

Is Design Metrically Opposed?

Jared M. Spool
@jmspool



1

Are we
measuring the
right thing?

Performance Based Design

NEW BOOK COMING 2010

enter your email address...

Yes, notify me ONCE when it's ready!

A web designer's guide
to kicking ass with:

Web analytics

User testing

A/B testing

Multivariate testing

Advanced CSS & CSS3

You'll never think about
web design the same
way again.

WHAT'S THE BOOK ABOUT?

Performance Based Design is about changing the way we think about web design. It's what comes next after web standards. It's about using data to find the *best* design — the best user experience, the best conversion rate, the best performing design. Web design is measurable and testable, and *Performance Based Design* will show you how to use that to become an objectively better designer.

WHO'S THE AUTHOR?

Luke Stevens ([@lukestevens](#)) has been professionally designing and building websites for the better part of a decade. For more:

- Follow [@msrmnt](#) on Twitter for book updates.
- Read an [interview with Luke at SitePoint](#).
- See Luke's [slides \(with audio\)](#) from his Web Directions South 2009 presentation on performance based design.

WHEN WILL IT BE OUT?

The book is currently 80% complete, weighing in at 70,000 words across five major sections. It should be out around the middle of this year.

Be sure to sign up so you get a **once-only** email when the book is ready, or follow [@msrmnt](#) to be notified that way.

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It's called "Performance Based Design".
It's what comes next after web standards.
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33 Email Addresses

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77 Email Addresses

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More email addresses are better

33 Email Addresses

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All email addresses are equal

Observations

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Inferences

More email addresses are better
All email addresses are equal

Observations



Inferences

Observations

Observations

Inferences

Design Decisions



Inferences



Design Decisions

Observations



Inferences



Design Decisions

2nd variant had
more email
addresses



More email
addresses are
better



Use 2nd variant

Observations



Inferences



Design Decisions

What did we
see?



Why we think
it happened?



How will we
improve the
design?

WELLS FARGO

View Your Accounts

1. Username: 2. Password:

[Username Help](#) [Password Help](#)

3. Sign On to:
 [Account Summary](#) [> Sign On](#)

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Log file filled with " " (blanks)

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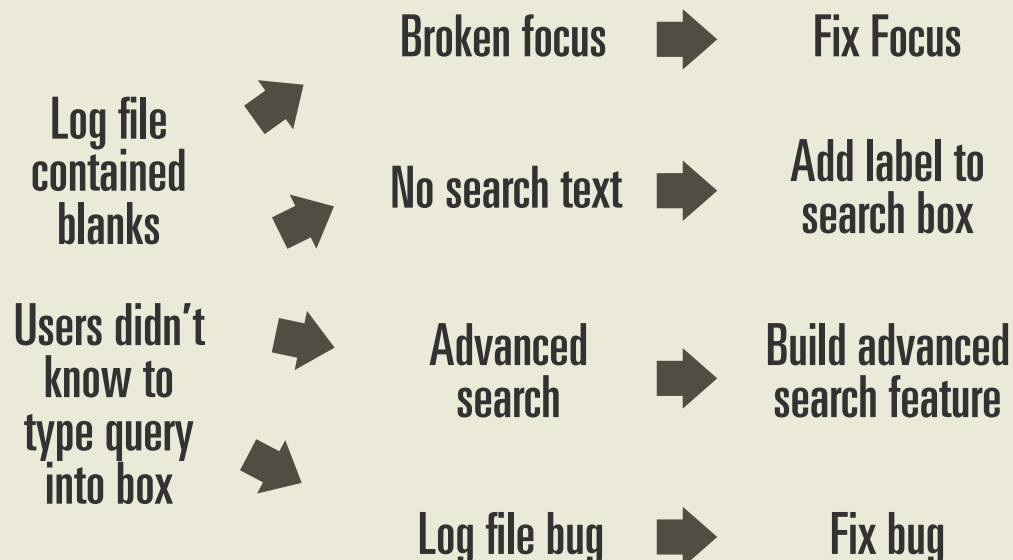
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The best designers never stop at the first inference.

