

Microsoft® Research

# Faculty Summit 2010

Guarujá, Brasil | May 12 – 14 | In collaboration with FAPESP

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## Social Media in Enterprises

Jonathan Grudin  
Principal Researcher  
Microsoft Corporation

# Social Media Research – Consumers

- New technologies
  - IM, text messaging, IRC
  - Wikis, weblogs, tagging
  - Real-time visualization, GPS, map mash-ups
  - Digital photos, music, video
  - Social networking & media
- New skills and behavior
  - Multimedia authoring
  - Multi-tasking
  - Emotion & engagement
  - Search, browse, assess, synthesize



Photo by [moriza](#). Some rights reserved.

# Social Media Research – Enterprises

Social networking and wiki opportunities

- Promote research into their design and use
- Identify best practices
- For internal communication (e.g., Intellipedia, team wikis)
- For external communication



enterprise adoption of communication technologies

example: instant messaging and email in the U.S.

# IM: Major Consulting Company Reports

August 2001

Enterprises that fail to (develop and instill best practices) will quickly find IM to be a **productivity drain** and a **communication quagmire**.

November 2002

Prediction: IM **misuse will threaten user productivity**.

Impact in 2003: IM **misuse and overload** has the potential to be **worse than e-mail overload**... Without due diligence, enterprises run the risk of **turning unmanaged, unsanctioned consumer IM into unmanaged, sanctioned EIM**.

February 2003

There is **no data security** and **no enterprise management**.

October 2003

Vendor marketing of IM will be at the **Peak of Inflated Expectations on the Hype Cycle** from the end of 1Q04 to at least 3Q04.

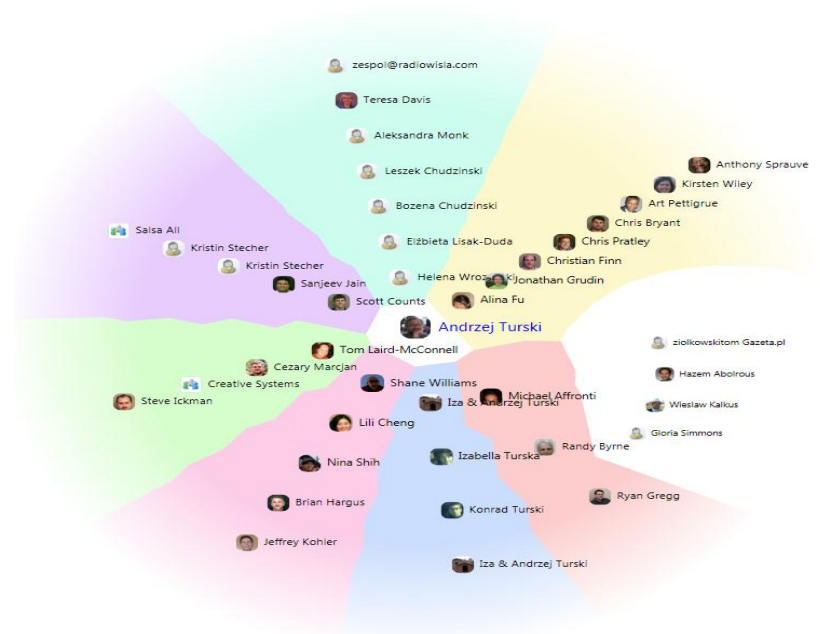
# Starting with Students

## Email in 1985 **and today**

- Used mostly by students
  - **Used by everyone**
- Access limited to friends
  - **Accessible to everyone**
- Clients not interoperable
  - **Complete interoperability**
- Conversations ephemeral
  - **Conversations saved**
- Chosen for informality
  - **Became the formal option**
- Organizational distrust:  
Chit-chat? ROI?
  - **Mission-critical technology**

## IM in 2005 **was evolving**

- Used mostly by students
  - **Use spreading rapidly**
- Access limited to friends
  - **Pressure to remove limits**
- Clients not interoperable
  - **Pressure for interoperability**
- Conversations ephemeral
  - **Recording is more common**
- Chosen for informality
  - **Becoming more formal**
- Organizational distrust:  
Chit-chat? ROI?
  - **Will be mission-critical!**





# Inauguration Day, 2009



# Wiki Use: Research Findings

# Wikis

- Quantitative & qualitative
- Surveyed thousands of wiki creators
- 30+ interviews at large & small software, engineering, pharma

Immense appeal, some successes, mostly dead wikis

Once platform established, 3 challenges

- **Content organization and flexibility**
  - Initial use easy for many, significant growing pains
- **Positioning in existing information ecology and culture**
  - Can disrupt use of DLs, IM, authority/accountability structure
- **Aligning manager and individual contributor expectations**
  - Priorities differ: Mintzberg analysis illuminates how, why

