designing for conversation

@ IDEO Cambridge

paul pangaro, ph.d.
paul @ CyberneticLifestyles.com
30 April 2009
context

▶ explosion of digital media formats
▶ explosion of social media
▶ explosion of user-generated content
▶ mobility a.k.a. ubiquity
▶ “network of objects” revolution
▶ “conversational media”
▶ HTML, audio, video, XML...
▶ Facebook, MySpace, LinkedIn...
▶ Blogosphere, Wikipedia, YouTube...
▶ Twitter, Dopplr, Tripl...
▶ Pachube...
▶ all the above

if all this is heading toward “conversation”...
how do we design for conversation?

by applying cybernetics

- what is cybernetics?
- how does cybernetics help us design?
the science of steering

course set
the science of steering—heading toward a goal

course set
the science of steering—getting blown off course

course set
the science of steering—course correcting

course set

correction of error

wind or tide
the science of steering

course set

correction of error

wind or tide
the science of steering—constantly using feedback
the science of steering

course set

correction of error

correction of error

wind or tide
the science of steering—achieving the goal
how do we design for conversation?

by applying cybernetics of conversation

► what are the goals?

► how do we measure if we’re on course?

► what controls do we have?
what is conversation?

participant A  

participant B  

after Dubberly Design Office 2008
a participant has a goal

participant A

goal

participant B
chooses a context
chooses a language

participant A

shared language

goal

participant B

context
begins an exchange

participant A

good

participant B

shared language

interface

action

goal

context
evokes a reaction...
evokes a reaction...
...that evokes a reaction
agreement may be reached
a transaction may occur
how does conversation help us design?
how does conversation help us design?

conversation = framework for designing systems and services
  ▶ context
  ▶ language
  ▶ exchange
  ▶ agreement
  ▶ transaction

clear = conversational traction
how does conversation help us design?

conversation = framework for designing systems and services

conversation = basis for long-term relationships
conversation = infrastructure of commerce

long-term business success requires on-going transactions need on-going trust is built through on-going relationship is possible only via conversation =

infrastructure of commerce

value

time

LIFETIME VALUE

TRUST

HISTORY

RELATIONSHIP

CONVERSATION
we can rely on computed inferences

ANALYSIS OF USER BEHAVIORS
...or evolve with new frameworks
how does this help?

conversation = framework for designing systems and services

conversation = basis for long-term relationships

conversation = best means to persuade, to change beliefs
changing beliefs requires conversation
a lot of conversation is internal

conversation & feedback mostly internal

brand consumer
p2p conversation is more influential
p2p + internal conversations are needed to ensure beliefs are shared
p2p + internal conversations are needed to ensure beliefs are shared
putting conversation to work

<table>
<thead>
<tr>
<th>design for conversation</th>
</tr>
</thead>
<tbody>
<tr>
<td>context</td>
</tr>
<tr>
<td>language</td>
</tr>
<tr>
<td>exchange</td>
</tr>
<tr>
<td>agreement</td>
</tr>
<tr>
<td>transaction</td>
</tr>
</tbody>
</table>
Invest in a better understanding of conversation

- Review past projects and re-cast them as conversations—
  How could design outcomes be improved?

- Look at new technologies or techniques in terms of conversation—
  Do they help generate more effective conversations?

- When developing new projects, do models of conversation help in choosing technologies or techniques?

- Can we design for conversations that directly improve trust, and therefore create stronger communities or greater lifetime customer value?
investigate trends, tools, and technologies that will change online conversations in 3 to 5 years

- personal journeys—how will tech exposure and physical age matter?
- social computing—how will conversational technology matter?
- portable and secure identity—how will privacy matter?
- mobility+sensor networks—how will context-awareness matter?
prototype the conversations you want to have

▶ for all roles—users + clients, clients + designers, designers + ...
▶ across boundaries of current roles—all are participants
▶ across organizational boundaries—partners, competitors, communities
▶ across media—f2f and mediated, real-time and asynchronous
# New Revolution?

<table>
<thead>
<tr>
<th>ROLE OF MACHINES</th>
<th>Industrial Revolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>extend + enhance ...</td>
<td>muscles</td>
</tr>
<tr>
<td>wealth creation by lowering cost of ...</td>
<td>doing physical work</td>
</tr>
<tr>
<td>1750—1850</td>
<td>1750—1850</td>
</tr>
</tbody>
</table>
New Revolution?

<table>
<thead>
<tr>
<th>ROLE OF MACHINES</th>
<th>Industrial Revolution</th>
<th>Computer Revolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>extend + enhance ...</td>
<td>muscles</td>
<td>nervous system</td>
</tr>
<tr>
<td>wealth creation by lowering cost of ...</td>
<td>doing physical work</td>
<td>lowering uncertainty</td>
</tr>
<tr>
<td></td>
<td>1750—1850</td>
<td>1955—1995</td>
</tr>
</tbody>
</table>
New Revolution?

<table>
<thead>
<tr>
<th>ROLE OF MACHINES</th>
<th>Industrial Revolution</th>
<th>Computer Revolution</th>
<th>Conversation Revolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>extend + enhance ...</td>
<td>muscles</td>
<td>nervous system</td>
<td>collaboration</td>
</tr>
<tr>
<td>wealth creation by lowering cost of ...</td>
<td>doing physical work</td>
<td>lowering uncertainty</td>
<td>creating new knowledge</td>
</tr>
</tbody>
</table>
we know our world through conversation.

we constantly risk not being able to hear that which is outside of what we can talk about, outside of whom we talk to, outside of our language, our beliefs, our “truth.”

our proficiency for conversation enables and limits what we know—and, therefore, what we can do.

paying attention to conversation gives us the opportunity to overcome our current limits.
paul@cyberneticlifestyles.com
Given the conversation we've just had, focus on the questions above to make the next conversation successful.