Observations ➔ **Inferences** ➔ **Design Decisions**



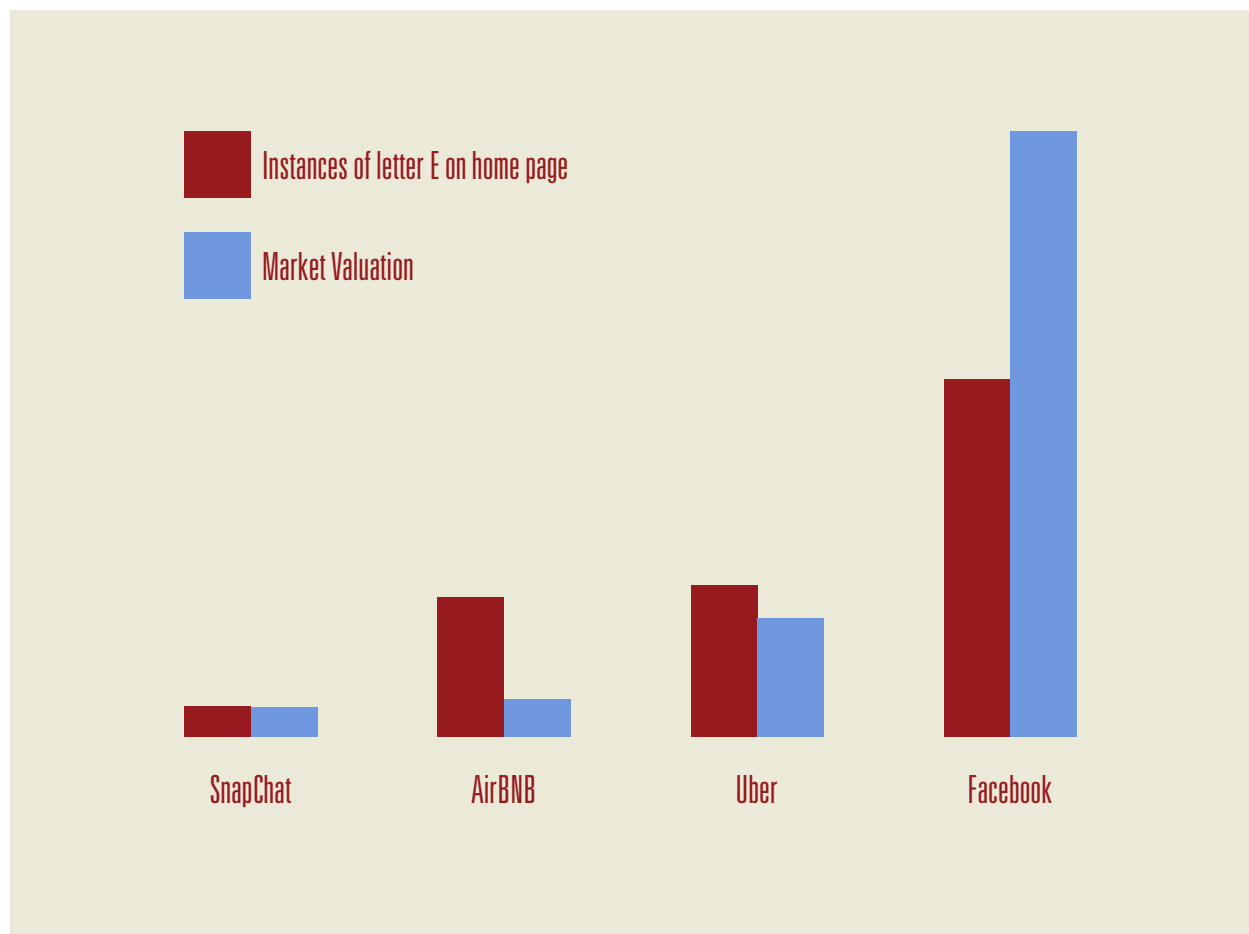
Research turns
inferences into
observations.

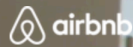


2

Useless
measures &
silly metrics







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[How It Works](#)

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Check Out

1 Guest

[Search](#)

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On New Year's Eve 2014, more than half a million people stayed on Airbnb. See who is staying tonight.



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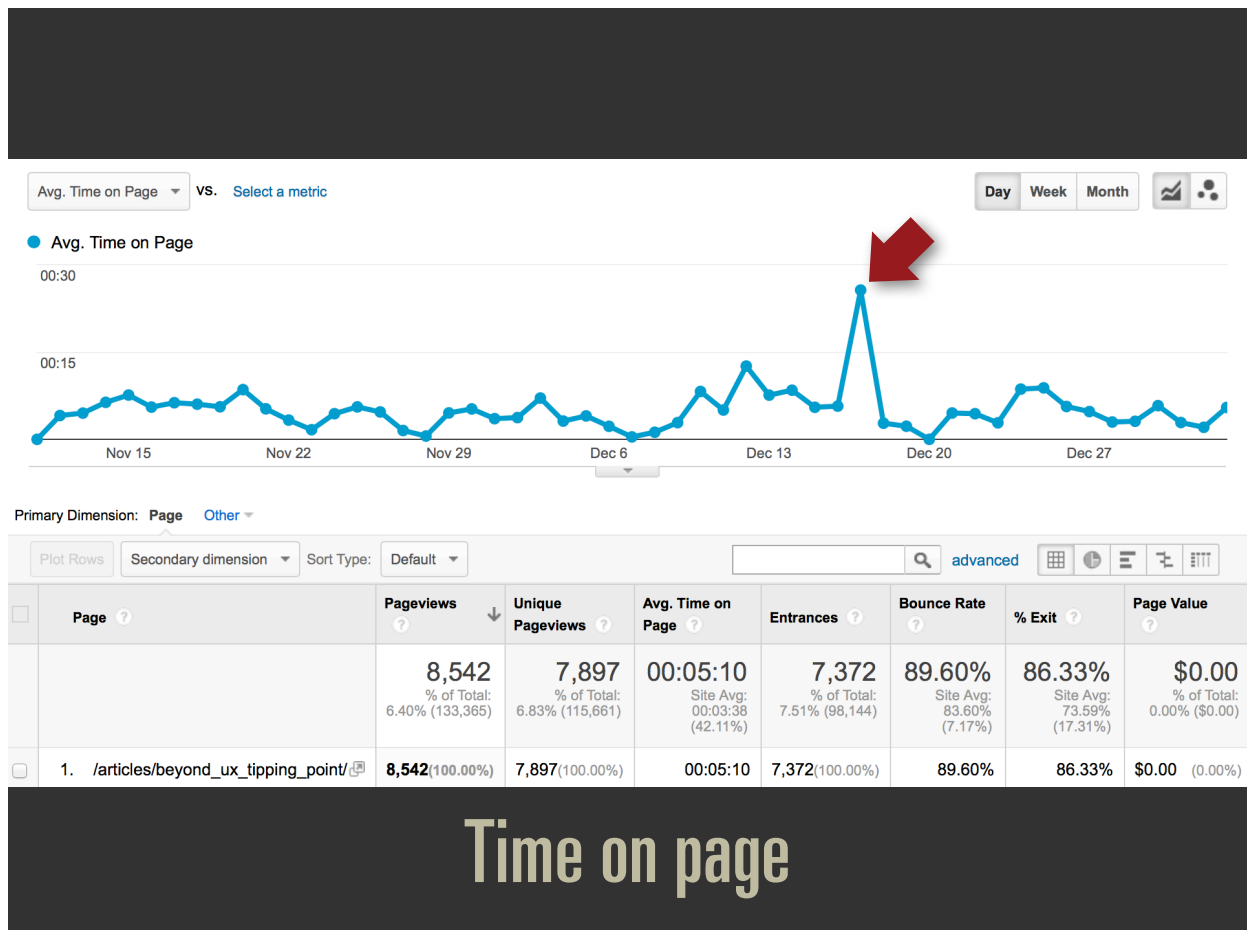
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Counting the letter E is a stupid metric.

