

# Online Meetings 101: How to Run a Successful Online Meeting

Peg McManus  
La Salle University  
Go Green Online Training Conference  
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# Online Meetings

Electronic Meeting Systems

Brainstorming

Conferencing

# Electronic Meeting Systems (EMS)

How to improve meeting productivity?



# Purpose of EMS

- Identify problems
- Discuss solutions
- Make decisions
- Agree on follow up actions

# EMS Functions

- Present or display a file
- Record a meeting
- Brainstorm ideas
- Vote on ideas
- Use whiteboards
- Communicate



# EMS Tools

- File sharing
- Project management
- Discussion threaded area
- Whiteboard
- Pictures area
- Communication: text chat and email
- Forms and database
- Meetings manager
- Document review
- Group calendar
- Co-surfing sessions
- Live presentations
- Voice conferences

# Evaluation of EMS<sup>1</sup>

- Benefits

- Efficiency
- Participation
- Large groups

- Barriers

- No incentives
- Expensive
- Resistance to change

<sup>1</sup> Lewis, et al., 2007

# Electronic Meeting Systems

- Microsoft Groove  
<http://office.microsoft.com/en-us/groove/default.aspx>
- WebEx <http://webex.com>
- Microsoft Live Meeting
- Gotomeeting
  - <https://www1.gotomeeting.com/?Portal=gotomeeting.com>

# Electronic Brainstorming Systems (EBS)



# Purpose of EBS

- Produce creative ideas to solve a problem
- Work individually or in a group

# EBS Functions

- Enter ideas simultaneously
- Clarify ideas
- Organize or Categorize ideas
- Build priorities and evaluate alternatives
- Build consensus or Vote on ideas
- Report summary of ideas and meeting

# EBS Products

- GroupSystems

<http://www.groupsupport.com/EN/products/gsdemo.asp>

- ThinkTank by GroupSystems

- Brainstorming
- Decision making
- Consensus building
- Multi-criteria voting

- Google docs

<http://docs.google.com>

# Patterns in EBS<sup>2</sup>

- Types of brainstorming
  - Traditional: Face-to-face
  - Nominal: Work separately, then pool ideas
  - Electronic: Synchronous
- Obstacles in F2F brainstorming
  - Production blocking: trying to remember ideas
  - Evaluation apprehension: withhold ideas because of fear of negative reaction

2. Dennis, Pinsonneault, Hilmer, Barki, Gallupe, Huber, Bellavance, 2007

# How does EBS improve brainstorming performance?



# Performance Measures

- Process gains –
  - how it improves performance
- Process losses
  - how it impairs performance




