Preparing and showing ☐📸 presentations
during 👥 live in-person, or ☐ digital video virtual web-based meetings, conferences, gatherings or webinars of distributed or self-isolating teams

On 2015-07-21, I based this file on the concept that **we should be kind to our audience**, with recommendations by Rick Darke and others. And when COVID-19 hit, a sister gave me many of her **Best Practices**. Thank you, Sis! And it seems that **every time** I help 👫 family, friends, or 👥 colleagues on a project, or do my own project, there is another **gotcha** or two, leading to new **Lessons Learned**.

I 🖋 record and maintain these helps on these subjects to: (A) reduce new-technology *teething pains*, (B) keep these processes **repeatable**, and (C) keep myself **organized**. For date this file last updated, please see page footer. For info on 🌲 green or </> programming subjects, please see this document's **sister docs**.

Contents

1 Weeks before the presentation

1.1 Learn how to talk

Watch ▶ video "**How to Speak**" by Patrick Winston https://YouTu.be/**Unzc731iCUY**.
   □ *For full effect,* select the video link, then icons □ **fullscreen**, cc **captions**, ▶ **Play**, and □ ☒ **Skip Ads**.
   □ Will take an hour, but is well worth it.
   □ ~~More from this speaker at https://OCW.MIT.edu/search/?q=Patrick+Henry+Winston.~~

1.2 Find a technical support person

Unless you are extraordinary:
   □ *If possible,* arrange to have a **support person** to focus on the **tech stuff**, while **you** focus on your **audience**, **material** and **presentation**. *If you have such a support person,* verify that they have a copy of this document, and determine how much of this content you can delegate!

   □ Tech Support person: *If the presentation will be amplified or recorded outdoors,* find out how to prevent wind noise.

1.3 Should your meeting/presentation/conference/gathering be live in-person, or digital virtual?

I am adding new material here at high speed, so if you don't see something now, check back soon.
If you know something that I don't, please send comments to the author.

1.3.1 First steps

   □ **[Host]** Determine if your meeting or presentation:

Must be **live in-person** (in a room).	Go to the next section "Prepare your presentation".
You can hold or give it **remotely** (a distributed-team video-meeting/conference/gathering or webinar, via digital technology).	Continue immediately below ...

   □ **[Presenters]** You should be working on your presentation as in the next section "Prepare your presentation".

   □ **[Host]** Determine which **distributed-team web video-conferencing software** you will use. I have used about five of them. Most are fine, but some take longer to set up, some take reboots, and some are more trouble-prone. Among your options:
      o **Zoom Cloud Meetings** or **Zoom Meetings** by Zoom Video Conferencing zoom.us. Installs right away! Reliable! If you have newbies log on 4 minutes before the meeting/videoconference/webinar, you have a chance of getting everyone on!
         ▪ **[Host/Presenters/Panelists/Participants/Attendees]** on a 📱☐ **smartphone** or **tablet** will be asked to install app **Zoom Cloud Meetings** or **Zoom Meetings** by Zoom Video Conferencing zoom.us, but it goes very quickly (one press, I think).
         ▪ **[Host/Presenters/Panelists/Participants/Attendees]** on a ☐ computer with default browser **Firefox** will be asked to install app **Zoom Cloud Meetings** or **Zoom Meetings** by Zoom Video Conferencing zoom.us, but it goes very quickly (one click, I think), and requires **no** reboot.
         ▪ **[Host/Presenters/Panelists/Participants/Attendees]** on a ☐ computer with default browser **Chrome** will be able to run quickly (one click, I think), without installing any software!
            • Participants on a ☐ computer with default browser **Firefox**, **Edge**, **Safari**, **Opera**, **Vivaldi** or **Brave?**
      o Google **Meet** https://**meet**.google.com (formerly, Google Hangouts video call).

- **Joining** a meeting/videoconference/webinar is easily done by *anyone with a Google account (not necessarily a Gmail address).*
  - Including **presenting:** sharing your desktop or window!
- **Hosting** a meeting/videoconference/webinar:
  - *From 2020-April/October,* is free for up to 100 people *with a Gmail account* (a Google account isn't sufficient?).
  - *Before 2020-April (and after 2020-October if Goggle doesn't change their mind),* requires a **Google Workspace** (formerly **G Suite**) subscription.
    - You might already have a subscription via your employer or NGO.
   - For-profit organizations pay for **Google Workspace** (formerly **G Suite**).
    - Nonprofit organizations use **Google Workspace** (formerly **G Suite**) **for Nonprofits** for free (after some authentication).
    - Government agencies use **Google Workspace** (formerly **G Suite**) for free (after some authentication).
    - People with no affiliations above can pay for **Google Workspace** (formerly **G Suite**), starting in 2021?
    - *As **Google Workspace** (formerly **G Suite**) **for Education** tools enter classrooms across Canada, some parents are asking to opt out.*
  - **[Host]** To start the meeting, go to meet.google.com > button "Start a meeting" > button "Join now" > Copy/Paste the "Meeting ready" link and send to the other Participants, via email, SMS text, or other means.
    - *If everyone at the meeting are **all** coworkers running the same calendar appointment software (such as Microsoft Exchange Server),* you can instead Paste it into a Meeting, and invite everyone.
    - *If you are **not** all coworkers running the same calendar appointment software,* do **not** Paste it into a Meeting, and invite everyone. Invitees running an integrated email/calendaring software (Microsoft Outlook, or ● Apple macOS, iPadOS or iOS) will be fine. But I hear from invitees who aren't running integrated email/calendaring software, that they are shown **nothing**. So put the invitation in a normal email or SMS text message.
- **Skype** (too retail?) and Skype for Business (being deprecated in favor of MS Teams).
- Microsoft **Teams**. In early 2020, added to Microsoft **Office 365**, and branded **Microsoft 365**.
- Cisco **Webex** Personal or paid; Teams, Meetings, Events, etc.
  - Very functional. Different room feature is way cool!
  - As of 2020-08, interface is a bit clunky, which surprised me since Webex created this marketspace.
- Adobe **Connect** Meetings, Webinars and Learning.
  - 13 Reasonable Alternatives to Adobe's Expensive Apps.
- Citrix **GotoMeeting**.
- LogMeIn **GoToWebinar**. Not bad, except fails to launch under browser **Firefox**. Controls (links, Q&A, etc.) behind orange arrow.
- crowdcast.
- **Hopin** online event platform.
  - Very functional. Different room features is way cool!
  - Saw an organization, a first-time user of the software, use Hopin very well for an important fundraiser, to great effect. Nice!
- **Slack**.
- ● Apple **FaceTime** (too retail?).
- Meta Platforms, Inc./Facebook **WhatsApp** and **Messenger Rooms**.
- **Demio** webinar software.
- Uberconference.
- 8x8 **Jitsi**.
- Comparison of some of the above.
- More thoughts in *Consumer Reports* article "Working from Home because of COVID-19? These Tech Ideas can make it Easier" https://consumerreports.org/home-office/work-from-home-covid-19-tech-that-will-make-it-easier/.

*[Thanks for the tips, **N** and **J**!]*
- **[Host] [Presenters/Panelists] [Participants]** *If you are going to do this a lot,* you want to visit your favorite 📱🖥 computer store **Gamer section** to look at comfortable, fits-you:
  - 🎤🔊 **earbuds-with-microphone**, or
  - 🎤🔊 **headset** (headphones with 🎤 microphone), such as the HyperX Cloud Stinger at Best Buy or Amazon. May be cordless or corded.
    - *If corded,* its 🔊 **audio plug** will be of type **3½ mm male TRRS** plug [4-conductor, stereo with mic] (not TS [2-conductor, mono], nor TRS [3-conductor, stereo]), with **T**ip **R**ing **R**ing **S**leeve containing,

respectively, analog signals for **L**eftAudio **R**ightAudio **G**round **M**icrophone (**CTIA**) (**not** OMTP). This works for ⌨ computers newer than 2016 or so. For computers older than 2016 or so, it may have an adapter that changes that one **3½ mm male TRRS** plug to two **3½ mm male TRS** plugs (one for 🖊 microphone, one for 🔊 speakers).

  ▪ *If any different,* I have **never** found any adapter combination that will get you what you want.
  ▪ *If you get a 🖊🔊 headset,* remember the name of it, for when you have to tell your ⌨ computer to use it for 🔊 audio or 🖊 microphone.

□ **[Host] [Presenters/Panelists] Test** your videoconference software <u>as below</u>, and get used to it.
  ○ **TODO:** Find out if any functions are not available (or hidden behind the *meatballs* button **... More**) on 📱▢ smartphone or tablet.

1.3.2 Two weeks before the meeting/videoconference/webinar

□ **[Host]** Decide if your particular distributed-team video event is a (details are for ==Zoom==, others similar).
  ○ You will need to know this decision when you schedule the meeting or webinar, a few minor bullets below.

==Meeting==/videoconference/gathering	==Webinar==
Among peers/colleagues.	Sage-on the-stage, top-down broadcast.
Real-time participation/discussion/feedback through 📹 video, 🔊 audio, and 💬 **Chat** box.	Feedback/interaction only through optional 💬 **Chat** box and **Q&A** box.
Optional **small-group breakouts**.	**No** group breakouts.
Roles:	Roles:
[Host] [1] a Participant with **all controls**, including **whiteboard**.	**[Host]** [1] a Panelist with **all controls**.
[CoHosts] [0+] a Participant who also ==....== May be Host's **Participants Moderator** and/or **Chat Moderator**.	**[CoHosts]** [0+] a Panelist who also ==...== May be Host's **Attendees Moderator** and/or **Chat/Q&A Moderator**.
[Presenters] [0+] a Participant who will ==Share Screen== [==Present== now] [Share].	**[Panelists]** [0+] an Attendee who also can been seen in 📹 **video** and heard by 🔊 **audio**, and can ==Share Screen== [==Present now==] [Share].
[Participants] [2-100] ["Pro" 100-500-1,000] participates two-way via 📹 **video,** 🔊 **audio,** 💬 **Chat**.	**[Attendees]** [0-100 (-10,000)] participates two-way via 💬 **Chat** and **Q&A**, receives video/🔊 audio of Host and Panelists, sends video/🔊 audio **only** if Host directs.
Free "Personal Meeting". Originally, used to kick off everyone at 40 minutes into having 3+ Participants. Users on a budget learned to re-invite everyone and continue their meeting. But during the COVID-19 coronavirus pandemic, ==Zoom== sometimes extends your meeting indefinitely. **$15**-65-105+**/month** "Pro".	**$55**-105-145+**/month** "Pro", "Business" or "Enterprise" subscriptions.
Comparison charts. Carmen tips.	

□ **[Host]** Get used to your software by doing all the actions in section below <u>Two days before the meeting/videoconference/webinar</u>.

□ **[Host] Schedule** the meeting with your system provider, with options recommended by your provider.
  For ==Zoom:==
  ○ **Schedule** the meeting with your system provider. Usually turns out to be <u>https://zoom.us/meeting</u> or <u>https://zoom.us/webinar</u> > button **New Meeting**.
  ○ Many of the settings below have <u>defaults set above</u>.
  ○ If you want strong security, set meeting:
    ▪ In section **Meeting ID**, set to **Generate Automatically.**
    ▪ In section **Security**, check **Passcode** and **Waiting Room.**
    ▪ In section **Video**, set **Host = Off** and **Participant = Off.**
    ▪ In section **Meeting Options**, uncheck **Enable join before host** and check **Mute participants upon entry**.
  ○ 🔊 **Audio = Telephone and Computer Audio** to allow Participants/Attendees to get their 🔊 audio from a 📱▢⌨ smartphone/tablet/computer, or a 📱☎ separate phone (their choice).

- o **Join before host = Enable.**
  I like it, particularly if Host thinks s/he may not be online 10 minutes early, particularly if you set **Alternative Hosts/CoHosts**.
  *But if the **Host** is very conscientious, and you have reason to fear your Participants/Attendees,* disable this.
- o **Only authenticated users can join meetings from Web client = ON**.
- o **Mute participants upon entry = ON.**
- o Virtual **Waiting Room = Enabled** if you are a large organization, or must post the meeting link on an open website hours or days before the meeting.
- o Virtual **Waiting Room = Disabled** if you are a small organization, and do not post the meeting link on an open website hours or days before the meeting.
- o **Save.**
- o Send the meeting announcement as a "Save the Date" to all CoHosts/Panelists/Participants/Attendees, so they can keep this time clear in their calendars. You will send out a much more detailed update You will send out the rest of this information a little later.

*[Thanks for the tips, **C**!]*
- □ **[Host]** Prepare an **Interactive Agenda**, with everything a Participant could ever need for the meeting/videoconference. Attendees will need less information for their webinar. Items needed may include:
  - o A **title** or overall reason for the meeting.
  - o **Date, time, duration,** and **how** to remotely-attend the meeting.
  - o A **cellphone mobile number** to **call** or **SMS text** if **they have problems**.
  - o An **agenda** of specific issues the group needs to cover — the reason for the meeting!
  - o Links to all **background** information and reference materials.
  - o **Ground Rules**, including:
    - ▪ **Start** your 📷 **video**, and do not mute it without good reason. [This promotes engagement.]
    - ▪ **Mute** your 🔊 **audio**, until you are about to say something. [Minimizes distracting noises.]
    - ▪ *During the Presentation,* put your **questions** and comments in the 💬 **Chat** or **Q&A** box--will handle at end. [Frees up **Host** to deal with technology and agenda.]
  - o Activities designed to **engage** each Participant/Attendee **individually.**
  - o **Breakout sessions** in Breakout Rooms.
  - o A **Call-to-Action** to prove each CoHost/Panelist/Participant can fully participate, perhaps:
    - ▪ Has successfully launched the software.
    - ▪ Has successfully edited (and thus seen!) the **Interactive Agenda**.
    - ▪ If this **Interactive Agenda** is in a **shared workspace**, such as **Google Drive Docs** or **Slides:**
      - • Each **CoHost/Participant** will have a place (agenda item 0?) to edit demonstrating that they **got on** the system, and has **edited** the Interactive Agenda. They may also be able to take notes/make contributions right there!
      - • **Host**'s designated official **Note Taker** can also take notes right there.
- □ **[Host] Send out** this Interactive Agenda to **all Attendees**, via email, SMS text, or other means.
  - o *If everyone at the meeting are **all** coworkers running the same calendar appointment software (such as Microsoft Exchange Server),* you can instead Paste it into a Meeting, and invite everyone.
    - ▪ *If you are **not** all coworkers running the same calendar appointment software,* do **not** Paste it into a Meeting, and invite everyone. Invitees running an integrated email/calendaring software (Microsoft Outlook, or Apple macOS, iPadOS or iOS) will be fine. But I hear from invitees who aren't running integrated email/calendaring software, that they are shown **nothing**. So put the invitation in a normal email or SMS text message. Example text:
      Please join us for [Event], which we have scheduled for [date and time]. [While community-transmission remains high, and weather keeps us from meeting outdoors,] we will hold this event remotely, wherever you can access a ☎ phone or 📱▢🖥 Internet.
      To Join from a 📱▢🖥 smartphone, tablet or computer:
        If you want to practice from a new device, select the link below now.
        If you are experienced Zoomer, ten minutes before the event, select link [videoConfURL]. ⬅
          Do whatever it says: OK, Yes, Open Link, whatever.
          Turn up your 🔊 sound, and Start your audio and 📷 video.
      To Join from a ☎ classic phone, please ☎ call our techie, as below.
        Call him now — there is something he needs to set up.
        Afterward, he will give you instructions to join 🔊 audio-only.<mark>**</mark>
      If *any* trouble of any kind, please 📱☎ call our techie at [phone URL], and he

*[Thanks for the tip, **C**!]*

- ☐ **[Host] [Presenters]** *If you are going to be speaking or presenting for a while, **particularly if you are going to be recorded,*** round up a **standing desk**; or a regular desk with your 🖥 laptop elevated by a box or stack of books.
  - o Doing so, your voice will project better.
  - o And if you are a bit congested, minimize any fluids in your lungs.

[From me.]

- ☐ **[Host] [Presenters]** Start rehearsing, with your technology, using all the stuff below.
  - o If your 🎥🔊 **video** or **audio freezes** sometimes (known by your support team monitoring via 🎙🔊 **headset** or **headphones**, or via your **Chat Moderator** monitoring for audience complaints):
    - ▪ *when presenting,* **Stop** your **Video,**
    - ▪ have others in the household **stop their bandwidth-heavy activities**,
    - ▪ connect to your Wi-Fi **without your Wi-Fi extender**, or with your Wi-Fi extender,
    - ▪ have your support team connect your 🖥 computer to your router via an **Ethernet cable** instead of Wi-Fi,
    - ▪ make a note to contact your **broadband-provider**,
    - ▪ find a location with **better bandwidth** (e.g., work, library), and/or
    - ▪ arrange a tour of your local library's **podcast studio** (and for presentation day, make a reservation -- under COVID-19, only one reservation per day!). Ours has:
      - • a **soundproof room** with a Internet, phone, table, 4 chairs, instructions,
      - • 3 🎙🖊 **professional microphones** and closed-back headphones, connected to a ...
      - • **RØDECaster Pro audio mixing console** (mixing board) https://rode.com/rodecasterpro, which can store audio recordings on a **microSD** (µSD microSDHC microSDXC microSDUC TF) card, and optionally transmit it over a USB-A/USB-C cable to a ...
      - • 🖥 laptop running ...
      - • RØDECaster Pro Podcast Studio software (to configure something, and one way to get your recording off the mixing board), and
      - • **Adobe Audition 2020** software (to **edit your** 🔊 **audio recording or podcast**).
      - • **Instructions** and **signup** are at https://**kdl.org/podcast**.   Under the COVID-19 coronavirus pandemic, they only allow one signup per day, so you might as well reserve it all day! **Hours** https://kdl.org/locations/ADA. **Questions** "Penni Zurgable (PZurgable@kdl.org)".
      - • I made a test audio recording and transferred it to my computer. Way cool!
      - • Need to verify that I can fix soft recording level, by adjusting **mixer board's Output-level slider**.
      - • Need to determine how to feed **podcast studio**'s 🔊 good audio into a Zoom presentation, or a 🎥 **video recording** of someone showing and doing stuff on a computer. Presumably from the mixer's Audio Outs, into a computer, using some combination of cables and connectors.
      - • May practice **editing an** 🔊 **audio recording** using podcast studio's **Adobe Audition** 2020 software.
  - o Need to determine a way to,
    while people are **waiting** for a Zoom presentation to start,
    while sharing a nice slide with the name and subject of the presentation and that it will start soon,
    have neither silence nor the panelists talking among themselves,
    but have some 🔊 **music or nature sounds**,
    so that people know their 🔊 audio is working.
    This is regardless of using a podcast studio or not.
    This ought to work, but it doesn't: On slide-sharing computer > launch presentation with intro slide with the name and subject of the presentation and that the presentation will start soon > launch 🔊 audio > launch Zoom > button **Share Screen** (or **New Share**) > check checkbox **Share sound** or **Share computer audio** and/or **Optimize for video clip** > select the window with the intro slide > button **Share** > verify slide and 🔊 audio are visible and audible over Zoom. The slide is visible, but the audio is not.
    Does the 🔊 audio have to be embedded in the slide?
  - o Keep rehearsing, breaking as needed, until things go smoothly.

