Special Topics in Social Media Services
社會媒體服務專題

Theories of Social Media Services and Information Systems

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Sat. 6,7,8 (13:10-16:00) D502

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2011-03-12

Syllabus

週次	月／日	內容（Subject/Topics）
1	100/02/19	Course Orientation for Social Media Services
2	100/02/26	Web 2.0, Social Network and Social Media
3	100/03/05	Theories of Media and Information
4	100/03/12	Theories of Social Media Services and Information Systems
5	100/03/19	Paper Reading and Discussion
6	100/03/26	Behavior Research on Social Media Services
7	100/04/02	Paper Reading and Discussion
8	100/04/09	教學行政觀摩日
9	100/04/16	Business Models and Issues of Social Medial Service
10	100/04/23	期中考試週

Syllabus

週次	月／日	內容（Subject/Topics）
11	100/04/30	Paper Reading and Discussion
12	100/05/07	Strategy of Social Medial Service
13	100/05/14	Paper Reading and Discussion
14	100/05/21	Social Media Marketing
15	100/05/28	Paper Reading and Discussion
16	100/06/04	Social Network Analysis, Link Mining, Text Mining, Web Mining, and Opinion Mining in Social Media
17	100/06/11	Project Presentation and Discussion
18	100/06/18	期末考試週

Social Media Services and Information Systems

- Social Media Services (SMS)
- Information Systems (IS)
- Computer Mediated Communication (CMC)

Theories of Social Media Services

- Media Richness Theory (MRT)
  - (Daft & Lengel, 1986)
- Media Synchronicity Theory (MST)
  - (Dennis et al., 1998, 1999, 2008)
- Media Naturalness Theory (MNT)
  - (Kock, 2001; 2004)

Theories Used in IS Research Wiki, http://www.fsc.yorku.ca/york/istheory/wiki/index.php/Main_Page

Media Richness Theory (MRT)

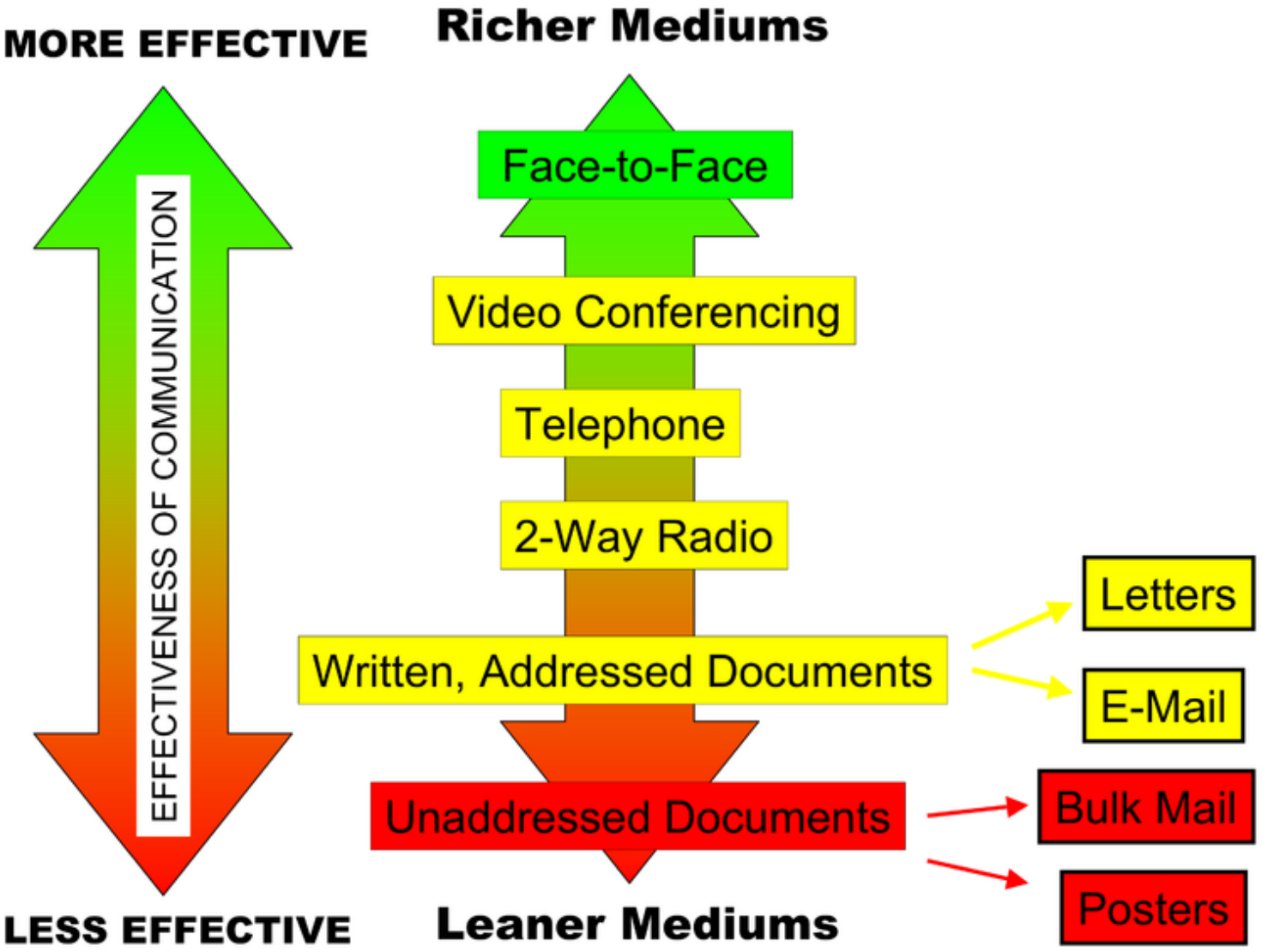
- Daft, 1984
- Information Richness Theory
- Origin from
  - Information Processing Theory
    - Galbraith
  - Contingency Theory

Media Richness Theory (MRT)

- Media Richness is a function of
  - Instant Feedback
  - Multiple cues
  - Language variety
  - Personal focus

Media Richness Theory

(Daft & Lengel, 1986)



http://en.wikipedia.org/wiki/File:Media_Richness_Theory_Diagram_PNG.png

Media Richness Theory

- Information richness
  - The ability of information to change understanding within a time interval

http://en.wikipedia.org/wiki/Media_richness_theory

Media Richness Theory

- Media richness is a function of
  1. The medium's capacity for immediate feedback
  2. The number of cues and channels available
  3. Language variety
  4. The degree to which intent is focused on the recipient

http://en.wikipedia.org/wiki/Media_richness_theory

Media Synchronicity Theory (MST)

- Dennis et al. (1998; 1999; 2008)

MISQ Paper of the Year Recipients

- **Paper of the Year for 2009**
  "Exploring Human Images in Website Design: A Multi-Method Approach"
  Dianne Cyr, Milena Head, Hector Larios, and Bing Pan
  (Volume 33, Issue 3, September 2009)
- **Paper of the Year for 2008**
  "Media, Tasks, and Communication Processes: A Theory of Media Synchronicity"
  Alan R. Dennis, Robert M. Fuller, and Joseph S. Valacich
  (Volume 32, Issue 3, September 2008)
- **Paper of the Year for 2007**
  "Toward a Deeper Understanding of System Usage in Organizations: A Multilevel Perspective"
  Andrew Burton-Jones and Michael J. Gallivan
  (Volume 31, Issue 4, December 2007)

http://www.misq.org/awards-paper-year

Media Synchronicity Theory (MST)

