Microblogging in the Enterprise
Focus Groups Evaluation

SYSTEMATIC THOUGHT LEADERSHIP FOR INNOVATIVE BUSINESS

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Key Insights from the Focus Groups

- Microblogging carries *considerable potential* for the enterprise
- *ROI question* open:
  - Can microblogging replace existing communication channels and be more efficient (*replacement aspect*)?
  - Will microblogging lead to new ways of communicating and thus render enterprises more effective (*enhancement aspect*)?
  - Are IT managers willing to pay for these perceived improvements?
- Answers depend on (i) industries and (ii) corporate functions
- *Challenge:* How to ride the current wave to enter mainstream industries?
- *Next Steps:* Survey and experiments

Overview

- Research Methodology and Focus Group Setup
- Focus Group Results
  - Drivers and Impediments
  - Design Recommendations
  - Lessons for Managers
- Model Formulation and Constructs Overview
- Next Steps: Survey and Experiments

Focus Group Setup

- Four focus groups conducted in December 2008
- Moderated by Oliver Günther and Dirk Riehle
- Groups were male-dominated, well-educated, average age 30-40

IT Savviness

SAP / TWITTER EXPERIENCE	DON'T KNOW TWITTER	KNOW BUT DON'T USE TWITTER	USE TWITTER
NO SAP	**FG Dec 5 (3m/1f):** Four participants	**FG Dec 10 (3m/1f):** Four participants, one from SAP	**FG Dec 16 (8m/1f):** Nine participants
OCCASIONAL SAP			**FG Dec 4 (6m/2f):** Eight participants, all from SAP
POWER-SAP			

Focus Group Evaluation: Methodology

- All focus groups were transcribed
- Coded with respect to 21 frequently mentioned criteria
- Frequencies were counted for each criterion

Criterion	Absolute Frequency	Relative Frequency	Criterion	Absolute Frequency	Relative Frequency
Perceived Usefulness	7	3,1%	Time and Codification Cost	14	6,1%
Relative Advantage	**24**	**10,5%**	Ease of Use	5	2,2%
Reputation	5	2,2%	Compatibility	9	3,9%
Expected Relationships	8	3,5%	**Privacy Concerns**	**18**	**7,9%**
Incentives	4	1,7%	Critical Mass	4	1,7%
Fun	1	0,4%	Self-Efficacy	1	0,4%
Improving Communication	**42**	**18,3%**	Social Pressure	3	1,3%
Supporting Distributed Work	8	3,5%	**Organizational Culture**	**22**	**9,6%**
Speeding Up Communication	12	5,2%	Top Management Support	6	2,6%
Signal-to-Noise Ratio	**26**	**11,4%**	Security	8	3,5%
User Control	2	0,9%			

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Focus Group Evaluation: Dominant Criteria per Group

Criteria mentioned more than 5 times, sorted by frequency

IT Savviness

SAP / TWITTER EXPERIENCE	DON'T KNOW TWITTER	KNOW BUT DON'T USE TWITTER	USE TWITTER
NO SAP	**FG5:** **ATTITUDE: NEGATIVE** •**Privacy** •Improved Communication •Low Relative Advantage •Time/Codification Efforts •Low Signal-to-Noise Ratio	**FG10:** **ATTITUDE: POSITIVE** •Time/Codification Efforts •Corporate Culture	**FG16:** **ATTITUDE: VERY POSITIVE** •**Improved Communication** •Low Signal-to-Noise Ratio •Corporate Culture •Finding Contacts
OCCASIONAL SAP			**FG4:** **ATTITUDE: VERY POSITIVE** •**Good Replacement** •**Improved Communication** •Low Signal-to-Noise Ratio •Corporate Culture
POWER-SAP			

Drivers and Impediments

about 12 hours ago from TwitterFox in reply to mgorbis

RT @JesseEngle: Loving "Nerd Merit Badges" http://bit.ly/vyll
FTW! Where do I get the uniform to put them on? [awesome]
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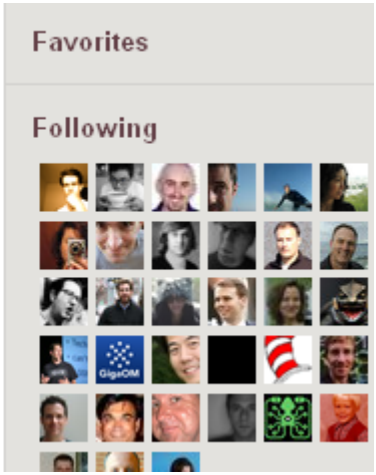

