

Hi Data and the Dawn of AI or Itham in Everything



Dr. Morten Middelfart – Background

- 2014 – Present, CIO of Genomic Expression, Inc.
- 2014 – Present, Founder & Chairman at Social Quant, Inc.
- 1997 – 2014, CTO of TARGIT Business Intelligence, Denmark & USA
- 1996 – 1997, Founder and CEO of Morton Systems ApS, a BI company
- 1992 – 1996, BI Project Manager at Maersk, Denmark & New Jersey, USA
- 1990 – 1992, Platoon Leader, Danish Army, Motorized Combat Infantry
- 1985 – 1989, Programmer at Sandlykke & Leifsgaard, Denmark
- 1983 – 1984, Game Programmer

CALM

Computer Aided Leadership & Management

— How Computers Can Unleash the Full Potential of Individuals
and Organizations in a World of Chaos and Confusion

by Morten Middelbart

"An eloquent examination of how computer technology is altering the human potential and of the implications for management and leadership."

Dr. Middelbart challenges readers to reevaluate their preconceived notions about the synergistic relationship between the humans and computers."

John Pourdehnad, Ph.D.

[Ackoff Center for Advancement of
Systems Approaches](#) (ACASA)

University of Pennsylvania

CALM

Computer Aided Leadership & Management

— How Computers Can Unleash the Full Potential of Individuals
and Organizations in a World of Chaos and Confusion

by Morten Middelbart

Level 1

Access

Level 2

Speed

Level 3

Autonomy

Taking lead in a world of change

Explore Maersk's activities within global trade, shipping and energy



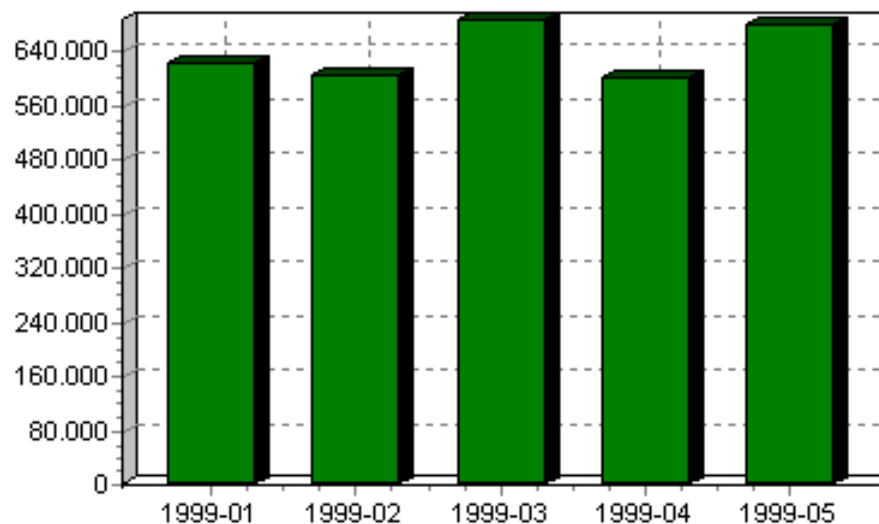
Level 1: 1995-2003

Access

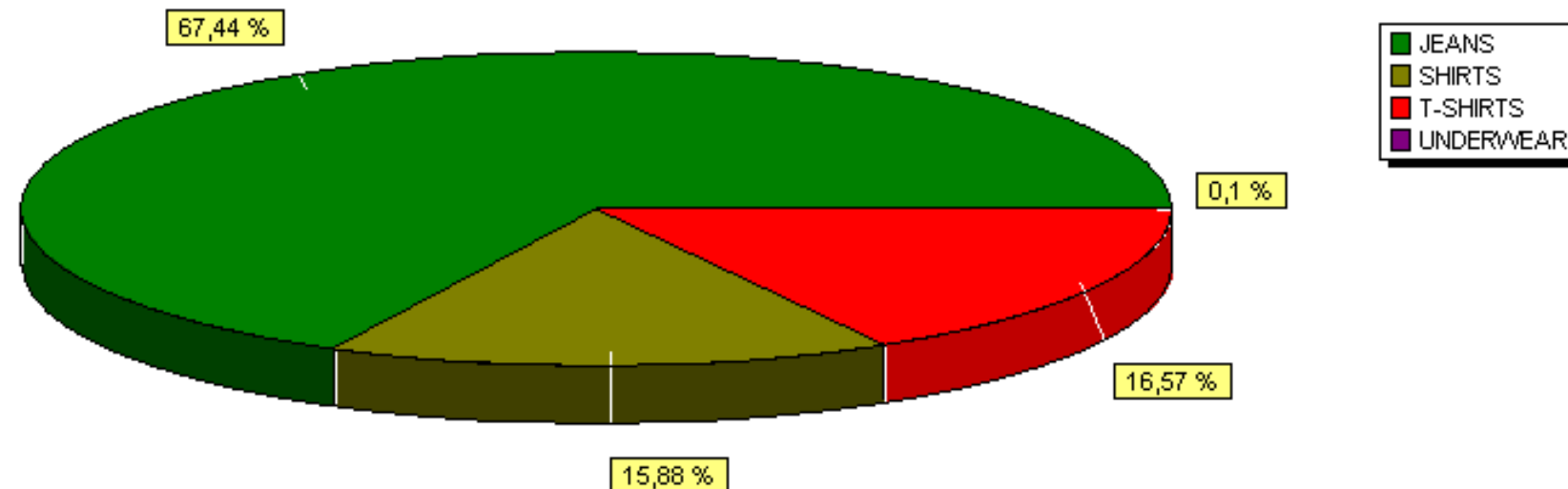
Turnover per Country



Turnover per Year and month



Turnover per Product group



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001010001001001010
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Favorites

- Global
 - Sample Contribution
 - Sample Datamining
 - Sample Turnover
- Personal
 - Sample Contribution

Select from the options to describe what you wish to do.

I would like to...