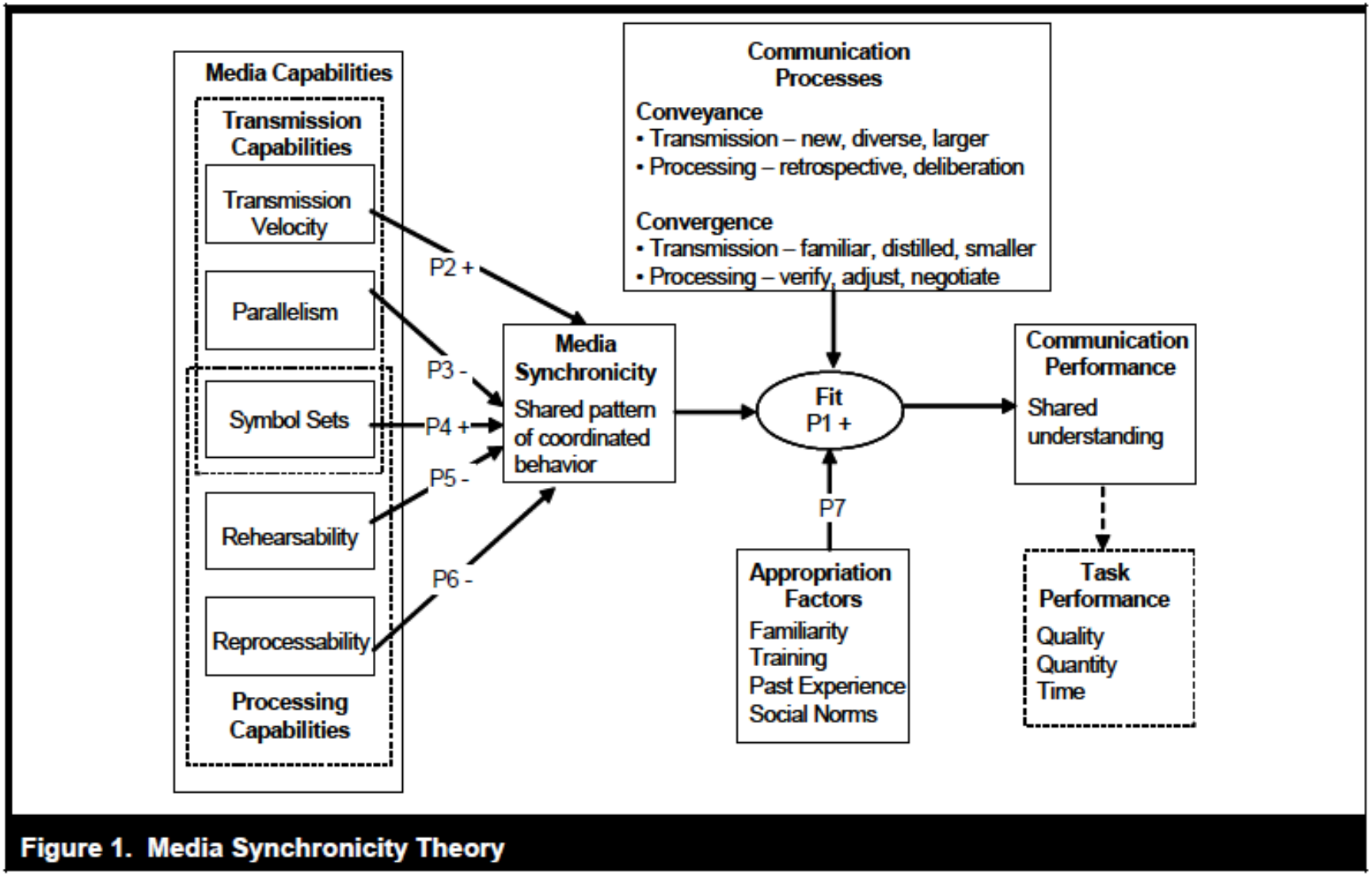


Figure 1. Media Synchronicity Theory

Dennis et al. (2008),"Media, Tasks, and Communication Processes: A Theory of Media Synchronicity", MIS Quarterly (32:3), 575-600

Media Synchronicity Theory (MST)

Table 1. Communication Process Characteristics			
Communication Process	Information Transmission Characteristics	Information Processing Characteristics	Media Synchronicity Required
Conveyance	Higher Quality Various Formats Multiple Sources	Retrospective Slower	Lower
Convergence	Lower Quality Specific Format Specific Sources Faster	Verification Adjustment Negotiation Faster	Higher

Dennis et al. (2008),"Media, Tasks, and Communication Processes: A Theory of Media Synchronicity", MIS Quarterly (32:3), 575-600

Media Synchronicity Theory (MST)

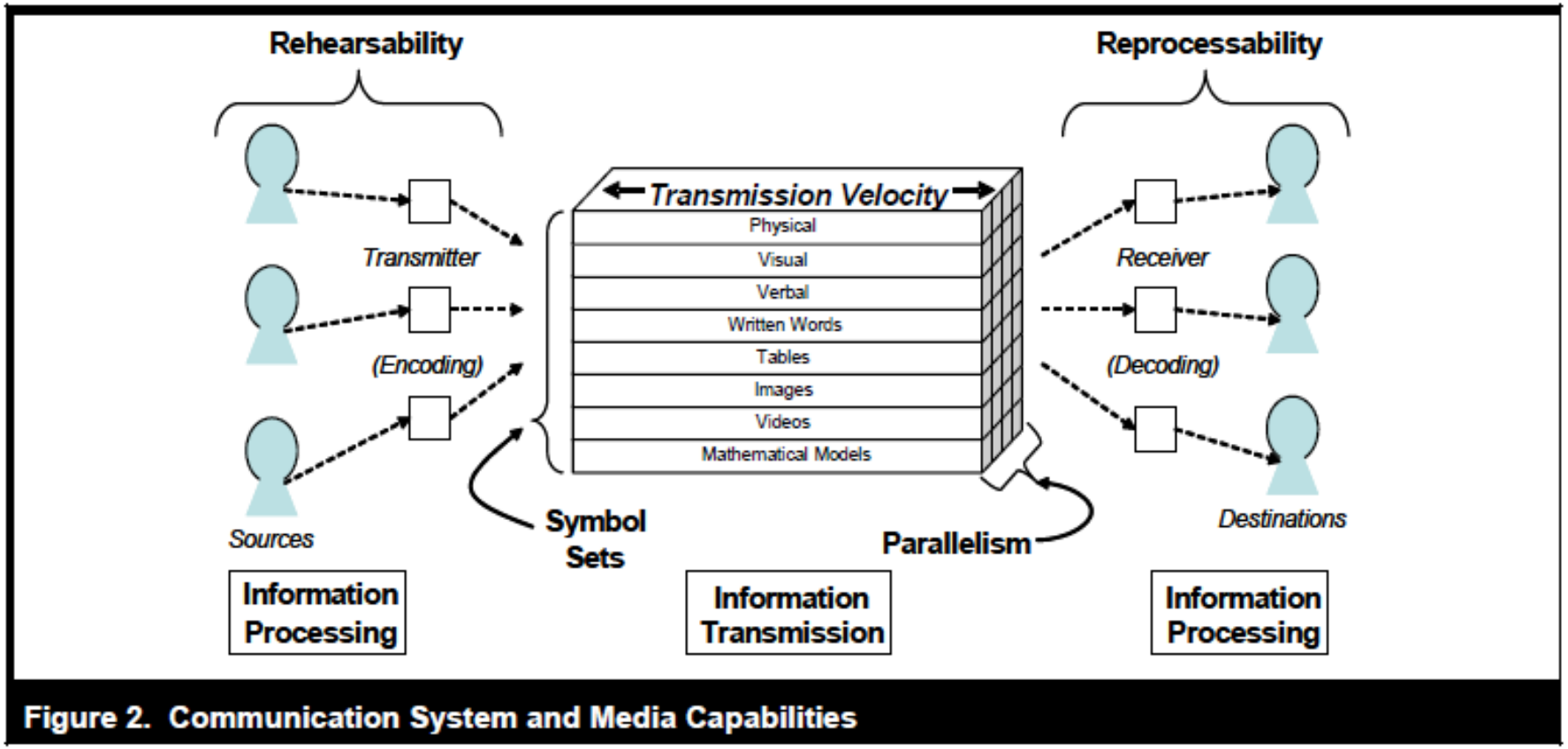


Figure 2. Communication System and Media Capabilities

Dennis et al. (2008),"Media, Tasks, and Communication Processes: A Theory of Media Synchronicity", MIS Quarterly (32:3), 575-600

Media Synchronicity Theory (MST)

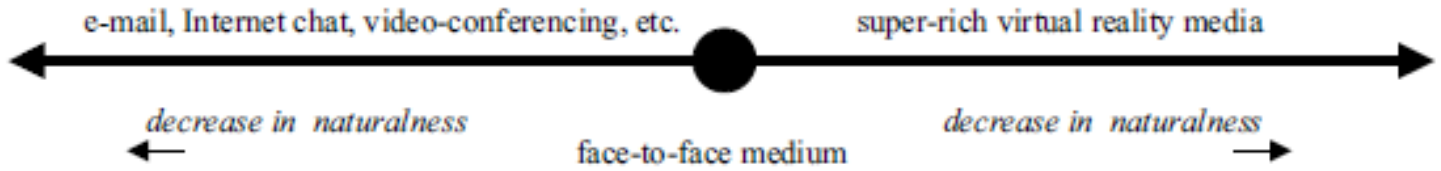
Table 2. Comparsion of Selected Media and Their Capabilities

	Transmission Velocity	Parallelism	Symbol Sets	Rehearsability	Reprocessability	Information Transmission	Information Processing	Synchronicity
Face-to-face	High	Medium	Few-Many	Low	Low	Fast	Low	High
Video Conference	High	Medium	Few-Medium	Low	Low	Fast	Low	High
Telephone Conference	High	Low	Few	Low	Low	Fast	Low	Medium
Synchronous Instant Messaging	Medium-High	Low-Medium	Few-Medium	Medium	Medium-High	Medium	Low-Medium	Medium
Synchronous Electronic Conferencing	Medium-High	High	Few-Medium	Medium	High	Medium	Medium	Low-Medium
Asynchronous Electronic Conferencing	Low-Medium	High	Few-Medium	High	High	Slow	High	Low
Asynchronous Electronic Mail	Low-Medium	High	Few-Medium	High	High	Slow	High	Low
Voice Mail	Low-Medium	Low	Few	Low-Medium	High	Slow	Medium	Low
Fax	Low-Medium	Low	Few-Medium	High	High	Slow	High	Low
Documents	Low	High	Few-Medium	High	High	Slow	High	Low

