

Building with Data: Lessons from Etsy

Strata NY 2014

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Etsy

Shop directly from people around the world.



Katie Marks of SilverLiningCeramics
Washington, United States



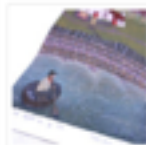
1
Items

Recent Favorites

Discover finds from around the marketplace.



Signed, titled and numbered fine art ... \$41.15 USD



59
Items



From ValerianeLeblond
in Aberystwyth, United Kingdom
★★★★★ 120 Reviews



Black Speckled Hanging Planter - BL... \$29.00 USD



50
Items



From PotteryLodge
in Houston, Texas
★★★★★ 388 Reviews



That's Bananas - Caramelized Organ... \$9.00 USD



34
Items



From EvolutionaryFarms
in United States
★★★★★ 163 Reviews

Over 25M items from 1M shops in 150
countries.
big community

Etsy

\$1.35B sales in 2013

big community + **lots of actions**

Etsy

150GB weblogs daily

big community + lots of actions = **lots of data**

Etsy

hadoop cluster “etsydoop” vertica warehouse

big community + lots of actions = lots of data
+ **great stack**

30 deploys by 200+ people per day

big community + lots of actions = lots of data
+ great stack + **continuous delivery**

dozens of experiments running simultaneously

big community + lots of actions = lots of data
+ great stack + continuous delivery +
continuous experimentation



Register

Sign In

Search for items and shops

Search

Cart



Large vintage red alarm clock, Red retro Home decor, red vintage alarm clock, Table clock, desk clock, hand winding OldishButGoldish

Favorite

Similar items 30,062

Sort by: Relevancy

electronics x vintage x Add



Large vintage red alarm clock... OldishButGo... \$38.00 usd



Large Vintage NON working ... OldishButGo... \$29.00 usd



Vintage alarm clock SLAVA, ... OldishButGo... \$29.00 usd



Vintage alarm clock SLAVA, ... OldishButGo... \$29.00 usd



Soviet Alarm Clock, Vintage ... OldishButGo... \$29.00 usd



Vintage Alarm clock - Germa... OldishButGo... \$83.00 usd



VINTAGE ALARM CLOCK - B... RedChillPep... \$47.00 usd



Set of 2 VINTAGE ALARM C... RedChillPep... \$36.00 usd

SHOW ONLY

- Accepts Etsy Gift Cards
Customizable



Price range filter: \$ to \$

Any Shop Location

San Francisco, CA Change

Ships Anywhere

United States Change



Set of 2 VINTAGE ALARM C... RedChillPep... \$37.00 usd



Big VINTAGE ALARM CLOC... RedChillPep... \$48.00 usd



Soviet alarm clock vintage Se... SoYesterday... \$28.00 usd



Vintage white red alarm clock... GeorgiVintage \$28.00 usd



- | | | | |
|--|--|--|---|
| | | | |
| Vintage Soviet alarm clock Ja...
GeorgiVintage \$28.00 usd | Vintage Mechanical Alarm Cl...
GeorgiVintage \$33.00 usd | Young Watchmaker Alarm Cl...
GeorgiVintage \$20.00 usd | Soviet Alarm Clock Slava, Vi...
GeorgiVintage \$21.00 usd |
| | | | |
| Slava USSR Alarm Clock, Vi...
GeorgiVintage \$21.00 usd | Slava Key Moscow, Vintage ...
GeorgiVintage \$35.00 usd | VINTAGE ALARM CLOCK- B...
RedChilliPep... \$67.00 usd | VINTAGE ALARM CLOCK- B...
RedChilliPep... \$27.50 usd |
| | | | |
| VINTAGE ALARM CLOCK- B...
RedChilliPep... \$47.00 usd | VINTAGE ALARM CLOCK- S...
RedChilliPep... \$26.00 usd | VINTAGE ALARM CLOCK- S...
RedChilliPep... \$34.00 usd | VINTAGE ALARM CLOCK- ...
RedChilliPep... \$38.00 usd |
| | | | |
| Soviet Jantar alarm clock Ru...
SoYesterday... \$38.00 usd | German Alarm Clock-vintage ...
RedChilliPep... \$59.00 usd | Jantar Soviet vintage alarm cl...
SoYesterday... \$38.00 usd | Vintage/Retro Rare Twin Bell ...
OldBox \$55.00 usd |
| | | | |
| Vintage romanian alarm clock...
PetarsVintage \$38.20 usd | VINTAGE ALARM CLOCK- B...
RedChilliPep... \$35.00 usd | UMF Ruhla Vintage German ...
GeorgiVintage \$50.00 usd | Vintage red mechanical alar...
PetarsVintage \$48.20 usd |