Go

Sample

Options

...see ...
...create a report
...datamine focusing on ...
...create a notification
...create a calculation

Options

Properties

$\frac{1+2}{3}$ Calculations

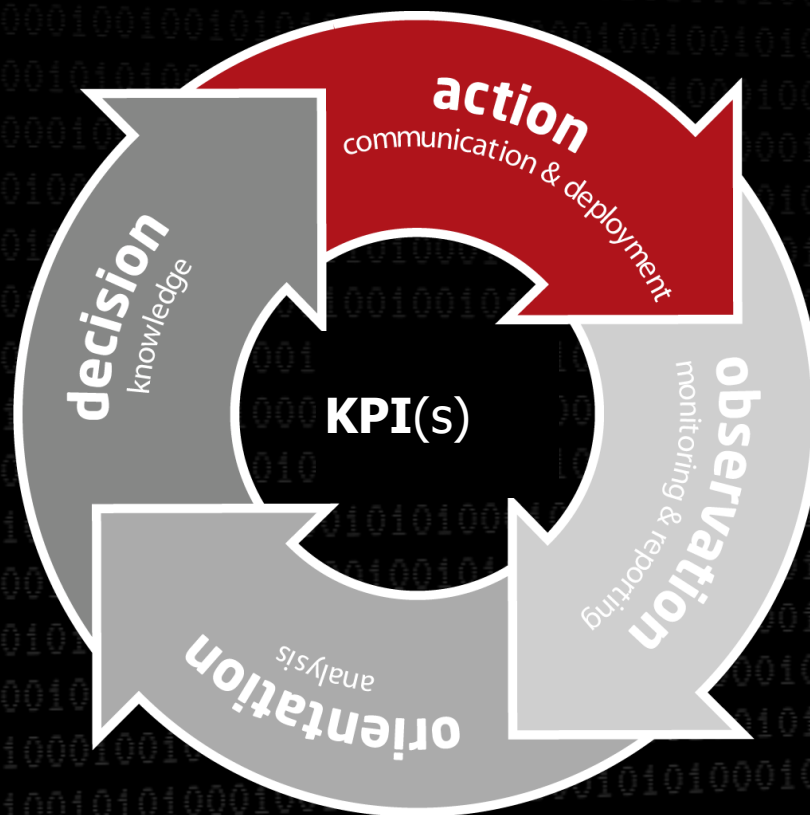
Level 2: 2004-2014

Speed





The OODA Loop



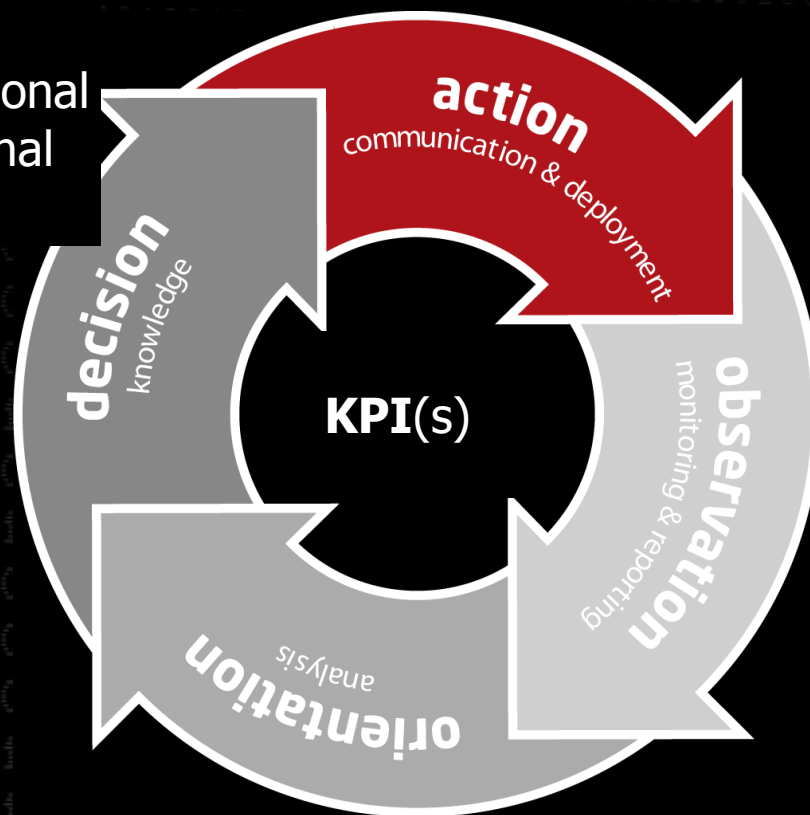
The OODA Loop

Decision

Search for additional
Internal & External
Knowledge

Orientation

Analytics
Simulation
Data Mining



Action

Storyboard Mass-Comm.
Other Communication
Workflow Initiation
Modify Cycle

Observation

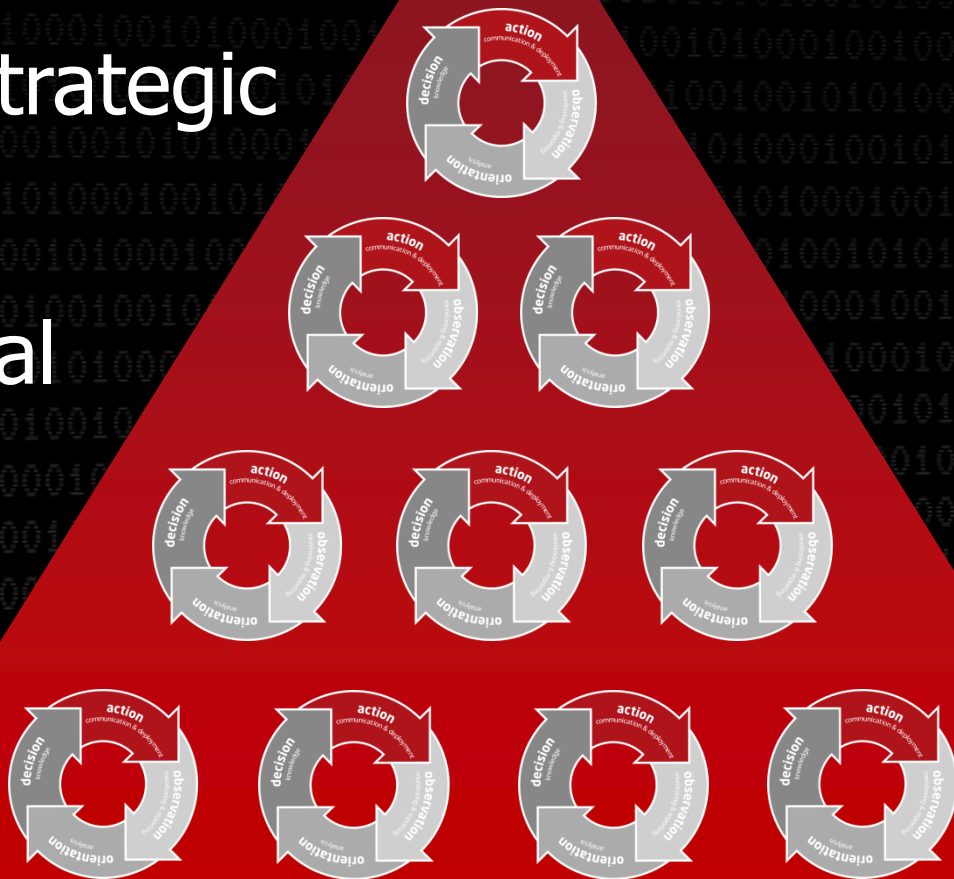
Dashboards
Reporting
Agents

The OODA Loop

Strategic

Tactical

Operational





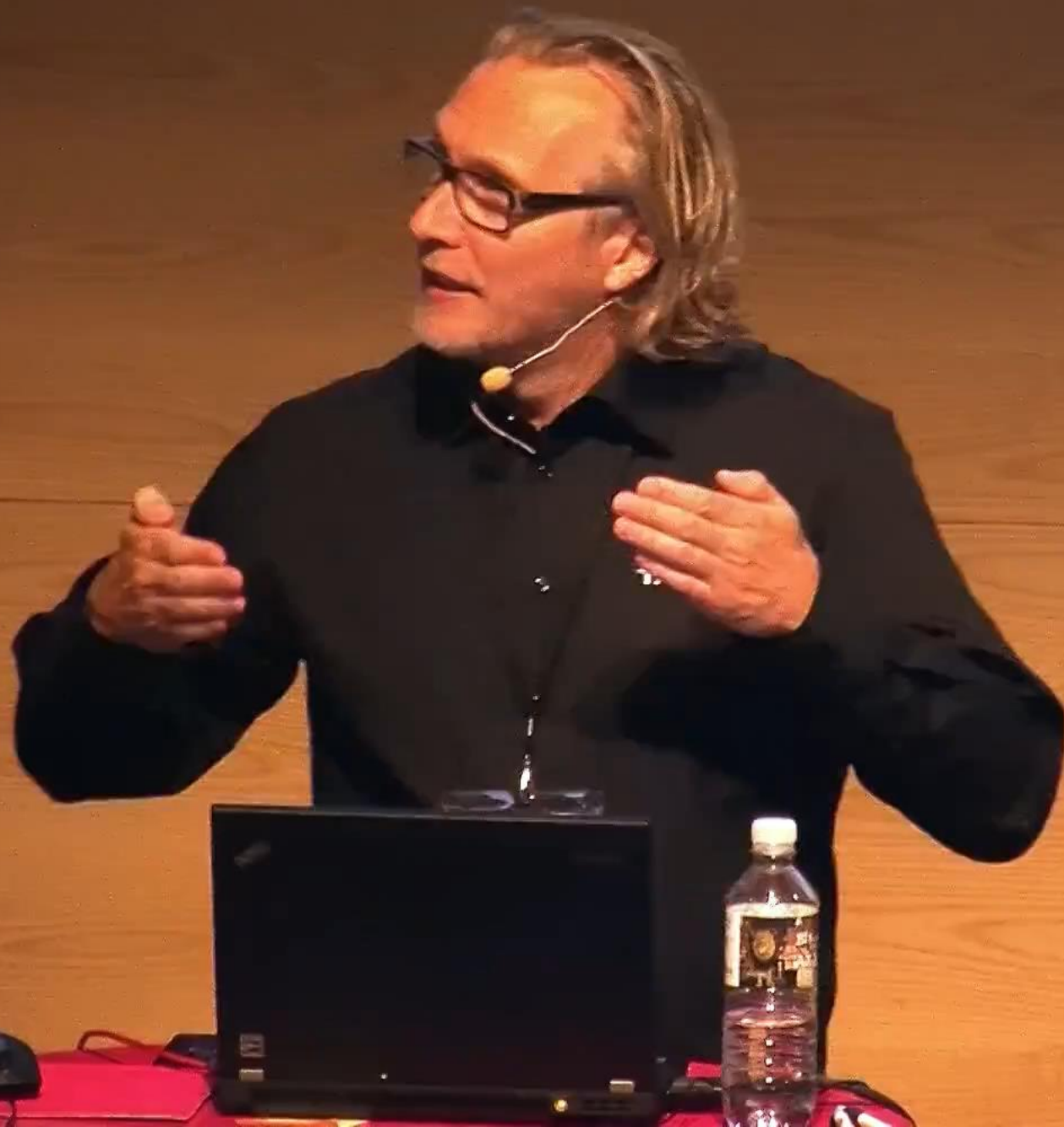
Decision Search



Speak Example: Target create a report with cost per month



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Year-Month



G_business_intelligence txt Time ! avg - + ●

G_analytics txt Time Score avg - + ●

G_big_data txt Time Score avg - + ●

No slicing available avg Use R





Autonomy



kevin slavin algorithms change



Browse

Upload



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Kevin Slavin: How algorithms shape our world

TEDtalksDirector



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Uploaded by [TEDtalksDirector](#) on Jul 21, 2011

<http://www.ted.com> Kevin Slavin argues that we're living in a world designed

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A TED speaker's worst nightmare

