

# Media Lab Entrepreneurship Program: The Next

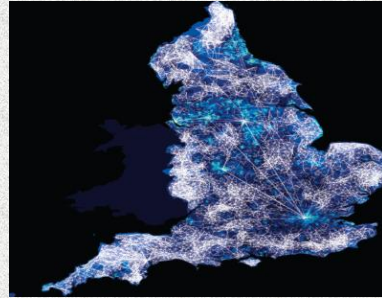


From cover BusinessWeek, 3/09

Prof. Alex 'Sandy' Pentland, Founder and Director

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# We Live In Networks



## Communication Networks

**DATASET**  
UK, August 2005  
90% mobile  
99% residential  
restricted to ≥ 1 reciprocal call  
65M numbers, 166M links  
Work: Mon.-Fri, 8am to 6 pm  
Leisure: remaining + weekend

Figure 2. The relationship between social network diversity and antisocial risk. (Source: Macy et al. 2005)

Cebrian, Pentland, Kirkpatrick

## Personal Financial Networks

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## Mobility Networks

### The Next Google - cover Newsweek

Sense Networks

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## Patterns of Buying

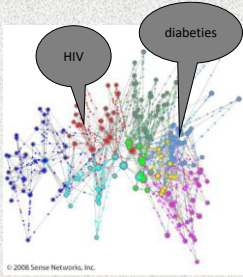
The Next Google - cover Newsweek

Sense Networks

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# Patterns of Health

The Next Google - cover Newsweek



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# Top 10 Internet of Things Product – NY Times

## CitySense

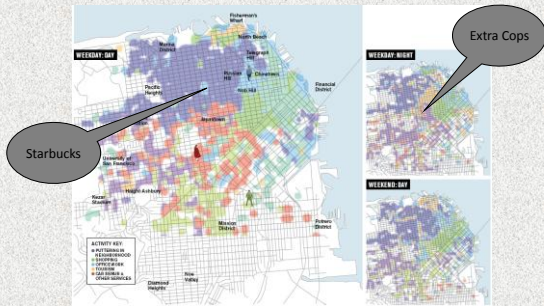


## CabSense



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# City Patterns

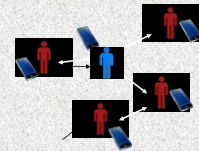


Sense Networks

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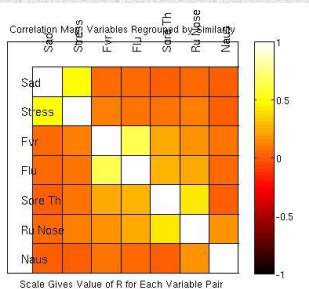
# Personal Patterns: The Quantified Self

Common Colds, Influenza and Stress

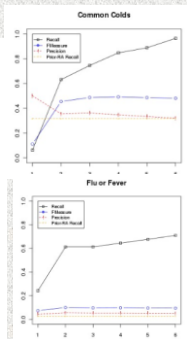


Changes in Communication Style, Location & Movement

# Automatic Health Monitoring



Scale Gives Value of R for Each Variable Pair



# When you know the patterns you can shape behavior

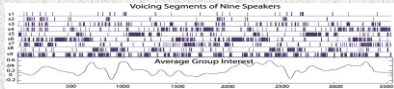


Forbes, 8/10, Mining Human Behavior

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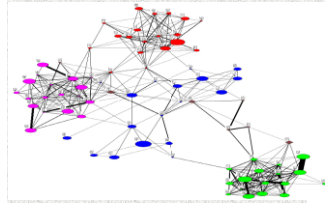
## Shaping Groups

Science 9/10 woolsey, hashmi, pentland, chabris, malone



### A Performance Meter for Groups

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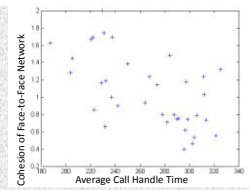


## Shaping Organizations

**\$15M/yr savings**

BAC Call Center Productivity Study

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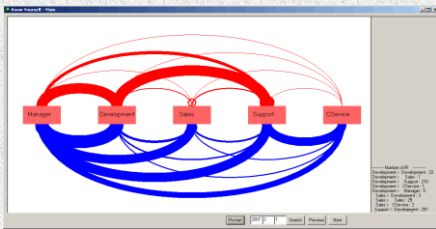


Waber, Pentland

## Shaping Companies

Organizational Patterns Account for 40% to 60% of Performance

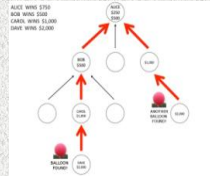
Harvard Business Review: Breakthrough Idea of the Year



Olguin, Waber, Kim, Gloor, Pentland Copyright alex pentland 2010, all rights reserved

## Shaping Markets

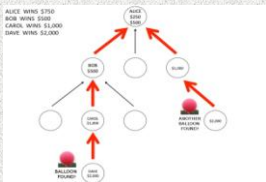
Winner, 40<sup>th</sup> Anniversary of the Internet Grand Challenge



Incentives for both:  
1. Finding balloons  
2. Telling friends

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## Shaping Politics



Santa Maria, Costa Rica

## Shaping On-Line Social Networks

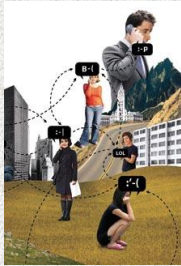
fair markets through personal information ownership

⇒ fair,  
⇒ stable dynamics,  
⇒ no collusion



Nature 1/09

## Nervous System for Humanity



Reality Mining:  
A Technology Poised to Change the World"

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## Media Lab Entrepreneurship Program

### 26 Companies and Counting

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<http://media.mit.edu/~pentland>



Forbes, 8/10,  
Mining Human Behavior

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## Fair Information Practices

The personal information industry in the US is primarily self regulated, based on the so-called Fair Information Practices.<sup>3</sup>

- There shall be no personal record systems whose existence is secret;
- Individuals have rights of access, inspection, review, and amendment to systems containing information about them;
- There must be a way for individuals to prevent the use of information about themselves gathered for one purpose for another purpose with out their consent;
- Organizations and managers of systems are responsible for the damage done by systems for their reliability and security;
- Governments have the right to intervene in the information relationships among private parties.

## The New Deal On Data: You `Own' Your Data

1. You have the right to **possess** your data.
  2. You control the **use** of your data.
  3. You have the right to **dispose** or **distribute** your data.
- ....but there are always `taxes' to support the common good

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