

ANALYSIS OF INTERACTIONS IN
INSTANT TEXT MESSAGING:
SKAT

JARED BAUER
SERINA CHANG

COG 120 HOLLAN

INTRODUCTION

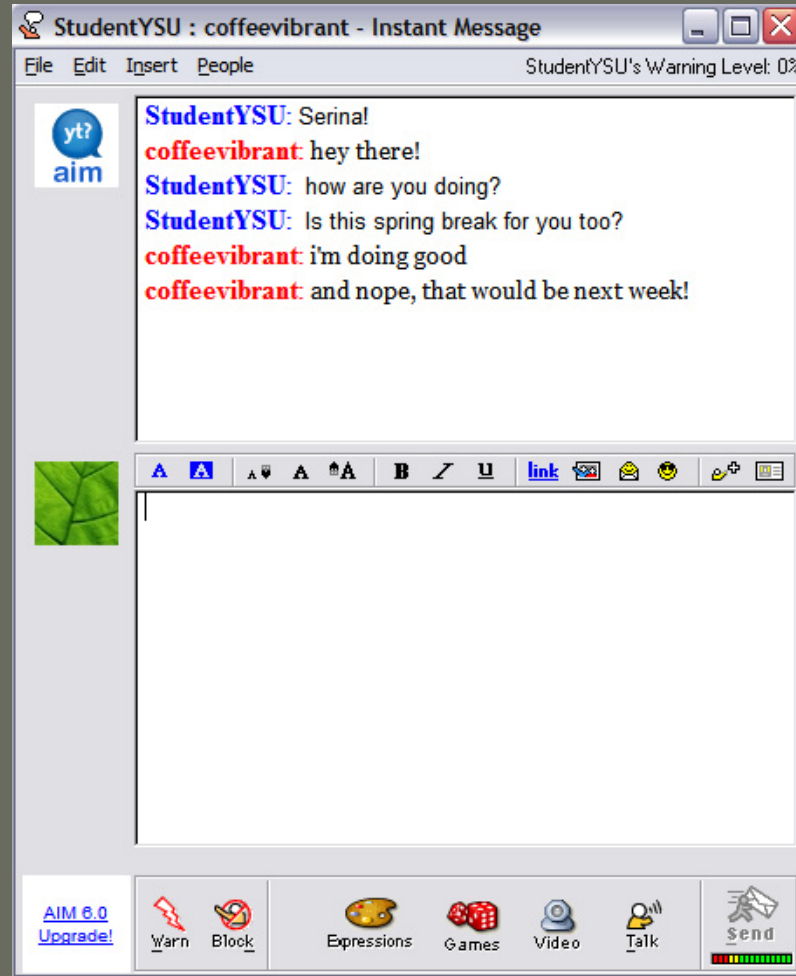
WHAT IS INSTANT TEXT MESSAGING?

INTRODUCTION

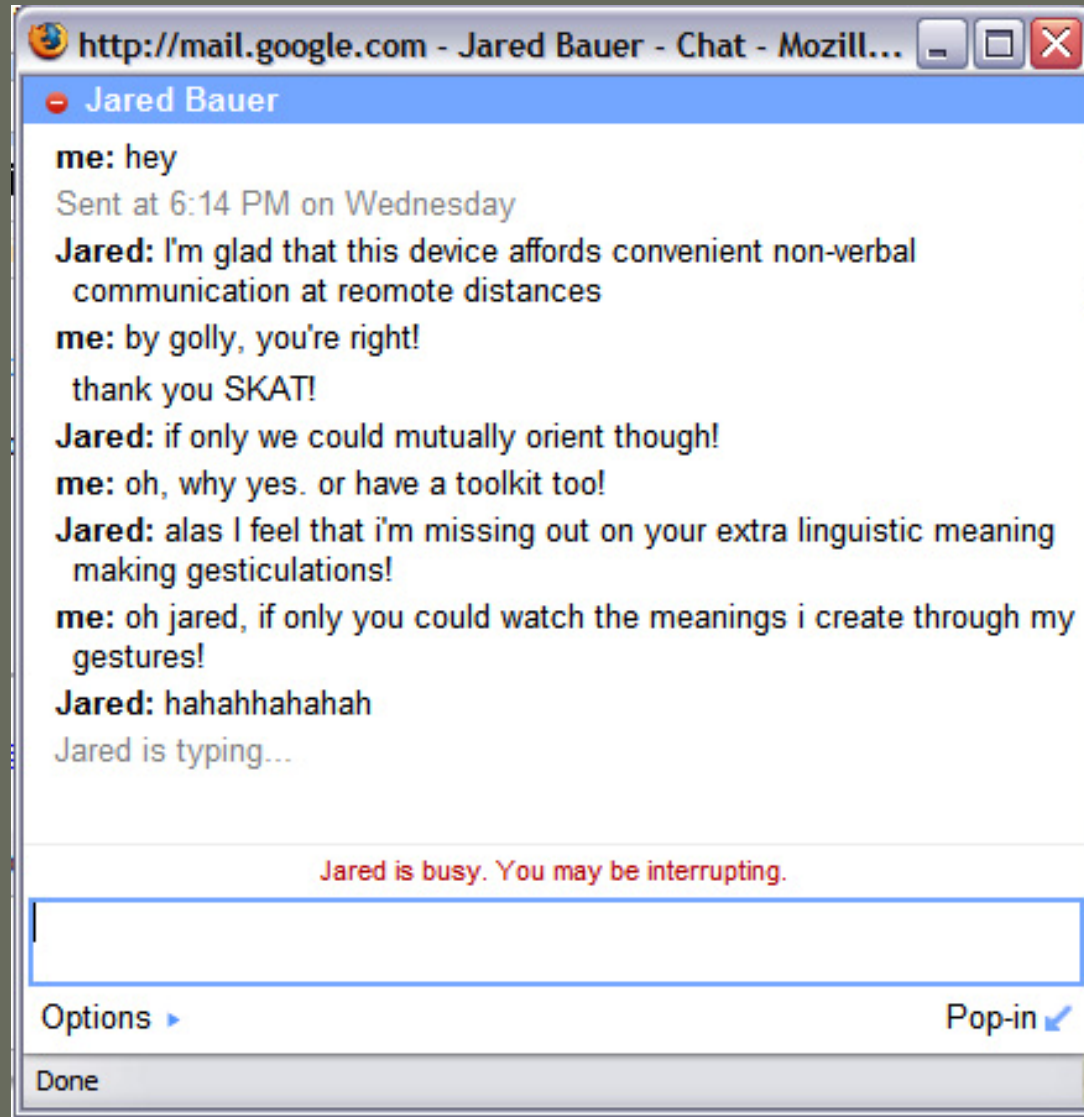
WHAT IS INSTANT TEXT MESSAGING?

