Brain Symposium
Brain Wave Education Research Project

Wednesday, June 13, 2012 11:15-12:15
Session Three

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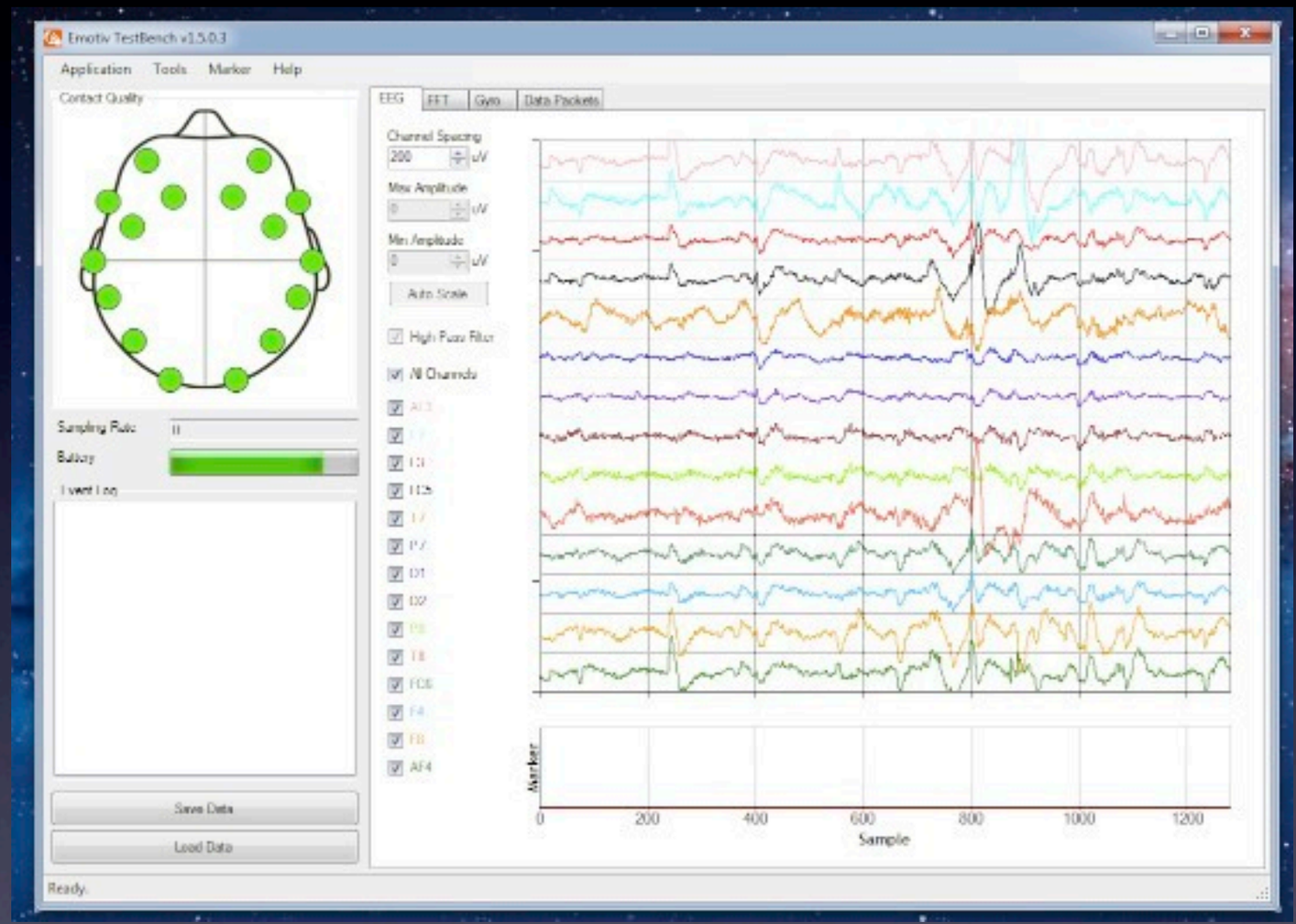
Emotiv Headset

- TED.com, Tan Le developed wireless headset to study brain waves
- Initial problem: how to control “smart” buildings using the headset

