

Repurposing Consumer Tech for Digital Biomarkers

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**7m people with Parkinson's
worldwide**

Causation?

Genotype?

Phenotype?

Behaviour?

Environment?

**Genes + phenotype +
behaviour + environment**

What is possible now ...

GSM cell phone
1990 -



Smartphone
2006 -



Smartwatch
2013 -

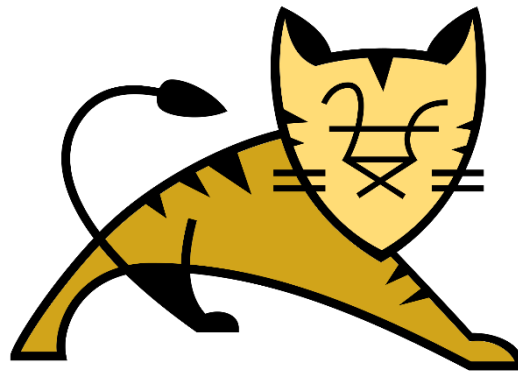


**Advanced “wearable sensor
platforms”**

Android
(mobile OS)



Apache Tomcat
(open source web
server)



Twilio
(web-programmable
IVR)



**Powerful, cheap, ubiquitous
“back-end infrastructure”**



PVI

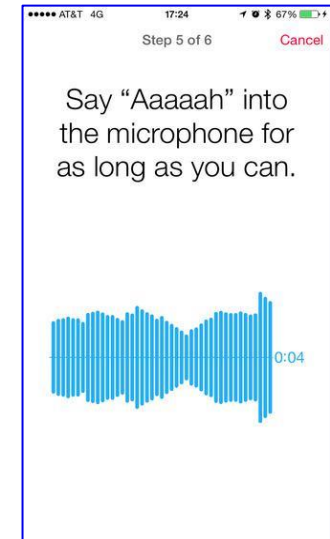
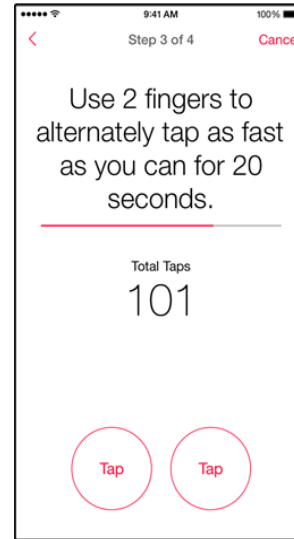
Parkinson's Voice
Initiative

Radically accessible trials

patientslikeme™



**Community-led PROs +
objective “sensor” data**



Reaching the mass market



Expanding basic science

**Consumer tech: lower costs,
easier recruitment, objective
data**