Dennis et al. (2008),"Media, Tasks, and Communication Processes: A Theory of Media Synchronicity", MIS Quarterly (32:3), 575-600

Media Naturalness Theory (MNT)

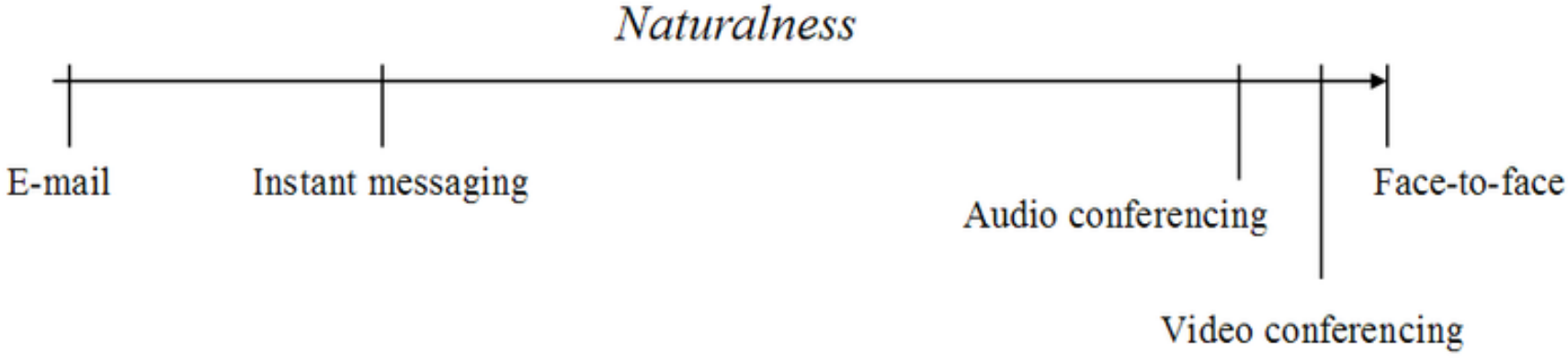
Figure 1 The Media Naturalness Scale



Note. The highest degree of naturalness is found at the center of the scale.

Kock, N. (2004). The psychobiological model: Towards a new theory of computer-mediated communication based on Darwinian evolution. Organization Science, 15(3), 327-348.

Media Naturalness Theory (MNT)



Media naturalness scale

Source: https://secure.wikimedia.org/wikipedia/en/wiki/File:Media_naturalness_theory_Fig2.png

Theories of Information Systems

- Theory of Reasoned Action (TRA)
- Technology Acceptance Model (TAM)
- Theory of Planned Behavior (TPB)
- Unified Theory of Acceptance and Use of Technology (UTAUT)
- Integration of User Satisfaction and Technology Acceptance (IUSTA)

TRA (1975)

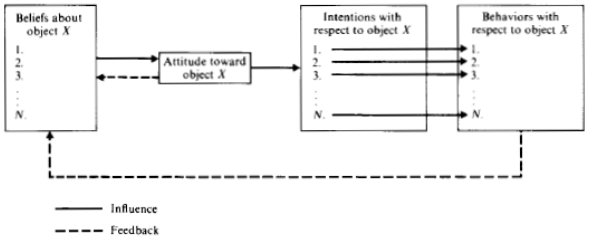


Fig. 1.1 Schematic presentation of conceptual framework relating beliefs, attitudes, intentions, and behaviors with respect to a given object.

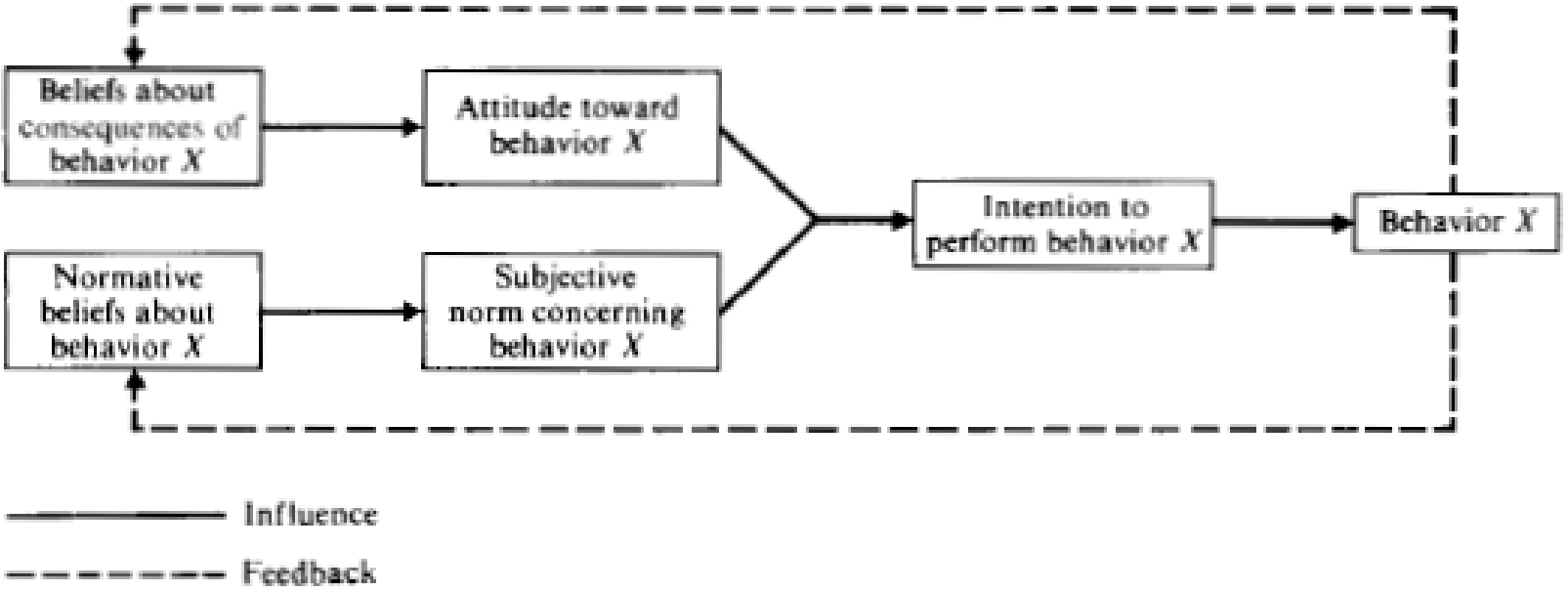
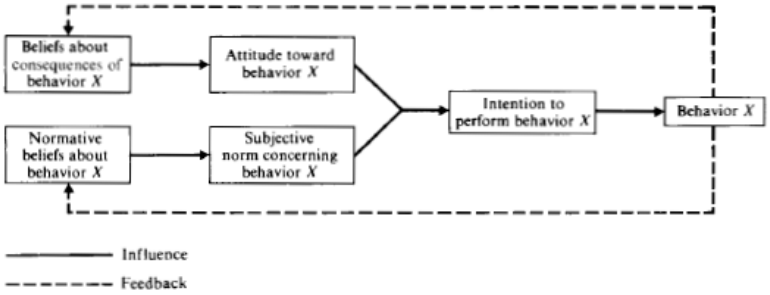


Fig. 1.2 Schematic presentation of conceptual framework for the prediction of specific intentions and behaviors.

Fishbein, M., & Ajzen, I. (1975). Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. Reading, MA: Addison-Wesley.