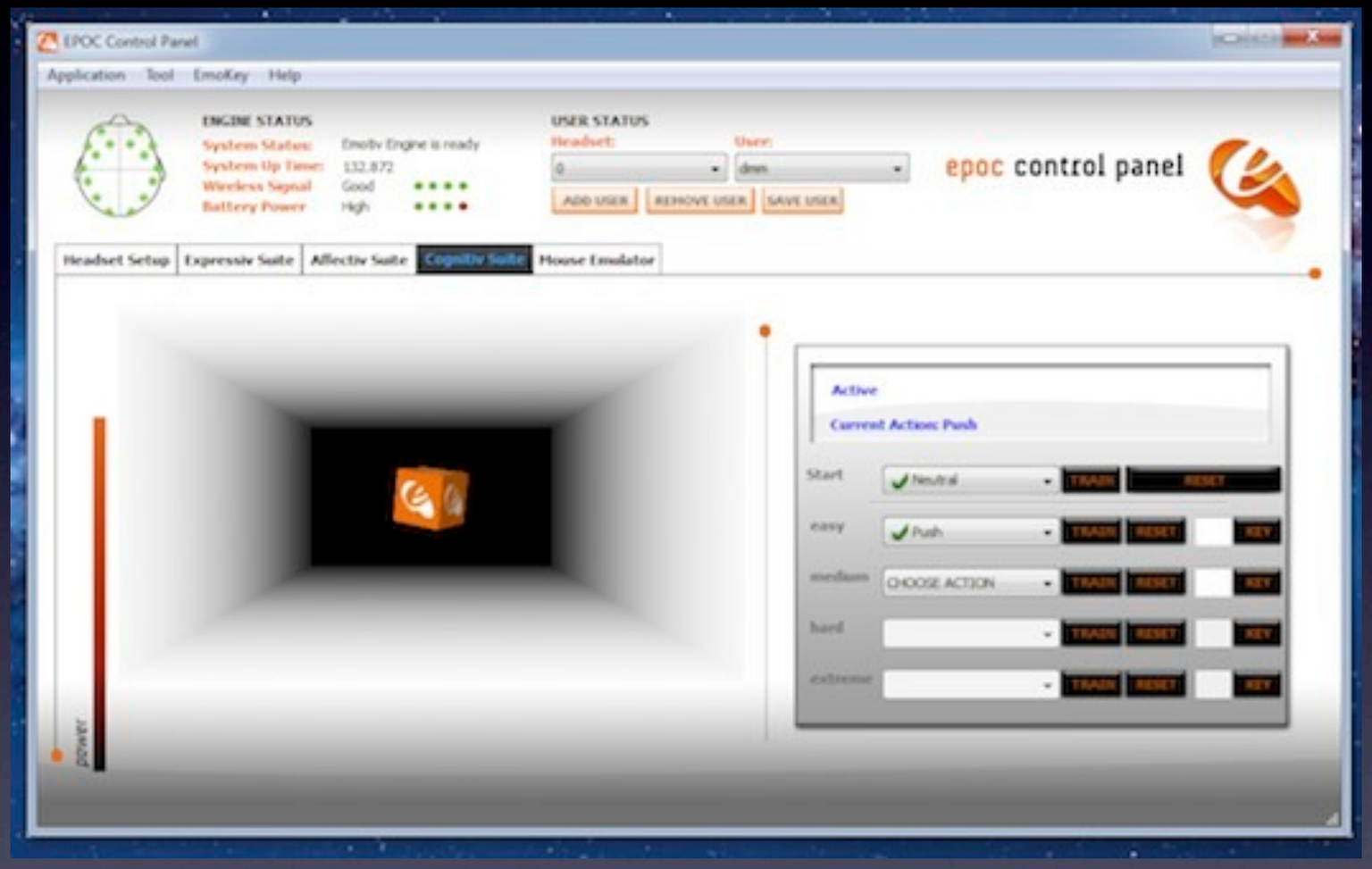
Emotiv Headset: basics

- 14 trace EEG based on contact (saline solution)
- Bluetooth headset relays data to computer
- Software can control games, smart buildings
- Dev Kit can also analyze brain waves