# Managers & Individual Contributors

## Why managers like the wiki concept

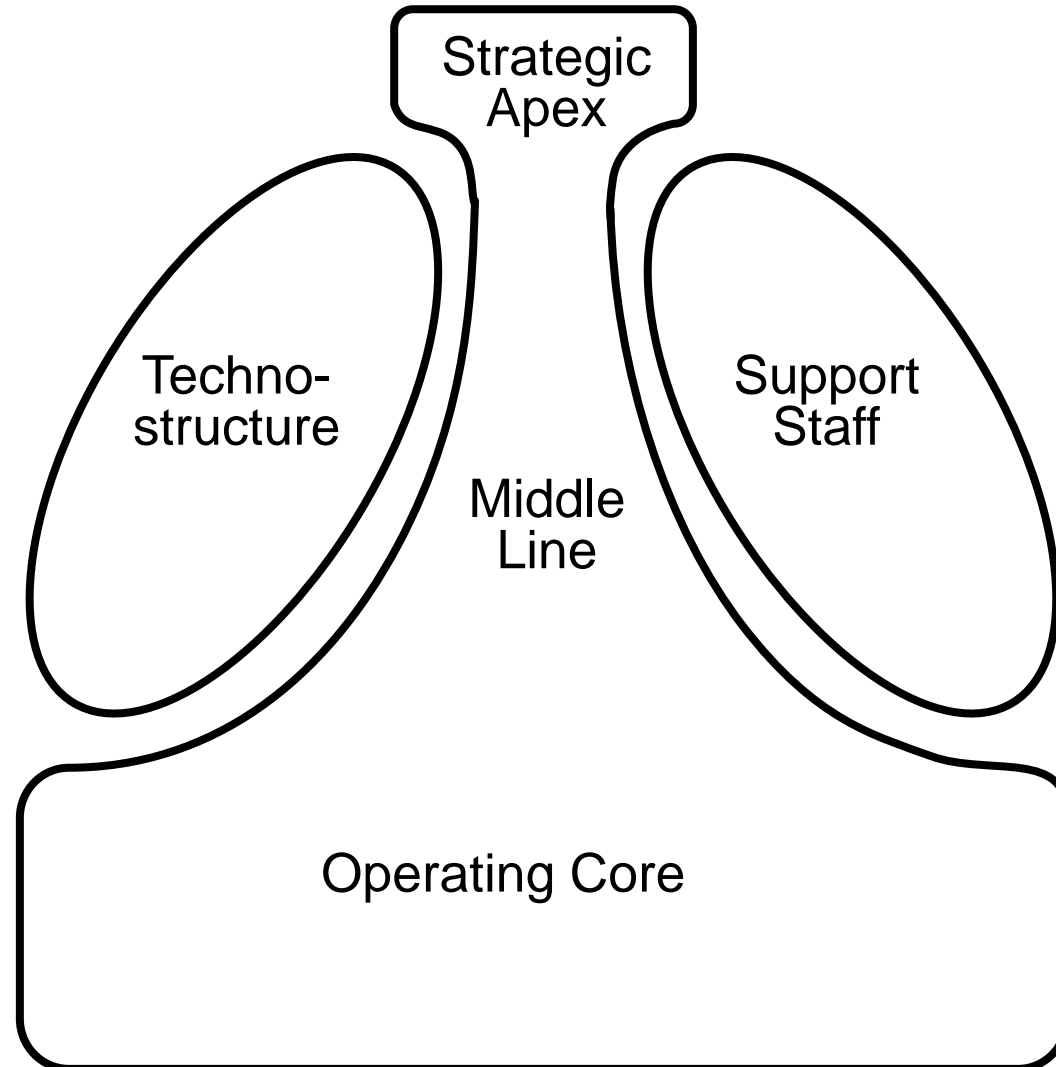
- Flexibly structured information
- Potential for project management
- Potential for knowledge management
- Disappearing boomers
- Attracting prospective hires

