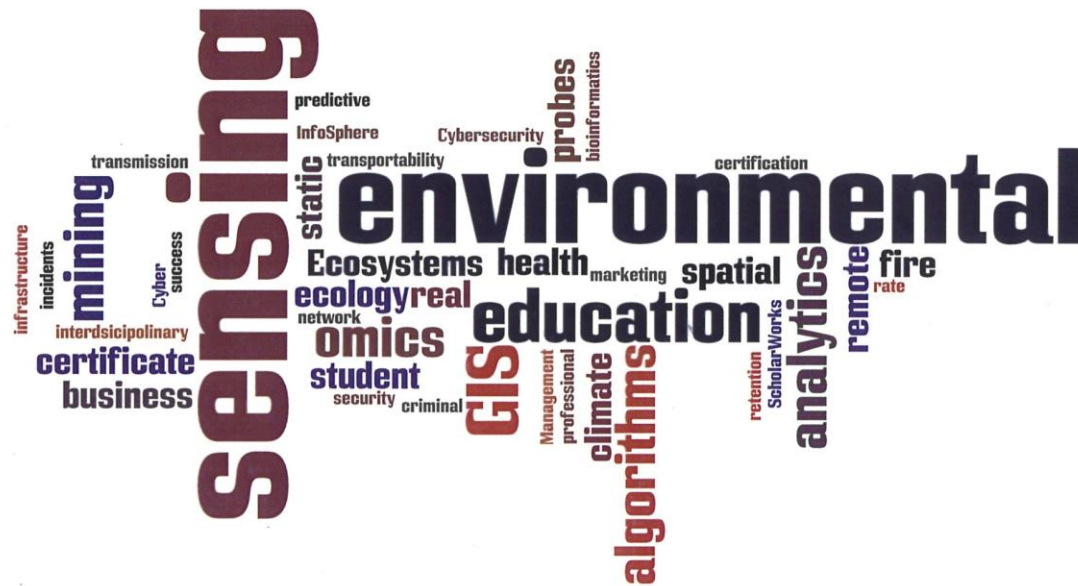
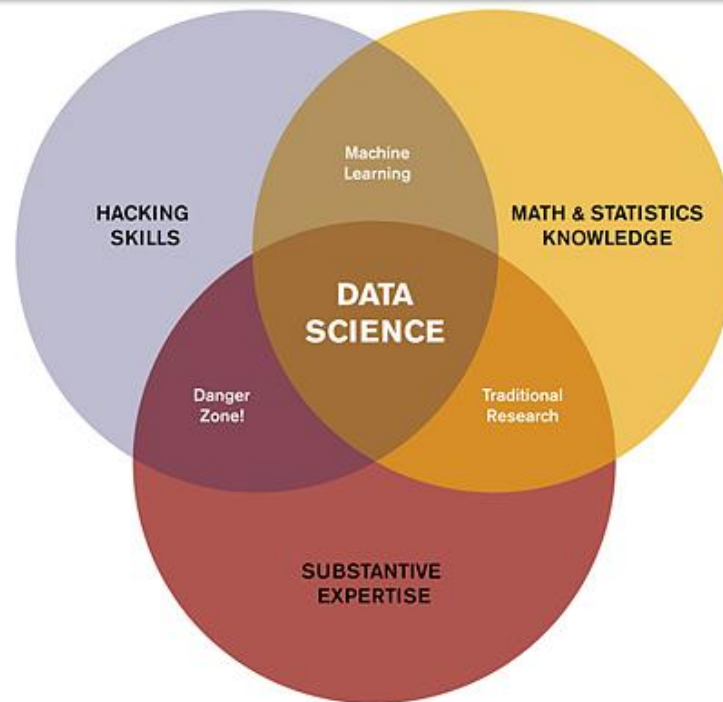


