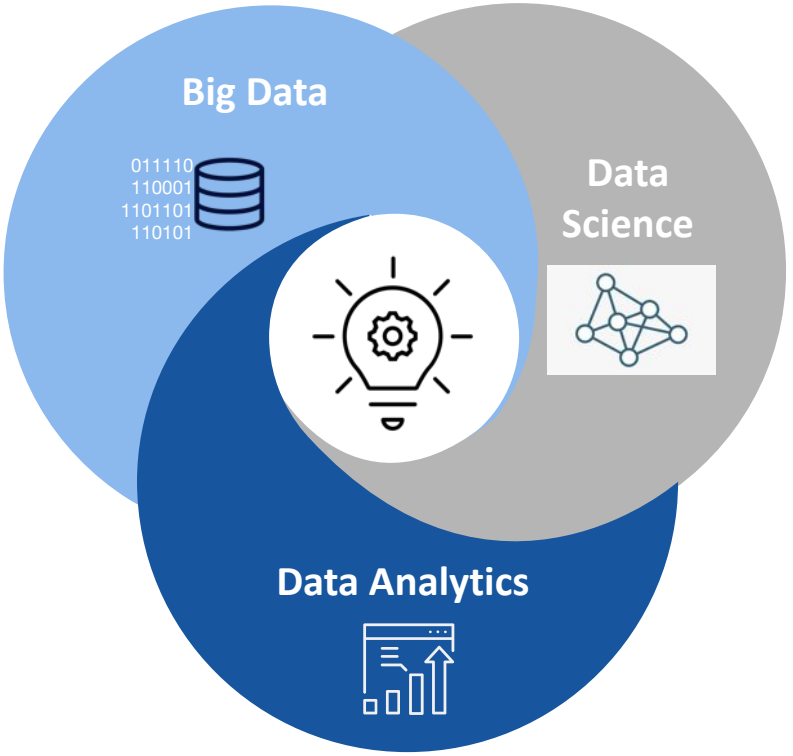


Source: https://blogs.cdc.gov/genomics/2019/02/19/public-health-genomics-whats-next/


ANALYTICS DASHBOARD
Last Updated:
3 min ago
92%
Data Availability
More info
95%
Actual vs Target
More info
Evolution
Metric
Actual vs Target
Actual
Target
Revenue
$3.4M
82.0%
Profit
$1.2M
108.7%
Avg. Order Size
$850.3
71.0%
On Time Delivery
96.0%
96.0%
New Customers
15432
145.0%
Cust. Satisfaction
98.3%
Market Share
46.9%
Products positioning
6.0
4.5
3.0
1.5
65
70
75
80
85
Sales per countries
Top 10 products
430

Data analytics refers to the process of analyzing raw data to turn it into useful information.

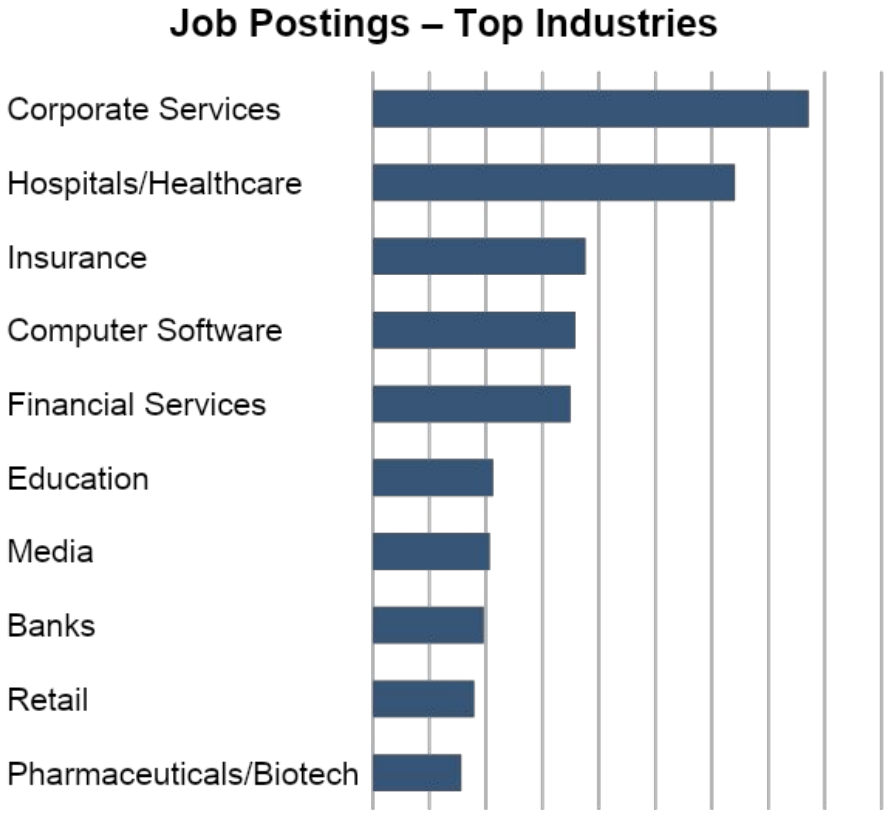
- Data analysts work with **well-defined datasets** to identify patterns and trends, glean insights, solve problems, and make decisions.
- Their work often involves creating charts, data dashboards, and other visualizations.
- Data science, big data, and data analytics are interrelated, but data analytics may appeal to a broader audience of prospective students.