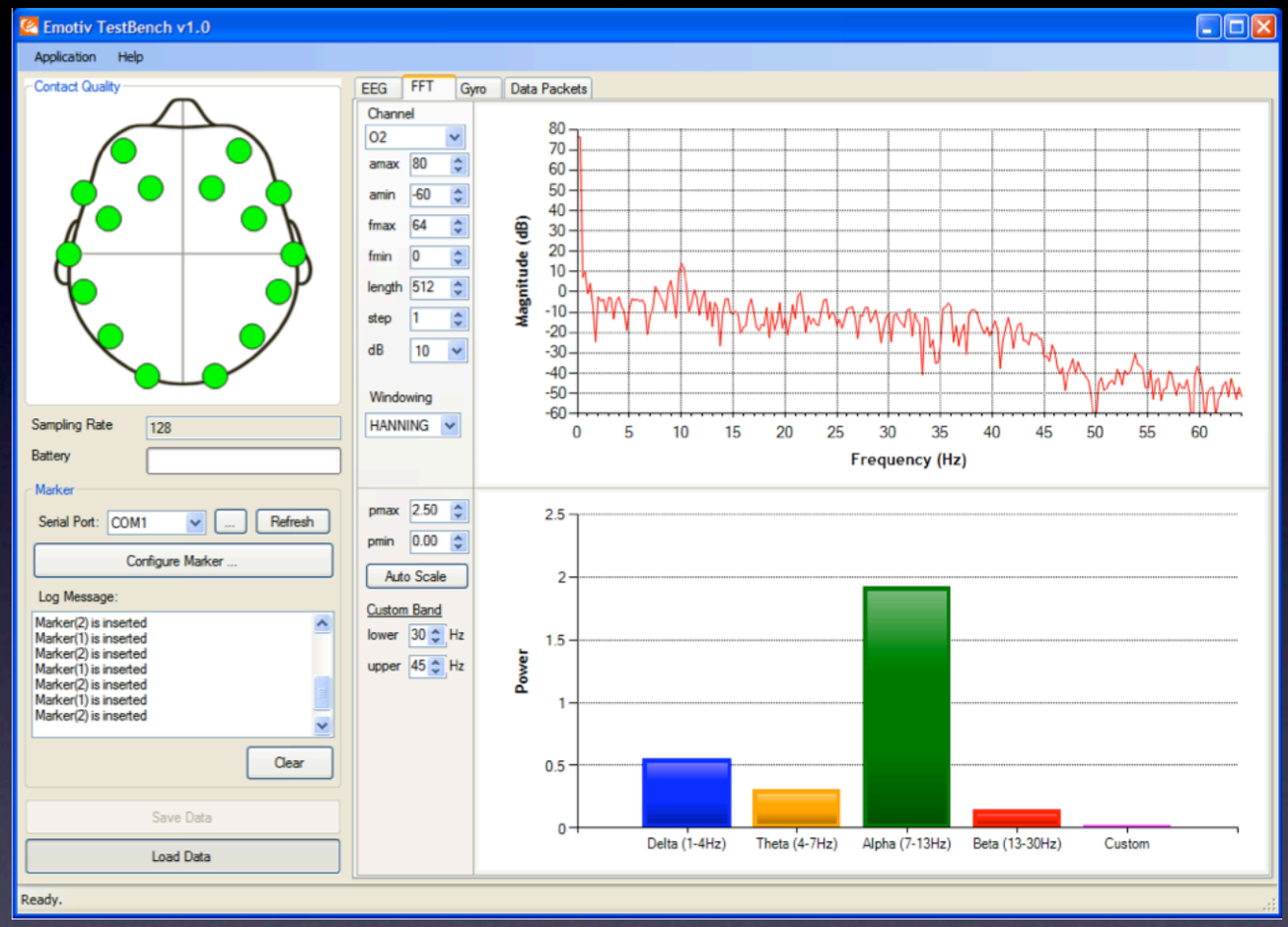
Emotiv Headset: Process

- First: training
  - concentrate on moving cube
  - Program associates discrete patterns with this action



Emotiv Headset: advanced

- Could we use Brain Wave analysis to improve education?
- Augmented Learning
  - Capture video of class
  - Capture brain waves
  - Look for connection
- iBooks
  - Traditional Textbook
  - Textbook as PDF
  - iBooks



