Guest lecture – Data Analysis

# DATA SCIENCE AND TECHNICAL SOCIAL NETWORKING

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# CONTENTS OF TODAY'S TALK
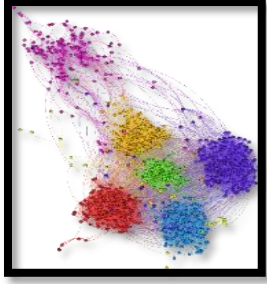
Introduction to Data Science (DS)

- What is it?
- Why should I care?
- The Economics of DS

The joy of technical networking

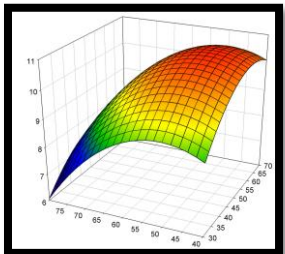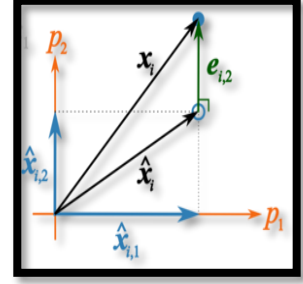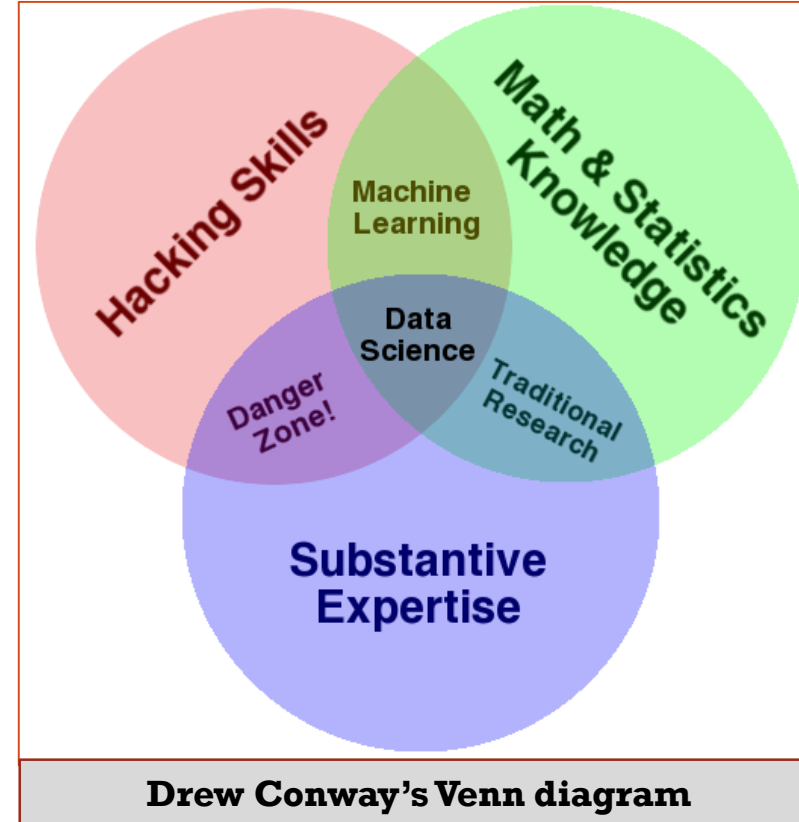About the speaker - Hitchhiker's guide to the galaxy

Discussion and questions
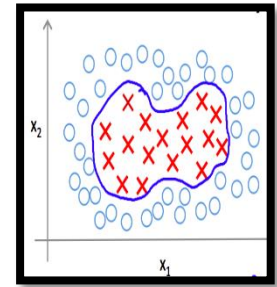
# WHAT IS DATA SCIENCE?



*Data scientists are the people who understand how to fish out answers to important business questions from today's tsunami of unstructured information*

- From HBR article "Data Scientist: The Sexiest Job of the 21st Century" (2012)



