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DISRUPTIVE INNOVATION FESTIVAL

7–25 NOVEMBER 2016

TECHNICAL GUIDELINES FOR DIF CONTRIBUTORS

This document is designed to help you choose some of the most effective ways to create and share content, and to enable you to contribute to the DIF in a fun and manageable way whilst producing high quality content.

These are not the only software or delivery techniques you may wish to use in the production of your content, but are the formats on which the DIF team are able to provide some technical guidance. It includes information on the following:

WEBINARS

LIVE STREAMING

GOOGLE HANGOUTS ON AIR

DOCUMENTS & COLLABORATIVE / SHARED DOCUMENTS

PODCASTS

ORIGINAL YOUTUBE VIDEOS

WEBINAR

What is it?

A webinar is an online event, ideal for smaller groups of participants to engage in an online presentation, discussion or question and answer session. DIF attendees can then watch the session online live and post their questions. We recommend and support the use of Cisco WebEx Event Centre for DIF webinars. If your application is successful, the DIF team will schedule your WebEx event according to the agreed time, and share with you relevant joining and participation details.

Typically, a webinar will involve a host and / or speaker, technical moderator, and DIF attendees are able to watch online using WebEx.

How can it be used?

Webinars can be used for a variety of purposes, such as presentations (with or without slides), Q&A, providing a basic live feed from a physical event, or an interactive session involving collaboration with attendees.

What do you need to do it?

In order to run a successful webinar, we recommend the following:

- Speakers should use a headset to send and receive audio. Relying on speakers and microphones that are built in to a computer often results in audio problems such as feedback. Basic headsets such as **this one** can dramatically improve sound quality.

- A webcam, if you're planning on transmitting video. Most cameras on modern laptops should be sufficient.

- High-speed broadband Internet, preferably a wired connection via Ethernet rather than a wireless connection. We generally recommend network bandwidth above 1Mbps (for upload and download) per participant. Use **speedtest.net** to test your connection speed

- The best way to test if your machine meets the requirements to run a webinar is to start a test Webex meeting. This can be accessed here: **http://www.webex.com/test-meeting.html?t=ppuUS**

How to run a webinar using WebEx Event Centre:

If your application is successful, the DIF team will provide access to WebEx Event Centre from which you can host your webinar event.

Cisco host a range of video 'how to guides' on their website, here: **http://www.webex.com/how-to/index.html**

Tips for running an effective webinar:

- Convert all presentations to PDF format prior to the webinar. You should check through your converted PDF and be aware that any Powerpoint animations will have been removed. You should design your original Powerpoint to account for this.

- It is strongly recommended that attendees remain muted for the duration of the event. Having multiple microphones open can have a significant negative impact on the audio quality of the presenter(s)

- Use the attendee list on the right hand side of the WebEx window to identify live microphones, control muting, camera, host and presenter privileges.

- Right-click on attendee names in the attendee panel to add or remove privileges, mute participants, remove disruptive attendees etc.

- In the attendee panel, drag the blue and green 'ball' to attendees to which you wish to provide presenter rights, such as controlling presentations or sharing screen.

- If a speaker's audio is poor, ask them to switch off their webcam – this can improve audio quality.

- As attendees won't be able to transmit questions via audio (see above), invite them to use the chat window to submit questions for your speaker.

- A silent moderator is helpful in a range of tasks, such as arranging the recording, troubleshooting attendee technical issues, and feeding questions from the chat box to the host.

- WebEx supports video, but for stability we recommend sharing a link to any video material for attendees to watch in their own time.

You must run at least one dummy event in the WebEx Event Centre environment prior to your webinar. Meeting setup steps will be sent to Open Mic webinar hosts once applications have been accepted.

LIVE STREAMING

What is it?

Live streaming refers to content delivered live over the Internet. It can produce broadcast quality video and audio, and as such is resource intensive. It requires a form of source media (e.g. a video camera, an audio interface, screen capture software), an encoder to digitise the content, a media publisher, and a content delivery network to distribute and deliver the content.

Due to the technical and organisational demands of live streaming, we recommend this format only if you have experience or suitable time and resource to execute a session this way.

How can it be used?

A live stream is most often used to offer a high quality live feed from a physical event. This could be a presentation, Q&A or panel discussion.

