

Henry - Please hit Record

A dark blue diagonal gradient bar that starts from the bottom left corner and extends towards the top right corner, covering the lower half of the page.

Equity, Inclusion and Ethics

Facilitated by: Dr. Dirk Colbry & Mary Olson
2023 Virtual Residency, June 29th

Participant Materials:
<https://tinyurl.com/EIE-VR22>



CyberAmbassadors
Professional Skills for Interdisciplinary Work

Agenda - Leadership

Welcome and CyberAmbassadors Program Overview

Leading the Change: Equity and Inclusion

Leading with Principles: Ethics



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The CyberAmbassadors program was developed with contributions and feedback from many sources, including:

- **Teaming Up** includes substantial contributions from David Cribbs and Mark Luchini.
- **Speaking Up** is adapted and expanded from Effective Presentation Skills by Tau Beta Pi Engineering Futures.
- **Leading the Change** and **Leading with Principles** are informed by materials developed for the Entering Mentoring program and provided by cimerproject.org.

Additional sources are noted throughout the materials. Graphics and images are original creations, part of Google apps, or free for commercial use without attribution from pixabay.com. For more information, please contact colbryka@msu.edu.



Ground Rules

- Be Engaged
 - Email, Slack off
 - Cameras on in break out session
- Be Respectful
 - Take lessons, leave stories
- Be Mindful
 - Step Forward / Step Back
 - Assume good intentions
 - Take responsibility for impact
 - Tool: Oops / Ouch



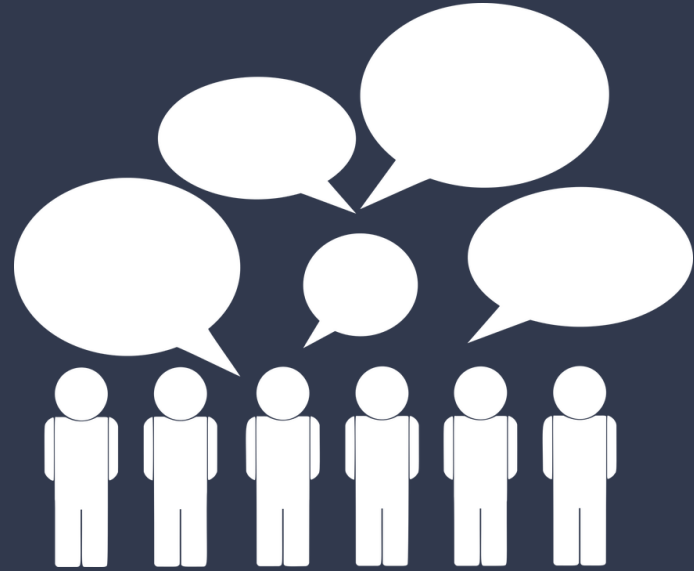
Chatter

1. Type your response into the chat window, but **WAIT** to hit enter
2. Listen for the countdown (three, two, one, CHAT!)
3. Hit enter and watch the responses scroll through the chat window!



Chatter

What is your favorite summer activity?



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Leading the Change

Equity and Inclusion



Agenda

- Understanding Bias
- Impact of Unconscious Bias
- Conscious Solutions and Strategies





Learning Goals

- Describe the source of unconscious or implicit assumptions, preconceptions, biases, and prejudices
- Increase understanding of the impact of unconscious bias in STEM
- Identify concrete strategies for learning about and addressing issues of equity and inclusion

Chatter

What is bias?





What is Bias?

a preference for (or against)
a person, group or thing
based on its characteristics



Our Biased Brains

https://en.wikipedia.org/wiki/Bias_blind_spot

Survival Mechanism

- Rapid identification: what is that?
- Rapid categorization: will it harm us?