Source: https://www.northeastern.edu/graduate/blog/data-analytics-vs-data-science/; https://www.investopedia.com/terms/d/data-analytics.asp

The employment outlook for data analysts is strong.

- Over 12,000 jobs were posted from March through November 2020.
- Jobs were posted across industry sectors.



- Required skills include database management, programming, and visualization.
- Domain knowledge and communication also important.



Source: Gray Associates Job Postings Dashboard and Public Insights database


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AI SIMPLIFIED




H2O.ai


Google

Data analytics programs are hot, and increasingly specialized.

- 24+ new programs announced in 2020.
- Programs are offered across award levels.
- They appeal to a wide range of prospective students.
- New CIP codes for 2020 suggest growing interest and verticalization.
- Competition is growing and includes MOOCs and non-Title IV competitors.

New 2020 CIP Codes
30.7101 **Data Analytics, General**
30.7102 **Business Analytics**
30.7103 **Data Visualization**
30.7104. **Financial Analytics**
30.7199 **Data Analytics, Other**

University of Central Florida: Travel Technology and Analytics, MS

- Courses taught by faculty in the College of **Engineering and Computer Science** and Rosen College of **Hospitality Management**
- 30 credits
- $327/credit in-state
- $1,152/credit out-of-state

CAREER OPPORTUNITIES

- Business Analyst
- Consumer Insights Manager
- Lead Data Analyst
- Senior Data Integration Analyst
- Solution Architect

Influence the use of technology and analytics to impact the travel industry

Technological advances have changed the way we travel, creating more interactive and exciting experiences than ever before. The leisure and tourism industry is going through a metamorphosis from being wideley driven by customer service to widening its dependency on the tools and resources used to make those services convenient. Forge a forward-thinking career and stay ahead of these rapid changes with an online MS in Travel Technology & Analytics.

Through UCF Online, you will gain knowledge that prepares you to work at the intersection of emerging technologies and the travel industry. With an interdisciplinary curriculum, you'll learn how to contribute to emerging research and practices encompassing engineering, science, and management contextualized by the global travel industry. Develop skills in data science and analytics, complex travel systems and strategic problem-solving.

The first of its kind in the nation, UCF's Travel Technology & Analytics program provides students access to experiences from one of the top tourist destinations in the world. By learning through award-winning faculty from both UCF's College of Engineering and Computer Science and Rosen College of Hospitality Management, which is ranked No. 4 in the world for hospitality education by *CEOWorld* magazine, graduates will leave ready to accept high-level travel technology jobs that influence the industry globally. Get started today to set yourself apart as a leader in this innovative industry.

Source: https://www.ucf.edu/online/degree/travel-technology-and-analytics-ms/; https://catalog.ucf.edu/preview_program.php?catoid=17&poid=7955&hl=%22travel%22&returnto=search

Duke University: Master of Science in Quantitative Management: Health Analytics

Business analytics for healthcare professionals

- Offered by Fuqua School of Business
- Targeted to healthcare professionals
- Curriculum includes business fundamentals, policy, and analytics
- "bridges the gap between collecting data and translating it into actionable results"

Go beyond the numbers

The online Master of Science in Quantitative Management: Health Analytics program provides the business fundamentals, industry context, and advanced data analytics needed for better decision-making within health organizations. Designed for health professionals and leaders with a passion for improving efficiency and quality of care in their fields, our master's program puts you at the forefront of a discipline that will enable health organizations to positively transform operations, efficiency, cost of care and patient outcomes.

Transform your career with health analytics

As the health sector confronts policy reforms and the transition from rewarding volume of care to value of care, earning your health analytics master's degree will help you learn to derive actionable insights from data and how to use this data effectively and ethically. With your new mastery of analytics, you'll be positioned to drive your organization's use of data and stay at the forefront of analytics-driven innovation.