# UM Data Science



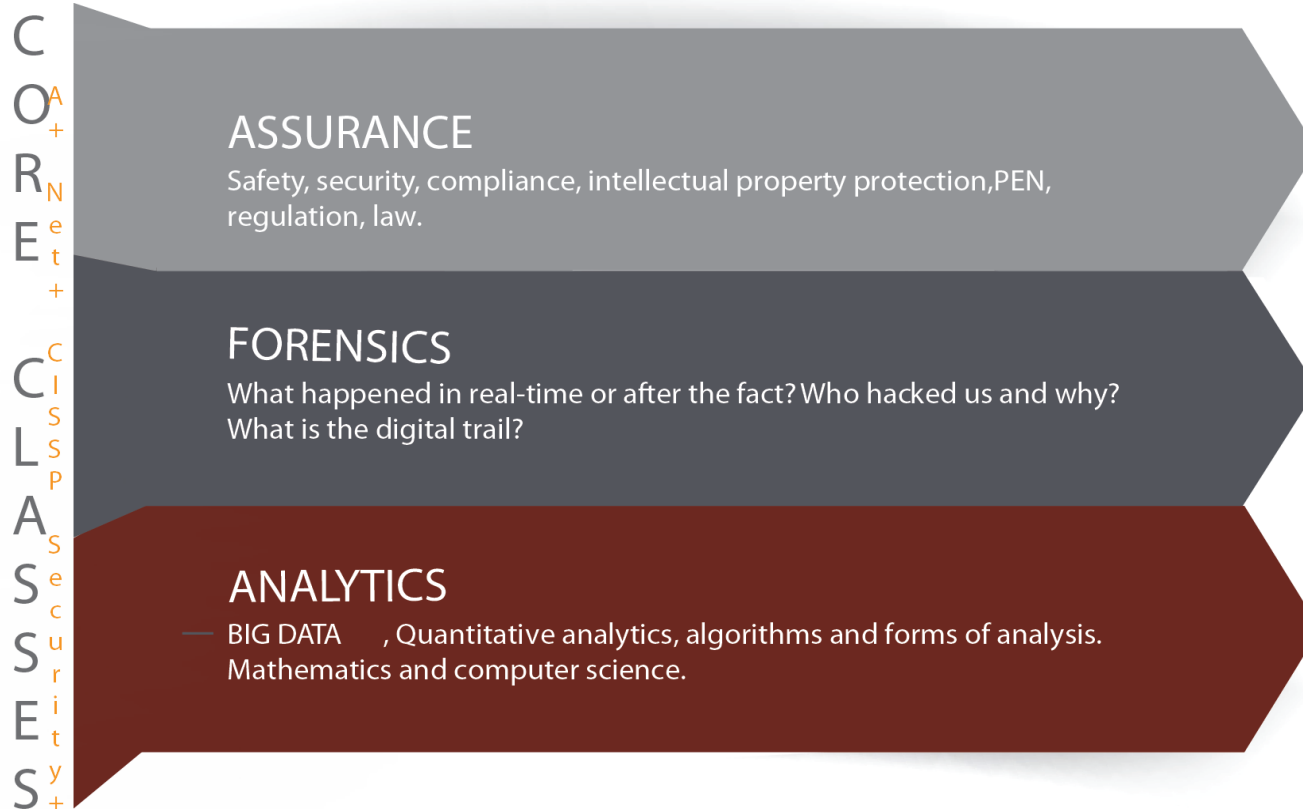
# What is “Data Science”?

## Aka “Big Data”



Source: [https://s3.amazonaws.com/aws.drewconway.com/viz/venn\\_diagram/data\\_science.html](https://s3.amazonaws.com/aws.drewconway.com/viz/venn_diagram/data_science.html)

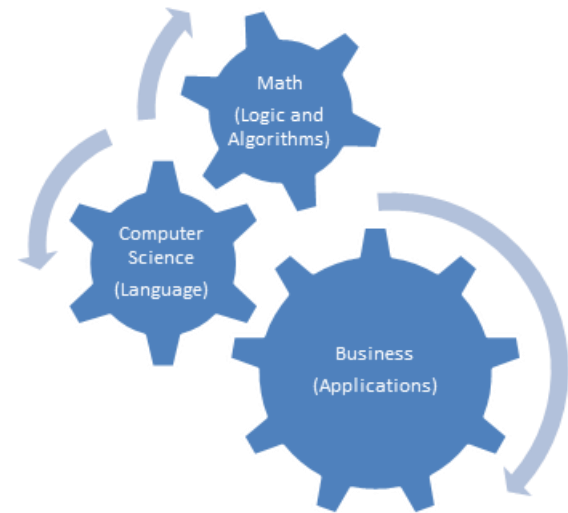
# What Constitutes “Big Data”?



