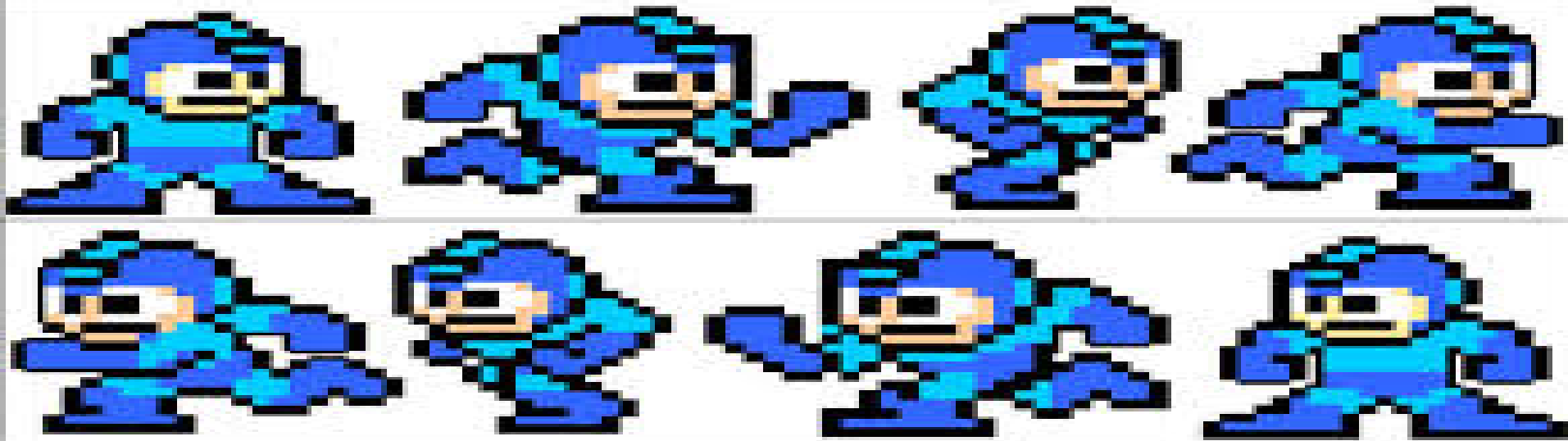


FIT-8BIT

AN ACTIVITY MUSIC ASSISTANT



Members

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RUELEN

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The Advantages of Music in Sports

Scientific inquiry [1] has revealed **five key ways** in which music can influence preparation and competitive performance:

1. **Dissociation:** dissociation *lowers perceptions of effort*. Music has *limited power* to influence *what* the athlete feels, but it does have considerable leverage on *how* the athlete feels.
2. **Arousal regulation:** Music can be used prior to competition or training as *a stimulant*, or as *a sedative* to calm.
3. **Synchronisation:** Synchronisation is associated with *increased performance*.
4. **Acquisition of motor skills:** Music can aid in the acquisition of motor skills.
5. **Attainment of flow:** Music may help in the attainment of flow.

[1] Karageorghis, C. I., and David-Ledford. "The Effects of Music on Competitive Performance." *The Sport Journal* 11 (2008): 3.



Competitive exercise is

heavily on the

in what one does.

motivation

in research and application."

Link between Sport and Music



[1] Waterhouse, J., P. Hudson, and B. Edwards. **Effects of music tempo upon submaximal cycling performance.** Scandinavian journal of medicine & science in sports 20.4 (2010): 662-669

[2] Yamamoto, T., et al. **Effects of pre-exercise listening to slow and fast rhythm music on supramaximal cycle performance and selected metabolic variables.** Archives of physiology and biochemistry 111.3 (2003): 211-214.

Tempo and Rhythm

Rhythm	BMP
Slow, e.g. Walking	<100
Average, e.g., Jogging	100-120
Fast, e.g., Running	>120

[1] Simpson, S. and Karageorghis C., 2006, **Effects of Synchronous Music on 400 Metre Sprint Performance**. J Sports Sci; 24(10): 1095-1102.

[2] Waterhouse, J., P. Hudson, and B. Edwards. **Effects of music tempo upon submaximal cycling performance**, Scandinavian journal of medicine & science in sports 20.4 (2010): 662-669.

[3] <http://www.unm.edu/~lkravitz/Article%20folder/musicexercise.html>

Demo Scenario



User Interface



Track Info

The image shows a software interface with two main windows. The background window is titled "Fit8bit" and contains a "Playlist" section with a list of songs. The foreground window is titled "SongInfo" and displays details for the song "Fancy" by Iggy Azalea.

Fit8bit Playlist:

- Taylor Swift - Shake It Off
- Meghan Trainor - All About That Bass
- Nicki Minaj - Anaconda
- Jessie J, Ariana Grande & Nicki Minaj - Bang a Bang
- Sam Smith - Stay With Me
- Iggy Azalea Featuring Rita Ora - Black Widow
- Ariana Grande Featuring Zedd - Break Free
- MAGIC! - Rude
- Sia - Chandelier
- Charli XCX - Boom Clap
- Maroon 5 - Maps
- Ariana Grande Featuring Iggy Azalea - Problem
- Iggy Azalea Featuring Charli XCX - Fancy**
- Nico & Vinz - Am I Wrong
- Clean Bandit Featuring Jess Glynne - Rather Be
- Enrique Iglesias Featuring Descemer Bueno & J Balvin - Bailamos
- Jeremih Featuring YG - Don't Tell 'Em
- Disclosure Featuring Sam Smith - Latch
- John Legend - All Of Me

SongInfo Window:

- Fancy**
- Iggy Azalea**
- The New Classic**
- Duration: **4 : 27**
- BPM: **BPM 110.50**
- Player controls: Play button, progress bar (3:00), volume icon, and Spotify icon.
- Image: A portrait of Iggy Azalea in a pink top.

Buttons:

- Create playlist!
- Load data

Preference Selection

The screenshot shows a window titled "MusicIn" with standard window controls (minimize, maximize, close). The window contains the following elements:

- Artist:** Charli Xcx
- Album:** Release
- Track name:** Boom Clap
- Action:** A button labeled "Add to collection".
- Checkbox:** Use Billboard top 100
- Three lists of song titles:**
 - Left list: Taylor Swifr, Meghan Trainor, Nicki Minaj, Bang Bang (highlighted), MAGIC!
 - Middle list: Shake It Off, Title (highlighted), The New Classic
 - Right list: Break Free, Rude, Chandelier (highlighted)

Application Workflow



Filling the Gap

Additional devices/ applications: e.g., Moves [1], Samsung Galaxy Gear Smartwatch [2]



PHOTO: TECHSOURCE

[1] <https://www.moves-app.com/>

[2] <http://www.samsung.com/uk/consumer/mobile-devices/wearables/>

Future Scenarios

User Profiling Framework:



Interfacing with Providers:



Social Sharing:



Lessons Learned

1. Data from Zip doesn't match the application requirements; there is a conflict between static and dynamic data
2. We need to be aware of the difference between working online and offline with data
3. It is hard to share the data since a user can only access his or her own data