



Beyond Misinformation:

Strategies and Tactics for
Addressing the Growing and
Pernicious Problem of the
Misrepresentation and
Misappropriation of Research

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Breakout Session Outline

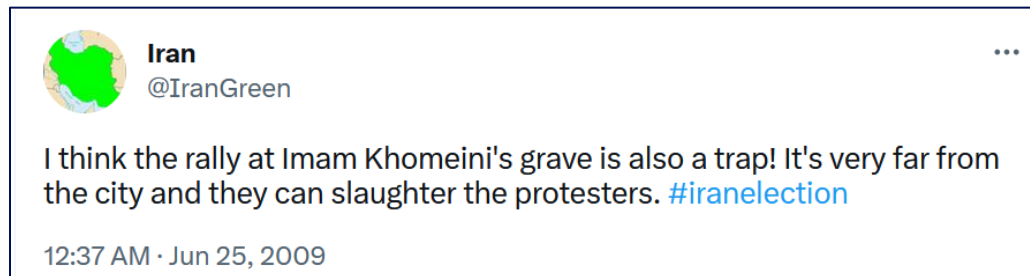
- Inspirations for Creating the Workshop
- What Is the Misrepresentation and Misunderstanding of Research?
- Workshop Content
 - Strategies for Preparation
 - Tactics for Dealing with Situations
 - Opportunities for Practicing Responses
- Observations on How the Workshop Has Gone
- Current and Future Directions

Inspirations for Creating the Workshop

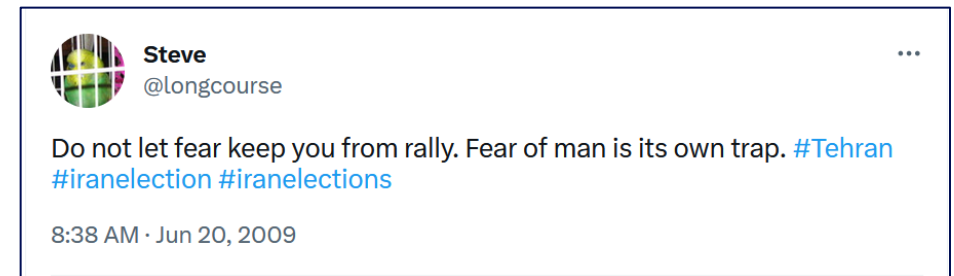
My Interest in Mis-, Dis-, and Malinformation

- 2009 Iranian Election Protests

- Protests against a perceived fraudulent re-election of Mahmoud Ahmadinejad
- Violent crackdown on protesters
- Muddied information about whether protests were legitimate or were traps



<https://twitter.com/IranGreen/status/2321827297>



<https://twitter.com/longcourse/status/2252174539>

Effects/Goals of Mis-, Dis-, and Malinformation

- Increased distrust in or hostility toward authority and fellow citizens, possibly leading to social breakdown
- Suppression of active citizenship by encouraging defensive inaction and self-censorship

Some Relevant Biographical Points

- Taught political science at community colleges in the Midwest for six years before pursuing my career as a librarian
- Position before coming to Syracuse University in February 2020 was at New College of Florida

Not Happening in a Vacuum

- Larger context of decline in trust in authorities and institutions (Ellis et al. 2022)
 - Aided by modern information and communications technology, though not exclusively because of it
 - Also social/cultural, historical, economic, and political contexts

What Is the Misrepresentation and Misunderstanding of Research?

Misunderstanding Research

- Akin to misinformation
- Individual comes to faulty conclusions about research on their own or adopts the faulty conclusions of an indirect source of information
- The misinformed individual can share faulty conclusions with others

Misrepresenting Research: Definition

- Misrepresentation or misleading selective representation of the conclusions of research, usually to support an ideological agenda or political actions
- Akin to disinformation

Misrepresenting Research: Examples

- Scale of unauthorized immigration (Kahn 2021)
 - Omitting the fact that statistics on U.S. Customs and Border Patrol apprehensions of individuals do not account for whether the same individuals are apprehended multiple times
- Convalescent plasma and COVID-19 (McDonald 2020)
 - Overstating the benefits of convalescent plasma as a treatment for COVID-19

Misappropriating Research: Definition

- Reasonably accurate representation of research to support an ideological agenda or political actions that the researcher does not advocate for
- Akin to the first half of Wardle and Derakhshan's (2017) definition of malinformation:
 - “When genuine information is shared to cause harm...”