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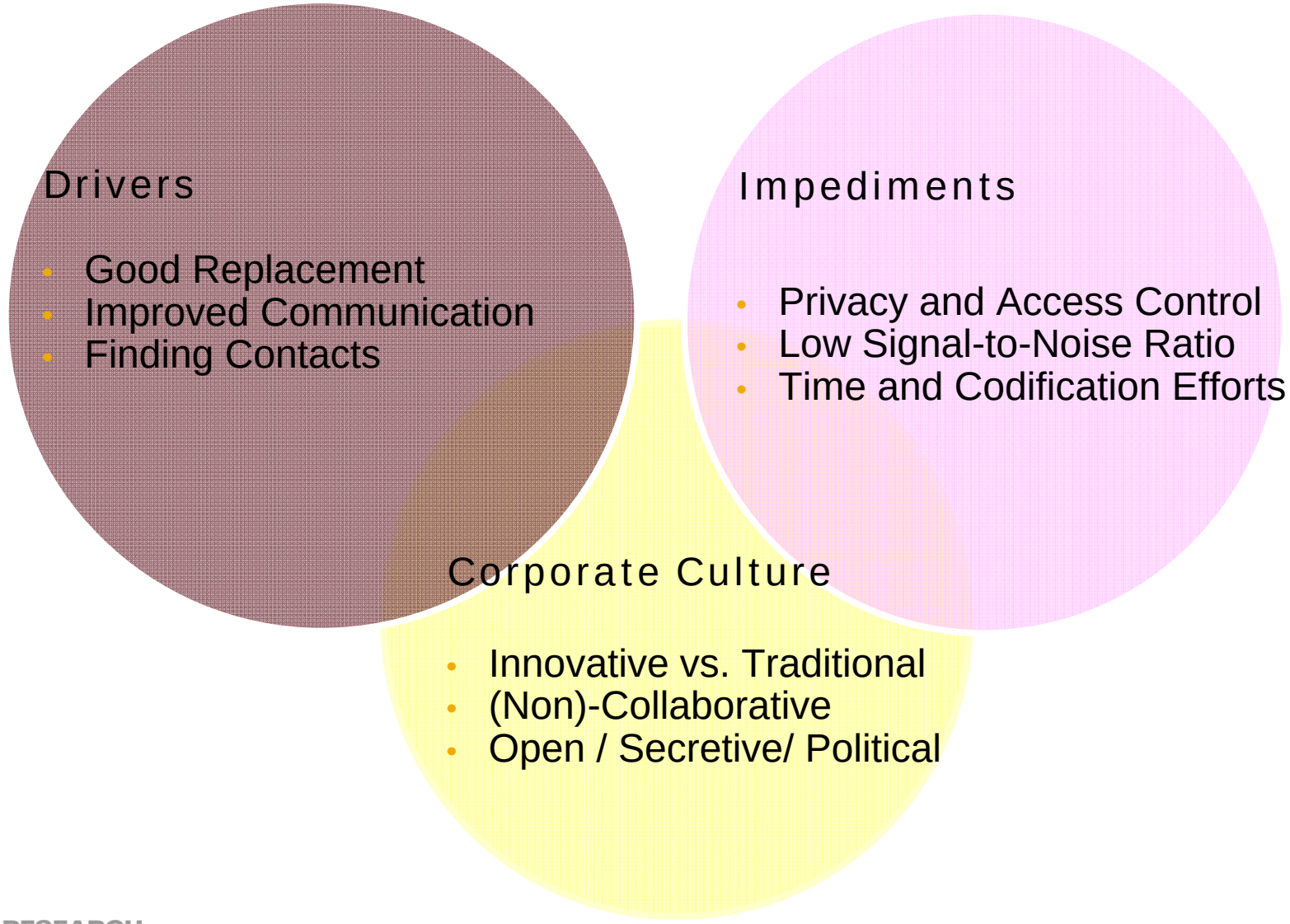
Relevant Factor Groups



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Drivers: Good Replacement

- **Microblogging's *unique qualities***
  - Broadcasting / Speed / Length
  - Asynchronous / Not Interrupting
  - Informal
  - Easy to scroll through
  - Enables User Control
  - Can relieve information overload by e-mail and IM

"I think if people can see they can do their job better or it leads them to saving time whatever, I think they'll go for it."

"Twitter replaces a lot of e-mail. As most of my emails are only one sentence."