- o Write down everything you did, so later when you do it live, you can do it **just like that.**
  - ▪ ***Test like you fly; fly like you test.*** --aviation software
  - ▪ ***Train like you fight; fight like you train.*** --army
  - ▪ More details at EricPiehl.alterVista.org/#pgm3. Meaning, in this case, to **practice, practice, practice, until it all goes smoothly,** and then we **set it in stone**, and **do it for real just like** that. No last-minute changes, unless absolutely necessary.

1.3.3 Three business days before the meeting/videoconference/webinar

☐ **[Host]** Send your **Interactive Agenda** to all **CoHosts/Presenters/Panelists/Participants/Attendees**.

☐ **[Host] [Presenters]** *If you have cleaning people,* verify they are not scheduled to be in your place during your meeting.

☐ **[Host] [Presenters]** *If you are going to be speaking or presenting for a while, **particularly if you are going to be recorded** or might be congested,* round up:
  - o a **standing desk**; or
  - o a regular desk with your 💻 laptop elevated a lot (so you can stand) by a banker's box or tall stack of sturdy books.

  Doing so:
  - o Your voice will project better.
  - o *If you are a bit congested,* minimize any fluids in your lungs.

☐ **[Host] [Presenters/Panelists]** *If your 📹 webcam videocamera is in your 📱⬜💻 smartphone, tablet or computer,* make a way to:
  - o Have your camera held **steady** (not on a card table).
  - o **Elevate/raise** your camera as **high as your eyes** or so. Or higher.
  - o **Pitch** your camera **down**, roughly horizontal, with your nose near the middle, like a talking-head on 🖥 TV.
    - ▪ Avoid camera angles that look up your nose, or that show you looking down to read your script.
    - ▪ I would rather see your floor than your ceiling.
  - o *If your camera quality is poor,* buy an external webcam. Not very expensive.

☐ **[Host] [Presenters/Panelists]** *If you wear glasses, and have a ring light around or a bright light near your 📹 webcam or videocamera,* test the video to see if the light gives you annoying reflections in your glasses. Keep looking — intermittent reflections as you move are even more annoying than static reflections.
  - o *If you do,* move your light upward by 30 cm (a foot), and retest. Your audience will **never** listen to you if they are focusing on the reflections in your glasses.

1.3.4 Two days before the meeting/videoconference/webinar

☐ **[Host] [Presenters/Panelists] [Participants]** How to look better on Zoom and other videocalling apps.

☐ **[Host] [Presenters/Panelists] [Participants]** Understand how to use your software:
  - o *If Cisco **Webex**,* test your software with https://webex.com/test-meeting.html.
  - o *If Google **Meet**,* **[Host]** will start the meeting, via meet.google.com > button "Start a meeting" > button "Join now" > Copy/Paste the "Meeting ready" link and send to the other Participants, via email, SMS text, or other means.
    - ▪ *If everyone at the meeting are **all** coworkers running the same calendar appointment software (such as Microsoft Exchange Server),* you can instead Paste it into a Meeting, and invite everyone.
    - ▪ *If you are **not** all coworkers running the same calendar appointment software,* do **not** Paste it into a Meeting, and invite everyone. Invitees running an integrated email/calendaring software (Microsoft Outlook, or 🍎 Apple macOS, iPadOS or iOS) will be fine. But I hear from invitees who aren't running integrated email/calendaring software, that they are shown **nothing**. So put the invitation in a normal email or SMS text message.
  - o *If **Zoom:***
    - ▪ *If you haven't already done so,* do a Zoom test.
    - ▪ *If you haven't already done so, and if you are ever going to Participate via the Zoom app (i.e., from a 📱⬜💻 smartphone, tablet or computer with default browser **Firefox** [**Edge**? **Safari**? **Opera**? **Chrome? Vivaldi? Brave?**], or a 💻 computer with default browser Chrome and you ask to install the app):*
      - • Participants on a 📱⬜ **smartphone** or **tablet** will be asked to install the Zoom app, but it goes very quickly (one press, I think).
      - • Participants on a 💻 computer with default browser **Firefox** will be asked to install some software, but it goes very quickly (one click, I think), and requires **no** reboot.
      - • Participants on a 💻 computer with default browser **Chrome** will be able to run quickly (one click, I think), without installing any software!

- o Participants on a 🖳 computer with default browser **Firefox**, **Edge**, **Safari**, **Opera**, **Vivaldi** or **Brave?**
- Install app **Zoom** Cloud Meetings or **Zoom Meetings** by Zoom Video Conferencing zoom.us.
- Launch your app **Zoom** (not **Zoom Meeting**), and login. See the app window **Zoom** appear.
- Select your [not-] photo in the upper-right corner > **Check for updates** > *if your software asks you to apply an **update,*** do that. You want to get all the latest security enhancements.
- Select the your [not-] photo in the upper-right corner > [gear] **Settings** > see the Zoom window **Settings** appear:
  - o In tab **General** > **UN**check **Use dual monitors**.
  - o In tab **General** > check **Remind me 15** minutes before upcoming meetings.
  - o In tab **General** > check **Stop my video when display is off or screen saver begins**.
  - o In tab **Video** > check **Always display participant names on their video**.
  - o In tab **Video** > **UN**check **Spotlight my video when I speak**.
  - o In tab 🔊 **Audio** > check **Mute my** 🎤 **microphone when joining a meeting.**
  - o In tab **Share Screen** > **un**check **Enter full screen automating when joining a meeting**.
  - o In tab **Share Screen** > **un**check **Maximize Zoom window when a participant share screen**.
  - o In tab **Share Screen** > check **Show Zoom windows during screen share**.
  - o In tab **Share Screen** > check **Silence system notification when sharing desktop**.
  - o In tab **Chat** > check **Show unread message badge for channels**.
  - o *If you want to appear somewhere cool or hide your messy room*, in tab **Virtual Background** > set a **virtual background**.
    - ▪ [Simplest] **Blur**!
    - ▪ [Middle] Photos from properties of your (my) local land conservancy appropriate for the season.
    - ▪ [Best]   Custom-made for your organization, including your branding.
  - o *If you wish,* poke around the other settings.
- Select your [not-] photo in the upper-right corner > **My Profile** (or [gear] **Settings** > tab **Profile** > button **Edit My Profile**) > see webpage https://*xxx*.zoom.us/profile*xxx* appear.
  - o In tab **Profile** > set your **profile picture** to you or your avatar, so other Participants/Attendees can see your still pic when your 📹 video is disabled.
  - o In tab **Settings** > subtab **Meetings** > set **Audio Type** to **Telephone and Computer Audio**, to allow Participants/Attendees to get their 🔊 audio from a 📱☐🖳 smartphone/tablet/computer, or a 📱☎ separate phone (their choice).
  - o In tab **Settings** > subtab **Meetings** > set **Join before Host**.
    I like it, particularly if Host thinks s/he may not be online 10 minutes early, particularly if you set **Alternative Host(s)**.
    *But if the **Host** is very conscientious, and you have reason to fear your Participants,* disable this.
  - o In tab **Settings** > subtab **Meetings** > set three **Require a password …** settings.
  - o *If you wish,* poke around the other settings.
- Because these options will probably change over time, you may want to review these setting from time-to-time.
- o *If you get your meeting video on a* 📱☐🖳 *smartphone/tablet/computer with a* 🎤🔊 *microphone and speakers,* you can get and give your 🔊 audio over your 📱☐🖳 smartphone/tablet/computer.
- o *If you get your meeting video on a* 🖳 *computer with* ***no*** 🎤🔊 *microphone or speakers, and your Host setup your meeting with Zoom option* 🔊 ***Audio = Telephone and Computer Audio,*** *you can get and give your* 🔊 *audio over a* 📱☎ *separate phone (your choice). For details, see your meeting invitation, or Host.*
- o *After launching the meeting,* the Zoom app will **start out** in:
  - ▪ **Active Speaker View**, showing current video of:
    - the person **currently speaking** (or whichever Participant *Host* has Spotlighted [don't do it] or *you* have Pinned [don't do it*, unless you are VW or have an iPhone*]), **plus**
    - *if Host has not Spotlighted anyone and you haven't Pinned anyone*, as much of the **Gallery View** [Tile View] [Together Mode] as will fit.
- o You can also tell the Zoom app to show:
  - ▪ **Gallery View** [**Tile View**] [Together Mode], showing current video of each Panelist/Participant who are sharing their video, in a grid reminiscent of the opening credits in the old 📺 TV show *The Brady Bunch*.
- o *If on a* 📱☐ *smartphone or tablet,* change between these views by **swiping your screen** left or right.
  - ▪ *If there are more than 4 people in your meeting,* **Gallery View** [Tile View] [Together Mode] may have more than one screen. **Swipe your screen** left or right.
- o *If on a* 🖳 *computer,* change between these views by selecting the button in the upper-right corner.
  - ▪ *If you wish,* you may also split your real estate with **Active Speaker View** or **Gallery View** [Tile View] [Together Mode] by selecting **View Options** > **Side-by-side Mode**.

- • *If you want to do this automatically all-the-time,* ~~select your profile picture > **Settings** > tab **General** > check **Side-by-Side Mode**~~.
  - ○ *After a* **Host/Presenter/Panelist/Participant** *does a* **Share Screen** *[**Present** now] [Share],* the Zoom screen adds:
    - ▪ **Share Screen** [**Present** now] [Share], showing the presentation, desktop or browser tab of the Host/Presenter/Panelist/Participant who did the Share.
      - • *On Android,* you will also see a small thumbnail video of the **Presenter/Panelist** or **Active Speaker**.
        - ○ [EP likes this.] ~~*If you don't like seeing this,* see this minor bullet under **iOS** bullet below.~~
      - • *On iOS,* you will also see a thumbnail video of the **Presenter/Panelist** or **Active Speaker**.
        - ○ *If you* [like VW] *don't like this speaker thumbnail,* have your designated **Participants/Attendees Moderator**, during the presentation, **Stop** everyone's **Video**, presumably using their third window — the **List of Participants** (and their status).
      - • *On a 🖥 computer in fullscreen mode,* you will also see a thumbnail, that you can (use icons along top) change between **super-minimalist Active Speaker thumbnail**, **Active Speaker thumbnail**, **mini-Gallery thumbnail**, **Gallery thumbnail**, and full **Active Speaker View**. I like the middle option.
        - ○ [EP likes this.] ~~*If you don't like seeing this,* see this minor bullet under **iOS** bullet above.~~
      - • *On a 🖥 computer **not** in fullscreen mode,* you will also see a **mini-Gallery thumbnail** along the top. Don't swap this with the Presentation.
  - ○ *If on a 📱🖳 smartphone or tablet,* change between these views by **swiping your screen** left or right.
  - ○ *If on a 🖥 computer,* change between these views by selecting the button(s) along the top.
  - ○ Look for security icon "Your client connection is encrypted" in upper-left corner.

  - ○ There are all kinds of cool functions available via buttons on the ...

Zoom [Google Meet] [MS Teams] command bar at top or bottom of screen (*if not visible,* press screen)		
Button	**Does what ...**	**For whom ...**
Join Audio or 🔊 **Audio Settings** ⋮ > Settings	If you don't **hear** anything.	**[Host] [Presenters/Panelists] [Participants]** or **[Attendees]**
Mute Unmute ✏.	Share/not share your 🔊 **audio**.	**[Host] [Presenters/Panelists] [Participants]**
Start or **Stop** video 📹.	Share/not share your **video**.	**[Host] [Presenters/Panelists] [Participants]**
Security	Show/not show this.	**[Host]**
List of **Participants** 👥.	Show/not show this (🖳 smartphone users may find this under *meatballs* button **... More**).	**[Host] [Presenters/Panelists] [Participants]**
Meeting details	May **Invite** another Participant. May **mute** or **disallow Share Screen** [**Present** now] [Share] any or all Panelists and Participants.	**[Host] [Presenters/Panelists] [Participants]** **[Host]**
Chats 💬.	Show/not show **text questions, comments**, info, etc., typed by Host, Panelists, Participants or Attendees (🖳 smartphone users may find this under button **Participants** or **... More**).	**[Host] [Presenters/Panelists]** and **[Participants/Attendees]**
Raise Hand	Inform **Host** that you wish to be allowed to speak.	**[Attendees]**
Q&A	*If webinar,* place to ask questions and receive answers, separate from **Chats**. Works for established organizations. Broken for a new organization.	**[Attendees]**
Polls	Set a new Poll. *If previous question active,* see results.	**[Host]** **[Panelists] [Attendees]**
Share Unshare **Present** now	Share/not share your 🖥 computer **screen**.	**[Host] [Presenters/Panelists] [Participants]**
... More	*If other buttons were collapsed*	**[.../Attendees]**

⋮	*into here.*	
End meeting or **Leave** meeting ☏ **Leave call**	Will ask you to confirm.	**[Host]** or **[Presenters/Panelists]** **[Participants/Attendees]** **[All]**

Zoom help https://support.zoom.us. **Google Meet help** https://support.google.com/meet#topic=7290350.

1.3.5 The day before the meeting/videoconference/webinar

□ **[Host]:**
- o Verify that all newbies have successfully launched the software.
- o Verify that all newbies have Edited the Interactive Agenda.
- o Consider sending out a meeting reminder.
- o Set up meeting option **Live Transcript**. **How?**

□ **[Host] [Presenters/Panelists]:**
- o Do all presentation preparation steps below in Section 2 **"Business day before the presentation".**
- o Lay out clothes for tomorrow with bright color(s) on top. No **charcoal gray** nor **muted blue**. You want to keep Participants/Attendees **engaged**.

1.3.6 The day of the meeting/videoconference/webinar

□ **[Host] [Presenters/Panelists]** Wear a bright color(s) on top. No **charcoal gray** nor **muted blue**. You want to keep Participants **engaged**.
□ **[Host] [Presenters/Panelists] [Participants]** How to look better on Zoom and other videocalling apps.
□ **[Host] [Presenters/Panelists]** Eat a healthy meal, drink plenty of water.
□ **[Host] [Presenters/Panelists] [Participants]** **Clean** your 🎥 **webcam camera lens**, and **attach external devices**.
- o On a real camera, I clean my lens with a Costco optics-cleaning spray and microfiber cloth.
- o On my 📱💻 smartphone and computer, I turn off my display, spray glass- or counter-cleaner onto a paper towel, and wipe the camera lens and display. Oops, probably should not use glass-cleaner on the lens.
- o *If you have a 🎙🔊 headset; or 🎥 external webcam, 🔊 speakers or 🎙 microphone,* attach them.
  - ▪ And remember their names! Later, after you launch your software, it will make it easier to select these.
- o *If you are going to present,* bring up your presentation software, set it to your presentation, and tell your software to **Start Slide Show**.
  - ▪ I find **Presenter View** fine, but this source says not to.
- o Run and go potty, and refill your drink of choice.
- o Jump up and down, and run up and down a long hallway (if you are a bit congested, this will minimize any fluids in your lungs).

□ **[Host] 30 minutes** before the meeting:
- o **Launch** your meeting/conference/webinar app software on your 📱💻 smartphone, tablet or computer, and select your meeting; **or**
  the **link** in your invitation email/SMS text/whatever, on your 📱💻 smartphone, tablet or computer.
  - ▪ *If Google Meet,* start the meeting via meet.google.com > button "Start a meeting" > button "Join now" > Copy/Paste the "Meeting ready" link and send to the other Participants, via email, SMS text, or other means.
    - • *If everyone at the meeting are all coworkers running the same calendar appointment software (such as Microsoft Exchange Server),* you can instead Paste it into a Meeting, and invite everyone.
    - • *If you are not all coworkers running the same calendar appointment software,* do **not** Paste it into a Meeting, and invite everyone. Invitees running an integrated email/calendaring software (Microsoft Outlook, or 🍎 Apple macOS, iPadOS or iOS) will be fine. But I hear from invitees who aren't running integrated email/calendaring software, that they are shown **nothing**. So put the invitation in a normal email or SMS text message.
  - ▪ *If Zoom:*
    - • ⊞ *If Microsoft Windows 💻 computer,* ⊞**Start** > **Zoom** > **Start Zoom**.
    - • Select **Meetings** (among peers, with real-time discussion and feedback), or **Video Webinar** (sage-on the-stage top-down broadcast, with no feedback nor interaction).
    - • *If you want to hide your messy room or appear somewhere cool*, set a **virtual background**.
      - o [Simplest] **Blur**!
      - o [Middle] Photos from properties of your (my) local land conservancy appropriate for the season.
      - o [Best]   Custom-made for your organization, including your branding.
    - • Set options **Mute all on entry** or **Mute all**.

- Set up meeting option **Live Transcript**. ==How?==
- The first window should probably be ==Gallery View== [Tile View] [Together Mode].
- The second window should probably be the **Active Speaker View** or active speaker or presentation.
- Appoint one or more **CoHosts**, via:
  - Zoom **command bar** > button **Participants** or **More ...** > **CoHost**; or
  - Gallery View video > upper-right button **...** > **Make CoHost?**   -- Zoom help.
- These **CoHosts** will then:
  - Open a third window, the **List of Participants** (and their status), and be your designated **Participants/Attendees Moderator.**
  - *If your meeting is using option Virtual **Waiting Room**,* let known-good Participants in.
    - But after you let them in, chat for a while before launching your introductions — participants come in about one per second.
  - Don't let anyone **Present**, without your approval. Presumably using your third window — the **List of Participants** (and their status). ==And other recently-added controls?==
  - Open a fourth window, 💬 **Chat** box, and be your designated **Chat/Q&A Moderator**.
- Rename your **screen name** to a short subset of *First Last (org) (town) (she/her)* or *... (he/his)* or as relevant, via ==select your Gallery View video/photo/name > *meatballs* button "**...**" > **Rename**. [On 2021-05-17, this option seems to no longer be there for Webinar **Panelists**. Use next option?]==
  - ==Doing it here will rename your screen name just for **this session**.==
  - *To rename your screen name for **future sessions**:*
    - ==Launch app **Zoom** (not **Zoom Meeting**).==
    - ==Select the your [not-] photo in the upper-right corner > **My Profile** ~~(or [gear] Settings > tab Profile > button Edit My Profile)~~ > left navigation **Profile** > **Edit** > **Display name**.==
- *If your* 🎥🔊 *video or **audio freezes** sometimes (known by your support team monitoring via* 🎧🔊 *headset or **headphones**, or via your **Chat Moderator** monitoring for audience complaints):*
  - *when presenting,* **Stop** *your* **Video,**
  - have others in the household **stop their bandwidth-heavy activities**,
  - connect to your Wi-Fi **without your Wi-Fi extender**, or with your Wi-Fi extender,
  - have your support team connect your 🖥 computer to your router via an **Ethernet cable** instead of Wi-Fi,
  - make a note to contact your **broadband-provider**,
  - ~~find a location with **better bandwidth** (e.g., work, library), and/or~~
  - ~~arrange a tour of your local library's **podcast studio** (and for presentation day, make a reservation).~~
- **Silence** your 📱☎ **phones**, and 🖥 **computer notifies**.
- **Sequester** or **quiet** your 🐦🐕👶 **bird, dog** or **children**.
- *If running an app,* periodically (every month or so?), *and if you have a couple minutes before your meeting starts,* ensure your app is up-to-date.
- Run and go potty, and refill your drink of choice.
- Jump up and down, and run up and down a long hallway (if you are a bit congested, this will minimize any fluids in your lungs).
- *As **Participants/Attendees** arrive,* start **engaging** them. ==How?==
  - So they know they are connected and in the right place, have something for audience to 👀 **look at**:
    - a slide saying the **topic** of the talk or meeting,
    - the first slide in the presentation,
    - your **live smiling video feed**,
    - containing or overlain with the **time it will start** or a **countdown clock**,
    - something. Don't wait for the appointed time to let people into the meeting.
  - So they know they are connected and their volume is good, have something for audience to 🔊 **listen to**:
    - cool music,
    - chat among the Presenters as you get ready,
    - chat among everyone signing on early,
    - something. Don't let your audience sit in silence, worrying that their audio is set up wrong.
  - *If you refuse to do this,* at least let in all **Participants/Attendees** in time to see the whole presentation.