Misappropriating Research: Examples of Potential

- Detailed 2020 Census data and race and ethnicity (Bahrapour and Mellnik 2021)
 - 2020 Census showed a decrease in the number of people identifying as White Non-Hispanic from the 2010 Census
- Immunocompromised individuals and COVID-19 variants (Mandavilli 2021)
 - Research showing that mutations that generate new COVID-19 variants often occur in immunocompromised individuals
- High LGBTQ+ identification among Gen Z (Jones 2023)
 - Gallup survey showing that 19.7% of Gen Z adults identify as part of the LGBTQ+ community

Researchers Under Threat

- Bullying, harassment, and violence or threats of violence against researchers
- Akin to malinformation
 - “When genuine information is shared to cause harm, often by moving information designed to stay private into the public sphere” (Wardle and Derakhshan 2017)
 - “False information that is shared with a distinct intent to cause harm, and in the case of racism, to maintain the status quo” (Cooke 2021)

Researchers Under Threat: Examples

- Indian Historian Romila Thapar (Masih 2021)
 - Historian of ancient India targeted by Hindu Nationalists in India
- Medieval Historian Dorothy Kim
 - Medieval historian in the United States targeted and doxed by the Alt-Right (Kim 2018)
- Multiple examples of public health professionals since the start of the COVID-19 pandemic

Workshop Contents

Workshop: Content: Lead-In

- Content advisory
- Disclaimer
- Opening questions
 - What are some common misconceptions about your field of research?
 - What are some specific examples of research in your field getting misunderstood?
- The “Why” of the workshop

Workshop Content: Suggested Strategies: Keeping Current with Scholarly Communication

Monitoring One's Field

- A plug for the library
- Using bibliometrics and alert features of different databases
 - Examples:
 - Scopus
 - Web of Science
 - Google Scholar

Monitoring One's Own Work

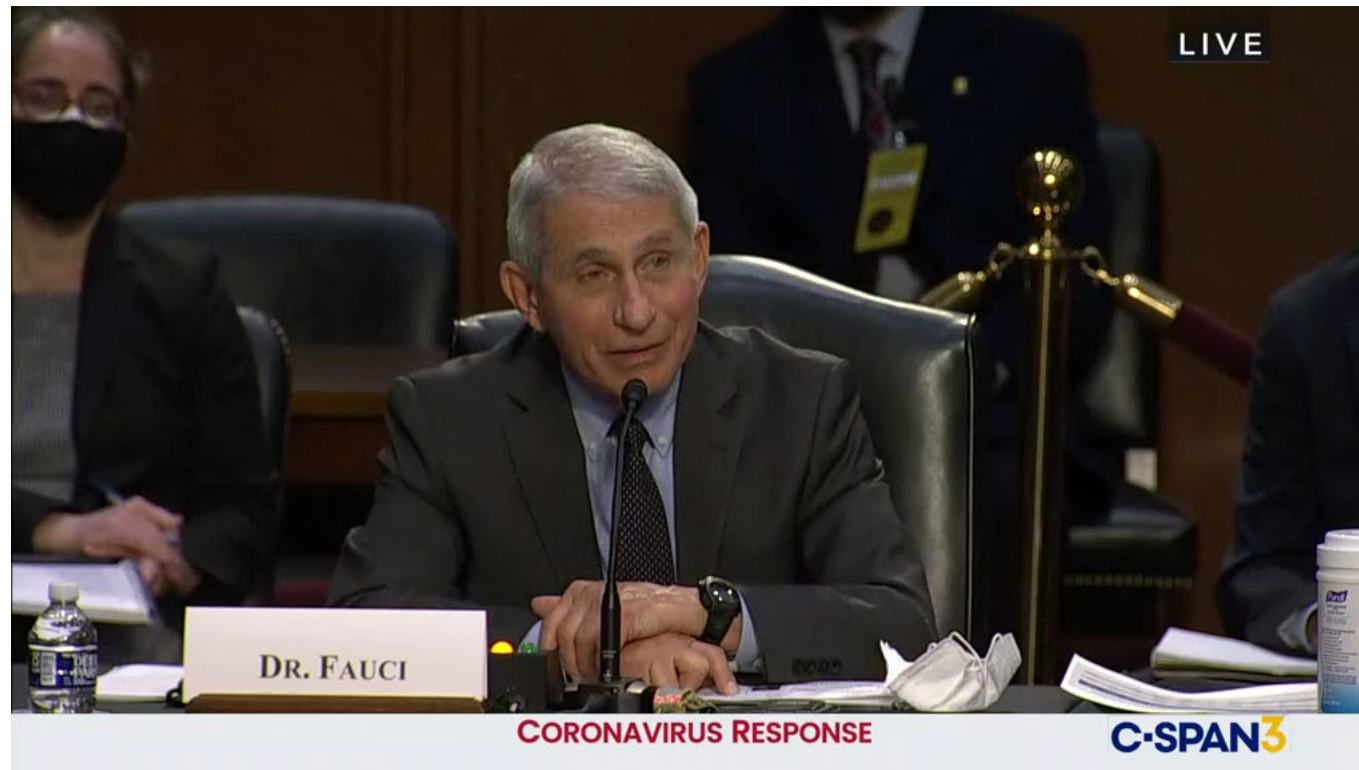
- Using the bibliometrics and alert features of different databases
- Using institutional repositories track citations and downloads
- Using individual research profiles to track citations and downloads
 - Available on some database platforms and through some institutions