Source: https://www.fuqua.duke.edu/programs/msqm-health-analytics/

North Carolina State: Learning Analytics Graduate Certificate

- 12 credits, online
- Credits can be applied to Learning Design and Technology master's or doctoral programs

As the use of digital resources and tools continues to expand in education, the volume and variety of data now available presents new opportunities for understanding and improving student learning. This new online program will help education researchers and practitioners learn how to efficiently, effectively and ethically leverage this data.



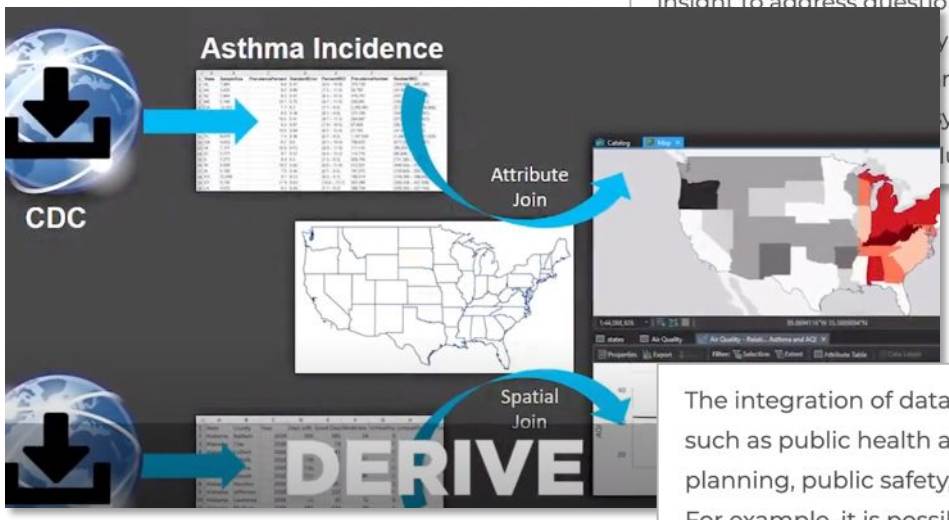
Applied experience using programming (R and RStudio) or non-programming software (Tableau) to explore and model real-world education data

Source: https://ced.ncsu.edu/graduate/programs/certificate/learning-analytics/

Saint Mary's University of Minnesota: M.S. in Data Intelligence and GeoAnalytics

- 36 credits
- $650/credit
- Graduate certificate available

The Master of Science in Data Intelligence and GeoAnalytics is a technology-enriched 36-credit graduate degree. The degree is intended to prepare learners with a solid foundation of hands-on technology to leverage new, exciting approaches in analytics and intelligence fields: 1) data acquisition, 2) data engineering, 3) principles of data science, and 4) geoanalytics and visual intelligence. These key areas are designed to provide a solid foundation in understanding technology, data development, data analysis, research, decision making, and presentation/communication skills vital for organizational effectiveness. Data intelligence provides insight to address questions about data: where to find it, how to assess it, what it means, how to y it, how to create meaning from it, how to leverage it for decision making, nalytics provides a powerful combination of information and analytics with ystems (GIS) to meet growing demands sought after in today's market of lutions.



The integration of data intelligence and geoanalytics is ideal for a wide range of data-rich fields, such as public health analytics, natural resource management, business applications, urban planning, public safety, public policy, political science, demographics, and government applications. For example, it is possible to assess impacts to healthcare populations by forecasting illness or disease outbreaks, such as influenza, that will escalate in geographic areas. Evaluating data intelligence on how outbreaks will respond makes it easier to strategize localized planning logistics for providing vaccines. In learning how to couple GIS technology with growing data intelligence capabilities, graduates will be more versatile in integrating technology and data science platforms, addressing issues, and solving real-world problems to generate more informed perspectives in decision making.

Source: https://www.smumn.edu/academics/graduate/business-and-technology/masters-programs/m.s.-data-intelligence-and-geoanalytics

Space Commercialization

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An Off-Planet Economy

- SmallSats: telecommunications and payloads
- Asteroid mining
- Space tourism
- Military defense
- Small launch rockets
- Space investing
- Big data



A $1.1 trillion-dollar (or more) industry by 2040

"In many ways, the space industry is at a similar stage today as the internet was in the mid-1990s." – Space Angels

Space: The Province of Billionaires

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The commercial sector accounts for **80%** of global space activity.