TRA (1989)



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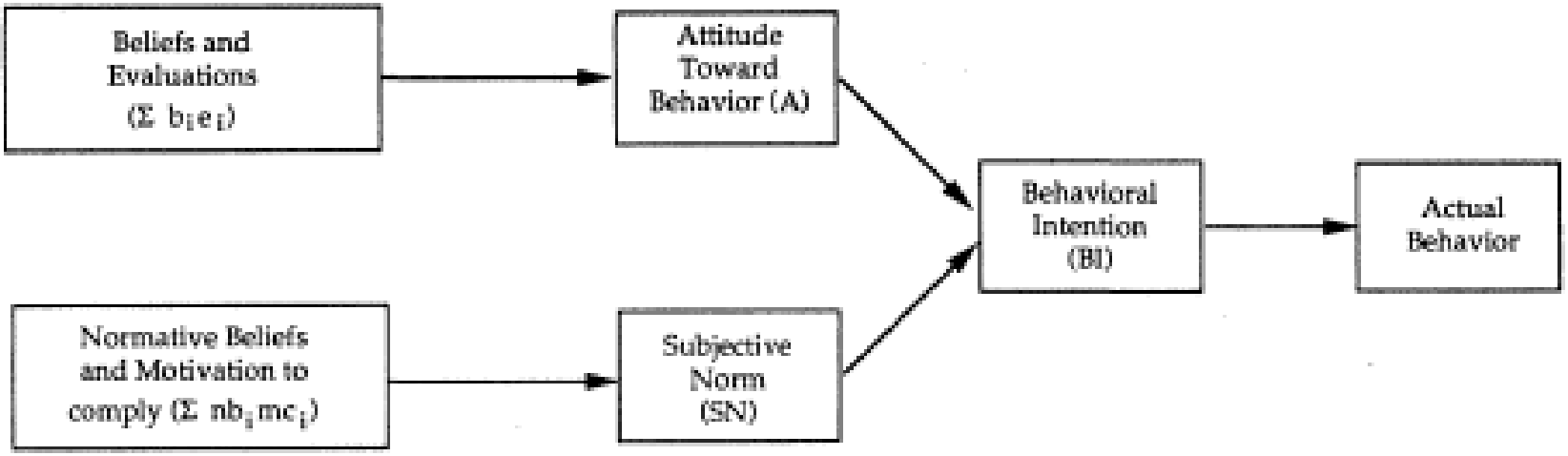
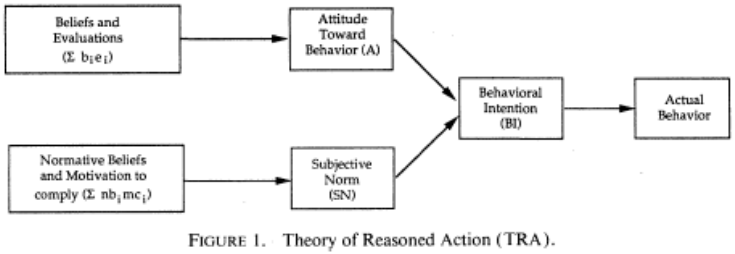


FIGURE 1. Theory of Reasoned Action (TRA).

Davis,F.D.,R.P.Bagozzi and P.R.Warshaw,"User acceptance of computer technology : A comparison of two theoretical models ",Management Science,35(8),August 1989,pp.982-1003

TPB (1985)



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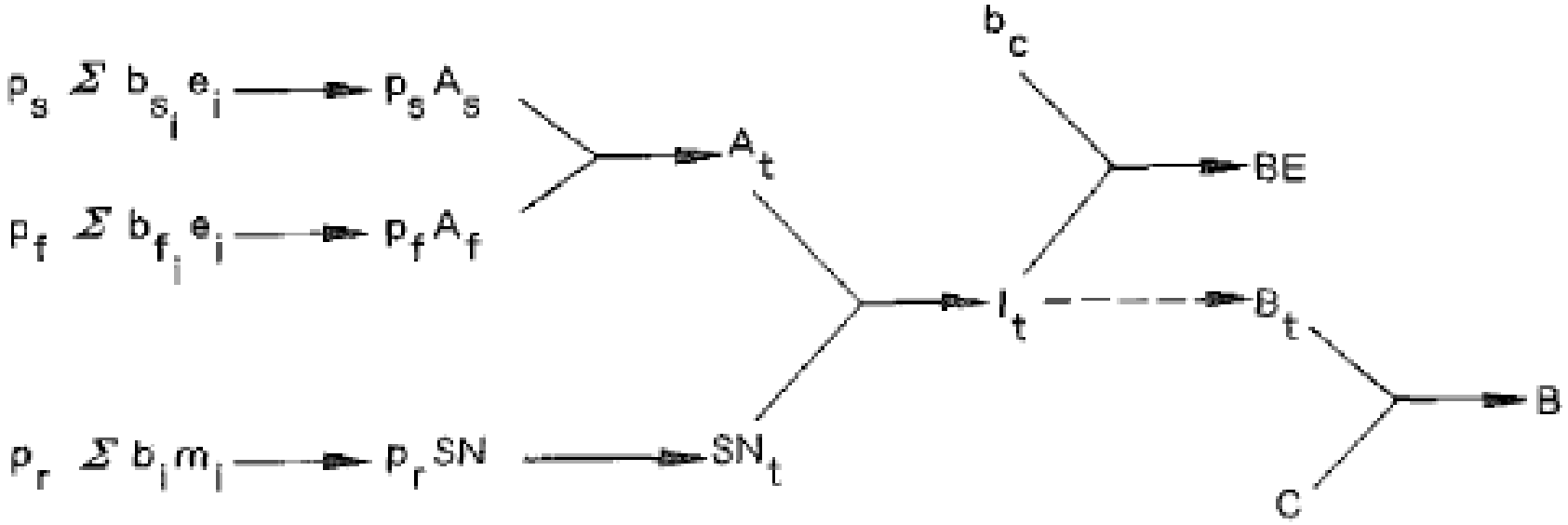


Fig. 2.1. Schematic presentation of the theory of planned behavior

Ajzen, I., (1985) “From Intentions to Actions: A Theory of Planned Behavior,” in J. Kuhl and J. Beckmann (Eds.) Action Control: From Cognition to behavior, Springer Verlag, New york, 1985, pp.11-39.

TPB (1989)

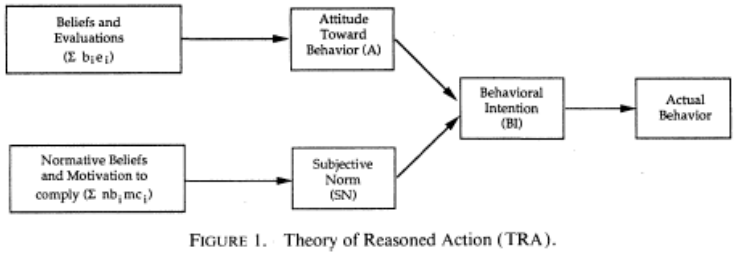


FIGURE 1. Theory of Reasoned Action (TRA).

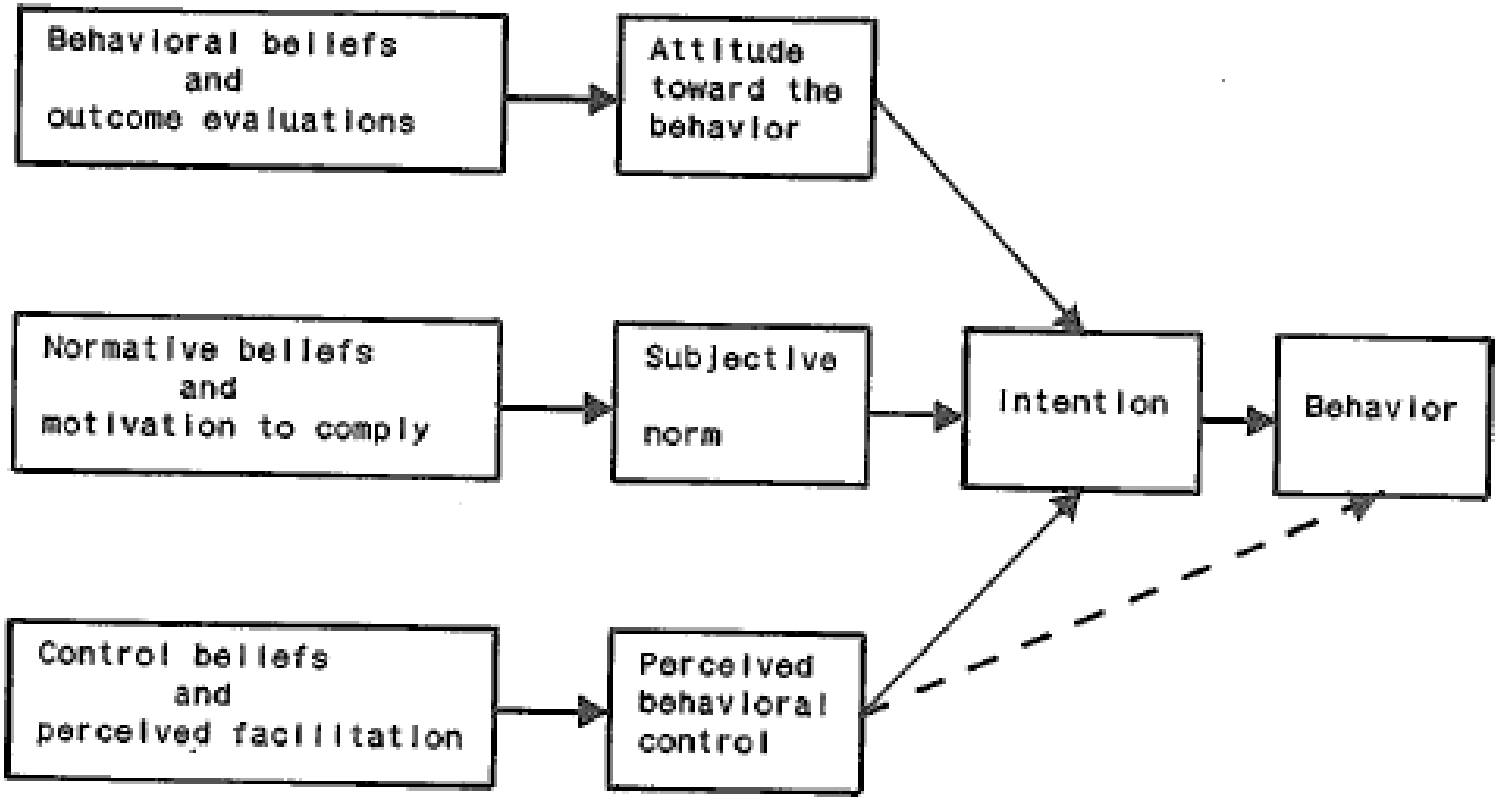
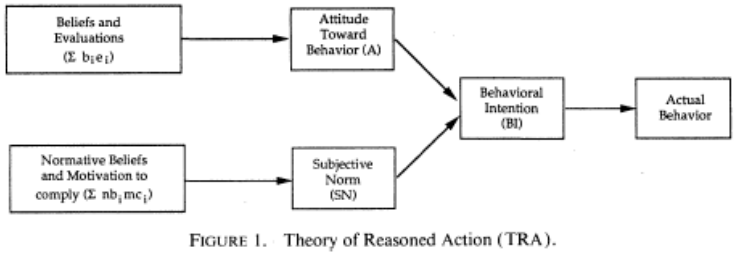


