

Streaming Technology Kit for Speakers

How to Look & Sound Great Online
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*A project undertaken
in partnership with*



Land Acknowledgement

As organizations of provincial scope, we recognize that our members, and the local history and heritage they seek to preserve, occupy the lands and territories of B.C.'s Indigenous peoples. We ask our members to reflect on the places where they reside and work, and to respect the diversity of cultures and experiences that form the richness of our provincial fabric.

*We acknowledge the support of
the Canada Council for the Arts.*



Canada Council
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Conseil des arts
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PREAMBLE

Today, there are more and more people producing online events and conferences. Where once looking and sounding great on a Skype video call didn't matter as much due to its novelty, today's professional online environment demands a higher level of quality and greater attention to detail.

We need our content to be a clean and professional reflection of ourselves, our work, our organizations.

PREAMBLE

The bad news is that it takes some time, intention and investment to reach a solid foundational level for producing high-quality online events and conferences. The good news is that it doesn't take as much time, effort or investment as one might fear.

With this white paper the focus is on small-to-medium size events and production budgets. These type of online meetings and events tend to be comprised of single speakers, usually at their home or (home) office, and often using video conferencing platforms like ZOOM (or similar).

How to Read This Document

Based on our day-to-day digital event production practices, we present options that empower you to make the best decisions around the technical equipment for your particular needs. We present options in a simple matrix:

- Beginner
- Intermediate
- Advanced



Equipment List
Microphones, Cameras, Lights ... Action!

Four Pillars

There are four technical pillars to digital event production quality

1

AUDIO

We are spending more time working and meeting online than ever before. A quality microphone delivering clean audio is no longer a bonus, it's a must.

2

VIDEO

It is in the quality of cameras where we can often make the most dramatic presentation improvements with quite minimal effort.

3

LIGHTING

Typically the most overlooked of the four pillars, paying attention to basic lighting can go a long way to a great looking presentation.

4

CONNECTIVITY

Given most of our online meetings and events are real-time and live, the best cameras and mics won't matter if your internet connection is poor.

1 AUDIO

- It might surprise you to hear that in online meetings and events audio quality is more important than video. While viewers can often tolerate and forgive video issues, audio breakdowns can quickly send them running.
- The good news: today's microphones have come a long way in terms of audio quality. They are quite easy to find, easy to use, and sound great, leaving your listeners focusing on your content, instead of being needlessly distracted by how you sound.



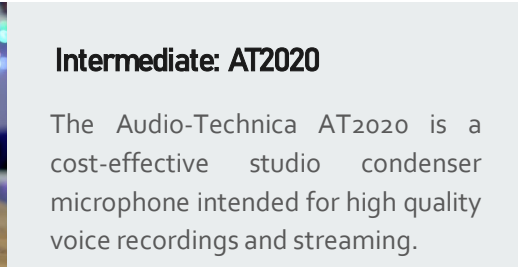
Top 3 Microphones



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1

Beginner: Samson Meteor Mic

Samson's Meteorite is the universal solution for capturing high-quality recordings on your computer. Small in size, big in quality.



Intermediate: AT2020

The Audio-Technica AT2020 is a cost-effective studio condenser microphone intended for high quality voice recordings and streaming.



0
3

Advanced: Blue Yeti Pro

Bring serious quality and clarity to your voice recordings with the Blue Yeti X professional condenser USB microphone.



0
2

Some Tips for Audio

A few quick pointers to help ensure your audio is clear, crisp & professional

1 THE MAGIC OF EARBUDS

Don't yet have a good mic? Use the mic on your average earbuds; it is generally far superior to your laptop mic.

2 ANTICIPATE THE INTERRUPTIONS

Sometimes it's the furnace, or the door, the dog, the kids, the neighbour or the courier that interrupts your online events — think ahead and avoid interruptions.

3 SILENCE YOUR DEVICES

The most common background sound during an online meeting or event? Your other devices. Take a moment to put them on silent and make them all ssshhh.

