Sociometric Badges
Using Wearable Sensors to Change Management

Ben Waber
Why is organizational change hard?
Solution
A Regular Day
Generating Data
Speaking Time
Turn Taking
Interactivity

- 88%
- 38%
- 79%
- 71%
Posture

30°
Energy Level

9 AM | 10 AM | 11 AM | 12 PM | 1 PM | 2 PM
Digital Data

- Gmail
- Skype™
- Polycom™

9 AM 10 AM 11 AM 12 PM 1 PM 2 PM

30°
Tone of Voice
Individuals

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Teams
Organizations
Sensing Technology
Sociometric Badge

- Microphone
- Infra-Red (IR) Transceiver
- Accelerometer
- Bluetooth
Real Measures

Engagement

Measure
Network cohesion

Use Case Example
Major IT Firm

Leadership

Measure
Communication diversity and style

Use Case Example
European Bank
Real Measures

Space Utilization

Measure
Location + communication

Use Case Example
Bank of America Call Center

Creativity

Measure
Movement and communication

Use Case Example
R&D Laboratories
Experience

• Deployed in dozens of companies in a variety of sectors

• Numerous awards

Technology Review Top 10 Emerging Technologies

Harvard Business Review Top 10 Breakthrough Ideas
Case Studies
German Bank

Face-to-Face

E-Mail

February 1
Experts

?
Experts
All About Al

• Talk to Al
  66% Reduction in Completion Time

• Al’s Productivity
  About Average
Expert Solution
Expert Solution
Phase 1 Results

• Cohesion predicted productivity
  o The opposite of how call centers are managed
  o Engagement was unrelated to tenure and gender

• Engagement reduces stress

• Solution: change break structure
Bank Call Center

Phase 1 Break Structure

Phase 2 Break Structure

15 Minutes
Phase 2 Results

<table>
<thead>
<tr>
<th></th>
<th>Cohesion</th>
<th>Stress Decrease</th>
<th>Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Change</td>
<td>30</td>
<td>20</td>
<td>23</td>
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$15M/year
Czech Bank

Branch 1

Branch 2

Branch 3

Performance?
Czech Bank

Branch 1

Branch 2

Branch 3

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Data and Disease
If you’re sick, do you go to work?
DON'T TALK TO ANYONE.
DON'T TOUCH ANYONE.

KATE WINSLET
CONTAGION
$30B/year
Epidemic Final Size

- Graph showing the relationship between the maximum duration of contact (minutes) and epidemic final size.
- Graph showing the relationship between the minimum duration of contact (minutes) and epidemic final size.
Productivity

% Productivity Change vs. Maximum Duration of Contact (Minutes)

% Productivity Change vs. Minimum Duration of Contact (Minutes)
Corporate Epidemiology

- Implications
  - Close office doors
  - Eliminate meetings?
  - Meeting days?

- New Interventions
  - Change seating arrangements
Wrapping Up
Questions?

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