1986 — US Commercial Space Launch Act

Federal law to facilitate private enterprise of commercialization of space technology.

2003 — First CubeSat Launch

CubeSat rolls out the "nanosatellite," a cheaper satellite technology for commercial launches.

2010 — First Hayabusa Mission

Japan returns over 1,000 pieces of an S-type asteroid to Earth.

2017 — Space Capital Investment

Venture capital startup focusing exclusively on space technologies declares the 2010s as the "entrepreneurial space age."

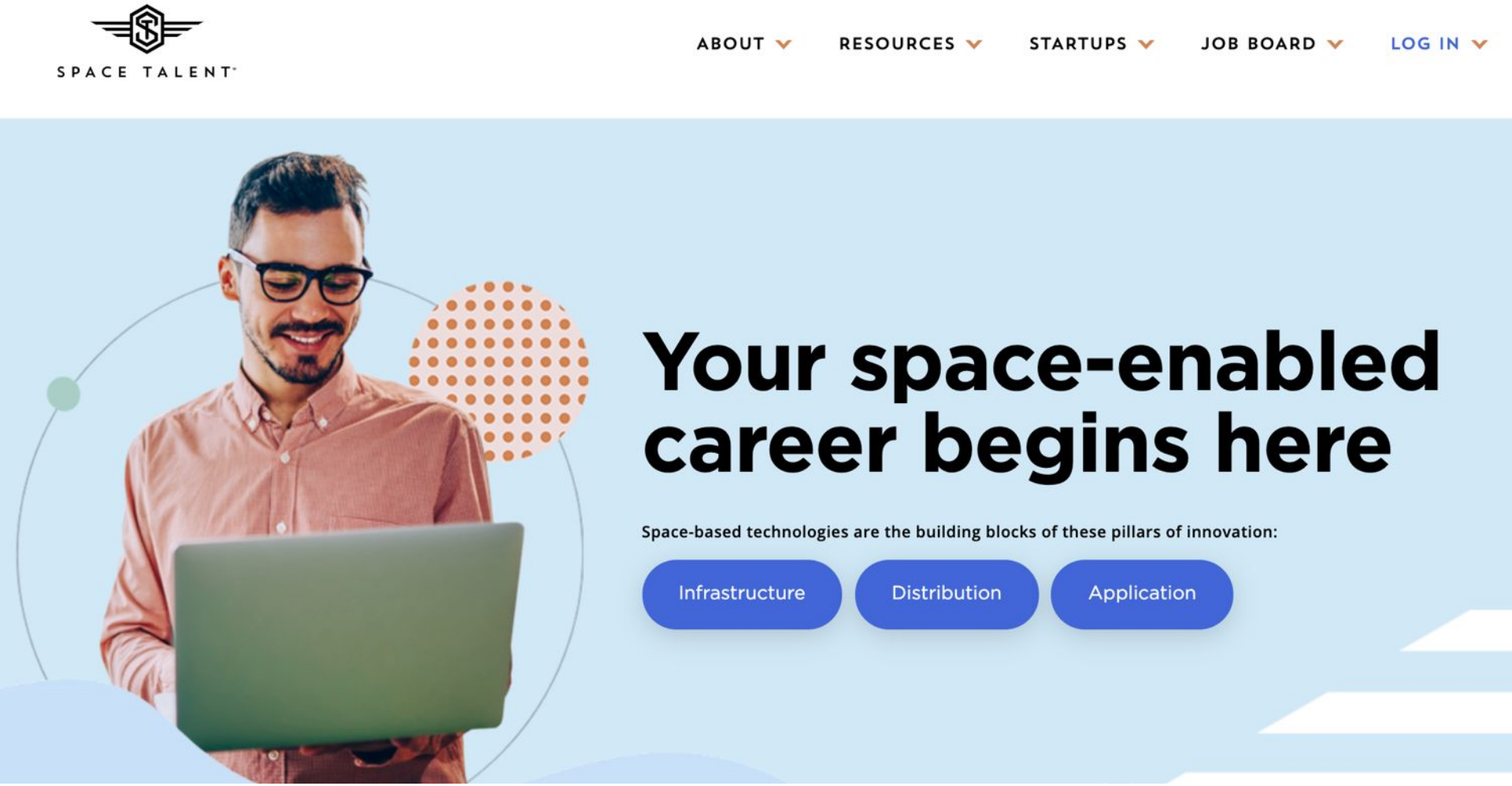
2020 — Starship Test Launch

SpaceX's Starship runs a successful high-level test. "Mars, here we come!"



But who owns the moon, asteroids, and other resources?

