STEEL KIWI

Case study

Heyoya

ENABLING VOICE-COMMENTARIES FOR WEB AND MOBILE

Customer location	Industry	Expertise
Israel	**Media**	**Social networking**

Summary

Heyoya hopes to change the way users respond to content they see on the web or in a mobile application – whether articles, videos, or graphics. The main idea of Heyoya is to enable voice comments so users can convey their emotions more effectively than with text.

Heyoya's team came to SteelKiwi with the request to build two products: an SDK for mobile developers and two native mobile apps. The SDK can be used by mobile developers who want to enable voice comments in their products. The native mobile applications help users leave voice comments more comfortably and elegantly as well as follow updates on content they've commented on. There's a separate SDK and mobile app for iOS and Android.

Technical challenges

1. SDK – The main interface of the service is a WebView that interacts with the device's hardware. We needed to make this WebView stable so we could embed it in the native code and ensure that the audio interfaces worked correctly.

2. MP3 encoding on iOS – We needed to convert recorded content into MP3 format before sending it to the backend. iOS doesn't support MP3 natively, so this was necessary to ensure that recordings work correctly with proprietary server-side software.

3. Sound wave visualization – While recording audio in each native app, we needed to display a real-time graphical representation of the sound waves. We implemented this visualization using a custom rainbow-like design.

Technical solutions

1. After some research, we figured out a native way to create a stable two-sided connection between Objective-C code and the HTML WebView. To send data from the WebView to the native part of app, we developed an interface that dynamically changes information in the address line of the WebView so the native code can parse and analyze it. We used built-in iOS functionality to transfer data from native code to the WebView.

2. Through our research, we discovered a working, resource-efficient, open-source library for MP3 encoding. After that, we developed code that lets us receive an MP3 file with the necessary parameters.

3. As no existing solutions allowed us to get the results we required, we developed a 100% custom view that displays a real-time sound wave visualization based on data about audio, volume, and playback time.

Results

The software development kit that's available for mobile developers is highly configurable and easy to use. It also supports a wide range of system APIs, meaning support for a lot of devices and versions of Android and IOS.

For more information, please contact:
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Our client released native iOS and Android mobile applications for end users. In just a single click, users can leave voice comments on websites where Heyoya's SDK is installed. Users can also share comments to major social networks, which helps Heyoya get known all over the world.

Technologies

Our focus was on using as many native operating system features as possible. iOS: We used Objective-C as the main programming language, AVFoundation Framework for sound recording and audio playback, Lame for encoding to MP3, and the Facebook SDK to enable sharing.

ANDROID:

We used Java as the main programming language.

Contact us

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