**Drew Conway's Venn diagram**

***Associated terms for the green circle:*** *Machine learning, Data mining, Data analysis, Big Data, Large scale data analysis, Statistical learning, Operations research, Decision models, Econometrics, Business Analytics, Business Intelligence, MIS, deep learning, web analytics, scraping, social media analytics*
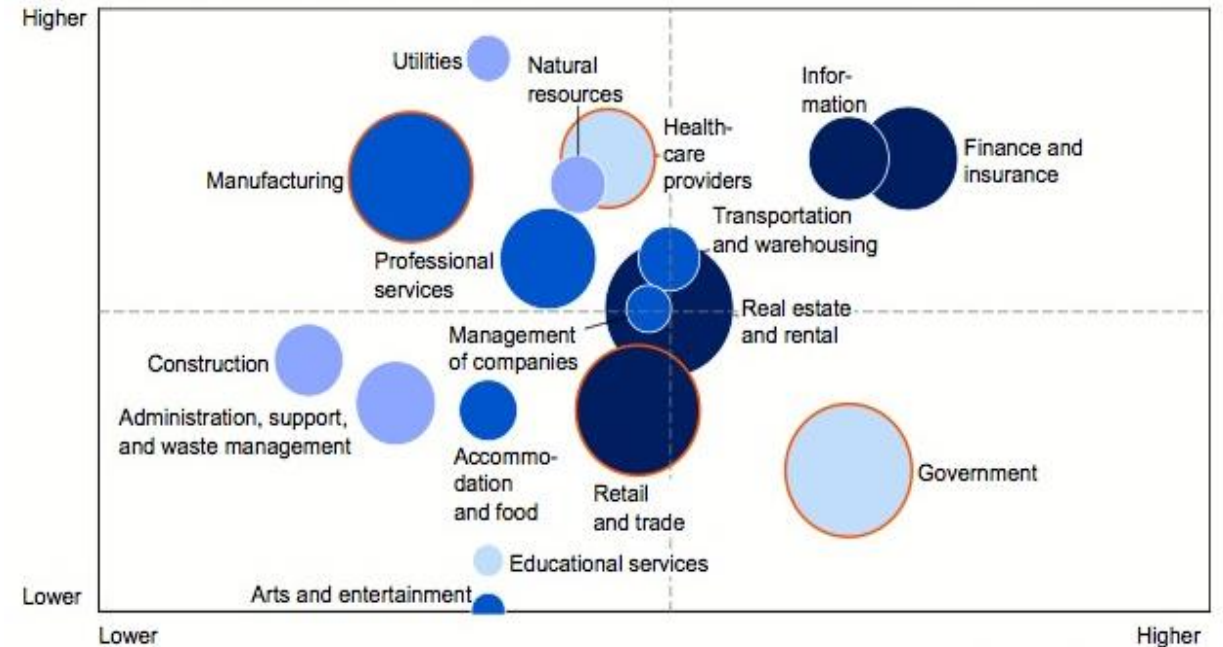
# WHY DATA SCIENCE? - A CAREER PERSPECTIVE