Selective Inputs

- Ignore familiar information
- Make assumptions based on experience
- Frees brain to focus on new inputs

Social Influence

- People like us are safer
- Others might harm us
- Traditions are familiar, comfortable
- New things might be dangerous



What is Unconscious Bias?

social stereotypes and
preferences that form
outside conscious thought

Ethnicity

Race

Gender

Identity

Ability

Religion

Sexual orientation

Weight

Age

Physical appearance

Common Unconscious Biases

<https://theewgroup.com/different-types-unconscious-bias/>

Affinity / Like Me Bias preference for individuals who are like you in some way

Confirmation Bias making decisions aligned with your experiences or beliefs

Perception Bias relying on stereotypes and assumptions, instead of facts

Anchor Bias centering on a particular fact, experience, or action

Blind Spot Bias inability to recognize our own biases, even if we see bias in others



Agenda

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Recognizing Our Biases

<https://www.projectimplicit.net/resources/study-materials/>



- What unconscious biases do we have?
- How do our unconscious biases impact beliefs, behavior?
- Project Implicit
 - Non-profit emerging from research at Harvard University
 - Focus on understanding and interrupting implicit biases
- Online “tests” to help individuals understand our own biases
 - Age, Gender, Nationality, Religion, Disability, Sexuality, Careers
 - Results can be challenging, confusing, insightful



Recognizing the Impact

https://serc.carleton.edu/sage2yc/musings/implicit_bias.html



- Research shows that unconscious bias are pervasive in STEM (Master, 2021)
 - Negative impacts on participation and success of underrepresented populations
 - Both majority and minority individuals exhibit bias
 - These biases are often ingrained in childhood
- Unconscious biases impact experience and practice in STEM
 - Men are often perceived as belonging in STEM, while women are not (Moss-Racusin et al. 2021)
 - Unconscious biases about gender, weight, ability, race, etc. influence clinicians diagnosis and decision making skills and lead to disparities in healthcare outcomes (Gopal et al. 2021)
 - Gender and race biases affect perceptions about competence and hireability (Eaton et al. 2020)



Example: Gendered Wording in Job Ads

<http://gender-decoder.katmatfield.com/>; <https://hbr.org/2018/05/the-different-words-we-use-to-describe-male-and-female-leaders>

- Language is subtly gender-coded
 - Different words are more commonly used as descriptors for men or women
 - Result of social expectations and experiences
- The words used in a job advertisement matter
 - Gender-coded language sends subtle messages
 - Who is qualified? Who belongs in this role?
- Gendered wording impacts who applies
 - Women are less likely to apply to jobs described in masculine terms
 - Using feminine terms in job descriptions has little or no impact on men



Activity: Reviewing Job Advertisement Language

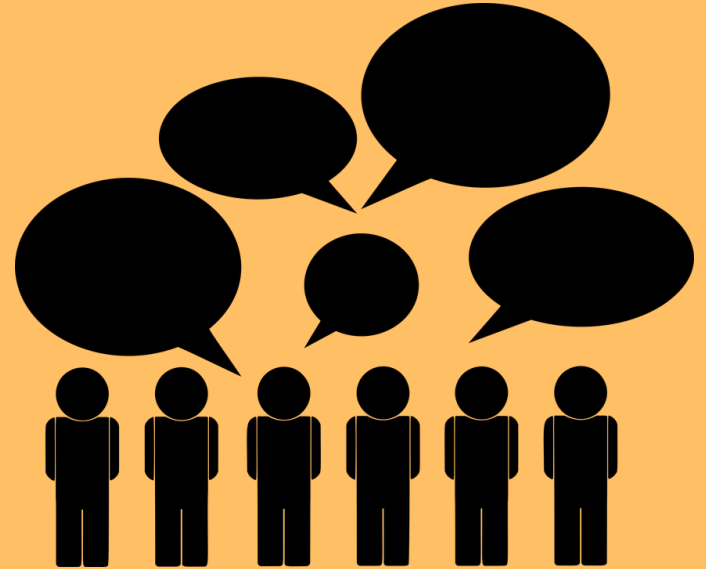
- Accept the breakout room invitation (write down the room number)
- The person whose first name comes FIRST alphabetically will be the timekeeper
- Review the different job descriptions
 - Focus on the language describing the responsibilities and requirements
 - Pay attention to the action or descriptive words that catch your attention
- Within your small group, discuss the job advertisements
 - Which words feel “masculine” or “feminine”? Why?
 - What words might encourage or discourage applicants? Why?
 - What changes, if any, might make these job ads appeal to a broader audience?
- At the end of the activity, return to the large group



Please wait to be assigned to a breakout room

Chatter

What did you learn?