- **However, some participants expressed doubts concerning the *business value***

"Why change? You are used to email, people communicate with you via email … So you will have to provide a lot more value."

"You got your email, you got your cell, you got your pager, you got your instant messenger, then you got this. How many can you have?"

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Drivers: Improved Communication

- **More Transparency**
  - Employees

"With Twitter you are making a bigger step in terms of the ambient awareness that Twitter brings people"

"People would dare to put in a small idea."

"You don't have to figure out who might have the knowledge"

  - Top Management

"The CEO has no clue what is really happening"

- **Faster Communication**

"That speed of sharing of information in a peer group is a value to me there"

- **Supporting Distributed Work**

"In geographical diverse locations ,Twitter is an effective tool for quick status broadcasts without flooding people's inboxes"

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Other Drivers

- Finding Contacts

"Twitter is a chance to maybe find people in other parts of the company that have similar interests"

- Improved Visibility / Reputation

"If you keep posting good ideas, or keep posting knowledgeable replies, you show that you are valuable to the company"

- Self-Efficacy

"*There is often nothing to write. Just routine"*

- Critical Mass

"*If no one is using it, there is no value in the tool"*

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Impediments: Privacy and Access Control

- **Privacy was only important for the group with *low* Twitter exposure**
  - Desire for **Privacy Control**
  - Concern over **Longevity and Availability** of the Information
  - **Secondary Use** of Information

"Does Twitter allow actually if you said something … Oh my god, I didn't wanna say that… to take it away?"

"But if I see every one of these entries suddenly coming up when somebody googles my name, it's not what I actually want to see here."

"I can see for them making money by scanning through profiles and topics and selling advertising space connected to these topics."

- **For the groups with *high* Twitter exposure, privacy concerns were less pronounced but the need for *access rights management* was expressed clearly**

"I don't want my work tracked, I don't want to report every step I make."

"I absolutely want to make sure that only a certain subset of people actually knows that content."

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Impediments: Low Signal-to-Noise Ratio

- **Low Signal-to-Noise Ratio** seen as one of the biggest concerns
  - Getting Flooded with Information

    "My concern is always to save time and not to drown in information and you just get flooded with information from all over"
  - Employee Flea Market

    "*Bill posts: I wanna sell my old car. Marg has a guest from the East Coast who is looking for a cheap apartment in the Bay Area*."
- **User Control** was seen as a solution

  "The value here is in the ability of using it to join a conversation and not join"

  "But the nice thing is that I can decide whether I want to turn it off"
- But is it possible just to **"turn off"?**

  "Imagine there is a tweet and you miss it. You go to a meeting and you could get into trouble"

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Impediments: Time Efficiency Concerns and Codification Efforts

- **Time and Effort Required For …**
  - … supplying it with information
  - … managing it
  - … choosing the right tool
- Can be mitigated by good **integration** with existing software

"But I am used to the technology as something that saved me time rather than constantly getting me involved in answering and putting more information out"

You have to now service like you said another tool on a daily basis all the time"

"It's too much maintenance!"

"There are five collaboration tools very quickly"

"Having mail, Twitter and the IM communicator that you have right now, it's too much"

"It would have to integrate tightly with the tools I am using to update Twitter … I do not want to have to go to another application to do that."

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Corporate Culture

- **Corporate culture emerged as important determinant in all groups**
- **Participants differ**Traditional **entiate between**
  - Innovative vs. Company

    "I don't see it in a conservative or banking environment. In my experience people are very opposed that management can track what they do, like turnover times."
  - Collaborative vs. Non-collaborative vs. Competitive

    "Why the hell are you working on her problem? We have this problem what are you being here for?"
  - Open vs. Secretive/Highly Political

    "You should make sure it is politically correct before you start really talking about it, you make sure you are not stepping on someone's toes..."
  - People hesitate to stand up vs. Diversity of opinion is valued

    "I go to companies where exactly that diversity of opinion around problems within the enterprise is valuable"
  - Techie-driven (Formalism) Culture

    "In my case it's normal to say "Hey, I'm going to lunch", but in a conservative banking environment you would say: "Would anybody like to join me..."

