Designing Delightful Data Products

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Electric Vehicles
Creating a strategy to drive adoption

Used Car Market
Creating New Used Car Buying Services

Social Apps
Mobile apps to further device usage

Tablet Apps
Table apps targeting creation and

Web Experience
Designing a branded ecommerce and digital experience

Cancer Care
Reinventing cancer care

Connected Experiences
Creating a platform for seamless connected digital experiences

Infotainment
Platform digital connected experiences

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Creating connected camera concepts

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BYOD (Bring Your Own Device) has raised the bar for enterprise.
What’s a Data Product?

“A product that facilitates an end goal through the use of data.” D.J. Patil
“The strangely familiar.”
Jonny Ive
HUMAN CENTERED

METAPHOR

ANALOGY

AUTOMATION

MANIPULATION
Human Centered
Creating products and services grounded in insights about human needs and behavior.
The ability to step outside of yourself and see the world as other people do.
Types of observations

1. Observations - watching, asking, doing and reflecting
2. Moccasins
3. Shadows
4. Focus groups
5. Work/Home tours
Formulate a hypothesis about a problem and how to solve it.
HYPOTHESIS

ASSUMPTIONS

Informed by qualitative and quantitative data

HYPOTHESIS

An 'If, Then' outcome assertion
### Customer Segments

**Whose our target customer?**

This user or persona is most critical. Increase the number of users in the top of our funnel.

### Customer Relationships

**How do we engage them?**

An improved on boarding flow will better engage new users. Increase the number of activated users.

### Channel

**Which channels are best/worst?**

Viral features will make us less reliant on paid acquisition. Reduce paid acquisition costs and increase number of new users.

### Value Proposition

**Do we have the right feature set?**

Trimming our feature set will improve product clarity. Improve our NPS score.

### Key Activities

**Is our distribution or service model right?**

Developing a platform through API's will improve market reach. Increase number of developers using our platform.

### Key Resources

**Do we have unique technology?**

Developing key algorithms will improve platform dependence. Increase the number of our patents.

### Key Partners

**Will suppliers or third partners help us better serve our customer?**

Appropriate affiliates will increase market reach. Increase the number of users in the top of our funnel.
The ability to imagine and conceive a wide variety of possible solutions.
Quantity yields quality.
Top 10 Habits of Great Ideators

1. Start with a need
2. Defer judgement
3. Gather different voices
4. Feed your head
5. Ask stupid questions
6. Encourage wild ideas
7. Make bad ideas better
8. Go for quantity
9. Use the buddy system
10. Keep an idea log
A physical hypothesis and rudimentary working model for how a new solution might come to be.
Types of Prototypes

1. Sketches
2. Hand Made Constructions
3. Machined Constructions
4. Interactive Models
5. Graphics
6. Spaces
7. Role Play, Experiences
8. Video
9. Wireframes
10. Storyboards
Storyboard

At an afternoon barbecue, the guys catch up.

Later, his wife sits down in front of the TV at home. When she turns on the TV, she gets a surprise—Steve sent a slideshow of the day’s pictures to the TV to show he’s thinking of her.

After the BBQ, they go out to their old favorite bar.

On his flight home the next day, he just wants to veg out, and looks through his files for something good to watch.

Steve flies out to Milwaukee where he went to college for an annual weekend get-together with his closest buddies.

Since Steve and Steve went to swap some family photos and pictures taken that day, the interface on Steve’s PDA allows where the other devices are in relation to his.

He can drag files to and from his friend’s camera and phone.

Steve remotely sends a slideshow of the pictures he got from his friend to the bar home for his wife to see when he returns home that evening.

At the bar, Steve wants to play some old songs from their college years. The jukebox doesn’t have those songs so he pulls them from his own collection.

He uses his PDA to pull the songs from his home server and stream them to the jukebox. The bar charges a small fee to let him play his songs through their jukebox.

His PDA recognizes another available display—his feedback screen. He uses his PDA to send the video file onto screen.

He sits back, relaxes and enjoys the rest of his flight.

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Design Principles

1. Simultaneous on-the-fly networking through presence detection recognition to remove dependence on internet connectivity.
2. Make file sharing intuitive by applying real world gestures to digital sharing.
3. Share data remotely in real time by plugging content directly onto others’ devices.
4. Build digital stages for group broadcasting that are controllable from any device.
5. Turn devices into conduits for transferring content and computing power between two or more other devices that cannot connect to each other directly.
6. Recognize and open devices for people to use as local displays for their own content.

Metaphorically extend the computer into the surrounding environment by visually and spatially mapping neighboring devices to the screen.
Conducting a series of experiments to validate assumptions and quality of proposed new solutions.
Minimum Viable Pilots

- Isolate key uncertainties
- Design quick tests
- Capture the unexpected
- Sequence the tests

Iterate
5 ways to pilot

1. A/B Test
2. Hear, See, and Experience
3. False Doors
4. Looks like, Work like
5. The Provincial
EMPATHIZE

DEFINE

IDEATE

PROTOTYPE

TEST
Metaphor
A figure of speech in which a comparison is made between dissimilar things from different categories.
TIGHTS ARE NOT PANTS

sweet treat
6 reps

hummus wrap
3 likes 1 comment 19 reps

Andrew von Rosenbach via Megan Gillooly onto meats, beats, and seats

Jessica White: I want to make the Hummus! I love me some hummus!