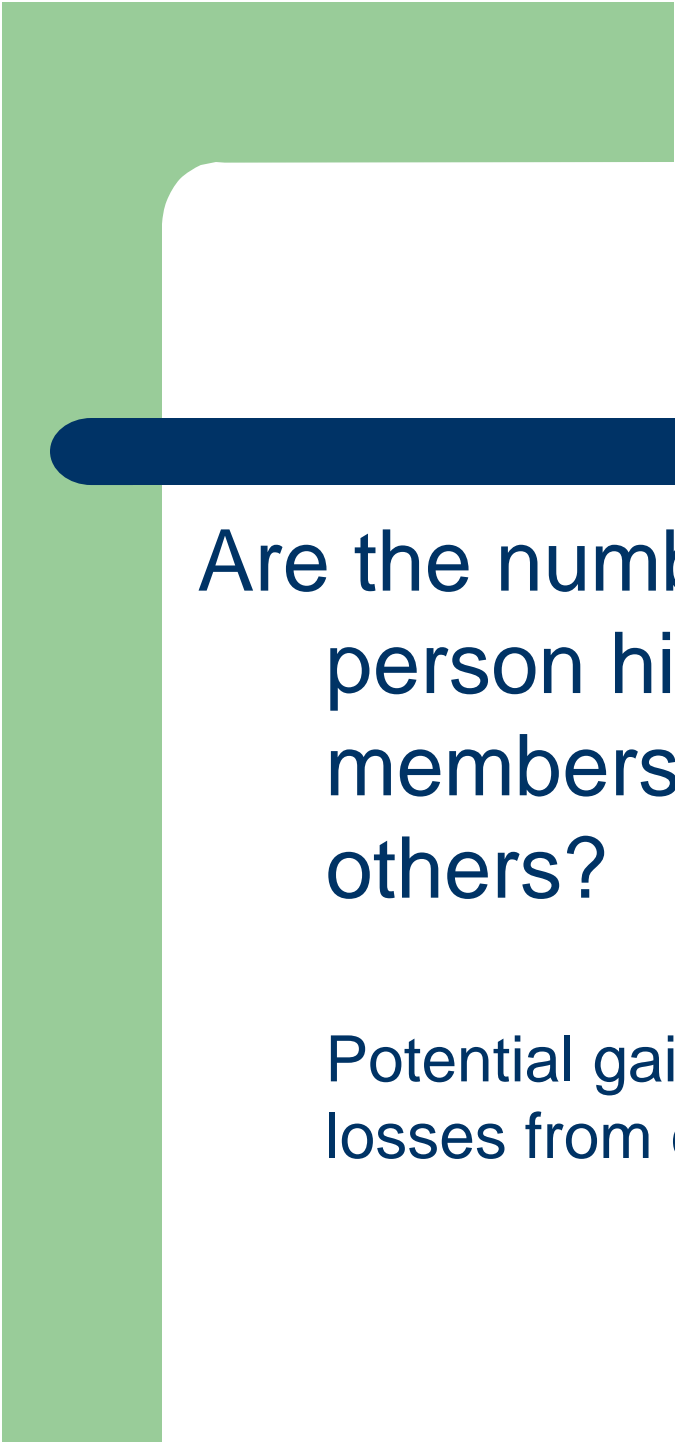
# Key Factors in EBS

- Process Gains

- Synergy
  - Key ideas trigger other ideas

- Process Losses

- Cognitive interference
  - Ideas generated by others interfere with generating new ideas
- Social loafing
  - Free riding; individual works less in a group than individually



Are the number of ideas produced per person higher in groups whose members receive more ideas from others?

Potential gains from synergy exceeds the potential losses from cognitive interference.



Does the number of ideas per person decrease as the group size increases?

As the group size increases, more social loafing will occur.

# EBS Study<sup>2</sup>

216 undergrad students in different size groups

Tasks: Brainstorm ideas to

1. improve the environment
2. increase the amount of tourism in U.S.
3. improve public safety in U.S.

How productive were the groups?

Average number of unique ideas / number of members

Group process satisfaction measure

2. Dennis, Pinsonneault, Hilmer, Barki, Gallupe, Huber, Bellavance, 2007

# EBS Process Results

Type	Task 1	Task 2	Task 3
Nominal			
Ideas	✓	✓	
Satisfied		✓	✓
Electronic			
Ideas			✓
Satisfied		✓	✓

# EBS Lessons Learned

- Synergy
  - Effects are due to the group size
- Social loafing
  - Is not affected by the group size
- Time
  - Plays a critical role in producing ideas
- Idea generation
  - EBS entails more complex idea generation process than nominal brainstorming

**How big should the group be?**

# Study of Effect of Group Size<sup>3</sup>

- As group size increases, the relative benefit of EBS increases, especially when group size is 10

3. Dennis and Williams, 2007

# Evaluation of EBS

- Process Gains

- Synergy
- Social facilitation

- Process losses

- Production blocking
- Evaluation apprehension
- Anonymity
- Social loafing
- Cognitive interference
- Communication speed

# Role of Group Size

- Large EBS should generate more ideas than verbal brainstorming (VBS) of same size
- EBS experiences synergy that increases with group size

# EBS: Group Results

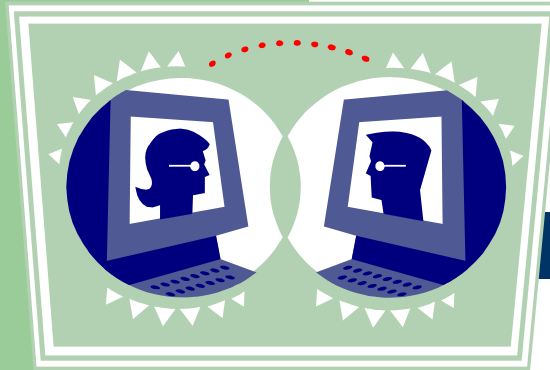
Type of brainstorm	Group of 2- 3	Group of 4	Group of 10
Verbal	✓		
Nominal	✓		
Electronic IM, Web Boards		✓	✓