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Design Recommendations

about 12 hours ago from TwitterFox in reply to mgorbis

RT @JesseEngle: Loving "Nerd Merit Badges" http://bit.ly/vyll
FTW! Where do I get the uniform to put them on? [awesome]
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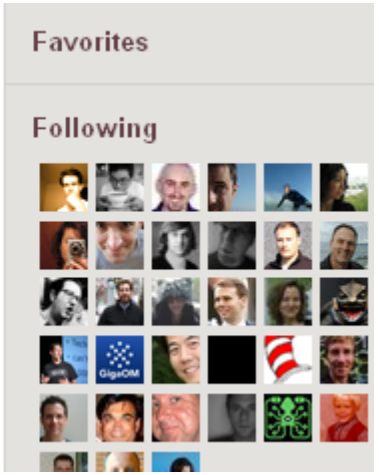

Integration:
Most Frequently Made Suggestion

- Into existing communication channels

"It should be configured that you actually use your email as the interface for your Twitter application"

- With existing distribution lists (automatic generation of the groups based on distribution lists)

"I absolutely want to make sure that only a certain subset of people actually knows that content."

- With other software (.ppt, attachments, pictures)

"Sometimes, a picture say a thousand words"

- Into event management systems

"If I am a supply chain manager and a part is cancelled , you usually get like an e-mail or something to notify you that when you can kick off your workflow."

- With hand-held devices

"But if I can't use a handheld device, because there is no a needed keyboard here, then I've created a barrier"

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Advanced Filtering: Crucial to Deal With Information Overload

- Rating / Voting / Thumbs-Up / Flags

"I only wanna see stuff from Scoble that at least a hundred other people thought was good"

- Keywords

"What is needed are function-based algorithms that identify keywords"

- Adding tags to the original content

"What is really missing from all these functionalities is the ability for other people to add tags to the original content created or subtract tags"

- With hand-held devices
- Information Manager / Moderator

"I think there must be really a very strong discipline in the management and a master who monitors it, so you don't drown in information"

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Security and Privacy: Access Rights and Group Functionalities

- Granular Access

"You would need to have more than a personal account, you would need to have either a company or a group or a subgroup account, so that if you're working on a project you can send a message in the project rather than to the entire company or to everybody on your list."

- Privacy/Security /Authorization

"*In the enterprise you should know who is following what"*

"*Companies are opening up unbelievable liability problems. Because what if somebody hears on the meeting: 'the project is not gonna make it' and they just put on Twitter 'the project is not gonna make it'"*

- Dissemination Control

"If it's in a company it should be kept within the company rather than to everybody who is watching"

"So a lot of the corporations sometimes have the difficulty what can you say openly to everybody which would not go outside the corporation"

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Usability:
Still Leaves Some Things to be Desired

- Compared to E-Mail

  "Twitter is not as intuitive as email was. In terms of where to go or how to use it".

- Topic organization

  "It isn't organized well enough for me. it's hard to follow the thread unless you really read it."

  "*But for example for me it is easier on Facebook, because they have a hierarchy of users. It's like a tree.*

- Interface

  "*Enduser interface is horrible"*

- Short message length OK

  "*I really like the limitation in length, because it forces each of us to think about the currency that we extend to each other in making what we transfer very quick, easy, compact, rapidly, digested*"

  "*Key differentiation point"*

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Lessons for Managers

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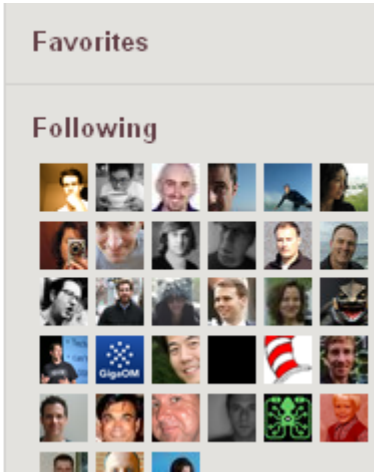

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Value Proposition – Soft Issues

- Create group feeling

  "So this is an amazing group forming happening through Twitter and other microblogging functionality."

- Understand group sentiment

  "The senior management has no good way of finding out what people are actually doing."

- Find true leaders

  "That I think is really powerful – to find the true leaders that people are following, the informal hierarchy"

- Know one's boss

  "You get a closer relationship to your boss"

- Facilitate communication across the hierarchy

  "I think Twitter in the enterprise will totally flatten the hierarchy even more than the email"

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Value Proposition – Hard Issues

- Data mining

  "You could just do very interesting data mining on a system like that, with people updating their status on a relatively frequent basis"

- Harvesting ideas

  "I see it a tremendous opportunity for harvesting and preserving the work of creative groups in R&D. To be much more in step with the inventive groups instead of having in a week period updates."