Results: Research Scientist Job Ads

<http://gender-decoder.katmatfield.com/>

	Research Scientist 1	Research Scientist 2	Research Scientist 3	Research Scientist 4
Overall Coding	Masculine	Feminine	Masculine	Feminine
Masculine-coded words in ad	<ul style="list-style-type: none">● analyses● analyze● analytical● competitive● independently	<ul style="list-style-type: none">● independent	<ul style="list-style-type: none">● decision● driven● leading	<ul style="list-style-type: none">● analyze
Feminine-coded words in ad	<ul style="list-style-type: none">● understand● committed	<ul style="list-style-type: none">● commitment● collaborate● enthusiastic● collaborative	<ul style="list-style-type: none">● support	<ul style="list-style-type: none">● collaborate● collaborative

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Bias-Busting Strategies

<https://www.youtube.com/watch?v=K-n7el87Dmo>; <https://doi.org/10.4300/JGME-D-21-00598.1>

1. Identify and acknowledge your biases

Project implicit (implicit.harvard.edu)

2. Identify your triggers

Locations, tasks, individuals, groups, health, stress, hunger

3. Pause and slow down, in the moment

Take 3 deep breaths, drink some water, review your notes

4. Make small, consistent changes in your behavior

Ask for different opinions, eat lunch in a different seat, invite someone new to lead a meeting, standardize interview or review questions, check yourself for biases



Example: Strategies for Hiring

<https://doi.org/10.1016/j.jacr.2021.04.006>

- **Train the hiring committee**
Review strategies for identifying and mitigating unconscious bias
- **Increase the candidate pool**
Use targeted ads, outreach, and recruitment to reach diverse candidates
- **Holistic review**
Consider broad experience and skills, not just conventional metrics (like GPA)
- **Structured interviews**
Identify questions in advance and use them for all candidates





Learning Goals

- Describe the source of unconscious or implicit assumptions, preconceptions, biases, and prejudices
- Increase understanding of the impact of unconscious bias in STEM
- Identify concrete strategies for learning about and addressing issues of equity and inclusion

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Leading with Principles: Ethics



Leading with Principles

Ethics



Learning Goals

- Identify sources of ethical issues
- Become familiar with disciplinary codes of ethics
- Articulate ethical issues in research and practice
- Practice applying ethical decision making methods

Agenda

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- Ethical Behaviors and Decisions
- Exploring Codes of Ethics



The \$100 Question



Someone walking along a sidewalk sees a \$100 bill on the ground. They pick up the money, put it in their pocket, and walk away.

The \$100 Question



Someone walking along a sidewalk sees a \$100 bill on the ground. They pick up the money, put it in their pocket, and walk away.

Someone walking along a sidewalk sees a \$100 bill on the ground. They look around and decides no one is watching. They pick up the money, put it in their pocket, and walk away.

The \$100 Question



Someone walking along a sidewalk sees a \$100 bill on the ground. They pick up the money, put it in their pocket, and walk away.

Someone walking along a sidewalk sees a \$100 bill on the ground. They look around and decides no one is watching. They pick up the money, put it in their pocket, and walk away.

Someone walking along a sidewalk sees a \$100 bill fall out of a stranger's pocket. They pick up the money, put it in their pocket, and walk away.

Failure of Character

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5592308/>



- Moral character is a combination of innate and learned habits
 - Babies are naturally self-centered
 - Children learn appropriate behavior from others
 - “Appropriate” depends on cultural, familial expectations
- Character influences behavior
 - Innate level of willingness to lie, cheat, steal, etc.
 - Lessons learned from past experiences
 - Understanding of current context, expectations

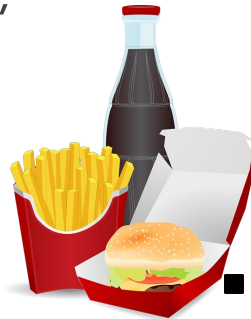
The Fast Food Dilemma

A teenager interviewing for their first job, at a fast food restaurant, is asked to respond to this scenario:

“You see another employee giving free food to their friends.
Would you ignore them, confront them, or talk to a manager?”

