

“A Guide for Broadcasting Concerts Using Periscope”

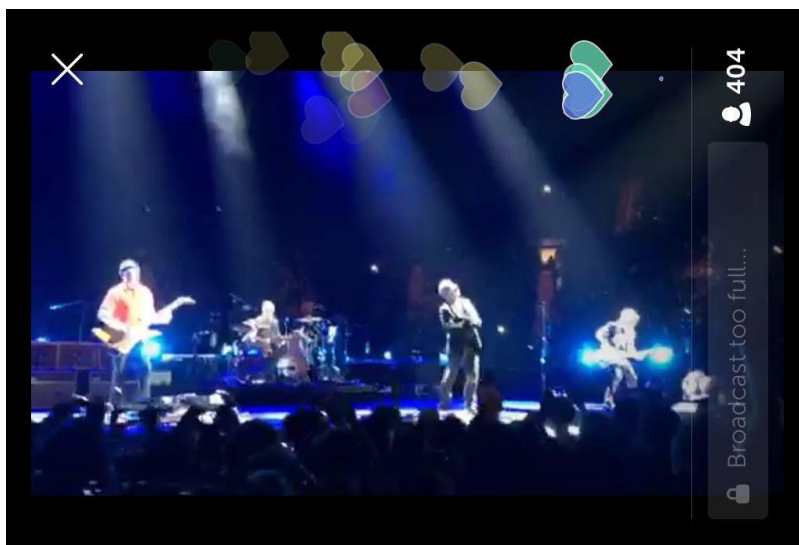
Tim Neufeld, June 2, 2015

By the time the ninth concert of U2’s Innocence + Experience tour was over, I’d had almost 2000 viewers of my Periscope stream. I was stunned! And lots of those people were thanking me for the best audio and video feed they had seen so far. I was able to successfully broadcast the entire concert from the floor, but not without some trial and error. Here are a few of the tips and tricks I learned.

Periscope. This is the app I used along with my iPhone 6 to stream the show from The Forum in Los Angeles on May 30, 2015. Launched in March of 2015, this convenient Twitter-integrated app is free, and available for iOS and Android devices. Meerkat, another popular live video streaming option, operates in a similar way and is also available for iOS and Android (and, coincidentally, is the app used by a lucky concert-attender who gets pulled up on stage to stream one of U2’s songs during each show).

Sign Up. Before you can use the app, there’s the simple process of downloading and signing up. You also have the choice to link your new account directly to Twitter. This is convenient -- every time I start a live stream, my Twitter feed is updated with a message alerting my followers to an upcoming broadcast.

Viewing. If you want to watch a stream, there’s very little effort involved. Just download the app, create your account, then do a search for either a topic or a broadcaster’s Periscope or Twitter name. (Here’s a shameless plug -- How about following me first at @timneufeld?) If you don’t have an iOS or Android device, no problem. Using a computer, click on a Periscope link in your Twitter stream, which will take you to a window for observing the feed (Periscope supports Chrome, Safari and Firefox). When watching via a computer, however, you will not be able to use the chat function. And speaking of the chat stream, if it is annoying while using the app, just tap the number in the corner to “hide.” Note: searching Twitter will also help you find broadcasts. Example: search for hashtags related to the event you are attending and include the word “Periscope” in the search field.



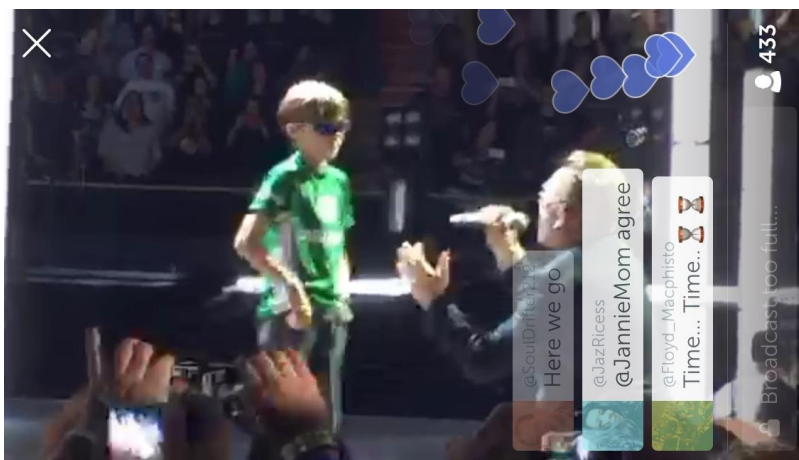
Landscape works best for framing the band, though computer users will see it sideways with the chat box at bottom. Screen capture: @Brighterlitz (Twitter)

Broadcasting. This is a bit more involved than viewing, but still accessible to anyone with the app loaded on to a phone or tablet. After giving Periscope access to your camera, microphone and location, you simply type in a description for the broadcast, hit the “start” button, and begin filming. Once the stream has initialized, you can decide whether you want to view the chat function or hide it. If you enable chat, you’ll see an ongoing text-based conversation, along with a stream of hearts issued by joyful viewers. During my two-and-a-half-hour concert stream, fans must have really enjoyed it -- I received over 30,000 hearts!

Saving. When the concert is over and you have ended your broadcast, make sure you have enough battery life leftover for the phone to upload the stream to the Periscope server. It will remain there, available to replay, for 24 hours. Also, there is an option to save the stream directly to the phone’s memory. Caution: don’t leave the app or turn off your phone while these “save” operations are ongoing.