Measure: Something we can count.

Metric: A measure we track.

Analytic: A measure software tracks.



Bounce rate

Time after search

% Exit

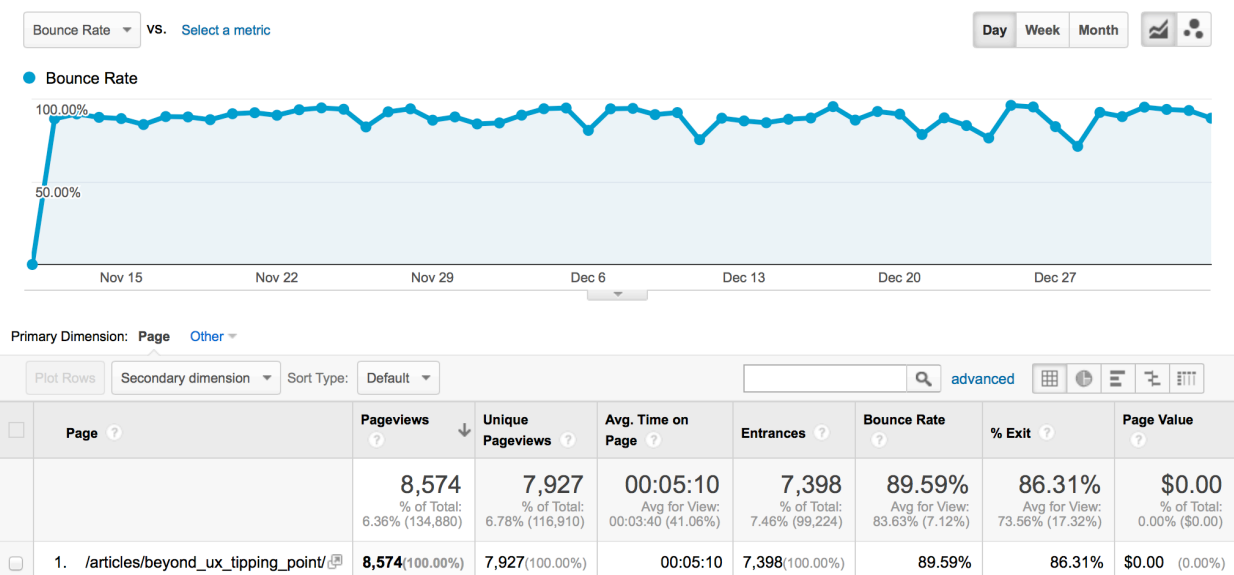
Time on page

Sessions w/search

% Search Refinements

Pageviews

What should we do differently?



Bounce rate

“If you torture data long enough, it will confess to anything you’d like.”

*R.H. Coase,
British economist*

What Google Analytics can't tell you:

- ▶ What content was useful?
- ▶ What people found confusing?
- ▶ Who is your site's biggest spender?
- ▶ What do big spenders do that others don't?
- ▶ What should you do to improve your content?
- ▶ Why did someone click?

What Google Analytics
can't tell you:

Why?

Conversion Rate

THIS **PRESENTATION** HAS

M

MATHEMATICAL CONTENT

CONTAINS SOME FORMULAIC MATERIAL
MAY BE INAPPROPRIATE FOR DESIGNERS

Conversion Rate

$$\text{Conversion Rate} = \frac{\text{\# of people who purchase}}{\text{\# of people who visited}}$$

$$1.0 \% = \frac{10,000}{1,000,000}$$

Conversion Rate

$$1.0 \% = \frac{10,000}{1,000,000}$$

$$2.0 \% = \frac{20,000}{1,000,000}$$

$$2.0 \% = \frac{10,000}{500,000}$$

Conversion Rate

$$1.0 \% = \frac{10,000}{1,000,000} = \frac{10,000 \times \$100}{\$1,000,000}$$

$$2.0 \% = \frac{20,000}{1,000,000} = \frac{20,000 \times \$100}{\$2,000,000}$$

$$2.0 \% = \frac{10,000}{500,000} = \frac{10,000 \times \$100}{\$1,000,000}$$

Conversion Rate

$$2.0 \% = \frac{20,000}{1,000,000} = \$2,000,000$$

$$2.0 \% = \frac{10,000}{500,000} = \$1,000,000$$

What should we design for?

Conversion Rate?

2.0 %

2.0 %

Money?

\$2,000,000

\$1,000,000

Conversion Rate

$$\text{Conversion Rate} = \frac{\text{\# of people who purchase}}{\text{\# of people who visited}}$$

Visit ➡ Visit ➡ Visit ➡ Purchase

$$\text{Conversion Rate} = 25 \% ?$$

$$\text{Conversion Rate} = 100 \% ?$$

What conversion rate can't
tell you:

Why?

Delightful

Excellent

Amazing

Remarkable

Awesome

Incredible

Satisfactory

Satisfactory

Edible

We can do better.

Please tell us how satisfied you were with each of the following.
If the item does not apply to your most recent experience, please select "Does not apply to me."