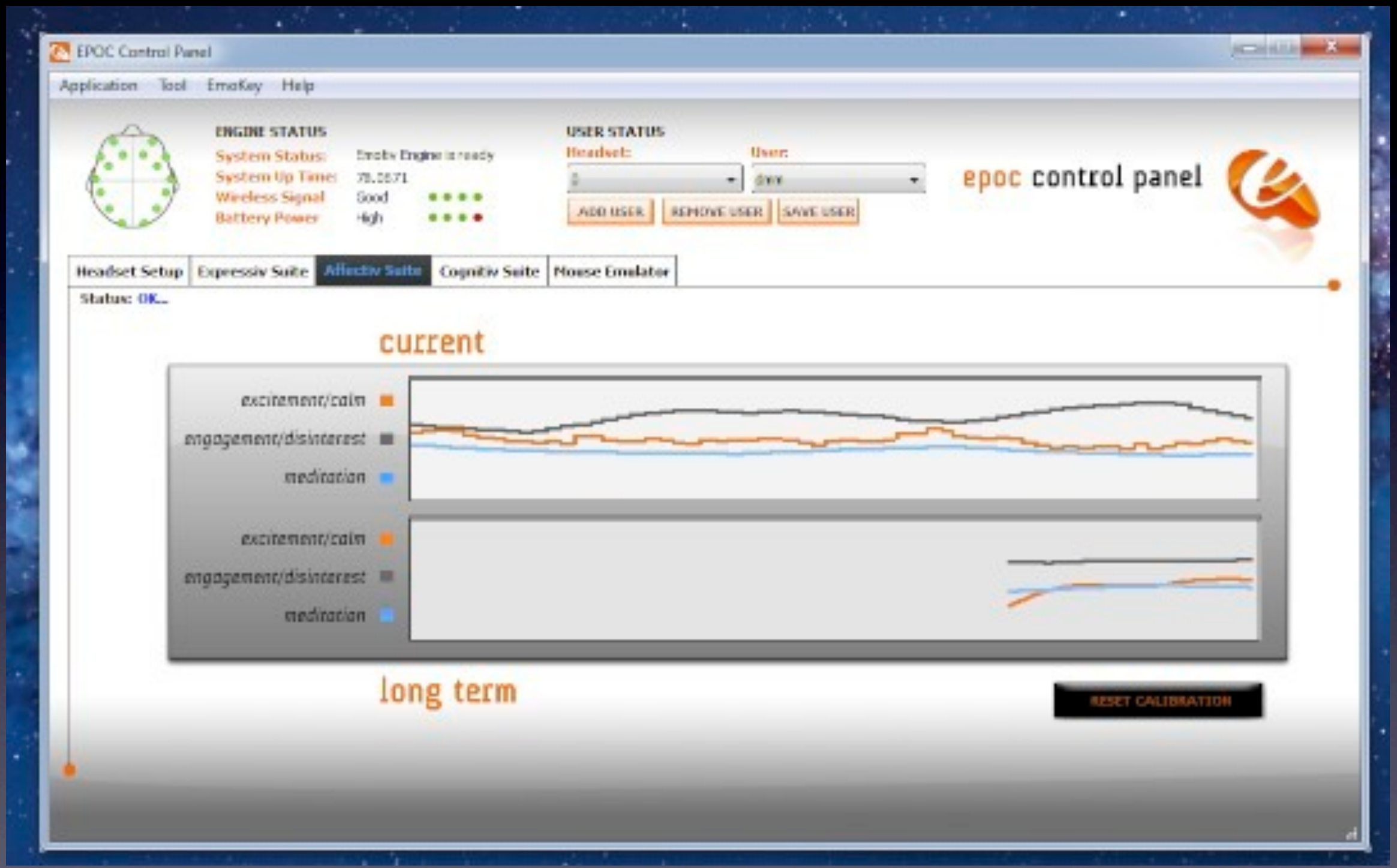
Emotiv Headset: Learning

- Imagine a student being evaluated with these tools upon entry to a class
- Teacher and student would know strengths and how to leverage them
- Learning in “modal groups” would be more fun, productive, and engaged