- ☐ **[Presenters/Panelists] 20 minutes** before the meeting:
  - Launch the **link** in your invitation email/SMS text/whatever, on your 📱▯🖥 smartphone, tablet or computer.
    - *If **Zoom:***
      - ⊞ *If **Microsoft Windows** 🖥 computer,* ⊞Start > **Zoom** > **Start Zoom**.
      - *If you want to hide your messy room or appear somewhere cool*, set a **virtual background**.
        - [Simplest] **Blur**!
        - [Middle] Photos from properties of your (my) local land conservancy appropriate for the season.
        - [Best]   Custom-made for your organization, including your branding.

- o *If you plan to see your **speaker notes** using Microsoft PowerPoint **Presenter View**,* set up your windows:
  - ▪ Based on experience of WMGS:
    - • *If you are going to present over* ==Zoom==*, **and** are using MS PowerPoint 2010 or earlier, **and** you have only **one physical screen**,* then you will **not be able to see your speaker notes**, or you will **not** be able to **Share your presentation** screen.
    - • *If you have a second physical screen, **or** a version of MS PowerPoint later than 2010,* you are fine.
  - ▪ Launch PowerPoint. Put its window on 💻 **laptop screen**.
  - ▪ Launch presentation, with **Use Presenter View**.
    - • Verify **Presenter View** is on 💻 **laptop screen** — this will keep Presenter's eyes and voice projection close to camera.
    - • Verify **Presentation** is on **external screen**. Later, you will Share this window.
    - • Put distributed-team web videoconferencing software window(s) on your 💻 **laptop screen, on top** of PowerPoint **Presenter View**. (You want to be looking at the camera.)
    - • *If* ==Zoom==:
      - o The first window should probably be ==Gallery View== [Tile View] [Together Mode].
      - o The second window should probably be the **Active Speaker View** or active speaker or presentation.
      - o If you open a third window, it should probably 💬 **Chat** or **Q&A** box.
      - o If you open a fourth window, it should probably be the **List of Participants** (and their states).
  - ▪ ==TODO: Using Google Slides?==
- o *If you haven't already done so,* tell your presentation software to **Start Slide Show**.
- o **Silence** your 📱☎ **phones**, and 💻 **computer notifies**.
- o **Sequester** or **quiet** your 🐦🐕🧒 **bird, dog** or **children**.
- o *If your* 📹 🔊 ***video** or **audio** freezes sometimes (known by your support team monitoring via* 🎤🔊 ***headset** or **headphones**, or via your **Chat Moderator** monitoring for audience complaints):*
  - ▪ *when presenting,* **Stop** your **Video,**
  - ▪ have others in the household **stop their bandwidth-heavy activities**,
  - ▪ connect to your Wi-Fi **without your Wi-Fi extender**, or with your Wi-Fi extender,
  - ▪ have your support team connect your 💻 computer to your router via an **Ethernet cable** instead of Wi-Fi,
  - ▪ make a note to contact your **broadband-provider**,
  - ▪ ~~find a location with **better bandwidth** (e.g., work, library), and/or~~
  - ▪ ~~arrange a tour of your local library's **podcast studio** (and for presentation day, make a reservation).~~

- ☐ **[Participants/Attendees] 10 minutes** before the meeting:
  - o Launch the **link** in your invitation email/SMS text/whatever, on your 📱▢💻 smartphone, tablet or computer.
    - ▪ *If* ==Zoom:==   [one-time only]
      - • Participants on a 📱▢ **smartphone** or **tablet** will be asked to install the Zoom app, but it goes very quickly (one press, I think).
      - • Participants on a 💻 computer with default browser **Firefox** will be asked to install some software, but it goes very quickly (one click, I think), and requires **no** reboot.
      - • Participants on a 💻 computer with default browser **Chrome** will be able to run quickly (one click, I think), without installing any software!
        - o ==Participants on a 💻 computer with default browser **Firefox**, **Edge**, **Safari**, **Opera**, **Vivaldi** or **Brave?**==
      - • *If you want to hide your messy room or appear somewhere cool*, set a **[virtual background]**.
        - o [Simplest] **[Blur]**!
        - o [Middle] [Photos from properties of your (my) local land conservancy] appropriate for the season.
        - o [Best]   Custom-made for your organization, including your branding.
  - o *If part of your organization culture,* type something in the 💬 **Chat** box like, "**Hello from myTown/myOrg.**"
  - o **Silence** your 📱☎ **phones**, and 💻 **computer notifies**.
  - o **Sequester** or **quiet** your 🐦🐕🧒 **bird, dog** or **children**.

- ☐ **[Presenters/Panelists] [Participants/Attendees]** *Hope you have time:*
  - o Run and go potty, and refill your drink of choice.
  - o Jump up and down, and run up and down a long hallway (if you are a bit congested, this will minimize any fluids in your lungs).
  - o *If you don't understand how to use your software,* [do your homework from two days ago].
  - o *If running an app,* periodically (a couple times a month?) [ensure your app is up-to-date].

1.3.7 Showtime!

- ☐ **[Host]** or **[Participants/Attendees Moderator]** *If you kept out **Participants/Attendees** until showtime* (perhaps using a practice session or waiting room):
  - o Start letting in **Participants/Attendees** some minutes ahead, perhaps using **Start webinar**.
    As a cohost, Zoom shows **Participants/Attendees** arriving in my Participants/Attendees list at about 1 per second.
    I am not sure if this is because Zoom throttles:
    - ▪ **Participants/Attendees** arriving in the webinar, **-OR-**
    - ▪ **Participants/Attendees** showing up in my Participants/Attendees list.
    Until we rule out the former, and know it is the latter, ...
  - o **Start webinar** or others let in the **Participants/Attendees** before the webinar starts by about:
    - ▪ (1 second) **×** (the number of **Participants/Attendees** you have waiting).
  - o While they are coming in, do some light conversation. Don't start to real content until the **Participant/Attendee** count slows to a level that makes you think only latecomers are arriving.
- ☐ **[Host]** or **[Participants/Attendees Moderator]** *If you hear* 📄 *papers rustling,* 🐕 *dog barking, etc.,* use Zoom **command bar** > button **Mute all Participants**.
  - o If any **Participant/Panelists** wants to talk, they can **unmute** themselves.

*[Thanks for the tips, **C**!]*
[Host] [Presenters/Panelists] [Participants/Attendees] Everyone is connected, and can **participate** in the meeting:
- ☐ **[Host] [Presenters/Panelists]** Speak **clearly** and **slowly** -- it is the nature of these videoconferences -- Participants are seeing the speaker in much less clarity.

- ☐ **[Host]** **Welcome.**
- ☐ **[Host]** Go over the **Ground Rules** you wrote and distributed above.
- ☐ **[Host] [Presenters/Panelists] [Participants/Attendees]** *If you want,* set **Record Meeting**.
- ☐ **[Host]** Designate an official **Note Taker**. [Frees up **Host** to deal with technology and agenda.]
- ☐ **[Host]** Designate an official **Chat/Q&A Moderator**, who will do a variety of tasks listed below.
  - o [Frees up **Host** to deal with technology and agenda.]
- ☐ **[Host]** or **[Participants/Attendees Moderator]** Don't let anyone **Present**, without your approval.
  Presumably using your third window — the **List of Participants** (and their status). And other recently-added controls?
- ☐ **[Host]** or **[Participants/Attendees Moderator]** *If you hear* 📄 *papers rustling,* 🐕 *dog barking, etc.,* use Zoom **command bar** > button **Mute all Participants**.
  - o If any **Participant/Panelists** wants to talk, they can **unmute** themselves.

- ☐ **[Host]** Handle each item on agenda in turn, taking every opportunity to **engage** each Participant **individually.** Don't let Participants/Attendees *zone out.*
- ☐ **[Chat/Q&A Moderator]**
  - o After most attendees have joined, issue a 💬 Chat message something like "*If you have questions during the presentation, please use this Chat function to post your question. We will collate, and ask them during or at end of the presentation.*"
  - o Paste links to websites or notes the speaker mentions, perhaps repeating them 10 minutes in, for late-comers.
  - o Delete any posts that are harmful, mean, or completely off-topic.
  - o Explain background info or acronyms if you think the audience might need it.
  - o Give other helpful hints, such as:
    - ▪ *To save a link here in Chat, launch link, then navigate back here. After event ends, can read and Save.*
    - ▪ *To save entire Chat, in lower-right, ~~if you see~~ meatball icon "..." "More", ~~launch it~~ > "Save Chat" > button "Save in Folder" > launch that file.*
      *If Chat lower-right contains ***no*** meatball icon "...", you will have to use printscreens or "snip".*
      Repeat occasionally, to get new posts. Repeat again before the webcast ends.
  - o Answer easy or specific questions.
  - o Keep track of hard questions, or questions deserving group discussion.
  - o Remove duplicate questions; and combine similar questions, broadening their scope question as needed.
  - o Sort these questions in order of importance or general-applicability.
  - o Read aloud the questions during Q&A, leaving time for the Panelists to answer the question.
  - o Be ready to halt long discussions, tabling for later email discussion, or for another day!

- ☐ **[Host]** or **[Participants/Attendees Moderator]** *When time to Present:*
  - o Turn on meeting option **Live Transcript**. **How?**

- o *If your Participants/Attendees don't like seeing a thumbnail video of the **Active Speaker** or **Presenters/Panelists** [should only be an issue for iOS users]:*
  - § *While **Presenter** starts presenting,* **Stop** everyone's **Video**, presumably using your third window — the **List of Participants** (and their status).
- o **Stop** the ● **Chat balloon** from appearing over the presentation excessively:
  - § ● **Chat** window > *meatballs* button "**...**" > set **Attendee Can Chat** to **Hosts and panelists**. If really bad, set to **No one**.
  - § This is just for the duration of the presentation.
- □ **[Presenters]** *When time to Present:*
  - o **Introduce** yourself some, to let Participants/Attendees see that you are a *real live person,* and not some robot or video clip.
  - o *If you haven't already done so,* tell your presentation software to **Start Slide Show**.
  - o Tell your distributed-team web video-conferencing software to **Share Screen** (or **New Share**) [**Present now**] [**Share**].
    - § Do **not** select **Screen 1** nor **Screen 2**. Later, you will get so confused.
    - § Select window **PowerPoint Slide Show – *filename*.**
      - • **Not** window **Screen *n*** -- you might have other windows put on top of what you want to Share.
    - § *If your presentation includes ▣◀ video or ◀» audio, or you otherwise want the audience to ◀» hear audio from your computer,* check checkbox **Share sound** or **Share computer audio** and/or **Optimize for video clip**.
    - § Select button **Share**.
    - § If your distributed-team web video-conferencing software window appears on top of your PowerPoint Presenter View, drag it away.
  - o *If you expect to advance your slides with the keyboard,* have Windows give **focus** back to (click somewhere on) your PowerPoint **Presenter** screen.
  - o *If you have a bunch of newbies at your meeting,* tell everyone:
    - § "You should now see a slide of *something descriptive*.
      {If you don't see that slide, and you are on a ▯ ▯ smartphone or tablet, swipe your screen left or right until you see that slide of *something descriptive*.}
      {If you still don't see the slide, please report this using the ● Chat box.
      To bring up the Chat box, use your Zoom **command bar** button ● **Chat** or **Participants** or **More...**.
      *{If you don't see the Zoom **command bar**,* press anywhere on your screen until it appears.}}}"
    - § "*If you don't ◀» hear anything,* bring up the Zoom **command bar** > button **Join Audio**."
  - o **Present!**
  - o *If your ▣◀ ◀» video or audio freezes sometimes (known by your support team monitoring via ✎◀» headset or headphones, or via your Chat Moderator monitoring for audience complaints):*
    - § *when presenting,* **Stop** your **Video,**
    - § have others in the household **stop their bandwidth-heavy activities**,
    - § connect to your Wi-Fi **without your Wi-Fi extender**, or with your Wi-Fi extender,
    - § have your support team connect your ▭ computer to your router via an **Ethernet cable** instead of Wi-Fi,
    - § make a note to contact your **broadband-provider**,
    - § ~~find a location with **better-bandwidth** (e.g., work, library), and/or~~
    - § ~~arrange a tour of your local library's **podcast studio** (and for presentation day, make a reservation).~~
  - o *If Zoom makes you **tired**,* make your photo or video feed invisible to you, via select your Gallery View video/photo/name > *meatballs* button "**...**" > **Hide Self View**.
    - § *To restore your self-view,* select someone else's video/photo/name > *meatballs* button "**...**" > **Show Self View**.
  - o *If you are going to Post a recording of your presentation on YouTube,* stop on the **end slide** for several seconds, over which you will later have YouTube place link cards to feature other videos, etc.
  - o *When done (if your final slide says "Q&A",* perhaps after the first answer),* **Stop Share** [____] [____] your screen, so your audience will see their normal **Active Speaker View** or **Gallery View** [Tile View] [Together Mode].
    - § Although your last slide should be **Contributions**. Or a joke. — *How to Speak* by Patrick Winston.
  - o Ask your official **Chat/Q&A Moderator** to read out the questions they have been tracking.
    - § Probably one-at-a-time, so the group or Panelists can answer each question in turn.
    - § With duplicate questions removed; and similar questions combined into one, broadening their scope as needed to include their collective content.
    - § Sorted in order of importance or general-applicability.
    - § *If too many questions, or discussion on one question goes too long,* table for later email discussion, or for the next meeting!

- □ **[Participants/Attendees]**:

- *To improve readability of the speakers' slides:*
  - Select icon **fullscreen**, or Zoom top status bar **View Options** > **Full Screen**.
  - Try upper-right **View** > **Standard** > drag speaker pic to little-used part of screen.
  - Hide your **mouse pointer** by moving it the far right, and waiting for a couple seconds.
  - *If you see Windows Taskbar,* push ⊞**Start** twice.
  - *To show text of what is being spoken,* select Zoom command bar > button **Live Transcript** > **Show Transcript**, and optionally **Subtitle settings…** or **Options**.
    - *If that button is not there,* 💬 **Chat** the **Host** to turn on for that meeting. **How?**
    - *If transcript box gets in way of content,* drag transcripts box to a little-used part of the screen.
    - *If needed,* **Live Transcripts** > **Hide transcripts**.
  - Hide the Zoom Command bar by keyboard **[Alt]** key.
- *When you* 💬 *Chat,* set correctly the target-audience dropdown "**Hosts and panelists**" v "**Everyone**".

- □ **[Host]** or **[Participants/Attendees Moderator]** *After presentation, and before discussion or Q&A:*
  - *If at the beginning of the presentation, you stopped presenter's video*, re**Start** their **Video**, presumably using your third window — the **List of Participants** (and their status).
  - *If at the beginning of the presentation, you limited the* 💬 ***Chat balloon** from appearing over the presentation excessively,* re**Allow** it:
    - 💬 **Chat** window > *meatballs* button "**…**" > set **Attendee Can Chat** to **Everyone**.

- □ **[Host]** Conclude:
  - **Follow-up items**, perhaps those listed by your official **Note Taker**.
  - **Lessons Learned**, perhaps those listed by your official **Note Taker**.
  - **Next meeting?**
  - Ask **Presenters/Panelists** for a final comment.
  - Final **Call-to-Action** for the **Participants/Attendees.**
  - **Bye.**
- □ **[Chat/Q&A Moderator]** or **[Host]:** Save the contents of the Chat and/or Q&A boxes by:
  - 💬 **Chat** window > *meatballs* button "**…**" > **Save Chat** > **Show in Folder**.
    - *If you don't like the folder,* do 💬 **Chat** window > button **File** > *somewhere*.
    - Or you can **Select-All Copy** the contents of the box, and **Paste** into your favorite document or text editor, **Saving** it for later review.
  - *If you are using a **Q&A box**,* do the same for the contents of the **Q&A** window.
- □ **[Host] [Presenters/Panelists] [Participants/Attendees]:**
  - *If recording,* **Stop Recording.**
  - Hit command bar button **Leave** or **End** meeting**.**
    - *If your software asks you to apply an **update,** do that.*
  - *If you wish,* **Exit** software.
  - **Release** your 🐦🐕🧒 **bird, dog** and **children**.
  - **Un-silence** your 📱☎ **phones**, and 🖥 **computer notifies**.

1.3.8 After your meeting/videoconference/webinar
- □ **[Host]** *If you recorded it,* receive the **link** to the **recording**, and if appropriate, **Forward** it to Participants and people who didn't make the meeting.
- □ **[Host] [Presenters/Panelists] [Participants]:**
  - Handle any **follow-up items**, perhaps those listed by your official **Note Taker**.
  - Handle any **Lessons Learned**, perhaps those listed by your official **Note Taker**.

1.3.9 Further education
TODO:
- □ See https://catlintucker.com/2018/06/googleslideagenda.
- □ See Google Certified Educator Preparation at https://youtube.com/playlist?list=PLMMcXoWg2jrKOKVx-NpW_VoJqraTkundq.
  - Google Docs is video 3. Google Slides is covered in video 5.
  - Have not looked at it yet.
- □ If above **Zoom record** fails, need to follow https://helpdeskgeek.com/windows-10/how-to-record-your-screen-on-windows-10.

1.4 Prepare your presentation

- ☐ *If collaborating with a distributed team,* please do in a *shared workspace* using:
  - o **Google Docs, Sheets and Slides**, running on **Google Drive**, very good, free. *If you have a **Gmail** email account,* you already have access to Google Docs, Sheets and Slides through your email account. Spaces. Forms. Drawings (Visio).
  - o **Microsoft Office Online**, running on **Microsoft OneDrive**. I*f you have an **Outlook.com/Live Mail** (formerly **Hotmail**) email account,* you already have access to Microsoft OneDrive and Office Online through your email account.
  - o Comparison of above two.
  - o Or share folders or files with your team via **Dropbox** (Basic plan FREE) (I love this, and use all the time!), ● **Apple iCloud**, **Box**, **pCloud**; or the more-secure **milDrive**, **sync.com** or **SpiderOak ONE** ($); or other file hosting, file synchronization, or online backup services.
    *If using **Dropbox** as your collaboration tool,* tell your team ...
    - ▪ *To see the **full** PowerPoint presentation (with script, etc.),* on a ☐ computer with real Microsoft Office 2007 and above, launch the file from within:
      - • ⊞ Microsoft Windows **File Explorer**/This PC (formerly Windows Explorer/My Computer), or
      - • the new (2019-10-17/27?) **Windows App "Dropbox"**. Can launch this by, in the **Notification Area** (will be Action Center in Win10X) (formerly System Tray) (by the clock):
        - o **double-**click icon **Dropbox**, or
        - o **single-**click icon **Dropbox** > icon **folder**.
    - ▪ *To see a **cripple-ware** version of the PowerPoint presentation,* from any ☐ computer (☐ tablet?) (☐ smartphone?), launch the file from within a **web browser** interface. Can launch this by:
      - • in the **Notification Area** (will be Action Center in Win10X) (formerly System Tray) (by the clock), **single-**click icon **Dropbox** > icon **world**.

