



Ranking Misconduct and QRP's: An informal survey among Ph.D.-students

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Objective

Objective: Investigate how PhD-students in the natural and health sciences rank various types of research misconduct and questionable research practices according to their perceived severity.

Note: This investigation is an *exploratory study* conducted as an exercise in an RCR-course for Ph.D.-students at the UCPH. It does not claim to have any scientific rigor other than being an aggregate snapshots of student perceptions. Thus, results may be subject to all kinds of confounders and biases not controlled for in the exercise.

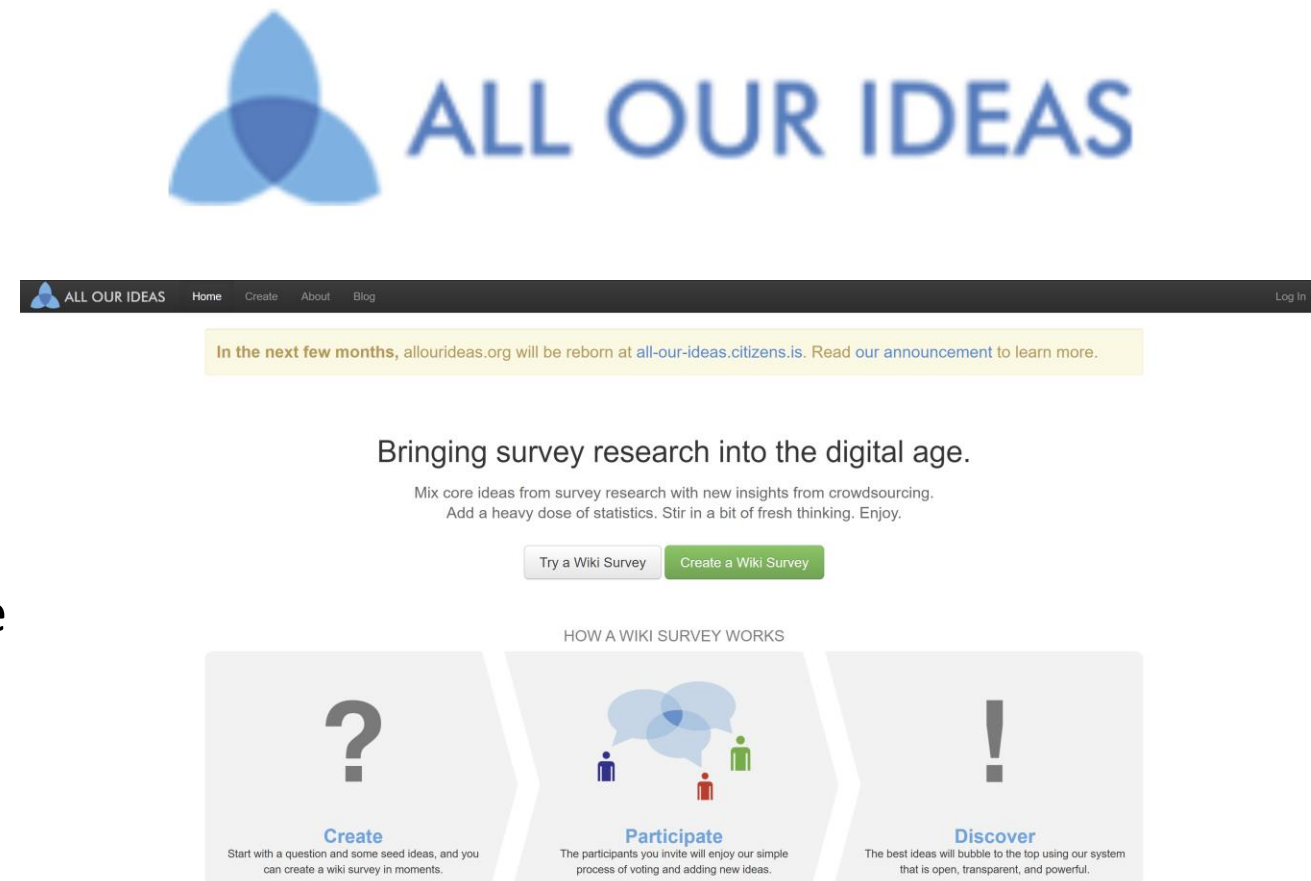


Method

Tool: <https://www.allourideas.org/rcr>, an open source online 'wiki-survey' developed by Matthew Salganik & Karen Levy¹. It allows users to create and vote on pairwise competing ideas and/or questions.

Ph.D.-students make repeated pairwise comparisons of various research malpractices. The aggregate of opinions enables the survey to establish a collective ranking of malpractices in terms of their severity.

