

M-Views Evaluation

Pengkai Pan, David Crow, Lilly Kam, William Stoltzman, Meng Mao, Glorianna Davenport
Interactive Cinema Group, the MIT Media Lab
October 2003

Our goal is to investigate how the audience will participate in mobile cinema and how the M-Views system will support both presentation and creation of mobile cinema content. We are going to conduct four comparative evaluation studies: *MIT in Pocket*, *15 Minutes*, Media Lab tour production, and Media Lab tour presentation. Each study focuses on several technical, aesthetic, and methodological issues in mobile cinema. We expect to finish the four studies by February 2004.

Evaluation Study One: *MIT in Pocket*

What we want to learn:

- What is the role of ambient environment? (A sequence is played back at the same production location vs. the sequence is not played back at the same production location.)
- How can the M-Views system adapt to various reactions of the audience, and still present stories in coherent ways?
- How do communication channels among the members of the audience affect participatory experience? (The audience does not communicate with each other vs. the audience does communicate with each other.)
- What is the effort to set up, deploy, and support *MIT in Pocket*? (For example, how much effort and how many hours to set up hot spots? Is an escort required for each test?)

Participants:

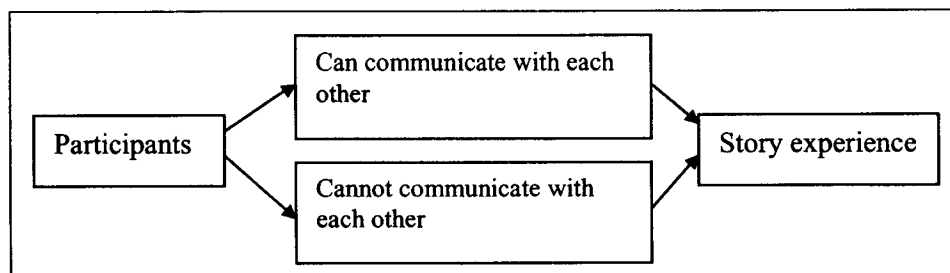
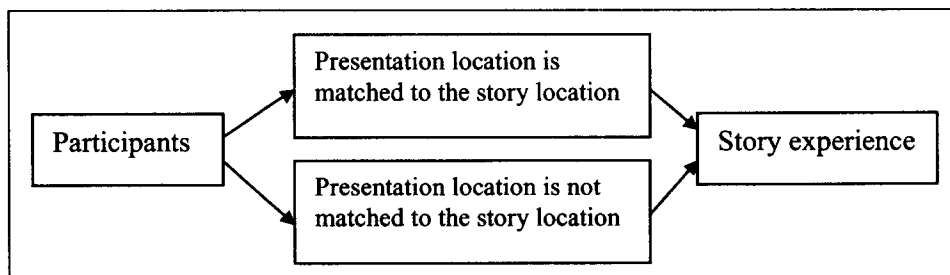
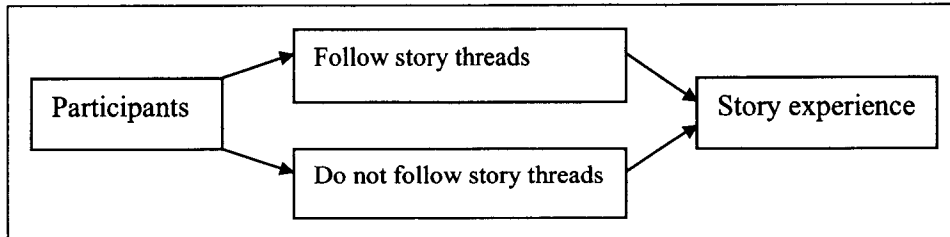
- 8 MIT Students and 8 non-MIT people
- From 18 to 40 years old
- None of them have participated in any mobile cinema before.

Procedure:

- Introduction section: An escort introduces basic concepts of mobile cinema and *MIT in Pocket*.
- Participation section: The escort, who is only responsible for technical questions, accompanies each person to participate in *MIT in Pocket*. The first eight participants won't be able to communicate with each other; the other eight participants will have chances to sit down and discuss their experiences in the middle of the tests.

- Interview section: All participants will be asked to finish the same survey and discuss their experiences.
- All participants' story activities will be checked through log files; all messages will be recorded by the server; and all interviews will be video recorded.

Logic of Mobile Cinema Participation Analyses



Questionnaire for the participant:

- How did you decide where to go next?
 - Did you like or dislike that the character tells you where to go?
 - Did you like or dislike that you decide where to go to encounter a character?
- Which characters did you meet? What did they do? Do you remember where you met them?
- What did you feel if the playback does or does not happen at the same production place? (For example the MIT church scene vs. the lobby seven and ten scenes.)

- What else did you do while participating in *MIT in Pocket*? Did those activities enhance or disrupt your impression of the story?
- (We need to ask specific questions about the impression of Lilly's character.)