Emotiv Headset: connections

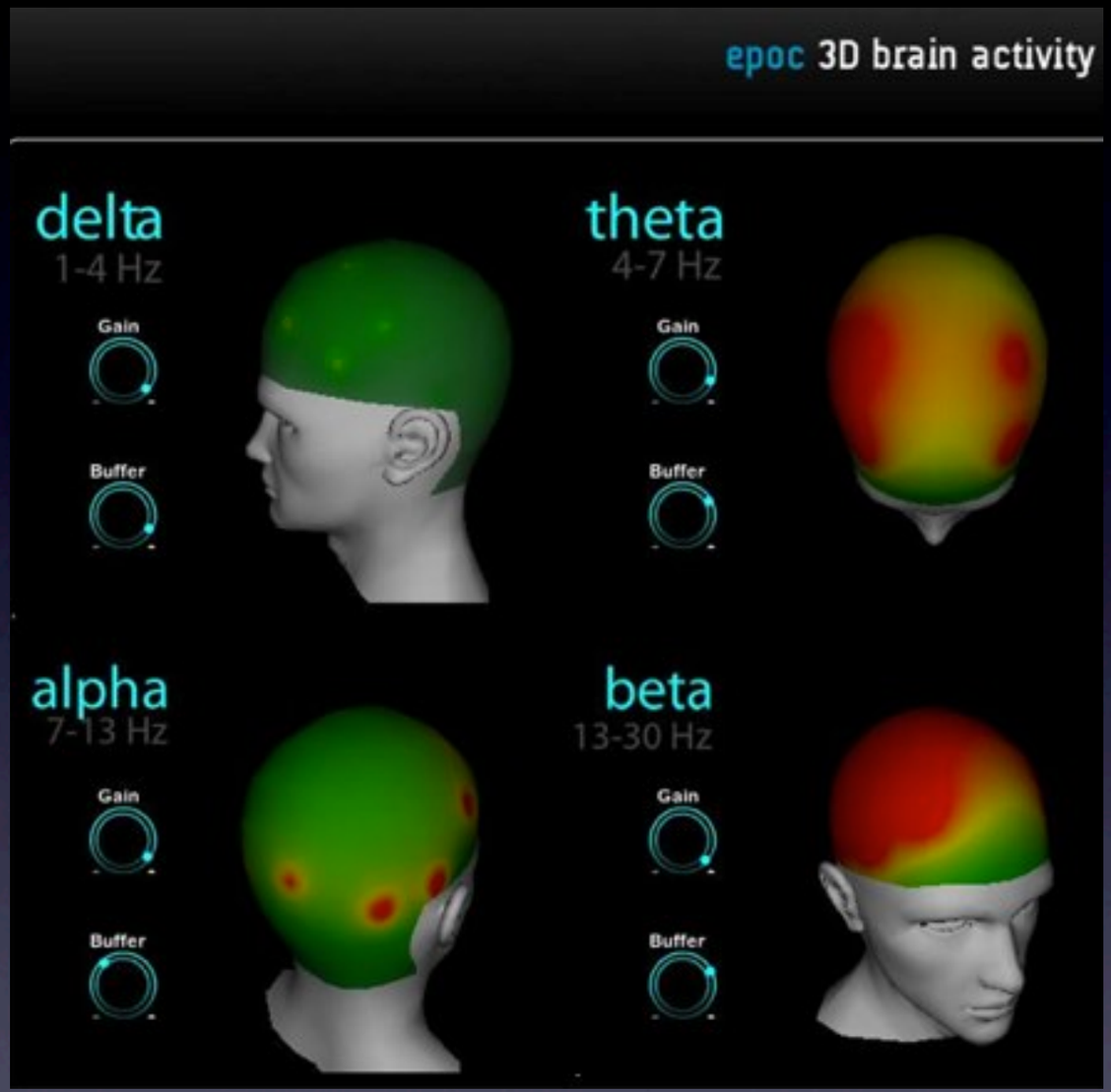
- Crazy accident:
  - Duncan was training while Green Day was on
  - Duncan stopped training
  - When music came on again, cube moved
- Meaning: headset records conscious and unconscious associations

Emotiv Headset: Learning



Emotiv Headset: Education

- Two headsets, two students, same class
  - What modes are most engaging? Which are boring?
  - Are these similar in each student?
  - If not, how to determine most effective mode for each?



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