- Reaching out to clients

  "I see its potential to reach clients and companies"

  "These people are actually following customers and try to understand what the opportunities are"

- Doubts about the actual value

  "I can't really see the business context, except informing people in a very short form about something, what's hype"

- ROI depends on corporate function (Engineering vs. sales/marketing vs. …)

  "*Some business functions are always based on ... communication. Some groups like in engineering there maybe 20 % communication and the rest is like thinking, doing, working individually "*

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Important: Creating Incentives for Adoption

- Give people reason to adopt it

  "You have to give people a reason to use it. You can't just say: 'Here's a community, here's a tool, go use it!'"

- Splitting work-time

  "We adjust schedules in a way that we expect you to just do 80% of your time on the work but you at least spend ten times to communicate and just brainwash new ideas on Twitter."

- Buying-In

  "I think in an American enterprise the usual approach is getting people buy in. And I think they have meetings and ask people what benefit do they want to see"

- Train people to use the tool

  "First find internal champions and we get them together and they actually brainstorm us to what's going on with sort of short message communication in the company right now."

- Find internal champions

  "If the management would do it, then the rest of the workers would do it."

- Top Management Support

  "If your boss is passing down information that you need on Twitter, then you gonna be on Twitter"

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Mandatory vs. Voluntary Adoption: Mixed Opinions

- Against mandatory adoption

  "If I am forced to use a tool that I do not see value that is a downside."

  "*I think especially in the US you expect to be consulted, you expect to have your own opinion voice*."

  "If you mandate it you kill it".

- For mandatory adoption

  "If it is not something that an employee is not measured upon; you will ignore it."

  "Why should I do it if I am not being paid to do this?"

- Externality of mandatory adoption

  "If the system Is not perceived as useful, you have no incentive for high quality information, so I pollute the information with random data."

- Anonymous use not advisable

  "*[Anonymous postings] created the transparency which was actually unhealthy within the organisation "*

- If system is used for employee evaluation, it may be *sabotaged*

  "I would never make a performance review based on how many tweets they put on."

  "But you can send a tweet in the morning too, pretending you're working."

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Towards an Empirical Model

about 12 hours ago from TwitterFox in reply to mgorbis

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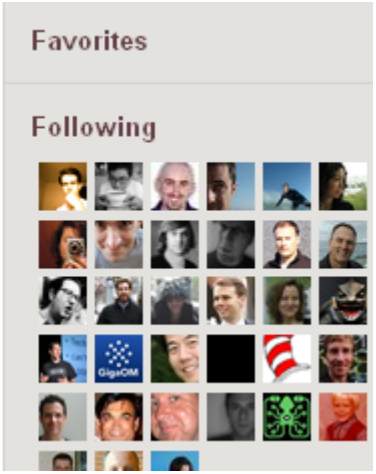

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Multitude of Existing Models