- ONE USER SELECTS ANOTHER USER FROM A PERSONAL LIST OF CONTACTS
- RESPONSIVE, ASYNCHRONOUS COMMUNICATION FOLLOWS
- TEXT APPEARS NEXT TO THE NAME OF THE USER WHO TYPED IT

SOME CURRENT INTERFACES: AOL INSTANT MESSENGER (AIM)



SOME CURRENT INTERFACES: GOOGLE CHAT



SOME CURRENT INTERFACES: CHEIRO



THE PROBLEMS

- EMBODIED REFERENCE
- ASYNCHRONOUS COMMUNICATION
 - TOPIC IMPORTANCE
- CLUSTERING OF INFORMATION

THE PROBLEMS

EMBODIED REFERENCE

- FACE TO FACE ALLOWS MOMENTARILY CONSTRUCTED MEANING BY REFERENCING FEATURES OF THEIR LOCAL ENVIRONMENT
- ENVIRONMENT IS SIGNIFICANT
- PHYSICAL SEPARATION PREVENTS INTERLOCUTORS FROM USING SPATIAL CUES IN ORIENTING INTERACTION

THE PROBLEMS ASYNCHRONOUS COMMUNICATION

- FACE TO FACE COMMUNICATION
CONSTRAINS RATE OF CONVERSATION
- SPATIAL REMOTENESS IN TEXT-CHATting
EXCLUDES FEEDBACK
- DIFFICULTIES IN MAKING SENSE OF DIALOGUE

THE PROBLEMS

TOPIC IMPORTANCE

- IN A FACE-TO-FACE CONVERSATION MEANING IS CREATED BY
 - COMPLEX GESTURES
 - STRESS ON CERTAIN WORDS
 - EXTERNAL AIDS
- A RICH, MULTI-LAYERED REPRESENTATION OF MEANING IS CREATED

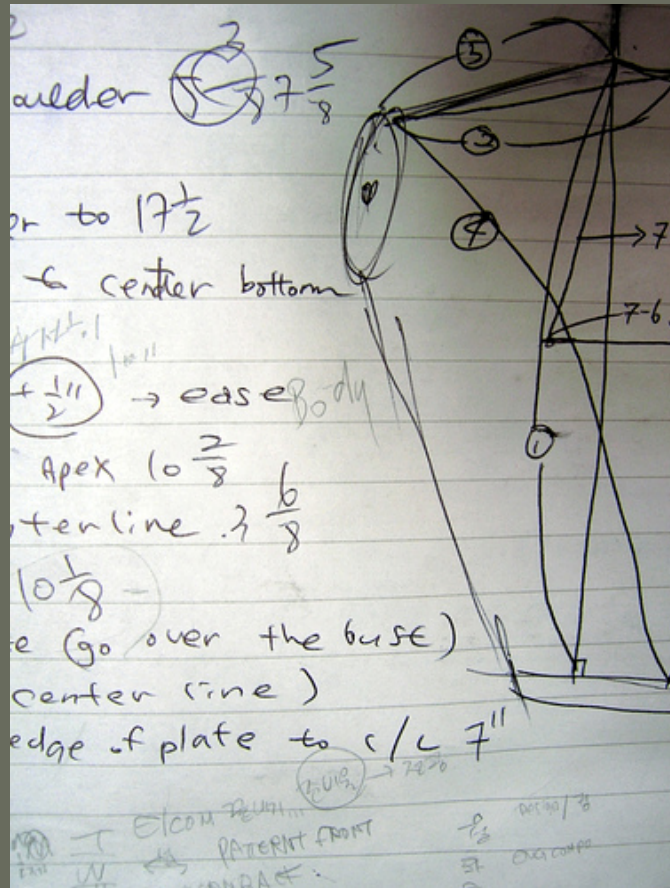
THE PROBLEMS CLUSTERING OF INFORMATION

- CURRENT TEXT-CHAT INTERFACES ARE
 - UNIDIRECTIONAL
 - TEMPORALLY ORGANIZED
- RESULTS IN
 - POSSIBLE INFORMATION CONFUSION
 - SEMANTIC GAPS FILLED BY USERS

NOTES IN CLASS METAPHOR

OUR METAPHOR:

WRITING NOTES IN CLASS



- CONDITIONS WHERE VERBAL COMMUNICATION IS NOT AVAILABLE
- LEVERAGING NON-VERBAL COMPONENTS OF SPEECH

OUR METAPHOR:

WRITING NOTES IN CLASS

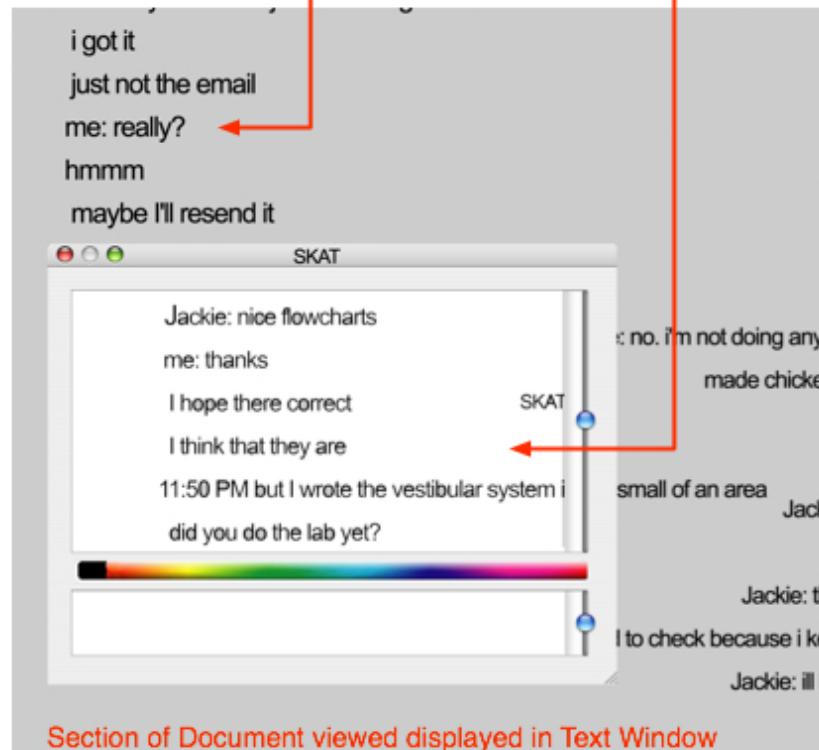
- LOW BANDWIDTH COMMUNICATION FOR COMPLEX ABSTRACT IDEAS
- CREATIVITY AND FLEXIBILITY WHILE RETAINING CURRENT DESIRABLE ASPECTS OF TEXT CHATTING

DESIGN SUGGESTIONS

INTERFACE

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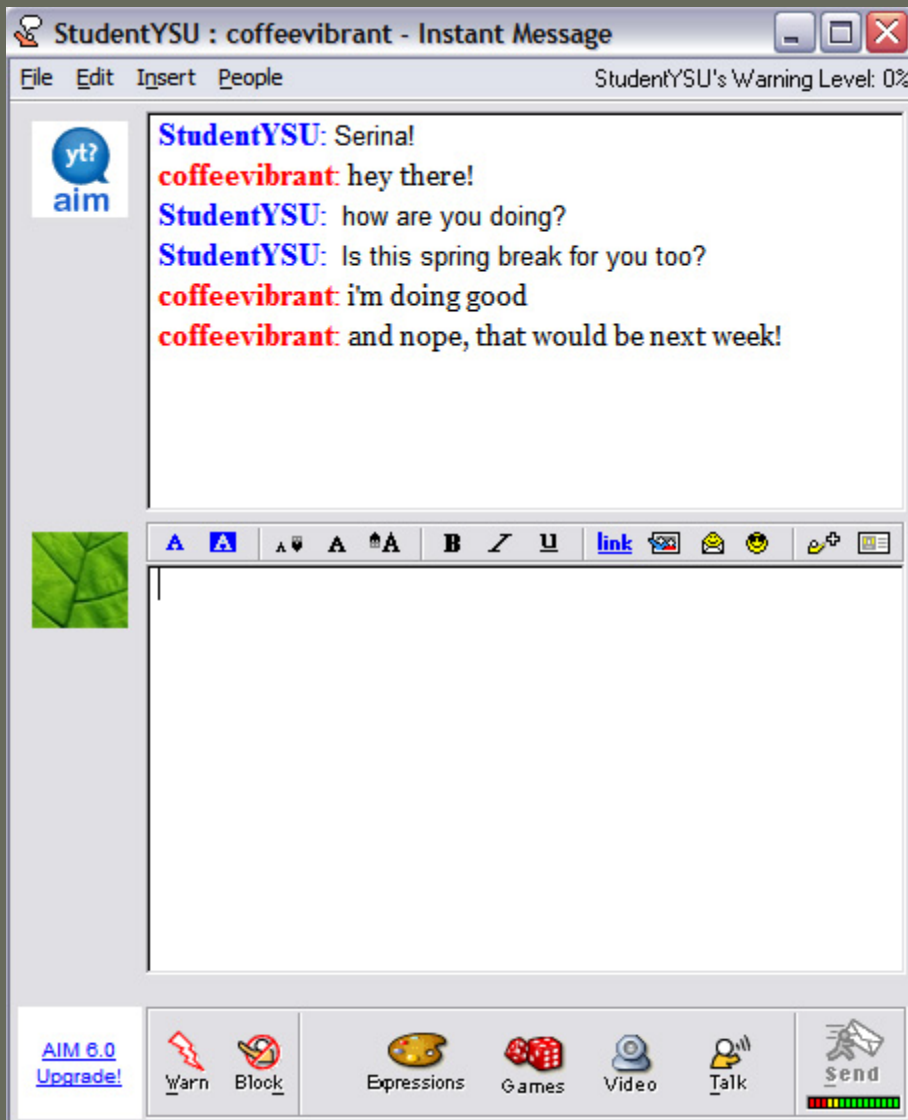


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DESIGN SUGGESTIONS

TYPE-AND-DRAG

USERS CAN TYPE IN THE TEXT SPACE AND
PHYSICALLY DRAG THE TEXT INTO THE TEXT
DISPLAY WINDOW





SKAT

StudentYSU: Serina!

coffeevibrant: hey there!

StudentYSU: how are you doing? coffeevibrant: i'm doing good

StudentYSU: Is this spring break for you too?

And nope, that would be next week.



