finding the right moment

fluidtime: timing tools for social networks

michael kieslinger
molly wright steensom

interaction design institute ivrea
ivrea, italy
00:00:01 AM
spring  summer  autumn  winter
let's meet:

now or never!
time to go!
are you there?
lunch?
lunch?
I'll be late
9 ish
more work :
beer at 9 ish
hello there
hello there
timeto go!

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Amount of communication before actual meeting or event

1900
1 letter
or
1 phone call

NOW
many calls
or
SMS messages

SOON
streaming
time
information
"time flows
through networks"
from clock time to fluid time
from fixed coordination to progressive coordination
our interests

time coordination | How time concepts effect time coordination?
time personalities | What are peoples time behaviours?
social network roles | What roles do people have in social networks?
tools | What tools are they using?
event types | How does the event type effect peoples efforts?
location and transportation | How do location and access matter?
moods | How do moods effect coordination?
clock time

Chronos - using the hour on the clock to schedule the beginning and ending of activities

fluid time (event time)

Kairos - allowing activities to transpire according to their own spontaneous schedule. Events begin and end when (by mutual consent) participants “feel” the time is right.

Robert Levine: *The geography of time*
case one

seven people and a mess of SMS

a case study by noel perlas (philippines),
first-year student, interaction design institute
ivrea
context

one out of three filipinos use cell phones
approx 28 million filipinos

filipinos prefer using SMS over voice calls
94% cell phone users send SMS
70% of them sending as many as 10 messages a day
57% use it to send messages concerning family or relatives

Pulse Asia March-April 2003
scenario one

people involved:

VICTORIA  
SHERYL  
AURORA
Hi V! welcome back. Can’t wait 2 see U. When R U free?

Hi :) Its great to be back. Let you know when, lots of things noel and I have to do this week.

Anytime between Xmas and New Year, how about 26, sunday lunch?

Can’t will be with family. How about monday instead?

OK. I think I’m free. Will check with the others.
scenario one
planning the event

TO 3 OTHERS: Hey guys, Victoria is back from Italy. Let's meet her for Monday lunch?

SHERYL

that's great! see you then.

OTHERS

SHERYL

Sorry, can't. My cousins are also back from abroad. I wanna see her, can we make it Tues instead?

AURORA

will ask her.

SHERYL
scenario one
planning the event

V, AU can’t make it. Can we move it to Tuesday lunch?

Noel just reminded me that we have something on that day.

What should I tell AU? She wants to see you.

How about after New Year’s day?

The others will probably go back to work. It will be harder to schedule it.
scenario one
planning the event

Really sorry about AU, I don’t see any other open days than monday.

Ok, will tell Au then. See you monday :)

Ok. Thanks Sheryl. :)

Aurora, Victoria is really sorry she can’t make it on any other day.

Oh. Oh well. Thats okay. Send my regards.
scenario one

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<table>
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<td>Time: 9:00</td>
<td>SHERYL</td>
</tr>
<tr>
<td>SMS: 2</td>
<td>Time: 9:05</td>
<td>VICTORIA</td>
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<tr>
<td>SMS: 3</td>
<td>Time: 9:11</td>
<td>SHERYL</td>
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<td>Time: 9:18</td>
<td>VICTORIA</td>
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<td>Time: 9:20</td>
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<td>Time: 9:40</td>
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<td>Time: 9:50</td>
<td>OTHERS</td>
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<td>AURORA</td>
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<td>SMS: 21</td>
<td>Time: 10:50</td>
<td>SHERYL</td>
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<tr>
<td>SMS: 22</td>
<td>Time: 11:00</td>
<td>AURORA</td>
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evaluating the time spent
scenario one
planning the event

total SMS messages: 22

total negotiation time: 2 hours

results: meeting time and place still the same
time personalities & social network roles

- **VICTORIA**: time manager
- **SHERYL**: connector
- **AURORA**: time juggler
scenario two

people involved:

NOEL

TONY
time personalities

NOEL

time opportunist

TONY

time squanderer
Hey Noel, I need you to give something for Chris, tell me when you are free.