Space job boards like Space Talent list thousands of jobs in diverse fields.



Jobs Right Now

Production Planning and Control Specialist

As the Production team's first Planning and Control Specialist, you will be responsible for program planning and scheduling within a fast-paced group, developing the systems and supporting infrastructure required to launch the first 3D printed rocket in orbit.

The ideal candidate will be the Production Managers "partner in crime will lead the way we go about scheduling and coordinating milestones. ensure drawing release burn down schedules match up and that part orders align with the build schedule.

Education: Minimum of a Bachelor's degree in Finance, Business or Pr Management.

Program Manager - Space Resilience and Survivability

Manage development programs within the Space Resilience and Survivability (SRS) area of the National Defense (ND) business unit. ND develops cutting edge payloads, spacecraft and satellite systems for US Government customers. SRS role is to develop architectural and technical approaches to protect these essential systems from hostile action, allowing them to survive and operate through any attack.

Education: BS/BA in related field plus 12 years or more related experience. Each higher-level degree, i.e., Masters Degree or Ph.D., may substitute for two years of experience. Degree in engineering or physics preferred.

Space Exercise Systems Software Engineer

Perform software engineering for ISS (International Space Station) crew exercise systems software, including implement software per requirements, designing and implementing code changes, performing testing and verification, and supporting roll-out of new software to users

Required Education/Experience/Skills: BS degree in engineering from an accredited engineering school. Experience with programming Languages: C, C++, C#, Java, Python, MATLAB, VHDL Application Software: LabVIEW, Eclipse IDE, Microsoft Visual Studio, I2C/SPI Interfacing. Operating Systems: Windows, Linux

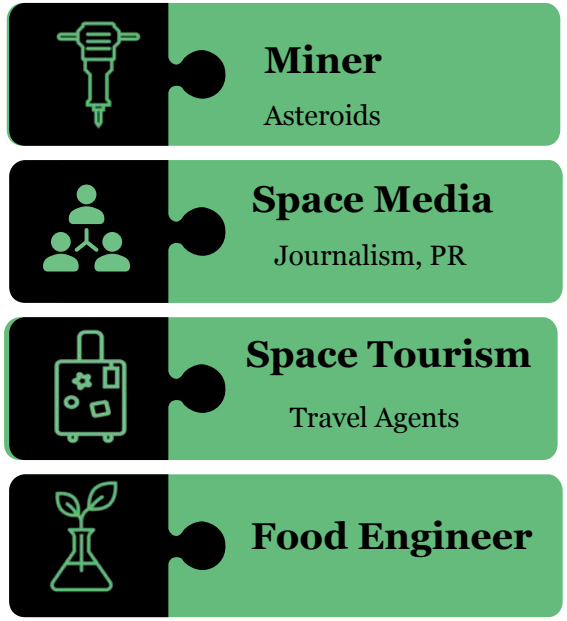
Source: Gray Associates Job Postings Dashboard and SpaceX Careers

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Current Jobs



Future Jobs



New programs and modifying existing programs.

A handful of programs in space commercialization offer graduate degrees and certificates, but in the future, they may be opportunities for concentrations in associate and bachelor-level programs.

Associate:

- Avionics Tech
- Welding

Bachelor's:

- Accounting
- Communications
- Public Relations
- Biology
- Engineering
- Physics and Astronomy
- Climatology
- Pre-law
- Business and Entrepreneurship



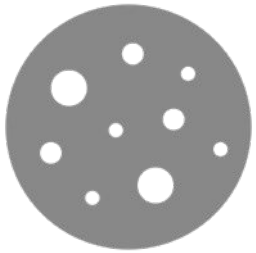




COLORADOSCHOOLOFMINES
EARTH • ENERGY • ENVIRONMENT

Space Resources - Post-Baccalaureate Certificate, Master of Science, Ph.D.

"The first program in the world focused on educating scientists, engineers, economists, entrepreneurs, and policy makers in the developing field of space resources."