[illegible]

Satisfaction Survey Scale

Extremely **Satisfied**

Somewhat **Satisfied**

Neutral

Somewhat **Dissatisfied**

Extremely **Dissatisfied**

Delight/Frustration Survey Scale

Extremely **Delighted**

Somewhat **Delighted**

Satisfied

Somewhat **Frustrated**

Extremely **Frustrated**

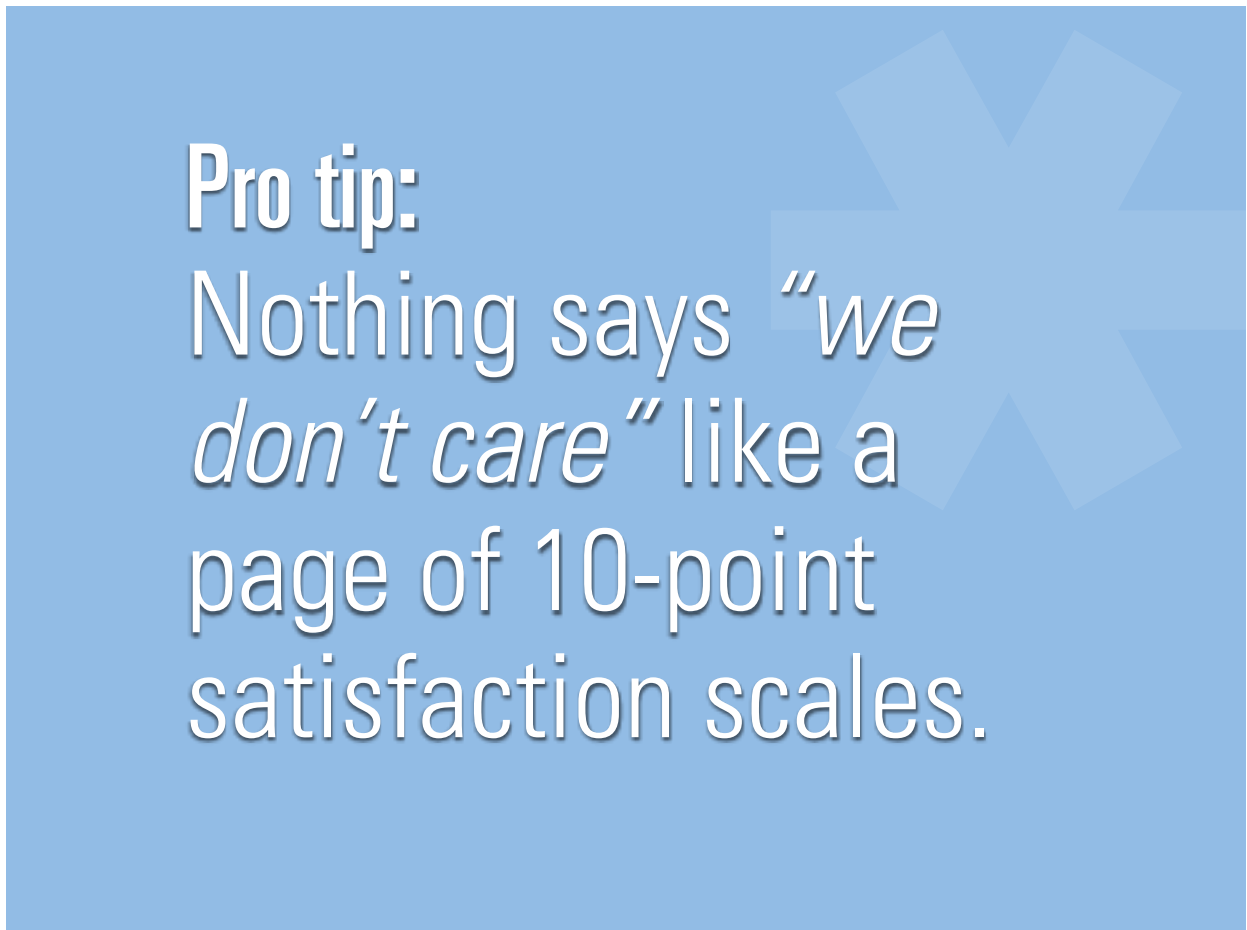


	Poor							Excellent		
	1	2	3	4	5	6	7	8	9	10
Stylish and up-to-date design/décor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maintenance and upkeep of hotel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Design of the public area/spaces	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[Back](#) [Next](#)



Pro tip:
Nothing says “*we don’t care*” like a
page of 10-point
satisfaction scales.



10-point scales make
noise feel like
science.

M

How likely are you to recommend
writing on Medium to a friend or
colleague?

0

1

2

3

4

5

6

7

8

9

10

Not likely

Very likely

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Powered by [Delighted](#)

What satisfaction surveys
and Net Promoter Score
can't tell you:

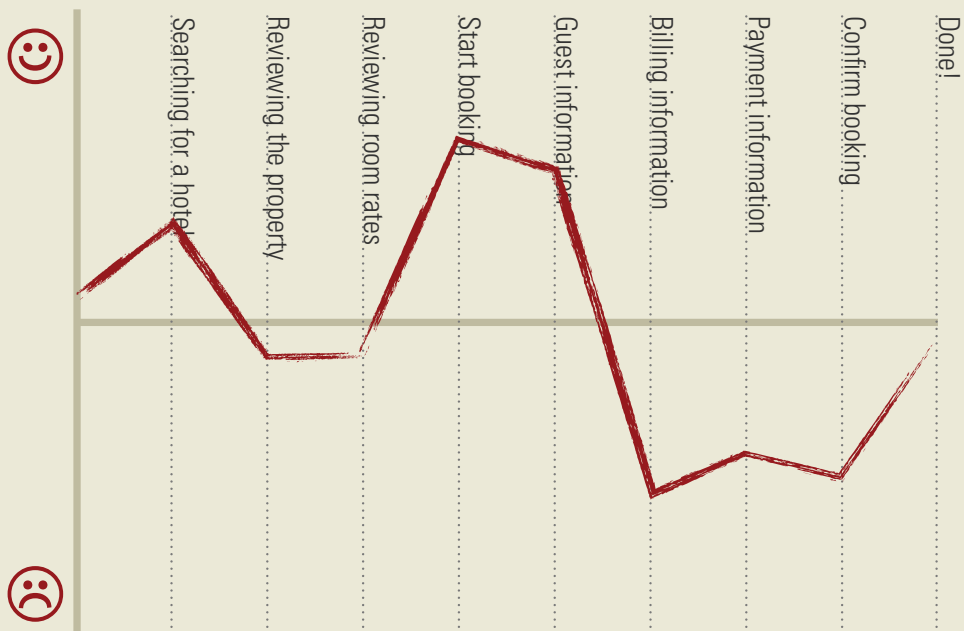
Why?