Workshop Content: Suggested Strategies: Keeping Current With Public Discussions of One's Field and One's Research

- Following individuals and discussion threads on social media
 - Also can be done through PlumX Metrics and Altmetrics
- Setting up news alerts on platforms like Google News

Workshop Content: Evaluating Dr. Fauci's Congressional Testimony: Video

- Video of and discussion about exchange between Dr. Anthony Fauci and Sen. Rand Paul during a March 2021 Senate committee hearing (C-SPAN 2021)



Source: C-SPAN (2021).

<https://www.c-span.org/video/?c5065226/user-clip-exchange-dr-anthony-fauci-sen-rand-paul-march-18-2021>

Workshop Content: Evaluating Dr. Fauci's Congressional Testimony: Discussion

- Discussion questions:
 - What were some techniques that Dr. Fauci used?
 - In what ways could Dr. Fauci have improved his messaging?
- Participant responses:
 - Participants generally identify the techniques I cover later in the workshop (and discuss later in this presentation)
 - Participants note that Dr. Fauci's responses are heavy on jargon at times

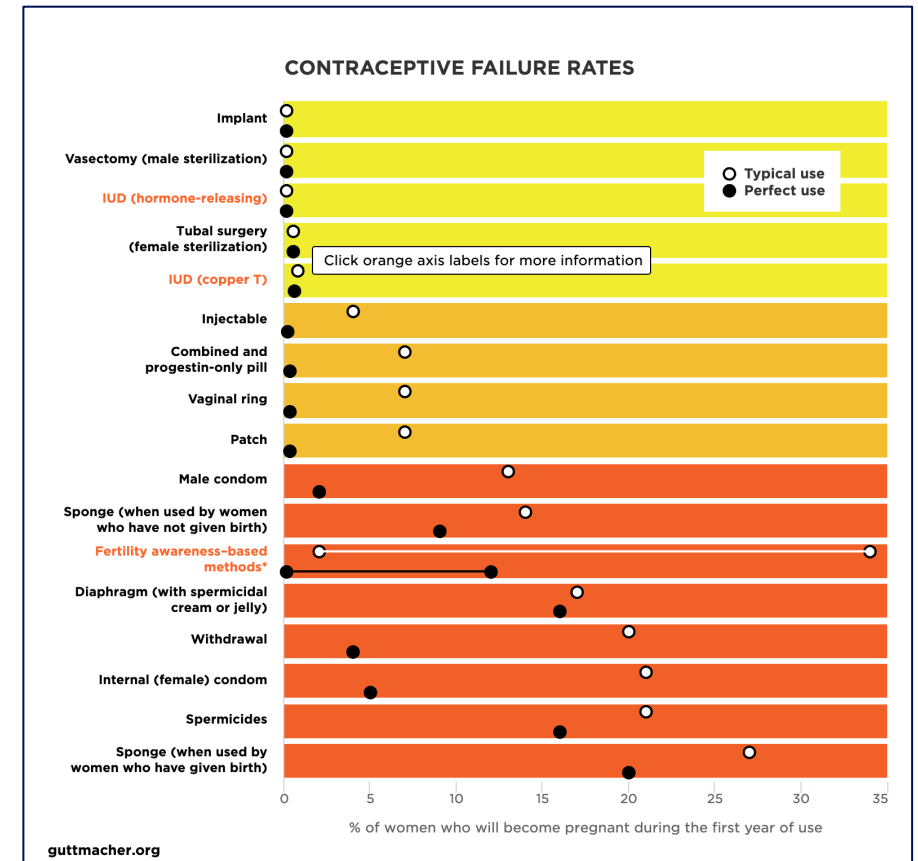
Workshop Content: Suggested Strategies: Recommendations for Handling Situations

- Find a grain of truth in the falsehood and correcting the misunderstanding
- Example:
 - Vaccine hesitancy based on misunderstanding of information (Merchant 2021)
 - mRNA vaccines
 - Vaccine packaging tracking