today

what data we collect
who uses it
who makes it useful
how it works
and why

Etsy

the users

product development

member operations

marketing

finance

the users

product development

ranking, relevancy, recommendation
opportunity identification, impact analysis

member operations

queue prioritization, customer experience

marketing

return on investment analysis, customer lifetime value

finance

forecasting, strategy

types of data

clickstream

transactional

survey

interview / usability study / market research

Etsy

types of data

clickstream

feature usage, item preference, search terms, device usage, visit frequency, referral source

transactional

order value, category of sale, purchase frequency, currency paid, shipping preferences

survey

attitudinal, net promoter score, brand awareness, customer service experience, aspirations

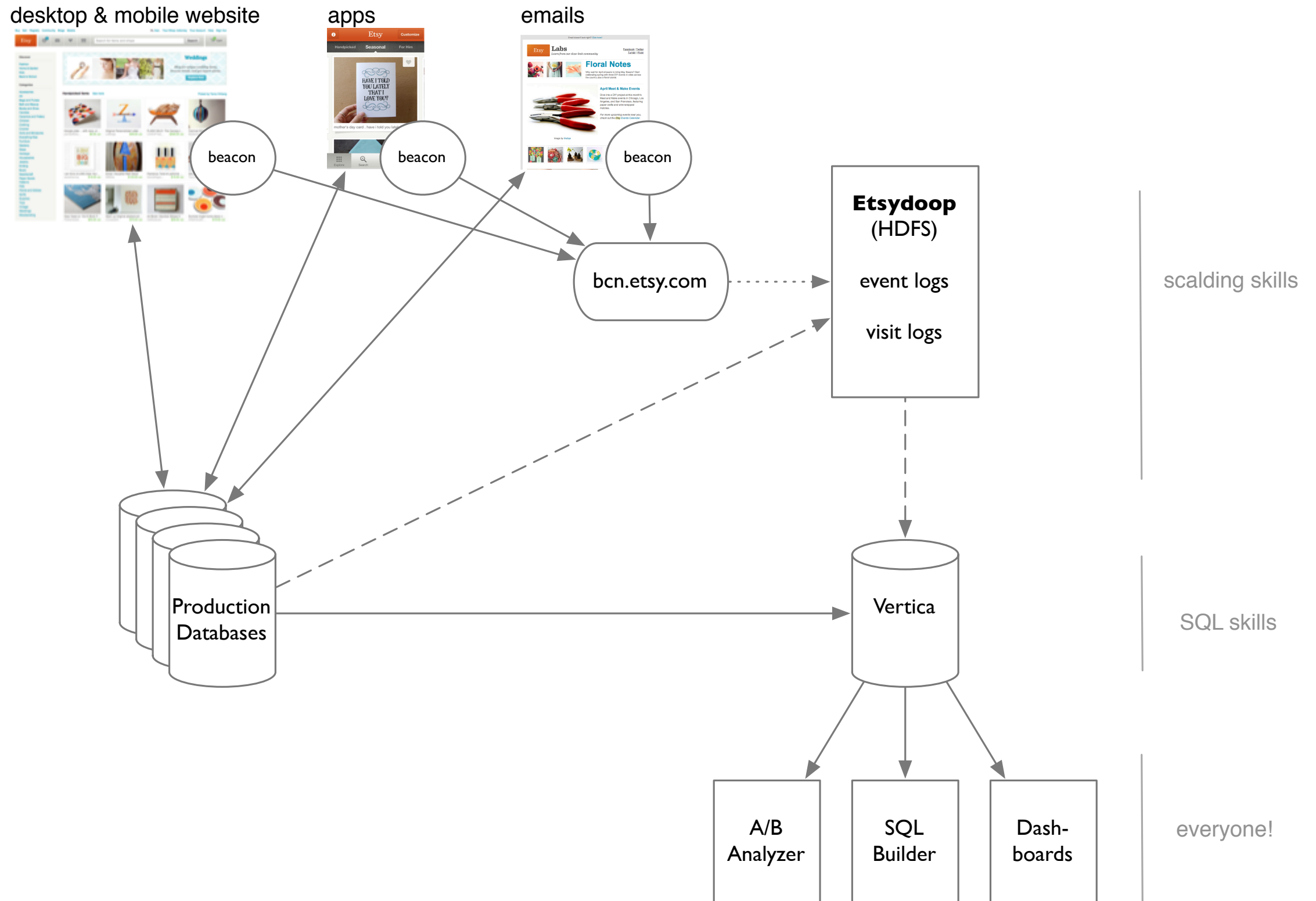
interview / usability study / market research