FIG. 10.2. Theory of planned behavior.

Ajzen, I., (1989) “Attitude Structure and Behavior,” in A. R. Pratkanis, S. J. Breckler, and A. G. Greenwald(Eds.), Attitude Structure and Function, Lawrence Erlbaum Associates, Hillsdale, NJ, 1989, pp.241-274.

TPB (1991)



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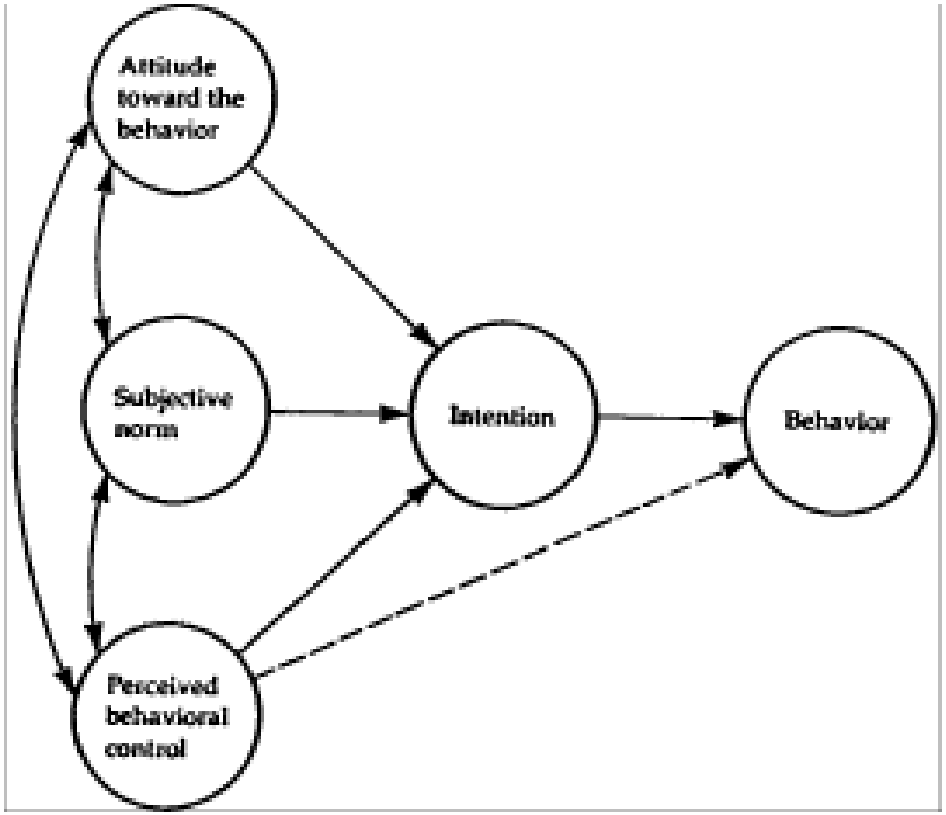

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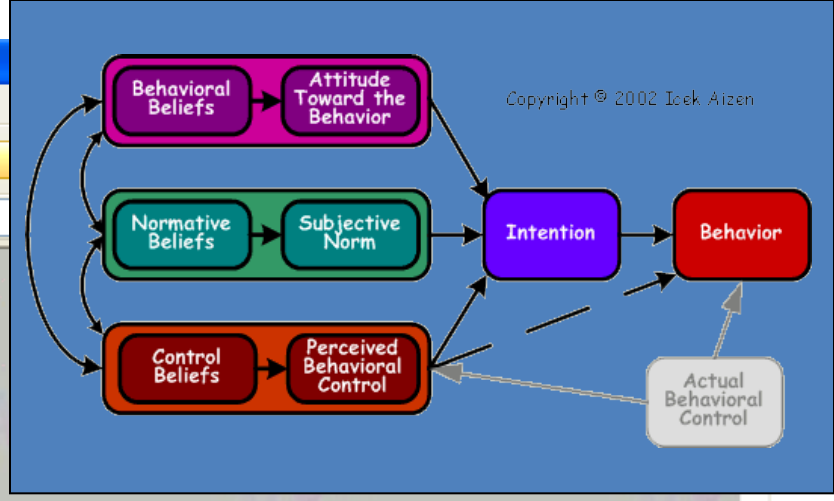
Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50, 179-211.



Icek Aizen (Ajzen): Homepage - Microsoft Internet Explorer

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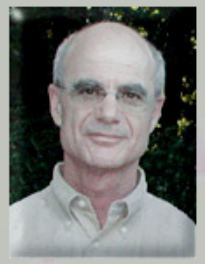

Icek Aizen (Ajzen)

Professor of Psychology
University of Massachusetts

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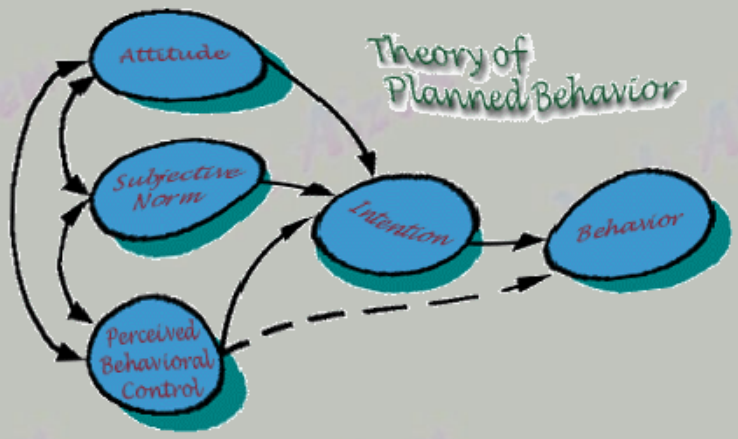

Theory of Planned Behavior

Last modified: April 13, 2005

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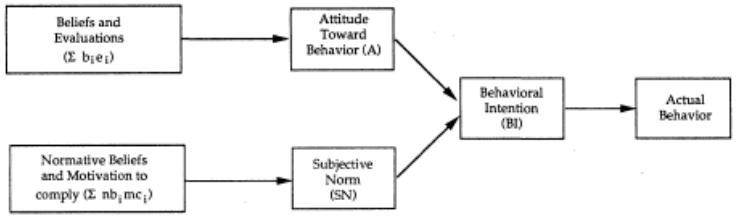
http://www.people.umass.edu/aizen/index.html

TAM (1989)



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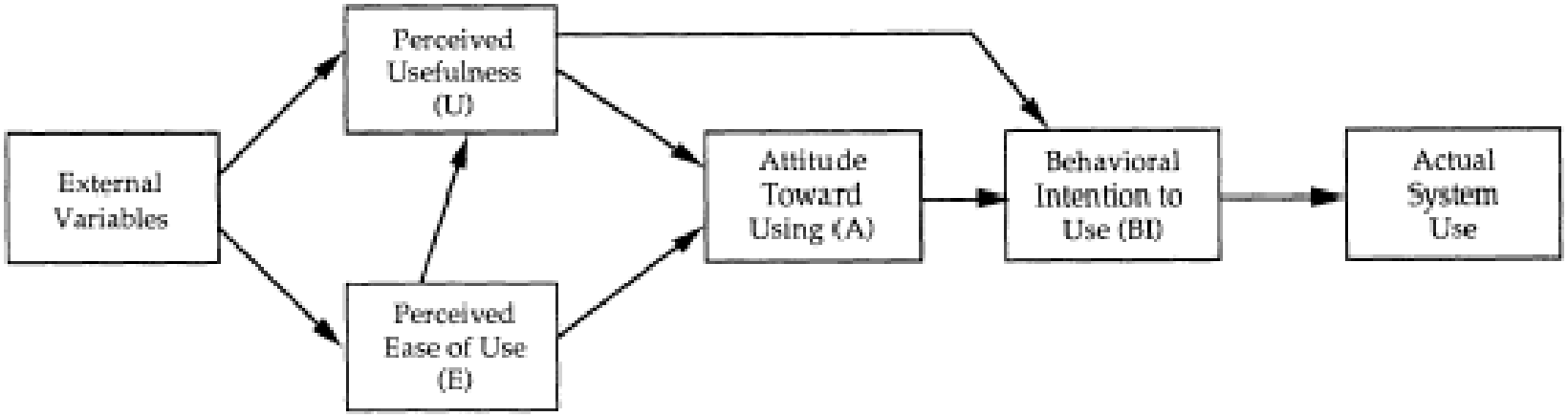


FIGURE 2. Technology Acceptance Model (TAM).