Brandon Lesley via Jennifer Pace onto Graphic Design and Typography

Andrew von Rosenbach via Nathan Burgess onto love to feel!

Fariel Zik Bluetooth Headphones

parmesan crusted chicken
11 likes 31 reps

Andrew von Rosenbach via Megan Gillooly onto meats, beats, and seats

Brandon Lesley via Fariel Zik onto Graphic Design and Typography
It looks like you're writing a letter.
Would you like help?

- Get help with writing the letter
- Just type the letter without help

Don't show me this tip again
Analogy
Comparing two things of partial similarity often from the same category.
Elena N. Jessop
803 South Mountain View Road
Castle Rock, CO 80109-9553
Home School
ACF 1545
404 North Dormitory

Yeong JI
Nanjing City, Jiangsu Province, P.R. China
Daemen Foreign Language High School
ACF 1546
401 Pratt Dormitory

David A. Johnson
18 Riverside Boulevard
New York, NY 10069
Bard High School Early College
ACF 1548
204 Valentine Dormitory

Stacey M. Johnston
1029 Dillingham Street
Kingston, ON K7P 2C1 Canada
Millbrook School
ACF 1549
114 Plaza Dormitory

Brendan C. Jones
62 Hopatcong Road
Hopatcong, NJ 07443
Montclair Kimberly Academy
ACF 1550
201 South Dormitory

Gudrun E. Juffer
4470 North Morris Boulevard
Shorewood, WI 53211
Shorewood High School
ACF 1552
404 South Dormitory

Lucille H. Jon
1405 SW 32nd Street
Federal Way, WA 98093
Decatur High School
ACF 1553
207 Valentine Dormitory

Hee Young Jung
246-902 Olympic Apartments
Olympia, WA 98501
Seoul 138-787, Republic of Korea
Daemen Foreign Language High School
ACF 1554
409 Pratt Dormitory

Hye Suchi Jyring
207 Capitol Avenue
Williston Park, NY 11596
Harricks High School
ACF 1555
107 Appleton Dormitory

Andrea M. Kahn
118 Galilea Road
Gallow, NJ 07933
Watchung Hills Regional High School
ACF 1557
204 Appleton Dormitory

Class of 2008
Automation
Presenting data relevant to a user’s context or goal without requiring their input.
Chernex 6-Cup Classic Series Glass Coffee Maker

by Chernex

Price: $64.99 + $4.30 shipping

Note: Not eligible for Amazon Prime. Available with free Prime shipping from other sellers on Amazon.

Only 4 left in stock.

Ships from and sold by DAWK Shops.

Estimated Delivery Date: Feb. 20 - 25 when you choose Expedited at checkout.

Size: 6-Cup

- 3-Cup
- 6-Cup
- 5-Cup
- 10-Cup

Style Name: Classic

- Includes a polished wood collar with leather tie
- Selected by the Illinois Institute of Technology as one of the 100 best designed products of modern times
- All of the coffeemakers are measured using 5 oz. as 1 cup
- Chernex filters are required for operation all Chernex coffee makers
- Capacity: 30 Oz.

21 new from $63.60
1 used from $45.25

Customers Who Bought This Item Also Bought

- Bonavita BV382SS 1-Liter Stovetop Kettle
  - 127
  - $34.95 w/Prime

- Hario Coffee Mill Slim Grinder, Mini
  - 1,091
  - $29.20 w/Prime

- Bonavita 1-Liter Variable Temperature Digital Electric Gooseneck Kettle
  - 1,094
  - $94.99 w/Prime

- Chemex Hand Blown Glass Water Kettle, 2 Quart
  - 25
  - $79.49

- Hario V60 Coffee Drip Kettle, Small
  - 478
  - $37.99 w/Prime
Manipulation

Facilitating easy handling, managing and using data to quickly gain insight.
```python
songs = sc.textFile("s3n:///MY_S3_BUCKET/songs_data/songs-\*")
Command took 0.87s

from pyspark.sql import Row
def fullyParse(line):
  fields = line.split(\"|\")
  return Row(name=fields[0], duration=fields[1], year=fields[2], artist_id=fields[3],
             loudness=fields[4], key=fields[4], end_of_fade_in=fields[5])
songsSchema = sqlContext.inferSchema([Row(name=\"\", duration=\"\", year=\"\", artist_id=\"\", loudness=\"\", key=\"\", end_of_fade_in=\")])
Command took 0.47s

sql select year, duration, end_of_fade_in, key, loudness, artist_id from songs
TABLESAMPLE(BUCKET 1 OUT OF 1000) where year > 1938 and year < 2012
```
“The strangely familiar.”
THANK YOU

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