Synergy increases ----->

# Lessons Learned

- Large groups
  - EBS can improve creativity
    - Increased synergy and social facilitation
    - Reduced production blocking and cognitive interference
    - web-based brainstorming, web boards, IM, or email tools
- Small groups
  - Nominal groups are better

# Conferencing, Videoconferencing and Webinars



# Types of Conferencing

- Audio conferences
- Web conferences
- Video conferences

# Features

- Shared applications
  - Shared whiteboard
  - Chat
  - Polling
  - Shared screen

# Psychological and Social Impact

- Meetings between and within offices
- Gaze and eye contact
- Status of meeting participants
- Meeting coordination
- Image size and personal impact
- Video image and social distance
- Privacy and surveillance

# Technological Challenges

- System response time delays
- Audio levels and noise
- Sound localization
- Lighting and camera angles
- Video transmission

# Implications for Future Design

- Interface needs to consider F2F situations
  - metaphors for communication & privacy
- Provide features for controlling images
  - visual controls

# Audio Conferences

- Analog connection
  - Uses analog line
  - Uses circuit switching
    - Line open for entire conversation
- Voice over Internet (VOIP)
  - Uses digital connection
  - Uses packet switching
    - Data packet sent with parts of conversation
    - Uses most efficient path over the Internet

# Telephony Resources

- AT&T [www.att.com](http://www.att.com)
- Audio conferencing [www.acttel.com](http://www.acttel.com)
- Audio conferencing [www.voyant.com](http://www.voyant.com)
- Comm Web – Technical information  
[www.cconvergence.com](http://www.cconvergence.com)
- Internet Telephony Magazine  
[www.tmcnet.com/it](http://www.tmcnet.com/it)
- Sykpe <http://skype.com>

# Web Conferencing or Webinars

- Online meetings
  - Digital media, data, voice, video
- Customer-service support
- Large meetings
- Training and presentations
- Business Exchange feature
  - Synchronous and asynchronous
- Market of \$2.7 Billion by 2007<sup>4</sup>



# Web Conferencing Tools

- iLinc
  - [www.ilinc.com](http://www.ilinc.com)
- WebEx
  - <http://webex.com/>
- Gotomeeting
  - [Gotomeeting.com](http://gotomeeting.com)
- Documentum's eRoom
  - <http://software.emc.com/microsites/eRoom/index.jsp>
- Wimba
  - [www.wimba.com](http://www.wimba.com)
- Elluminate
  - [www.illuminate.com](http://www.illuminate.com)

