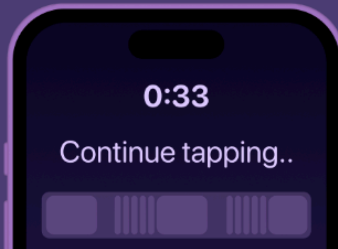


Tap-to



Find

Save

Create

Seamless
design

Find faster



Find easier



Powerful cloud AI engine

MusicTap



Tap to find
forgotten songs



Convert your
taps into
music

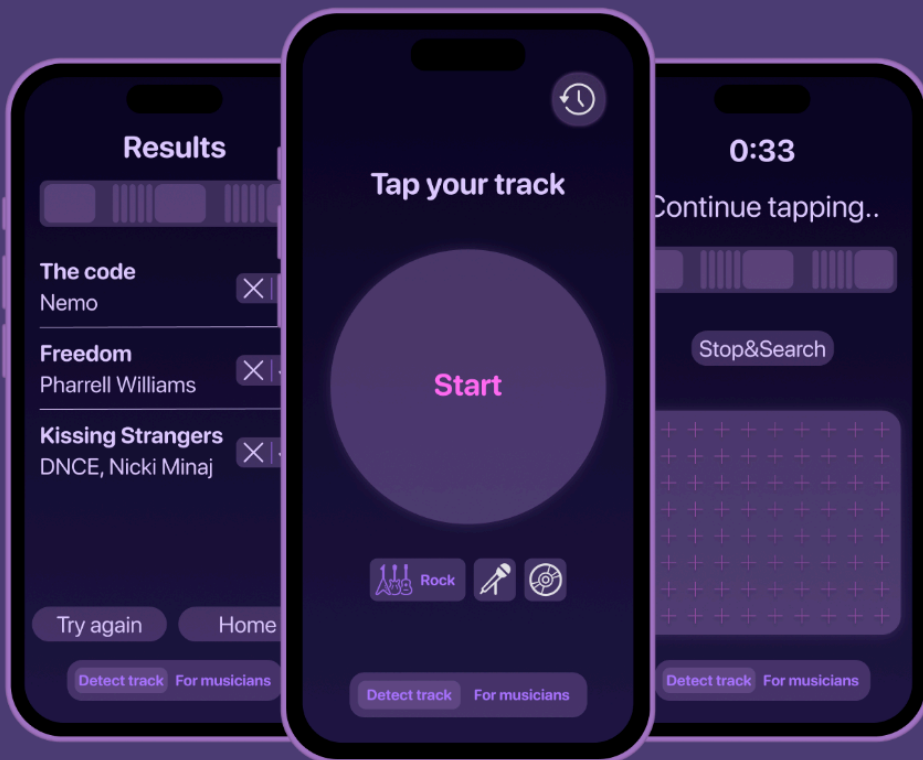


Connect to
your
streaming
service

Accessibility



friendly



Industry
leading



PRIVACY

Record
your
notes



Reduce
plagiarism,
produce
original



Variety of filters



Haptic notes™

Problem our App solves

In 2024, major music record labels including UMG, Sony and Warner filed [lawsuits](#) against Artificial Intelligence music companies Suno, Inc. and Udio AI.

These lawsuits accused the companies of “massive and ongoing infringement”, claiming they used songs from their respective artists, without permission from the labels or artists, to train the AI models that the companies use to generate new music. This is just one example of the negative effect that AI is having on the creative sector. Music, art, creative writing and many other creative works are being nonconsensually used to train AI models that churn out piles of dehumanised replicas. Artists work hard to produce meaningful creative projects and we think AI’s theft of their work is completely unfair and needs to be strictly regulated.

As a group, this is something we feel passionately about and we want to create an app that reduces plagiarism in the music industry. Music is an important part of our lives and we value and appreciate the effort that our favourite artists put into producing songs and albums. We believe that they deserve acknowledgement for their time and energy and this is why we decided to focus our app on the music industry, as this is something that we strongly care about. We hope to design a complete music app for casual users and professionals alike, an app with a wide range of features; from plagiarism detection to genre recommendation to music recognition.

In the current age, where AI seems to have seeped into every aspect of our lives, we want to make a difference where we can, and use Artificial Intelligence in a positive way to put humanity back into music.