## Why individual contributors like wikis

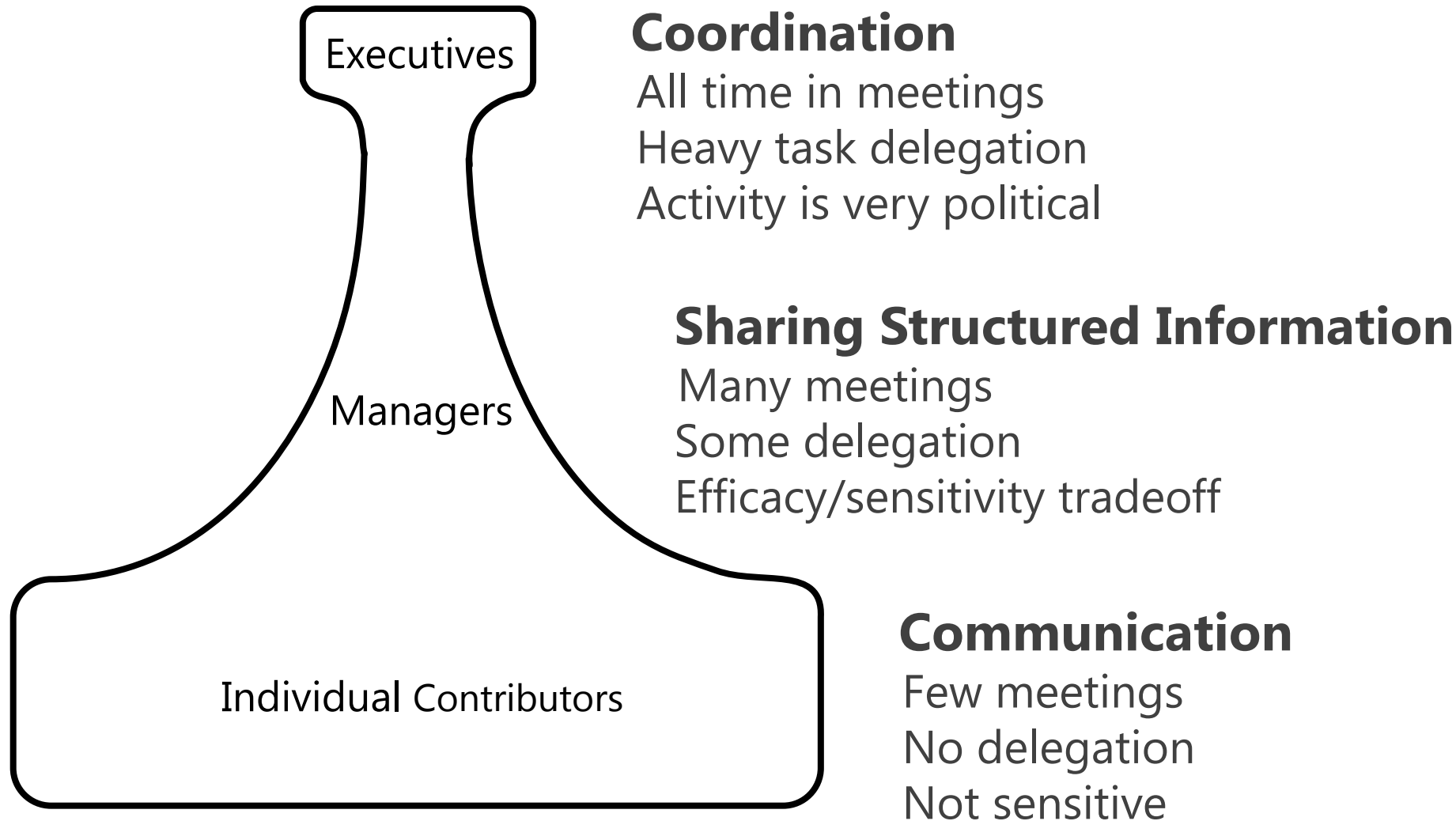
- Ad hoc, opportunistic communication

insights from organizational behavior

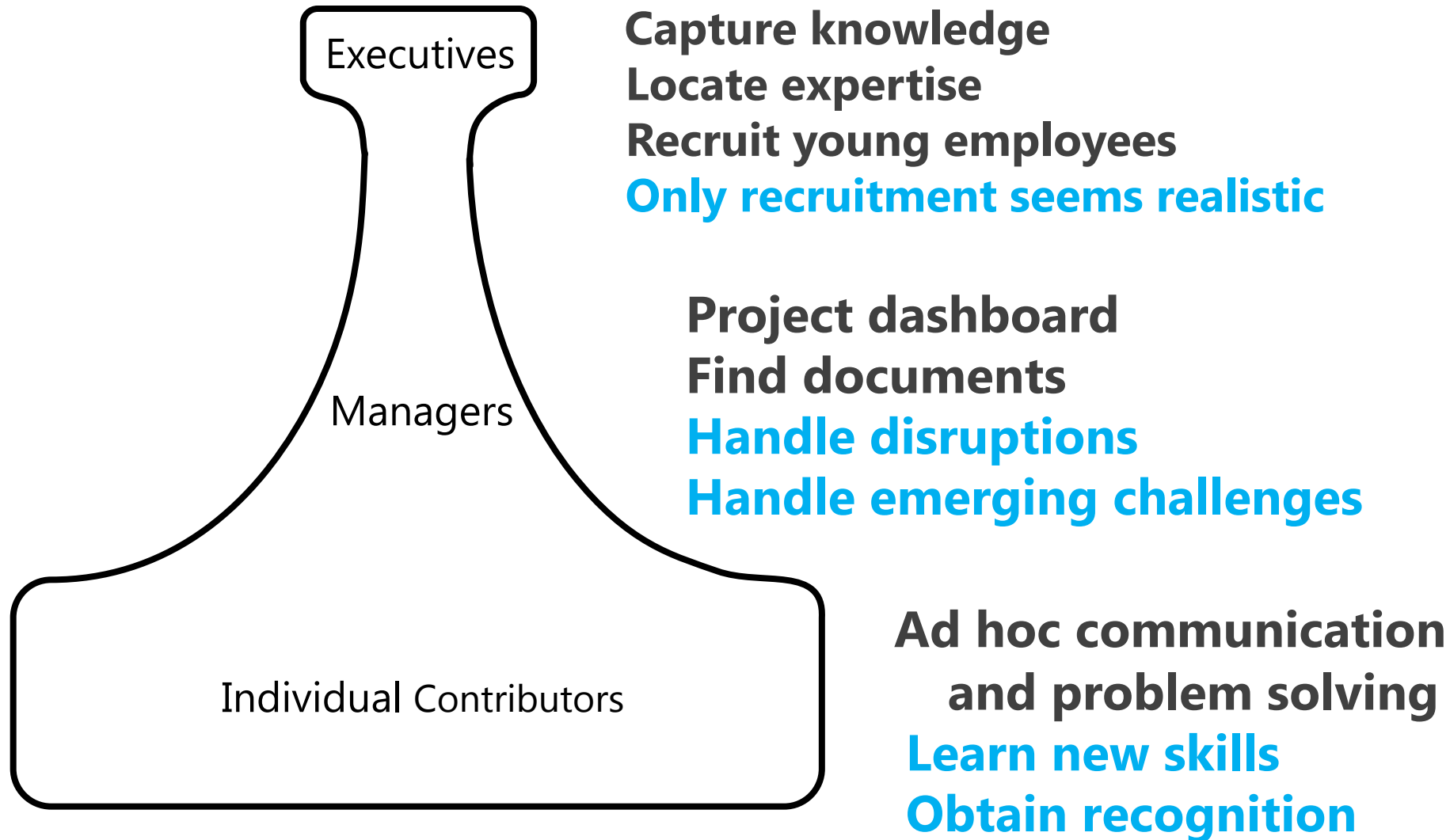
# Mintzberg: Organizational Typology



# Technology Use In Organizations



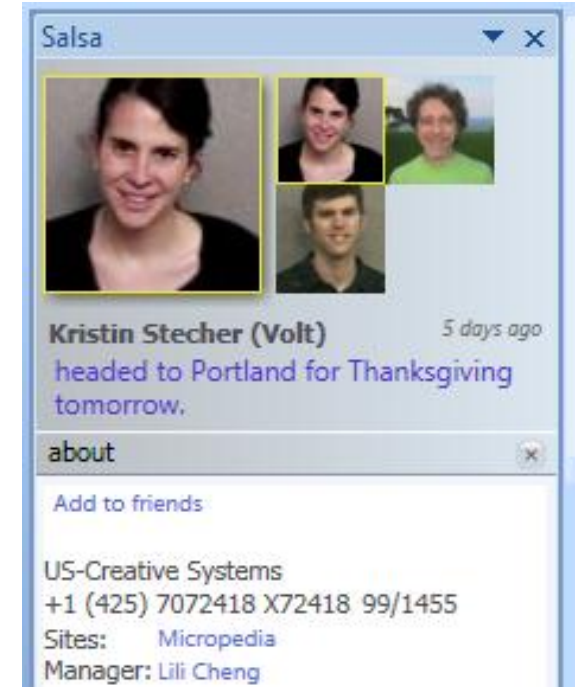
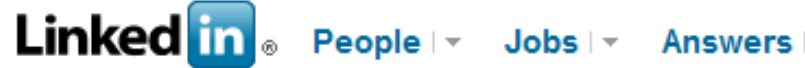
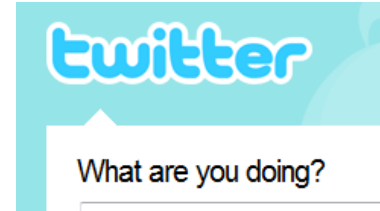
# Wiki Use In Organizations





# Social Networking Sites: Research Findings

# Social Network Software in Microsoft



Half of MS employees had Facebook accounts.

Half had LinkedIn accounts.

How do they use them?

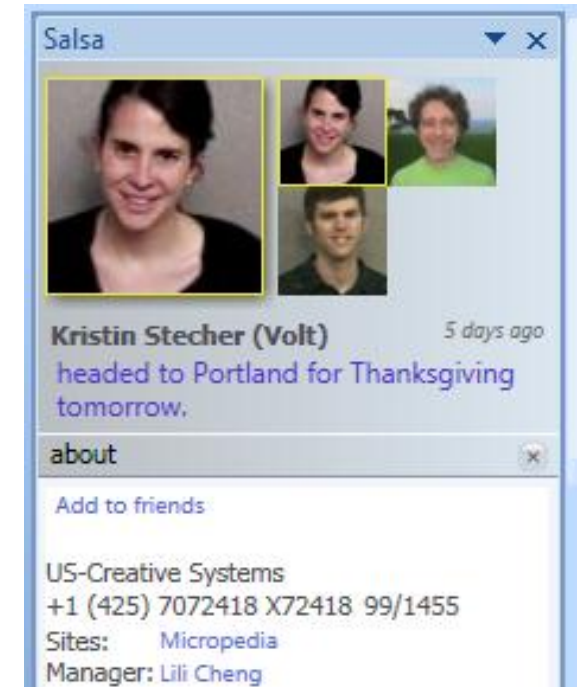
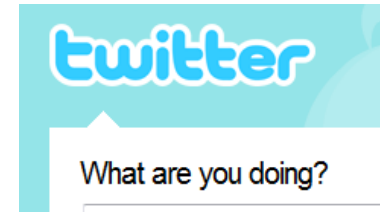
Survey sent to 1000

- 431 responded in 2008, 439 in 2009, underway in 2010

Interviewed over 60 so far

- Vary in age, role, level, geography, attitude, team collocation, other factors

# Social Network Software in Microsoft



## Overall Results

- Used (some) for work
  - Facebook & LinkedIn, then Live Spaces
  - MySpace declining, Twitter rising
  - Different patters in Asia, Europe, elsewhere
- Strongly age-correlated
  - Linked In surprise
- Facebook tensions from transcending firewalls, relationship/status
- **Costs & benefits may be impossible to measure**

# The Change in a Year

- Significant increase in use
- Greater awareness of work uses though many remain unconvinced
- People jumping in to use Facebook, LinkedIn
- All categories of use went up
- Minor concerns about SNS use unchanged

