

Motivation

Too many Apps that does this:

Click me!

+

not enough that does this:

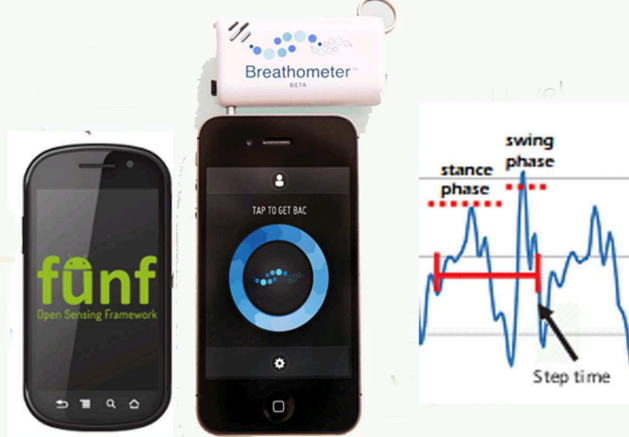
Psst
U r drunk!

How do we UPGRADE
ALCOHOL-MODERATION apps
that require heavy cognitive
processing for valid results?

Accelerometer Sensing!

- Ubiquitous
- Automatic
- Easy
- Sustainable

TODO PERSONALIZATION



Methods

1. Test BAC level (Breathometer)
2. Collect Data using funf 2 mins
3. Administer treatment (Booze)
4. wait 25 mis
5. REPEAT until BAC of 0.08!

Analysis

Matlab+Weka

Features:

Step Time
Magnitude Mean
Magnitude Variance

76% ACCURACY

64% PRECISION

76% RECALL

Multivariate Gaussian Distribution

$$p(x; \mu, \Sigma) = \frac{1}{2\pi\sigma_1\sigma_2} \exp \left(-\frac{1}{2} \begin{bmatrix} x_1 - \mu_1 \\ x_2 - \mu_2 \end{bmatrix}^T \begin{bmatrix} \frac{1}{\sigma_1^2}(x_1 - \mu_1) \\ \frac{1}{\sigma_2^2}(x_2 - \mu_2) \end{bmatrix} \right)$$