Tuesday - April 19, 2016
Featured Talk

Shaping Behavior, by Design

Chris Risdon
2004: During a layover you're sitting at the airport bar having a beer. On the news you see reporting about the 2004 Indian Ocean tsunami. Your heart goes out. It's not personal - you don't know anyone, and it's halfway around the world. But the story of destruction and loss of life understandably creates sympathy. In the news story there's a call to action to donate money to the redcross.org.
To do this, you may need to take your flight, get home, remember that you wanted to donate, then go through traditional ecommerce funnel, providing billing address and credit card details. Then you also have to think, “how much do I want to donate?”

You have to be fairly motivated to follow-through and donate.

**2010**

During a layover you're sitting at the airport bar having a beer. On the news you see reporting about the 2010 Haiti earthquake. Your heart goes out. It's not personal - you don't know anyone, and it's in another part of the world. But the story understandably creates sympathy. In the news story there’s a call to action to donate money to the Red Cross by texting “Haiti” to 90999. $10 will be added to your phone bill.
You pull out your phone there at the bar (it can even be a feature phone), type 90999, and "Haiti", hit send, and you're done. No billing, and it's just $10. And you feel good about helping out.

- $43 million raised via mobile texting for Haiti relief
- Most of these donations were made on impulse
  An immediate response to media coverage of the disaster, especially on television.
- Their interest in Haiti’s recovery waned quickly
  More than half of the donors reported that they did not follow Haitian relief and reconstruction efforts much...since making their donation.
- Over half of donors have made text message contributions to other disaster relief efforts

This means it's sustainable new behavior.
Documentaries have been defined variously as "a factual film which is dramatic," (Pare Lorentz) Or, "life as it is" (Dziga Vertov), and is considered a more factual or objective form of filmmaking than scripted cinema. But clearly every decision by the filmmaker, however benign, has an affect on how the audience receives the story, how they understand or perceives that story. Where the filmmaker chooses to point the camera, who they may choose to interview, whether there is a musical score accompanying it, how they edit the story together - all has an affect on how that story is understood.

Every design decision influences the user.
“Choice Architecture...organizing the context in which people make decisions.”

Nudge
Richard Thaler
Cass Sunstein
Offer a Salad
When cafeteria workers asked each child, “Do you want a salad?” salad sales increased by a third.
Changing the environment is the most impactful way to influence behavior.

Our products and services often live in an environment over which we have little control.
We can influence how people perceive the environment.

We can influence how people navigate the environment.

We can influence how people interact with environment.

The closer technology is to us—physically—the more it becomes about us.
Previously this was found at the "micro" level — features designed for conversion, engagement, onboarding, etc.

Now, we’re seeing whole products and services—at the macro-level—designed to create sustained behavior change. Or, more accurately, achieve behavior-based outcomes.

This is nothing new: from smoking cessation to losing weight, there have been services like this. But technology has made it more effective.
Behavior Change as Value Proposition
Behavior Change as Value Proposition

Products and services designed and marketed on the premise that their benefits—the value exchanged—are specific behavioral-based outcomes.

Behavior Change as Value Proposition

- Value comes from progress towards behavior-based outcome
- System makes prescriptive recommendations or guidance
- Users “self-select” into the val proposition
- Behavior change (progress) is measurable
- Data collection is a prominent mechanism
- Sense of augmenting ability
- Value proposition is time released
Internal influence

1. What internal trigger is the product addressing?
2. What external trigger gets the user to the product?
3. What is the simplest behavior in anticipation of reward?
4. Is the reward fulfilling, yet leaves the user wanting more?
5. What “bit of work” is done to increase the likelihood of returning?
The closer technology is to us—physically—the more it becomes about us.
We now have more direct relationships with products and services.

A relationship invites influence.

People don’t want a relationship with their data, they want to achieve behavior-based goals.
Interaction design is about shaping behavior—about creating a representational dialogue between a person and technology. An interaction designer thinks mostly about people and works to craft an interface on top of technology to help a person achieve their goals.

—Jon Kolko
Data & Sensors

Collection
GPS
Accelerometers
RFID
Image Capture
Biometric
Profiles
Status Updates
Shared credentials

Sensors

Attitudes
& Behaviors
If it can be connected, it will be **is** connected.
MC10 is working on attachable computers that look like small rectangular stickers and that can be placed on various parts of the body. John A. Rogers/The University of Illinois at Urbana-Champaign
Framing & Anchors

How we present feedback, and feedforward, has a big effect—one I don’t think we’ve fully tapped yet.

From your credit score, to your physical activity, there’s a lot of data points to keep track of. Not only do you need to know the relative value (is it good? is it bad?) of each number, but then how each number relates to each other for a complete picture.

The average person doesn’t want to do the cognitive “math.” This is where we come in, framing the information, the story, in a way that will elicit reflection and behavioral change.
Math is hard!

Asian Flu has hit, and expected to kill 600 people...

**Option A**: 200 people will be saved.

**Option B**: 1/3 probability that 600 people will be saved and 2/3 probability that no people will be saved.

**Option A**: 400 people will die.

**Option B**: 1/3 probability no one will die and 2/3 probability that 600 people will die.
Asian Flu has hit, and expected to kill 600 people...

Option A: 200 people will be saved.

Option B: 1/3 probability that 600 people will be saved and 2/3 probability that no people will be saved.

A = 72%
B = 28%

WTF MATH!

Option A: 400 people will die.

Option B: 1/3 probability no one will die and 2/3 probability that 600 people will die.

A = 22%
B = 78%

How do you add meaning to data?
Refining for a different perspective.