# Social Networking Sites – Useful?

	Disagree	Neutral	Agree
Fun	5% (-2)	18% (-3)	77% (+5)
Personal socializing	4% (-1)	8% (-4)	88% (+5)
Internal networking	22% (-2)	32% (-6)	46% (+8)
External professional	11% (-3)	22% (-3)	66% (+5)

(+ or – is change in 2009 from 2008)

# Social Networking Site Use

	Facebook	LinkedIn	Live Spaces	MySpace	Twitter
Have Profile	70% (+21)	63% (+11)	43% (+4)	25% (-6)	21% (+15)
Only Read	7% (-9)	5% (-2)	7% (-1)	14% (-7)	11% (+5)

	Facebook	LinkedIn	Live Spaces	MySpace	Twitter
Use Daily	21% (+9)	5% (+2)	4% (+1)	1% (-3)	3% (+2)
Several/Day	8% (+3)	1% (---)	1% (---)	0% (-1)	3% (+2)

(+ or - is change from 2008)

# Connections Viewed in a Typical Week

	<b>2008</b>	<b>2009</b>
Number of connections	115	267
	(60)	(100)
Family checked on / week	3	5
	(1)	(2)
Non-MS friends / week	13	18
	(5)	(10)
External professional / week	5	12
	(1)	(2)
MS people / week	5	8
	(0)	(2)

means and (medians) from 2008 and 2009

# Feature Use

	Daily	Weekly...	...Never
keep in touch with (non-MS) friends	24% (+9)	31% (+8)	6% (-13)
keep in touch with external professional contacts	8% (+4)	15% (+4)	21% (-11)
re-connect with external professional contacts	6% (+3)	14% (+4)	21% (-15)
establish new external professional contacts	4% (+1)	11% (+3)	35% (-10)
stay aware of (non-MS) friends' activities	19% (+8)	30% (+7)	12% (-14)
find new (non-MS) friends	7% (+1)	19% (+7)	36% (-11)
keep in touch with internal (Microsoft) people	8% (+3)	15% (+6)	35% (-19)
establish new internal (MS) contacts	2% (+1)	7% (---)	52% (-13)
re-connect with (non-MS) friends	9% (+2)	30% (+12)	10% (-13)
re-connect with internal (MS) people	4% (+2)	10% (+4)	39% (-19)
share photos or other objects with (non-MS) friends	10% (+1)	27% (+7)	20% (-12)
share photos, objects w. external professional contacts	3% (-1)	8% (+4)	47% (-12)
share photos or other objects with internal (MS) people	2% (---)	8% (+2)	49% (-11)
stay aware of external professional contacts' activities	5% (---)	14% (+6)	26% (-16)
stay aware of internal (MS) people's activities	6% (+2)	13% (+5)	41% (-17)
keep in touch with family	18% (+11)	22% (+4)	27% (-17)
find new family	6% (+3)	9% (+4)	55% (-15)
re-connect with family	7% (+3)	15% (+7)	44% (-13)
share photos or other objects with family	10% (+4)	22% (+6)	31% (-12)
stay aware of family activities	14% (+9)	20% (+5)	36% (-14)



# Use of Access Control, Concerns

<b>Setting Access Controls</b>	<b>2008</b>	<b>2009</b>
None	34%	25%
A few	56%	60%
Many	10%	15%

<b>Concerns about SNS Use</b>	<b>2008</b>	<b>2009</b>
None	31%	25%
Minor	56%	60%
Major	13%	15%

More use of access controls,  
Concern level still low

insights from social psychology of teams

# McGrath's Typology of Group Behaviors

	<b>Production</b>	<b>Group well-being</b>	<b>Member support</b>
Inception	Production demand and opportunity	Interaction demand and opportunity	Inclusion demand and opportunity
Problem-solving	Technical problem-solving	Role network definition	Position and status attainments
Conflict resolution	Policy resolution	Power and payoff distribution	Contribution and payoff distribution
Execution	Performance	Interaction	Participation

# Sources of Success and Failure

	<b>Production</b>	<b>Group well-being</b>	<b>Member support</b>
Inception	Production demand and opportunity	Interaction demand and opportunity	Inclusion demand and opportunity
Problem-solving	<b>Technical problem-solving</b>	Role network definition	<b>Position and status attainments</b>
Conflict resolution	<b>Policy resolution</b>	Power and payoff distribution	Contribution and payoff distribution
Execution	<b>Performance?</b>	Interaction	<b>Participation</b>

