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
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.
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.
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!
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

- **Strategic Apex**
  - Techno-structure
  - Support Staff
- **Middle Line**
- **Operating Core**
Technology Use In Organizations

**Coordination**
- All time in meetings
- Heavy task delegation
- Activity is very political

**Sharing Structured Information**
- Many meetings
- Some delegation
- Efficacy/sensitivity tradeoff

**Communication**
- Few meetings
- No delegation
- Not sensitive
Wiki Use In Organizations

- Capture knowledge
- Locate expertise
- Recruit young employees
  Only recruitment seems realistic

- Project dashboard
- Find documents
  Handle disruptions
  Handle emerging challenges

- Ad hoc communication and problem solving
- Learn new skills
- Obtain recognition

Executives
Managers
Individual Contributors
Social Networking Sites: Research Findings
Half of MS employees had Facebook accounts. Half had LinkedIn accounts. How do they use them?

Survey sent to 1000


Interviewed over 60 so far

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

• Used (some) for work
  • Facebook & LinkedIn, then Live Spaces
  • MySpace declining, Twitter rising
  • Different patterns in Asia, Europe, elsewhere
• Strongly age-correlated
  • LinkedIn 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?

<table>
<thead>
<tr>
<th></th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fun</td>
<td>5% (-2)</td>
<td>18% (-3)</td>
<td>77% (+5)</td>
</tr>
<tr>
<td>Personal socializing</td>
<td>4% (-1)</td>
<td>8% (-4)</td>
<td>88% (+5)</td>
</tr>
<tr>
<td>Internal networking</td>
<td>22% (-2)</td>
<td>32% (-6)</td>
<td>46% (+8)</td>
</tr>
<tr>
<td>External professional</td>
<td>11% (-3)</td>
<td>22% (-3)</td>
<td>66% (+5)</td>
</tr>
</tbody>
</table>

(+ or – is change in 2009 from 2008)
## Social Networking Site Use

<table>
<thead>
<tr>
<th></th>
<th>Facebook</th>
<th>LinkedIn</th>
<th>Live Spaces</th>
<th>MySpace</th>
<th>Twitter</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Have Profile</strong></td>
<td>70% (+21)</td>
<td>63% (+11)</td>
<td>43% (+4)</td>
<td>25% (-6)</td>
<td>21% (+15)</td>
</tr>
<tr>
<td><strong>Only Read</strong></td>
<td>7% (-9)</td>
<td>5% (-2)</td>
<td>7% (-1)</td>
<td>14% (-7)</td>
<td>11% (+5)</td>
</tr>
</tbody>
</table>

(+ or – is change from 2008)

<table>
<thead>
<tr>
<th></th>
<th>Facebook</th>
<th>LinkedIn</th>
<th>Live Spaces</th>
<th>MySpace</th>
<th>Twitter</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Use Daily</strong></td>
<td>21% (+9)</td>
<td>5% (+2)</td>
<td>4% (+1)</td>
<td>1% (-3)</td>
<td>3% (+2)</td>
</tr>
<tr>
<td><strong>Several/Day</strong></td>
<td>8% (+3)</td>
<td>1% (-)</td>
<td>1% (-)</td>
<td>0% (-1)</td>
<td>3% (+2)</td>
</tr>
</tbody>
</table>
### Connections Viewed in a Typical Week

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

Means and (medians) from 2008 and 2009
<table>
<thead>
<tr>
<th>Feature Use</th>
<th>Daily</th>
<th>Weekly...</th>
<th>...Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>keep in touch with (non-MS) friends</td>
<td>24% (+9)</td>
<td>31% (+8)</td>
<td>6% (-13)</td>
</tr>
<tr>
<td>keep in touch with external professional contacts</td>
<td>8% (+4)</td>
<td>15% (+4)</td>
<td>21% (-11)</td>
</tr>
<tr>
<td>re-connect with external professional contacts</td>
<td>6% (+3)</td>
<td>14% (+4)</td>
<td>21% (-15)</td>
</tr>
<tr>
<td>establish new external professional contacts</td>
<td>4% (+1)</td>
<td>11% (+3)</td>
<td>35% (-10)</td>
</tr>
<tr>
<td>stay aware of (non-MS) friends' activities</td>
<td>19% (+8)</td>
<td>30% (+7)</td>
<td>12% (-14)</td>
</tr>
<tr>
<td>find new (non-MS) friends</td>
<td>7% (+1)</td>
<td>19% (+7)</td>
<td>36% (-11)</td>
</tr>
<tr>
<td>keep in touch with internal (Microsoft) people</td>
<td>8% (+3)</td>
<td>15% (+6)</td>
<td>35% (-19)</td>
</tr>
<tr>
<td>establish new internal (MS) contacts</td>
<td>2% (+1)</td>
<td>7% (---)</td>
<td>52% (-13)</td>
</tr>
<tr>
<td>re-connect with (non-MS) friends</td>
<td>9% (+2)</td>
<td>30% (+12)</td>
<td>10% (-13)</td>
</tr>
<tr>
<td>re-connect with internal (MS) people</td>
<td>4% (+2)</td>
<td>10% (+4)</td>
<td>39% (-19)</td>
</tr>
<tr>
<td>share photos or other objects with (non-MS) friends</td>
<td>10% (+1)</td>
<td>27% (+7)</td>
<td>20% (-12)</td>
</tr>
<tr>
<td>share photos, objects w. external professional contacts</td>
<td>3% (-1)</td>
<td>8% (+4)</td>
<td>47% (-12)</td>
</tr>
<tr>
<td>share photos or other objects with internal (MS) people</td>
<td>2% (---)</td>
<td>8% (+2)</td>
<td>49% (-11)</td>
</tr>
<tr>
<td>stay aware of external professional contacts' activities</td>
<td>5% (---)</td>
<td>14% (+6)</td>
<td>26% (-16)</td>
</tr>
<tr>
<td>stay aware of internal (MS) people’s activities</td>
<td>6% (+2)</td>
<td>13% (+5)</td>
<td>41% (-17)</td>
</tr>
<tr>
<td>keep in touch with family</td>
<td>18% (+11)</td>
<td>22% (+4)</td>
<td>27% (-17)</td>
</tr>
<tr>
<td>find new family</td>
<td>6% (+3)</td>
<td>9% (+4)</td>
<td>55% (-15)</td>
</tr>
<tr>
<td>re-connect with family</td>
<td>7% (+3)</td>
<td>15% (+7)</td>
<td>44% (-13)</td>
</tr>
<tr>
<td>share photos or other objects with family</td>
<td>10% (+4)</td>
<td>22% (+6)</td>
<td>31% (-12)</td>
</tr>
<tr>
<td>stay aware of family activities</td>
<td>14% (+9)</td>
<td>20% (+5)</td>
<td>36% (-14)</td>
</tr>
</tbody>
</table>
Use of Access Control, Concerns

