Online Presenter Tips and Checklist

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Note these are simply guidelines and best practices from my personal experiences. Also note, that these, in one way or another, are all considerations for ANY sort of presentation, online or in person. If you have any questions or need clarification about these, let us know in the team chat.

1. Presenters should have
    a. Water
    b. Printed Outline
        i. Don't READ everything
            1. It's okay to read a little bit, e.g. an intro or outro bit, but in general, keep it loose and allow for spontaneous and organic energy.
            2. Above all, don't read your slides - avoid having full sentences or complex text in your slides in the first place that will tempt you to read them.
        ii. Don't "wing" everything either
            1. Have a concrete vision of flow and transitions, and have them printed out, in big, readable font on one page next to your camera.
            2. It's not a teleprompter, and it's not "anything goes," find a balance that works for you.
    c. If working with others on a livestream and there's no private chat function, have a separate phone/mobile device - on vibrate and visible, but NOT on the same surface as your microphone - for separate, emergency team messages, e.g. "you're muted" or "there's something on your nose" or "your background is on fire."
    d. Any materials needed for demos at hand
        i. Prevent the need to leave the camera to grab what you need.
        ii. Order and organize items, so you can grab them almost without looking.
2. For online video stream, prep
    a. Lighting
        i. Don't have lights behind you, and be conscious of what's in your video frame
        ii. Have one or two bright lights behind the camera, to eliminate bad shadows (in the extreme, you can buy a professional ring light)
        iii. If you're going to be doing this professionally and often, you may wish to look into some simple makeup. An internet search for "on camera makeup" tips will get you started.
    b. Sound
        i. If possible, call using a phone, don't use computer audio. Most video conferencing systems should provide phone numbers or a "call me" function.
            1. There are always small hiccups in how computers process data, including audio data.
            2. Phones were designed to transmit voice live and in real time, so use them! Landlines are best. Likewise, wired internet is best, don't rely on Wifi.
            3. Also, don't disenfranchise those who don't have access to the internet during your meeting time, including those in transit or away from home/the office.
        ii. Regardless, use a headset with dedicated mic / professional mic
            1. It's one more line of defense against echo and other noise issues, if you're hearing the audio directly in your ear
            2. A dedicated mic helps with audio, and noise cancelling mics are even better (possibly with some sort of "pop shield" - DIY options can be effective, too)

3. Wireless/Bluetooth is fine if you must, just be sure to charge your batteries to full before your event

iii. Don't type, click your mouse (use a touchpad), tap your desk, or ruffle papers while your mic is live, especially when you're on your computer audio. Make sure you have that water handy to avoid any dry throat coughing.

c. Presentation materials

i. For physical items, be constantly conscious of your framing - can the audience actually see what you want them to see? Do real-world tests to think about angles, lighting and framing for your materials, and use tape to mark your frame for things like tabletop demos. Depending on the platform, you may wish to have a second laptop/device just connected to the stream so you can see what others see.

ii. For digital items, share by file. Avoid sharing your screen. So many problems can arise from sharing screens, not least of which is poor streaming quality/frame rate/tearing and people seeing irrelevant or private content, like pop up notifications.

iii. Make proper slides with screenshots or a screen capture recording, even if you're sharing a website or other live program. It provides the best reliability and performance, and is easier to manage (e.g. pause/play at different segments or just advancing slides/clips). Note that live interaction is highly encouraged (see #4 below), but even if you have a live and interactive section where you demo something in real time with an audience, you may, wherever possible, still want to at least start with some slides or a recording of your main points.

1. Example 1 GLOBE Observer tutorial: https://informal.jpl.nasa.gov/museum/Conversations/globe-observer-locally-based-global-citizen-science
2. Example 2 NASA Eyes tutorial: https://informal.jpl.nasa.gov/museum/Conversations/eyes-best-practices

iv. Close every extraneous program for best performance, especially for older computers.