1. Bottom-up approach: Keep asking the important questions that ensure the right participants and the right information in every conversation.

In short, given where we want to go:
- Who are the necessary and sufficient participants?
- What is the necessary and sufficient information?
- What did we learn?

- What questions do we answer next?
- Who can we continue to use who are still essential?
- What expertise do we need to answer those questions?
- What information do we need to answer those questions?
Given the conversation we've just had, focus on the questions above to make the next conversation successful.

1. Bottom-up approach: Keep asking the important questions that ensure the right participants and the right information in every conversation.

   In short, given where we want to go:
   - Who are the necessary and sufficient participants?
   - What is the necessary and sufficient information?
   - What did we learn?
   - What questions do we answer next?
   - Who can we continue to use who are still essential?
   - What expertise do we need to answer those questions?
   - What information do we need to answer those questions?
I. Context

finding the right moment to open an exchange

➤ consumer must be receptive—when and where is “reasonable”?
➤ also means “moment in the market”—when a need is unfulfilled

digital media has created an explosion of contexts

➤ email

➤ search engine results

➤ web page banners, contextual ads

➤ mobile phones, geo-location, context-sensing

➤ ... plus, traditional media are “going digital”
I. Context
I. Context
II. Shared Language

defines what we can converse about

- starts with vocabulary and ideas that resonate
- speaks in customer terms
- tunes into consumer need-states, wants, and desires
- creates a “language system” that encourages a way of thinking that we want the consumer to adopt
II. Shared Language
II. Shared Language
II. Shared Language
III. Exchange

2-way co-evolution of ideas

- should be what we mean by “interactive”
- must involve listening, offering, questioning
- must offer some value to keep engagement going
- may be broken off at any time (by either participant)

useful to both sides in learning about the other

- consumer learns what is possible, whether to trust
- marketer learns what consumers think, feel, and want
III. Exchange
III. Exchange

Apple Retail Store. Come to shop. Return to learn.
III. Exchange
III. Exchange

Select a Service:

- AIM
- Ask
- Backflip
- BallHype
- Bebo
- Blogmarks
- Delicious
- Digg
- Diigo
- Facebook
- Fark
- Faves
- Favorites
- FeedMeLinks

- FriendFeed
- Google Bookmarks
- Kaboodle
- kIRTSY
- Link-a-Gogo
- LinkedIn
- Live
- Mister Wong
- Mixx
- Multiply
- myAOL
- MySpace
- Netvibes
- Netvouz

- Newsvine
- Propeller
- Reddit
- Segnalo
- Simpy
- Slashdot
- Spurl
- StumbleUpon
- Tailrank
- Technorati
- Twitter
- Yahoo Bookmarks
- Yahoo Buzz
- Yardbarker
IV. Agreement

shared understanding

▶ common history is created
▶ trust is built
▶ beliefs are validated or changed
IV. Agreement

shared understanding

▶ common history is created
▶ trust is built
▶ beliefs are validated or changed

trust is established (or not)

▶ history ensures compatible goals
▶ ... and sets expectations for future conversations
▶ trust is powerful—it lowers risk and saves time
IV. Agreement

![Reservation Preferences](image)

<table>
<thead>
<tr>
<th>Home Airport</th>
<th>Edit</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York, NY (JFK)</td>
<td></td>
</tr>
</tbody>
</table>

**Preferred Ticket Type E-Ticket**

<table>
<thead>
<tr>
<th>E-TICKET EMAIL</th>
<th>Edit</th>
</tr>
</thead>
</table>

**Preferred Carrier**

<table>
<thead>
<tr>
<th>AA, American Eagle and AmericanConnection®</th>
<th>Edit</th>
</tr>
</thead>
</table>

**Preferred Credit/Debit Card**

<table>
<thead>
<tr>
<th>pan amex</th>
<th>Edit</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>*********</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
IV. Agreement

Amazon.com

Hello, Paul Pangaro. We have recommendations for you. (Not Paul?)

Paul's Amazon.com Today's Deals Gifts & Wish Lists Gift Cards

Search All Departments

Paul's Amazon.com

Your Browsing History Recommended For You Rate These Items Improve Your Recommendations

Paul, Welcome to Your Amazon.com (if you're not Paul Pangaro, click here.)

Today's Recommendations For You

Here's a daily sample of items recommended for you. Click here to see all recommendations.

Market Wizards: Interviews with Top Traders by Jack D. Schwager

Brahms: Complete Piano Music (Box Set) ~ Johannes Brahms

Cloverfield Video On Demand ~ Michael Stahl-David

Market Wizards: Interviews with Top Traders (118) $12.21

Brahms: Complete Piano Music (7) $29.98

Cloverfield (671) $9.99
IV. Agreement
V. Actions or Transactions

coordinate about shared beliefs and shared goals

- stay connected, continue the conversation
- participate in communities, social networks, real-world + f2f
- demonstrate commitment
- **BUY** product or service
V. Actions or Transactions

Welcome to Dopplr

Set up your profile

Here you can tell us how you want to be addressed, how you want to be contacted, your home city and how you want to present yourself to your fellow travellers.

First name: 
Last name: 
Home city: 
Screen name: 
Email address: 
Website: 
Password: 
Repeat password: 

Save details
V. Actions or Transactions
V. Actions or Transactions