We need metrics that
help us improve our
users' experience.








3

A measured
experience.


Customer journey map



Things users find frustrating

-  Content that is confusing
-  Incomplete information
-  Can't remember password
-  Hidden features
-  Hidden navigation
-  Confusing navigation
-  Error messages

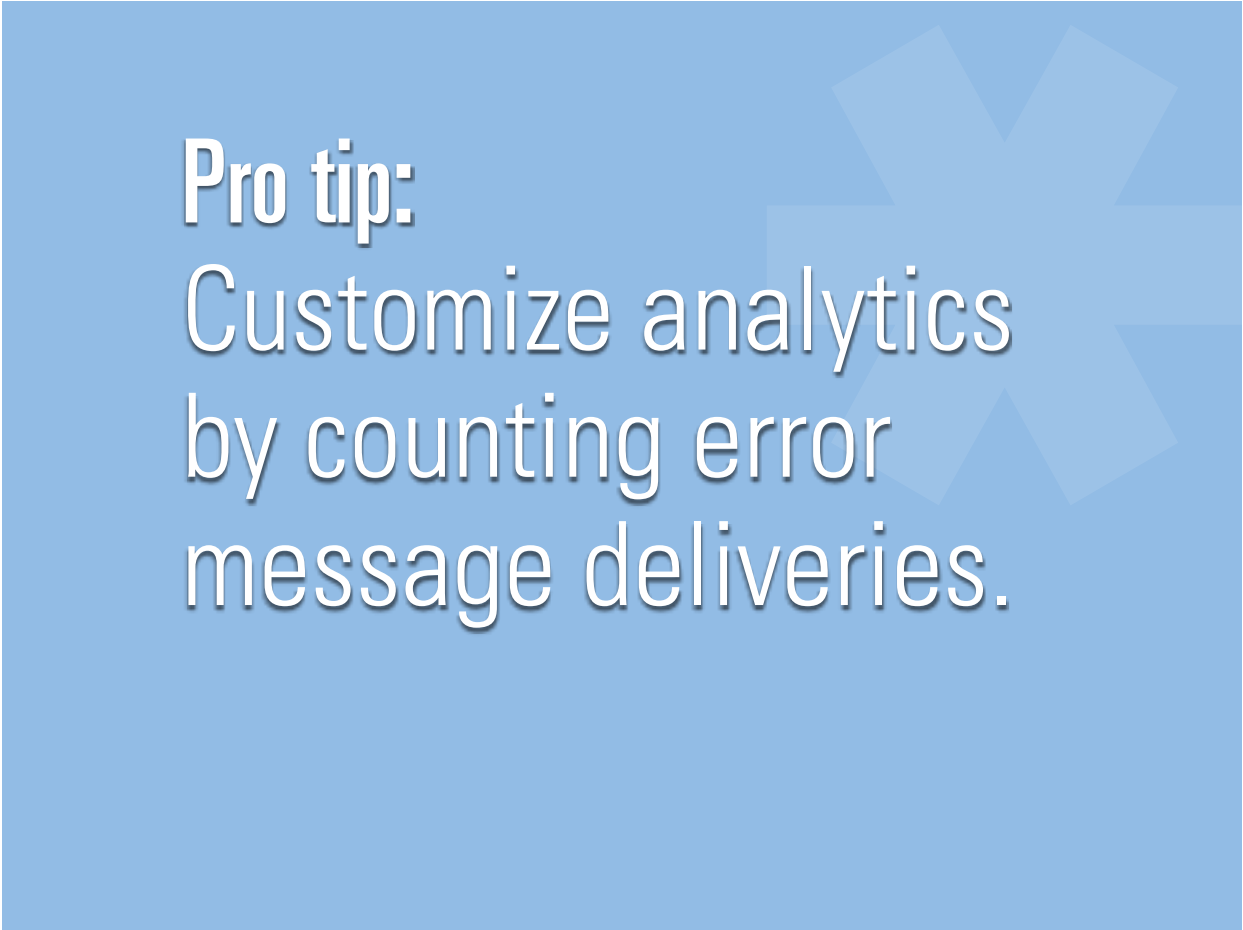
Things that users find frustrating

-  Error messages

Phone numbers can't have dashes or spaces.

The credit card security code is required (again).

Username and password do not match.