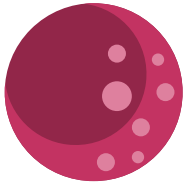
Power and Energy



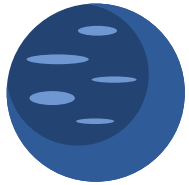
Space Systems Engineering



Economics and Policy



Robotics, Autonomy, Communications



Resource Extraction, Material Processing and Refining

Source: https://space.mines.edu/

EMBRY-RIDDLE Aeronautical University
DAYTONA BEACH, FLORIDA

BACHELOR OF SCIENCE IN Spaceflight Operations

- Non-engineering degree program with specializations in:
  - Space Policy
  - Operations Science and Technology
- Offered at Daytona Beach campus

The Bachelor of Science in Spaceflight Operations program opens a doorway into one of the newest and most innovative non-engineering fields in the aerospace industry. This unique program focuses on **policy, operations, safety, training, human factors, and planning elements of commercial and private space operations.**

Source: https://und.edu/programs/space-studies-ms/index.html

Truth and Disinformation

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Source: https://bfpg.co.uk/2020/05/disinformation-coronavirus/

Dis·in·for·ma·tion *(noun)*

False information deliberately and often covertly spread (as by the planting of rumors) in order to influence public opinion or obscure the truth

"reject the evidence of your eyes and ears"

- George Orwell, 1984

"the Pearl Harbor of the social media age"

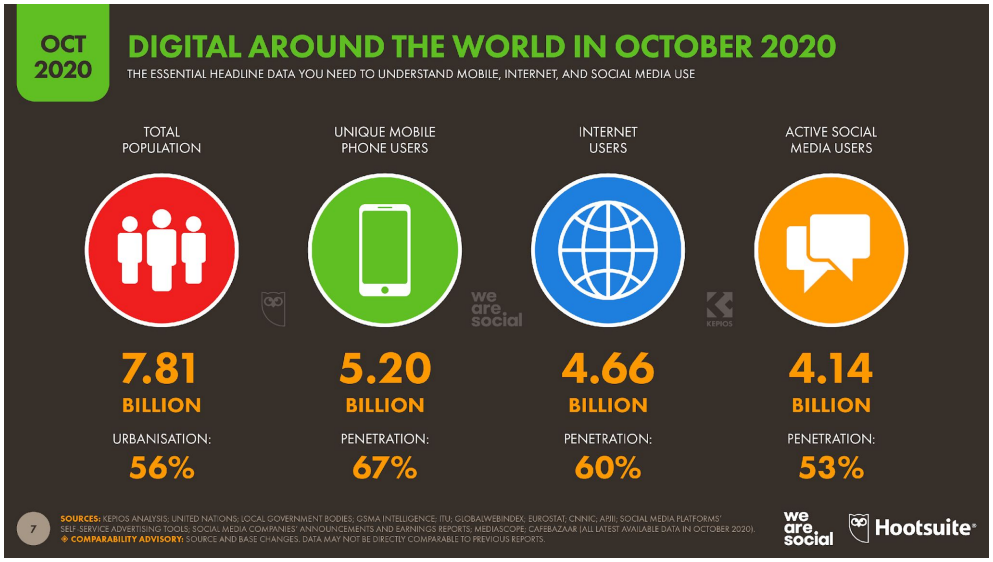
- The New York Times

"The 'Pandemic' of Disinformation in COVID-19"

- National Institutes of Health

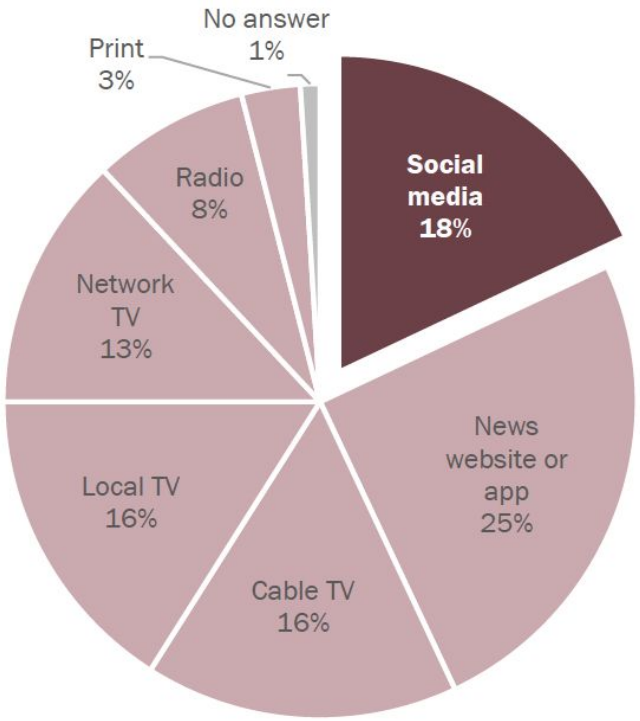
Source: https://www.merriam-webster.com/dictionary/disinformation; https://www.freep.com/in-depth/news/politics/elections/2020/12/02/michigan-truth-2020-election/6448633002/

- Over half the world is on social media.
- More people get their news from social media and other digital sources than ever before.
- Anyone can create and distribute digital content.
- Algorithms drive content that often confirms pre-existing biases.