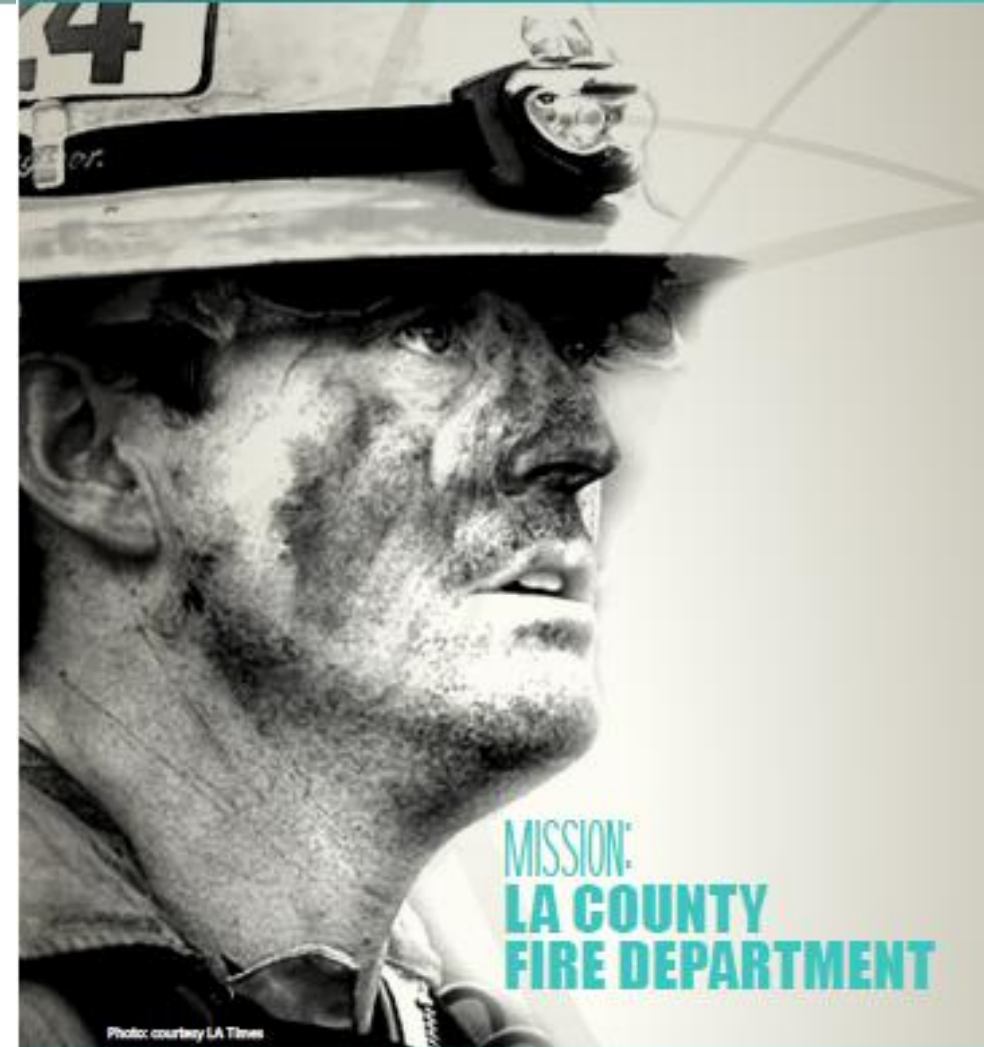
Disparities between experiments and experience trace to effects in other cells.

# Adoption Meeting Less Resistance



# Serious/Productivity Games: Experiment in Understanding Customers

**MAUNA KEA**  
ADVISORY SERVICES NETWORK



MISSION:  
**LA COUNTY  
FIRE DEPARTMENT**

Photo: courtesy LA Times



Your Decision History:

Introduction

THE STORY

## Introduction

[+ Add to Dossier](#)

Others who recently

viewed this scene:



Now that you have registered you are poised to learn about the world of the LA County Fire Department as you explore a major fire. The goal of the game is to provide practical, cost effective solutions to the challenge of capturing and transmitting rich data about a large wildfire in real time.

As you play, you will be able to access videos and other background documents in which real firefighters discuss the challenges they face (using the Related Evidence tab below). Then you will be presented with two key problems and can propose solutions to them. You can submit as many ideas as you wish. Experts will rate each submission and give you feedback as quickly as possible. Your submissions should be as detailed as possible; give examples, URLs, references, or prices if you can.

Each idea you submit will earn you points. The more highly your ideas are rated by experts and by other players, the more points you will earn. Adding on to other player's ideas will get you bonus points. The three highest scores will be announced after the game and will win prizes.

Please use the help and feedback buttons located in the upper right corner of the browser.

When giving feedback: Click on the feedback button and an email will launch. If possible, include a screen shot of the scene you're working on along with your message.

To get help: Consult the representative next to the Kiosk with questions. If the representative is not available, click on the Help button to email the Mauna Kea team.

This is only a prototype of the platform we plan to develop. We have tried to complete some scenarios but many features are not functional. Here is a partial list of features that you are not able to use now, but they will be in the next version: Tagging, Leaderboard, User Profiles, Chat with other users, Add Images and Hyperlinks to Discussions, Dossier/Related Evidence folders enhanced, PDFs with more content, etc.

Thanks for undertaking the mission and helping the LA County Fire Department!

Related Evidence (0)

Dossier

[Start this game](#)[Go directly to solve the problems](#)**Next,**  
You Decide to...



Your Decision History:

[Introduction](#) > General Public

Others who recently

viewed this scene:



THE STORY

## General Public

[+ Add to Dossier](#)

It is 7.55am and you are in the hills near Del Boca Vista and you are lost.

You have to meet this guy Chief Deputy Mitchell at 8.00 a.m. sharp and you're not going to make it. You've been weaving around these canyons for 30 minutes looking for a group of fire trucks on a training exercise.

