

You Are a Human!

For face-to-face classroom interactions, there is an inherent social structure. Before you walk into the classroom, everyone is just a human, but once in a classroom, the instructor largely influences the environment. There is an expected default; the instructor uses an understood authority to establish classroom norms, and the students follow. However, each online learning environment is a function of shared responsibility, as each student must exercise control over their own physical space, managing their distractions and attention. In contrast, no one's cat has ever caused a disruption in a face-to-face mathematics classroom. When teaching online, however, feline interference falls squarely within expectation.

Remember when Buzz Lightyear talked to Star Command in *Toy Story*? Woody yelled back, "You are a toy!" Online instruction does not eclipse human interaction. Before ever entering the classroom, or the teleconferencing format, teachers and students are just humans. You are a human! Please show your humanness even when teaching online. That might mean you show empathy, that might mean you give inspiration, or that might mean cats occasionally share your spotlight and it's OK.

Trenholm, Alcock, and Robinson [Tre16] interviewed instructors, asking them to compare online to face-to-face teaching. They then sorted out potential advantages and disadvantages to online teaching. One instructor described that in a face-to-face class, it was easier to keep students' attention because they simply needed to prevent students from "tuning out;" whereas, in an online course, the instructor felt the need to first somehow get students to "tune in," which was a more difficult task. This difference most likely lives in instructor perceptions and stems from feeling less control over this new shared learning environment.

If instructors do feel more pressure in an online environment to hook students' interest through engagement, then it may be an impetus for implementing active-learning teaching strategies. However, before calling Star Command for all the fanciest new technology, remember that you are a human. Connecting and communicating with your students might be all you really need.

Conclusion

In summary, I invite you to reflect on your lived experiences through the recent mass transition to online learning. Consider what lessons may have longevity. In a few decades, when you pass on pedagogical lore to a new generation of faculty, what tale will you tell of 2020? Some may brim with success stories and describe it as flying, but others may liken it to "falling with style." Regardless, I hope we can all notice larger lessons of flexibility, resilience, and humanness, and I hope these lessons follow you to infinity and beyond.

References

[Tre16] S. Trenholm, L. Alcock, and C. Robinson, *The instructor experience of fully online tertiary mathematics: A challenge and an opportunity*, *Jrnl. Res. in Math. Ed.* (2) 47 (2016), 147–161.



Jeneva Clark

Credits

Author photo is courtesy of Ben Walker.

Turning a Zoom Talk into a Live Talk

François Bergeron

1. Introduction

In these times of generalized restriction on international travel, which will probably be in place for several months, most mathematical meetings are currently being organized in virtual presence mode. We all have had to adapt and discover how to give lively and interesting talks notwithstanding. Many tools are available for this, among which Zoom seems to be somewhat prevalent. It appears that it has escaped notice that one of its features makes it possible to reproduce a talk-style typical of the meeting that we usually attend in "live mode." In short, this is simply to use its Virtual Background feature as a projecting device for slides. One can even go from one slide to the next using either the arrows on a keyboard or a clicker. In this way, in a Zoom meeting, the speaker can stand in front of his/her slides and point at them in real time, just as usual.

2. About Zoom Meetings

By this time many of you have probably become Zoom meeting wizards. For the others like me who are still learning, here are a few reminders. The organizers of the meeting decide on many options for the meeting, and you have to make sure that you understand these and that

François Bergeron is a professor in the Département de Mathématiques, Université du Québec à Montréal (UQAM). His email address is bergeron.francois@uqam.ca.

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it works with what you intend to do. Since one of these options is to enable or not the Virtual Background feature, you have to make sure that the organizers have it enabled. Also, Zoom has an algorithm that decides which image is currently displayed on participants' screens. Mostly, this is based on sound, which may be individually muted or not. An unmuted participant who simply coughs may thus become the displayed image on all screens of others attending the meeting. When several participants are displayed, it is possible to "pin" one of these as the displayed image, in effect disabling this feature on one's own screen. As we will see further, you should do this with your own image. Hence, you get the impression that you are looking at yourself in a mirror.

3. How to Set It Up

To get started, one prepares the slides as individual images (or even short movies), taking care to leave room for the presenter to stand in front of them (say, 1/3 of the page either to the left or the right, depending on where you plan to stand). Acceptable formats seem to be .jpg, .png, and .mov. Then, in the Zoom preference window, by selecting the Virtual Background options, one sequentially adds the slides in the planned order of presentation. This background selection window will need to stay open throughout the talk. Essentially, that is it; you are now ready to give your talk. However, some practice will make things work better. Having two screens may be useful (say, by logging on to the meeting with two devices), so that one sees the reaction of the public. My own configuration is a desktop with an extra webcam and AirPods with their internal microphone. A small webcam often gives a better image than the internal camera. Mine sits on top of my computer screen, which I am looking at while talking. In any instance, you should certainly check beforehand that your setup works fine, say, with a friend. Don't forget to have sufficient lighting on you and not behind you. Good sound is also very important, so test it beforehand.

A few points to be aware of. You should check that the audience will not see your slides mirror-style. There is a "mirror my video" option in the Virtual Background settings that you may or may not like to use. This makes it so that what you see is not necessarily what the participants will see, depending on the option you select. You should also test this with others to make sure. To see where you are pointing, and give the impression that you are looking at the attendees, you should have a window of yourself lying just below the camera. Ideally, you should use a "green screen." For movies and pictures, specialists use a bright green color screen as a backdrop when they want to replace the actual background by something else for special effects. Apparently this color is furthest away from human skin tones. The Virtual Background feature of Zoom works best with a green screen or a uniform color wall behind you. There are backdrop screens that are not expensive. In the

settings, you should then select the option saying that you do "have a green screen," irrespective of the actual color of your background. There is a sampling tool that then (and only then) becomes available below your image. It looks like a small oval with green in the middle. When you select it, you get a crosshair cursor which enables you to click on a portion of your monitor screen that corresponds to the actual background color being replaced by your Virtual Background. Trial and error will guide you here.

One current caveat is that Zoom may lose the order of selection of slides when shut down, especially if one mixes movies and images. Thus, you may have to set things up again, a little while before your talk, and keep Zoom open while waiting to give your talk. Here is a link to a talk of mine that was set up this way: <https://www.youtube.com/watch?v=aArPzxkaVy4>. One of my mistakes here was that I did not have an image of myself displayed by Zoom sitting just below my camera, as I recommend you should do. Thus I often appear to have my eyes closed because of where the screen I was watching was located.

I wish you great success with your next virtual talk.



François Bergeron

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