About one-in-five U.S. adults say they get their political news primarily through social media

% of U.S. adults who say the most common way they get political and election news is ...



Source: Survey of U.S. adults conducted Oct. 29-Nov. 11, 2019. "Americans Who Mainly Get Their News on Social Media Are Less Engaged, Less Knowledgeable"

PEW RESEARCH CENTER

Anatomy of a Disinformation Campaign

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RECON	**"Find the Cracks"**	**Analyze Target Audience** **Analyze Info Environ** **Design Execution Plan**
BUILD	**"Weaponize"**	**Computing Infrastructure** **Prepare Environment** **Activate Personas**
SEED	**"Launch Campaign"**	**Design Content** **Select Initial Drop Points** **Deliver Content**
COPY	**"Fertilize"**	**Article About Original Post** **Share or Retweet** **Duplicate via Other Accts**
AMPLIFY	**"Watch it Grow"**	**Inauthentic Accounts** **Useful Idiots** **Authentic Voices**
CONTROL	**"Manipulate"**	**Incite Conflict** **Manufacture Consensus** **Deny Involvement**
EFFECT	**"Harvest"**	**Actions on Objective** **Desired Target Behavior** **There is No "Truth"**

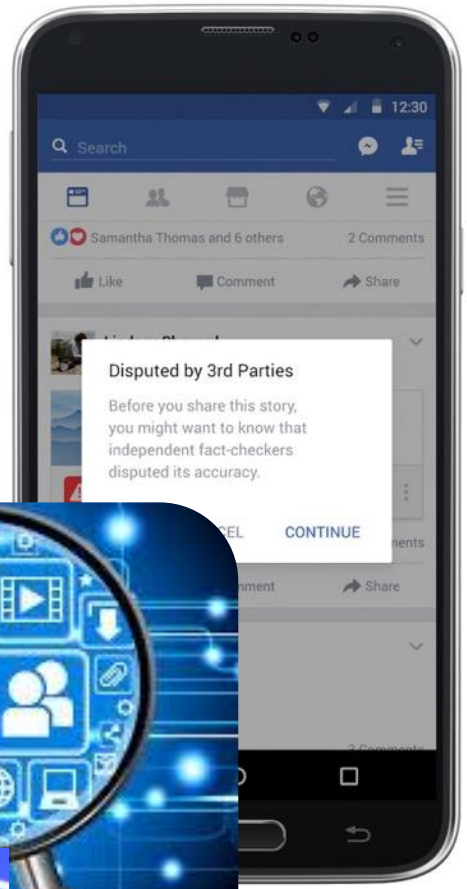


Sources: https://www.dhs.gov/sites/default/files/publications/ia/ia_combatting-targeted-disinformation-campaigns.pdf; https://www.state.gov/wp-content/uploads/2019/05/Weapons-of-Mass-Distraction-Foreign-State-Sponsored-Disinformation-in-the-Digital-Age.pdf

Employment Opportunities

- Fact-Checking
- Social Media Content Moderation
- Digital Forensics
- Communications/Public Relations Managers
- Intelligence Analysts









Job Posting: Fact Check Reporter

USA TODAY is seeking one-year reporting fellow to join its politics team as part of a fact-check program. As part of this program, fellows will fact check messaging by and about politicians and other public figures. Fairness and accuracy are paramount, as are strong writing, excellent news judgment and source building.

Qualifications:

- Bachelor's degree in journalism or any subject in a liberal arts field from an accredited institution.
- Professional reporting experience/internship
- Washington or political experience preferred.
- Strong research skills

Sources: Gray Associates Job Postings Dashboard; https://www.poynter.org; blog.eccouncil.org; theverge.com; docs.Microsoft.com; forbes.com

Implications for Higher Education

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- Research, courses, programs?
- Critical thinking skills
- A variety of disciplines



Samples Courses on Truth and Disinformation:

HARVARD Kennedy School — "Media Manipulation and Disinformation Campaigns"

Henley-Putnam SCHOOL OF STRATEGIC SECURITY NATIONAL AMERICAN UNIVERSITY — "Propaganda and Disinformation"