by TEDtalksDirector

346,083 **FEATURED VIDEO**



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by TEDtalksDirector

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by TEDtalksDirector

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by Abuzar Bests

432,647 views



Level 3: 2014+



"Real World"
Impacts

"Real World"
Impacts

KPI

"Real World"
Impacts

"Real World"
Impacts

"Real World"
Impacts

Sentinel

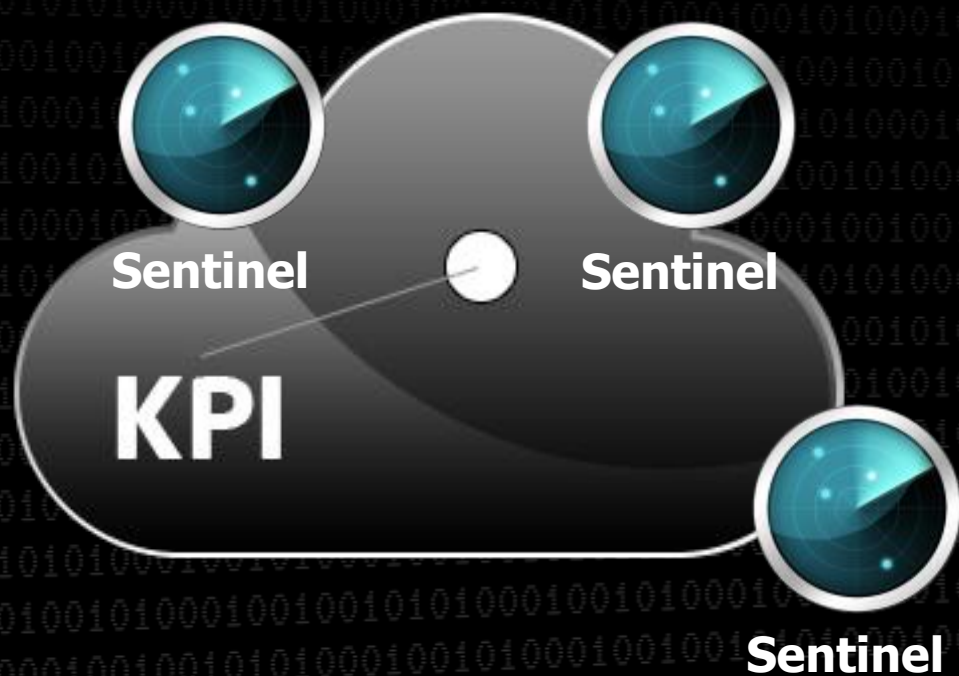
Sentinel

KPI

Sentinel

"Real World"
Impacts

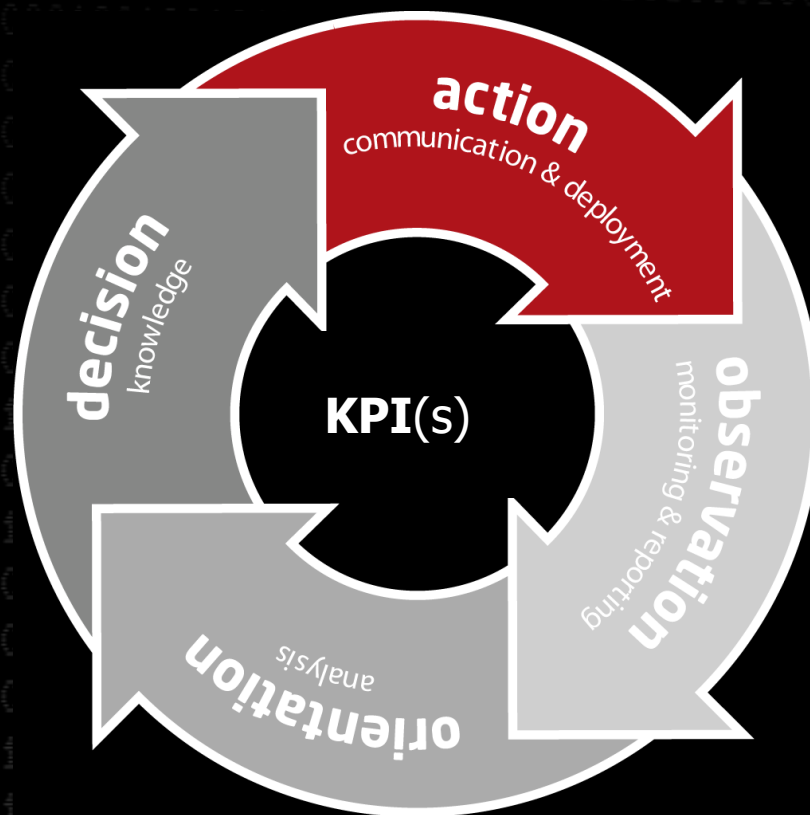
Level 3: 2014+



The OODA Loop

Decision
Collaboration

Orientation
Contextual
Analytics



Action

Storyboard Mass-Comm.
Other Communication
Workflow Initiation
Modify Cycle

Observation

Sentinels ->
Agents ->
Mobile Devices