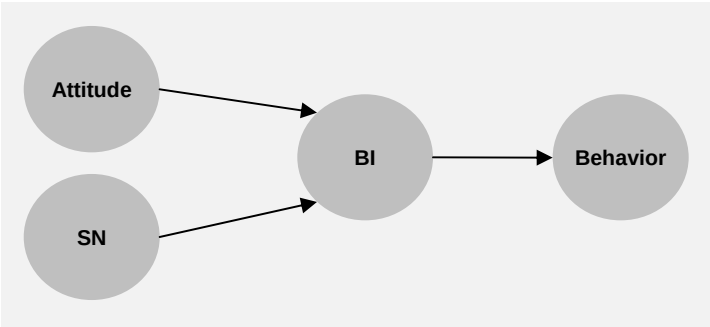

Figure 1: Theory of Reasoned Action

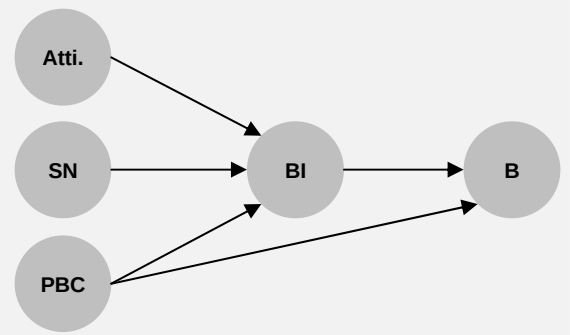

Figure 2 : The Theory of Planned Behavior

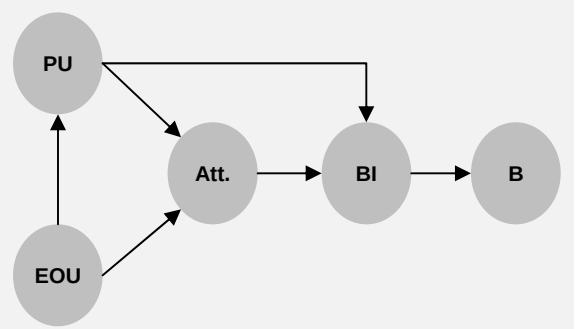

Figure 3: Technology Acceptance Model

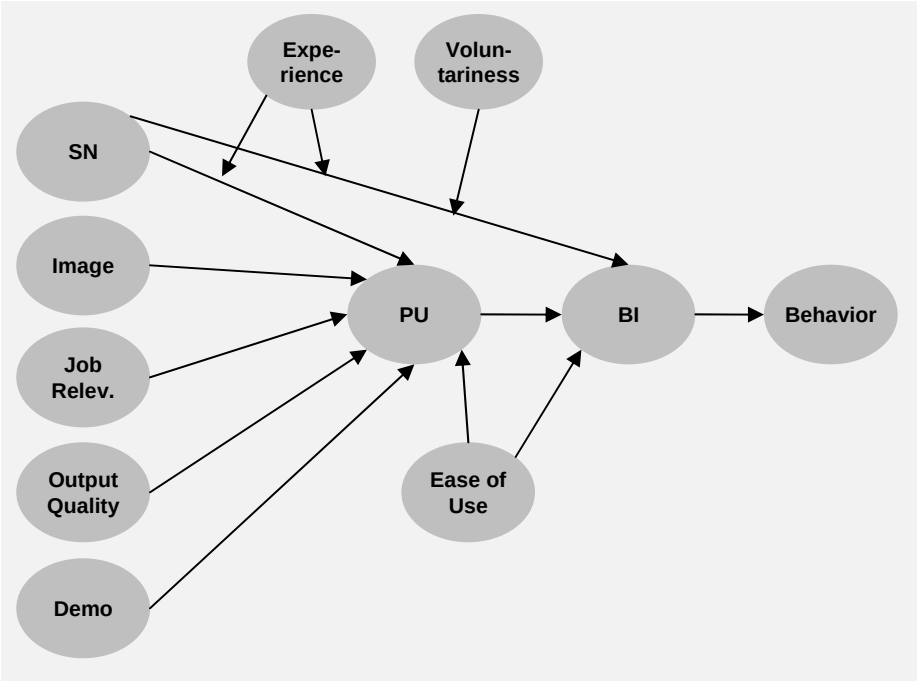

Figure 4 : Technology Acceptance Model 2

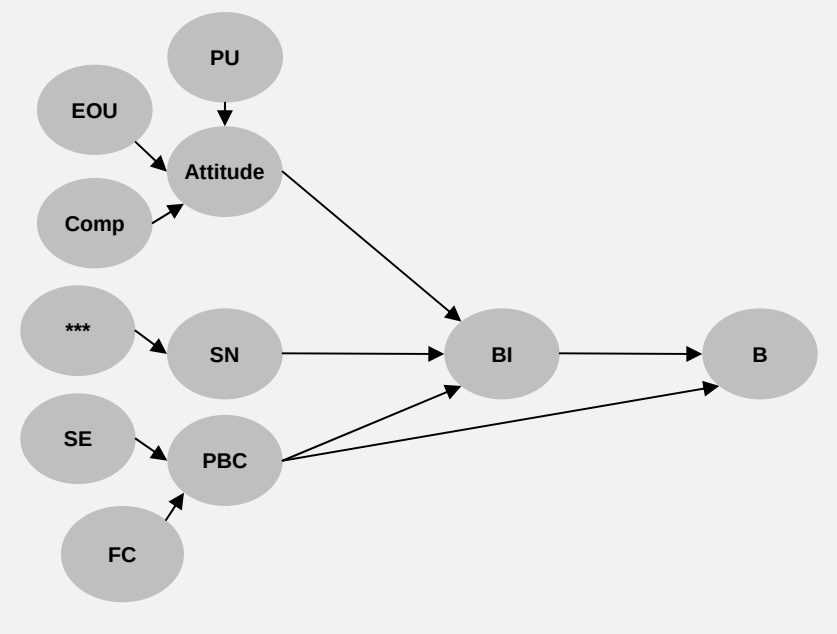

Figure 5: Decomposed Theory of Planned Behavior

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Unified Theory of Acceptance and Use of Technology (UTAUT): Best Explanatory Value