<table>
<thead>
<tr>
<th>Setting Access Controls</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>34%</td>
<td>25%</td>
</tr>
<tr>
<td>A few</td>
<td>56%</td>
<td>60%</td>
</tr>
<tr>
<td>Many</td>
<td>10%</td>
<td>15%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Concerns about SNS Use</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>31%</td>
<td>25%</td>
</tr>
<tr>
<td>Minor</td>
<td>56%</td>
<td>60%</td>
</tr>
<tr>
<td>Major</td>
<td>13%</td>
<td>15%</td>
</tr>
</tbody>
</table>

More use of access controls,
Concern level still low
insights from social psychology of teams
### McGrath’s Typology of Group Behaviors

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

- **Production**: Focus on production activities, ensuring efficient and effective work output.
- **Group well-being**: Concentrates on the interaction and role network, ensuring positive group dynamics.
- **Member support**: Aims to enhance member support, focusing on inclusion and individual contributions.

- **Inception**:
  - **Production**: Focuses on initial demand and opportunity for production activities.
  - **Group well-being**: Interaction demand and opportunity.
  - **Member support**: Inclusion demand and opportunity.

- **Problem-solving**:
  - **Production**: Technical problem-solving.
  - **Group well-being**: Role network definition.
  - **Member support**: Position and status attainments.

- **Conflict resolution**:
  - **Production**: Policy resolution.
  - **Group well-being**: Power and payoff distribution.
  - **Member support**: Contribution and payoff distribution.

- **Execution**:
  - **Production**: Performance.
  - **Group well-being**: Interaction.
  - **Member support**: Participation.
Sources of Success and Failure

<table>
<thead>
<tr>
<th>Inception</th>
<th>Production demand and opportunity</th>
<th>Interaction demand and opportunity</th>
<th>Inclusion demand and opportunity</th>
</tr>
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<tr>
<td>Execution</td>
<td><strong>Performance</strong></td>
<td>Interaction</td>
<td>Participation</td>
</tr>
</tbody>
</table>

Disparities between experiments and experience trace to effects in other cells.
Adoption Meeting Less Resistance
Serious/Productivity Games: Experiment in Understanding Customers
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 screenshot 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!
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 am 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.”

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

- Try to persuade Chief Mitchell to let you stay around
- Go directly to solve the problems

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
- Meat Now Pallaw Sharma 1
- Meat Now Pallaw Sharma 2
- Meat Now Pallaw Sharma 3
- Trading speed versus accuracy
Information from the public

Discussions by Timecode

00:22 Mobile input? 3/17/2010 10:54 AM 1 response
00:46 Evacuated the experts 3/17/2010 11:22 AM 2 responses
01:35 Information gathering at 3/18/2010 12:01 PM 0 responses
02:20 Burn patterns 3/19/2010 9:07 AM 0 responses
03:10 Partner with people with 3/17/2010 9:43 PM 1 response
03:44 Better information 3/18/2010 9:20 AM 0 responses

Next, You Decide to...

Try to persuade Chief Mitchell to let you stay around
Go directly to solve the problems
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 dials 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 get 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)
Help Solve the Problems

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

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

Submit your solution
Read and discuss other solutions
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
---|---
Black Boxes | 12/19/2008 11:42 AM | 20%
GPS and Status Updates | 12/16/2008 11:11 AM | 75%
Military | 12/16/2008 11:51 AM | 100%
Helmet Video | 12/16/2008 11:24 AM | 50%
Rich Radio Transmission | 12/16/2008 9:37 AM | 25%
Social Networks | 12/16/2008 9:25 AM | 86%
Useful phone app | 12/16/2008 9:06 AM | 40%
Multi Agent Teams | 12/15/2008 8:16 PM | 100%
Use RCAST | 12/15/2008 8:14 PM | 63%
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