HBR Blog Network



Using Analytics to Predict Hollywood Blockbusters

by Scott Schlesinger | 10:00 AM October 11, 2012

Human-Computer Synergy

SQ_>

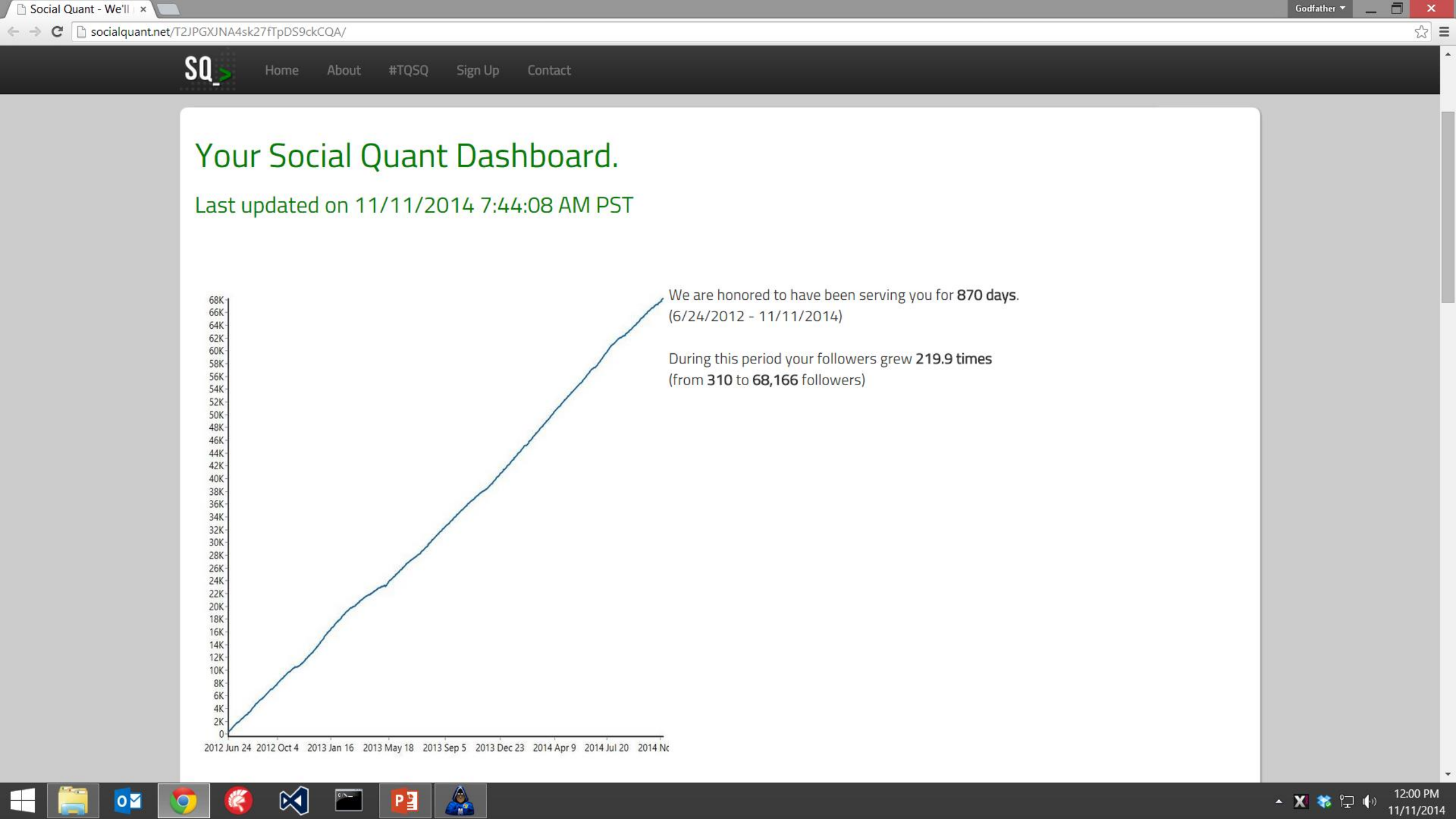
SOCIALQUANT

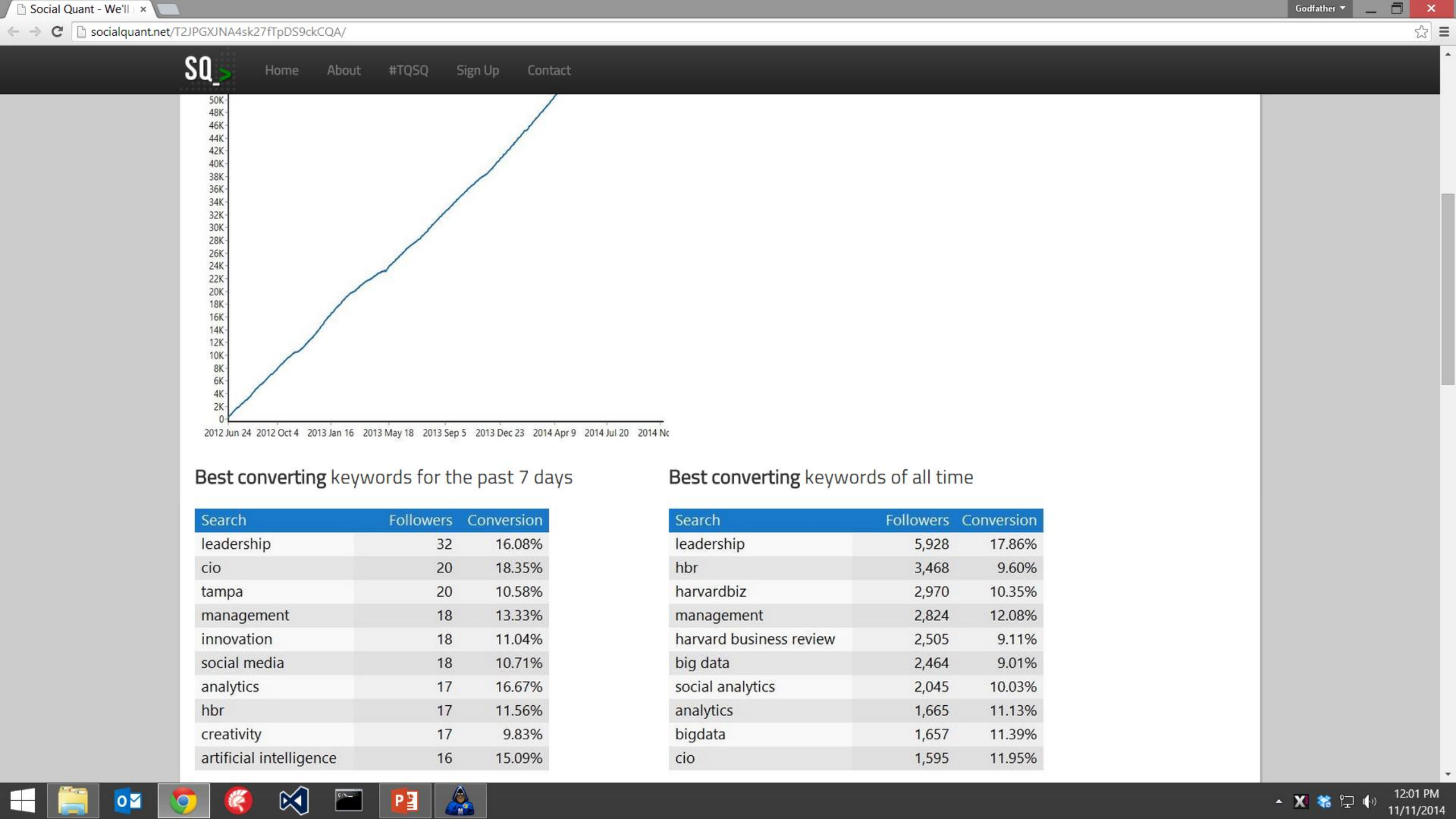
SQ_>

SOCIALQUANT

SQ_>

SOCIALQUANT





TALKS

Eli Pariser: Beware online "filter bubbles"

FILMED MAR 2011 • POSTED MAY 2011 • TED2011



1,964,648 Views ?

Like 93k

As web companies strive to tailor their services (including news and search results) to our personal tastes, there's a dangerous unintended consequence: We get trapped in a "filter bubble" and don't get exposed to information that could challenge or broaden our worldview. Eli Pariser argues powerfully that this will ultimately prove to be bad for us and bad for democracy.