- ☐ In your presentation, cover **Why** before **How** before **What**, as in TED talk "Start with Why" by Simon Sinek or TED talk "Start with Why" by Simon Sinek.
- ☐ *To be displayable on most equipment,* try to get your presentation in a **common format**, such as `.pdf` documents (ensure built so text is **searchable/copy-pasteable**), `.ppt .pps .pptx .ppsx .key` presentations, or `.avi .mp4 .3gp .mpg .ogg` video. For more help, please see my tools document.
- ☐ *If your presentation is in format **Adobe Photoshop Elements PSE** or other unusual format,* consider Exporting it to `.pdf` (ensure built with text **searchable/copy-pasteable**), or rebuilding it as `.pptx` or `.key`.
- ☐ *If building it in **Microsoft PowerPoint**, ● **Apple Keynote**, **LibreOffice Impress**, **OpenOffice Impress**, **Google Slides**, Prezi (very nice), **Slidedog** or other presentation software:*
  - o To **use all available real-estate** for your presentation, and avoid having your content **pillarboxed, letterboxed, stretched** or **cropped,** build your presentation with an **aspect ratio identical** or **very-**close to that **on which it will be displayed:**

Aspect Ratio (width:height)		For displaying (without content being *pillarboxed, letterboxed*, stretched or cropped) on ...	From source material ...
21½:9	2.39:1	UltraWide **UWHD** UWQHD monitors, after 2020.	
21:9	2.33:1	Some ☐☐ smartphones and computers after 2020.	Many **movies**.
19:9	2.11:1	☐ Smartphone 2019-20 **Pixel 4** viewport=393x830.	393-16=377-8=369-0•=369-6|-16m=**357**img **336**ifr. 369-32•=337-6|-16m=**325**img **302**ifr.
18:9	2.0:1	Most ☐ smartphones, some ☐ computers 2017-2020.	
16:9	1.8:1	**Zoom**. **Full HD** high-def **1080p** ☐ **TVs** after 2005-2013, **4K** (**UHD**TV1), **8K** (**UHD**TV2), over **HDMI**. Most ☐ smartphones 2010-2017. Many ☂ projectors and ☐ computers 2010-2020.	Default in Microsoft **PowerPoint 2013** and later, including Microsoft **365**.
5:3	1.67:1	Some ☐ smartphones before 2010.	3x5" cards.
16:10	1.6:1	Many ● **Apple** products, including **macOS**, iPadOS, iOS. **WXGA**. Some other ☐ computers before 2009.	Very near the *golden ratio* **φ or ϕ** = (1+√5)/2 ≈ 1.618.
3:2	1.5:1	Some ☐ smartphones before 2010. Some ☐ computers after 2001.	Photos on 35mm film, slides. 4x6" cards.
√2	1.41:1		▤ **A4** paper. ~5x7" cards.
4:3	1.33:1	**VGA**. ☐ **TV** before 2005-2013. Please **discontinue** using this aspect ratio, unless you **know** you will be showing your presentation in **VGA** or old ☐ TV format. My ☐ smartphone in 2010.	Default in Microsoft **PowerPoint 2010** and prior. Consumer **digital cameras**.
	1.29:1		▤**Letter-sized** paper 8½x11"

- *If you need to **change your presentation's aspect ratio***:
  To the **presentation as a whole**, use technique in
  https://duckduckgo.com/?q=powerpoint+aspect+ratio+change or
  https://google.com/search?q=powerpoint+aspect+ratio+change (in PowerPoint 2010 use ribbon tab
  View > **Normal** view, then ribbon tab **Design** > group ~~Customize~~ **Page Setup** > ~~Slide Size~~ **Page Setup** > the aspect ratio you chose above > **OK**), then . . .
- *After doing so, if using Microsoft PowerPoint 2010 or before:*
  - **For each slide**:
    - **For each image** that got squished:
      - Right-click that image > **Size and Position...** > tab **Size** > **Width** down 1 and up 1 > **Close**.
      - That should fix it squishiness.
      - *If not,* make the height and width percentages the same.
      - *If you have to,* adjust so it looks about right.
    - Continue for all images that got squished.
    - Readjust the **layout** of elements on that slide, as needed.
  - Continue for all slides.
  - **Save** the presentation.

- Use **graphics/images/photos** of as **high quality** as possible:
  - No small `.jpg` files, with their visible image bubbles.
  - Find a `.jpg` with more pixels.
  - *If scanning (scanning info!) or making your own image,* use a lossless format, such as `.png` `.tiff` `.psd` `.flif` `.bmp`. **TODO**: include `.heif` if easy to set for lossless image data storage (and maybe `.avci` `.avcs` `.avif` `.avifs` `.heic` `.heics` `.heifs`).
  - Prevent squished or skinny heads, by preserving you images' original **aspect ratio**.
  - For more help, please see my tools document. Most of instructions on scanning are copied below.

- *If you have a slide with **multiple** complex graphics or thoughts, (such as **five images** plus text and background):*
  - Break up that slide into multiple slides, so your audience can see it.
  - Or start with one **overview** slide, then drilling down to multiple slides, each with its own graphic or thought.

- Spread-out all images out to the **edges** of your slide, **maximizing** image size, and **minimizing** margins, whitespace, and background.

- Put **minimal text** on your slides, just enough so you can remember what you are talking about.

- *If you need to make a point involving a very-busy graphic that your audience will never be able to see:*
  - Copy your graphic and hack it with big magenta (or other bright colors) circles (or arrows) that illustrate your point.
  - Give your audience a quick verbal overview of the graphics details, and make your point illustrated by your big magenta circles.

- *To see a great example of a slide deck,* see http://www.pinchot.org/PDFs/Pinchot Lex (2014).pdf.

- "***You have too many slides …***
  with way too much text …
  remove any titles …
  remove any logos …
  remove any whitespace …
  >40-50-point font …"
  and many more great ideas.
    — ▶ video "**How to Speak**" by Patrick Winston https://YouTu.be/Unzc731iCUY.
      ~~More from this speaker at https://OCW.MIT.edu/search/?q=Patrick+Henry+Winston~~.

- **Never read your slides.**
  - *If you are going to just **read your slides**,* you should make a **video** of the presentation, post it on **YouTube**, and have everyone watch it from **home**.
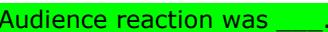
- o If during your talk you need some **prompts** or see your **speaker notes**, and you are using **Microsoft PowerPoint**, set your presentation to use **Presenter View**:
  - ▪ Connect your ⌨ computer to a 📽 projector or 🖥 TV, via an **HDMI cable** (after 2005-2013) or **VGA cable** (before 2005-2013).
    - • ● If **Apple macOS** (Macintosh, iMac, iBook, and MacBook) ⌨ computer, you may need a **USB-C-to-HDMI, DisplayPort-to-HDMI,** or **Mini-DisplayPort-to-HDMI** cable or adapter. Look on the back and sides of your computer.
    - • Some computers may need a **USB-C-to-HDMI** cable or adapter. Look on the back and sides of your computer.
    - • ⊞ If **Microsoft Windows** ⌨ computer, you **cannot** do this via a **USB-A cable** nor **Chromecast** or other wireless device — your ⌨ computer will not recognize it as separate screen.
  - ▪ ⊞ If **Microsoft Windows** ⌨ computer, set ⊞`Win+P` (or desktop > right-click **Display Settings** > scroll down main pane to section **Multiple Displays**) to `Extend`. If trouble, more details.
  - ▪ ● If **Apple macOS** (Macintosh, iMac, iBook, and MacBook) ⌨ computer, **System Preferences** > **Displays** > tab **Arrangement** > uncheck checkbox **Mirror Displays** to extend display across both screens. If trouble, more details.
  - ▪ Bring up your presentation under **PowerPoint**, and drag its window to appear on your **private** display.
  - ▪ In **PowerPoint** tab **Slide Show**, group **Monitors**, check checkbox **Use Presenter View** and set dropdown **Show On** to be your **public** display.
  - ▪ **Practice** with it!
  - ▪ *If you plan to use Microsoft PowerPoint **Presenter View** at C_ (MCLH, B_C and elsewhere),* do not use their ⌨ computer — **it won't work** without opening the lectern and moving an HDMI cable — so (A) bring your own ⌨ computer, or (B) be prepared to open the lectern and move an HDMI cable and move everything back at the end.
- o **TODO:** Using Google Slides?

- o Put your text **over** your images. It's OK, it will be just fine. *Especially if you follow the next three major (and their minor) bullets . . .*
- o Use **fonts large enough** for gray-hairs wearing trifocals. Even if you can *temporarily* read the microscopic print common in BMW ads, some day you, too, will get **presbyopia**!
- o No **ALL-CAPS**. That is SHOUTING, annoying, and hard to read.
  - ▪ In almost all places, use **sentence case**. It is easiest to read.
  - ▪ For titles, it is OK to use **Title Case**.
- o Use **colors** that **contrast** with each other. No gray-text-over-gray-backgrounds! There are some good guidelines out there about choosing colors across each other on the color wheel, either two colors straight across from each other, three colors that cut the color wheel in thirds, etc.
  - ▪ *If your text does not yet stand out from a busy background,* select your **text box** object (the text box itself, not any particular text within it), and *if using PowerPoint* > ribbon tab **Format** > group **Shape Styles** > control **Shape Fill** > **More Fill Colors ...** > select a background color, and set transparency to about **50%** > **OK** > experiment.
- o Most of this agrees with, but some of this conflicts with, ▶ video "**How to Speak**" by Patrick Winston https://YouTu.be/Unzc731iCUY.

- o Do **not** use PowerPoint's fancy **transitions**, e.g., pulling in from the right, or pixeling in in little squares. They **distract** from what you are saying. Just make slides **snap** to the next slide.
  - ▪ **Especially** if you are ever going to present it over distributed-team web video-conferencing software, which **chops your visuals** into 1 or 2 frames a second, and/or **delays** them. **Yuck!**
  - ▪ *In Microsoft PowerPoint,* do this with ribbon tab **Transitions** > select **None**.
  - ▪ Do **not** use PowerPoint's fancy **transitions**, e.g., pulling in from the right, or pixeling in in little squares.

- o Try **very hard** to **not** use **timed transitions**. *If the timing is so tight you can't take a question or comment in the middle,* consider making this into a video, posting it on YouTube, and having everyone watch it from home. Instead, do any one of:
  - ▪ Drive the slides **yourself**, by at transition time, walk over to your ⌨ computer and hitting `Enter` or `spacebar` or ➔. (*If using **Prezi**,* only the latter works.) Then you can walk back to the middle, point and so on.
    -OR-
  - ▪ Get (and practice with!) a wireless **presentation-clicker**(-remote-control) to advance the slides fore and aft. **M**'s has a built-in laser-pointer--very nice to have.
    - • However, under **Zoom** and MS **PowerPoint 2010**, this doesn't work for us. **Test!**
    -OR-

- Delegate a **minion** to sit in front of the ⌨ computer and drive. Instruct said minion to advance the slide whenever you twirl your right hand, or other signal you arrange.

  o No **gradients**, either! Nor **animations**! Turn them off!
    - **Especially** if you are ever going to present it over [distributed-team web video-conferencing software](#). Yuck!

  o *If you want 🎦 video embedded in your slide:*
    - Yes, do that with ribbon tab **Insert** > section **Media** > dropdown 🎦 **Video** > as needed.
    - *If you get error "Microsoft PowerPoint" "PowerPoint cannot insert a video from the selected file:*
      - Verify that the path and the file format are correct.
      - Also try:
        o Install the latest version of the Apple [**QuickTime** player](#) > "OK" "Help", click OK.
        o Set app **QuickTime** > **Edit** > **Preferences** > **Player Preferences** > uncheck checkbox "**Show Content Guide at startup**, as in https://discussions.apple.com/thread/8527642.
        o Restart PowerPoint and then try playing the video slide again.
        o Make a note to, after you are done with this project, uninstall the app, and do the rest of what the message says.
    - Decide whether you want the video slide to auto-launch (yes, you do).
      If Yes, then do that by ribbon section **Video Tools** > tab **Playback** > group **Video Options** > dropdown **Start=Automatically** > check checkbox **Play Full Screen** > verify the resolution.
      I had great success, and made it easier on the Presenter, by cloning a video slide into two slides:
      - The first slide was the first frame of the video, so the speaker could introduce it.
      - The second slide was the video, auto-launched. Audience reaction was awesome as the "still" photo now started to move!
      - *If you want that second slide to, when the video clip is finished, automatically advance to the next slide (yes, you do)*, then:
        o ==[Not sure, will look it up. May be something like in audio paragraph below.]==
      - *If MS PowerPoint 2010 will **not play** a video or shows "**Media Unavailable**":*
        o Install the latest version of the Apple [**QuickTime** player](#) > "OK" "Help", click OK.
        o Set app **QuickTime** > **Edit** > **Preferences** > **Player Preferences** > uncheck checkbox "**Show Content Guide at startup**, as in https://discussions.apple.com/thread/8527642.
        o Restart PowerPoint and then try playing the video slide again.
        o Make a note to, after you are done with this project, uninstall the app, and do the rest of what the message says.

  o *If you want 🔊 audio embedded in your slide:*
    - Yes, do that with ribbon tab **Insert** > section **Media** > dropdown 🔊 **Audio** > as needed.
    - Decide whether you want the audio slide to auto-launch (yes, you do).
      If Yes, then do that by ribbon section **Audio Tools** > tab **Playback** > group **Audio Options** > dropdown **Start=Automatically** > [optional] check checkbox **Hide During Show**.
      I had great success, and made it easier on the Presenter, by cloning an audio slide into two slides:
      - The first slide shows the subject, so the speaker could introduce it.
      - The second slide was a duplicate of the first slide, but with the audio inserted, auto-launched. ==Audience reaction was ____.==
      - *If you want that second slide to, when the audio clip is finished, automatically advance to the next slide (yes, you do)*, then:
        o [One-time] ribbon **Slide Show** > section **Timing** > check checkbox **Use Timings.**
        o [Each slide] ribbon **Transitions** > section **Timing** > section **Advance slide** > check checkbox **After** (do not need to set any particular time here).

- Verify that videos and presentations always show ☐ **fullscreen**, without taskbar, volume level nor other overhead. Don't distract your audience.
  o For **.pdf**, use **Ctrl+L**, or **View** > **Full Screen Mode**.
  o For **.ppt** and **.pptx**, use **F5**, or **Slide Show** > **From Beginning**.
    - *If MS PowerPoint 2010 will **not play** a video or shows "**Media Unavailable**":*
      - Install the latest version of the Apple [**QuickTime** player](#) > "OK" "Help", click OK.
      - Set app **QuickTime** > **Edit** > **Preferences** > **Player Preferences** > uncheck checkbox "**Show Content Guide at startup**, as in https://discussions.apple.com/thread/8527642.
      - Restart PowerPoint and then try playing the video slide again.
      - Make a note to, after you are done with this project, uninstall the app, and do the rest of what the message says.

- o For `.key`, use ██ ?
- o For video files, your media player should have a ☐ **Fullscreen** button, or **View** > **Fullscreen**.
- o *If you have **any** issues with your current media player,* install **VLC media player** from VideoLAN. I love it! Plays all kinds of files, tolerates incomplete or damaged media files, records played media, converts between file types, and grabs individual-frame screenshots. [To take a cellphone mobile screenshot.]

☐ *If **time** for your presentation is tight:*
- o Arrange to have a **minion** keep you on time, with a set of cards or hand signals.
- o Have your local geek, seeking to break into mobile, code you a mobile app that turns your ▯ smartphone's display **blue**, then **green** when you have used your minimum time, **yellow** a minute before the end, and **red** to cut it off. Sounds fun!

☐ *If you are going to Post a recording of your presentation on **YouTube**,* include an **end slide**, for several seconds, over which you can have YouTube place link cards to feature other videos, etc.

☐ **Spellcheck** everything!

☐ *If you have **speaker notes,** **print them off***, and put the ▮ paper copy in your presentation kit.
- o *If any technology problems,* you can hold them in your hand, and speak with confidence.

☐ Save off a **safety copy** of your presentation in `.pdf` format.
- o *Under Microsoft PowerPoint*, **File** > **Save As** > **.pdf**. This method makes the file **searchable/copy-pasteable!**
- o *If your presentation software starts fighting with your videoconference software (it will, someday!),* you can show your audience the `.pdf`!
  - ▪ Test this with your videoconference software!
- o *If presenting to a live audience,* consider printing off these slides, too.
  - ▪ *If you have a total power failure,* have an assistant hold up your paper slides illuminated with a mobile-phone flashlight, while you deliver your talk **nice and loud!**

☐ *If you think people are going to **take notes***:
- o Near the beginning, tell your audience you will Post the slides, and you will have the conference organizer email them a link to those slides. -OR-
- o Make paper handouts of your slides.
  - ▪ For **PowerPoint**, make handouts via **File** > **Print** > **Print All Slides** and Print Layout=**Notes Pages** and Handouts=**3 slides** or whatever you want.

☐ *If you have real 3-D meatspace **visual aids**,* awesome.
- o **Delegate** some minions to demonstrate them!

☐ **Drawing the audience's attention** to **a part** of your presentation is a GREAT idea.
- o Pointing a **laser-pointer** at a **projection screen** is probably fine. But:
  - ▪ **Test** it first!
  - ▪ Don't point your laser-pointer at your ▭ **laptop screen** — it will bounce off onto the wall behind you. :-(
    - • *If you see laser-pointer on the wall behind the speaker,* have them point to real screen instead. I've seen this happen!
  - ▪ Don't point laser-pointer at a ▥ TV — it won't reflect.
- o In many of these cases, the **PowerPoint laser-pointer** will be more effective -- use `Ctrl+dragMouse`.
  - ▪ But to do so, *if you are using PowerPoint **Presenter View**,* you will need to see **both** screens.
    - • If you can't see both screens, then you will have to delegate a minion with a stick.
  - ▪ *If displaying over Zoom,* tell PowerPoint to make the laser-pointer much larger! **Test!**
- o *I have also see a spotlight function used to good effect. Looks like serious work to add.*
- o *If your stage has a single display (not two),* you can always use a **long stick**!

1.4.1 To scan to a file on our HP OfficeJet Pro 8028 or 8028e all-in-one AI1 AiO scanner/copier/printer

This is according to my experience, and https://support.hp.com/us-en/document/ish_2275901-2074064-16.

