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APRIL 28 - MAY 1, 2019 | DALLAS, TX



The Good, The Bad, and The Creepy: Why Data Scientists Need to Understand Ethics

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Dr. Priestley is the Associate Dean of The Graduate College and the Director of the Analytics and Data Science Institute at Kennesaw State University. In 2012, the SAS Institute recognized Dr. Priestley as the 2012 Distinguished Statistics Professor of the Year. She served as the 2012 and 2015 Co-Chair of the National Analytics Conference. Datanami recognized Dr. Priestley as one of the top 12 “Data Scientists to Watch in 2016.” She is a member of the Advisory Board for the Southern Data Science Conference.

Prior to receiving a Ph.D. in Statistics, Dr. Priestley worked in the Financial Services industry for 11 years. Her positions included Vice President of Business Development for VISA EU in London, as well as for MasterCard US and an analytical consultant with Accenture’s strategic services group. Dr. Priestley received a Ph.D. from Georgia State, a MBA from The Pennsylvania State University, and a BS from Georgia Tech.



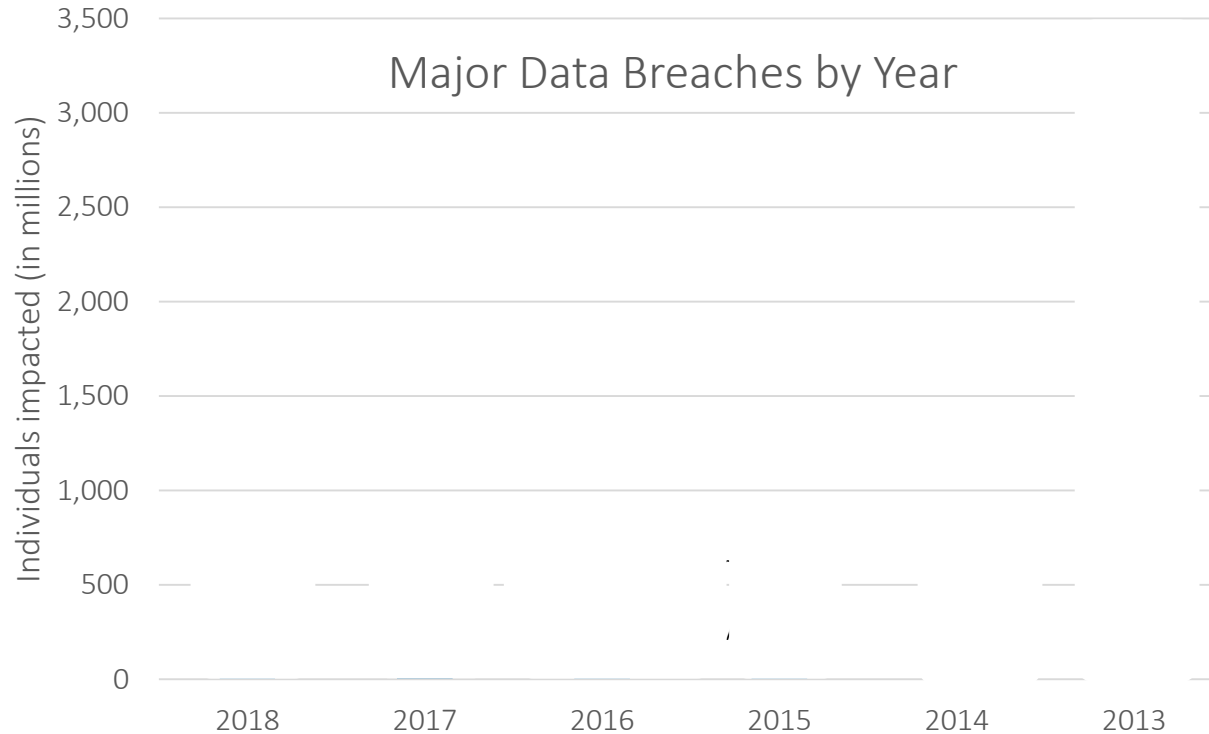
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Why Data Scientists Need to Understand Ethics

Issue 1: A few people can cause a great deal of harm



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Should researchers utilize hacked datasets that have been released in public forums?

Why Data Scientists Need to Understand Ethics

Issue 2: Lack of Consent

Experimental evidence of massive-scale emotional contagion through social networks



Adam D. I. Kramer, Jamie E. Guillory, and Jeffrey T. Hancock

PNAS June 17, 2014 111 (24) 8788-8790; first published June 2, 2014 <https://doi.org/10.1073/pnas.1320040111>

Edited by Susan T. Fiske, Princeton University, Princeton, NJ, and approved March 25, 2014 (received for review October 23, 2013)

Why Data Scientists Need to Understand Ethics

Issue 2: Lack of Consent

DNA profiles from ancestry websites helped identify the Golden State Killer suspect

He wasn't the first criminal to fall to familial DNA matching, and he won't be the last.


Why Data Scientists Need to Understand Ethics

Issue 3: Will this algorithm do what I think it does?

Gender Shades [Home](#) [Results](#) [Research Paper](#) [Dataset](#)

How well do IBM, Microsoft, and Face++ AI services guess the gender of a face?