Workshop Content: Suggested Strategies: Recommendations for Handling Situations

- If possible, show an original source of accurate information that also has objective research that has been accurately used to support their views
- Example:
 - Misrepresentation of statistics on contraception effectiveness
 - Facilitating trust of Guttmacher Institute data by showing how anti-abortion have used (misappropriated?) their data

Graph of Contraceptive Failure Rates



Source: Guttmacher Institute (2020)

Workshop Content: Suggested Strategies: Recommendations for Handling Situations

- Recognize what the debate is really about at the social/political level
 - Self-Education: Familiarize oneself with the belief system in which the misunderstanding or misrepresentation arises
 - Empathy: Respectfully articulate an understanding of the social/political context that informs their beliefs
- Examples:
 - What is really going on when incorrect statistics about contraception are used?
 - The debate over masks and vaccines for COVID-19 isn't really about the masks or the vaccines

Workshop Content: Suggested Strategies: Recommendations for Handling Situations

- Put the larger debate in a historical or comparative cultural context
- Examples:
 - The historical analogy between the printing press and the internet
 - Comparisons of different countries' mechanisms and policies for reviewing drug safety and efficacy

Practice Strategies: Use the Classroom as a Trial Run

- Based on my own experience teaching political science at community colleges for six years
- Based on the assumption that most people in the general public will probably have, at most, the understanding of an undergraduate when it comes to research
- Take time to ask students in courses or sections one teaches about “what they have heard” about topics related to one’s research
- Can also serve as prebunking students in class

Practice Strategies: Chat GPT

- First discussed this suggestion at the most recent workshop iteration (March 22, 2023)
- A potential stand-in for the undergraduate classroom
- Asked Chat GPT to explain participants' research and then modify explanation to for high school audience
- Drawing on the freely available content on the internet that the general public is drawing on

Workshop Content: Closing Caveats

- I emphasize to participants:
 - If they are being harassed or feel unsafe, they should let their supervisor or someone else in authority at their current or future institution know
- I underscore:
 - The success of any strategy is dependent on the interplay between the identity characteristics of the researcher and the audience in the situation

Observations on How the Workshop Has Gone

Iterations

- Seven iterations so far: One in Spring 2021, one in Fall 2021, two in Spring 2022, three in Spring 2023
 - Teaching it again mid-May at a retreat for graduate students
- Content is approximately 50-60 minutes in length
- Extra 15 minutes at the end for discussion
- Geared toward faculty and graduate students, though undergraduates have attended

Summary of Responses to Post-Instruction Operational Classroom Assessment (Composite: Spring 2021-Spring 2023)

Question	Response Summary
What is the most valuable thing you learned in class today?	<ul style="list-style-type: none"> • Citation tracking methods and tools • Importance of tracking public opinions in scientific fields • Tactics used by professional science communicators to combat misinformation • Discussion on how misconceptions and misrepresentations can surround a specific topic • Suggestions for familiarizing oneself with belief systems and engaging in the cultural/social context
Is there anything about the way you do research that you will change as a result of this class?	<ul style="list-style-type: none"> • Will adapt how present research to a general audience • Will use citation-tracking tools • Will monitor social media for public misconceptions about field of research • Will adapt teaching practice as well as research practices • Will keep public communication in mind when conducting research • Will utilize undergraduate classroom as a space for trial runs in gauging understanding of research and for testing responses to misconceptions about research
What questions remain unanswered? What did you find confusing?	<ul style="list-style-type: none"> • Better coverage of recent changes in the information landscape (e.g. Twitter's new ownership and TikTok's possible ban) • More strategies to track public conversations • More information about library resources • Research communication information more tailored toward the needs of civil service members • More focus on the actors creating disinformation about research rather than those who are misinformed

Other Takeaways

- Many of the participants have had a prior experience with family members who misunderstand their research
- Students who attended want to have in-depth conversations about this topic in addition to having a workshop about strategies for preparing for and handling potential situations

Challenges

- Attendance
- Getting the feedback I need from participants
- Limitations of my own perspective and lived experience

Current and Future Directions

“You don’t realize this is a thing until it happens to you or someone you know.”

—Recent conversation with a recently minted PhD who specializes in an area of ethnic studies

Current Directions and Future Directions

- Developing a LibGuide and series of videos to deliver the content asynchronously
 - https://researchguides.library.syr.edu/misframed_research



Parting Question

With the idea that this is a larger issue that interests people in disparate places but that does not necessarily have intense interest in one place,

Would we benefit from having a community of practice surrounding the misrepresentation and misappropriation of research?

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Thank You.

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