FIT-8BIT
AN ACTIVITY MUSIC ASSISTANT

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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 of music with repetitive exercise is associated with increased levels of work output.

4. **Acquisition of motor skills**: Music can impact positively on the acquisition of motor skills.

5. **Attainment of flow**: Flow is the complete absorption in what one does. Music may help in the attainment of flow and intrinsic motivation.

Link between Sport and Music


## Tempo and Rhythm

<table>
<thead>
<tr>
<th>Rhythm</th>
<th>BMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slow, e.g. Walking</td>
<td>&lt;100</td>
</tr>
<tr>
<td>Average, e.g., Jogging</td>
<td>100-120</td>
</tr>
<tr>
<td>Fast, e.g., Running</td>
<td>&gt;120</td>
</tr>
</tbody>
</table>


[3] [http://www.unm.edu/~lkravitz/Article%20folder/musicexercise.html](http://www.unm.edu/~lkravitz/Article%20folder/musicexercise.html)
Demo Scenario
User Interface

![User Interface Image]

**Playlist**
- 3rd Strike - No Light, BPM 95.0
- 69 Boyz - How We Roll, BPM 97.15
- 2Pac - Still Ballin', BPM 96.14
- Iggy Azalea - Fancy, BPM 110.50
- Baha Men - Move It Like This, BPM 126.0
- Body-Shock - Rain In The City, BPM 190.0
- BT - Shame, BPM 132.0
- 69 Boyz - Woof Woof, BPM 135.15
- 2Pac - Changes, BPM 110.0
- Korn - Make Me Bad, BPM 105.0
- S.O.A.P. - This Is How We Party, BPM 110.0
- D.J. Miko - What's Up?, BPM 135.0
- Craig David - 7 Days, BPM 185.0

**FitBit**
- 00:00 - 09:10 Walking
- 09:11 - 12:17 Jogging
- 12:15 - 20:24 Running
- 20:05 - 31:49 Jogging
- 31:50 - 39:54 Running

**Buttons:**
- Create playlist!
- Load data
Track Info

Playlist

- Taylor Swift - Shake It Off
- Meghan Trainor - All About That Bass
- Nicki Minaj - Anaconda
- Jessie J, Ariana Grande &amp; Nicki Minaj - Bang 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 &amp; Vinz - Am I Wrong
- Clean Bandit Featuring Jess Glynne - Rather Be
- Enrique Iglesias Featuring Descemer Bueno &amp; Jeremih Featuring YG - Don't Tell 'Em
- Disclosure Featuring Sam Smith - Latch
- John Legend - All Of Me

Create playlist!

Load data

SongInfo

Fancy
Iggy Azalea
The New Classic

4:27
BPM 110.50
Preference Selection

Artist: Charli XCX
Album: Release
Track name: Boom Clap

- Taylor Swift
- Meghan Trainor
- Nicki Minaj
- **Bang Bang**
- MAGIC!
- **Shake It Off**
- **Title**
- **The New Classic**
- **Break Free**
- Rude
- Chandelier

Use Billboard top 100

Add to collection
Application Workflow
Filling the Gap

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

Future Scenarios

User Profiling Framework:

Social Sharing:

Interfacing with Providers:
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