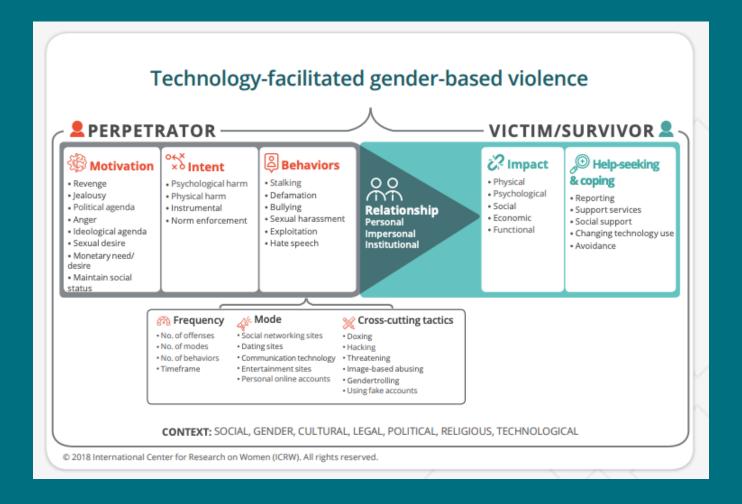
Research Topics

MS1 Mio Akasako

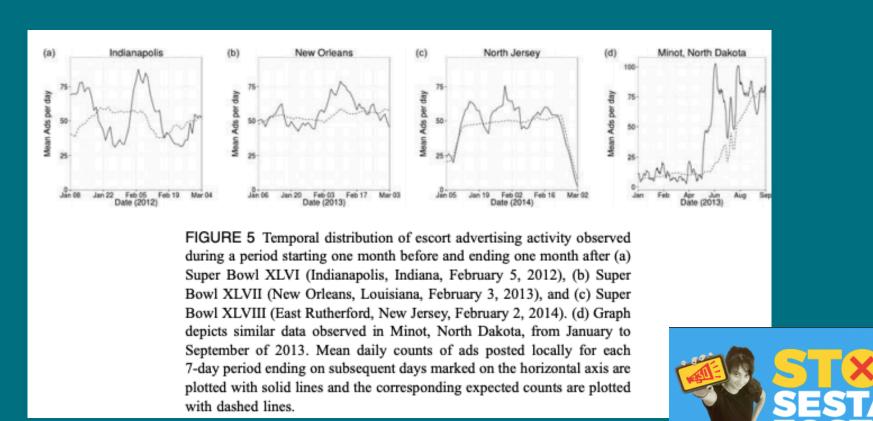
Sexual Violence & Harassment in a Digital Age

How has the use of technology increased levels of sexual violence and/or facilitated those in the realm of sex work?

Technology facilitated gender-based violence



Positives/Negatives in tech usage: sex trafficking, protection for sex workers



Sexual harassment/power dynamics in science

Harassment should count as scientific misconduct



Scientific integrity needs to apply to how researchers treat people, not just to how they handle data, says Erika Marín-Spiotta.

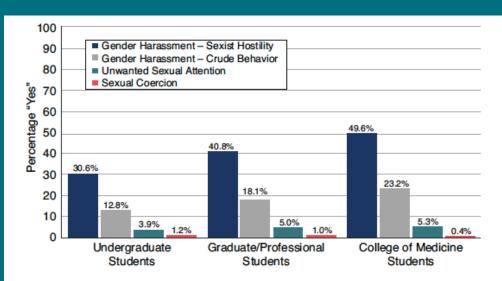


FIGURE 3-2 Faculty/staff-on-student sexual harassment incidence rates for female students by type/level of student and by type of sexual harassment (Penn State University). NOTE: The survey was given to 11,023 undergraduate students (2,945 responses), 4,000 graduate/professional (law) students (1,637 responses) at the University Park campus, and to 889 medical and graduate school students in the College of Medicine at the Hershey campus (411 responses).

Prominent neuroscientist Thomas Jessell was engaged in a relationship with a lab member under his supervision for years, violating University policies on consensual romantic and sexual relationships, before being removed from all administrative posts this past March, Spectator has found.