For those who have face-to-face discussions, I will ask the following questions.

- How did those discussions change your understanding of the story?
- Did those discussions affect your decisions on choosing the next locations?

Questionnaire for the creator:

- What is the production structure? (Centralized vs. decentralized)
 - We have the interview data to show the production structure. For example, who created which parts of the story?
- What is the story structure? (Web-like structure vs. tree-like structure)
 - We have the story data to show the story structure. For example, the audience can start a story from almost any point.
- What is the story presentation strategy? (The audience follows characters vs. characters come to the audience)
 - We have the interview data to indicate the presentation strategy of *MIT in Pocket*.
- What is the role of ambient environment?
 - We have the interview data to show the designers' original thoughts about ambient environment.
- What is the effort to set up, deploy, and support *MIT in Pocket*?
 - We can calculate the time of setting up hot spots, authoring story, and testing.
- How can the M-Views system adapt to or not various reactions of the audience, and still present stories in coherent ways? (The audience follows the designed story threads vs. the audience does not follow the threads.)
 - We need to compare the authors' expectation with the audience's impression on particular characters or plots.

Analysis and Discussion:

- Independence of story sequence:
- Evolvability of story development:
- Driving force in mobile cinema:
- The role of ambient environment in mobile cinema:
- The communication among the participants:

Evaluation Study Two: 15 Minutes

What we want to learn:

- What is the story presentation strategy? (The audience follows characters vs. characters come to the audience)
- What is the production structure? (Centralized vs. decentralized)
- What is the story structure? (Web-like structure vs. tree-like structure)

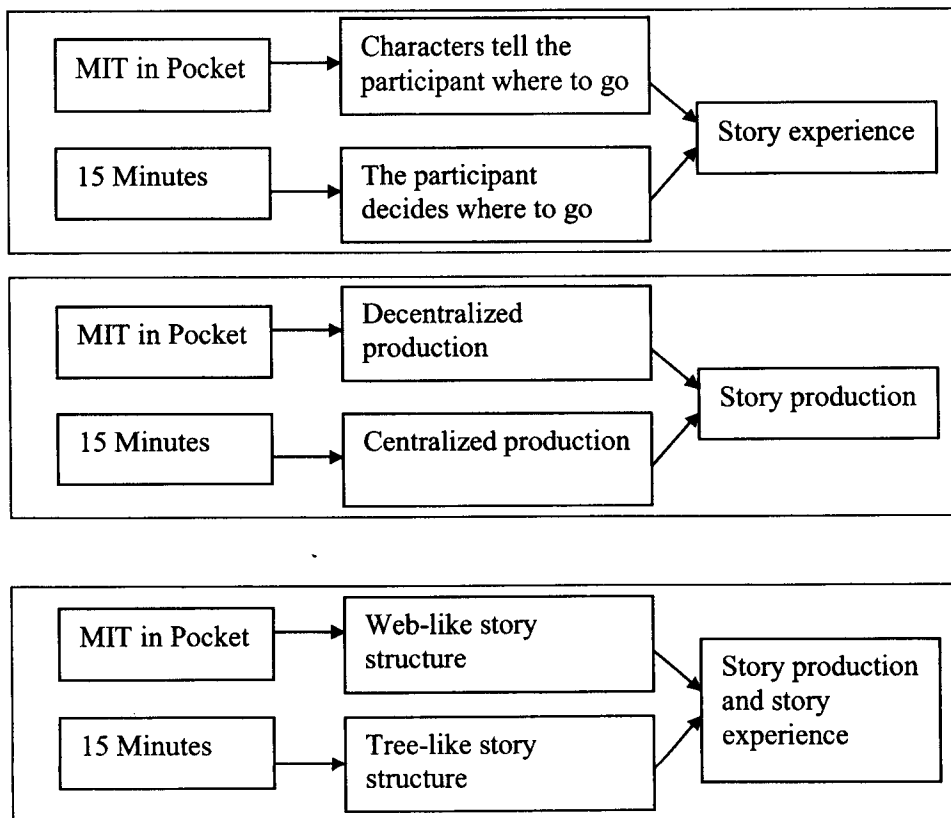
Participants:

- People who attend the demo section of Ubicomp 2003.
- Most of them are technological savvy, but may not have participated in mobile cinema before.

Procedure:

- Introduction section: An escort introduces basic concepts of mobile cinema and *15 Minutes*.
- Interactive section: The participant will take the M-Views Presenter and view *15 Minutes* by him or herself.
- Interview section: All participants will be asked to finish the same survey and briefly discuss their experiences.
- All participants' story activities will be checked through log files and all interviews will be video recorded.