DESIGN SUGGESTIONS

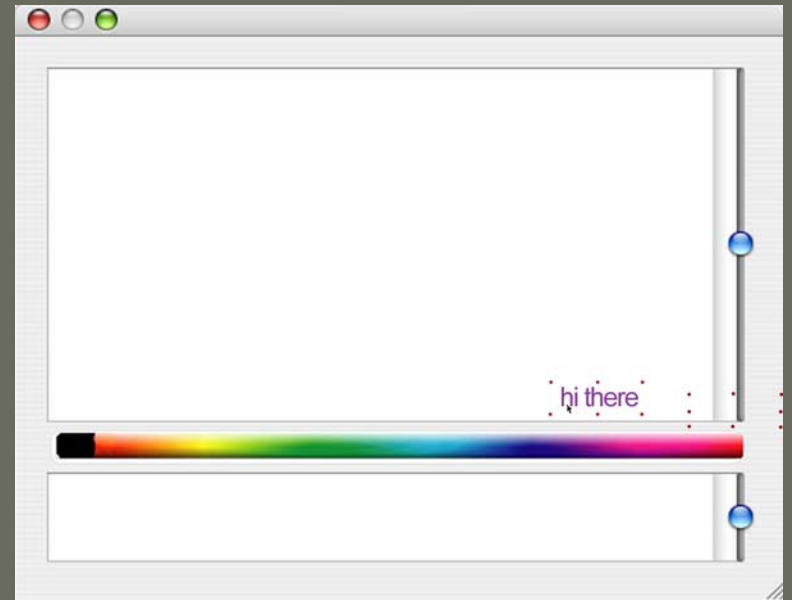
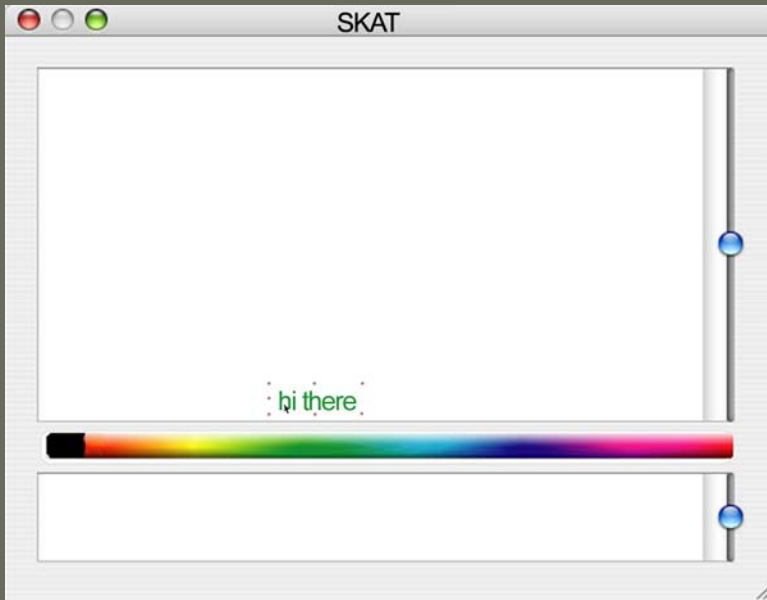
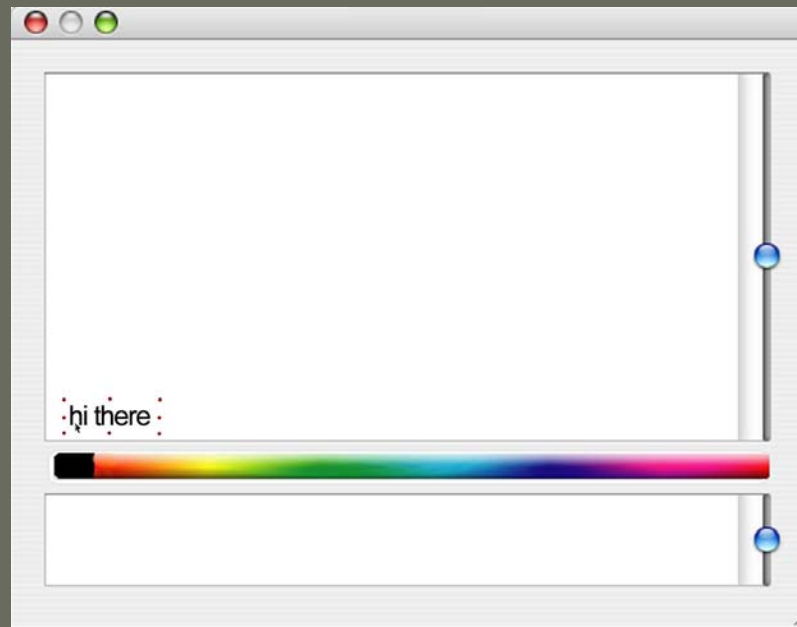
TYPE-AND-DRAG

- BEFORE: TEMPORAL EMPHASIS
- NOW: SEMANTIC EMPHASIS THROUGH SPATIAL ORGANIZATION
- DIRECTNESS ESTABLISHED THROUGH CLOSING OF ARTICULATORY AND SEMANTIC GAPS (HUTCHINS/HOLLAN/NORMAN, 1986)

DESIGN SUGGESTIONS

COLOR DIPPER

- GRADIENT OF INTERACTIVE COLORS
LOCATED DIRECTLY ABOVE TEXT SPACE
- USERS PASS THROUGH THIS GRADIENT AND
'DIP' THEIR TEXT THROUGH A DESIRED COLOR
- DEFAULT: BLACK



