Mobile Phone Recording

Introduction

This document provides an overview of approaches to recording audio calls made on smartphones. Options described include both paid and free software apps for phones running the Android and iOS operating systems as well as a cross-platform hardware option. There are certainly other software and hardware approaches beyond those mentioned here, and the selection below serves as a curated overview of a handful of methods rather than an all-inclusive survey.

Options are divided into two main sections, Software Options and Hardware Option. The Software Options section is further divided into two subsections, one for each of the common mobile phone operating systems, Android and iOS.

Things to know

When recording using a mobile phone the fidelity of the resulting recording is fundamentally constrained by the limited sound frequency bandwidth of mobile phone audio transmission. In addition, call fidelity is also impacted by the quality of the call connection and the capabilities of the phone's hardware. While recordings made between mobile phones can sound better than those made between landline phones, they will not have the fidelity of recordings made in-person using quality equipment, or remote recordings using some other available methods.

This stated, recording an interview using a mobile phone can be convenient and, for the interviewee, requires no technical knowledge beyond familiarity with their own mobile or landline telephone, no high speed internet connection, access to a computer, or any other additional equipment.

As noted above, call connection will impact the quality of the resulting recording. If calling mobile-to-mobile, try to determine that both parties have strong service at the time/location of the call. If calling mobile-to-landline, the Interviewer should be sure service on their end of the call is strong.

Software Options

The apps available for call recording depend on the operating system on the phone.

Android

Apps for mobile phones running the Android operating system are available via the Google Play store. There are a large number of call recording apps for Android, and determining which are best--or which work with particular phone hardware/Android versions--is difficult. In reviewing the options, we have relied on several online overviews of Android call recording apps, and we encourage those interested in recording interviews with an Android phone to robustly--and critically--evaluate apps and their claims.

	Google Voice	Automatic Call Recorder Pro
Cost	Free	Free version available, Pro version $6.99
Recorded file format	32bit/11.025kHz monophonic MP3	AMR, AAC, MP4, WAV
File storage	Google Voice cloud storage; download to local storage via Google Voice interface on a web browser	Local file storage with features to share to Google Drive or Dropbox
Internet connection requirement	Only if using Google Voice web interface to receive a call	None
Pros	Free. Vast user base. Relatively easy to install, use, and access recordings.	Option to record in 16bit/44.1kHz monophonic WAV
Cons	Low quality recordings. Can only record incoming calls.	Multitude of options and settings are challenging to navigate; sound quality is poor (though not worse than Google Voice) and caller/narrator is quieter on recording
Additional information	Google Voice seems to be the most widely used option for Android users to record phone calls. Detailed	Automatic Call Recorder Pro by Appliqato seems to be a popular option, though be sure you are

	information on using Google Voice to record can be found here: **Record Calls on Android using Google Voice**. Google Voice records at a low sample rate of 11.025 kHz, which results in noticeably low fidelity audio. The sound quality is poor, the narrator is quieter on recording, and the interviewer's voice can cause distortion if too loud. To record an interview using Google Voice the narrator is required to dial into the interviewer's Google Voice number. The interviewer then initiates recording by pressing "4" on the Google Voice dialpad. Google Voice is also an option for use on iOS devices.	downloading the correct application in the Google Play store as there are many copycats with the same name and very similar logos. It is important to experiment with this app, as the default settings do not necessarily produce the best quality recording possible. The app by default records all calls, so users probably will want to turn this function off except when recording an interview. The app records to the phone, so users should confirm before an interview they have enough storage space (especially if recording in WAV).

iOS

	Rev Call Recorder	Automatic Call Recorder Pro
Cost	Free	$3.99 monthly/$19.99 annually
Recorded file format	32bit/22.05kHz monophonic MP3	32bit/8kHz monophonic MP3
File storage	In app; download via text/email, share to Dropbox and Google Drive	In app; download via text/email, share to Dropbox or Google Drive
Internet connection requirement	None	None
Required skills	Understanding iPhone Add Call/Merge Calls functions	Understanding iPhone Add Call/Merge Calls functions

Accessibility Accomodations	Fee-based transcription of calls	Fee-based transcription of calls
Hardware Requirements	Requires iOS 10.0 or later.	Requires iOS 10.0 or later.
Hardware Recommendations	iPhone 6 or higher.	iPhone 6 or higher.
Pros	Free	Widely adopted
Cons	Lower quality recordings	Free version limited, paid version requires monthly fee. Low quality recordings.
Additional information	Rev Call Recorder is a free recording app for iPhone produced by audio/video transcription company Rev. To use Rev Call Recorder, one first dials Rev's recording line through the app, puts that call on hold, dials the Interviewee, and then merges the calls. For those unfamiliar with iPhone's "Add Call" and "Merge Call" features, it might be a bit overwhelming at first.	TapeACall is a popular, paid call recording app. The app works via a merged call process where one first calls TapeACall's recording line, puts that call on hold, dials the interviewee, and then merges the calls. The limited sampling rate of 8kHz allows for capture of sound frequencies up to 4,000 Hz, which is, curiously, below the upper end of the sound frequency band available on US mobile phone systems.

Hardware Option

	JK Audio CellTap 4C
Cost	Free
Recorded file format	Varies depending on settings of attached audio recording device
File storage	Varies depending on attached audio recording device.

Internet connection requirement	None
Required skills	Understanding of cell phone in/out connections and line-level input recording to external audio recorder. Understanding of basic audio gain adjustments.
Hardware Requirements	3.5mm input/output from phone, 3.5mm male-to-male cable, wired headset with microphone, stand-alone audio recorder, appropriate cable to interconnect CellTap 4C and external audio recorder. If your phone does not have a 3.5mm jack, acompatible adapter is required.
Pros	Affordable, professional-quality interface. Records to external recording device.
Cons	Requires familiarity and comfort with a range of audio recording methods and technologies. Requires additional hardware. Quality of recording still constrained by mobile phone audio transmission limitations.
Additional information	Produced by JK Audio, a manufacturer of remote recording products, the CellTap 4C facilitates the use of an external audio recording device to record mobile calls. Using wired connections, the CellTap 4C transits incoming audio from the interviewee and outgoing audio from the interviewer both between the parties and to a connected, stand-alone audio recorder. The user can set recording parameters on the recorder to their preference rather than being limited by the set parameters of mobile phone recording apps. Each side of the call is recorded in a separate channel of a stereo file, allowing for at least some degree of separation between voices. It is important to note that the quality of the audio captured via the mobile phone connection will still be constrained by the limitations of the sound frequency bandwidth of mobile phone audio transmission. As a result, the fidelity of the interviewee's audio channel will still be limited. In contrast, the interviewer's voice--which is recorded independently of the connected mobile phone--will sound clearer and more in line with an in-person recording. In addition, the CellTap 4C requires wired connections between the phone and the CellTap 4C. Many newer mobile phones, iPhones in particular, no longer come with wired 3.5mm jacks. To use the CellTap 4C with a phone that does not have a 3.5mm jack, one needs to purchase a compatible adapter (in the case of the iPhone, a Lightning-to-3.5mm connector) or purchase a compatible Bluetooth interface. Check with JK Audio for compatibility concerns prior to purchasing any wired or Bluetooth adapters. The cable used to connect the CellTap 4C with a stand-alone audio recorder will depend on the audio recorder's input configuration.