Logic of Mobile Cinema Participation and Production Analyses



Questionnaire for the participant:

- Which characters did you meet?
- What did they do?
- Do you remember where you met them?
- How did you decide where to go?
- If you view this story at a fixed location, would the experience be different?
- Do you have any comments on the story and the mobile system?

Questionnaire for the creator:

- What is the production structure? (Centralized vs. decentralized)
 - We have the interview data to show the production structure. For example, who created which parts of the story?
- What is the story structure? (Web-like structure vs. tree-like structure)
 - We have the story data to show the story structure.
- What is the story presentation strategy? (The audience follows characters vs. characters come to the audience)
 - We have the interview data to indicate the presentation strategy of *15 Minutes*.
- What is the effort to set up, deploy, and support *15 Minutes*?
 - We can calculate the time of setting up hot spots, authoring story, and accompanying participants for each test from interview data.
- How can participatory activities change the story experiences?
 - We need to compare the authors' expectation with the audience's impression on particular characters or plots.

Analysis and Discussion:

- Driving force in mobile cinema:
- Scalability of mobile cinema:

Evaluation Study Three: Media Lab Tour Production**What we want to learn:**

- How can synchronous communication enhance or disrupt mobile cinema production?
- How can synchronous group awareness affect decision making in mobile cinema production?
- Can M-Views networked camera support new types of production team structure?

Participants:

- 8 people will use un-connected M-Views cameras; another 8 people will use networked M-Views cameras, which support sharing archive images, messaging, and real-time maps.
- None of them have participated in any mobile cinema before.

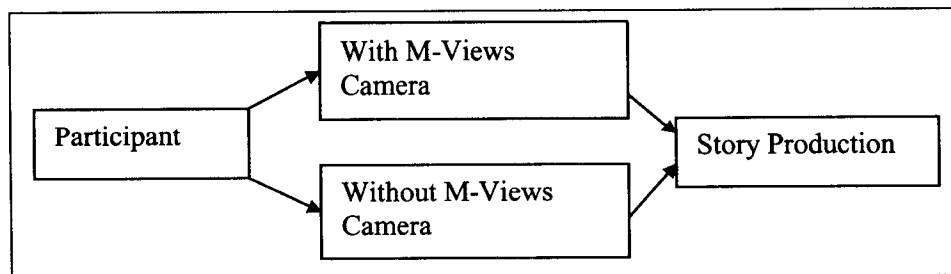
Procedure:

- Introduction section: A technical person introduces basic concepts of M-Views camera and the production goal, which is for each person to make a 5-minute tour video for their families and friends.
- Production section: Two participants will form a team to produce a total 10-minute video within 30 minutes.
- Interview section: All participants will be asked to finish the same survey and briefly discuss their story experiences.
- All participants' story activities will be checked through log files; and all interviews will be video recorded.

Questionnaire for networked participants:

- How did you like or dislike the archive function?
- How did you like or dislike the messenger archive function?
- How did you like or dislike the map function?
- Did these functions change the way you recorded video?
- Did these functions change the way you made stories?

Logic of Analyzing ML Tour Production with M-Views Camera



Analysis and Discussion:

- Production results: diversity
- Production process: the ability to deal with uncertainty
- Production structure: who make decisions? If two people both make decisions, how does it work? (Parallel, sequential, and complimentary)

Evaluation Study Four: Media Lab Demo Presentation

What we want to learn:

- How much density is appropriate in mobile cinema?

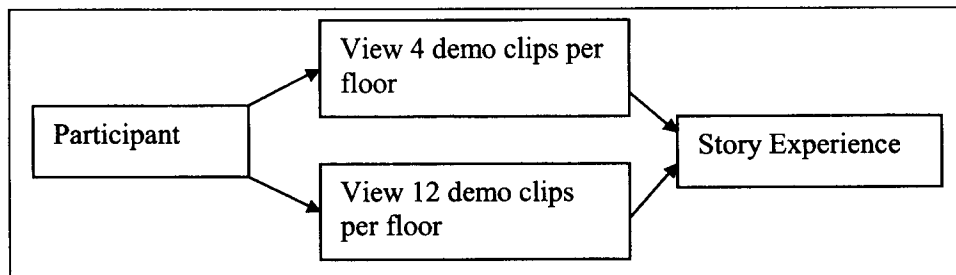
Participants:

- 8 people will view 4 media lab demo clips per floor, and another 8 people will view 12 media lab demo clips per floor.
- None of them have participated in any mobile cinema before.

Procedure:

- Introduction section: A technical person introduces basic concepts of M-Views Presenter and the demo video.
- Production section: Each team will walk around to view demo video.
- Interview section: All participants will be asked to finish the same survey and briefly discuss their impressions from the mobile presentation.
- All participants' story activities will be checked through log files; and all interviews will be video recorded.

Logic of Analyzing Media Lab Demo Tour



Questionnaire for all participants:

-

Analysis and Discussion:

- Density