DESIGN SUGGESTIONS

COLOR DIPPER

PERSONALITY

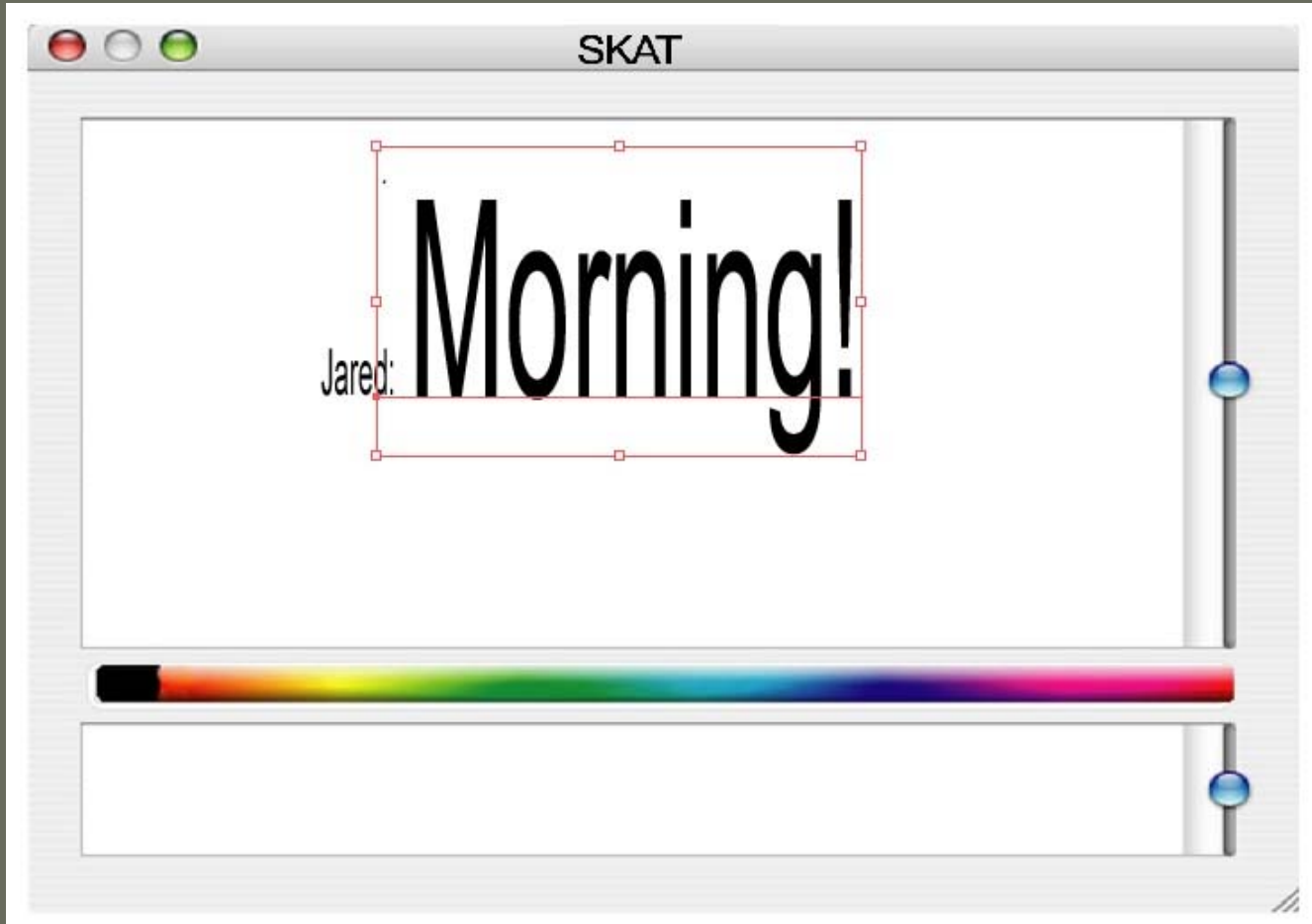
HIGHLIGHTING

INTONATION

DESIGN SUGGESTIONS

TEXT SIZING

ALLOWS USER TO RESIZE BY SIMPLY DRAGGING
THE CORNERS OF THE TEXTBOX



DESIGN SUGGESTIONS

RIGHT CLICK TOOLKIT

THE TOOLKIT CAN BE ACCESSED BY RIGHT-CLICKING THE MOUSE

RIGHT-CLICK CAUSES FIVE TOOLS TO APPEAR

DESIGN SUGGESTIONS

RIGHT CLICK TOOLKIT



- SHAPE: ADDS SHAPES TO TEXT
- PAINT BRUSH: PERMANENT MARKINGS
- TRAIL: NONPERMANENT MARKINGS
- GRAB: REPOSITIONING TEXT
- ZOOM: RESIZE VIEW IN THE TEXT DISPLAY WINDOW

PROBLEMS, ADDRESSED

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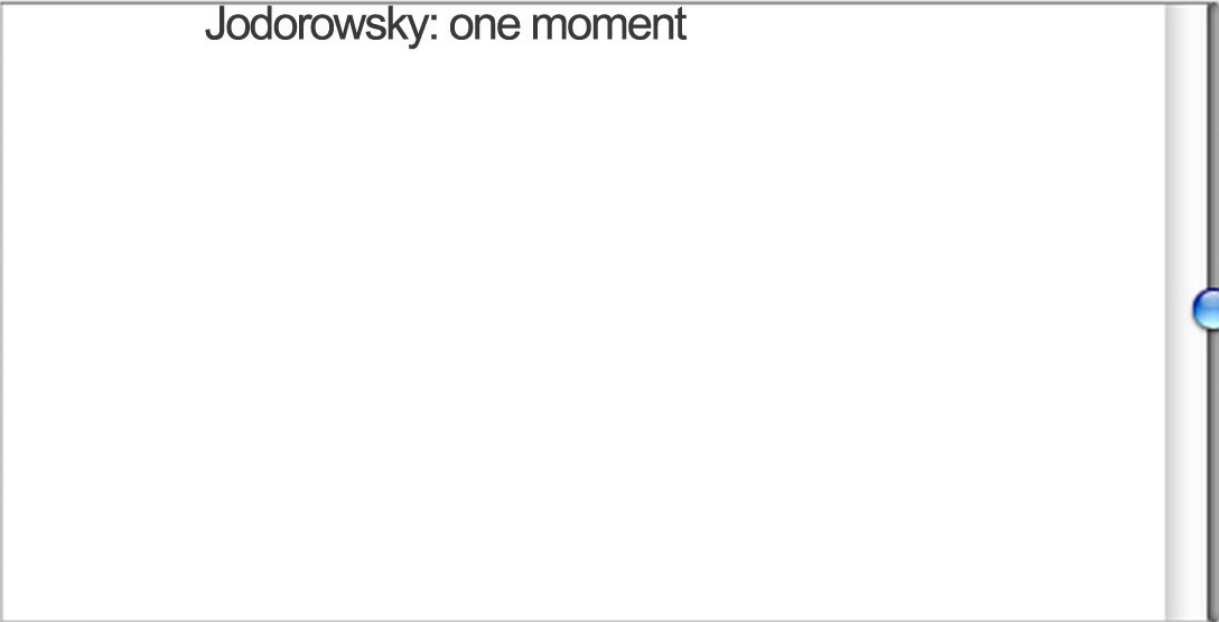
EMBODIED REFERENCE