## SUPPLY

```
KJSCE - EXTC  →  MBA
              →  Masters   →  Earn $/₹ + Satisfactory career
              →  Work
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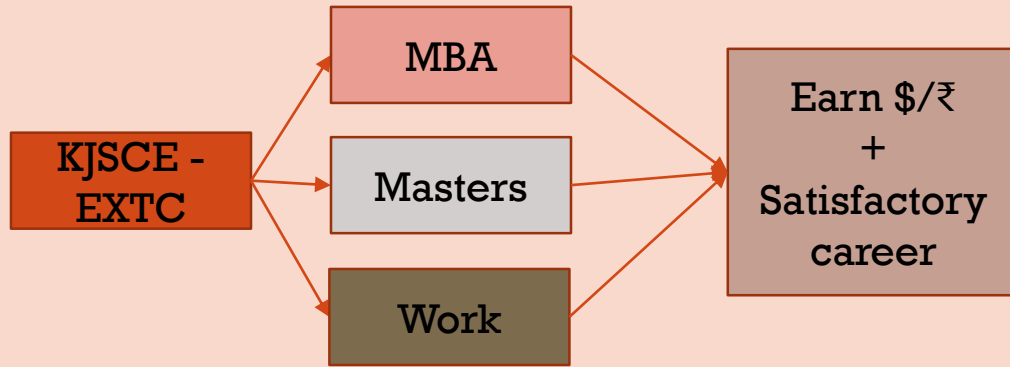
**Dream job** OR/AND **Better chances of getting admission in good programs** OR/AND **Stable career development**

## DEMAND



*Source: McKinsey Global Institute on Data science in US economy*

A Data Scientist, IT earns an average salary of ₹ 618,430 and $ 92,000 in US per year (source: Payscale.com)

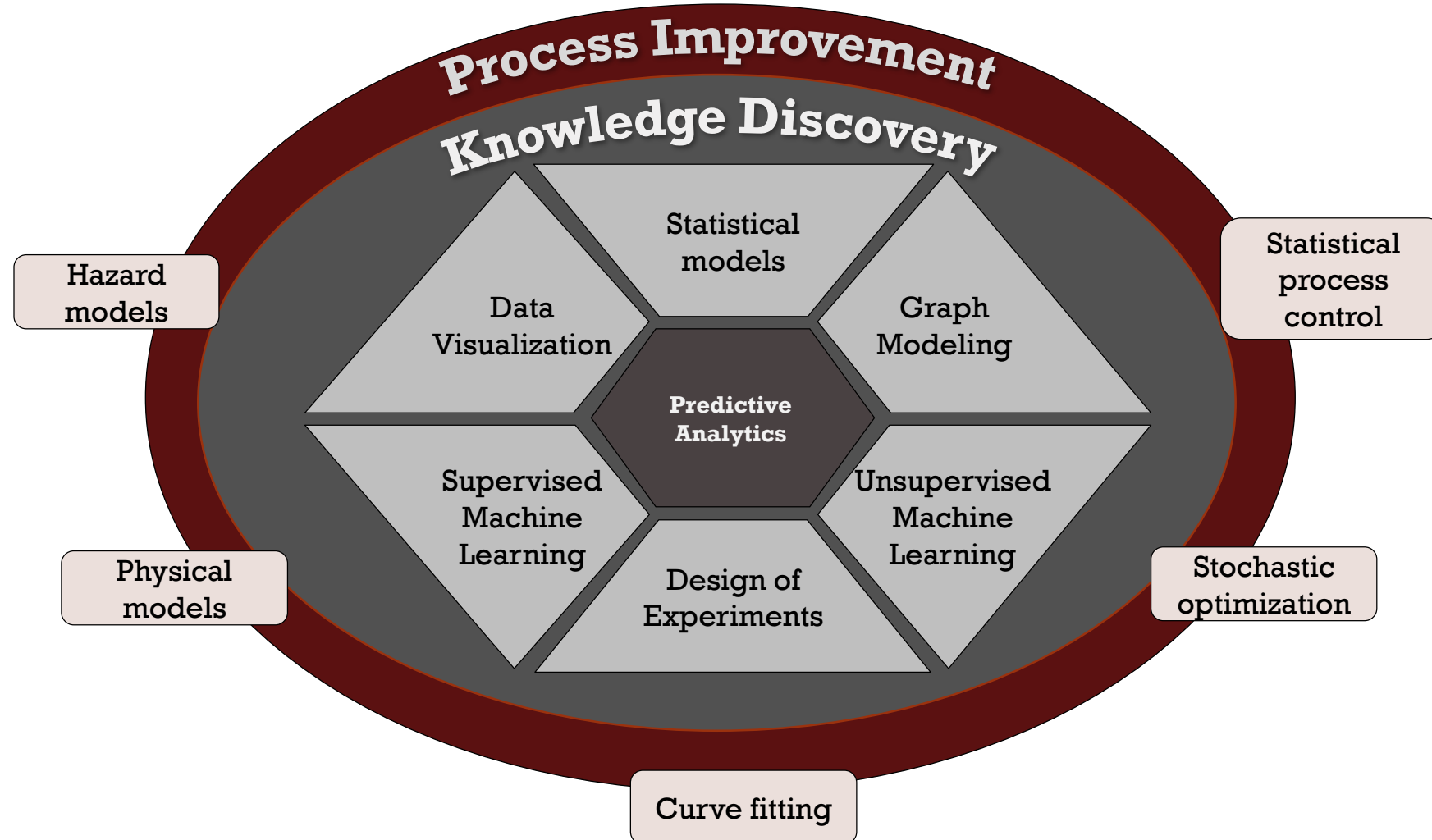US (alone) will experience a shortage of 190,000 skilled data scientists by 2018 - McKinsey

# EVERY COMPANY WANTS TO BE SMART
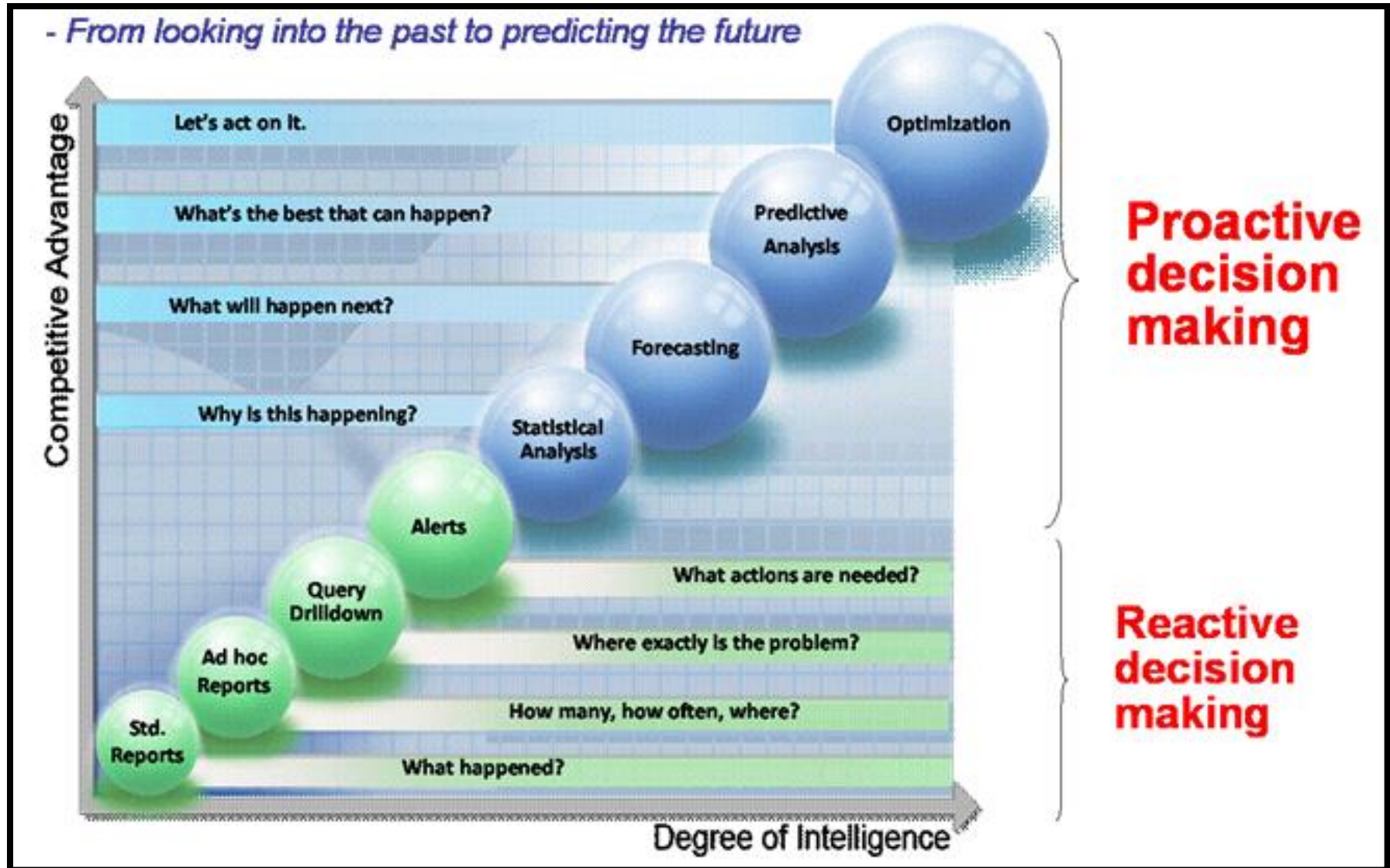
# An example: Data science in Manufacturing

# The joy of technical networking - Become a responsible e-citizen

## How: Use and contribute to

- Open source
- Stack Exchange
- Wikipedia
- Twitter
- Github
- Youtube
- Linkedin
- Topic blogs