Our product idea and key features

The product idea we came up with is an app that allows users to tap the beats of a song they don't remember the lyrics and name of and find it. Like mentioned above the app will also be able to be used as a plagiarism checker for artists. As of today there has been an increase in the number of [musical copyright lawsuits](#) issued and this has done more harm than good in the music industry. Our app will help prevent copyright and legal issues in the music industry and also inspire artists to be more innovative and creative with their work to set themselves apart. The app will have 3 available plans for users. A free plan in which users will be able to only search 3 songs per day, a pro user plan with unlimited song searches and a pro artist plan mainly directed towards artists with unlimited song searches, copyright check and more. Features the app will have include the following:

Tap Out Beats - Users will be able to tap out the beat of a song they don't know the lyrics to on their device and the app will find the song for them.

Copyright check - Artists will be able to run copyright checks on their work before publishing to prevent lawsuits and legal issues.

Ai Recommendations - The Pro Artist Plan will include an advisory ai feature that will allow users to get genre, instrument and rhyme recommendations.

Save Beats - Artists will be able to store their beats on the app.

Rhyme Creation - Artists will be able to input lyrics for generated rhyme endings in return.

API Licensing - We will offer an API to allow other apps to adopt our recognition tech.

Pro User Subscription - The Pro User Subscription will be able to be a static subscription (meaning the price is fixed monthly) or a per request subscription meaning the user will be charged €0.03 per request.

Pro Artist Subscription - The Pro Artist Subscription will also be able to be a static subscription or a per request subscription meaning users will be charged €0.09 per request.

Innovation & Importance and relevance of idea

TuneTap represents a breakthrough in tools for creating and discovering music with its state-of-the-art technology with its sole purpose being closing gaps in offerings such as Soundhound and Shazam, and providing new capabilities for a variety of groups of users-casual listeners, composers and producers, and students and teachers.

Right at its heart, TuneTap employs sophisticated artificial intelligence and algorithmic approaches in its model in providing for ease in beat taping for song identification, a feature not yet included in most programs at present. With its melody recall feature, TuneTap addresses a common problem: recalling a melody but not a title and not a single lyric. By providing for entering of rhythms through taps, TuneTap democratizes access to new tunes and keeps it simple and accessible even for non-musicians.

A notch higher, TuneTap introduces new, state-of-the-art breakthroughs specifically for composers and composers alone. There is, for one, the feature for storing beats and testing them for uniqueness in relation to grand collections of copyrighted works through audio fingerprint algorithms and comparison approaches. With this, new works will not fall victim to not being new and not being legal. Intellectual property is guarded and encouraged at the same time.

The importance and relevance of TuneTap go way beyond convenience. In today's digital world, where music consumption is everywhere and content creation gets increasingly democratized, creative integrity is paramount. Current AI models in music generation are often based on copyrighted datasets, which leads to unintentional plagiarism. TuneTap tries to change this trend by arming artists with tools that protect their work and give them due credit. It champions the cause of ethical AI usage: putting humanity into songwriting, not taking it out.

Besides, the social value of the application is just huge: for listeners, it materializes in more concrete connections with favorite songs from otherwise ethereal moments of nostalgia; for musicians, it democratizes professional resources; and for educators, TuneTap is an interactive teaching tool that enables the easier explanation of complex concepts like melody structure and rhythm theory. Even large-scale entities such as record labels, find utility in verifying the authenticity of their artists' outputs and improving brand reputation.

From a market point of view, TuneTap occupies a very unique niche. While all the competitors focus on recognizing mainly pre-recorded audio, our application extends the scope to include melody recognition, beat preservation, and copyright verification. This multifaceted offering will ensure TuneTap creates a broad appeal across demographics and industries.

The Current Market And Target Audience

There are apps on the market that offer some features on what our apps will do. An example is the music recognition part. Examining the current apps and noting their pros and cons can help us make our app stand out for instance:

Shazam: While being one of the fastest apps on the market, it lacks accuracy (7.83% error rate) and isn't accurate when trying to identify melody related audio such as singing or humming.

SoundHound: An alternative to Shazam which has easy access to search history and does a better job at identifying melody related audio. It also involves better music services integration.

