Directed Brainstorming: New Techniques to Improve Idea Generation

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Why do we brainstorm?

- Get Lots of ideas
- *Push the envelope*
- Converge on key ideas
- When:
  - Not enough time
  - Information Overload

Advantages of Electronic Brainstorming

- **Many more ideas**
- **Better Ideas**
- **Faster**
- **Creates Shared Vision**
- **Exhaustive**

Shortcomings of Electronic Brainstorming

- **Low concentration of good ideas**
- **Slow convergence**
  - **picking out the good ideas from the noise**

Solution:
Directed Brainstorming

Three Methods

- Comparative Brainstorming
- Point-Counterpoint
- Metaphors

Can't I do these techniques without a computer?

Yes. But a computer supported process can give you some nifty gains over doing these processes without one.

Electronic Brainstorming Tool

- **Each starts on a different page**
- **Each enters a single idea**
- **Submit the page to the group**
- **Random retrieval of a new page**

Comparative Brainstorming Example

- Warfighters generating courses-of-action
  - Criteria:
    - Faster
    - More Deadly
    - Smaller Footprint
    - Fewest Casualties

How Fast Is It?

- 8 warfighters responding to crisis
- 56 good ideas in 7 min
- Sorted to three categories in 6 min
- Prioritized in categories 8 min
- Recommendations to Admiral in under 1/2 hour

Comparative Brainstorming Example

- Strategic Planners generating possible action items
  - Criteria:
    - Better customer service
    - Reduced cost
    - Higher quality products
    - Sustainable competitive advantage

Field Results for Comparative Brainstorming

- <u>Much</u> higher concentration of good ideas

- Idea quality <u>improves</u> over time
    - Ever seen that before in an electronic brainstorming session?

- FastFocus Convergence (picking out the good ideas from the noise)

Lab Results for Comparative Brainstorming

- 2.5 to 3 times the number of ideas are produced.
- Much higher percentage concentration of good ideas.

Point-Counterpoint Example

- 15 Academic giants attempting to define a new discipline: Digital Documents
- Two days of argument yielded no agreement on core

When would you use Point-Counterpoint ?

- Need to break an impasse
- Group members have different world views
- Need for rapid COA analysis

Other Point-Counterpoint Examples

- Should database be included as a component of technofluency?
- Should Football be eliminated from the high school
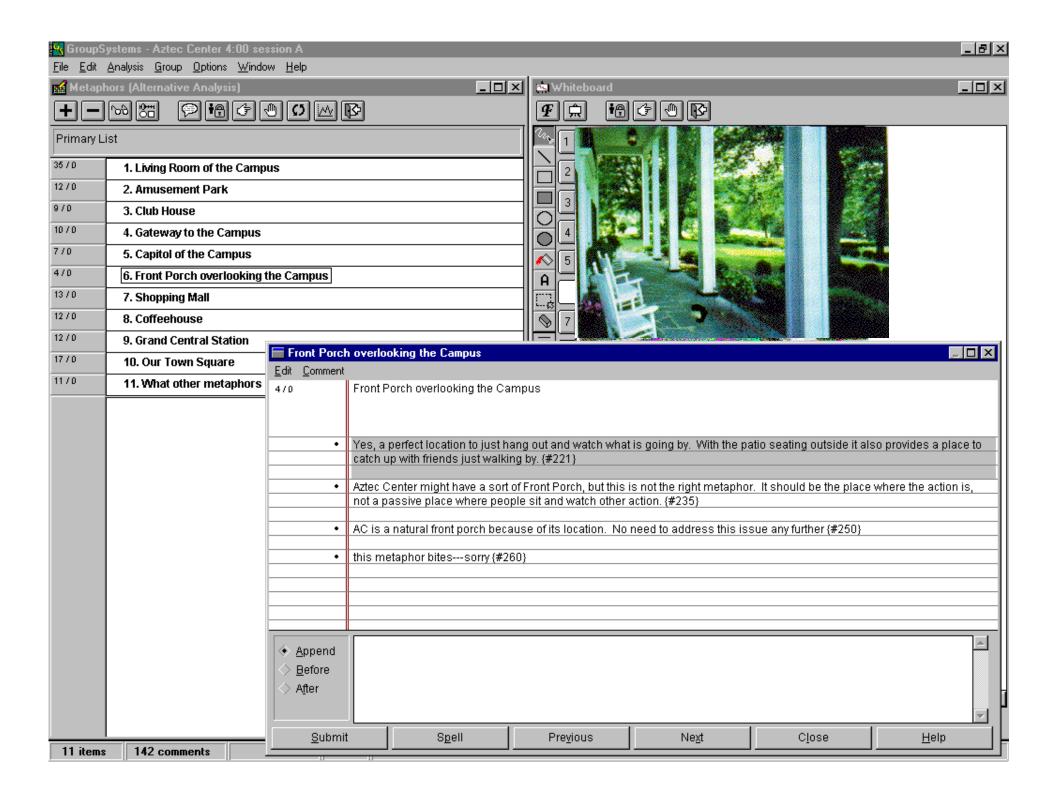
Metaphors Example

