## The consequences of COVID pandemic on the productivity of GD community<sup>1</sup> **Survey Results**

The past two years we are conducing the Graph Drawing conference under very unusual conditions of the COVID global pandemic. The number of paper submissions showed a significant drop this year. In order to get a glimpse on the role of the pandemic in this drop, as well as in order to raise the awareness on the well-being and on the possibly new conditions under which our community continues to teach and research, we have conducted a survey.

The can for participation in the survey was announced during the Graph Drawing conference<sup>2</sup>, sent by email to the registered participants and advertised at gdnet<sup>3</sup> mailing list. The survey was completed by 64 individuals, spanning all academic levels with majority (50%) being assistant/associate/full professors and 30% PhD students and postdocs. Regarding gender, 71.3% participants were male, 23.8% female and the 4.9% prefer not to say.

The results of the survey show that the overall influence of the pandemic on the academic productivity and well being of the community is quite strong. Thus, only 7.8% report that their productivity showed no drop, while 34% experienced drop between 1-25% and the same amount reported drop between 25-50%. Notably, there is a non-negligible percentage of individuals (23%) for whom the drop is above 50%. We would like to draw attention to the striking number of ~70% that state that their psychological condition was one of the reasons of the drop in their productivity. The most important aspect that influenced the productivity seems to be the lack of possibility to meet and work with colleagues in real life (80% agreed and strongly agreed). Finally, and most important, we have learned that 6 out of the survey participants have lost their close relative as a result of health complications caused by Corona virus. We express them our condolence.

The detailed statistics on the multiple choice questions can be found below. Additionally to these, there were three open text questions. In the first question we asked to report additional factors that influenced the academic productivity negatively. The answers of the participants are summarised below:

- The lack of and the barrier in communication with colleagues regarding work aspects, research and teaching
- The sudden urge to use unfamiliar technology
- · The lack of in-person research workshops

<sup>&</sup>lt;sup>1</sup> The survey was conducted by Tamara Mchedlidze. For further questions please contact the author at t.mtsentlintze@uu.nl.

<sup>&</sup>lt;sup>2</sup> https://algo.inf.uni-tuebingen.de/gd2021/

<sup>&</sup>lt;sup>3</sup> http://www.graphdrawing.org/gdnet.html

- Psychological reasons: absence of joy, no boundaries between private and professional life, uncertainty
- Private life aspects became more complex, such as caring of ageing parents, complications in moving house, lack of sports
- · The mental state of the students
- · The suddenly increased teaching load

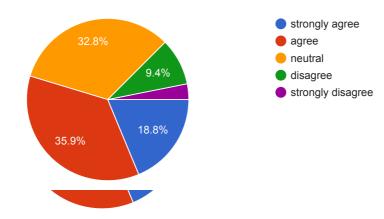
The second open question asked to share any positive change in life caused by the pandemic. The participants mentioned the following:

- More family time
- More time alone, more time for reflection on well-being, social aspects
- · New ways to socialise
- · Healthier life-style
- · Possibility to participate in remote events

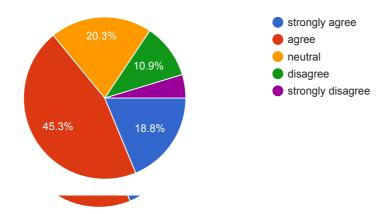
The third open question asked how we can support each other in this situation in the future. The participants mentioned the following:

- · More online events
- · Better integration of online and offline events
- Small local offline events
- Take special care of starting PhD students, as it is easiest for them to get lost, being isolated in the beginning of their research career

In 2021 I have sent in average fewer papers to Graph Drawing conference.

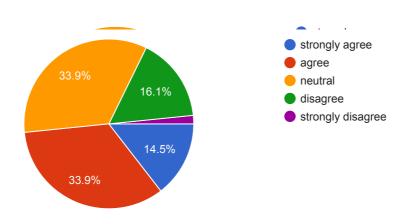


In 2021 I have sent in average fewer papers to conferences in general.



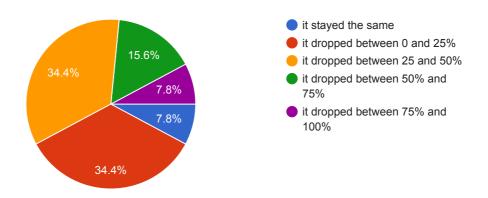
In 2021 I have sent in average fewer papers to journals.

