ECE4440/4991 - Capstone

Capstone Final Project Video

Learning Objective

To communicate your project in a short, engaging video format. A picture is worth a thousand words, so video can be a good way to communicate information that would take pages of documentation to explain. Additionally, this assignment will allow you to practice presentation skills and provide you the ability to review your performance and make corrections as needed.

Description

A video is a planned presentation, and as such requires preparation before recording as well as good delivery while recording. There are also some details to consider that are unique to the video medium.

Storyboarding

You don't necessarily need a full script but do think about your Capstone video as a story or essay with a beginning, middle and end. People naturally relate to a good story, so framing your project that way makes it more engaging and memorable.

In the beginning section, ask each team member to briefly introduce themselves (name and degree program). Also in the beginning section, introduce the problem that your device or technology addresses. In project proposal language, we call this the "BLUF" statement: <u>Bottom Line Up Front</u>.

In the middle section, show how your project works including a voice track so viewers can fully understand what you're doing as you're doing it. A sequence structure (first, second, third) may help but there's no hard and fast rule for structuring this section.

In the conclusion, provide the viewing audience with a few key take-aways about your Capstone experience, including both technical and soft skills and the impact of your project. This could be done highlighting different parts of the project or as a "talking head" video clip of one or two team members, preferably different from the team member who narrated the demo.

Delivery

Clear articulation is critical, just like an in-person presentation, perhaps more so because you are going through a microphone and speakers.

Also important is the pacing. Allow your audience time to take in information as they listen. This is not an action movie with jump cuts – it is an informational video. Consider the pacing of a documentary or other videos you have seen and you will notice they tend to pause periodically as if to allow the viewer a chance to ask a question or make a comment. The overall effect should be conversational and engaging.

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Production

This is not a film class, but there are a number of simple things to keep in mind when filming a video.

- **Time**: Aim for 2 to 3 minutes if you want viewers to watch all the way through. 4 minutes is a hard stop.
- **Orientation**: Always film with your phone or tablet in the horizontal position. This is critical if you want to post to a site like YouTube and for web-page media call-outs.
- **Film Speed**: If you have the ability to choose a frame rate, set it to 24 frames-per-second (fps). 30 fps or 60 fps is also okay. Use a 4k resolution if possible.
- **Lighting**: This is a visual medium, so lighting is critical.
 - o Avoid dimly lit or very bright areas.
 - Standing a few feet away from a bright window and in front of a dark background makes for a very pleasing visual. Consider turning off other ambient light if you go this route.
 - o If you don't have window light, try to arrange your ambient light a little higher and off to the side of the video frame.
 - o If you are shooting outside, schedule for early morning or late afternoon; avoid shooting in direct sunlight, which will saturate bright areas and generate harsh shadows. It may be counter-intuitive, but cloudy days are best.
- **Sound**: Sound is the most important aspect of a successful video. An external microphone is helpful. When recording, make sure to turn off any sources of ambient sound you can hear (e.g. air conditioners, computer fans) and move away from loud street noise. If not using an external microphone, film your teammate as close to the camera microphone as possible and narrate into the microphone while filming the demo.
- **Framing and other considerations**: Consider how the viewer will see what you present on the screen. The field-of-view is limited it is a bit like looking through a window, so framing is important.
 - Try to shoot as much as possible with teammates facing the camera; avoid showing teammates' backs.
 - When filming team introductions and key takeaways, you will likely be framing your teammate's head and shoulders. In the video shot, leave a little space above your teammate's head. Avoid distracting backgrounds.
 - Ask those being filmed to avoid stripes, plaids and other distracting patterns; if the teammate being filmed is wearing dark clothing, consider shooting against a brighter background, or wear light clothing against a dark background.
 - When filming, leave a few seconds of silence before and after the speaker. Make sure those extra seconds before and after talking are completely silent. This "bumper" at the beginning and end of your video allows for easier editing.

Thanks to UVA Engineering Communications Team Members Bridget Moriarty, Chris Tyree, and Karen Walker for their input on video construction.

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Grading

Your video submission should be uploaded to Canvas with the filename: CapstoneProjectVideo_*YourTeamName*

You will be graded on the following:

Production Quality (30%): This is not a film class and you are likely doing this with your phone, so we aren't expecting Oscar-level cinematography, but you should follow the tips in the document above.

Presentation (30%): The speakers should be easily understood and engaging.

Content (30%): Your video should have a logical flow and include the following information:

- Name of the team and all the team members
- The problem your project addresses
- How the project solves the problem
- Your key takeaways from your Capstone experience

Flair (10%): What makes your video distinctive and memorable? This can be simple and subtle, or over-the-top outrageous. Have fun with this and make it your own.

You can view the full rubric on the Final Project Video Assignment on Canvas.