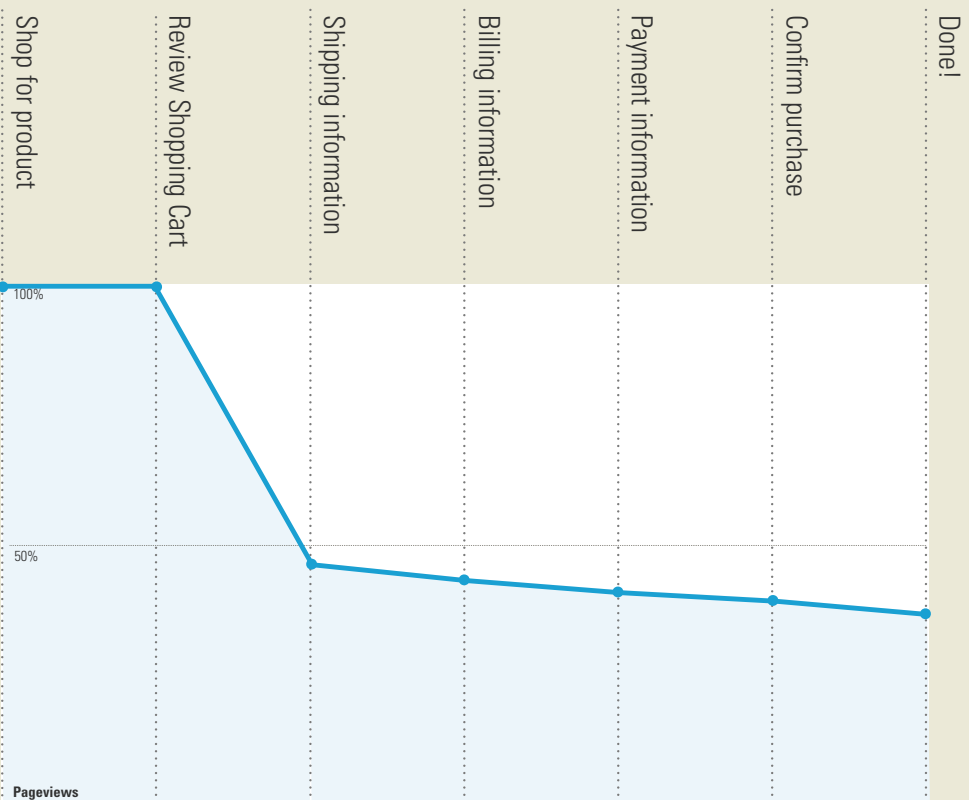
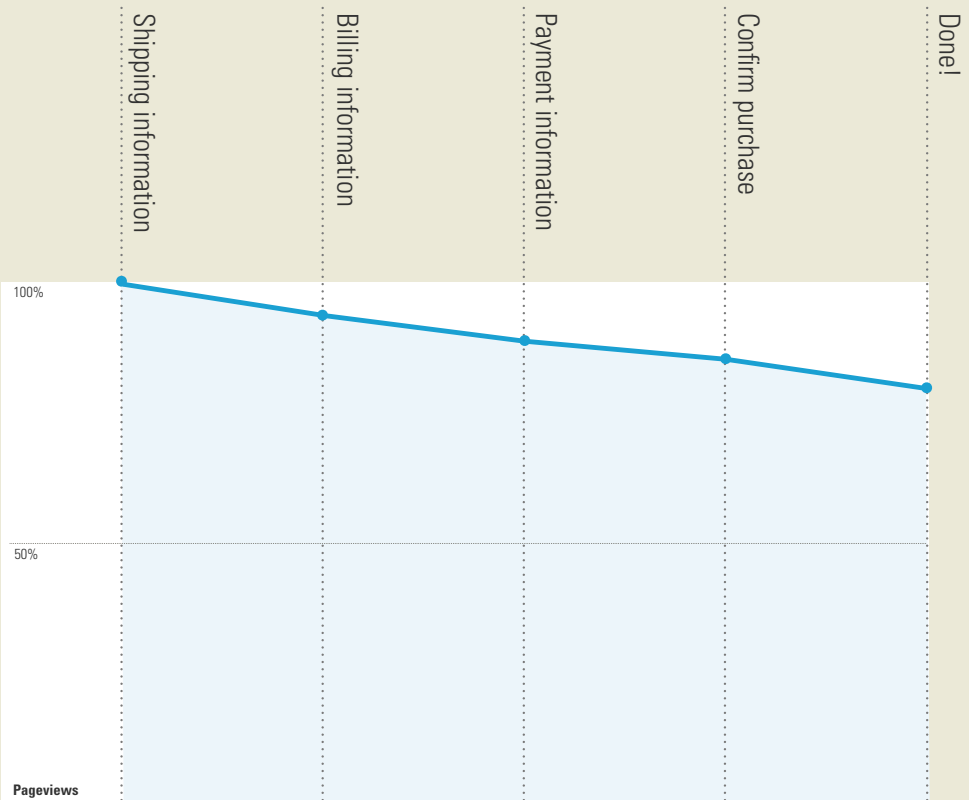