[Explore Results](#)



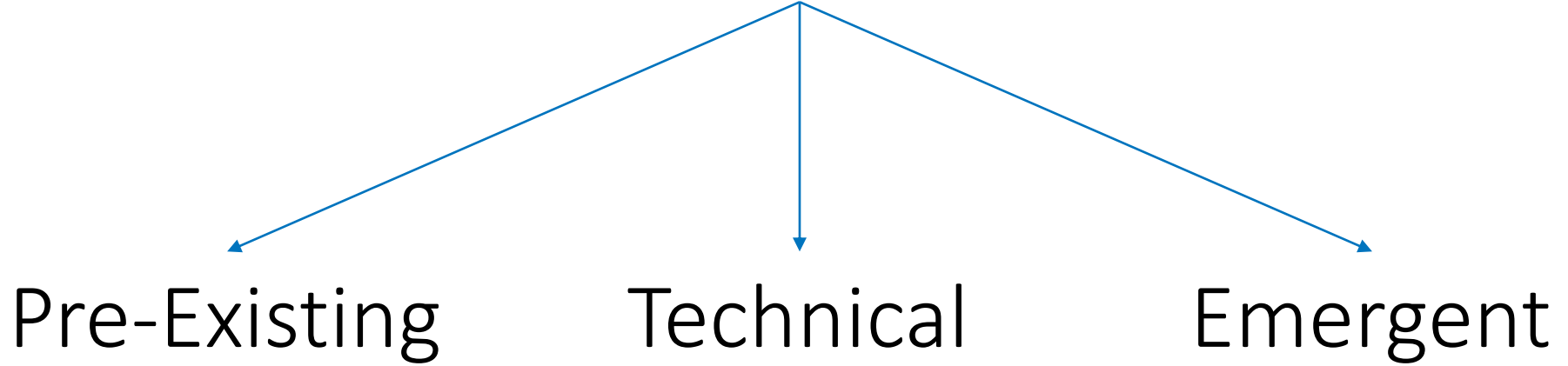
The image shows a screenshot of the 'Gender Shades' website. At the top, there is a navigation bar with the title 'Gender Shades' and links for 'Home', 'Results', 'Research Paper', and 'Dataset'. Below the navigation bar, a central text block asks 'How well do IBM, Microsoft, and Face++ AI services guess the gender of a face?' and includes a red 'Explore Results' button. The main content area features a large, dense grid of approximately 100x100 small portrait photographs of people from various ethnicities, ages, and genders. A play button icon is centered over the grid, indicating a video or interactive content. The grid is labeled 'Gender Shades' in the top left corner.

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Issue 3: Will this algorithm do what I think it does?



Examples of Algorithmic Biases



Why Data Scientists Need to Understand Ethics

Issue 3: Will this algorithm do what I think it does?

Mission of the FDA:

The Food and Drug Administration is responsible for protecting the public health by ensuring the safety, efficacy, and security of human and veterinary drugs, biological products, and medical devices; and by ensuring the safety of our nation's food supply, cosmetics, and products that emit radiation.

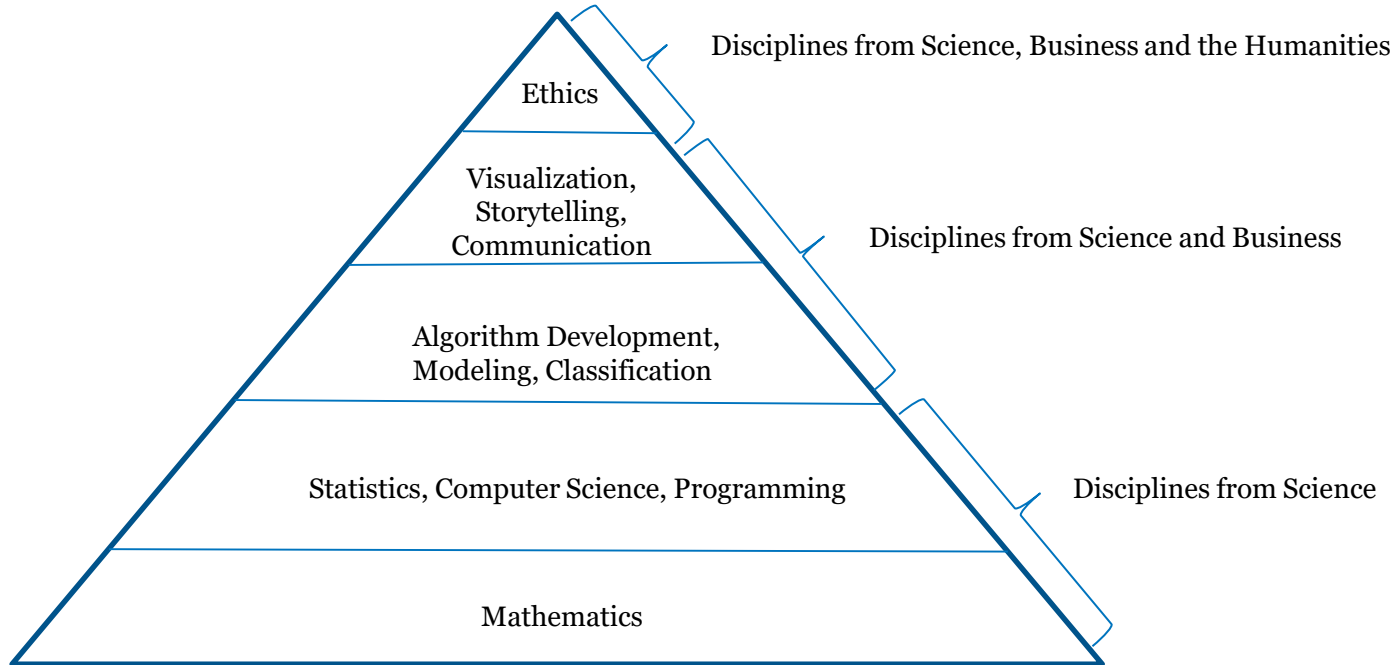


What is the role of the academic community?

#SASGF

- 1) Ensure students understand the law (e.g., GDPR)
- 2) Create awareness...ask questions at each stage
- 3) Engage Institutional Research Boards
- 4) Don't shortcut the math/statistics

Maslow's Hierarchy of Data Science



Thank you!

Contact Information
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