Tips for a successful broadcast. You can stick with the basics above and do just fine, but here are some tricks I discovered for making the stream of a concert the best it can possibly be for the viewer.

Lighting. This is a critical issue. Concert lighting is tricky because you’re basically trying to film a patch of daylight in the middle of an expansive black void. The phone’s camera meters the whole scene, averaging all the dark and light areas, and then adjusts the exposure. But the camera doesn’t see like our eyes do. It thinks the videographer is filming something very dark, which makes anybody standing under the intense spotlight look overexposed, like a white blob or a ghost. On a real camera, this is compensated for by adjusting the f-stop downward, but that option doesn’t exist in Periscope. The way to make your subject in the spotlight look better is to zoom in closer so that the camera’s light meter sees less darkness and balances the picture around the performer. When I stream, I get as close as I can, especially when there is only a white spotlight used for illumination. There is a downside however -- the more the broadcaster zooms in, the more any shakes or bumps will be magnified, and, the picture will be a bit more pixelated since this is a digital zoom. Bottom line -- get as close as you can, zoom in (spread or pinch with two fingers on an iPhone screen) when something is much brighter than its background and hold the camera as still as possible. If you’re quite far away from the action on the stage (like up in the second or third deck of an arena), you’ll get a good picture of the whole arena, but you might have to settle for little white blobs for performers.



Zooming in helps balance the picture's lighting, but also looks a bit more pixelated. The chat feature often fills screen, but can be hidden. Screen capture: @negeens (Twitter)

Audio. If lighting is the toughest issue to compensate for in a concert, audio is the second. Listening to other people's live streams, I noticed that the audio was often distorted and very muddled in the bass frequencies. The way to get around this is to not use the phone's internal microphone, which is usually overdriven by the high volume levels at a concert. I found that plugging in a microphone from my earbuds helped tremendously. To do this, you'll need a set of earbuds with an integrated microphone. I used the mic from a pair of Bose noise-cancelling earbuds (QC20i). Please note, there is no need to actually put the earbuds in your ears. You're only interested in using the integrated mic, as if you were making a phone call with your headset plugged in. I also tested the Apple-supplied earbuds that came with my phone, and they, too, improved the sound. This method greatly reduces the audio feed going into the phone, creating a cleaner, less distorted signal to broadcast. The only downside to this trick is that you won't want to talk near the mic since it will be a bit more sensitive to closer, rather than distant, voices. Nearby screamers could be annoying.



iPhone 6 with Trianium battery case. I secured the Bose earbuds and mic with rubber bands, being careful not to block the functionality of the phone screen and the camera's line of sight.

Battery. Live streaming will suck your battery dry. Depending on the condition and age of your phone, it's likely the phone's onboard battery will not be able to last through an entire concert. Prepare by taking some kind of alternate power supply. I use a pack made by Trianium, which slips onto the phone and provides another full charge for my iPhone. Mophie also makes a similar product which is very good. Another option is to actually carry a USB charger pack into the concert, but be careful of the "lipstick" models since they won't replenish the phone's charge quick enough. Tip: only turn the spare battery pack's power on when the phone's internal battery is about to run out. Turning your extra power supply on when the phone is already fully charged could waste the spare battery.

Landscape vs. Portrait. This debate is ongoing. Periscope app users prefer a landscape orientation because the device can easily be turned sideways, and landscape mode provides a wider picture which is generally best for framing a band on stage. When I'm watching a concert that is being broadcast in landscape mode, I simply turn my iPad so it is horizontal. However, computer users who join the broadcast by clicking a link in Twitter, will see the stream on end (you have to crook your head sideways to view it properly). There is a technical fix to this -- find the graphics properties on your computer ("control panel" on a PC) and rotate the screen 90 degrees (do a Google search for your specific graphics hardware). Or, if viewing on a monitor, turn the monitor on its side. It's a bit cumbersome, but will work. Either way, people watching your feed are going to ask for an orientation different than you're presenting, based on their own preferences. The key here is to pick one orientation and stay with it so you don't frustrate your viewers. If you record your concert in landscape mode and want to upload it to YouTube later, you can use a video editing tool to rotate the image before posting.

Use a friend. The only way I was able to broadcast an entire concert was by using my wife as a backup videographer. Props to her for relieving me once in a while. You can do it on your own, but your arms will definitely be tired when it's over!

Signal. One last note (and kind of a disclaimer): all of the above is dependent on the cell signal in the venue you are trying to broadcast from. When I was on the floor in The Forum, I had a great signal (AT&T), which allowed for a steady stream. But that has not been the case in other venues. Typically, the floor will be one of the more difficult places to secure a good signal because you're trying to stream from a pit in the earth, lined with steel and concrete. The best place to broadcast will usually be up in the stands. In every case, however, each venue is different, with varying degrees of cell reception based on individual providers. If Periscope cannot initialize the stream (a process that usually takes a few seconds), you don't have a strong enough signal (or possibly enough bandwidth even though the signal is strong) to broadcast. You may have studied this tutorial, tested your gear and charged your extra battery, but when it comes to cell service, nothing is guaranteed.

I hope this little guide to using Periscope at a concert has been helpful. Follow me on Twitter and Periscope to offer other ideas, suggestions or questions (@timneufeld). Finally, check out this excellent and in depth tutorial for using the app on either an iOS or Android device:

<http://www.trafficgenerationcafe.com/periscope-tutorial/>

Periscope is a great app for broadcasting concerts, and once you get to know some of its key components, you'll be set to join a whole tribe of Periscopers.