Davis,F.D.,R.P.Bagozzi and P.R.Warshaw,"User acceptance of computer technology : A comparison of two theoretical models ",Management Science,35(8),August 1989,pp.982-1003

TAM2 (2000)

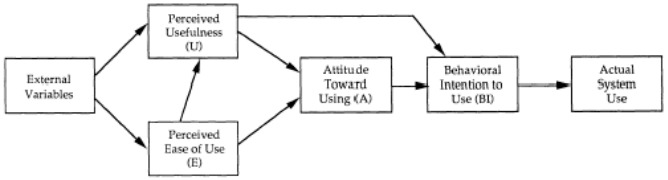
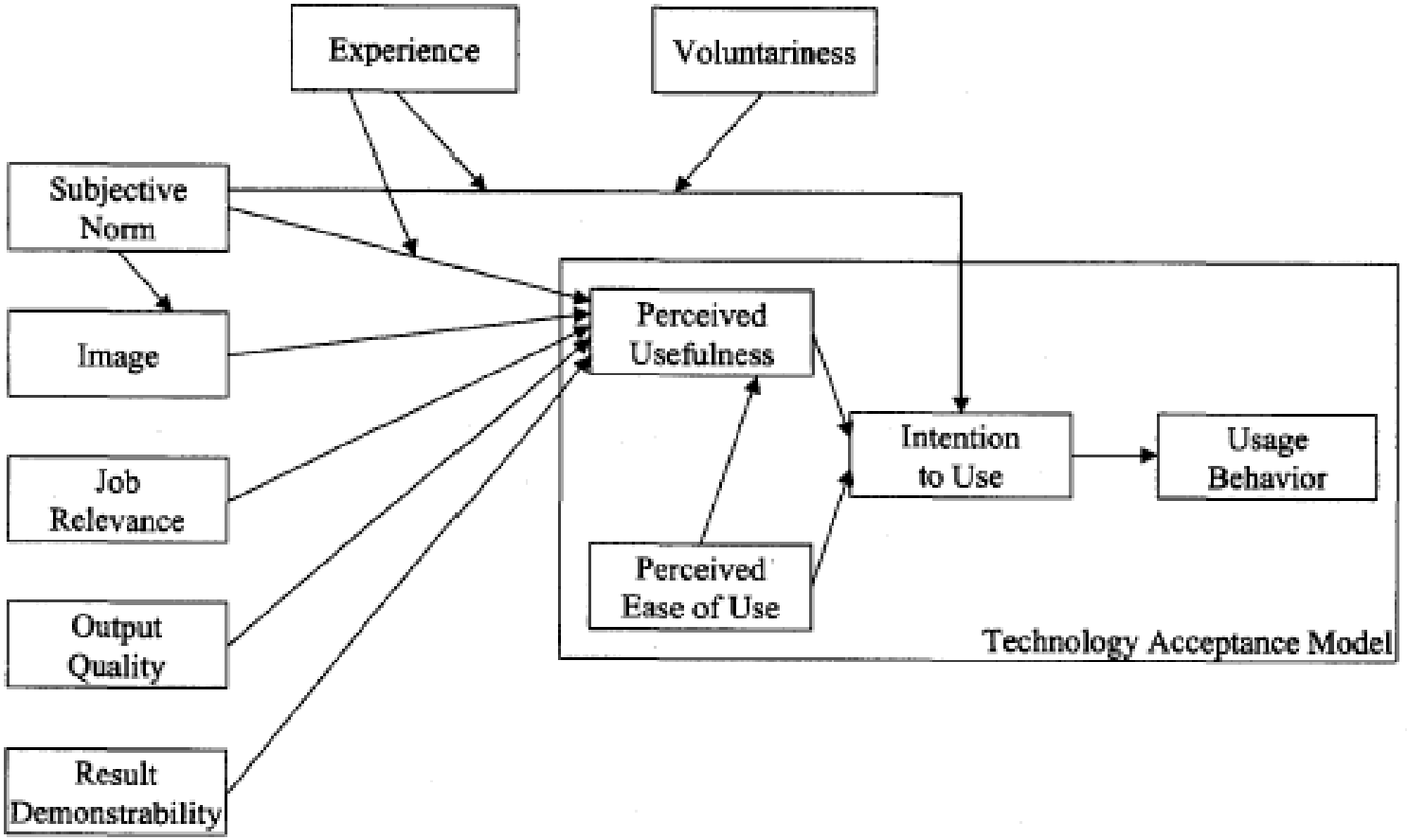


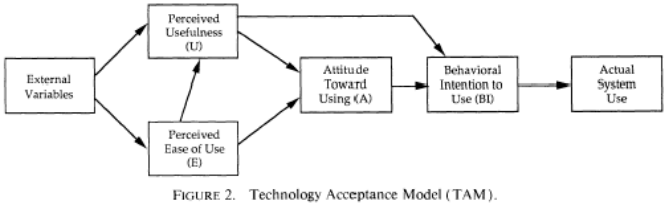
FIGURE 2. Technology Acceptance Model (TAM).

Figure 1 **Proposed TAM2—Extension of the Technology Acceptance Model**



Venkatesh, V., & Davis, F. D. (2000) “A theoretical extension of the technology acceptance model: Four longitudinal field studies”, Management Science, 46(2), pp. 186-204.

UTAUT (2003)