individual experience, industry trends



scale

the stack



the data makers

data-engineering & hadoop team

data science team

analytics

the data makers

data-engineering & hadoop team

ETL, visit serialization, hadoop, vertica, front-end tooling

data science team

personalization algorithms and machine learning models

analytics

opportunity, feature, impact analysis, a/b testing

the data makers

data-engineering & hadoop team

event logging, ETL, serialization, storage, front-end tooling

data science team

personalization algorithms and machine learning models

analytics

opportunity, feature, impact analysis, a/b testing

user research

why three teams?

Etsy

Search for items or shops

Search

Browse

Register

Sign in



raymond biesinger

Favorite Shop

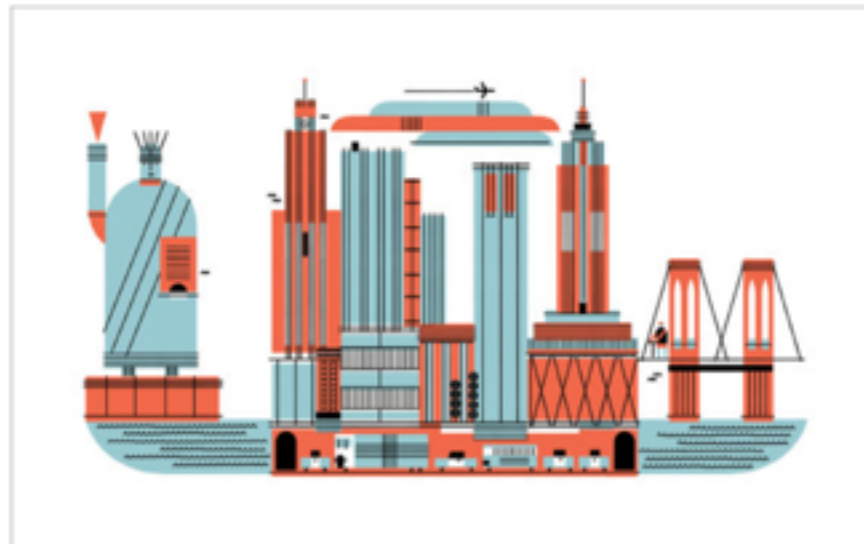


84 items

Favorite

Like this item?

Add it to your favorites to revisit it later.



zoom

Item Details

★★★★★ (100)

Shipping & Policies

This was originally made as part of a set of concept illustrations for a 2011 Toyota Avalon ad campaign, and it's meant to show the New York City complete with the Statue of Liberty, Brooklyn Bridge, and a few things in between. What I made would eventually inspire and guide a full package of billboards, magazine ads, web things and television commercials for the US market, and if you search mightily you just might be able to find a few of the ads online.

Printed in an open edition via Epson Stylus Pro 3880 at 17x10.75" on Epson Ultra Premium 192 GSM Enhanced Matte paper. Dimensions include a 1.5" margin. Signed and dated.

New York City American Spaces 17x10.75" Art Print by Raymond Biesinger

\$27.38 USD

Ask a Question

Quantity

1

Overview

- Handmade item
- Materials: Epson Ultrachrome K3 ink, Epson Ultra Premium Matte paper
- Made to order
- Feedback: 100 reviews
- Ships worldwide from Montreal, Canada