Hey Tony. Ok. Will TXT u when

Hey Tony. I’m in the mall right now meeting friends for dinner wanna meet after that?

Ok. I will be in that same mall for dinner. Great.
R U in the mall now? maybe we can meet before dinner instead. I have some time.

Guess what, my dinner there didn’t push through. I will meet you after dinner anyway. :) 

Ok. See U then.
scenario two

getting to the meeting place

where r u?

sorry traffic jam

where r u now?

almost there, maybe 10mins

it’s been 10mins, where are you? Should I order dessert for you?

5 mins, parking. : )
scenario two
evaluating the wondering time

total SMS messages between two people: 13

total wondering time: 2 hours

results: meeting time 1 min
time coordination can be cumbersome

time personalities have a big impact
(especially if they are mixed)

flexibility increases complexity

current tools do not address these issues of social networks and time management
time hierarchies

NOEL
pace taker

TONY
pace setter
time coordination

point shift coordination

progressive coordination
case two

the girls night out group
bay area women between 28-32 years of age -- founded for social purposes

  group is both ad-hoc and formal, with set rules and relationships -- and many activities to coordinate

core is six women, extends to approximately 15 for bigger events

  delia, grace, anna, mer, ashley, jen are core group

five core members are not in serious relationships, one lives with boyfriend. none have been married.

monthly events ranging from dinner or drinks to more mischievous undertakings

delia leads and organizes the group
group organizer: delia
"where i’m from, 20 minutes is fashionably late, but 25 minutes is rude."

32 years old, works in office
has lived in san francisco for a year and a half
originally from upstate new york
owns car but tends to use public transportation

time personality: time manager
social network personality: group leader
technology: land line, cell phone, laptop, blog, dial-up at home

organizes group outings
enforces membership  (expectations, rules, mores)
expects punctuality and compliance with group rules
lines of communication (in order):

    email, instant messenger, land line, cell phone, evite, very little SMS
group member: grace

“i pretty much invite everybody to everything, if i am able to, if i’m in control of the situation.”

32 years old, works at technology company
has lived in san francisco for seven years
originally from chicago
owns car, uses it frequently, often is the carpool driver

time personality: time juggler
social network personality: connector
technology: land line, cell phone, laptop, blog, broadband
at home

has a “pretty disparate group of friends”
made close friends through girls night group
tends to introduce others to the group
easy-going approach to her groups of friends

lines of communication (in order):

   instant messenger, email, cell phone, evite
scenario: brunch

beth (a new group member, not in the core six) suggested a brunch date

grace organized it: sent email to core group of six women plus beth on tuesday

invite included jen, who grace knew was out of town

rsvp: mer sent an IM, all others used reply all on email

that day, delia and jen IMed about taking the tram

day before brunch, grace and beth IMed about picking beth up at the station
but then...

delia IMs the night before to ask if plans were still on

beth feels ill and cancels

grace IMs anna, calls mer and delia: plans are still on, grace will drive

micro-coordination and transportation

   grace picks up delia, then mer

   gets call from anna while she calls restaurant to say group is late

   calls anna, picks her up
scenario: rainy night out

anna planned core group dinner downtown (via evite)

  core group invites other girlfriends to join after dinner for drinks and dancing

day of dinner, it was cold and rainy

delia wanted to change plans: go somewhere in her neighborhood (same general neighborhood as everyone lives in)
and so...

delia invites mer and grace to conference IM to strategize plan change
delia, mer, and grace each individually IM anna
anna finally acquiesces, calls all her friends to change dinner venue and bar afterwards
emotional state and hypercoordination
  soft factors and emotions cause change
  power reinforced through this process
insights:
social networks
and time
five considerations

people and roles

tools

event type

location and transportation

moods, emotions, soft factors
people and roles

who is or is not invited?
who should be avoided?
is anyone being “dried out?”
how will people get along?
what are the time and emotional personalities to be considered in the mix?
how formal or informal does the interaction need to be?
roles (beyond attendee)