- BEFORE:
 - UNAVAILABILITY OF LOCAL ENVIRONMENT AS REFERENCE
 - PHYSICAL SEPARATION OF USERS



SKAT

Jodorowsky: one moment





Jodorowsky: one moment

Background

Many researchers of memory believe that there exists a short-term memory (STM) system that holds information for a few seconds. If the information in STM is not transferred to long term memory (LTM) for more permanent storage, it vanishes. As evidence of the existence of STM grew, researchers started to explore its properties. In a series of articles starting in 1966, Saul Sternberg developed an experimental approach to explore how information was retrieved from STM.

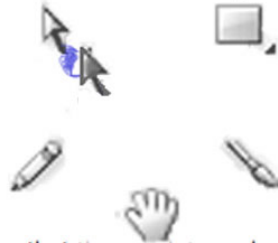




SKAT

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Jodorowsky: ok well it says here



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PROBLEMS, ADDRESSED

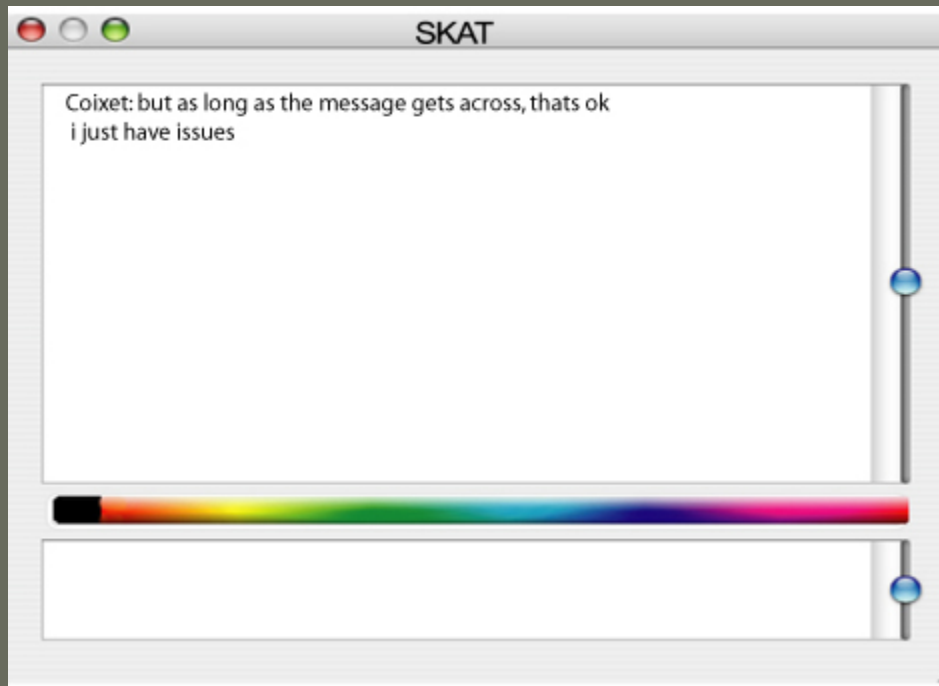
ASYNCHRONOUS COMMUNICATION

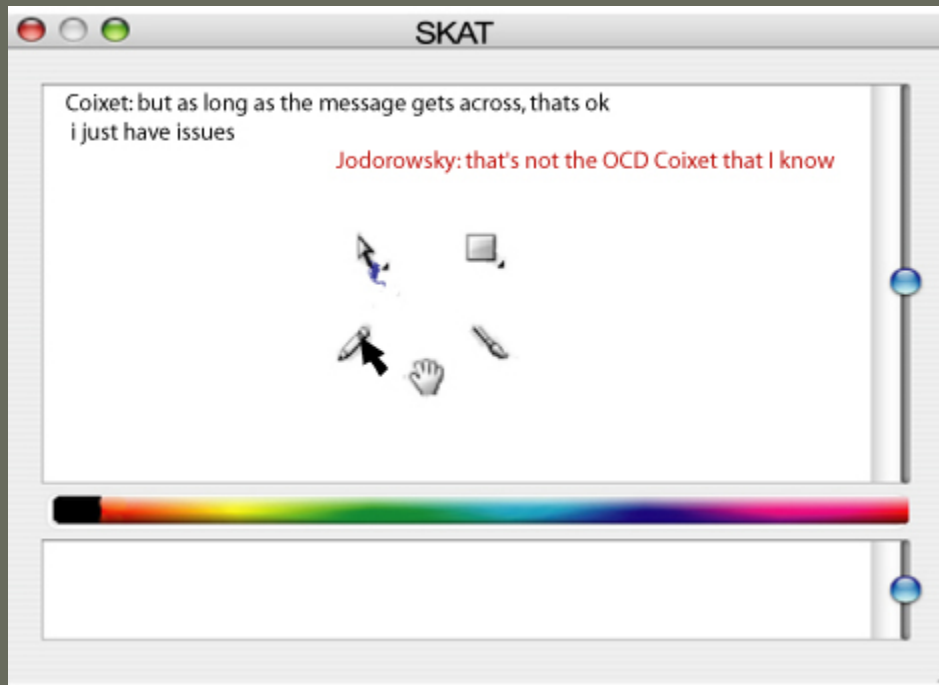
- BEFORE:
 - BREAKDOWNS IN THE RATE OF CONVERSATION,
SPATIAL REMOTENESS
 - DIFFICULTIES IN MAKING SENSE OF THE DIALOGUE