This shop accepts Etsy Gift Cards

Add to Cart

Favorite

192

Add to

Tweet

Pin it

Like

0



raymond biesinger

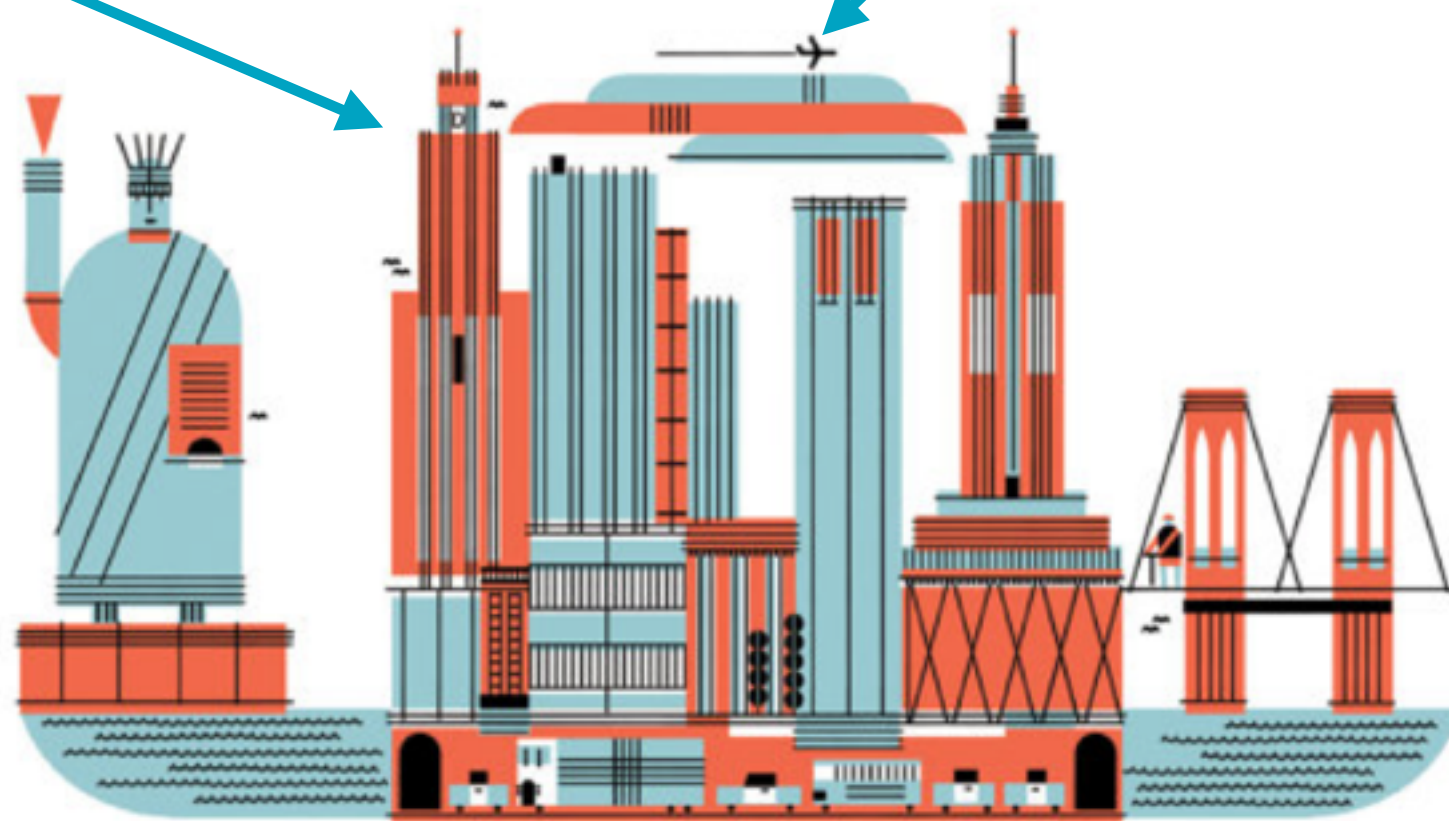
in Montreal, Canada



why three teams?

Analytics

Data Science



Data-Eng

Etsy

the users

product development

ranking, relevancy, recommendation
opportunity identification, impact analysis

member operations

queue prioritization, customer experience

marketing

return on investment analysis, customer lifetime value

finance

forecasting, strategy

data analyst organization

product development

member operations

marketing analytics

business insights

data analyst organization



BigStuffed

Favorite Shop



Favorite

Like this item?
Add it to your favorites to revisit it later.



zoom

OverSized Handmade Plush-Octopus Stuffed Animal// Eco-Friendly// Natural Materials// Minimalistic cute creature For a Modern Nursery

\$143.43 USD

Ask a Question

Only 1 available

Overview

- Handmade item
- Materials: coton jersey, faux fur
- Made to order
- Feedback: 9 reviews
- Ships worldwide from Paris, France