4 DON'T 'FIDDLE'

The noises you don't notice as a speaker, can be vastly amplified for us as listeners. Put the pen down, don't rock your chair, stop tapping the desk.

2 VIDEO

- The standards in video quality for today's online events are changing fast, and the flurry of COVID-19-related rush to digital is spawning a whole new era of video innovation.
- Fortunately, you can stand out and look great with a humble investment of \$70-\$200; and if you want to really stand out, you can do so well under \$1,000.



Top 3 Cameras



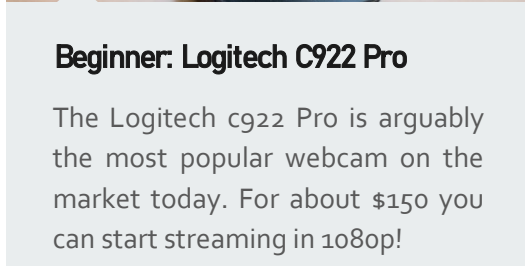
Intermediate: Logitech BRIO

The most professional look you can get from a webcam. For around \$200 you get high dynamic range, amazing autofocus and 4K recording!



Advanced: Lumix G7

Ready to go pro? This mirrorless camera features a micro four thirds sensor and rich colours. A common choice for pro streamers.



Beginner: Logitech C922 Pro

The Logitech c922 Pro is arguably the most popular webcam on the market today. For about \$150 you can start streaming in 1080p!



Intermediate: Logitech BRIO

The most professional look you can get from a webcam. For around \$200 you get high dynamic range, amazing autofocus and 4K recording!



Advanced: Lumix G7

Ready to go pro? This mirrorless camera features a micro four thirds sensor and rich colours. A common choice for pro streamers.

Some Tips for Video

A few quick pointers to help ensure your video is sharp, rich & professional

1

CAMERA FRAMING

Get your camera up to eye level. This creates a much improved viewing experience, and increases relatability as well as retention.

2

SIMPLIFY THE BACKGROUND

Busy backgrounds are hard on the eyes and lead to distraction. Clean it up, clear it out, and let people focus on you. And, remember digital backgrounds usually cut out anything that moves on screen.

3

THE SMUDGE FACTOR

Use a microfibre cloth to clean the lens of your camera before each event. This small act makes a big quality difference.

4

THE RULE OF THIRDS

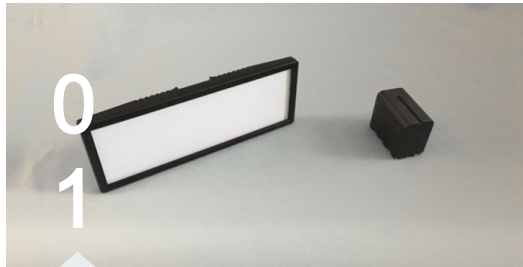
Your face should be in the top 3rd of the frame; you don't want a lot of 'open space' above your head but rather hold your space and create a pleasing viewing experience.

3 Lighting

- Lighting is commonly the most overlooked element of online speaking and presenting, which, of course, means that for it's the biggest opportunity to level up.
- While lighting can be a sophisticated event element, using a couple of regular desk lamps can improve the image quality a lot.
- Let's check out a few options you can explore to light up your face and ensure people get the nuance and depth of what you're here to share, beyond any shadow of a doubt.



Top 3 Lights



Intermediate: Elgato Key Light

Elgato Key Light is a professional studio LED panel with 2500 lumens, it's colour adjustable and app-enabled for PC or MAC.



Advanced: Aputure LS C120D II

Ready to go pro? The Aputure C120D II is a studio-grade light that boasts 5500K colour temperature and precise colour rendering.



Beginner: Viltrox L132T

The entry-level video light for self-produced online appearance. It has a low cost, high brightness and adjustable colour temperature.



Intermediate: Elgato Key Light

Elgato Key Light is a professional studio LED panel with 2500 lumens, it's colour adjustable and app-enabled for PC or MAC.