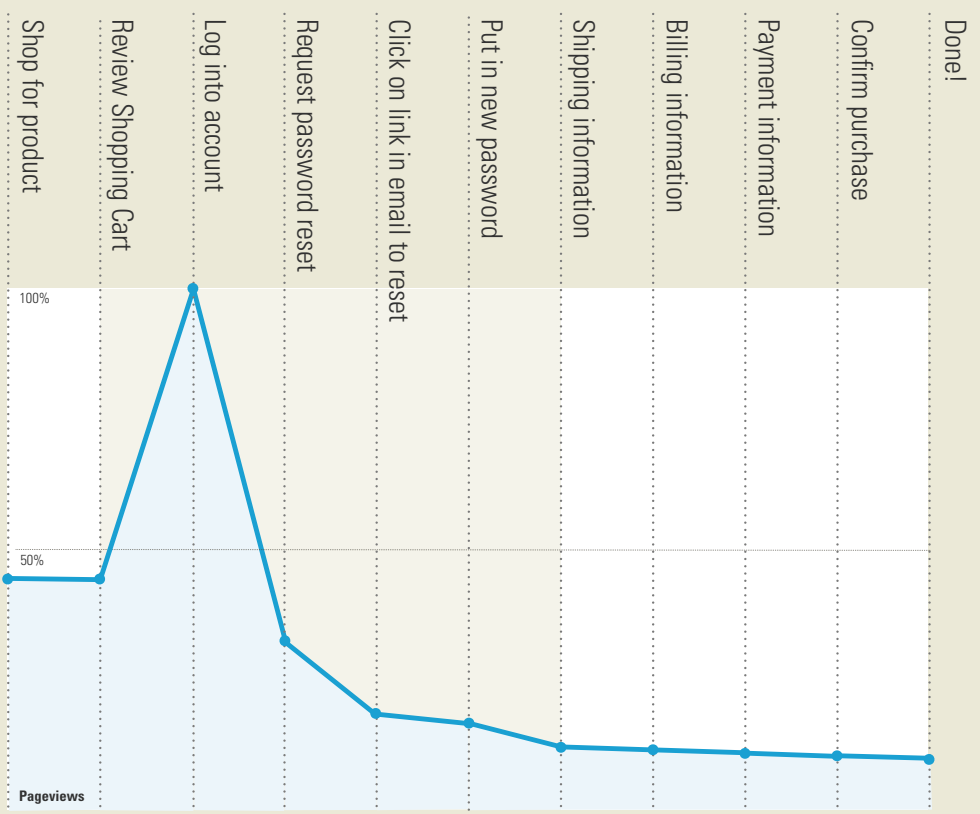
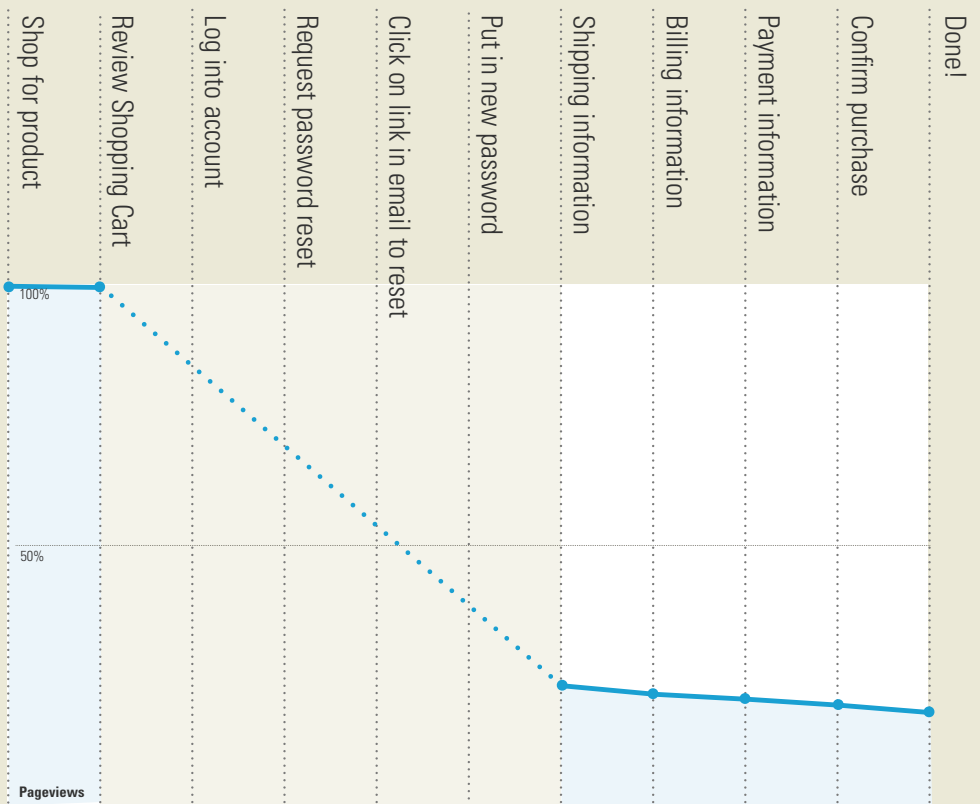
Pro tip:
Customize analytics
by counting error
message deliveries.



Case study:

**Improve checkout process for a
major e-commerce site.**







Lost revenue from
account sign-in issues:

\$300,000,000
per year

The team built a guest checkout (no sign-in required).
Recovered the \$300,000,000 within 1 year.



\$300,000,000

Qualitative usability research
+
Quantitative custom metrics

Most important custom metric:
Unrealized shopping cart value from password issues.