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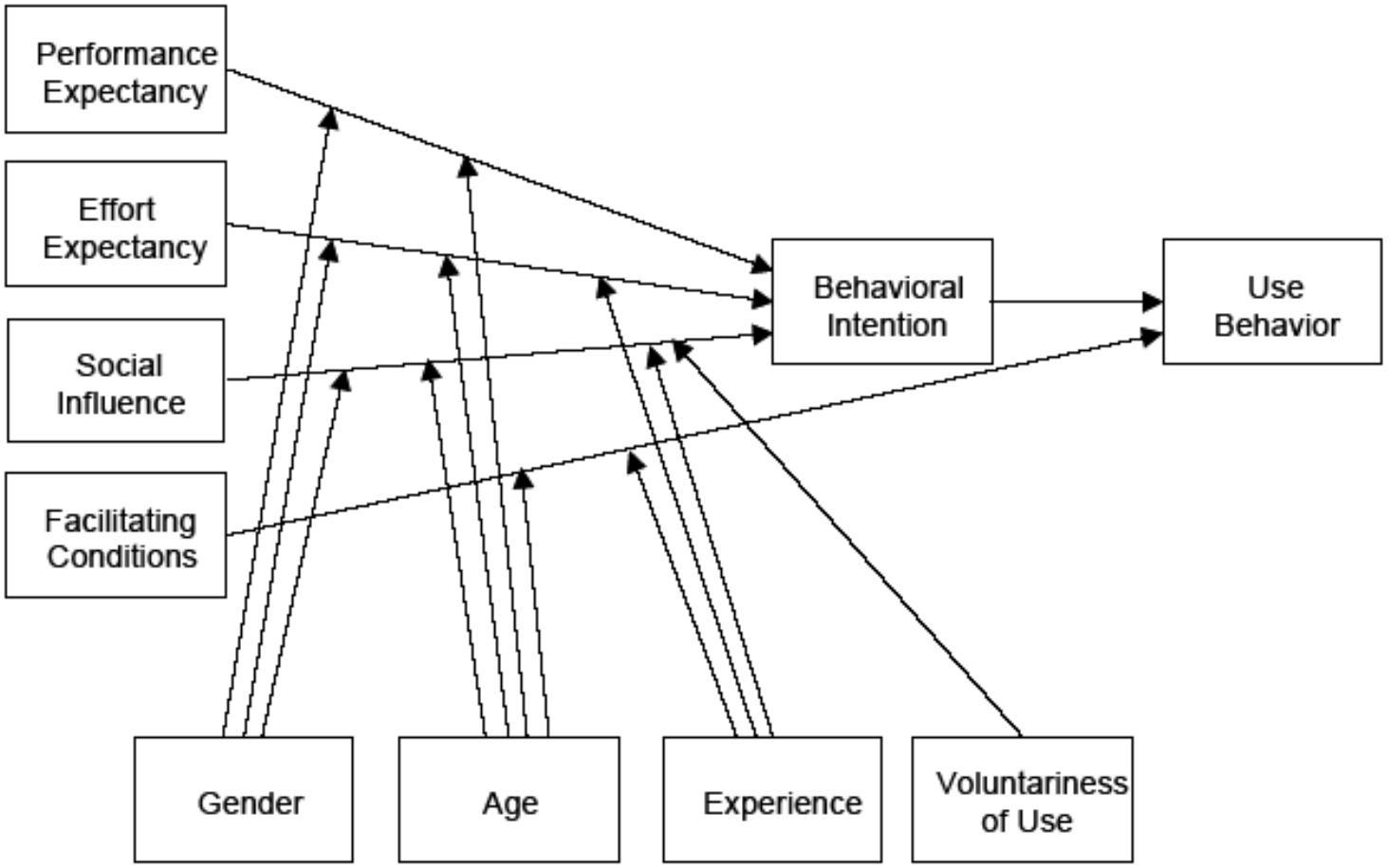
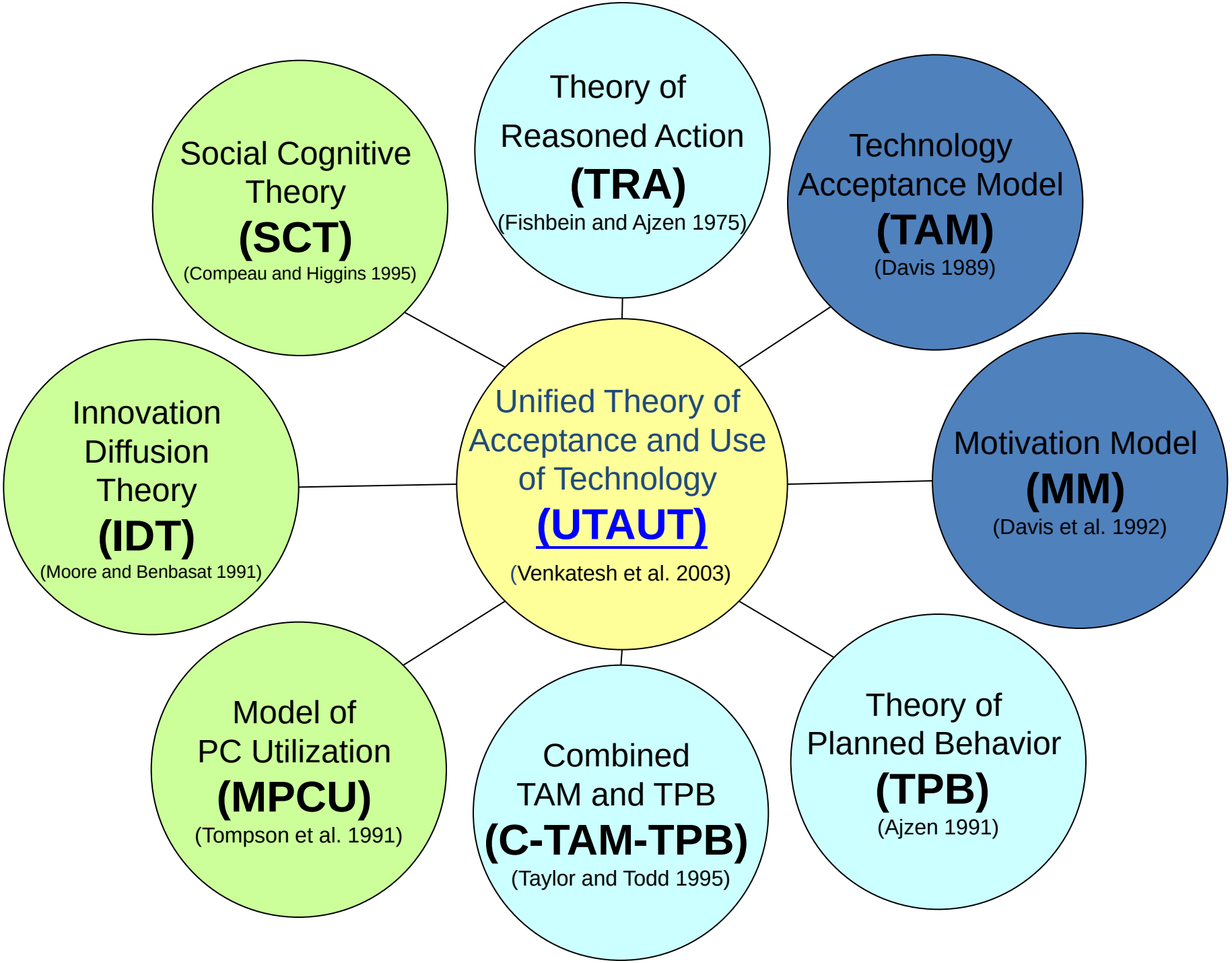


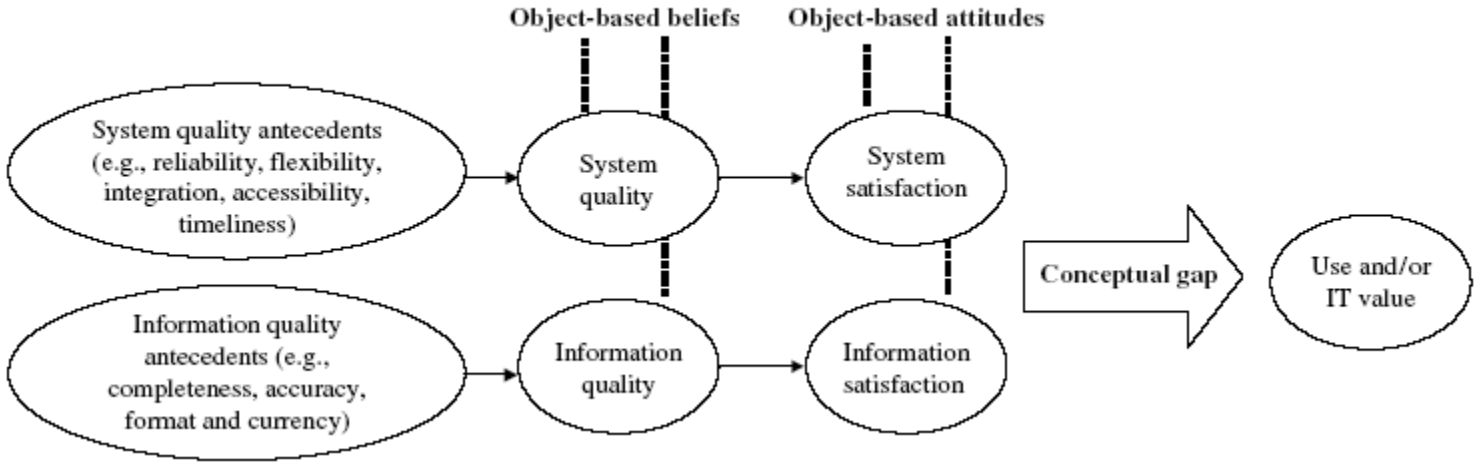
Unified Theory of Acceptance and Use of Technology (UTAUT)

Venkatesh, V., M.G.Morris, G..B.Davis and F.D.Davis (2003), “User Acceptance of Information Technology: Toward A Unified View”, MIS Quarterly, 27(3), pp. 425-478.


Theory of Reasoned Action (TRA) (Fishbein and Ajzen 1975)
Social Cognitive Theory (SCT) (Compeau and Higgins 1995)
Technology Acceptance Model (TAM) (Davis 1989)
Innovation Diffusion Theory (IDT) (Moore and Benbasat 1991)
Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al. 2003)
Motivation Model (MM) (Davis et al. 1992)
Model of PC Utilization (MPCU) (Tompson et al. 1991)
Combined TAM and TPB (C-TAM-TPB) (Taylor and Todd 1995)
Theory of Planned Behavior (TPB) (Ajzen 1991)

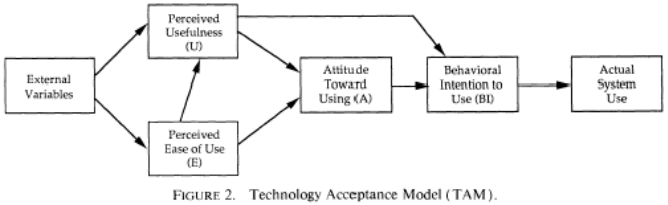
US
(User Satisfaction)

Figure 2 The User Satisfaction Research Stream Approach



Wixom, B.H., and Todd, P.A. "A theoretical integration of user satisfaction and technology acceptance," Information Systems Research (16:1), Mar 2005, pp 85-102.