The teen says they would ignore it, because they don't know the situation. Maybe those people are hungry and don't have money, and they would never deny food to hungry people.

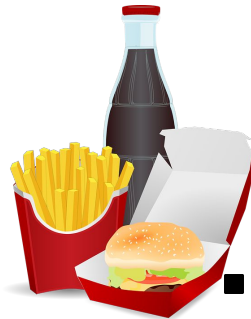
They don't get the job.



Failure of Experience

<https://www.nap.edu/read/18519/chapter/4#10>

- Moral decision making requires knowledge
 - What is expected?
 - What is appropriate?
 - How to get information or help?
- Moral decision making requires skill
 - Thinking critically about a situation
 - Understanding and synthesizing information
 - Identifying potential actions and outcomes
 - Ability to communicate effectively, under stress



Ethical Decision Making

<https://www.nap.edu/read/18519/chapter/4#10>

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- Ethical decision making can be taught
- Key features of effective ethics instruction include:
 - **Knowledge:** information about ethical issues and where to find help
 - **Skills:** critical thinking, decision making, conflict resolution, teamwork
 - **Attitudes:** open and willing to engage in ethical decision making
 - **Behavior:** modeling effective communications, ethical conduct



Ethical Decision Making

<https://www.ethics.org/resources/free-toolkit/decision-making-model/>

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1. Define the problem, and potential ethical issues
2. Get relevant information and assistance
3. Identify possible outcomes
4. Evaluate these alternatives, and identify ethical impacts
5. Make the decision
6. Implement the decision
7. Evaluate the decision; are ethical issues resolved?



Agenda



- Ethical Behaviors and Decisions
- Exploring Codes of Ethics



Codes of Ethics

<https://doi.org/10.1007/s10551-019-04192-x>

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- Address failure of knowledge, experience
- Describe ethical values, decision making guidelines
 - Codes of Conduct are guides to ethical behavior in certain contexts
- Practical impact varies
 - Professional licenses generally require ethical behavior
 - In other situations, codes of ethics communicate expectations
 - Provide a framework for discussion, enforcement



Disciplinary Codes of Ethics

Computing: ACM Code of Ethics

<https://www.acm.org/code-of-ethics>

Engineering: NSPE Code of Ethics

<https://www.nspe.org/resources/ethics/code-ethics>

Science: World Economic Forum Code of Ethics for Scientists

<https://widgets.weforum.org/coe/index.html#principles>

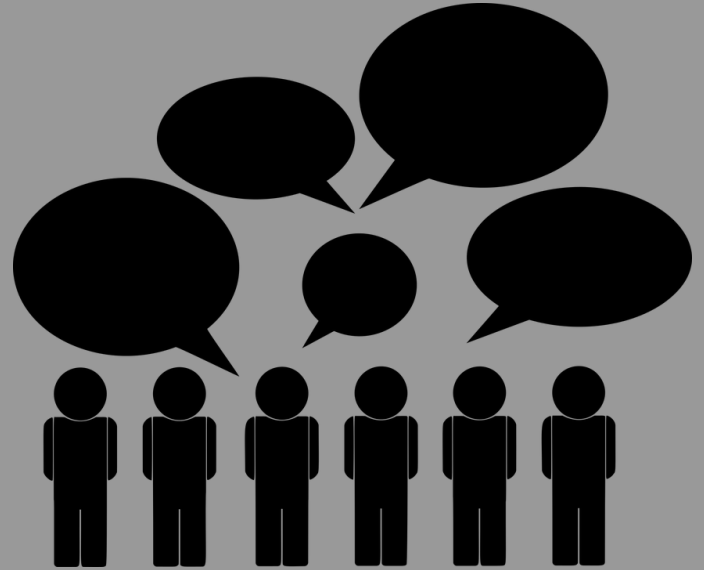
Code of Ethics Review

- Accept the breakout room invitation, 4-5 people per room
 - Write down the room number, in case you need to rejoin later
- Review Computing Code of Ethics
- Read the disciplinary case study aloud
- Discuss the questions after the case study



Chatter

What did you learn?



Learning Goals

- Identify sources of ethical issues
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