## Why:

- You find your own answers and become aware of current affairs in technology
- 'Power' employers lookout for active contributors
- You realize how much you know in the global workforce in your domain
- Exponential career paths of open-source contributors

# About me: The Earnest learner
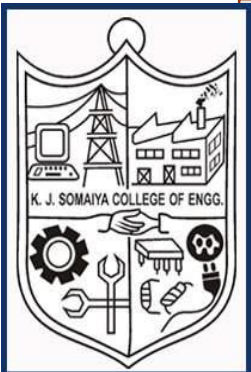
**Current toolset**

- Statistical learning & Data Mining
- Graphical models
- Network analysis
- Decision models
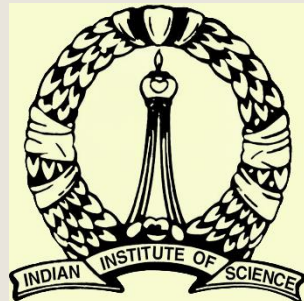- Design of experiments

**Keen to learn**

- Big data architecture
- Natural language processing
- High-dimensional analysis
- Advanced visualizations

Current Research Area: Environment impact on individual well-being in offices

**My past adventures:**

# THANK YOU

Feel free to contact me at karthiks@email.arizona.edu OR:

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https://**twitter**.com/**karthik**arizona

https://**github**.com/**kartucson**

http://**stackoverflow**.com/users/2896323/**earnest-learner**