62 responses

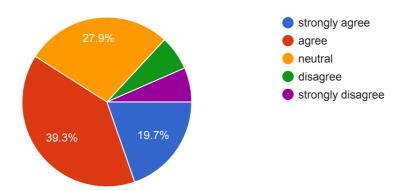


My research productivity has dropped by (choose the percentage).

64 responses



My research productivity was influenced by the increased teaching load as a result of a sudden transfer to online teaching.

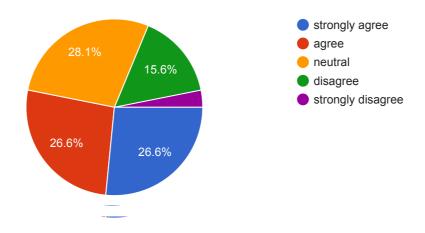




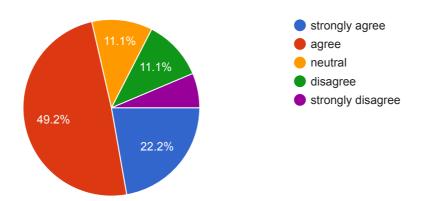
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Working from home I am not as productive as when being in the office.

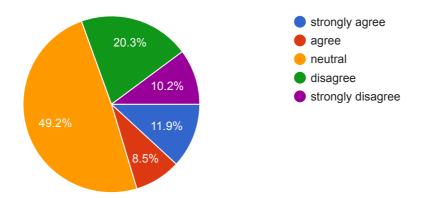
64 responses



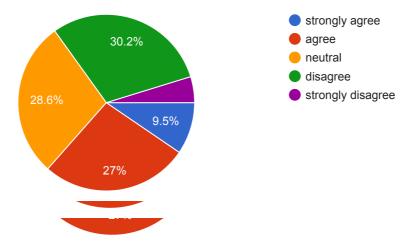
My psychological condition due to the pandemic and caused by it conditions was not as good as usual and this influenced my productivity. <sup>63</sup> responses



Increased child care due to home schooling or closed child care lowered my productivity.

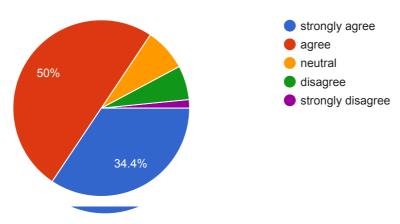


During the day, I felt much more often a necessity to inform myself about the world news and this influenced my productivity.

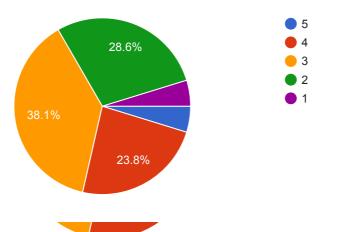


The lack of possibility to meet and work with colleagues in real life influenced my research productivity negatively.



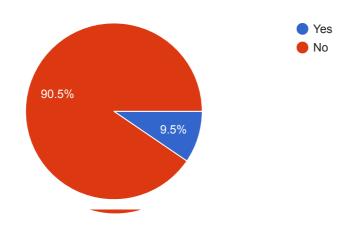


We all have transferred some of our research activity online. Please rate the productivity of the online research meetings. (5-very productive, 1totally unproductive)

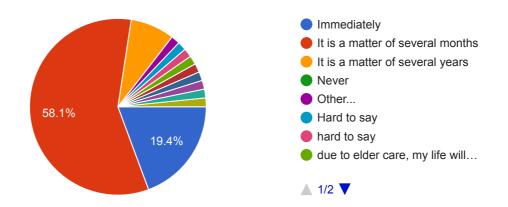


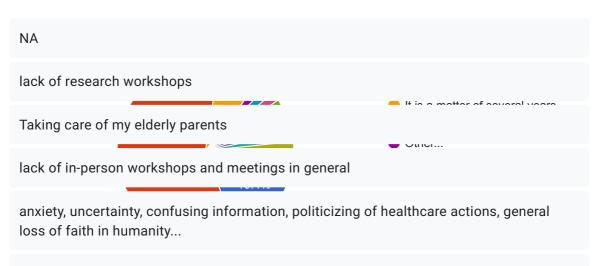
Myself or my close relatives have suffered from Corona virus.

64 responses



If the pandemic would end today, how long do you think it would take you to return to your usual levels of academic productivity.





- 6 care of aging parent
- Inc. I