Pioneering online organizer Eli Pariser is the author of "The Filter Bubble," about how personalized search might be narrowing our worldview. [Full bio »](#)

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Trust \neq Fear

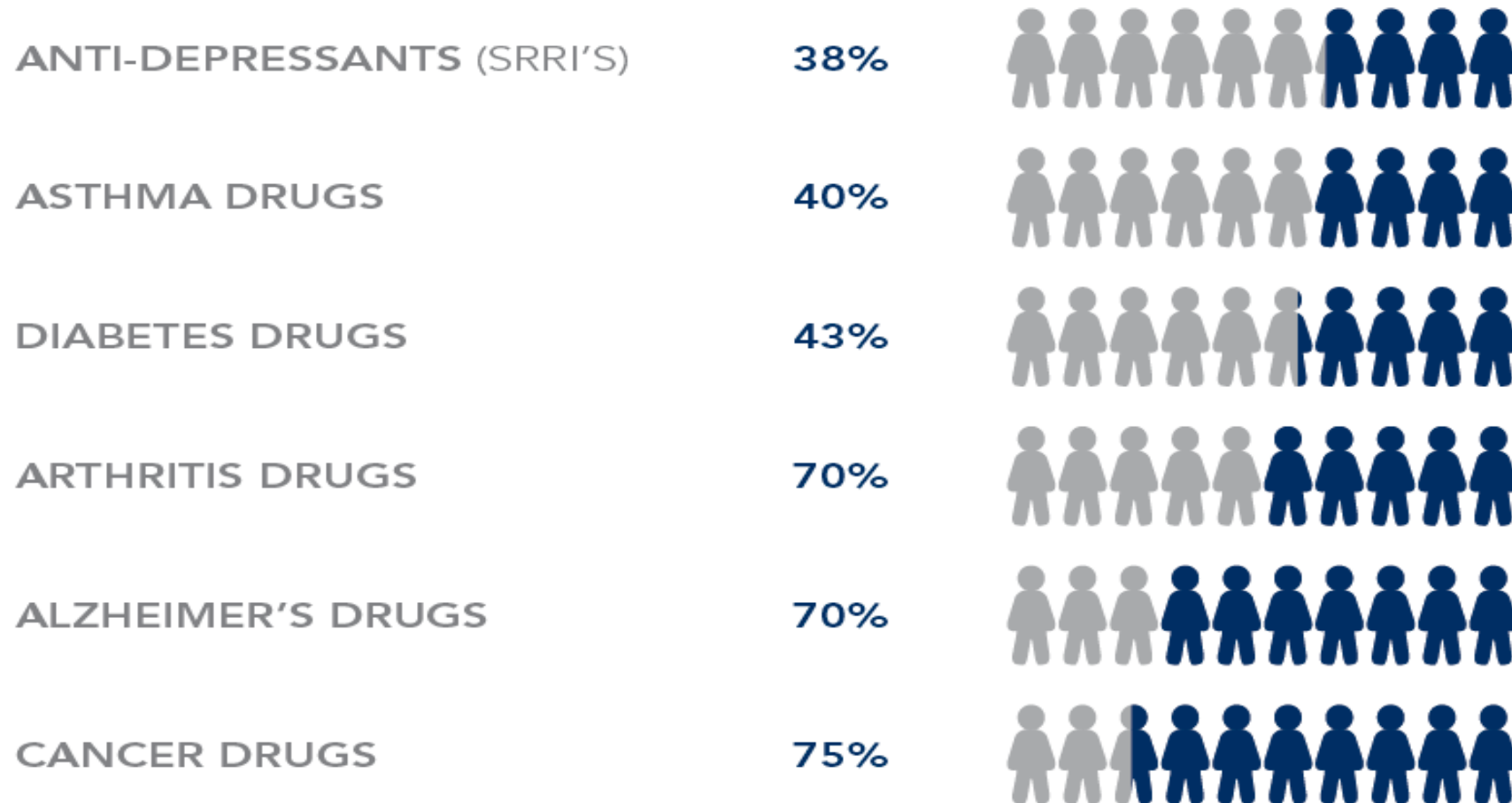
Level 3: 2014+

GOING
DOWN



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010100010010
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PATIENTS CAN RESPOND DIFFERENTLY TO THE SAME MEDICATION



percentage of the patients for which a particular drug in a class is ineffective, on average

Only **25%** Gets a
Longer Life

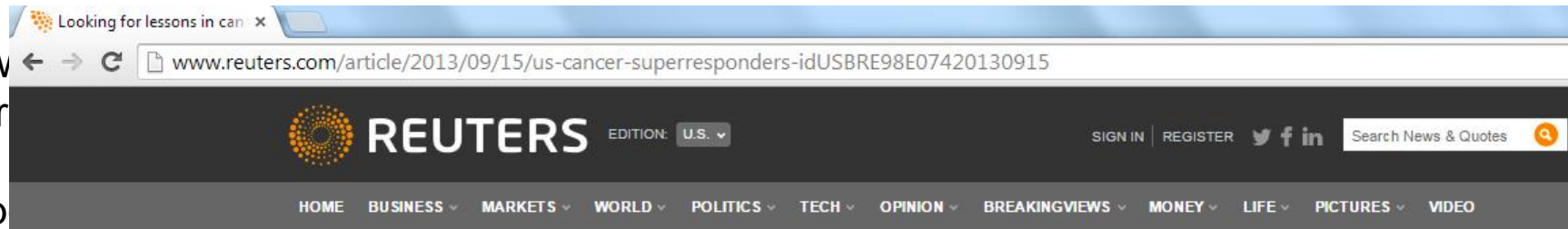
What Could **Save People**
in The **Remaining 75%** is

An Algorithm

This is where we
an “average cancer

We intend to p

outliers to fulfill



Looking for lessons in cancer's 'miracle' responders

BY RANDELL PIERSON

NEW YORK | Sun Sep 15, 2013 8:03am EDT

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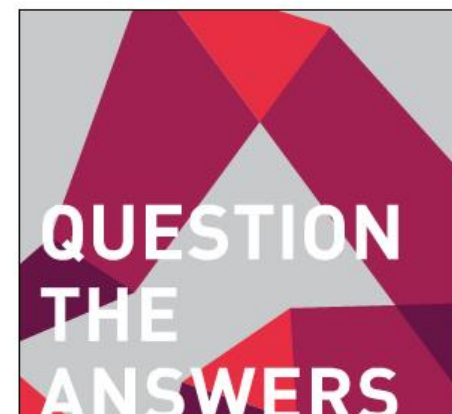


1 OF 2: Dr. David Solit is pictured at the Memorial Sloan-Kettering Cancer Center in New York in this undated handout photo.