[Digression — before you buy this printer, know that it:
1. Has **ink** on a **subscription basis**, what I call *Ink as a Service* IaaS. Not terrible. Ensure that you select a plan that is slightly-over the number of pages you print each month. If you plan to print a lot one month, the month before, bump up your subscription plan. When done printing a lot, bump it back down. Sorry.
2. Will **not** print **double-sided** on American **legal paper** (14"x8½"). Attempting that prints half of the first page, and none of the second. Instead, put in a single sheet of paper, say **print single-sided**, flip over the page yourself, putting it back in the lower tray, optionally with another clean sheet.
3. Will **not** scan into a **.pdf with text** that is **searchable, copyable/pasteable**. Nor can I find any way to get OCR it after-the-fact, to make it **searchable, copyable/pasteable**.
4. Despite being sold as having a "35-Page Auto Document Feeder", I find this unit reliably scan **5 or 10 pages** in the upper hopper; more than that jams the lower output hopper. So stop at 5 or 10 pages, do their backsides, then scan another group of 5 or 10 pages, etc. A bit clunky, but it works!
5. *If you try to print something, and the printer ignores you* (usually after you have ignored the printer for a few weeks):
   a. *If printer and computer are on different Wi-Fi networks* [how?]*,* change one so both are on the same network, and try again.
   b. *If still fail,* reboot your printer [how?]*,* and try again.
   c. *If still fail,* reboot your computer [how?]*,* and try again.
   d. *If still fail,* run your operating system's printer troubleshooter [how?]*,* and try again.
   e. *If still fail,* run HP tools [how?] **Print and Scan Doctor**, then **Print Diagnostic Utility**, then **Network Diagnostic Utility**, then **Hardware Diagnostic Utility**.
   □ OK, you have the printer now, back to how to scan … **]**

At the printer: set your original document in the auto-document feeder's upper hopper face-up, or on glass facedown against corner with white angle.

On your ⌨ computer (if any trouble, https://support.hp.com/us-en/drivers/selfservice/hp-officejet-pro-8020-all-in-one-printer-series/24208622/model/25479570 > left nav **Troubleshooting** > **HP Print and Scan Doctor**) *…*

IF you have app **HP** > <mark>**HP OfficeJet Pro 8020 Series-HP Scan**</mark> (this might have been called **HP Scan for Windows** at some point)
   □ Select Windows logo button ⊞**Start** > **All Apps** > **HP** > <mark>**HP OfficeJet Pro 8020 Series-HP Scan**</mark> (or might have been called **HP Scan for Windows** at some point)
   □ Left navigation **Everyday Scan.**
   □ IF *you want to scan a **photo**,*
      set **Item Type= Photo**, and File Type=**PNG** (preferably) or **JPEG**, **BMP** or **TIF**, and anything else you need
      ELSE *you want to scan a **document** (something with text),*
      set scan **Item Type=Document**, and destination **File Type**=**PDF**, and anything else you need
      ENDIF
   □ Select button **Scan**.
   □ When the printer finishes whirring, select **More >**,
      o If needed, crop by dragging one or more of the eight little grab-boxes.
      o Set Destination, and Manage Images.
      o IF *you want to include more scans in this particular file*
         select buttons **Add more pages from the scanning device** and **Scan**
      ELSE you are done scanning
         select buttons **Save** > **Save** > **Exit**
      ENDIF

ELSE you don't have app **HP** > <mark>**HP OfficeJet Pro 8020 Series-HP Scan**</mark> nor **HP Scan for Windows**
   □ Launch https://support.hp.com/drivers > printer > **8028** > **Installation Software and Driver-Includes print, scan, latest features, and solutions (2)** > :
      o Install **HP Easy Start Printer Setup Software** (or maybe it was **Installation Software and Full/Basic Driver-Supports print and scan functionality only** — cannot remember) > button **Download** > launch that file > answer all its questions.
      o Reboot.
      o Probably also install **HP Print and Scan Doctor for Windows**, and reboot again.
      o Go back up to the top of this pseudocode, and use the new app and its superior options.

□ *If you never could get this app installed …*

 IF *you are want to scan a **photo**, AND*
   *you like **better quality** and ⅓ **the filesize** versus the other option, or*
   *the photo is **high quality**, or*
   you dislike `.jpg` ***photo bubbles**,*
you should scan with **Windows' built-in scanner software** (unfortunately, this app was **deleted** in Windows 11)
   □ Select Windows logo button ⊞**Start.**
   □ Type `scan` and wait.
   □ Select app **Windows Fax and Scan**. **TODO:** Did Microsoft kill this off in Windows 11?
   □ Select button **New Scan**.
   □ Select **Profile** =
     o **Photo (default)** *if your original is all photo,* or
     o **Documents** *if your original is text-only, or text and images,*
       except that a few years ago, Microsoft broke this option, and you should use **the other paragraph below.**
   □ Select **File type** =
     o **PNG** (14X size of JPG) or **TIF** for important photos, or
     o **JPG** (1X size of JPG) if you like bubbles photos.
   □ Select **Resolution (dpi)** =
     o maximum ◄ for **important family-history documents**,
     o **1200** (42X size of 150 dpi),
     o **600** (10X size of 150 dpi) (pretty good photo) ◄ **important photos**,
     o **300** (3X size of 150 dpi) (OK photo),
     o **150** (1X size of 150 dpi) (tolerable for a snapshot),
   □ Select button **Preview** > wait for it to run > crop it.
   □ Select button **Scan** > wait for it to run.
   □ In the filename pane, select the most recent file > right-click **Rename …** and **Move to folder …** > etc.

 ELSE *you want to scan a (text or mostly-text) **document** into a* `.pdf` *file,* you should scan with Windows 11 or 10 app **HP Smart:**
   □ **TODO:** Test app **HP Scan and Capture**
     https://microsoft.com/en-us/store/apps/hp-scan-and-capture/9wzdncrfhwl0.
   □ **TODO:** Need to bug HP to have https://support.hp.com/us-en/document/ish_6106412-6106481-16 apply to this printer?
   □ Select Windows logo button ⊞**Start**.
   □ Launch app **HP Scan for Windows** or **HP Scan and Capture** or **HP Smart**.
   □ Select button **Scan**.
   □ Select top-navigation **Scan**.
   □ Select right-tab icon **[gear]** > **Scan Preset** =
     o **Document** *if your original is text-only, or text and images;* or
     o **Photo** *if your original is all-photo,*
       except, *if you like*
         ***better quality** and ⅓ **the filesize**, or*
         *the photo is **high quality**, or*
         you dislike `.jpg` ***photo bubbles**,*
       you should instead use **the other paragraph above.**
   □ *If your source document is of a size not listed in the dropdown,* check checkbox **Detect Edges**.
   □ Select **Resolution** =
     o maximum ◄ for **important family-history documents**,
     o **1200 dpi** (34X size of 150 dpi) (**way** more than you need to read text) (scan of photo starts, but eventually fails),
     o **600 dpi** (10X size of 150 dpi) (more than you need to read text) (good photo) ◄ **important photos** until I can get 1200 dpi to work,
     o **300 dpi** (3X size of 150 dpi) (extremely good for the finest text) (OK photo), ◄ **if OCR to searchable/copy-pasteable .pdf**,
     o **150 dpi** (1X size of 150 dpi) (fine to read any text) (tolerable for a snapshot) ◄ **ordinary docs**,
     o   **75 dpi** (⅓-¼ size of 150 dpi) (tolerable to read most text) (snapshot) smaller filesize, if resolution is OK for your intended use.
   □ Select right-tab icon **[wand]** > button **Auto-Enhancements** > set **Orientation rotate images right-side up** to **On**.
   □ Select button **Scan**.
     o *If it says "**Scanning was cancelled from the scanner**",* select buttons **OK** and **Scan**.

- o *If it puts the scan file onto **Google Drive** instead of your **SSD/harddrive**,* try again with a smaller **Resolution**, e.g., **150** dpi instead of **300**.
- ☐ *If you see the **Detect Edges** lines and ¾ circles,:*
  - o Drag them to edges of your source document (round outward — you can fix it later) > button **Apply**.
- ☐ *If you need to rotate the scanned page,* button **Rotate** once, twice, or thrice.
- ☐ *If you want to **crop, rotate, reflect, brighten, darken, adjust colors, filter, add text** or **markup** your scan,* select the *meatballs* button "**...**" > **Edit** > do that, perhaps using the right toolbar > select button **Done**.
- ☐ *If you want to scan **more pages** into the same document,* select button **+Add**.
- ☐ *If you want to **reorder** your pages,* drag them around — very slowly.
- ☐ Select button **Save** (and where), or **Share**.

 ENDIF
ENDIF

- ☐ To control/fix this printer/scanner, use:
  - o app **HP Smart**,
  - o app **HP Support Assistant**,
  - o app **HP OfficeJet Pro 8020 Series-HP Scan**,
  - o app **HP Print and Scan Doctor**, or
  - o embedded web server **https://10.0.0.12**.

https://support.hp.com/us-en/document/ish_6106412-6106481-16
https://123.hp.com/setup

TODO: Test if the above actions in green will fix …
 4. How do I get our HP OfficeJet Pro 8028, with app **HP Smart** scan function **Scan Preset=Document**, to use OCR to create .pdf files with text **searchable/copy-pasteable?**
    If can find HP OfficeJet Pro 9010 or 9020, follow https://support.hp.com/us-en/document/c06211157.
    Need to try steps in https://support.hp.com/us-en/document/ish_6106412-6106481-16.
    To after-the-fact apply OCR to or compress a .pdf file, see EricPiehl.alterVista.org/tools.pdf#page=20 and **OmniPage**, **FineReader** or **Readiris**.
       Irfanview 32-bit https://FHug.org.uk/kb/link/irfanview-3 will give you text of (A) only a text-block-at-a-time, not the whole doc; and (B) won't put any text into the .pdf file.
 5. How do I get our HP OfficeJet Pro 8028, with app **HP Smart** scan function, to scan a photo with **Scan Preset=Photo** at **Resolution=1200** without failing "Scanning was cancelled from the scanner"?
 6. Consider repeating or linking to this section in EricPiehl.alterVista.org/tools.pdf#page=20.

1.4.1.1 To change ink cartridges on our HP OfficeJet Pro 8028 all-in-one AI1 AiO scanner/copier/printer

To see if you need to replace any ink, at your computer:
- ☐ ⊞**Start** > type "**printer**" > wait > desktop app **Printer & scanners**.
- ☐ Select your printer (ours has a name with "**HP**" and a bunch of dots "**.**") > button **Manage** > button **Open your printer app**.
- ☐ Wait a long time for app **HP Smart** to launch and find stuff.
- ☐ See the icons for what the printer thinks of its ink levels — **M** magenta, **C** cyan, **Y** Yellow, and **Bk** black.
- ☐ If any are below half-full, see if you have a spare cartridge of that color.
- ☐ If any are right at the bottom, continue ...

To replace one or more ink cartridges, at the printer:
- ☐ **Close** document cover.
- ☐ **Open** putty-colored front door.
- ☐ See "**indicated cartridges are ready for replacement**".
- ☐ **Remember** which **ink color icons** are shown — one or more of **M** magenta, **C** cyan, **Y** Yellow, and **Bk** black.
- ☐ Press button **Replace**.
- ☐ **Lift open**, by the gray plastic handle, simultaneously both the **printer top lid** with the document cover.
  - o If an ink cartridge has a **flashing light**, it should be the color you noted above.
  - o Unclick and remove the **empty ink cartridge**. Set aside for later mailing for reuse.
  - o Select the proper new ink cartridge.
  - o Remove the plastic wrapper, verifying the air vent is now exposed.
  - o Snap off the colored cover over the ink exit.
  - o Insert the new ink cartridge, pressing all the way back, then down until you year a nice "**click**".
- ☐ **Lower**, by the gray plastic handle, simultaneously both the **printer top lid** with the document cover.

☐ After the printer makes noises for a few minutes, it should give you a <mark>nice message</mark>.
☐ Print!
☐ Can put the empty cartridge in the return envelope for reuse.

1.4.2 To scan to a file on our previous Canon PIXMA MX922 scanner/copier/printer

☐ *To scan a photograph to a `.png` file* on our Canon PIXMA MX922:
  o *At the printer:* set your original photo in the auto-document feeder's upper hopper face-up, or better yet, on the glass facedown.
  o *On your ⌨ computer:*
    ▪ [*One-time:* install (from the real Canon support website for the printer) tab **Drivers** the full "MX920 series MP Drivers", then …]
    ▪ ⊞**Start** > **Canon Utilities** > **IJ Scan Utility** >
    ▪ button **Settings…** > tab **Photo Scan** > set all the options the way you like, including Resolution: **600 dpi**, Data Format: **PNG**, Save in: *somewhere you like*, and Open with an application: **Windows Explorer** > button **OK** >
    ▪ button **Photo** > wait a minute for the scan to complete > button **Exit** > wait for **File Explorer**/This PC (formerly Windows Explorer/My Computer), to come up > launch your file, and see if **OK**.

☐ *To scan a text-containing document to a `.pdf` file* on our Canon PIXMA MX922:
  o *At the printer:* set your original document in the auto-document feeder's upper hopper face-up, or on glass facedown.
  o *On your ⌨ computer:*
    ▪ [*One-time:* install (from the real Canon support website for the printer) tab **Drivers** the full "MX920 series MP Drivers", **and** install from tab **Software** "My Image Garden" (this is what makes your scan **searchable/copy-pasteable**), then …]
    ▪ ⊞**Start** > **Canon Utilities** > **IJ Scan Utility** >
    ▪ button **Settings…** > tab **Document Scan** > set all the options the way you like, including Data Format: **PDF** (**Settings…** > check **Create a PDF file that supports keyword search** > **OK**), Save in: *somewhere you like*, and Open with an application: **Windows Explorer** > button **OK** >
    ▪ button **Document** > wait a minute for the scan to complete > place next original and click button **Scan**, or click button **Exit** > wait for **File Explorer**/This PC (formerly Windows Explorer/My Computer) to come up > launch your file, and see if **OK**.

1.4.3 To scan to a file on our twice-previous HP printer scanner/copier/printer

☐ *To have text built **searchable/copy-pasteable** into your `.pdf` file* on your ⌨ computer with an HP printer: ⊞**Start** > **HP Solution Center** > **Home** > **Convert to Text**. Works great.

1.4.4 To scan to a file under ⊞ Microsoft Windows

☐ [How to scan a document in Windows](#) (for me, see [previous section](#)!).

1.4.5 To copy a file from an Android phone to a computer
<mark>NEW</mark> There are other methods. I find this easiest:
☐ Connect a **cable** from your phone to your computer.
  o *For a Google Pixel 4,* use a USB-A to USB-C cable.
☐ *On your **phone**,* unlock, and swipe down to see notifications. Find notification "**USB for file transfer**" (if necessary, scroll down through the notifications) > "**Tap for other USB options.**" >
  o "USB controlled by"="**This device**",
  o "Use USB for"="**Transferring files**", and
  o "Trancode exported video" "Convert HEVC videos to AVC format so you can play them on your computer and other devices." = **On**.
☐ ⊞⌨ *On your Windows computer,* launch ⊞**Start** > app **File Explorer/This PC** *[formerly* **Windows Explorer/My Computer**, *and still called* **Windows Explorer** *under-the-covers]* > see your phone as a sorta-diskdrive > select it > **Internal Memory** > **DCIM** > **move** pics to the correct permanent location on your computer, then rename or otherwise process them.
☐ *When done*, disconnect the cable and return to its permanent location.

1.4.6 To copy or move a file from a camera to a computer

<mark>NEW</mark> There are other methods, including setting up automated software to looks look for cameras connected via a cable, and fighting over which automated software that will be, and where they put the phones.

I find this method easier:
- □ Do **not** connect any cable from your camera to your computer!
- □ *On your **camera**,* slide open the cover, push in the SD card with fingernail, release, and then pull out the SC card.
- □ *On your ⌨ **computer**,* insert SD card in the built-in slot, or into an adapter (*if needed,* remove existing card).
- □ ⊞⌨ *On your Windows computer,* launch ⊞`Start` > app `File Explorer/This PC` [*formerly* `Windows Explorer/My Computer`, *and still called* `Windows Explorer` *under-the-covers]* > see the new sorta-diskdrive > select it > **DCIM** > **camera** > [possible subfolder >] **move** pics to the correct permanent location on your computer, then rename or otherwise process them.
- □ *When done*, replace the SD card in the camera.

1.4.7 If you are going to show web link URLs or URIs

*If you are going to **show or print any web links**,*
  be **kind** to your audience,
  by making it possible to write down or type your [URL](#),
  by **shortening** the URL by:

- □ Make sure the URL **works**, by Pasting it into a browser tab or ⊞`Win+R` box > [Enter].
  If bad, get it working, using your favorite Search Engine (e.g., Search engine [DuckDuckGo](#)), or other means.

- □ *If a page exists that **already has** the links you have, such as someone's resource page,* link to that page.
  (May take care of multiple URL. And may offload to them maintaining those web addresses!)

- □ <mark>*For your super-problem URLs,* consider using a URL-shortener service, such as https://bit.ly and https://tinyurl.com</mark>.

- □ *For links to **Search**,* use format:
    - ○ https://duckduckgo.com/?q=windows+10+sort+folders+top
    - ○ https://google.com/search?q=windows+sort+folders+top
  Test the new URL.
  If bad, undo this this change.
  If good, use this URL — you are done.

- □ *For links to **maps, weather, flight info** or **YouTube**,* see formats in my [tools document](#) page 2 or 3.
  Test the new URL.
  If bad, undo this this change.
  If good, use this URL — you are done.

- □ *If the URL **starts with** "*`https://www.`*", replace it with "*`https://`*".*
  If the URL starts with "`http://www.`*", replace it with "*`http://`*" or with "*`www.`*" (your choice), or (because of the below) "".*
  (*Most* webmasters set up their domain stuff so either works, so no need to have humans look at the extra text, nor type it.)
  Test the new URL.
  If bad, undo this this change.

□ *If the URL* **contains**
"**facebook.com/pg/***pagename*", remove the
"**pg/**".
If the URL contains
"**facebook.com/groups/***pagename*", remove the
"**groups/**".
(Nether are needed [thank you webmaster!], so no
need to have humans look at the extra text, nor
type it.)
In general, this should be something like
"**https://facebook.com/***pagename*", where
"*pagename*" is the Facebook "*@name*" (without the
"**@**") displayed on all of your group's Facebook
pages.
Test the new URL.
If bad, undo this this change.
□ *If the URL* **contains** "**google.com/**", you can try
replacing it with "**g.co/**" or "**google/**" (try both).
Test the new URLs.
If bad, undo this this change.
□ *If the URL* **contains** "**youtube.com/watch?v=**",
replace it with:
  "**youtu.be/**" (if audience needs video
Description, ♨Thumbs Up, Subscribe or 🔔
notification bell); or
  "**youtube.com/embed/**" (if audience does **not**
need to see video **Description, ♨Thumbs Up,
Subscribe** nor 🔔 **notification bell**).
In general, this should be something like
"**https://youtu.be/***videoname*" or
"**https://youtube.com/embed/***videoname*",
where "*videoname*" is the 11-character video
identifier.
Test the new URLs.
If bad, undo this this change.
To **publicize/promote**, include relevant parts of:
  ○ "*For full effect,* select the video link, then icons □ **fullscreen**, cc **captions**, ▶ **Play**, and □ ⊠ **Skip Ads**.
    ▪ *If no captions are available,* you can get captions from browser **Edge** (⊞**Win+Ctrl+L**) (and **Chrome**?),
      even if you are watching the video in another browser!
      • ⊞ *Under Microsoft Windows,* see https://support.microsoft.com/en-us/windows/use-live-captions-to-better-understand-audio-b52da59c-14b8-4031-aeeb-f6a47e6055df#bkmk_turnoncaptions.
  ○ "*For additional reading,* see links under button **...more**. (Was ~~**Description**~~ under button ~~SHOW MORE~~).
  ○ "*If you like what you see,* give our video a ♨**Thumbs Up**, and **Share**.
  ○ "*If you want to see more videos like this,* **Subscribe**, and ring the 🔔 **notification bell**. And see our
    YouTube channel https://youtube.com/WildOnesRiverCityGrandRapidsAreaChapter/videos." (Was
    https://youtube.com/channel/UCgLyuz9Ws3_pcodpiwKVRCg/videos.)
    Or my son's https://youtube.com/channel/UCcdVkcu8_YxWhoPz4IF44OQ/videos. *When Andy's YouTube
    channel grows to **100 subscribers**,* we can **dramatically-shorten** the URL to
          https://youtube.com/AndrewPiehl/videos or
          https://youtube.com/**c**/AndrewPiehl/videos,
    as is currently done by
          https://youtube.com/WildOnesNativePlants/videos and
          https://youtube.com/**c**/WildOnesNativePlants/videos, and
          https://youtube.com/MissouriPrairie/videos and
          https://youtube.com/**c**/MissouriPrairie/videos,
    according to https://support.google.com/youtube/answer/2657968.
□ *If the URL* **contains** "**youtube.com/c**" *or* "**youtube.com/channel**" *or* "**youtube.com/user**",
replace it with "**youtube.com**" or "**youtube.com/c**".
In general, this should be something like "**https://youtube.com/***channelname*" or
"**https://youtube.com/c/***channelname*", where "*channelname*" is the YouTube channel's name.