**leader:** political center of group

**organizer:** “cruise director” or “hyper planner”

**connector:** often an organizer; reaches out to other groups or communicates down the spoke to the nodes or to other networks

**manager:** person in a group or couple who makes the decisions about social activities
people and roles

connectors, mavens and salespeople (Malcolm Gladwell)

Ethan Watters, *Urban Tribe*:

Groups typically have one *de facto leader*, but usually also an 'organizer' (sometimes called 'mother figure,' *party planner,*' or 'social director') who appeared to earn this designation over time by *successfully bringing people together* or putting in the time to *plan the logistics* of trips and gatherings. Assuming this person was the chief of the tribe would be wrong... the role of organizer *commanded little special respect or privileges.*
tools

how do people in the group reach each other over an event’s lifecycle?
what forms do they use?
how immediate is the message?
do they require confirmation?

instant messenger | email | cell phone | land line | voice mail | evite | text messaging | other mobile communication device
event type

**place:** where is the group going?

Is it a time-definite event (movie or dinner party or reservation) or a loose get-together (happy hour at a bar, a party)

Puts restrictions on planning (e.g., movies vs. house party; dinner reservations vs. all-day brunch)

Can make coordination and transportation issues more urgent
location and transportation

how is everyone getting there?

who can share transportation (taking the same public transportation, carpooling, walking together)?

communication when making plans

confirming is very important

confirmation will frequently happen in a different medium
moods, emotions, soft factors

did someone have a **bad day at work**?

is the location **too loud**? does it have a **bad vibe**?

did the **cute guy** someone was interested in show up with a girl?

is the weather **bad** and people want a **change of venue**?
case three

students organizing their laundry
The aim of the Fluidtime research project is to find **solutions and opportunities** for a time based **service** that **links people to events** through **devices and interfaces** that are **perfect to use**.
Fluidtime service

- time information provider
- network provider

Integration and personalisation

Fluidtime subscribers
increasing the options of time use
interaction-ivrea laundry service

it performs simple tasks, such as reminding users in the morning to bring their laundry to the Institute, or letting them know when their laundry slot is ready or their washing is done. since the system knows the users’ profiles and how busy the day is, it can adjust its behavior from being strict with reminders to being relaxed.

ambient devices allow the laundry users to monitor the progress of the machine and know when it is time to collect the laundry.
SMS TO: 334 3185557

from within the Institute connect to:
http://192.168.0.80:8080/fluidtime

from outside the Institute connect to:
http://81.114.121.228:8080/fluidtime

e-mail: sourmilk@fluidtime.net

SMS COMMANDS

VIEW INFORMATION
today
tomorrow
dd.mm.yy [book 17.05.03]
next n [next 2]

BOOK
book n today hh [book 2 today 16]
book n tomorrow hh [book 1 tomorrow 14]
book n dd.mm.yy [book 3 17.05.03]

CANCEL BOOKINGS
delete n today hh [delete 2 today 16]
delete n tomorrow hh [delete 1 tomorrow 14]
delete n dd.mm.yy [delete 3 17.05.03]
**squeeze command:** server supported and user accepted re-arrangements

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fluid reminder: timing depends on personality and density
dvd
finding the right moment involves:

time coordination
time personalities
social network roles
tools
event types
location and transportation
moods
real life is messy

taking a user-centered approach provides detailed insight
any deep dive into someone’s world yields intricacies you would not have imagined
examining social network dynamics shows how the system really works
questioning the assumptions about how groups function makes for better system design
we can’t have everything happen at the same time, otherwise we don’t understand each other.

and we can’t have rigid structures with items fixed in a grid.

we should aim for supporting a synchronous and flexible flow of peoples activities.
THANK YOU

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