Info is beautiful: defence budgets
David McCandless/Guardian

http://www.guardian.co.uk/news/datablog/2010/apr/01/information-is-beautiful-military-spending

Feedback & Feedforward
Feedback

In the 60s most people didn't have personal scales. If you joined weight watchers, you attended a weekly meeting, where you were weighed and received group therapy style guidance.

The feedback loop was one week. You got feedback on all your decisions and behaviors over the course of 7 days at one-week intervals, and received guidance that wasn't custom for you.
Thirty years ago, your feedback loop on your finances was a manually entered register that you reconciled with a monthly statement that you got in the mail.

Spreadsheets helped do the math, if you were motivated, and software helps frame your date with charts and graphs.

Now we hand over our credentials to our accounts and can get instantaneous feedback.
Feedforward

Feedback is still a response after an action—after a decision or behavior has been made. As we get “smarter” with our services, we will present **feedforward**, guidance at the point of a decision to engage in a behavior, such as making the right choice on a menu in a fast food restaurant.

If I could walk into my nearby sandwich shop for lunch, and be alerted by an app, letting me know the different results, depending on my choice, I might make a different choice.

Choice architecture is largely about changing the environment, but it can be about guidance for navigating the environment.
Feedforward already exists in many places — for example projecting pay down of your credit card debt. But it’s not accessible when you’re really making decisions.

<table>
<thead>
<tr>
<th>Account Summary</th>
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<tbody>
<tr>
<td>Previous Balance</td>
<td>$1,686.15</td>
</tr>
<tr>
<td>- Credits</td>
<td>$0.00</td>
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<tr>
<td>- Payments</td>
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<tr>
<td>= New Balance</td>
<td>$523.20</td>
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<table>
<thead>
<tr>
<th>Payment Information</th>
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<tr>
<td>New Balance</td>
</tr>
<tr>
<td>Scheduled Minimum Payment</td>
</tr>
<tr>
<td>Scheduled Payment Due Date</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rate Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>You may pay your balance in full at any time. Your rate may vary according to the terms of your agreement. Notice: see reverse side for important information about your account.</td>
</tr>
</tbody>
</table>

**In our process**

- Research
- Insights
- Ideate
- Design
Research

Mental models and personas with a behavioral profile

Knowledge (i.e. awareness and understanding)
Motivation
Ability
Doubts/Barriers (i.e. security issues)

What are people thinking, feeling, doing?
Strategy

Measure Ability
Map touchpoints to motivation, knowledge, doubts/barriers
Identify prompt opportunities

Reveal how story is told
(data collected, feedback given, opportunities, etc.)
Identify opportunities for framing and anchors

Develop empathy, understanding, and insights

Ecosystem Mapping

Understanding the context of an experience.

Society / Regulation

Industry / Community
This environment in influenced by these forces.

Company / Experience
This environment lives in a larger industry or community

Interacts with Person
These interactions take place in this immediate environment

Interacts directly with these things

Develop empathy, understanding and insights
I said we have little control of our consumers’ environment, but we should understand that environment intimately in order to understand how someone may perceive it, navigate it, or interact with it.

By means of a participatory process, backcasting asks: “if we want to attain a certain goal, what actions must be taken to get there?”

“...a method in which the future desired conditions are envisioned and steps are then defined to attain those conditions, rather than taking steps that are merely a continuation of present methods extrapolated into the future.”

Backcasting method developed by John B. Robinson, 1982
O•B•I Backcasting

**Outcome**
(future state achieved by behaviors)

determine this...

**Behaviors**
(required to achieve outcome)

to identify these...

**Interactions**
(that can support the behaviors)

...in order to know what to design
Insight combination is a method to quickly generate a lot of design ideas and explicitly tie these ideas to contextual research and the cultural nuances of your target audience. Insight combination leverages *forced provocation*—the ability to constantly ask and answer "what if" without fear of critique.

Insights from contextual research combine with trends and patterns to form design constraints that drive "what if" questions.

See more at: https://www.wickedproblems.com/5_insight_combination.php#sthash.bKOLZsF3.dpuf

An insight is a clear, deep, meaningful perception into human behavior in a particular design context.

A design pattern (pull-down to refresh) or trend (sharing economy) describes a possible solution to a problem, based on problem/solution sets in other contexts.

See more at: https://www.wickedproblems.com/5_insight_combination.php#sthash.bKOLZsF3.dpuf
Insight Combination

Dan Lockton
Design with Intent
Stephen Anderson
Mental Note Cards
Fabrique
Insights
Cialdini
Weapons of influence

Behavior #1
Behavior #2
Behavior #3
Behavior #4
Behavior #5
Behavior #6
Behavior #7
Behavior #8
Behavior #9
Behavior #10

Random pairing
Data visualization  Triggers/cues
Haptic feedback  Feedback loop
Audio feedback  Feedforward guidance

**Shaping behavior by design**

- **Aspiration**
  - Needs
  - Motivations
  - Goals

- **Design**
  - Effective
  - Sustainable
  - Viable
Shaping behavior by design

What are people feeling, thinking, and doing?

We develop empathy, understanding, and insights about people, their motivations, and the influence of their environment.
We can understand what actual outcome they want to achieve, and then analyze the behaviors required to achieve it, and what interactions we can design to support those behaviors.

In designing those interactions, we can understand how we COLLECT the information (data and sensors) around behaviors, define the STORY that makes sense to the user (framing and anchors) and how we can prompt and COMMUNICATE (feedback & feedforward) to people.
We must embrace the squishy
Behavior change is a system, experienced over time across many different touchpoints, with many different decisions, in a complex environment.
“We should look at what kind of impact people’s behavior should have on design.”

—Paola Antonelli

THANK YOU!

shaping behavior, by design
behavioral design at scale

chris risdon head of design, capital one labs

@chrisrisdon
About UIE

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