In general, this should be something like "**https://youtube.com/***username*" or
"**https://youtube.com/user/***username*", where "*username*" is the YouTube user's name.
Consider navigating straight to the videos as in "**https://youtube.com/***channelname***/videos**" or
"**https://youtube.com/c/***channelname***/videos**".
Test the new URL.
If bad, undo this this change.

☐ *If the URL* **contains** "**naturenearby.org/portfolio_page/explore/**", remove the
"**portfolio_page/explore/**".
If the URL **contains** "**naturenearby.org/explore/**", remove the " **explore/**".
(Nether are needed [thank you webmaster!], so no need to have humans look at the extra text, nor type it.)
In general, this should be something like "**https://naturenearby.org/***preserve*", where "*preserve*" is
the name of the preserve.
Test the new URL.
If bad, undo this this change.

☐ *If the URL* **contains** "**https://rivercitygrandrapids.wildones.org**", change the
"**https://rivercitygrandrapids.**" to "~~**http://rivercity**~~" or "~~**www.rivercity**~~" or (because of the
below) "**rivercity**".
Test the new URL.
If bad, undo this this change.

☐ *If the URL* **contains** "**rivercitygrandrapids.wildones.org**", remove the "**grandrapids.**".
Test the new URL.
If bad, undo this this change.

☐ *If the URL* **contains** "**https://nbcnews.com**", use that page's link "SHARE LINK ... **</>**" to get an
embedded link such as "**https://nbcnews.com/news/embedded-video/mmvo86989381934**".
Test the new URL.
If bad, undo this this change.

☐ *If the URL* **contains** or **ends in:**
  o "**/index.html**"
  o "**/index.htm**"
  o "**/index.shtml**"
  o "**/index.asp**"
  o "**/index.aspx**"
  o "**/index.jsp**"
  o "**/index.php**"
  o "**/default.html**"
  o "**/default.htm**"
  o "**/default.shtml**"
  o "**/default.asp**"
  o "**/default.aspx**"
  o "**/default.jsp**"
  o "**/default.php**"
  o "**/home.html**"
  o "**/home.htm**"
  o "**/home.shtml**"
  o "**/home.asp**"
  o "**/home.aspx**"
  o "**/home.jsp**"
  o "**/home.php**"
  replace it with "".
  (The site's *web server* will try many of these by default, so no need to have humans look at the extra text,
  nor type it.)
  Test the new URL.
  If bad, undo this this change.

☐ *If the URL* **ends in** "**?ref=page_internal**", replace it with "".
  (Useless, so no need to have humans look at the extra text, nor type it.)
  Test the new URL.
  If bad, undo this this change.

☐ *If the URL contains/ends in a parameter delimited by* "**?**", *and perhaps additional parameters delimited by* "**&**",
  start removing the parameters, one at a time.

(Many of these parameters may not be needed, so no need to have humans look at the extra text, nor type it.)
I suggest starting at the end, and moving forward.
When removing a parameter, always remove its **starting** delimiter, "**?**" or "**&**".
  Do not remove its **ending** delimiter.
If you remove the first parameter with its starting delimiter "**?**", replace the next delimiter "**&**" with "**?**".
If you remove a subsequent parameter with its starting delimiter "**&**", that is fine.
Test the new URL.
If bad, undo this this change.
Continue with the other parameters.
☐ *If the URL* **ends in**:
  ○ "**.html**"
  ○ "**.htm**"
  ○ "**.shtml**"
  ○ "**.asp**"
  ○ "**.aspx**"
  ○ "**.jsp**"
  ○ "**.php**"
  ○ "**/**"
  replace it with "".
  (The technology needs it there, but will correct it in a few microseconds, so no need to have humans look at the extra text, nor type it.)
  Test the new URL.
  If bad, undo this this change.
☐ *If the URL* **starts with** "**http://**" or "**www.**", replace it with "".
In a browser tab, this will work fine. But test it anyway.
In a ⊞**Win+R** *box,* this will **break the URL**. But any audience member who launches websites this way, will know to add it back.
☐ *If you wish*, add **readability** to your URL, by changing the case of your URL's **domain name** — the *subdomain*, *hostname*, and *top-level domain* between the "**//**" and the following "**/**". That part is **not** case-sensitive, so you can cHAngE ItS cASe as you wish. (Whether the rest of the URL is case-sensitive depends on your web server software, and perhaps the operating system upon which it runs.)
For example, change
  from "**https://nbcnews.com/news/e...**"
    to "**https://NBCnews.com/news/e...**" or
      "**https://NbcNews.com/news/e...**" using UpperCamelCase.
Test the new URL. It will work fine if you typed it right.
If bad, undo this this change. Then correct how you mistyped it, and try it again.
  ○ This works with **email addresses**, too. The entire address — the *local-part*, "**@**", and the *domain*.

☐ *For your super-problem URLs,* consider using a URL-shortener service, such as https://bit.ly and https://tinyurl.com.

☐ To send these URLs/URIs to ▯ mobile smartphones, consider email.
  ○ If you need to send these URLs/URIs via **SMS or MMS text messages**, see https://wikipedia.org/wiki/SMS_gateway#Email_clients or https://wiktel.com/texting.php. I also have code that does that programmatically--from code. Either way, you have to determine their mobile provider company; you can do up to five requests for this free from https://realphonevalidation.com/resources/phone-carrier-lookup.

1.5 Internet access

☐ Do **not** trust that your site will have Internet access:
  ○ At **AY_ CM**, they have Wi-Fi only in the more-common conference rooms, for which we can sometimes drag credentials out of the staff, or figure out for ourselves. One room I know of has wired Internet, which I used once to download a file to a flash-drive/jumpdrive/thumbdrive/USB-attached SSD/USB-drive/USB-key/USB-stick. The presenter (who had expected good Internet access) talked without visuals for the first third of the talk, until I had connected to the Internet, downloaded to a thumb-drive, and sneaker-netted it across the room.
  ○ At **C_** *(MCLH, B_C and elsewhere),* they have wired Internet, and Wi-Fi with a complicated sign-on process that you must repeat every 3 weeks.

- o <mark>**DVP** has Wi-Fi, but they won't let us use it.</mark>
- o <mark>*SLC* now has open Wi-Fi.</mark>
- o <mark>*_Q* has Wi-Fi, open or encrypted.</mark>

☐ *If you want to [save a video from Facebook](#).*

☐ *If you want to use a video on **YouTube**,* see if the page has a **Download** button.
- o If **Yes**, press it, and save it to a known filename and location.
- o If **No** and you are a close friend of me, please let me know, I will walk you through my [tools document](#).

☐ *If you want to use a website, or want to use a .pdf and your presentation software wont import that:*
- o Do some print-screens. Bring it up on your largest screen, zoomed in as much as you can.
  - ▪ ⊞*Under Microsoft Windows,* do one of:
    - • ⊞`Start` > type "`snip`" > wait > desktop app **Snipping Tool** > **New** > mouse drag rectangle you want > **Exit** > Save=**Yes** > to **.png** or **.tiff** format (lossless!), not **.jpg** (lossy!).
    - • ⊞`Win+Shift+S` > choose a shape > drag your area > do something with your results in the Clipboard or Notification.
  - -OR-
- o Save off a working copy of the website (I know some ways of doing that).
- o Import that into your presentation.

1.6 Test it!

☐ *If you think you can run without access to the Internet,* turn off your Internet access, show your presentation, and **verify** that you can see all photos, videos and 🔊 audio, with no hovertext!

☐ Verify that videos and presentations always show ☐ **fullscreen**, without taskbar, volume level nor other overhead. Don't distract your audience.
- o For **.pdf**, use `Ctrl+L`, or **View** > **Full Screen Mode**.
- o For **.ppt** and **.pptx**, use `F5`, or **Slide Show** > **From Beginning**.
  - ▪ *If MS PowerPoint 2010 will **not play** a video or shows "**Media Unavailable**":*
    - • Install the latest version of the Apple **[QuickTime](#)** player > "OK" "Help", click OK.
    - • Set app **QuickTime** > **Edit** > **Preferences** > **Player Preferences** > uncheck checkbox "**Show Content Guide at startup**, as in https://discussions.apple.com/thread/8527642.
    - • Restart PowerPoint and then try playing the video slide again.
    - • Make a note to, after you are done with this project, uninstall the app, and do the rest of what the message says.
- o For **.key**, use ▮▮▮?
- o For video files, your media player should have a ☐ **Fullscreen** button or **View** > **Fullscreen**.
- o *If you **any** issues with your current media player,* install **[VLC media player](#) from VideoLAN**. I love it! Plays all kinds of files, tolerates incomplete or damaged media files, records played media, converts between file types, and grabs individual-frame screenshots. [[To take a cellphone mobile screenshot](#).]

☐ Verify that your presentation covers **Why** before **How** before **What**, as in [TED talk "Start with Why" by Simon Sinek](#) or [TED talk "Start with Why" by Simon Sinek](#).

☐ **[Spellcheck](#)** everything!

☐ *If you have **speaker notes**, **print them off**,* and put the 📓 paper copy in your presentation kit.
- o *If any technology problems,* you can hold them in your hand, and speak with confidence.

☐ Save off a **safety copy** of your presentation in **.pdf** format.
- o *Under Microsoft PowerPoint*, **File** > **Save As** > **.pdf**. This method makes the file s**earchable/copy-pasteable!**
- o *If your [presentation software](#) starts fighting with your [videoconference software](#) (it will, someday!),* you can show your audience the **.pdf**!
  - ▪ Test this with your [videoconference software](#)!
- o *If presenting to a live audience,* consider printing off these slides, too.
  - ▪ *If you have a total power failure,* have an assistant hold up your 📓 paper slides illuminated with a mobile-phone flashlight, while you deliver your talk **nice and loud!**

- ☐ Save off a **safety copy** of your presentation in a format runnable on someone else's machine.
  - o *If your presentation is a* `.ppt` *or* `.pptx`, also save it with the PowerPoint **runtime** by **File** > **Save As** `.pps` or `.ppsx`.
    - ▪ *If your* 🖥 *computer should die,* it should be showable on someone else's computer without PowerPoint (not sure what operating systems are supported).

- ☐ *If at all possible,* put **all** your content, in **all those file formats**, on:
  - o Your 🖥 computer **SSD/harddrive** (preferably all together as sister-files in the same folder, and know where that folder is).
    -**AND-**
  - o A **flash-drive/jumpdrive/thumbdrive/USB-attached SSD/USB-drive/USB-key/USB-stick** (and know where that is).
    -**AND-**
  - o Any location **knowable by your presentation site**, such as their shared network drive, 🍎 Apple iCloud, Google Drive, Microsoft OneDrive, Box, Dropbox, pCloud; or the more-secure milDrive, sync.com or SpiderOak ONE ($); or other [file hosting](), [file synchronization](), or [online backup]() services.

- ☐ When you acquire a new **flash-drive/jumpdrive/thumbdrive/USB-attached SSD/USB-drive/USB-key/USB-stick:**
  - o IF your drive came in format="`FAT32`",
    AND you want your drive to handle file sizes >4GB=**No**,
    THEN you can leave it just like this.
  - o IF your drive came in format="`NTFS`",
    AND you want your drive for ⊞ Microsoft Windows use=**Read-Write**
    AND 🍎 Apple macOS use=**Read-Only** or **not at all**,
    THEN you can leave it just like this.
  - o IF your drive came in format="`HFS+`",
    AND you want your drive for 🍎 Apple macOS use=**Read-Write**
    AND ⊞ Microsoft Windows use=**not at all**,
    THEN you can leave it just like this.
  - o IF you want your drive for use in the Honda Fit/Jazz Type 2 entertainment system,
    THEN reformat your drive to format="`FAT32`".
  - o 🍎 IF you are running Apple macOS level lower than 10.6.6,
    THEN apply the "`exFAT patch`".
  - o IF you are running ⊞ Microsoft Windows release lower than 7,
    THEN apply the "`exFAT patch`".
  - o IF you are running ⊞ Microsoft Windows release lower than 10,
    THEN upgrade to a modern level of ⊞ Microsoft Windows with all due speed.
  - o IF you want your drive for 🍎 Apple macOS use=**Read-Write**,
    AND/OR ⊞ Microsoft Windows use=**Read-Write**,
    AND/OR handle file sizes >4GB=**Yes**,
    THEN reformat your drive to format="`exFAT`" as in
    [https://support.wdc.com/knowledgebase/answer.aspx?ID=291]() (creates folder "`__MACOSX`").
- ☐ While you are at it, personalize the name of your **flash-drive/jumpdrive/thumbdrive/USB-attached SSD/USB-drive/USB-key/USB-stick** to:
  - o something with **your name** and **location**, in format *`FirstLastUSA`*, or
  - o a permanently-available 📱☎ phone number, in format *`AAA-EEE-NNNN`*.

- ☐ *If collaborating with a distributed team,* please do in a *shared workspace* using:
  - o **Google Docs, Sheets and Slides**, running on **Google Drive**, very good, free. *If you have a **Gmail** email account,* you already have access to Google Docs, Sheets and Slides through your email account. [Spaces](). [Forms](). Drawings (Visio).
  - o **Microsoft Office Online**, running on **Microsoft OneDrive**. *If you have an **Outlook.com/Live Mail** (formerly **Hotmail**) email account,* you already have access to Microsoft OneDrive and Office Online through your email account.
  - o [Comparison of above two]().
  - o Or share folders or files with your team via **Dropbox** (Basic plan FREE) (I love this, and use all the time!), 🍎 **Apple iCloud**, **Box**, **pCloud**; or the more-secure **milDrive**, **sync.com** or **SpiderOak ONE** ($); or other [file hosting](), [file synchronization](), or [online backup]() services.
    *If using **Dropbox** as your collaboration tool,* tell your team ...

- *To see the **full** PowerPoint presentation (with script, etc.),*
  on a ⌨ computer with real Microsoft Office 2007 and above,
  launch the file from within:
  - ⊞ Microsoft Windows **File Explorer**/This PC (formerly Windows Explorer/My Computer), or
  - the new (2019-10-17/27?) **Windows App "Dropbox"**. Can launch this by, in the **Notification Area** (will be Action Center in Win10X) (formerly System Tray) (by the clock):
    - **double-**click icon, or
    - **single-**click icon **Dropbox** > icon **folder**.
- *To see a **cripple-ware** version of the PowerPoint presentation,*
  from any ⌨ computer (<mark>⬚ tablet?) (▯ smartphone?)</mark>,
  launch the file from within a **web browser** interface. Can launch this by, in the **Notification Area** (will be Action Center in Win10X) (formerly System Tray) (by the clock):
    - **single-**click icon **Dropbox** > icon **world**.

□ *If you have real 3-D meatspace **visual aids**,* awesome. **Delegate** some minions to demonstrate them!

2 Kit

☐ You probably want to make a kit of stuff to bring. Some ideas:

☐ **L**'s kit (in ▓▓▓▓):
- ▭ **Computer** with **DVI** port, DVI/VGA adapter, powercord, this document printed on dead trees.

☐ **M**'s kit (in his/her computer bag):
- ▭ **Computer** with **HDMI** port, in a case, with powercord, mouse and **HDMI** cable.
- HDMI/VGA adapter.
- ☞ **Projector** in case, with power cable, VGA cable, and wireless **presentation-clicker**(-remote-control)/laser-pointer.
- Bag with extension cord, power strip, external speakers including power cable and headphone cable.

☐ **My** kit (in my briefcase in a magic blue box "Tardis"):
- ▭ **Computer** with **HDMI** port, in backpack with powercord.
  The backpack also contains, all nice and neat in a **blue pencil box** I call my TARDIS . . .
- HDMI/VGA adapter. I have used, successfully, a reverse VGA/HDMI adapter.
- North-American-**outlet splitter** (can charge or run two or three devices from a single outlet).
- North-American-**outlet/USB**-A adapter (to charge two devices that do so over USB-A cables).
- **Car-outlet/USB**-A adapter (to charge devices that do so over USB-A cables).
- **USB-C/ Apple Lighting/**USB-A /micro-USB/SD-card/µSD-card adapter (connects most modern [2019+] ▯ smartphones to a ▭ computer or **Square** credit card device or charger).
  - [*If an ubergeek asks about micro-A vs. micro-B,* get the micro-B.]
- **USB-A/micro-USB** cable (connects most Android and WP to ▭ computers or charger).
  - [*If an ubergeek asks about micro-A vs. micro-B,* get the micro-B.]
- **USB-A/mini-USB** cable (connects [*past-tense?*] most cameras to ▭ computers).
- Small **Wi-Fi router**/range-extender/public-hotspot-firewall (NETGEAR Trek N300 PR2000), connectors below.
- Small Ethernet "Cat-5" cable (for wired Internet, if needed).
- **Chromecast** device, with extender and powercord, if I made a note to remove from our ▭ TV and bring it.
- Two or more flash-drive/jumpdrive/thumbdrive/USB-attached SSD/USB-drive/USB-key/USB-sticks (for people who forgot one).
- **Battery pack** (to run or slowly charge mobile cellphones when away from grid and car power-outlets).
- Disposable batteries (AA×4, AAA×3, ha).
- Bag of zip-ties, string, paperclip, etc.
- Small cheap **headphones**, extender cable, 6.35 mm/3½ mm adapter, RCA phono/3½ mm adapter.
- ✐ Microphone with 3½ mm male TRS (not TS) plug (with little shirt clip) [+ headphone extender cable].
- USB-A/external stereo sound adapter dongle [+ USB-A extender cable].

☐ *If you are going to **buy a ☞ projector**:*
- Get one that projects:
  - **Full HD 1080p** (**1920x1080** at **16:9**),
  -         WUXGA (**1920x1200** at **16:10**),
  - **4K** (**UHD**TV1) (**3840 × 2160** at **16:9**),
  - **8K** (**UHD**TV2) (**7680 × 4320** at **16:9**), or
  - better.
    I am told the Epson **1980WU** was great for larger venues.
- Unless budget drives it, try not to get an ancient one that projects just **HD 720p** (**1280x720** at **16:9** or **1280x800** at **16:10**)--that has only 44% of the pixels above. Nor worse. I am told the Epson 1771W works well on screens up to 6 m (20 ft) wide.
- **HDMI** or **wireless** input is more important than **VGA** or **DVI**. I saw one workplace where people connect wirelessly to their ☞ projector, apparently via a **Chromecast** or similar app and device.
  - ⊞ *But under Microsoft Windows,* that does **not allow you to see your speaker notes** using PowerPoint **Presenter View**. Nor see to mouse over your presentation. **TODO:** Using Google Slides?

