Team members

- Dick Lyon  
- **Ron Weiss**  
- **Kevin Wilson**  
- Ryan Rifkin  
- Sourish Chadhuri  
- Pascal Getreuer

- Doug Eck  
- Daniel Steinberg  
- Andre Hentz  
- **Tony Lam**  
- Philippe Hamel  
- Ali Razavi  
- **Maneesh Bhand**  
- Alex Susemihl (intern)

Machine Hearing team (audio)
Music Intelligence team (music)

Names in **BOLD** are here at NEMISIG!
Users
Collaborative Filtering

Musicians
Knowledge and Connections

Music
Audio Signal Processing
Play Music All Access

See also the Music Timeline visualizer
Q: What do music users want?
Pandora streaming statistics

<table>
<thead>
<tr>
<th></th>
<th>FY3Q12</th>
<th>FY3Q11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listener Hours (billions)</td>
<td>2.1</td>
<td>1.0</td>
</tr>
<tr>
<td>Active Users (millions)</td>
<td>40.0</td>
<td>24.0</td>
</tr>
<tr>
<td>Platform Hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile</td>
<td>70%</td>
<td>52%</td>
</tr>
<tr>
<td>Non-mobile</td>
<td>30%</td>
<td>48%</td>
</tr>
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</table>

iPod, iPhone and iPad
Quarterly sales

Hardware 2.0 - blogs.zdnet.com/hardware
Music Recommendation

Personalized, contextual radio that adapts to listener feedback. Low-friction, easy engagement

“Lean Back” experience
Music Discovery

Organize the world’s music information. Tools for exploration, sharing and visualization. Social.

“Lean Forward” Experience
SAI-based audio features histograms → Supervised embedding learner (e.g. WSABIE) → Joint embeddings scoring

Audio → SAI-based audio features histograms → Supervised embedding learner (e.g. WSABIE) → Joint embeddings scoring

Training Labels (Knowledge Graph) → SAI-based audio features histograms → Supervised embedding learner (e.g. WSABIE) → Joint embeddings scoring

User listening data → Weighted ALS matrix factorizer (CF) → Joint embeddings scoring
Knowledge and Connections

Gorillaz

Band

Gorillaz are an English musical and visual project created in 1998 by Damon Albarn and Jamie Hewlett. The project consists of Gorillaz itself and an extensive fictional universe depicting a "virtual band" of cartoon characters. [Wikipedia]

Members: Damon Albarn, Jamie Hewlett, More
Awards: Grammy Award for Best Pop Collaboration with Vocals, More
Origin: London, United Kingdom, Essex, United Kingdom
Record labels: Universal Music Group, EMI, Geffen Records, Virgin Records, Parlophone, Def Jam Recordings

Knowledge Panel result from searching for "Gorillaz"
Playlist: Songs by Artists who had a member die in 2012

- **(You've Gotta) Fight for Your Right**
  - Has Track: Beastie Boys
  - Has Band Member: Adam Yauch
  - Date of Death: 2012-05-04

- **I'm A Believer**
  - Has Track: The Monkees
  - Has Band Member: Davy Jones
  - Date of Death: 2012-02-29

- **Stayin' Alive**
  - Has Track: The Bee Gees
  - Has Band Member: Robin Gibb
  - Date of Death: 2012-05-20

- **Go Your Own Way**
  - Has Track: Fleetwood Mac
  - Has Band Member: Bob Welch
  - Date of Death: 2012-06-07

Freebase is a public dataset, so try it yourself!

[http://tinyurl.com/bj4bkdv](http://tinyurl.com/bj4bkdv)
MIR@Google

● Question: what can Google give back to the MIR community?

● Always hiring interns and full-time employees. Contact deck@google.com

● Visiting faculty program

● Google Research Awards