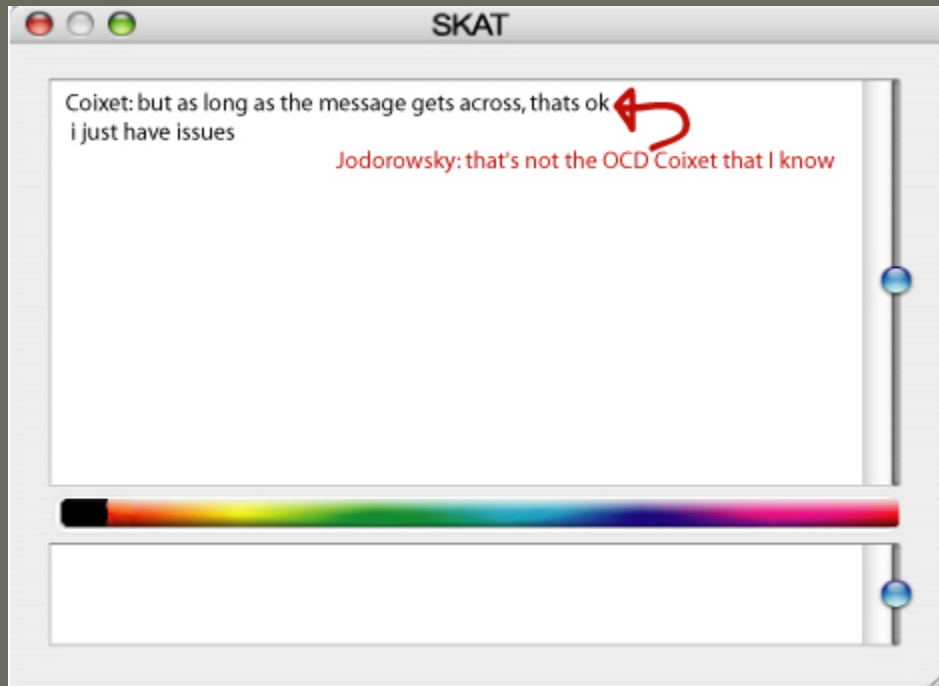
PROBLEMS, ADDRESSED

ASYNCHRONOUS COMMUNICATION

- Now:
 - USERS DIRECTLY REFERENCE LINE WHICH THEY ARE RESPONDING WITH DRAWING
 - SPATIAL ARRANGEMENT OF TEXT







PROBLEMS, ADDRESSED

TOPIC IMPORTANCE

- BEFORE: A RICH, MULTI-LAYERED REPRESENTATION OF MEANING IS CREATED

... BUT ONLY IN PERSON!

PROBLEMS, ADDRESSED
TOPIC IMPORTANCE

Now:

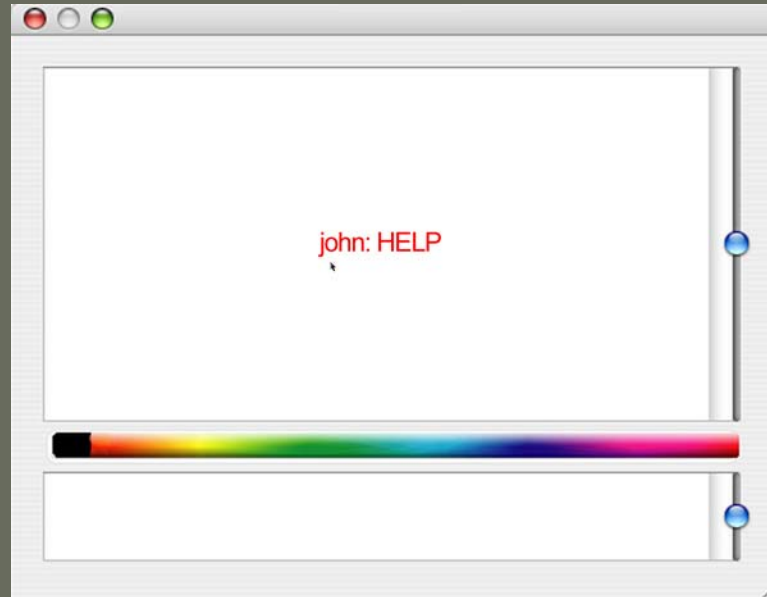
- SPATIAL ORGANIZATION



PROBLEMS, ADDRESSED
TOPIC IMPORTANCE

Now:

- SPATIAL ORGANIZATION
- COLOR DIPPERS

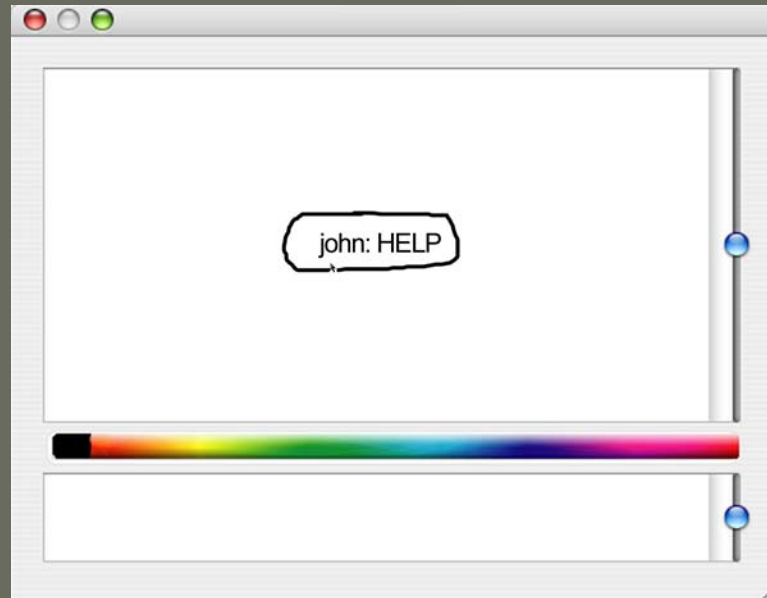


PROBLEMS, ADDRESSED

TOPIC IMPORTANCE

Now:

- SPATIAL ORGANIZATION
- COLOR DIPPERS
- TOOLKIT





PROBLEMS, ADDRESSED
**CLUSTERING OF
INFORMATION**





- BEFORE: CURRENT TEXT-CHAT INTERFACES ARE
 - UNIDIRECTIONAL
 - TEMPORALLY ORGANIZED






StudentYSU : coffeevibrant - Instant Message


File Edit Insert People StudentYSU's Warning Level: 0%

 **StudentYSU:** Serina!
coffeevibrant: hey there!
StudentYSU: how are you doing?
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coffeevibrant: i'm doing good
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A **A** A ↓ A ↑ **B** / link    

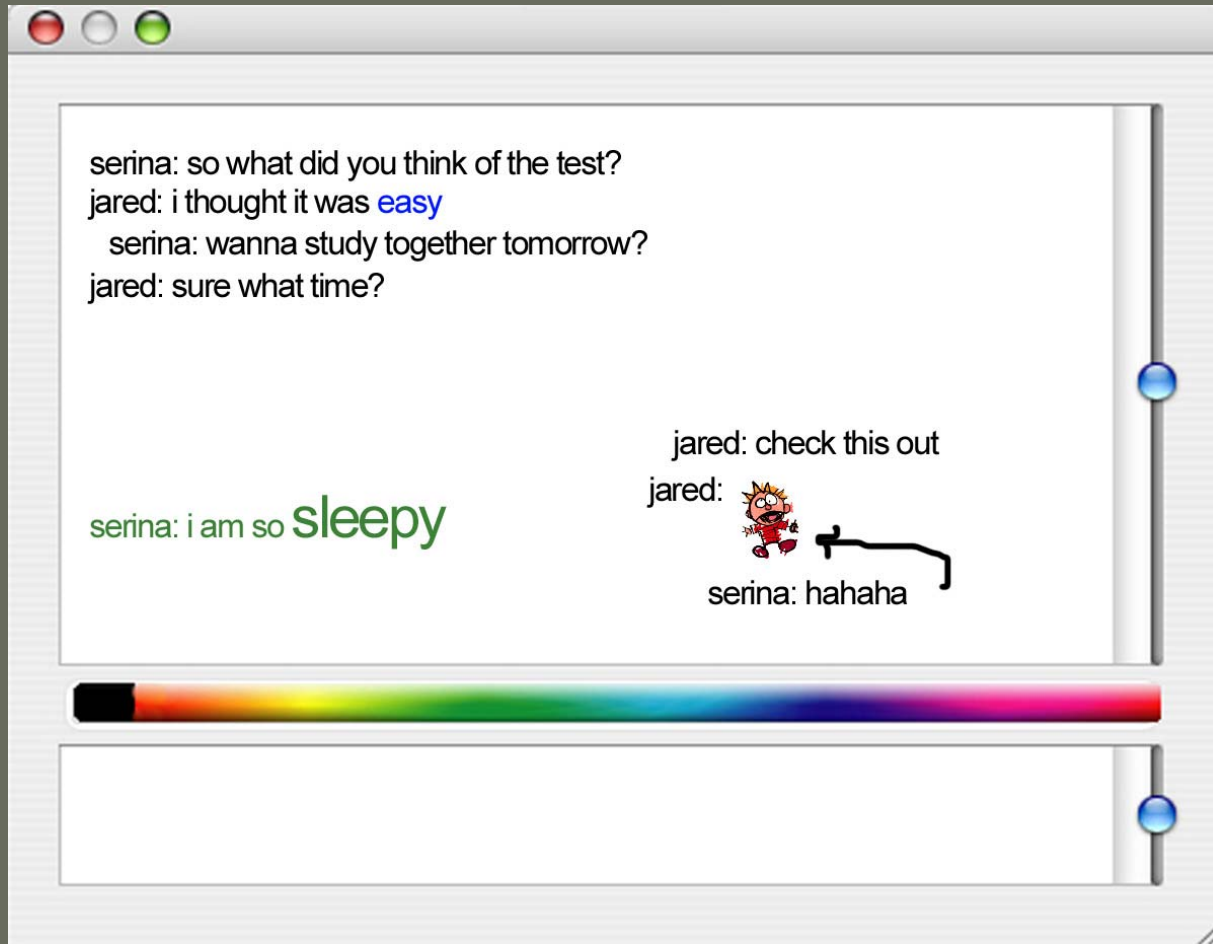
[AIM 6.0 Upgrade!](#)   Expressions  Video   **send**



PROBLEMS, ADDRESSED
**CLUSTERING OF
INFORMATION**

Now:

SKAT IS SPATIALLY ORGANIZED



Q & A