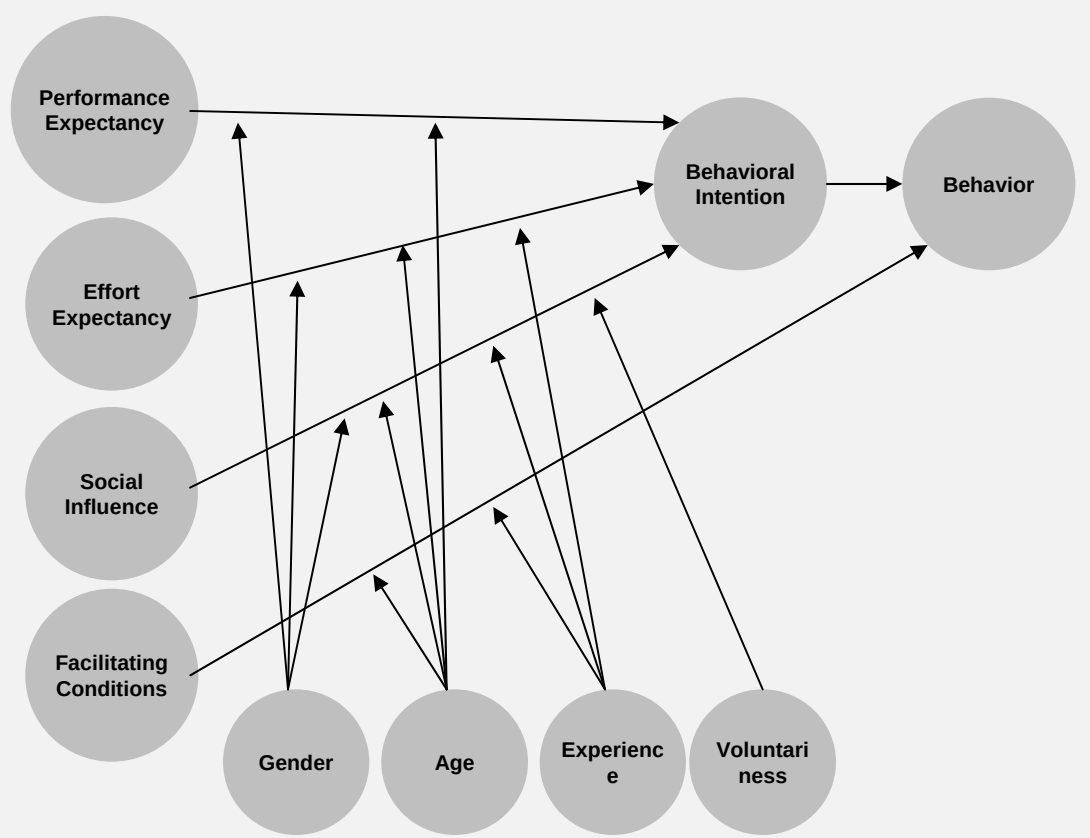

Figure 6: Unified Theory of Acceptance and Use of Technology

(Venkatesh et al., 2003)

- UTAUT shows excellent performance in explaining adoption of *traditional* IT (e.g. word processing software)
- UTAUT is *not entirely suitable* to explain adoption of collaboration tools like microblogging
- Extensions are needed...

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Empirical Validation of the Model: Extensions to UTAUT

The UTAUT model was extended with new constructs based on the focus group results

- **Communication Benefits:** Will expectations about *organizational communication improvements* enhance *personal usefulness*?
- **Privacy:** Are *privacy concerns* so strong that they can prevent adoption?
- **Signal-To-Noise Ratio:** Is there *more or less* signal in microblogging vs. other tools?
- **Time Efficiency and Codification Effort:** Are people *overwhelmed* by the multitude of available tools?
- **Collaborative Norm:** In which *organizational cultures* microblogging adoption won't work?

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Empirical Validation of the Model: Extensions to UTAUT

The UTAUT model was extended with new constructs based on insights from the literature

- **Reputation:** Do people expect to improve their *visibility* through microblogging and hence perform better?
- **Expected Relationships:** Do people expect to get *better connected* through microblogging and hence perform better?