IUSTA (2005)



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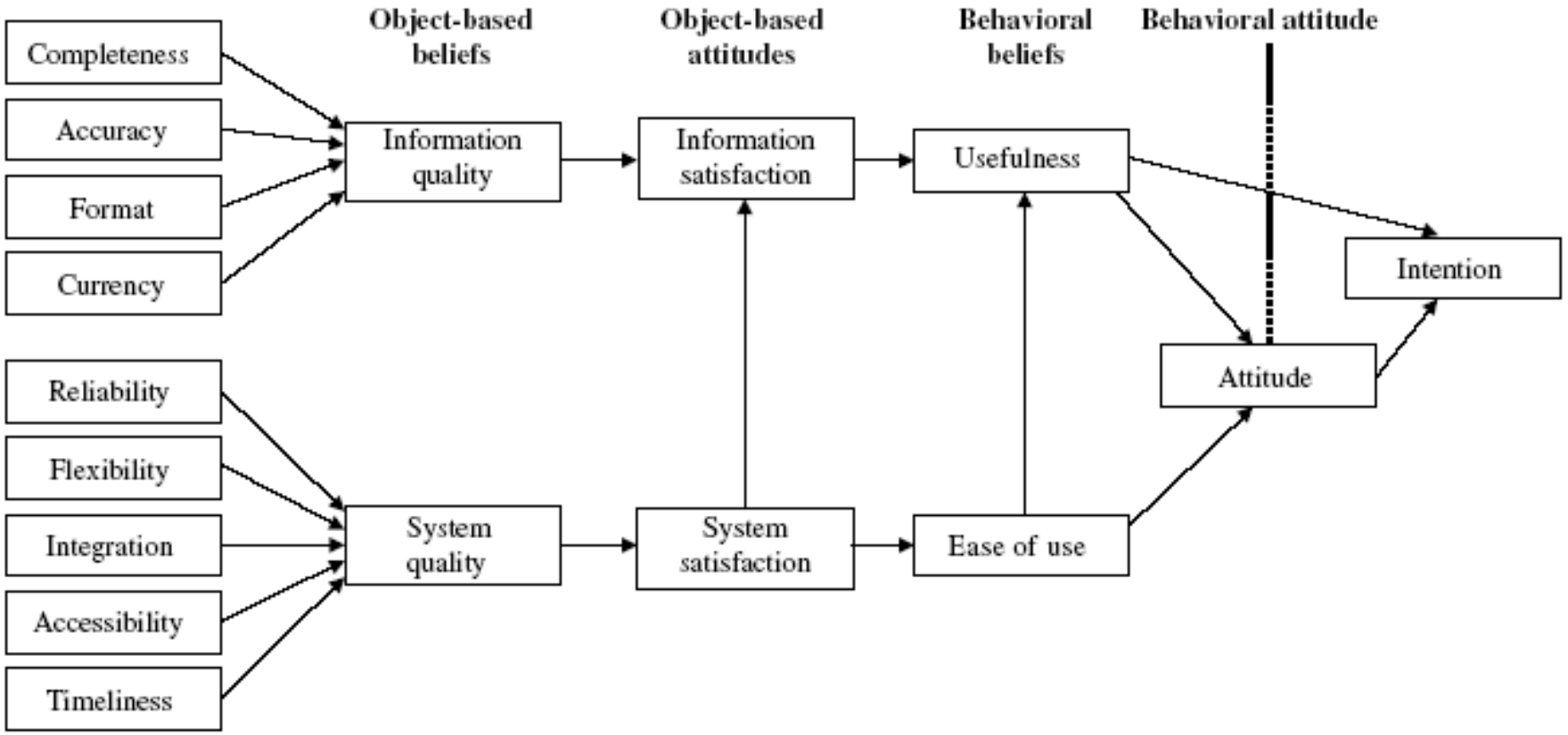
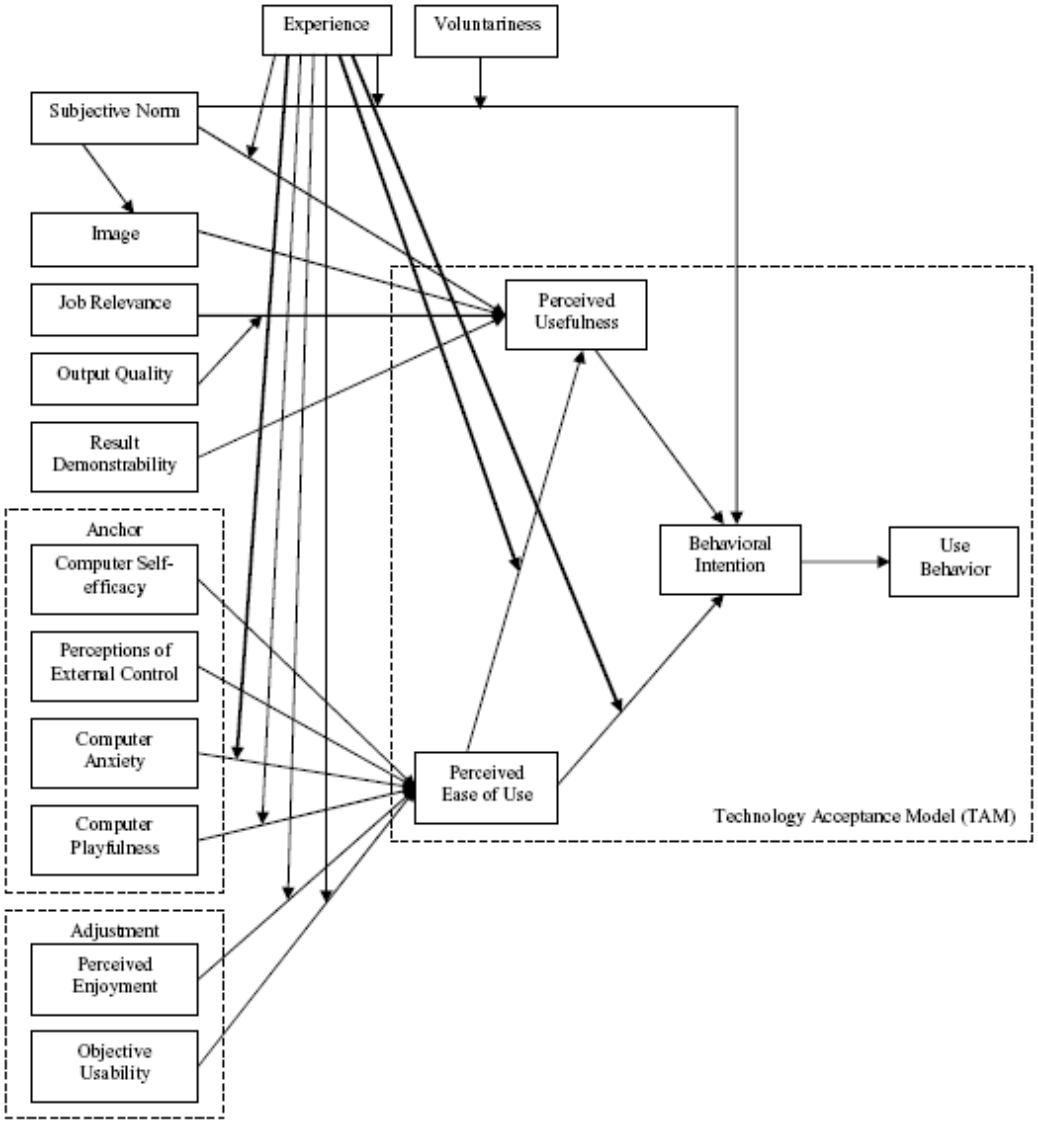


IUSTA (integration of user satisfaction and technology acceptance)

Wixom, B.H., and Todd, P.A. "A theoretical integration of user satisfaction and technology acceptance," Information Systems Research (16:1), Mar 2005, pp 85-102.

TAM 3

(2008)



[a]Thick lines indicate new relationships proposed in TAM3.

Viswanath Venkatesh, Hillo Bala, Technology Acceptance Model 3 and a Research Agenda on Interventions, Decision Sciences, Volume 39, Number 2, May 2008, pp. 273-315.

References

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- Kaplan, Andreas M., Michael Haenlein (2010). "Users of the world, unite! The challenges and opportunities of Social Media". Business Horizons, 53 (1): 59–68.
- Chorng-Shyong Ong and Min-Yuh Day (2010), "An Integrated Evaluation Model of User Satisfaction with Social Media Services," in Proceedings of the IEEE International Conference on Information Reuse and Integration (IEEE IRI 2010), Las Vegas, Nevada, USA, August 4-6, 2010, pp. 195-20