CREDIT: REUTERS/MEMORIAL SLOAN-KETTERING CANCER CENTER/HANDOUT VIA REUTERS

TRENDING ON REUTERS

- 1 U.S., South African hostages in Yemen killed in rescue attempt [VIDEO](#)
- 2 Protests against police violence flare for third night in New York [VIDEO](#)
- 3 Typhoon Hagupit triggers massive evacuation in Philippines [VIDEO](#)
- 4 Four stabbed on Amtrak train in Michigan
- 5 U.S. to keep more troops in Afghanistan as violence spikes



Variable Tumor Response to an Anti-PDL1 Checkpoint Inhibitor

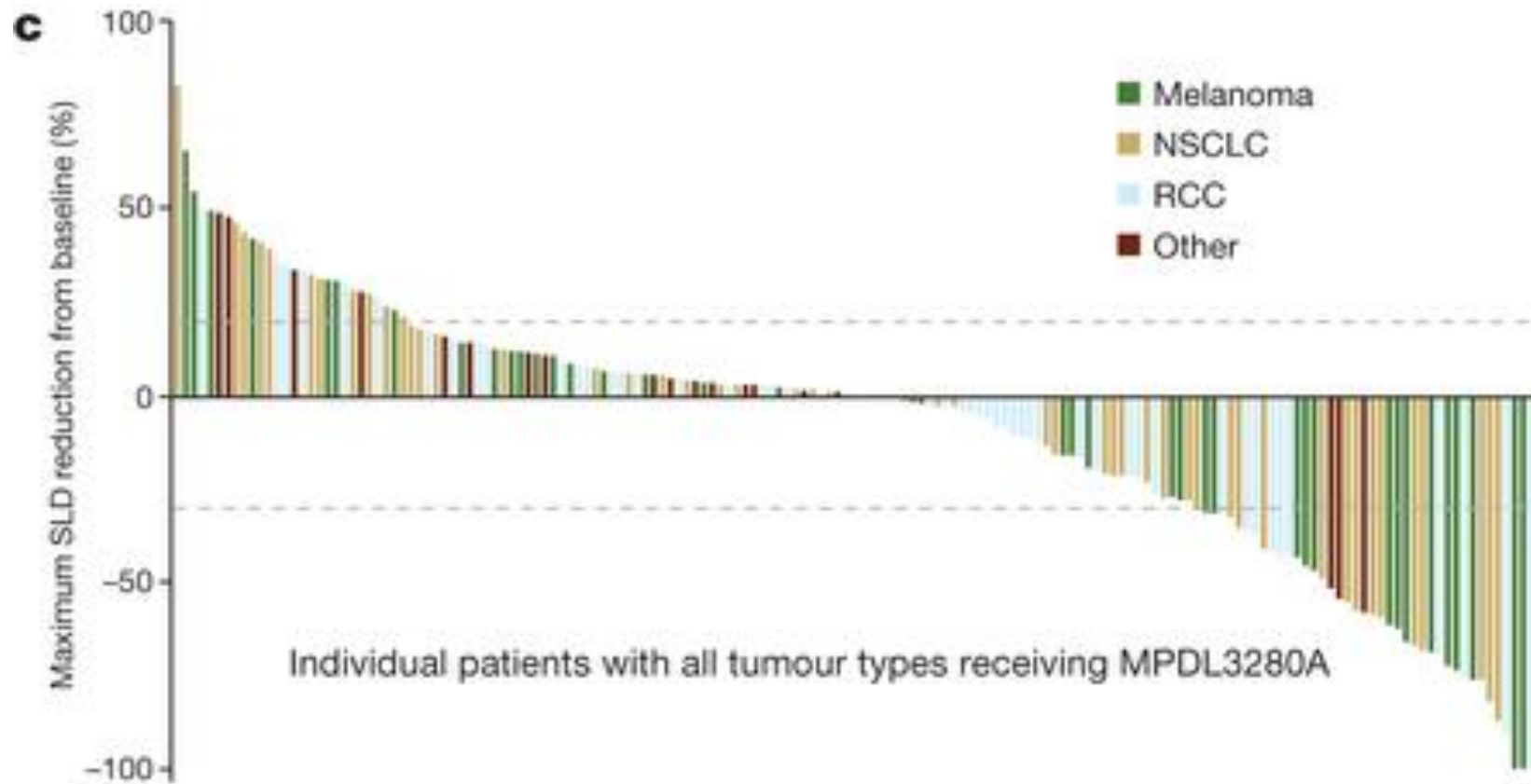


Chart part of Figure from Predictive correlates of response to the anti-PD-L1 antibody MPDL3280A in cancer patients, Roy Herbst *et al.*, Nature 515, 563–567 (27 November 2014) doi:10.1038/nature14011

This is when
an “average

We intend to

Precision Medicine In the News

Dr. Wartman's colleagues sequenced his cancer's RNA and discovered the gene that was driving his leukemia. He took a new approved kidney cancer drug targeting the gene and is alive today and cancer free.

The New York Times

outliers to fulfill



Recent landmark
studies uncover
common genetic
changes in different
types of cancers

The Cancer Genome Atlas
Research Network,
Nature **497**, 67–73 (02 May
2013)

The Cancer Genome Atlas
Research Network,
NEJM **368**, 2059-2074 (02 May
2013)