Allourideas is currently hosting 27,620 wiki surveys with more than 1.5 million ideas and 60.5 million votes.



The screenshot shows the homepage of the All Our Ideas website. At the top, there is a logo consisting of three overlapping blue circles and the text "ALL OUR IDEAS". Below the logo is a navigation bar with links for "Home", "Create", "About", and "Blog", and a "Log In" link on the right. A yellow banner below the navigation bar reads: "In the next few months, allourideas.org will be reborn at all-our-ideas.citizens.is. Read our announcement to learn more." The main content area features the headline "Bringing survey research into the digital age." followed by the text: "Mix core ideas from survey research with new insights from crowdsourcing. Add a heavy dose of statistics. Stir in a bit of fresh thinking. Enjoy." Below this text are two buttons: "Try a Wiki Survey" and "Create a Wiki Survey". The bottom section is titled "HOW A WIKI SURVEY WORKS" and is divided into three steps: 1. "Create" (represented by a question mark icon) with the text "Start with a question and some seed ideas, and you can create a wiki survey in moments." 2. "Participate" (represented by an icon of three people) with the text "The participants you invite will enjoy our simple process of voting and adding new ideas." 3. "Discover" (represented by an exclamation mark icon) with the text "The best ideas will bubble to the top using our system that is open, transparent, and powerful."

1: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0123483>



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What is the most severe form of research misbehavior?

Unreported conflicts of interest

Inadequately handle or store data or materials

I can't decide

8179 votes on 50 ideas

Add your own idea here...



Cast Votes

[View Results](#)

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What is the most severe form of research misbehavior?

Failed to report important study details in publication

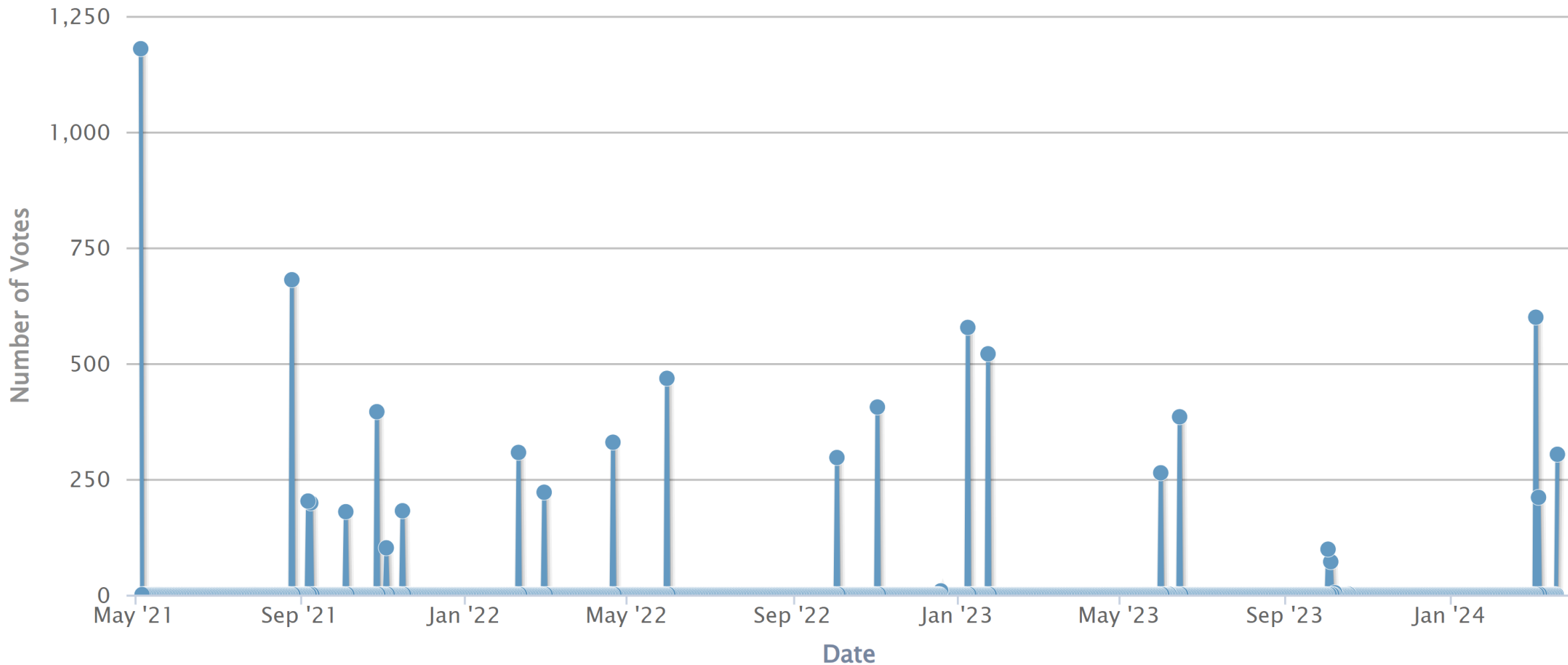
Unfairly reviewed manuscripts, grant applications or colleagues

I can't decide

8179 votes on 50 ideas


Add your own idea here...