We can also look for gaps in the market to make our app stand out further making it more appealing to users and creators. Examples of gaps in the market are:

Larger Music Library: Our app with AI can be trained to identify a larger variety of music making the music library it can choose from larger.

AI Assistance: Other apps don't have AI assistance integrated into their applications making ours stand out and easier to navigate.

Song Finder Accuracy: Sometimes the aforementioned apps struggle to distinguish between remixes, covers, live performances and originals.

Visual Input: No service currently takes video as input (for instance a music video or movies scene) and finds the song played during.

Music Translation: There is a lack of apps that help people who don't speak the music and are unable to understand what the lyrics mean.

The target audience will be every day listeners looking to listen or find a song, Composers and Producers who want innovative tools and music students and educators who want tools to help streamline the creative process.

After researching this app is very feasible since there is already development for these technologies. For instance Shazam is a deep learning model, Plagiarism Detection has already been created and tested such as CopyRight.ai and WIPO and AI can be used to detect using techniques such as bipartite graph matching. Composition Assistance is also possible since AI is capable of suggesting musical endings and passages, examples being Google Magenta and OpenAI Jukebox.

For Costs, The launch cost is roughly €50,000-€150,000 including App development, AI Training, Marketing and Legal Protection. For the Monthly maintenance costs, It's looking like roughly €14,000-47,000. This cost is dependent on the amount of active users and includes server costs, salaries and customer support. We can monetize the app using the freemium model. This will encourage free users to subscribe to our service, same with producers roughly generating €874k yearly and minus our expenses giving us approx €650k profit ideally.

Poster Design

From the beginning we wanted to make the app and poster accessible to everyone, that's why we decided to keep it simple and contrast. We used boxes, dynamic icons and smooth gradients of colours to stand out more + makes it easier for the consumer to view, overall a simple layout that captures the attention of the consumer. The target audience we are trying to reach with this poster are casual music listeners and songwriters who wish to have a helpful assistant app.

To attract these audiences, we included various music icons and showcased our main features, to draw in potential customers. Our poster design takes inspiration from leading design experts. The portrayal of their product ([Macbook Pro 2024 Announcement](#)) was simple and informative so we took that into account in the making of the poster. The target audience we are trying to reach with this poster are casual music listeners and songwriters who wish to have a helpful assistant app.

BRIEF SUMMARY OF WORK CONTRIBUTED

Contribution is given as a % out of 100, representing the amount of work done by each group member

Adetola Ogunbanwo (contribution 25%): I worked partially on the research relating to the market we are competing in, specifically target audience, technology & feasibility, and legal & copyright considerations. I also wrote a part of the report in relation to innovation & importance and relevance of the idea.

Frida Gurn (contribution 25%): I collected information and wrote the 'Problem our App solves' section of the report. I helped with brainstorming the initial App idea and came up with new features. I also helped Tymofii with the poster design.

Tymofii Bezverkhyy (contribution 25%): I created the main Figma project. I designed a Mock-app, did the price-model research and designed the poster. I participated in initial brainstorming the initial App idea and came up with the main idea.

David Pedro (contribution 18%): I helped contribute to research on the market of the app we were developing by providing insight on existing competitors like Shazam and Soundhound. Helped in the creation of the user experience, features and interface specifically under simplicity vs depth and Accuracy, and came up with marketing and growth strategies such as SEO and influencer partnerships.

Adam Hayden (contribution 7%): I gathered the information the other group members had researched and used that to write the market section of the poster.

Jack Guirke: (contribution 0%)

Additional Information

Link to poster on Figma:  Innovation Poster

Name of group: Group **AG**

Student Information:

Adetola Ogunbanwo - adetola.ogunbanwo2@mail.dcu.ie - ID Number: 19106

Frida Gurn - frida.gurn2@mail.dcu.ie - ID Number: 24854

Tymofii Bezverkhyy - tymofii.bezverkhyy2@mail.dcu.ie - ID Number: 45385

David Pedro - david.pedro2@mail.dcu.ie - ID Number: 22072

Adam Hayden - adam.hayden22@mail.dcu.ie - ID Number: 23448012

Jack Guirke - jack.guirke2@mail.dcu.ie - ID Number: 23585