Add to Cart

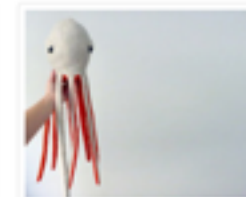
Favorite 5470

Add to

Tweet Pin Like 110



BigStuffed
in Paris, France



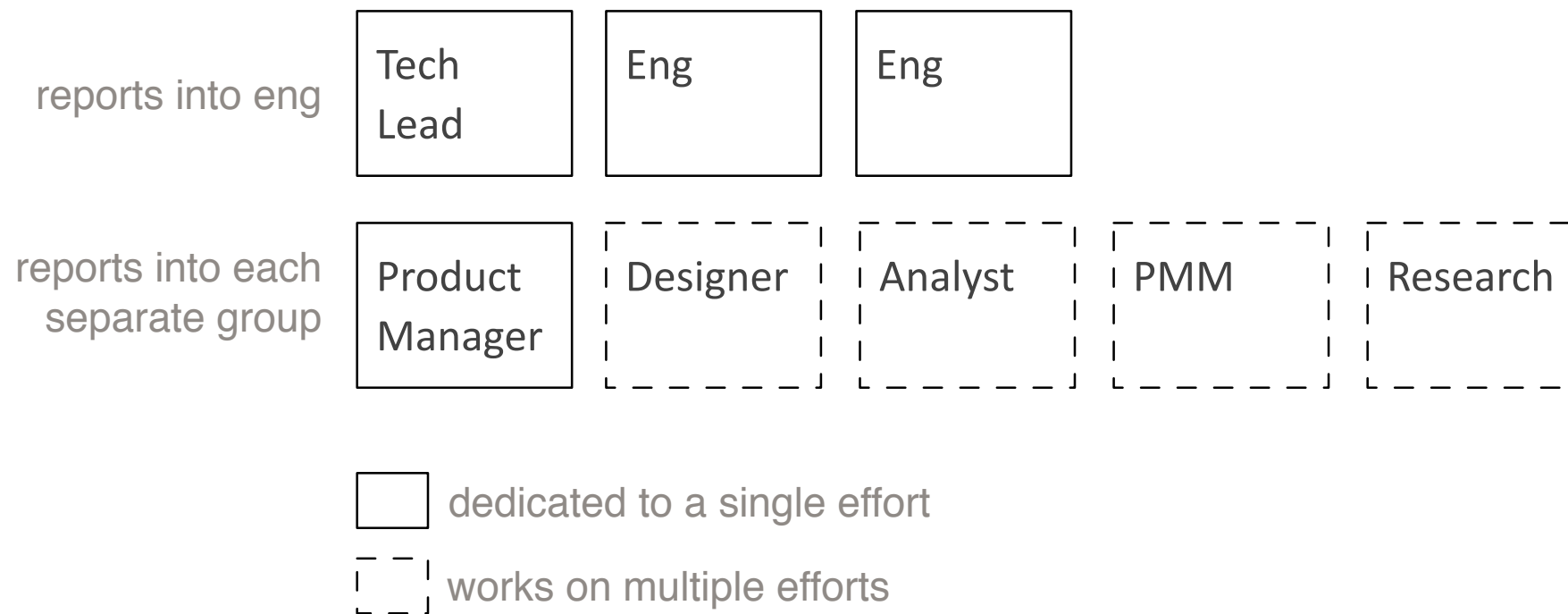
Request a custom order and have something made just for you.

Item Details

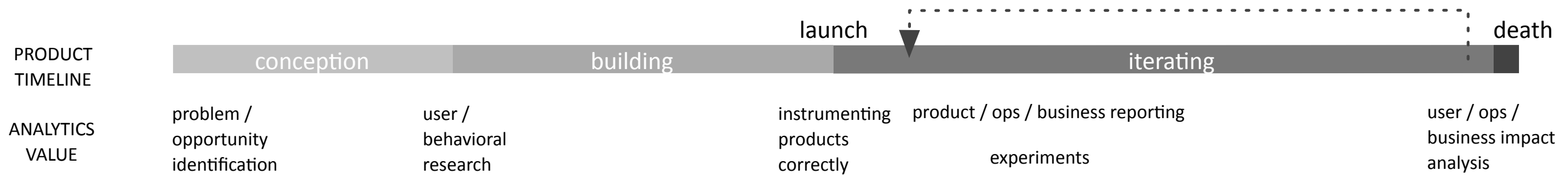
★★★★★ (9)

Shipping & Policies

sample project team



timeline



the skill set

analytical skill

to understand the problem. and the opportunity.

math/stats skill

to understand the data.

technical skill

to get the data, parse it, and visualize it.

communication skill

to communicate what matters and
and to **not** communicate what doesn't.

today

what data we collect

who uses it

who makes it useful

how it works

and some takeaways

Etsy

data is not a
single team

**data needs
interpreters**

technical skill!
= analytical
skill

what we're
really talking
about:

better inputs
for decisions

more goodness

Steve Mardenfeld on Experiments

<http://www.slideshare.net/smardenfeld>

Dan McKinley on Experiments

<http://mcfunley.com/design-for-continuous-experimentation>

Decided by Data: Case Studies from a Data Driven Product Culture

Strata, Thursday at 5:05pm

Learn more

etsy.com/careers
github.com/etsy

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Etsy