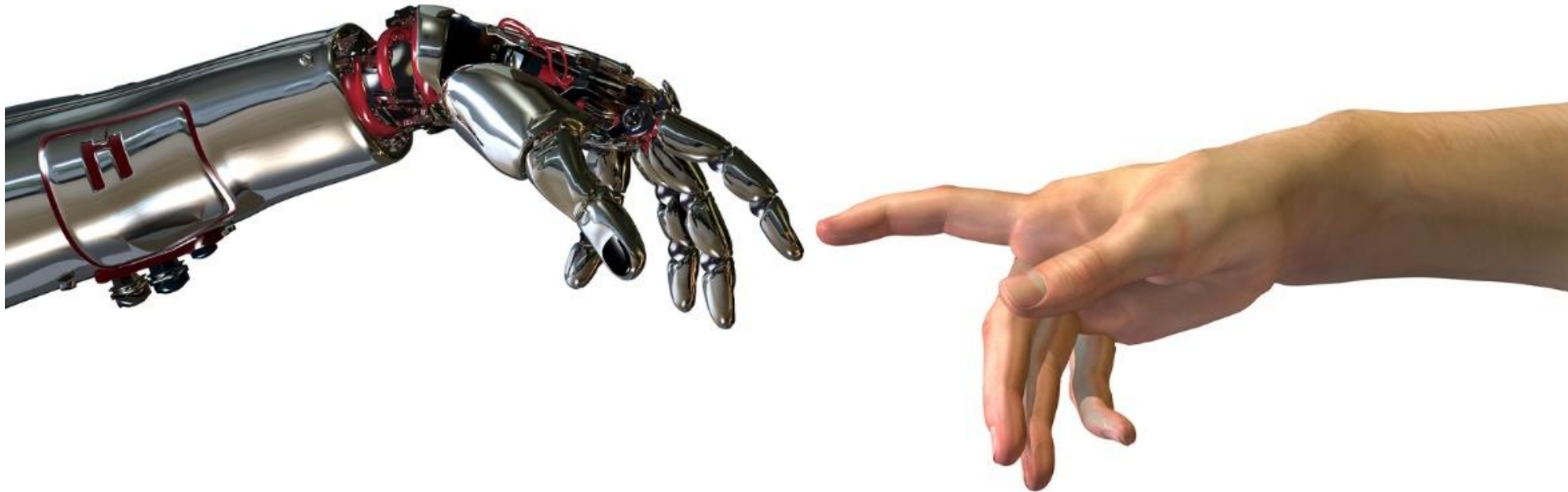
Featured in the New York Times, July 7th, 2012

Speed of Big Data

- › Using RNA we reduce Input Sequence to 1-2% compared to DNA
- › Using our patented approach in sample prep we reduce data 10x while we improve quality!

≈ 1000x Reduction

An Algorithm connects the dots





FILE

HOME

TOOLS

VIEW



Analysis

Report

Fetch data



Criteria bar

Undo

Grab Snapshot

Redo

Clear Clipboard

Edit

Storyboard Clipboard



Source data

Xbone • freefall.xlsx

Dimensions and measures

- cnt
- Country
- Dream Changed
- Had Dream
- Jumps

Search

Documents

Source data

Properties

Calculations

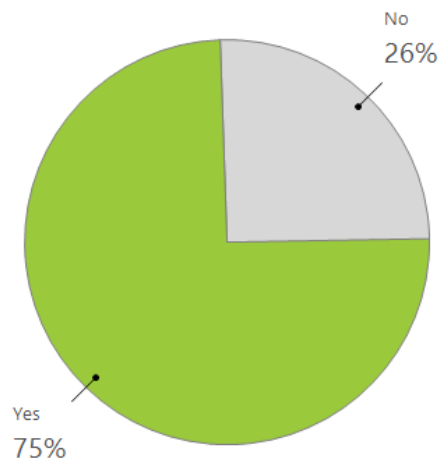
Criteria

Drillpad

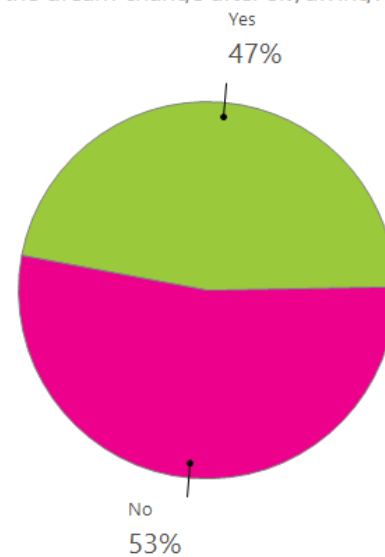
Scheduled Jobs

Ready

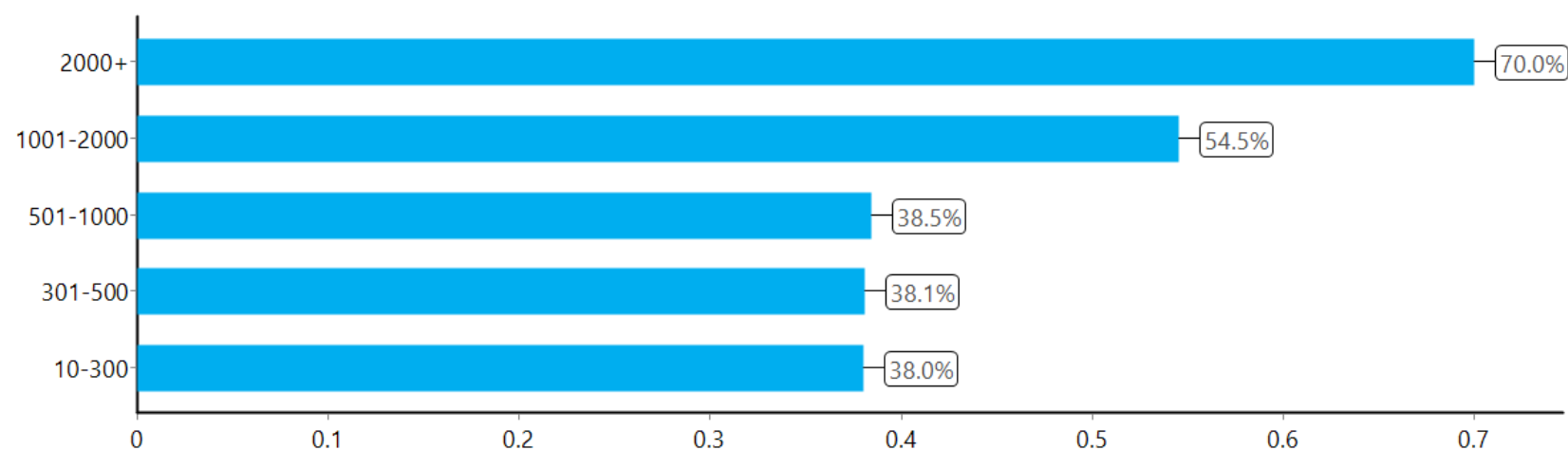
① Did you have the falling dream prior to skydiving?



① Did the dream change after skydiving?



① Ratio for Dream Changed



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SHALL WE PLAY A GAME?

@dr_morton
morton@SocialQuant.net