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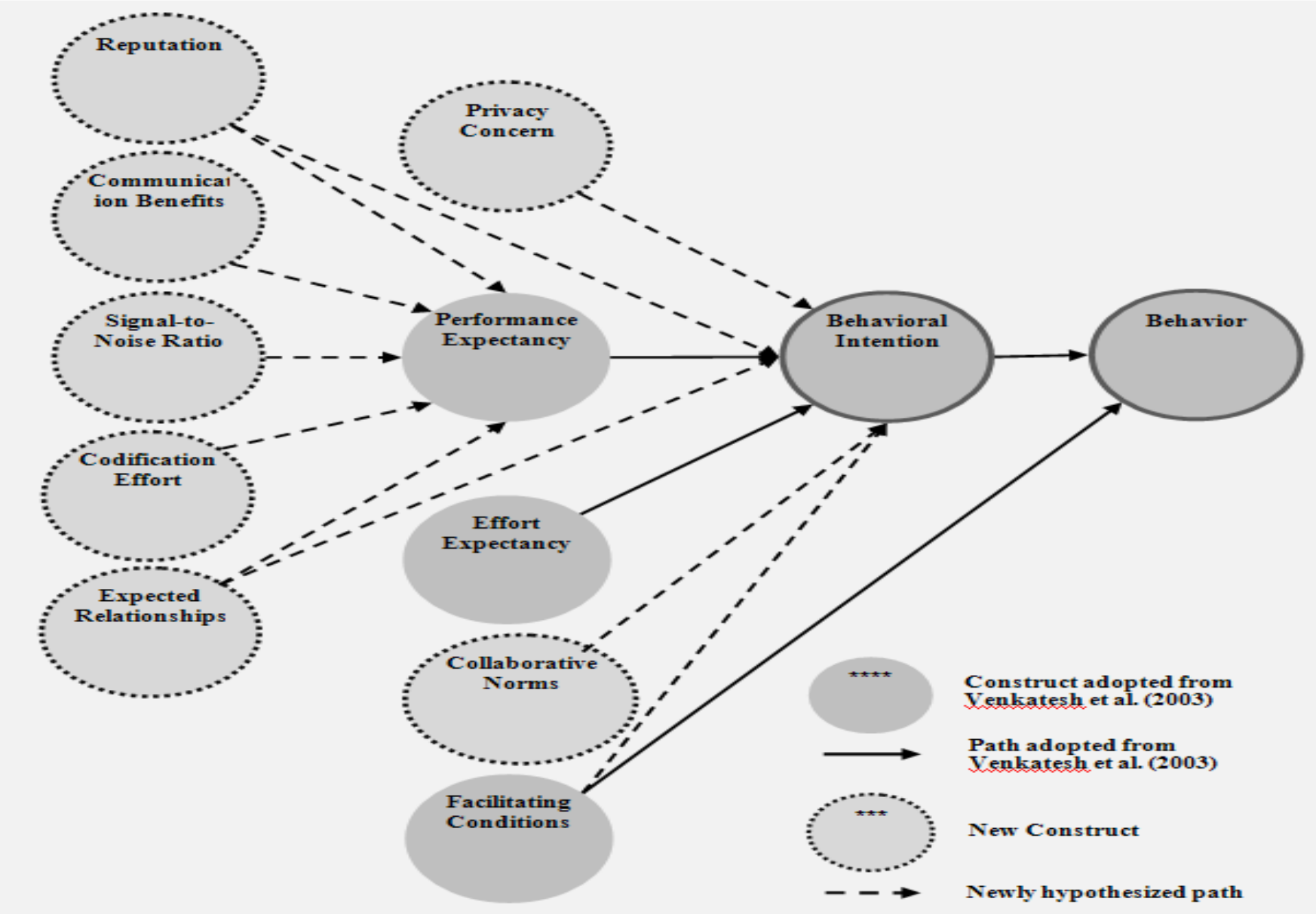
Empirical Validation of the Model: The Extended Version



Summary: Critical Issues

- *Privacy concerns* negatively correlated with IT savviness of participants
  - → Concerns need to be addressed to convince less IT-savvy users
- *Access and dissemination control* needs to improve significantly
- *Current user interfaces* considered mediocre to dismal
  - → User interfaces and functionality (threading) need to improve
  - → Variety and quality of client software needs to improve
- Worries about *signal-noise ratio* and *personal utility (what does it do for me?)* persist
  - → Smart filtering tools required
- *User control* important: mandatory use not acceptable

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Summary: Key Insights

- Broad consensus that enterprise microblogging holds *considerable potential* to improve communication and collaboration
- Enterprise microblogging supports *new communication and collaboration scenarios* not addressed by current tools
- Enterprise microblogging is *applicable to all industries and all corporate functions* ...
- ... but *customer ROI will vary*, especially depending on corporate culture and corporate function (accounting vs. marketing etc.)
- The critical issues identified above need to be addressed and solved in order to be successful in the marketplace

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