Number of Votes per day Overall total - 8179



What is the most severe form of research misbehavior?

Ideas

Score (0 - 100) 

Falsification of data (manipulation of materials or processes as well as changing or omitting data in order to mislead)



93

Fabrication of data (undisclosed construction of data or substitution with fictitious data)



93

Ignore substantial safety risks of the study to participants, workers or environment



79

Plagiarism (appropriation of others' ideas, processes, results, or texts without rightful crediting)



78

p-hacking (selective reporting and other misuse of data analysis to find patterns that can be presented as statistically significant)



75

Changing the design or methodology or results of a study in response to pressure from a funding source



74

Unauthorized use of confidential information



65

Not adhere to pertinent laws and regulations



64

Failed to report important study details in publication

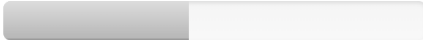
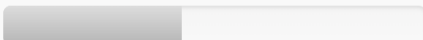
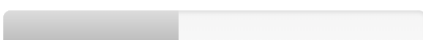
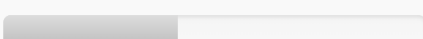
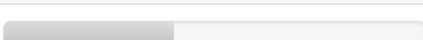
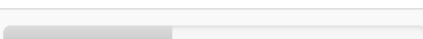
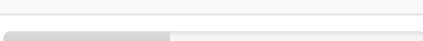
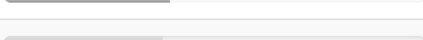
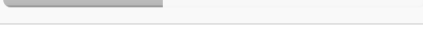
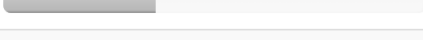
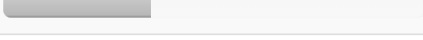
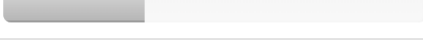
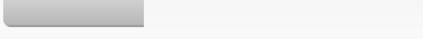
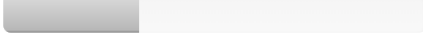
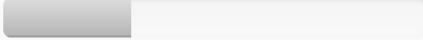
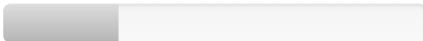
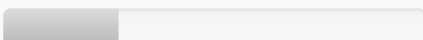
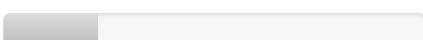
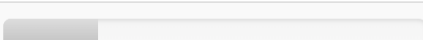


61

Use published ideas or phrases of others without referencing



61

Lack of inferential reproducibility (i.e. inability to draw the same conclusions from a similar, or the same, study)		44
Handle existing conflicts of interest inadequately		42
Inadequate research designs or unsustainable measurement instruments		41
Inappropriate or lack of citation		41
Lack of results reproducibility (i.e. inability to obtain the same results from a independent but similar study)		40
Ghost authorship		40
Selectively cited references to enhance findings or convictions		39
Conclusions not sufficiently substantiated		38
Gift authorship		36
Improper referencing of source		35
Inadequate record keeping		33
Re-use parts of your own publications without referencing		33
Add an author who doesn't qualify for authorship		32
Remove an outlier		30
Self-plagiarism (recycling or reusing one's own specific words from previously published texts)		27
Inadequate notes of research process		27
Insufficiently supervise or mentor junior coworkers		22
Salami publishing (a publication of two or more articles derived from a single study)		22
Excessive self-citation		20

Findings

- The **collective opinion** among Ph.D.-students agrees well with the established norms for RCR by ranking the three main types of research misconduct (fabrication, falsification, and plagiarism) in the top 4 with a win rate of 93%, 93% and 78%, respectively.
- However, we find the malpractice of **“Ignoring Substantial Safety Risks to Participants, Workers or the Environment”** to be comparable with plagiarism with a win rate of 79%.
- At the **bottom of the rankings**, we find insufficient supervision, salami publishing, and excessive self-citation with a win rate of 22%, 22%, and 20%.
- **In conclusion:** Ph.D.-students agree that fabrication, falsification, and plagiarism are the worst malpractices in research. However, they also see the neglect of substantial safety risks as highly problematic, suggesting that safety risks could be given more weight in the discussions and definitions of research misconduct.