# Video Conferencing

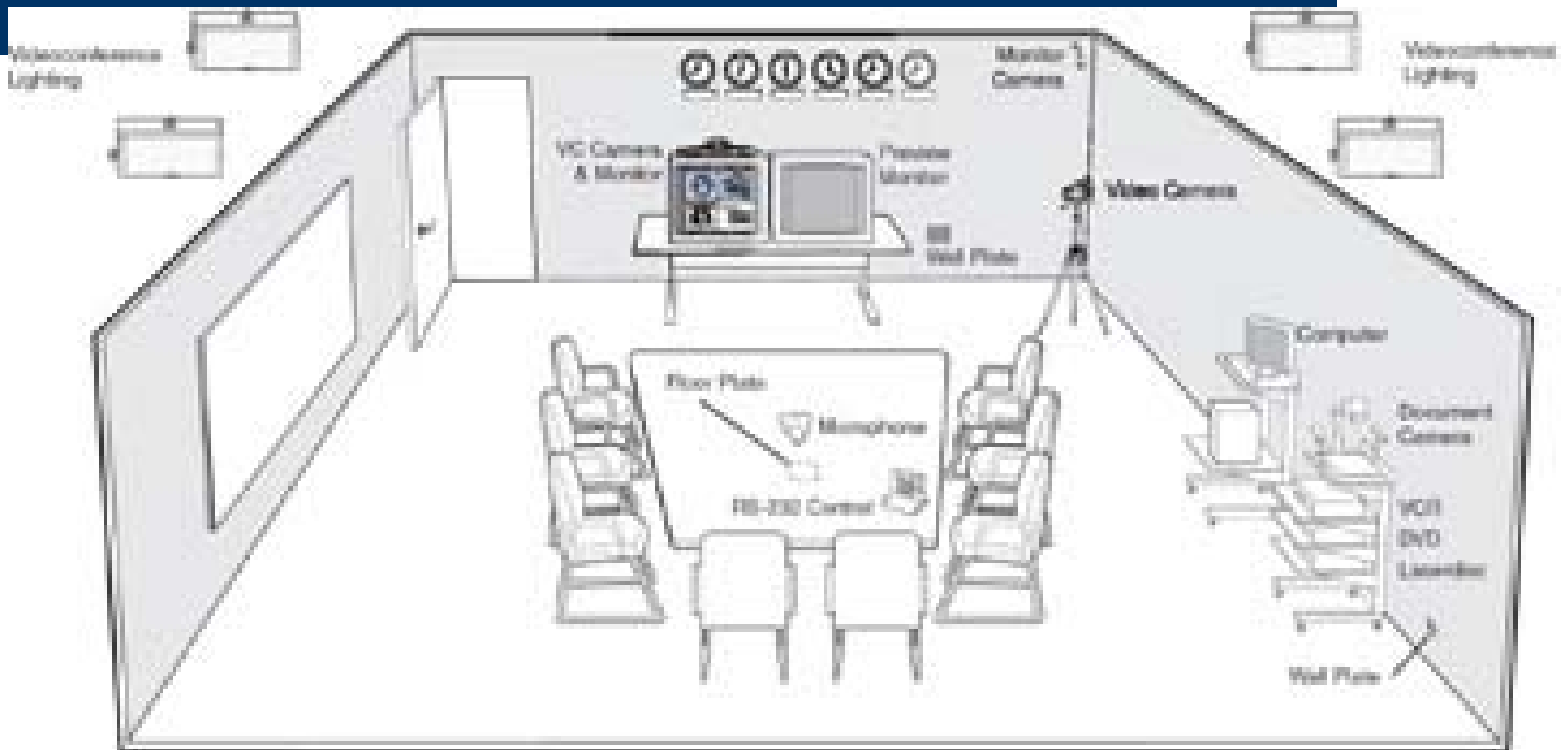
- Virtual meetings
- Document collaboration
- Customer service
- Telecommuting
- Distance learning
- Technical support
- Market projected for 2009 \$1.7B

# Videoconferencing Features

- Application sharing
- Shared Whiteboard
- Chat
- Polling
- File transfer
- Shared clipboard
- Directory Service



# Components of an Integrated Videoconferencing System



<http://picturephone.com/index.htm>

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# Example: Tandberg System

- Connections
  - Two La Salle University locations, 30 miles apart
- Technology
  - VOIP, Speed of 768 Kpbs
- Components
  - Codec (Coder/Decoder)
  - Control systems– to monitor, DVD
  - Video sender and receiver
  - Audio sender and receiver
  - Power control
  - TV
  - Cameras

# Current VC Systems:

## MSN Messenger, MS-LiveMeeting

- Real-time Internet conferencing system
  - Internet phone
  - TCP/IP
- Multi-user sharing
  - Application sharing
  - Data sharing
  - Chat
  - Video

# Spatiality<sup>5</sup>

- Studied Video-mediated Communication (VMC)
  - Individual views and gaze awareness
  - Tabletop systems
- Research questions
  - Extent to which persons feel “being together”
  - Usability of systems regarding efficiency
- Task
  - Matching dog photos with owners

<sup>5</sup> Study by Hauber, Regenbrecht, Billingham, Cockburn, 2006

## Four Environments

- Face-to-face: in person
- Spatial-local: LCD monitor
- 2D: conventional VC system
- 3D: video-persons around a virtual table

# Results

Type	Gaze awareness, social presence	Ease of use	User preference
F2F			✓
Spatial Local	✓		
2D		✓	
3D			

# Online Meeting System Evaluation

- Features:
  - Basic and advanced
  - Interface design
- Cost:
  - Acquisition
  - Hardware and equipment
  - Annual cost
- Architecture
  - Installation and configuration
  - Standards, operating systems, and protocols supported
  - Security
- Usability
  - Ease of learning
  - Ease of use
- Extensibility
  - Scalability
  - Portability
  - Robustness
  - Integration with other products
  - Reliability

## Make your meeting a success with an EMS!

- Communicate and discuss ideas
- Support synergy and social facilitation
- Brainstorm with groups of size 4+
- Use good eye contact and personal impact
- Reduce travel time
- Enhance collaboration

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**Questions?**



Contact

Peg McManus  
[mcmamus@lasalle.edu](mailto:mcmamus@lasalle.edu)