- San Diego State Student Union
- Stretch participant thinking about requirements
- Look at space in new and different ways

List-builder and Whiteboard

File   Edit   Analysis   Group   Options   Window   Help

Metaphors (Alternative Analysis)

Primary List

35 / 0	**1. Living Room of the Campus**
12 / 0	**2. Amusement Park**
9 / 0	**3. Club House**
10 / 0	**4. Gateway to the Campus**
7 / 0	**5. Capitol of the Campus**
4 / 0	**6. Front Porch overlooking the Campus**
13 / 0	**7. Shopping Mall**
12 / 0	**8. Coffeehouse**
12 / 0	**9. Grand Central Station**
17 / 0	**10. Our Town Square**
11 / 0	**11. What other metaphors**

11 items   **142 comments**

Whiteboard

Front Porch overlooking the Campus

Edit   Comment

4 / 0	Front Porch overlooking the Campus
•	Yes, a perfect location to just hang out and watch what is going by. With the patio seating outside it also provides a place to catch up with friends just walking by. {#221}
•	Aztec Center might have a sort of Front Porch, but this is not the right metaphor. It should be the place where the action is, not a passive place where people sit and watch other action. {#235}
•	AC is a natural front porch because of its location. No need to address this issue any further {#250}
•	this metaphor bites---sorry {#260}

◆ Append
◇ Before
◇ After

Submit   Spell   Previous   Next   Close   Help

Data Collected from 2 Sessions

- 9 Participants
- 32 Vision comments
- 158 Metaphor comments
- 25 Key Issues surfaced
- 145 SWOT comments
- 29 SWOT issues surfaced

- 11 Participants
- 66 Vision comments
- 142 Metaphor comments
- 31 Key Issues surfaced
- 131 SWOT comments
- 20 SWOT issues surfaced

Pitfalls of Directed Brainstorming

- Poor understanding of what constitutes a good solution

- Incorrect criteria

- Criteria at wrong level of specificity

Fast Convergence Approaches

- FastFocus
- One-up Proposals
- Popcorn Sort
- Pick Six

FastFocus Building

- Leave participants in EBS

- You Open a ballot on public screen

- Facilitator says:
  - *"You each have a different piece of the conversation in front of you"*
  - *"Tell me the most important idea on your screen."*
  - *"I'll add it to the public list*

One-up Proposals

- Group in EBS, Facilitator in new list
  - "You each have a different piece of the conversation in front of you"
  - "Give me an idea from the screen in front of you that is better than the ones on the public list"

Popcorn Sort

- Move ideas into Categorizer
- Set up buckets for each criteria
- Simultaneously move ideas to buckets
- Review each bucket for mis-placed ideas

Pick Six

- Each person types key issues onto public list (Gasps of horror)
- Multiple Selection vote on all items (6 items)
- Refine only the top items

Where do we go next?

- You try it out and report back to us: bbriggs@groupsystems.com

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- Lab experiments!

- Rigorous Field Examinations

- New Directed Brainstorming Processes