3. Know your audience, and state it clearly! Nothing gets bad reviews faster than unmet expectations. Are you marketing to younger kids, older kids, parents? Do you know if you'll have any special needs audience members?

i. For special needs, it could be as simple as making sure you don't have any loud sounds or bright flashes for autistic students (and for everyone's comfort, really). And if they are needed, like blowing up a hydrogen balloon, be sure to give people plenty of warning. Jump scares are for horror movies, not for science education.

ii. For the hearing impaired, one option is to connect with a local teacher for the hearing impaired and have them do a sign language stream/embedded window alongside or in parallel to your livestream.

iii. For visually impaired, consider an event focusing on sounds or doing a sonification of data activity.

iv. For interactive streams (see below), be prepared to adapt on the fly, if you're noticing a different audience/level than what you were expecting. It can be as small as lessening the use of jargon, or increasing the complexity and analogies you use in explanations.

4. For truly interactive streams - remember wait times! Pedagogically, providing wait times after you ask a question or make a request is important for learning, but it's doubly true for online interactions where people need to unmute, type, or otherwise prepare to answer. Just be explicit about when you're giving wait time, and don't be afraid of a little "dead air." Several options for livestream interaction include but are not limited to

a. Random livestream chat interaction - great for just one or two person teams, but can be very chaotic. However, in the words of a popular content creator, “if you are interacting with some people, it makes everyone feel like they are being interacted with” https://youtu.be/-ozNQI8hjkU?t=109
    i. Example 1 from AMNH: https://youtu.be/qYobHLpwfls?t=535
    ii. Example 2 from Kina Granis (note the back and forth she has with her live audience): https://youtu.be/pWVzNy3v7pQ?t=6002
    iii. Example 3 from Because Science (note that you can choose to NOT show the live chat in the recordings): https://youtu.be/pt9PlFcdvQE?t=392
b. “The NASA Way” - using separate social media services and a # (e.g., #AskNASA). Best done with three or more people (an expert, an interviewer, and someone monitoring the separate hashtag across several social media platforms, feeding the “good” questions to the interviewer). Completely separates your questions from the livestream, and highly curates them to avoid anything inappropriate from appearing.
    i. Example 1: https://youtu.be/79Zjr3WRXLw?t=1851
    ii. Example 2: https://youtu.be/7OYTrFGAp_g?t=457
c. The downlink way - solicit and coordinate, in advance, a specific student/member/listener/school/group to interact with live, and broadcasting that interaction. Requires huge advanced planning and testing, with backups, and constant contact between parties to avoid no-shows.
    i. Example 1: https://youtu.be/1nQWp95fzFo?t=113
    ii. Example 2: https://youtu.be/Xo4lCdwQuc0?t=154
    iii. From “Wait, Wait”: https://www.npr.org/programs/wait-wait-dont-tell-me/487032190/wait-wait-dont-tell-me-for-july-23-2016?showDate=2016-07-23
d. Solicit or gather questions, say about a specific topic or from specific groups, well in advance of your show to answer “live.” It’s not as truly interactive as the other methods.
    i. Example 1: https://www.youtube.com/watch?v=YOG3tAkPpPE
    ii. Example 2 with Brad Pitt: https://www.youtube.com/watch?v=CUrshzt-muI
    iii. Example 3 from StarTalk (note they make a big deal how the expert doesn’t get to see the questions beforehand so the answers have more “livestream” energy): https://youtu.be/BEwYqByCIUs?t=151

5. Finally, rehearse, refine, and warm up!
    a. Do real-world sound and video tests well in advance, and do a final run through, including any vocal/physical warm ups as needed, especially for really intense/extended/multiple sessions. Make sure everything is working to your standard, make sure you know exactly how loudly you should talk for the best audio, etc.
    b. Plan to be ready at least 10 minutes before your posted start time. Although some people like the “curtain opens and the show starts” method, don’t be afraid to start your stream early to greet your audience and interact informally before starting “the show” at the posted time. Those early birds who are dedicated viewers can help you confirm that everything is working properly and make last second adjustments. It’s also a good chance for you to give your “fans” some extra attention/interaction before the show starts, providing a warmer, more welcoming environment as the general audience enters.