You notice a woman and a young girl standing on the hood of a car and slow down, wondering what they are doing. As they see you they wave for you to stop. The girl leaps down and runs over. As she gets to the window, she says "Excuse me, do you know where the fire is headed?"

She reads your startled expression and she points. Following her finger you see an unmistakable column of gray smoke rising from the next canyon.

There's nothing on TV, there's nothing on the radio. They have helicopters showing smoke but we don't know if we should evacuate or stay. There's a Google Map on the Fire Department website but it's not been updated for hours. My Mom's starting to freak out.

You explain that this is the first you knew about it and make your apologies. You feel the fear rising in your stomach: talking to an Incident Commander about fire is one thing, driving around these canyons when they're burning is something else.

Two minutes later you find fire trucks and you find firefighters and you find fire: flames are already visible from the road. And the first person you meet as you get out of the car is Dave Mitchell himself. "Hey, didn't you get my message? We have to cancel our session today. We have a fire here. Maybe another time."

Without another word he strides past with a radio in his hand.

(Take a moment to explore the Related Evidence in this area and discover more information by clicking on the tab below.)

[Related Evidence \(11\)](#)[Dossier](#)

**Next,**  
You Decide to...

Try to persuade Chief Mitchell  
to let you stay around

Go directly to solve the  
problems





Related Evidence (11)

- Information from the public
- The potential of online tools
- LACOFD Interview Clip 3
- Evacuation is the priority
- 'They're busy fighting the fire'
- PIO's web wishlist
- The role of trust
- Meet Now Pallaw Sharma 1
- Meet Now Pallaw Sharma 2
- Meet Now Pallaw Sharma 3
- Trading speed versus accuracy

**Next,**  
You Decide to...

Try to persuade Chief Mitchell  
to let you stay around

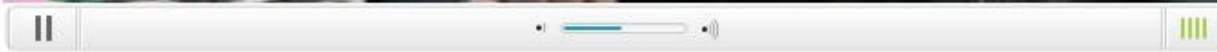
Go directly to solve the  
problems

Related Evidence (11)

## Information from the public

+ Add to Dossier

Others who recently watched this video:



### Discussions by Timecode

- 00:22 **Mobile input?** 100%  
3/17/2010 10:54 AM 1 response
- 00:46 **Evacuated the experts** 20%  
3/17/2010 11:22 AM 2 responses
- 01:35 **Information gathering at :** 75%  
3/18/2010 12:01 PM 0 responses
- 02:20 **Burn patterns** 75%  
3/19/2010 9:07 AM 0 responses
- 03:10 **Partner with people with (** 75%  
3/17/2010 3:45 PM 1 response
- 03:44 **Better information 'interf:** 100%  
3/18/2010 7:10 AM 0 responses

01:04

Discussions



04:23

**Next,**  
You Decide to...

Try to persuade Chief Mitchell to let you stay around

Go directly to solve the problems



Dossier

Videos

Information from the public

Scenes

Discussions

Related Evidence (11)

**Next,**  
You Decide to...

Try to persuade Chief Mitchell  
to let you stay around

Go directly to solve the  
problems



Your Decision History:

[Introduction](#) > [General Public](#) > [The Incident Commander](#) > [The Situation Unit Leader](#)Others who recently  
viewed this scene: 

THE STORY

## The Situation Unit Leader

[+ Add to Dossier](#)

The Incident Command Post is being set up. There are trucks being unloaded, laptops on tailgates and TV reporters checking their make-up.

Mitchell pretends not to notice you as you head for the man with maps scattered all over his fold-out table. He stinks of cigarettes and pointedly ignores you.

He barks into the radio: "You're not much of a Field Observer if you can't tell me which way it's heading are you? I haven't got time for you to get out of the smoke, I need to know whether we evacuate Del Boca Vista! The IC wants his decision to be based on some actual facts and I can't blame him. I gotta go: I need to speak to the chopper."

You get to snoop at the pile of maps scattered across the table: topography, facilities map, transportation, vegetation. There's even an Infra-red map.

He turns his back on you and wanders off as he talks on his radio: "This is Joe. What can you see? Has it jumped the line? . . . Are you sure?"

(Take a moment to explore the Related Evidence in this area and discover more information by clicking on the tab below.)

[Related Evidence \(2\)](#)[Dossier](#)**Next,**  
You Decide to...[Cut through the trees to speak to a man with a camera and a GPS](#)[Head for the scrum of reporters forming](#)[Go directly to solve the problems](#)



Your Decision History:

[General Public](#) > [The Incident Commander](#) > [The Situation Unit Leader](#) > Help Solve the Problems

Others who recently viewed this scene:

## Help Solve the Problems

**A** How can Firefighters capture data about the fire without being distracted from their main task of fighting the fire?

[SUBMIT YOUR SOLUTION](#)

[Read and discuss other solutions](#)

**B** How might people on the ground transmit data about the fire in real time?

[SUBMIT YOUR SOLUTION](#)


[Read and discuss other solutions](#)

[Related Evidence \(0\)](#)

[Dossier](#)

Your Decision History:

[General Public](#) > [The Incident Commander](#) > [The Situation Unit Leader](#) > Help Solve the Problems

Others who recently viewed this scene: 




























## Help Solve the Problems

**A** How can Firefighters capture data about the fire without being distracted from their main task of fighting the fire?