Some Tips for Lighting

A few quick pointers to help ensure your lighting is warm, simple & effective

1 EYE LEVEL LIGHTING

Often speakers use overhead lights, and it's just not flattering, because they create big shadows on their faces. Instead, place the lights at eye level and light directly from the front.

2 DIFFUSED, NOT HOT

You want a warm, diffused, balanced light on your face. 3 lamps with shades is better than 1 open bulb nearby.

3 DARK = NOISY

Most laptop and webcams can't handle low-light situations and will become very noisy/pixelated. Bring up the light!

4 LIGHT THE BACKGROUND

The speaker and their background benefit from different lighting. Light your face first, then use different lights for what's behind you.

These tips are especially important for black and other speakers of colour to ensure their webcams don't merely broadcast a silhouetted image, but a true and clear likeness.

Hardware Budget

While budgets for this type of equipment vary greatly, you can anticipate spending from \$500-\$1,000 to get decent quality gear in all these domains. Here, we've assembled a reasonable variation of the options we've presented. With this package, you'll look and sound great online.

MICROPHONE: Blue Yeti Pro

\$250

This mic will last years, it's plug-and-play, and you sound amazing.

CAMERA: Logitech C922 Pro

\$175

This simple, wide-angle, high-definition camera will have you stand apart.

LIGHTING: Elgato Key Light

\$300

Now you have lots of granular control over how you look, and how you're seen.

4 Internet

- You can have the best gear in the world, but if the signal is choppy, it won't matter much. Fortunately, 4G LTE internet connectivity is more and more common. Even in rural communities you may be able to access sufficient speeds for basic online meetings and events.
- As internet equipment is usually provided by your Internet Service Provider, we won't discuss specific modems and gear. Instead we focus on basic practices to make the most of your internet connection and download/upload speeds.



Zoom Minimum Requirements

Zoom Meeting /Webinar

Internet connection

- via broadband wired or wireless (3G or 4G/LTE)

Processor

- at minimum: single-core 1Ghz
- Recommended: Dual-core 2Ghz or higher (Intel i3/i5/i7 or AMD equivalent)

Bandwidth (minimum) for group meetings and webinars:

- The bandwidth used by Zoom is automatically adjusts for 3G, WIFI, or wired environments.

Minimum recommendations are:

- 800kbps/1.0 Mbps for high-quality video
- For gallery view and/or 720p HD video: 1.5 mbps
- Receiving 1080p HD video requires 2.5 mbps
- Sending 1080p HD video requires 3.0 mbps
- For screen sharing with video thumbnail: 50-150kbps
- For audio Voice-over-IP (VoIP): 60-80kbps

Tips for Internet

A few quick pointers to help ensure your internet is as fast & stable as possible

1

HARDLINE OVER WIFI

Wherever possible, connect to your modem with an Ethernet cable instead of over WIFI. Stability of your internet connection will greatly improve.

2

A DEDICATED CONNECTION

When possible, use a dedicated connection that is not shared. Ask household members to disconnect their devices during important online meetings and events.

3

CLOSE BACKGROUND APPS

Common culprits for bandwidth usage issues include Dropbox, Netflix, Google Sync, Time Machine, email and other browsers.

4

YOUR OTHER DEVICES!

Don't forget your other computers, tablets, smart phones, digital TV and streaming devices and equipment that also access your internet. For best quality, turn everything else off.

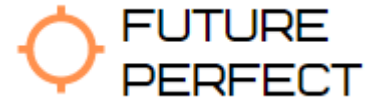
I hope these guidelines for Internet, audio, video and lighting serve you well as you develop your online speaker's practice. By removing some of the mystery of the equipment choices, and providing starting points for your equipment research I hope to help you make good purchase decisions.

Bottom line: It's easier to look and sound great online than you think ... and I encourage you to do so, providing your guests, your audiences and participants a rich, clear, professional online experience.

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