# Demand

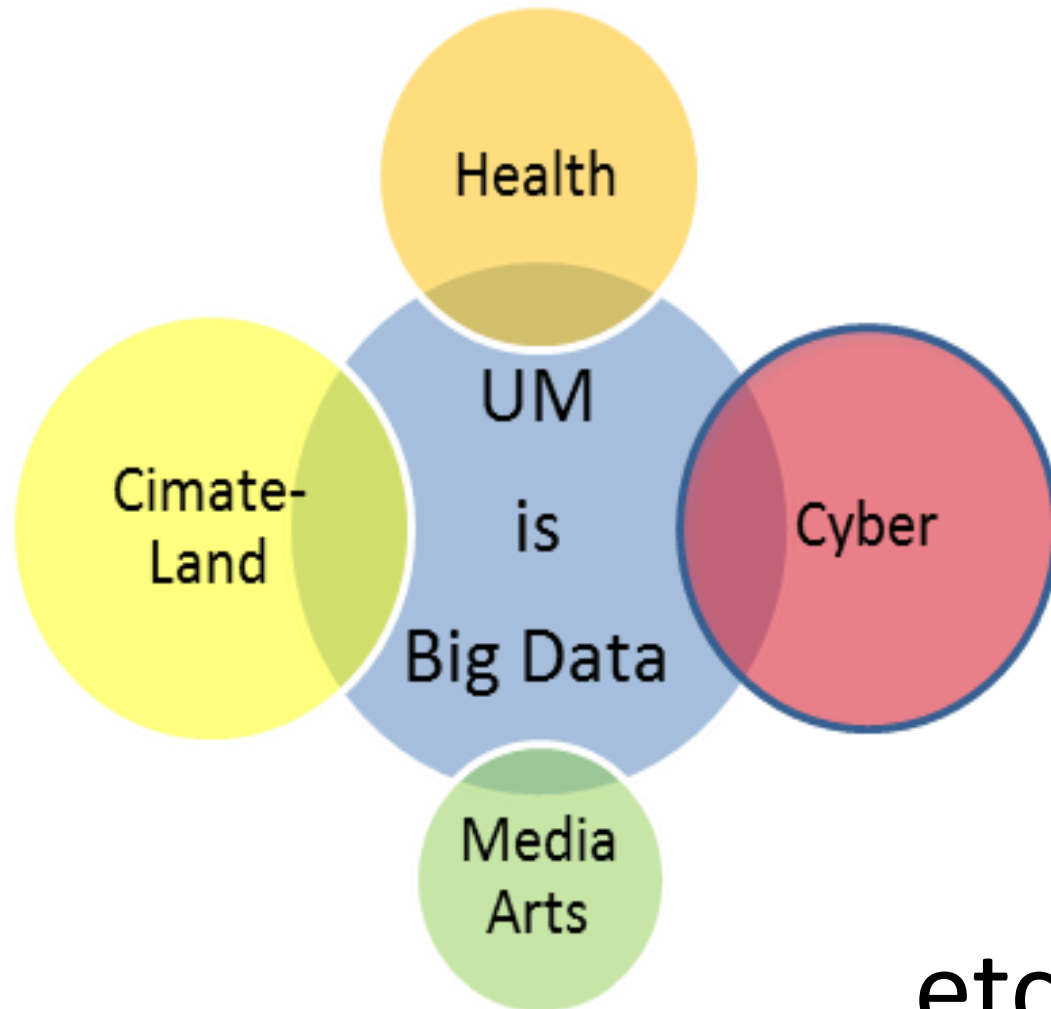
A 2011 article in *InformationWeek*\* explores the demand for people trained in Big Data:

“In the U.S. alone, a McKinsey Global Institute report predicts that demand for deep analytics experts and big data professionals will exceed the supply by **up to 190,000 positions by 2018** if current trends continue. What's more, U.S. enterprises will need **1.5 million** more managers and business analysts who can ask the right questions and consume the results of the analysis of big data.”