What do you need to do it?

To run a basic livestream, you will need:

- a camera

- tripod

- microphone

- lights

- internet connection (consistent 3-8 Mbps upload)

- video capture device

Ustream have published a useful guide to the essentials of livestreaming: http://info.ustream.tv/rs/239-SED-502/images/Getting%20Started%20 With%20Video%20Streaming.pdf

GOOGLE HANGOUTS ON AIR

What is it?

Hangouts on Air are Google's video conference technology, enabling up to 10 participants to share audio and video, and many more to watch online. When Hangouts on Air sessions end, they are automatically saved as a YouTube video to share and watch again (depending on your selected sharing and privacy settings).

How can it be used?

Hangouts on Air can be used for a variety of purposes, but are most suited to Q&A or conversation/discussion, or for providing a basic live feed from a physical event.

What do you need to do it?

To run a Google Hangout on Air, we recommend the following:

- Up to date versions of a modern browser such as Google Chrome, Safari, Firefox or Internet Explorer.

- Speakers should use a headset to send and receive audio. Relying on speakers and microphones that are built in to a computer often results in audio problems such as feedback. Basic headsets such as this one can dramatically improve sound quality.

- A webcam, if you're planning on transmitting video. Most cameras on modern laptops should be sufficient.

- High-speed broadband Internet, preferably a wired connection over Ethernet rather than a wireless connection. We generally recommend network bandwidth above 1Mbps (for both upload and download) per participant. Use speedtest.net to test your connection speed.

See Google's website for full technical specifications for Hangout video calls: https:// support.google.com/plus/answer/1216376?hl=en-GB

How to schedule and start a Hangout on Air

1. Head to YouTube.com and sign in with your account, or create an account if you don't have one. *NB As Google owns YouTube this is the same account.*

2. Click on your profile in the upper right hand corner, and visit the Creator Studio.

3. If this is the first time you have logged in you will need to click on 'Enable Live Streaming' and accept the Terms & Conditions.

4. If you have signed in before go to the Creator Studio, click Live Streaming, and choose Events.

5. Click the 'New Live Event' button.

6. Fill in the details requested and schedule for your session's date and time. Make the event 'Unlisted' and make sure you select 'Quick' as the event type.

7. When you're ready, click 'Create Event'.

8. Once scheduled, find your event in the events list of the YouTube Creator Studio. Click the listing to visit the event page.

9. Copy the URL of this page, and send it to the DIF team for inclusion on the DIF website.

To start your Hangout on the day...

1. At least 30 minutes before your scheduled start time, find your event in the events list of the YouTube Creator Studio and click 'Start Hangout on Air'.

2. The Hangout on Air will load in a new window or tab. Be aware that you are not live at this stage, giving you a chance to get set up.

3. Press the invite button (a person icon with plus symbol) in the call controls at the top of the screen to invite your speakers or panelists. Send the URL using your own email service to avoid invitations being lost in spam.

4. You may be using some of the Apps for your session. Familarise yourself with them before you the Hangout on Air goes live.

5. As soon as your speakers or panelists have arrived and are connected, and you are ready to start your live broadcast, click the green 'Start broadcast' button. You are now LIVE and this will also be the beginning of the recorded version, so make sure you are ready to begin your session. Please note that once you click 'stop broadcast' you will not be able to resume the same live broadcast, this is the end of the recording.

6. When you've finished your Hangout, click stop broadcast. The recording will be saved in the YouTube video manager of your YouTube account, and will appear automatically on the DIF event page to watch again.

Tips

To ask questions during the Hangout on Air, encourage viewers to add their questions to the Comments section below the Hangouts window on the DIF session page.

It is possible to broadcast slides in a Hangout by using the screen share feature, but be aware that viewers won't be able to see you and your slides simultaneously. Where possible, you should load the presentation as a separate Hangout on Air 'participant', i.e. in a second instance of Hangouts on Air in another browser window, or ideally on a separate machine. This second instance should be muted to avoid feedback. A silent technical moderator can then control whether the audience sees the slides or speakers, as appropriate.

DOCUMENTS & COLLABORATIVE / SHARED DOCUMENTS

What are they?