[SUBMIT YOUR SOLUTION](#)

[Read and discuss other solutions](#)

### Solutions by Posting Date

 <b>Black Boxes</b> 1/20/2010 11:42 AM	  20%
 <b>GPS and Status Updates</b> 12/16/2009 11:51 AM	  75%
 <b>Military</b> 12/16/2009 11:51 AM	  100%
 <b>Helmet Video</b> 12/16/2009 11:24 AM	  50%
 <b>Rich Radio Transmission</b> 12/16/2009 9:37 AM	  25%
 <b>Social Networks</b> 12/16/2009 9:25 AM	  86%
 <b>Useful phone app</b> 12/16/2009 9:06 AM	  40%
 <b>Multi Agent Teams</b> 12/15/2009 8:16 PM	  100%
 <b>Use RCAST</b> 12/15/2009 8:14 PM	  63%

[Related Evidence \(0\)](#)

[Dossier](#)

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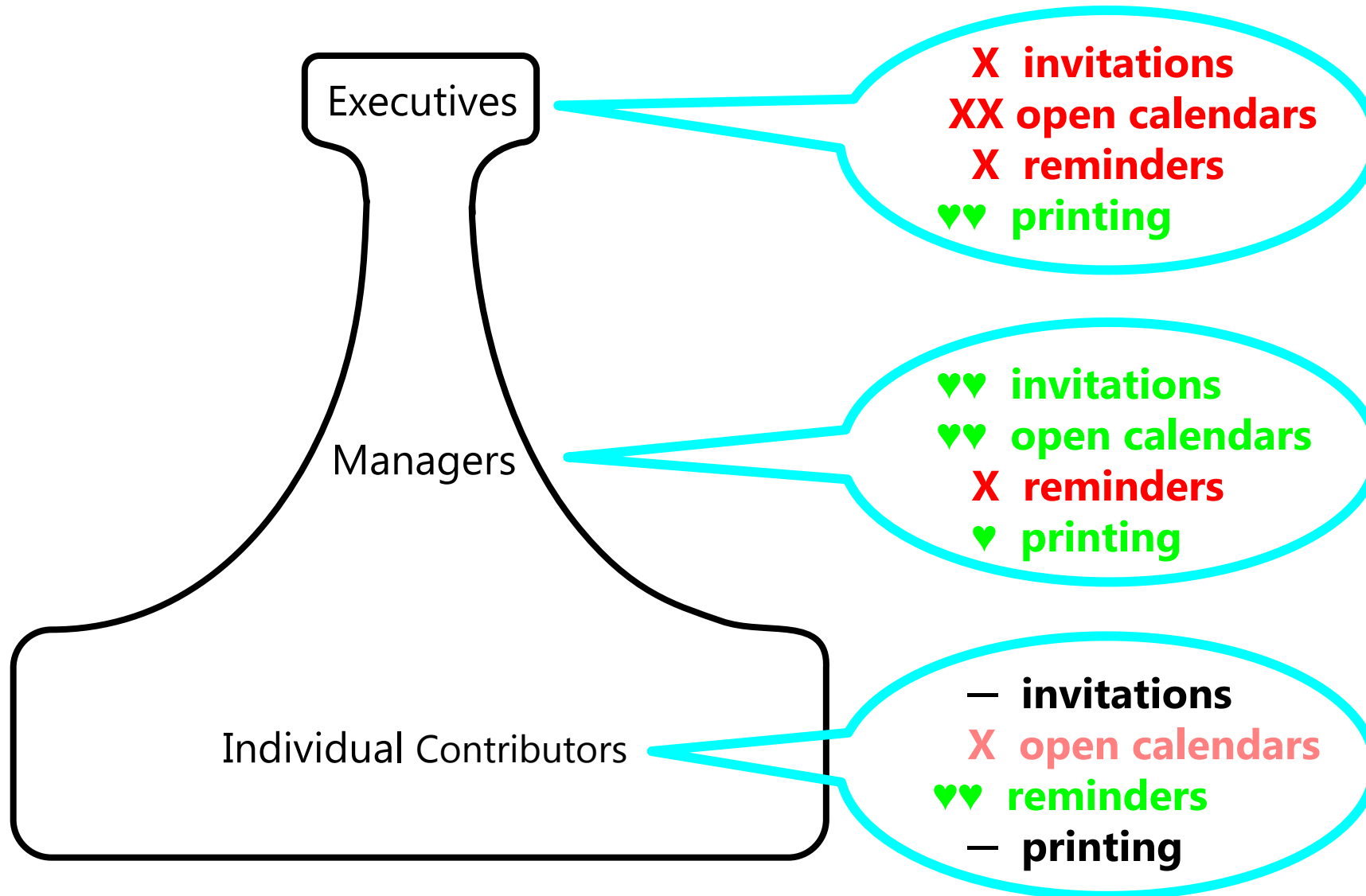
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## Social Media in Enterprises

Jonathan Grudin  
Principal Researcher  
Microsoft Corporation

# Calendar Use In Organizations



Executives

**X invitations**  
**XX open calendars**  
**X reminders**  
**♥♥ printing**

Managers

**♥♥ invitations**  
**♥♥ open calendars**  
**X reminders**  
**♥ printing**

Individual Contributors

**— invitations**  
**X open calendars**  
**♥♥ reminders**  
**— printing**