3 If you want to 📹 / 📱💻 pre-record your presentation

- You might want to **capture your voice** over **video scraped from your 💻 computer**, stored in a video file; a file which you can later:
  - **play** for others (beforehand, test on your favorite media players),
  - **share** with others via a shared folder,
  - **share** with others on Facebook,
  - **post** or **embed** on a website,
  - **embed** into an email using Mail Chimp or other emailer,
  - upload to YouTube, or
  - use as **part of a later meeting**/videoconference/webinar.

- **[Presenters]** *If you are recording at home of the office,* locate a **standing desk**; or a regular desk with your 💻 laptop elevated by a box or stack of books.
  - Doing so, your voice will project better.
  - And if you are a bit congested, minimize any fluids in your lungs.

3.1 Ways to record and edit your video

3.1.1 Method A [recommended]: Record in a real studio

- **[Presenters]** Arrange a tour of your local library's **podcast studio** (and for presentation day, make a reservation -- under COVID-19, only one reservation per day!). Ours has:
  - a **soundproof room** with a Internet, phone, table, 4 chairs, instructions,
  - **3 🎤🖊 professional microphones** and closed-back headphones, connected to a ...
  - **RØDECaster Pro audio mixing console** (mixing board) https://rode.com/rodecasterpro, which can store audio recordings on a **microSD** (μSD microSDHC microSDXC microSDUC TF) card, and optionally transmit it over a USB-A/USB-C cable to a ...
  - laptop running ...
  - **RØDECaster Pro Podcast Studio software** (to configure something, and one way to get your recording off the mixing board), and
  - **Adobe Audition 2020** software (to **edit your 🔊 audio recording or podcast**).
    - 13 Reasonable Alternatives to Adobe's Expensive Apps.
  - **Instructions** and **signup** are at https://**kdl.org/podcast**. Under the COVID-19 coronavirus pandemic, they only allow one signup per day, so you might as well reserve it all day!
    Hours https://kdl.org/locations/ADA. **Questions** "Penni Zurgable (PZurgable@kdl.org)".
  - I made a test audio recording and transferred it to my computer. Way cool!
  - Need to verify that I can fix soft recording level, by adjusting **mixer board's Output-level slider**.
  - Need to determine how to feed **podcast studio**'s 🔊 good audio into a Zoom presentation, or a 📹 **video recording** of someone showing and doing stuff on a computer. Presumably from the mixer's Audio Outs, into a computer, using some combination of cables and connectors.
  - May practice **editing an 🔊 audio recording** using the podcast studio's **Adobe Audition** 2020 software.
    - 13 Reasonable Alternatives to Adobe's Expensive Apps.
  - Need to determine a way to,
    while people are **waiting** for a Zoom presentation to start,
    while sharing a nice slide with the name and subject of the presentation and that it will start soon,
    have neither silence nor the panelists talking among themselves,
    but have some 🔊 **music or nature sounds**,
    so that people know their 🔊 audio is working.
    This is regardless of using a podcast studio or not.
    This ought to work, but it doesn't: On slide-sharing computer > launch presentation with intro slide with the name and subject of the presentation and that the presentation will start soon > launch audio > launch Zoom > button "Share Screen" > check checkbox "Share sound" > select the window with the intro slide > button "Share" > verify slide and audio are visible and audible over Zoom. The slide is visible, but the audio is not. Does the audio have to be embedded in the slide?

3.1.2 Method B [recommended]: Record on your computer, using your OS

- **[Presenters] General purpose** method to capture your voice over video scraped from your **presentation**, or **any other screen** or **window** or **browser tab**, under **Windows 10** (now that I am using Windows 11, I should try the updated Windows Snipping tool):

- o [one-time] Allow 🖉 microphone to be accessed by app **Xbox Game bar**, via ⊞`Start` > type "captures" > select **Captures settings** > turn On **Record audio when I record a game.**
- o Setup to do your presentation, and get your presentation in focus (become the active window).
- o ⊞`Win+G` game bar.
- o Set it set to record 🔊 audio from your presentation, and your 🖉 microphone, via *in **Audio pane:***
  - ▪ set your 🖉 microphone all the way up,
  - ▪ your presentation all the way up.
  - ▪ Try to leave alone everything else. *If you mute something, and if you ever want to hear that 🔊 audio source ever again,* make a note to later come back here and turn it back on.
- o *If your presentation contains its own 🔊 audio, or video with 🔊 audio,* make a short test run, to see if you get an echo. We did, I assume , caused by the 🔊 audio being scraped for the output file, also sent to your speakers, which goes to your ears and also your 🖉 microphone, where it is then scripted again for the output file.
  - ▪ Try wearing a 🖉🔊 **headset**, so your 🖉 microphone can't hear what is coming from the speakers.
  - ▪ During the 🔊 audio, or video with 🔊 audio, experiment with muting your 🖉 microphone. Ours experience is that doing so helps a bit.
- o Make short test run, to make sure everything is set up right.
- o When ready, continue …
- o Start recording using ⊞`Win+Alt+R`.
  Wait for a few seconds until the little **Record** icon comes up.
- o **Give your presentation**, talking as you go. No Pause button, but there is a Mute button.
- o *When done,* click button **Stop**, or ⊞`Win+Alt+R`, start/stop recording.
- o Verify your recording is OK in ⊞`Win+G` > *in **Capture pane**,* select **Show all captures** > *in **Gallery pane,*** select your recording > button Play.
- o I got this as an `.mp4` file. Which you could change to a `.wmv` if you had to -- see my [tools document](#).
- o *If OK,* you can locate the file by selecting the icon that looks like a Folder "Open in File Explorer", or in "C:\Users*yourLogonName*\Videos\Captures".
- o *If you have 1.2 seconds of noise at the beginning,* trim it as in my [tools document](#).

- ☐ **TODO:** Look into tool **SnagIt**.

3.1.3 Method C [unknown]: Record on your computer, using your chip's software

[Presenters]
- ☐ Apparently, users of machines with **Intel chips** can also record their screens using app **Intel Graphics Command Center** > tab **Capture**.
  - o I have not yet tried this method. Next time I need to record a presentation, I may try it.
  - o You might have to install this via app Intel Driver & Support Assistant — I don't remember.

- ☐ I wonder if AMD or other chip manufacturers have a similar function.

3.1.4 Method D [dis-recommended!]: PowerPoint 2010

[Presenters]
- ☐ I heard that you can **record presentations** within Microsoft **PowerPoint 2016:**
  - o **File** > **Export** > **Create a Video** > **Create a Video**.
    - ▪ If you want to change the video quality, change the added narrations or time spent on each slide, you can tweak those settings here.
    - ▪ Save > let it run.

- ☐ I heard that on a newer 💻 computer,
  - o **File** > **Convert** (below Save) > **convert to MP4** > let it run.

- ☐ On my MS **PowerPoint 2010**, I can:
  - o **File** > **Save As** > **Windows Media Video (.wmv)** > **Save** > let it run. And Test.
    Seemed to just record my voice, breaking it up per slide, putting that slide's portion on that slide, and not recording during slide transitions. Not what I wanted.
    Plays my presentation, but very fixed.
    Seems to what I read in [How to Link PowerPoint to Facebook](#).
  - o **File** > **Save & Send** > **Create a Video** > **Record Timings and Narration** > do that, **X** when done > **Use Recorded Timings and Narration** > **Create Video** > let it run. And Test.
    Seemed to just record my voice, breaking it up per slide, putting that slide's portion on that slide, and not

recording during slide transitions. Not what I wanted.
Plays my presentation, but very fixed.

- □ Use your saved video as in the beginning of this section.
- □ But in testing, I found these to:
  - o When I play the video file, my voice is all **muddy**.
  - o My voice **entirely cuts out** several seconds **before and after each slide transition.**
- □ Neither of which happens with the more general method.

3.2 Post video so people can see it

3.2.1 Post video on your own website

- □ See your webmaster for details!
  - o You are probably going to:
    - ▪ upload your video to your web host, and
    - ▪ modify or add a webpage to run that file in a player.
  - o Perhaps tell the search engines about your new content.

3.2.2 Stream on, or upload video, to YouTube

- □ Start a **YouTube channel**, perhaps **Type**="**Brand Account**", whatever that is. (The alternative to "channel" is "user".)
  - o With a good **Name**.
  - o And good **Keywords**. Can change later at the YouTube channel dashboard https://studio.youtube.com > tab "Settings" > tab "Channel" > subtab "Basic info".
  - o And good **Associated website**. Can change later at the YouTube channel dashboard https://studio.youtube.com > tab "Settings" > tab "Channel" > subtab "Advanced settings" > link "Advanced channel settings".
  - o _____ at https://youtube.com/channel or https://youtube.com/WildOnesRiverCityGrandRapidsAreaChapter/videos (was https://youtube.com/channel/UCgLyuz9Ws3_pcodpiwKVRCg/videos).
  - o Controlled via https://aboutme.google.com or https://aboutme.google.com/b/100004028594510235191.
  - o Photos at https://photos.google.com/b/100004028594510235191.
  - o Link to other groups.
  - o We can set a "video watermark" to our content in the YouTube channel dashboard https://studio.youtube.com > tab "Settings" > tab "Channel" > subtab "Branding".
  - o If we have a "Google Analytics property tracking ID", we can set it in the YouTube channel dashboard https://studio.youtube.com > tab "Settings" > tab "Channel" > subtab "Advanced settings" > link "Advanced channel settings".

- □ **Upload** a **video** to YouTube.
  - o **Set video details**, including **"tags"** and **Description**, at YouTube channel dashboard https://studio.youtube.com > tab "Videos" > select our video > pencil icon "Details".
  - o *If you misspeak,* e.g., pronouncing "million" as "billion", *even if you find it later,* you can use YouTube editor to add a **correction** text box saying "million, not billion" for about 10 seconds, at the time of the error. I see this all the time in videos posted by people who make their living at this stuff. Instructions at https://youtu.be/Qa0OI3g2FUM.
  - o If **changes** to dates, details, and to add simple intro or outro text, by the same method.
  - o You can **Trim** [crop] **front, back or middle**, at YouTube channel dashboard https://studio.youtube.com > left tab "Videos" > select our video > left tab "Editor".
    - ▪ Works in **Firefox** and **Chrome**. Not **Edge**. Don't know about **Safari, Opera**, **Vivaldi** nor **Brave.**
  - o **Blur faces** *(if we need to anonymize people's images)*, also at this place.
  - o Add an **End screen** (presumably with links to other material, or **link cards** to publicize/promote other videos and such), also at this place.
  - o **Publicize**/promote the video, with something like:
    - ▪ "**https://youtu.be/***videoname*" (where "*videoname*" is the 11-character video identifier) (if audience needs video **Description, 👍Thumbs Up, Subscribe** or 🔔 **notification bell**), or
    - ▪ "**https://youtube.com/embed/***videoname*" (where "*videoname*" is the 11-character video identifier) (if audience does **not** need to see video **Description, 👍Thumbs Up, Subscribe** nor 🔔 **notification bell**),
    and relevant parts of:

- ▪ "*For full effect,* select the video link, then icons ☐ **fullscreen**, cc **captions**, ▶ **Play**, and ☐ ⊠ **Skip Ads**.
  - If *no captions are available,* you can get captions from browser **Edge** (⊞**Win+Ctrl+L**) (and **Chrome**?), even if you are watching the video in another browser!
    - ○ ⊞ *Under Microsoft Windows,* see https://support.microsoft.com/en-us/windows/use-live-captions-to-better-understand-audio-b52da59c-14b8-4031-aeeb-f6a47e6055df#bkmk_turnoncaptions
- ▪ "*For additional reading,* see links in the **Description** under button SHOW MORE.
- ▪ "*If you like what you see,* give our video a 👍**Thumbs Up**, and **Share**.
- ▪ "*If you want to see more videos like this,* **Subscribe**, and ring the 🔔 **notification bell**. And see our YouTube channel https://youtube.com/WildOnesRiverCityGrandRapidsAreaChapter/videos." (Was https://youtube.com/channel/UCgLyuz9Ws3_pcodpiwKVRCg/videos.)
  Or my son's https://youtube.com/channel/UCcdVkcu8_YxWhoPz4IF44OQ/videos. *When Andy's YouTube channel grows to **100 subscribers**,* we can **dramatically-shorten** the URL to
  https://youtube.com/AndrewPiehl/videos or
  https://youtube.com/**c**/AndrewPiehl/videos,
  as is currently done by
  https://youtube.com/WildOnesNativePlants/videos and
  [https://youtube.com/**c**/WildOnesNativePlants/videos](https://youtube.com/c/WildOnesNativePlants/videos), and
  https://youtube.com/MissouriPrairie/videos and
  [https://youtube.com/**c**/MissouriPrairie/videos](https://youtube.com/c/MissouriPrairie/videos),
  according to https://support.google.com/youtube/answer/2657968.
  - ○ After you get some **Comments,** you can **Pin** 1-to-3 comments to remain on top.
  - ○ If we want to hand-correct the auto-captions, there is a way to do that. But the auto-captions are pretty darn good.

- ☐ *If you have your own website:*
  - ○ Modify a webpage to run that video in a player.
  - ○ Perhaps tell the search engines about your new content.

- ☐ To learn more, see YouTube "**creator academy**" education at [https://**creatoracademy.youtube**.com](https://creatoracademy.youtube.com).
- ☐ **TODO:** write: Having YouTube keep a recording of what you stream originally on YouTube.
- ☐ **TODO:** write: Having YouTube rebroadcast what you stream originally to the Twitch.tv service.

3.2.3 Stream on, or upload video, to Twitch.tv service

- ☐ **TODO:** write: Having your own channel or user on the Twitch.tv service.
- ☐ **TODO:** write: Having Twitch.tv service rebroadcast what you stream originally to YouTube?
- ☐ *If you have your own website:*
  - ○ Modify a webpage to run that video in a player.
  - ○ Perhaps tell the search engines about your new content.

3.2.4 Upload video to Vimeo

- ☐ **TODO:** write: Having your own channel or user on Vimeo.
- ☐ **TODO:** write: Having Vimeo rebroadcast what you stream originally to YouTube or Twitch.tv.
- ☐ *If you have your own website:*
  - ○ Modify a webpage to run that video in a player.
  - ○ Perhaps tell the search engines about your new content.

3.2.5 Upload video to X (formerly Twitter)

- ☐ **TODO:** write: Having your own channel or user on X (formerly Twitter).
- ☐ **TODO:** write: Having X (formerly Twitter) rebroadcast what you stream originally to YouTube or Twitch.tv.
- ☐ *If you have your own website:*
  - ○ Modify a webpage to run that video in a player.
  - ○ Perhaps tell the search engines about your new content.

3.2.6 Stream on, or upload video, to Facebook

- ☐ **TODO:** write: Having your own channel or user (group?) on Facebook. May be same as [my write-up on Facebook](#).
- ☐ **TODO:** write: Having Facebook rebroadcast what you stream originally to YouTube or Twitch.tv.
- ☐ *If you have your own website:*
  - ○ Modify a webpage to run that video in a player.
  - ○ Perhaps tell the search engines about your new content.

4 Business day before the presentation

▫ **Inspect** the site, doing **everything possible** in the next section, thus **verifying** that everything will work tomorrow.

▫ *If you are going to use that site's* 🖥 *computer and/or* **Wi-Fi** *and/or* **wired network,** get the **access credentials** (e.g., userName and password) for them, and write them down below.
  - At **AY_ CM**, call your contact _____ at ___ –861–2262.
  - At **C_** *(MCLH, B_C and elsewhere),* call their **IT** group (open **M-F 1-5p**) at ___ –526–8555.
  - **DVP** has Wi-Fi, but they won't let us use it.
  - **SLC** now has open Wi-Fi.
  - **_Q** has Wi-Fi, open or encrypted.

▫ **Spellcheck** your documents again!

▫ Make your **mouse pointer** easier to see.
  - **Enlarge** your **mouse pointer** size, particularly if you are presenting over videoconference software.
    - ⊞ *Under Microsoft Windows,* ⊞**Win+I** (or ⊞**Start** > **[gear] Settings**) > **Ease of Access** > left navigation bar **Mouse pointer** > slide **Change pointer size** to the right, maybe **3–15**.
      - As of 2022, this size increase does **not** yet transmit over **Zoom Share Screen**.
    - 🍎 *Under Apple macOS,* **Settings** > **Accessibility** > left navigation **Display** > top tab **Cursor** > check checkbox **Shake mouse pointer to location** > **Cursor size** to right 1 or 2 or 3 positions.
  - **Change** your mouse pointer **color**.
    - ⊞ *Under Microsoft Windows*, still at the above, try gold, red or **pink!**
  - Make your mouse pointer **move faster**, **display mouse trails**, and **show its location**.
    - ⊞ *Under Microsoft Windows,* ⊞**Start** > type "**mouse**" > select **Change your mouse pointer or speed** > tab **Pointer Options** > check **Display pointer trails** and **Show location of pointer when I press the [Ctrl] key**.

▫ **Turn off notifications** on your presentation 🖥 computer**.**
  - ⊞ *Under Microsoft Windows,* perhaps via:
    - ⊞**Start** > **Focus assist settings** > **When I'm duplicating my display** > **Off**, or
    - ⊞**Start** > **Notifications** > **Get notifications from apps and other senders** > **Off**.

▫ **Charge** your 📱 smartphones, ▯ tablets, 🖥 computers, wireless **presentation-clicker**(-remote-control)/laser-pointers, 🎤🔊 wireless microphone/speakers, etc.

▫ **You are ready!** At showtime, you want to **live in the moment**.
  If you don't feel *ready:*
  - Prepare. Hard. Over-prepare.
  - Exercise **hard**.
  - **Center** yourself, using whatever you need: Yoga. Long walk. Play your 🎸 favorite instrument. Garden. Cook. Dance. Whatever.
  - *If you are reasonably-young or -urban,* listen to **Eminem *Lose Yourself*** a few times.
  - Eat a good healthy and yummy dinner.
  - Get a great night's sleep.
  - Eat a moderate healthy breakfast, caffeinating normally.
  - Get your game face on.
  - You are ready. **You own it!**
  - If it *still* doesn't feel right …
    Fake it until you make it!

5 Hour before the presentation

▫ **Inspect** your presentation site again.

▫ Find a 📺 **TV** or **projection screen** or **blank wall** of neutral color.
  - *If needed,* **lower** the projection screen.
    - At **C_ MCLH** or **KC/MSUE,** lower the screen using the up and down buttons on the wall column to the **right** of where the screen will be.

- At **C_ B_C**, lower the screen using the up and down buttons on the wall to the **left** of where the screen will be.

□ *If your site already has a* ⌨ ***computer attached to the*** 💡 ***projector***, *and* **you are going to use it**:
- ○ *If you plan to see your* **speaker notes** *using Microsoft PowerPoint* **Presenter View** *at* **C_** *(MCLH, B_C and elsewhere),* do not use this option — **it won't work** without opening the lectern and moving an HDMI cable — so (A) bring your own ⌨ computer, or (B) be prepared to open the lectern and move an HDMI cable and move everything back at the end. **TODO:** Using Google Slides?
- ○ *If needed,* **1/0** **power on** that ⌨ computer.
- ○ Logon to that ⌨ computer, using the access credentials obtained <u>before</u>:
  - *At* **C_** *(MCLH, B_C and elsewhere),* use username="**visitor**" and password="**c_____u_____yy**".