Services such as Google Docs and RedPen can be used to work on documents or images collaboratively with large numbers of people.

How can it be used?

These services can be good methods of getting user input or feedback on a specific subject matter. For example, you could create a Google Doc that is pre-formatted with some set questions, and ask DIF attendees for their views. Alternatively, you could upload a diagram or design on RedPen, and have participants annotate the image.

What do you need to do it?

You'll need an account with one of the above services, as well as some subject matter to share or upload.

Tips

This format works particularly well in conjunction with a WebEx or other live session, delivering a presentation and whilst simultaneously inviting participants to contribute to the collaborative work. You often get more input from the audience using these methods as people can be anonymous if they so choose.

PODCAST

What is it?

A podcast is a digital audio file made available on the internet for listening online, downloading to a computer or portable media player.

How can it be used?

The podcast is an extremely versatile format, and can be used for interviews, to capture event audio, share information in serialised episodes, or to develop a short podcast documentary with information from a number of sources.

What do you need to do it?

To record, use a good quality headset mic or external microphone that is suitable for chat (e.g. Skype) and which is connected directly to your computer or smartphone. Using a good quality digital recorder is also fine. Record and edit your audio using your preferred software, or free audio software like Audacity which supports the MP3 format.

Sharing a podcast

We recommend sharing a podcast via online audio hosting, such as Soundcloud. You'll need to sign up for a free account, and then follow Soundcloud's instructions to share your audio file: **http://help.soundcloud.com/customer/portal/articles/626942-how-do-i-upload-my-sounds-**

Tips

Have your recording device set up so that it eliminates external sounds as much as possible (see your recorder's manual for guidance). Ideally have it on a stand rather than in your hand.

Try to vary your voice and tone to keep the audience interested. Keep each recording under 15 minutes if possible. If you have more to say then break it into parts, making sure you name the parts logically in the order they are to be listened to (e.g. part 1, part 2).

ORIGINAL YOUTUBE VIDEOS

What is it?

If you've decided to pre-record a session or created a short film or animation, you can upload this to YouTube for sharing.

How can it be used?

This method can be used for any recorded video content, such as animations, recorded presentations with video and/or voiceover, recorded events and documentaries.

What do you need to do it?

When capturing/filming your footage, it's important to set your camera to capture at a HD, widescreen resolution, with an aspect ratio of 16:9. Set the frame rate to anything between 24-30fps. Whatever you choose here, make sure that when you are exporting for upload to YouTube you keep these same values for optimum quality and least compression.

You can edit your video using software such as iMovie, Windows Movie Maker, or ideally more powerful software like After Effects or Final Cut. Export as an MP4 and select the high quality video format (codec) H.264 (...don't worry if any of these terms are unfamiliar, they will come up in your export settings dialogue box). Your bitrate encoding should be set to VBR, 2 Pass – this will take longer to render but results in a better quality file because the encoder will run through it twice. Ensure render at maximum depth is checked. Finally set your audio export to be in the AAC format, this audio codec should have a sample rate of 48000HZ. Channels should be stereo and the audio quality set to high.

Upload your YouTube video – this may take a while!

Impressive results can also be achieved using modern smartphones, providing the following are taken into account:

- Consider basic principles of lighting, ensuring your subject is well lit and in focus.

- Your phone's built in microphone will only record sound of passable quality if close to the subject and there is no background noise.

- Record video with your phone in landscape orientation to avoid **Vertical Video Syndrome.**

Uploading your video

To upload your video, you will need your own YouTube channel.

Uploading longer, HD videos may take some time to upload. Once uploaded, you will need to share your video's URL with the DIF team for inclusion on your session page. You will need a good standing with your YouTube account to be able to upload large files longer than 15 mins, but most pre-recorded Open Mic presentations should ideally not be longer than this for the DIF.

When uploading, make sure you make your video '**unlisted**' so it can be premiered at the agreed time and date during the DIF.

Tips

Use the DIF bumpers in your video edit so your production can be included in the DIF, these will be sent to you once your application has been approved. Don't forget to include a short, catchy title for the video when you upload, and state 'DIF 2016' so viewers know it's part of the DIF. Also include a suitable description so viewers know what the video is about.

See also Google's help center: **http://help.youtube.com/support/youtube/**