Jessell, along with nobel laureates Richard Axel and Eric Kandel, played a significant role in founding Columbia's Mind Brain Behavior Institute on the Manhattanville campus, which is poised as one of the leading neuroscience research centers in the world. Jessell's MBBI lab, which employs 25 faculty, postdoc researchers, and graduate students, will be closing down, though members of the lab will receive financial support from the University for the next 15 months.

Seven women are suing Dartmouth College for sexual assault, harassment and discrimination that they say they experienced from three prominent professors who, according to the suit, turned a human behavior research department "into a 21st-century Animal House."

For over a decade, the professors — Todd Heatherton, William Kelley and Paul Whalen — "leered at, groped, sexted, intoxicated and even raped female students," according to the court papers, which were filed Thursday in federal court in New Hampshire.

Project Proposals

- How has technology, and more specifically, social apps, increased the prevalence of sexual violence/harassment, and is there a way to combat this?
- How has technology created both positive and negative opportunities for those involved in sex work (ie sex workers, escorts, sex traffickers)?
- How has sexual harassment and sexism played a role in the advancement (or lack thereof) of women in science?

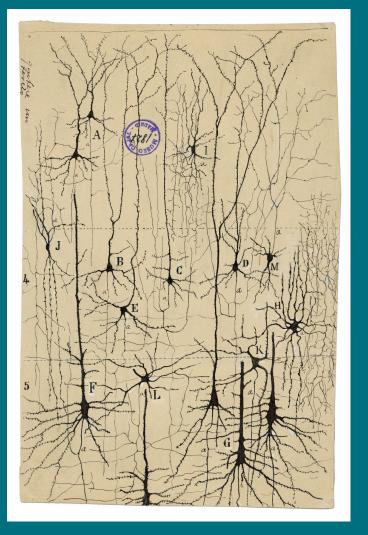
History of Neuro/Science

How has neuro/science evolved since its conception both in content [discoveries] and as a field [within society]?

Historical neuroscience







Neuroscience applied to phenomena in modern society

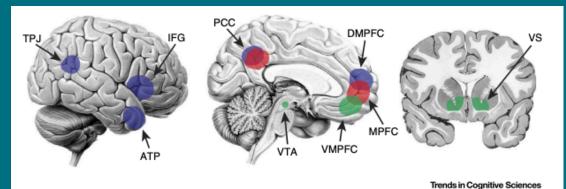


Figure 2. Proposed Brain Networks Involved in Social Media Use. Extensive neuroimaging research into social

cognition with offline paradigms has revealed several key brain networks that may be involved in social media use. (i) The mentalizing network (brain regions in blue): dorsomedial prefrontal cortex (DMPFC), temporoparietal junction (TPJ), anterior temporal lobe (ATL), inferior frontal gyrus (IFG), and the posterior cingulate cortex/precuneus (PCC); (ii) the self-referential cognition network (brain regions in red): medial prefrontal cortex (MPFC) and PCC; and (iii) the reward network (brain regions in green): ventromedial prefrontal cortex (VMPFC), ventral striatum (VS), and ventral tegmental area (VTA). Adapted and reproduced, with permission, from [87,88].

 Working Memory α. Top-down Alpha Modulation A. St-Mindfulness C. Clinical Conditions Hypotheses MBSR · Chronic Pain Primary: St-Mindfulness effects on clinical MBCT conditions will be correlated with enhanced · Depression Relapse top-down alpha modulation Secondary: Top-down alpha modulation after St-Mindfulness for clinical conditions will be correlated with performance on Legend Enhances Reduces Hypothesized relationships

Selective Attention

Brain networks involved in social media use

Effects of Standardized Mindfulness Training on cognitive and clinical conditions through top—down alpha modulation

Representation and treatment of women in science



Project Proposals

- How has neuroscience knowledge progressed and morphed (and even backtracked) from its conception to today?
- How has modern technology (ie social media, VR, tech warefare) changed brain behavior?
- How have women in science been treated throughout history, and how do their career mobility & success compare to those of men?