- ○ Bring up your **content** over the Internet, from a flash-drive/jumpdrive/thumbdrive/USB-attached SSD/USB-drive/USB-key/USB-stick, or from your SSD/harddrive.

- ○ *If you plan to see your* **speaker notes** *using Microsoft PowerPoint* **Presenter View**:
  - Connect your ⌨ computer to a 💡 projector or 🖵 TV, via an **HDMI cable** (after 2005-2013) or **VGA cable** (before 2005-2013).
    - 🍎 *If* **Apple macOS** *(Macintosh, iMac, iBook, and MacBook)* ⌨ *computer,* you may need a **USB-C-to-HDMI, DisplayPort-to-HDMI,** or **Mini-DisplayPort-to-HDMI** cable or adapter. Look on the back and sides of your computer.
    - Some computers may need a **USB-C-to-HDMI** cable or adapter. Look on the back and sides of your computer.
    - ⊞ *If* **Microsoft Windows** ⌨ *computer,* you **cannot** do this via a **USB-A cable** nor **Chromecast** or other wireless device — your ⌨ computer will not recognize it as separate screen.
  - ⊞ *If* **Microsoft Windows** ⌨ *computer,* set ⊞**Win+P** (or desktop > right-click **Display Settings** > scroll down main pane to section **Multiple Displays**) to **Extend**. <u>If trouble, more details</u>.
  - 🍎 *If* **Apple macOS** *(Macintosh, iMac, iBook, and MacBook)* ⌨ *computer,* **System Preferences** > **Displays** > tab **Arrangement** > uncheck checkbox **Mirror Displays** to extend display across both screens. <u>If trouble, more details</u>.
  - Drag your presentation's **PowerPoint** window to appear on your **private** display.
  - In **PowerPoint** tab **Slide Show**, group **Monitors**, check checkbox **Use Presenter View** and set dropdown **Show On** to be your **public** display.
- ○ **TODO:** Using Google Slides?

□ *If you are using your* **own** ⌨ **computer**:
- ○ *If needed,* supply power to that ⌨ computer.
- ○ **1/0** **Power on** that ⌨ computer.
- ○ Bring up your **content** from your **SSD/harddrive**, from a **flash-drive/jumpdrive/thumbdrive/USB-attached SSD/USB-drive/USB-key/USB-stick**, or **over the Internet**.
- ○ *If you need* **Internet** *access,* acquire that:
  - Using **wired** Internet, over an **Ethernet cable**, either "Cat-5" or "Cat-6".
    -OR-
  - Over **Wi-Fi**, using access credentials obtained <u>before</u>.
    - *At* **AY_ CM**, SSID="**A___ Public**", psw="**b___s___nnnn**", ??= "**IDYnnnn!**".
    - *At* **C_** *(MCLH, B_C and elsewhere):*
      - ○ Be prepared to receive an SMS text message, or an email.
      - ○ Tell your computing device to select Wi-Fi SSID="**Guest**".
      - ○ Launch a web **browser** to some webpage **not** on their approved list (e.g., <u>https://EricPiehl.com</u>).
      - ○ When instead of your expected webpage, *C_*'s system displays its own **Guest Registration** access page:
        - Choose a **Register** button, depending on how you want to **authenticate** yourself:
          - (1) **Text/SMS Message** (to you) [sometimes fails, sometimes succeeds],
          - (2) **Email Address** (to you) [most reliable and quickest if you can receive email],
          - (3) **C___ Sponsored Access** (email to your *C_* sponsor who is monitoring their email right now [have not tried this], or
          - (4) **I have an Event Code** [have not tried this].
        - Check the box to say you accept their terms,
        - Identify yourself by name, ~~organization,~~ and cellphone mobile number or email address.

- - - If the **Guest Registration** *access page now says "Your network access should be available. Close your current browser, and open a new one to start browsing"*, you now probably have 10 minutes of access. So get your presentation going. But don't forget to . . .
    - ~~If~~ *When you receive a response on your mobile cellphone via* **SMS text**, *type the code into the webpage above.*
    - *If you receive a response by* **email** *to you,* open the email and click its link.
    - *If a new browser tab says* "`Access Granted!`", *you are* **good to go (!)** for [NEW] ~~24 hours~~ 3 weeks.
    - After 3 weeks, your access will expire, and you must repeat this whole process.
  - **DVP** has Wi-Fi, but they won't let us use it.
  - *At* **SLC***,* SSID="*`theirOtherAcronym Guest`*", bring up a web browser to Register.
    - *If you have other devices to connect*, give them your email address and they will email you a password to use.
  - *At* **_Q***,* SSID=:
    - "`_QGuest`" > bring up a web browser to click **OK**, or
    - "`_QMedia`" > psw="*`MascotSyyyy-1`*".

☐ *If you are using your or your site's* ☁ *projector,* connect it to your ⌨ **computer** wirelessly or with a **cable**:
  - *If needed,* supply power to that ☁ projector.
  - Connect your ⌨ **computer** to your **projector** wirelessly or with a **cable**:
    - ⊞ *If* **Microsoft Windows** ⌨ *computer,* use an **HDMI** cable (after 2005-2013) or **VGA** cable (if you must — before 2005-2013).
    - ● *If* **Apple macOS** *(Macintosh, iMac, iBook, and MacBook)* ⌨ *computer,* use an **HDMI** cable (after 2005-2013) or **VGA** cable (if you must — before 2005-2013), via an adapter from your ⌨ computer model's particular video output, which may be one of (depending on model) (● Apple articles About the video ports on Mac and Connect to HDMI from your Mac):
      - **Thunderbolt 3** or **4** (uses different cable, but same connector as USB-C),
      - **USB-C Digital AV Multiport**,
      - **Thunderbolt 1** or **2** (uses different cable, but same connector as Mini-DisplayPort MDP),
      - **Mini-DisplayPort MDP**,
      - **Mini-DVI**, or
      - **DVI**.
    - Try hard **not** to use a **USB-A** cable. While it may work, it requires you install a driver on your ⌨ computer, it will **never** handle ◄)) audio, and will **never** be able to **see your speaker notes** using Microsoft PowerPoint **Presenter View** (your ⌨ computer will not recognize it as a separate display device).
    - *To connect wirelessly over a* **Chromecast** *device on your* ☁ *projector,* install the **Chromecast app** on your ⌨ computer, and **verify** that it connects to your Chromecast device. Keep in mind that you will **never** be able to **see your speaker notes** using Microsoft PowerPoint **Presenter View** (your ⌨ computer will not recognize it as a separate display device). **TODO:** Using Google Slides?
      - *If you know of a different wireless technique, please let me know the details!*
  - *If the project is* **off***,* press its `1/0` power button **once**, and delay panicking until the ☁ projector has had 60 seconds to warm up.
    - *At* **C_** *(MCLH, B_C and elsewhere),* on the podium-top box, press its side button ☁ **Projector ON**.
  - *If nothing on screen,* open the **lens cap**.
  - *If your* ⌨ *computer content is* **not** *being projected, but instead says* "No Signal" *and* "Source: not yours"*,* press the ☁ projector's **Source** button.
    - *At* **C_** *(MCLH, B_C and elsewhere),* on the podium-top box, press its side button **Desktop** or ⌨ **laptop**.
  - *If needed,* **zoom** the ☁ projector, by a dial or moving the projector stand, maximizing use of the screen.
  - *If needed,* **focus** the ☁ projector. Respect your audience--do a good job.
  - *If needed,* **elevate/raise** or **lower** the ☁ projector, usually so content reaches near the top of the screen.
  - *If needed,* **keystone** the ☁ projector.

☐ Bring up your **content** over the Internet, from a flash-drive/jumpdrive/thumbdrive/USB-attached SSD/USB-drive/USB-key/USB-stick, or from your SSD/harddrive.

☐ *If you plan to see your* **speaker notes** *using Microsoft PowerPoint* **Presenter View***:*
  - Connect your ⌨ computer to a ☁ projector or 🖥 TV, via an **HDMI cable** (after 2005-2013) or **VGA cable** (before 2005-2013).

- ● *If **Apple macOS** (Macintosh, iMac, iBook, and MacBook)* ⌨ *computer,* you may need a **USB-C-to-HDMI, DisplayPort-to-HDMI**, or **Mini-DisplayPort-to-HDMI** cable or adapter. Look on the back and sides of your computer.
    - Some computers may need a **USB-C-to-HDMI** cable or adapter. Look on the back and sides of your computer.
    - ⊞ *If **Microsoft Windows** ⌨ computer,* you **cannot** do this via a **USB-A cable** nor **Chromecast** or other wireless device — your ⌨ computer will not recognize it as separate screen.
  - ⊞ *If **Microsoft Windows** ⌨ computer,* set ⊞`Win+P` (or desktop > right-click **Display Settings** > scroll down main pane to section **Multiple Displays**) to `Extend`. If trouble, more details.
  - ● *If **Apple macOS** (Macintosh, iMac, iBook, and MacBook)* ⌨ *computer,* **System Preferences** > **Displays** > tab **Arrangement** > uncheck checkbox **Mirror Displays** to extend display across both screens. If trouble, more details.
  - Drag your presentation's **PowerPoint** window to appear on your **private** display.
  - In **PowerPoint** tab **Slide Show**, group **Monitors**, check checkbox **Use Presenter View** and set dropdown **Show On** to be your public display.
- ☐ <mark>**TODO:** Using Google Slides?</mark>

- ☐ **Test** that the system **shows it** OK:
  - ☐ **Fullscreen** (no taskbar, volume level nor other distractions).
    - For `.pdf`, use `Ctrl+L`, or **View** > **Full Screen Mode**.
    - For `.ppt` and `.pptx`, use `F5`, or **Slide Show** > **From Beginning**.
      - *If MS PowerPoint 2010 will **not play** a video or shows "**Media Unavailable**":*
        - Install the latest version of the ● Apple **QuickTime** player > "OK" "Help", click OK.
        - Set app **QuickTime** > **Edit** > **Preferences** > **Player Preferences** > uncheck checkbox "**Show Content Guide at startup**, as in https://discussions.apple.com/thread/8527642.
        - Restart PowerPoint and then try playing the video slide again.
        - Make a note to, after you are done with this project, uninstall the app, and do the rest of what the message says.
    - For `.key`, use <mark>____</mark>?
    - *For video files,* your media player should have a ☐ **Fullscreen** button, or **View** > **Fullscreen**.
  - **Lighting**: test how to adjust!
  - **Glare**: verify that you don't have this!
- ☐ *If your presentation has ◀» **audio**, test it*.
- ☐ After adjusting the ⌨ **computer's** ◀» **volume control**, if still insufficient:
  - Look around for ◀» **external speakers**. *If two speakers,* one speaker has one cable going to the other speaker; the other speaker also has:
    - Batteries or a power cable (if needed, supply **power** to it).
      -AND-
    - A cable ending in a **headphone plug**. Connect it to your ⌨ **computer's headphone jack**.
    - <mark>*At **C_** (MCLH, B_C and elsewhere),* there is a **headphone plug** sticking out of the podium somewhere. Find it, and connect it to **your ⌨ computer's headphone jack**.</mark>
  - Adjust the speakers' **volume control**.
    - <mark>*At **C_** (MCLH, B_C and elsewhere),* on the podium-top box, press its side buttons **Prog Vol+** or **Prog Vol-**. If needed, press button **Proj Mute**.</mark>

- ☐ *If your venue is large or you have a small voice,* **test the** ✎ **microphone, without allowing POPS —** most annoying!):
  - Your ✎ microphone may be cordless or corded.
  - Turn **off** ✎ microphone.
  - *If sending your ◀» audio through a ⌨ computer:*
    - You may need a ✎ microphone with ◀» **audio plug** of type **3½ mm male TRRS** [4-conductor, stereo with mic] (not TS [2-conductor, mono], nor TRS [3-conductor, stereo]), with **T**ip **R**ing **R**ing **S**leeve containing, respectively, analog signals for **L**eftAudio **R**ightAudio **G**round **M**icrophone (**CTIA**) (**not** OMTP). *If any different,* I have **never** found any adapter combination that will get you what you want.
    - *If your room's ⌨ computer does not take the above,* you may need to plug your ✎ microphone into a **USB-A external stereo sound adapter** pink jack, which you will then plug one of your ⌨ computer's USB-A jack.
      - *If your adapter is wide,* you may need a USB-A extender cable.
    - *If the cords don't give you enough **wander space**,* you may need an optional headphone extender cable, compatible with the above.

- You may need to **set up** the ✎ microphone.
  - ⊞ *If **Microsoft Windows** 🖳 computer:*
    - ○ Right-click **Taskbar** icon **Speakers** > **Sounds** > tab **Recording** > double-click *yourMic* > Device usage=**Enable** > button **Apply** > tab **Listen** > check **Listen to this device**, Playback through this device=**Default Playback Device** > button **Apply**.
    - ○ Right-click **Taskbar** icon **Speakers** > **Open Volume Mixer** > set.
- ○ *If you have a ✎◀ **headset** or **head mic**:*
  - Place on the primary user's head such that mic is **5 cm (2 in) off a corner** of their mouth (earwards), **securely!**
    - *(Some* <mark>[which?]</mark> *🎤✎ professional microphone types* can *be put in front of your mouth. Experiment.)*
  - *If **wireless**,* clip the transmitter/battery box to their belt or place in a [pocket](#), run the cable somewhere where it won't catch on things, and have them practice feeling for the **on-off** switch. Don't hold the box in your hand.
  - Don't pass a head mic around the audience — find another mic.
- ○ *If you have a **lapel mic**:*
  - Clip to the primary speaker's clothing, in the **center** of their chest, over the top of their sternum, a hand-width down from their necktie knot, or about where a necklace would fall.
  - *If **wireless**,* clip the box to their belt or place in a [pocket](#), run the cable somewhere where it won't catch on things, and have them practice feeling for the **on-off** switch. Don't hold the box in your hand.
  - Don't turn your head wildly as you point to or look at things. **DROPOUT!**
  - Don't cover the mic with your arm, as you point to things. **MUFFLE!**
  - Don't pass a lapel mic around the audience — find another mic.
  - *If you **must** hold a lapel mic,* hold it by the **clip**, not the mic! **RUMBLES!** And hold **below your chin!**
- ○ *If you have a **push-to-talk-/PA-/CB-/truck-/airplane-/police-radio-type** 🎤 microphone,* hold:
  - hold the base against your chin, with 🎤 mic-part only 1½ cm (½ in) in front of your mouth. Else **MUFFLE!**
- ○ *If you have an **in-stand**-but-**removable mic**:*
  - **remove** the ✎ microphone from the stand, and practice as below ...
- ○ *If you have a **professional** (heavy, expensive-feeling) ✎ **handheld microphone**:*
  - hold right on front of your mouth.
- ○ *If you have a **mass-market** (lighter, cheaper-feeling) ✎ **handheld microphone**:*
  - below your chin (chestward), or
  - 5 cm (2 in) off a corner of your mouth (earwards). Else **POPS!**
- ○ *If you have an **in-stand**-but-**not-removable mic**:*
  - bend or adjust the **stalk** so the mic is **below your chin** (chestward), and practice **talking over** and **not wandering away** from it.
- ○ Turn **on** ✎ microphone.
- ○ **Test.**
- ○ **Set volume levels**, and **practice** above. And not walking **underneath** the speakers — feedback **screech**.
- ○ *When good,* turn **off** ✎ microphone until you are ready to use it.

- ○ *If above doesn't work,* stop worrying about ✎ microphones, and direct speakers to use their **outside, teacher,** or **police-command voice.**

- ○ *If venue is equipped with **T-coil / telecoil / hearing induction loop*** (a technology that transmits ◀ audio to good hearing aids), find the little electronic box that controls it, and **verify** that is turned **on**!

- ○ **Practice!**
  - *If your audience can't see your lips,* speak a lot slower, especially if content is important.
  - Pauses are just fine.
  - Too loud is better than too quiet. (Unless you are trying to draw in the audience's attention.)
  - *If you have a tech person,* ask them to keep an eye on sound levels, light levels, glare, etc., and if conditions change, adjust the levels.

□ **Breathe deep**.
□ Talk to your peeps.
□ Go to the **bathroom**.
□ Get some **water**.
□ Turn **on** your **wireless presentation-clicker(-remote-control)/laser-pointer**.
□ Remember that PowerPoint's **laser-pointer** effect is `Ctrl+dragMouse`.

- But, *if you plan to see your* **speaker notes** *using Microsoft PowerPoint* **Presenter View***,* you will need to see **both** screens. **TODO: Using Google Slides?**
□ Move the **mouse pointer** over to the right edge.
  - Verify that, in a moment, it disappears from sight.
□ Turn **on** your ✎ **microphone**.
  - Use it just like you practiced above, probably:
    ▪ **below your chin** (chestward), or
    ▪ **5 cm (2 in) off a corner** of your mouth (earwards).
□ **Breathe deep**, a couple times.
□ **Show time! You own it!**

6 During the presentation

□ **Never** just **read your slides**! Talk more.
  - *If you are going to just read your slides,* you should have made a **video** of the presentation, posted it on **YouTube**, and had everyone watch from **home**.

□ **Use** your ✎ **microphone**.
  - *Unless you decided otherwise above*, keep the mic **below your chin** (chestward), or **5 cm (2 in) off a corner** of your mouth (earwards).
  - Don't walk **underneath** the speakers — feedback screech.
  - *If your audience can't see your lips,* speak a lot slower, especially if content is important.
  - Pauses are just fine.
  - Too loud is better than too quiet. (Unless you are trying to draw in the audience's attention.)

□ *If you are presenting over videoconference software,* there may be a couple-second delay before the software can get your new slide sent out. So transition to the next slide while finishing the last sentence on the previous slide.

□ **Relax**. You are **totally prepared**.
□ Engage with your audience.
□ Take questions. Take comments.
  - *If the questioner is not miked or is not making good use of their* ✎ *microphone,* always **repeat the question**.
□ **Have fun!**

7 After the presentation

□ Power down the ♆ **projector** by pressing its `1/0` power button. *If it says* "Power?"*,* then push it **once more**.
  - *At* **C_** *(MCLH, B_C and elsewhere),* on the podium-top box, press its side button ♆ **Projector OFF**. Twice.
  - To let the ♆ projector's fan cool it down, wait for a couple minutes before you unplug it.
□ **Shut down** your ▱ **computer**, wireless **presentation-clicker**, speakers and any other equipment.
□ Undo any cables, and pack away yours.
□ Set the site's screen and equipment back to its **original configuration** (like you were *never there*).
□ Take **notes** on any **lessons learned**, and . . .

□ **Follow up!**
□ The next day, *if you installed **QuickTime** above to get around a problem,* reboot and uninstall it:
  - ⊞ *If running under Microsoft Windows,* use ⊞**Win+I** (or ⊞**Start** > **[gear] Settings** or **System Settings** (formerly **Control Panel**) > **Apps** > tab **Apps and features** [*optional* > *Programs and Features*] > **QuickTime** > press or right-click > **Uninstall** > Yes, you are sure > wait. When done, verify that **QuickTime** is no longer listed. At your next convenience, **reboot** (under ⊞ Microsoft Windows, ⊞**Start** > **1/0 Power** > **Restart** or **Shutdown**).

-End.-   send comments to the author