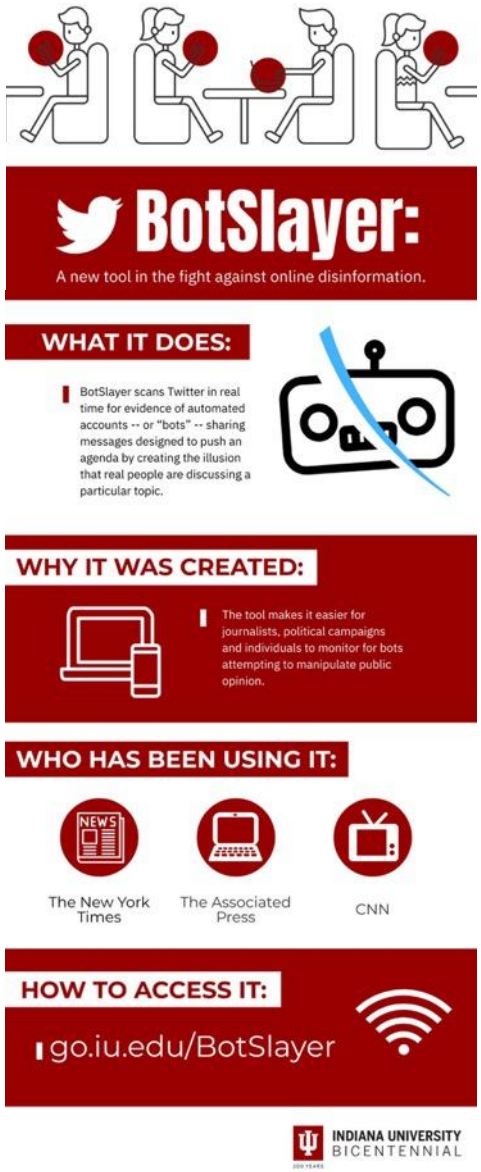
COMMUNICATION COLLEGE OF HUMANITIES AND SOCIAL SCIENCES — "Introduction to Media Literacy"

Source: https://henley-putnam.national.edu/courses/propaganda-and-disinformation/; https://www.hks.harvard.edu/courses/media-manipulation-and-disinformation-campaigns

New $6 million center will investigate media and technology in society

IU's Observatory on Social Media will unite journalists and data scientists in curbing the spread of misinformation online

- Collaboration between the IU School of **Informatics**, **Computing and Engineering**, The **Media School** and the IU **Network Science** Institute.
- "By joining together experts in **journalism** and **data science**, we will be able to not only identify the most significant questions about how information and technology can be manipulated to weaken democracy, but also design and build the sophisticated tools required to attack these questions."
- Preparing to launch a new **master's degree** and **certificate** program in data journalism in the next few years.



Source: https://news.iu.edu/stories/2019/07/iub/releases/22-knight-foundation-observatory-on-social-media.html

Executive Education: Non-Degree Certificate

Data Reasoning in a Disinformation World

GEORGETOWN UNIVERSITY
McCourt School of Public Policy

Course Overview

The public policy process is increasingly relying on evidence-based research and insights. In fact, in times of fast-paced technological progress, data driven political decision-making and policymaking have become the new normal. Although these advances allow for enhanced precision for policy analysis, it also opens the door wider for the fabrication of facts, or what has become to be known as "fake news" or "bull" (Bergstrom and West, 2019). Detecting and dismantling bogus, fake news, and alternative facts is far from trivial. The aim of this course is to teach participants how to detect and dismantle this fabricated information. Basic statistical concepts and practical data reasoning will be used to arm participants with enhanced problem-solving skills and a powerful eye for critical detail. Besides detecting alternative facts, we envision to equip participants with tools and techniques to craft technical assessments without jargon when dismantling fake news.

Target Audience

This course is for leaders in any public or private institution who need to be able to become better versed at policy and information analysis and drawing conclusions based on data and other supporting information.

Course Cost

Regular Tuition: $1,995

Source: https://mccourt.georgetown.edu/executive-education/executive-institute/data-reasoning-in-a-disinformation-world/

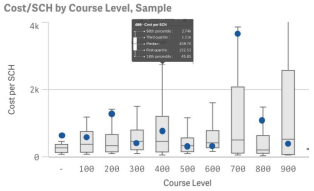
More Than Just Emerging Programs...

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PES+
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Program Economics
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Academic Economics Benchmarking





International Student Demand
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Keyword Search Dashboard
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Student Inquiries Dashboard
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Upcoming Webinars

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Webinar Topic	Date
GrayReports: Monthly Demand Trends Webcast	January 21, 2:00 pm ET
Looking at the Future of Higher Education with Dr. Melissa Morriss Olsen	January 28th
Master Class Series-Gray's 6-part Masterclass series on Best Practices in Program Decision-Making: ***Part 1 Understanding Student Demand***	Feb 11th