<http://www.informationweek.com/software/business-intelligence/big-data-talent-war-10-analytics-job-tre/232700311?pgno=1>

# But It Doesn't Stop There



# Participants to Date

- College of Humanities and Sciences
  - Cell Biology
  - Chemistry
  - Computer Science
  - Ecology
  - Geography
  - Geosciences
  - Mathematics
  - Psychology
- School of Business Administration
  - Management Information Systems
  - Marketing and Management
- Missoula College
  - Applied Computing and Electronics
- School of Journalism
- PJW College of Education and Human Sciences
  - HHP
  - Rural Institute
- College of Visual and Performing Arts
  - Media Arts
- School of Extended and Lifelong Learning
- Mansfield Library
- College of Health Professions and Biomedical Sciences

# Progress to Date

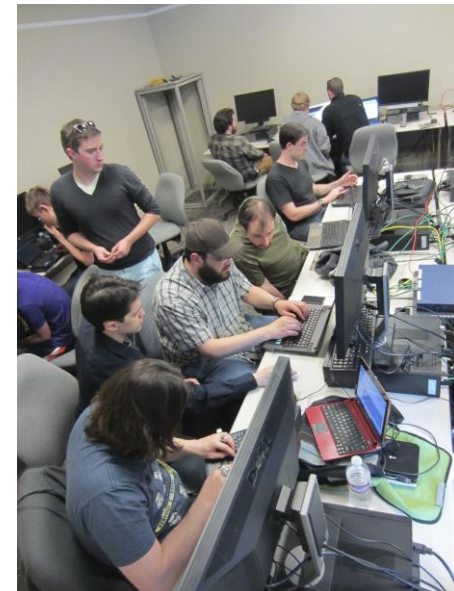
- Professional Certificate in Network and Information Security – Missoula College
- Certificate in Big Data Analytics – SoBA, Mathematical Sciences, Computer Science
- Second Annual Cyber Triathlon – May 2, 2015
- Research Proposals in Progress
- Donations by IBM and Symantec – Hardware
- Donations from LMG, ALPS, GCS, and Washington Corp.

# Courses 2015

- **Computer Science:**
  - Applications of Mining Big Data
  - Applied Parallel Computing Techniques
- **Mathematical Sciences:**
  - Theoretical Basics of Big Data Analytics and Real Time Computation Algorithms
  - Cognitive Computing (Algorithms) with IBM Watson
- **Management and Information Systems**
  - Real Time Data Analytics
  - Cybersecurity Management
- **Marketing and Management**
  - ST: Crushing It With Big Data
- **Information Technology System**
  - Securing Desktop/Mobile Dev.
  - Securing Networks



# Cybertriathlon



# The Partnership

Creating a Regional Hub for Big Data



# Future

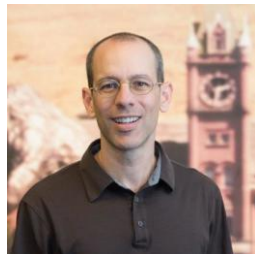
- Inclusive and Diverse
- Develop program in Data Science to serve students and faculty
- Develop interdisciplinary research to further UM's research goals
- Increase opportunities for students seeking internships and post-graduate employment

DATA SCIENCE  
INITIATIVE  
SEMINAR

Joined UM in the fall of 2013 after a professional career that included work as an award-winning investigative reporter and as a freelance writer for magazines such as National Geographic, Dr. Joe Eaton has taught courses in public affairs reporting and editing and is scheduled to take over the school's investigative reporting course in the spring 2014.

Before joining the faculty, he worked as an investigative reporter at the Washington, D.C.-based Center for Public Integrity, where he specialized in database reporting on health care issues. In 2013, he won the National Institute for Health Care Management Foundation's Print Journalism Award for a series exploring rising Medicare costs.

Eaton graduated from the University of Michigan with a bachelor's degree in English literature and earned his master's degree in journalism from the University of Maryland.



**Speaker:** Joe Eaton, Ph.D.  
Assistant Professor  
School of Journalism University of Montana

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**WHEN – WHERE**

Tue, Mar 10th, 2015, 4:10-5:00 PM, Stone Hall 217

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