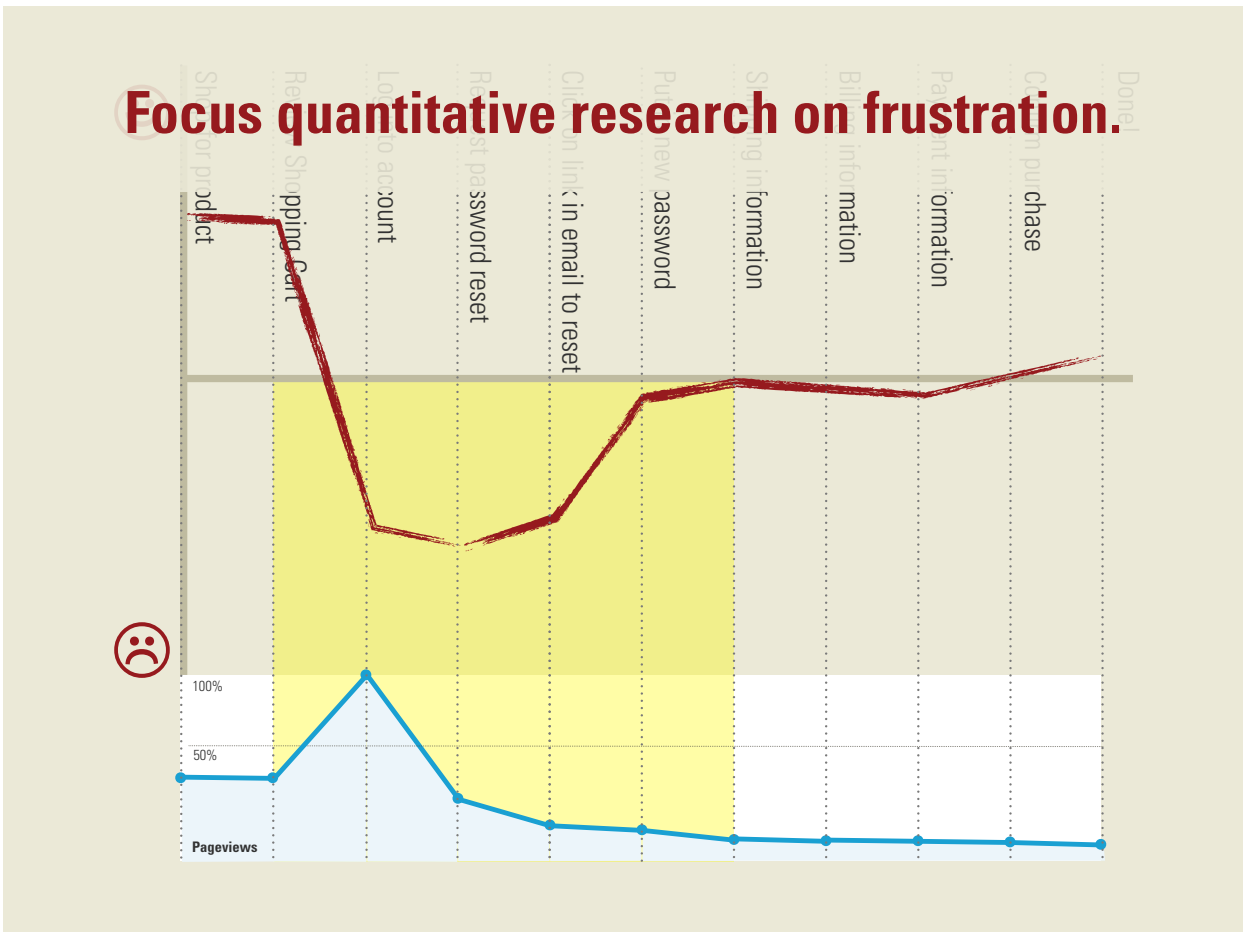
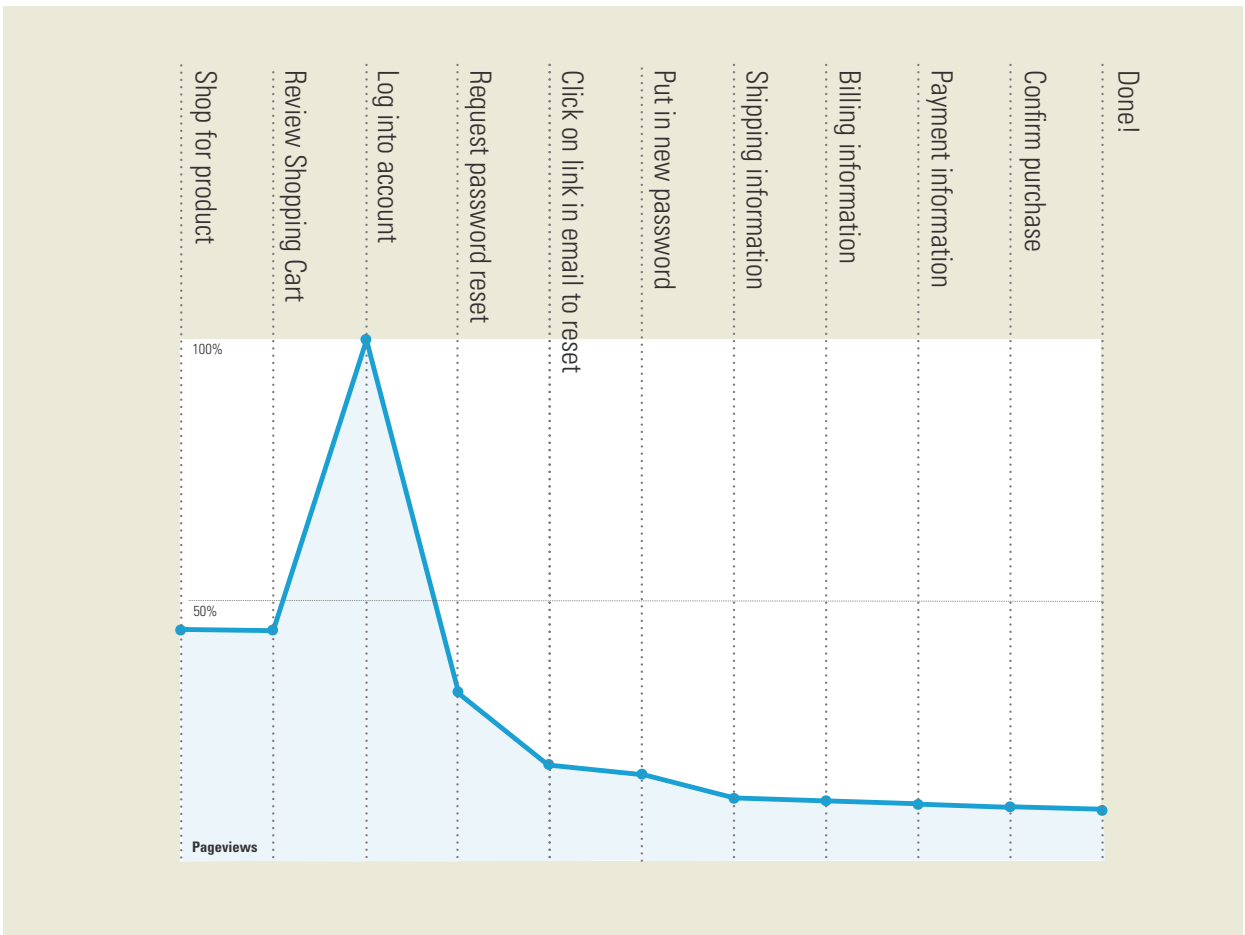


Qualitative findings
must drive our
quantitative research
agenda.



The team's initial inferences

- ▶ The checkout steps were where we'd find the biggest improvement.
- ▶ It was "normal" to lose customers before checkout.
- ▶ Cart review went straight to checkout without additional steps.
- ▶ All of the screens were instrumented.

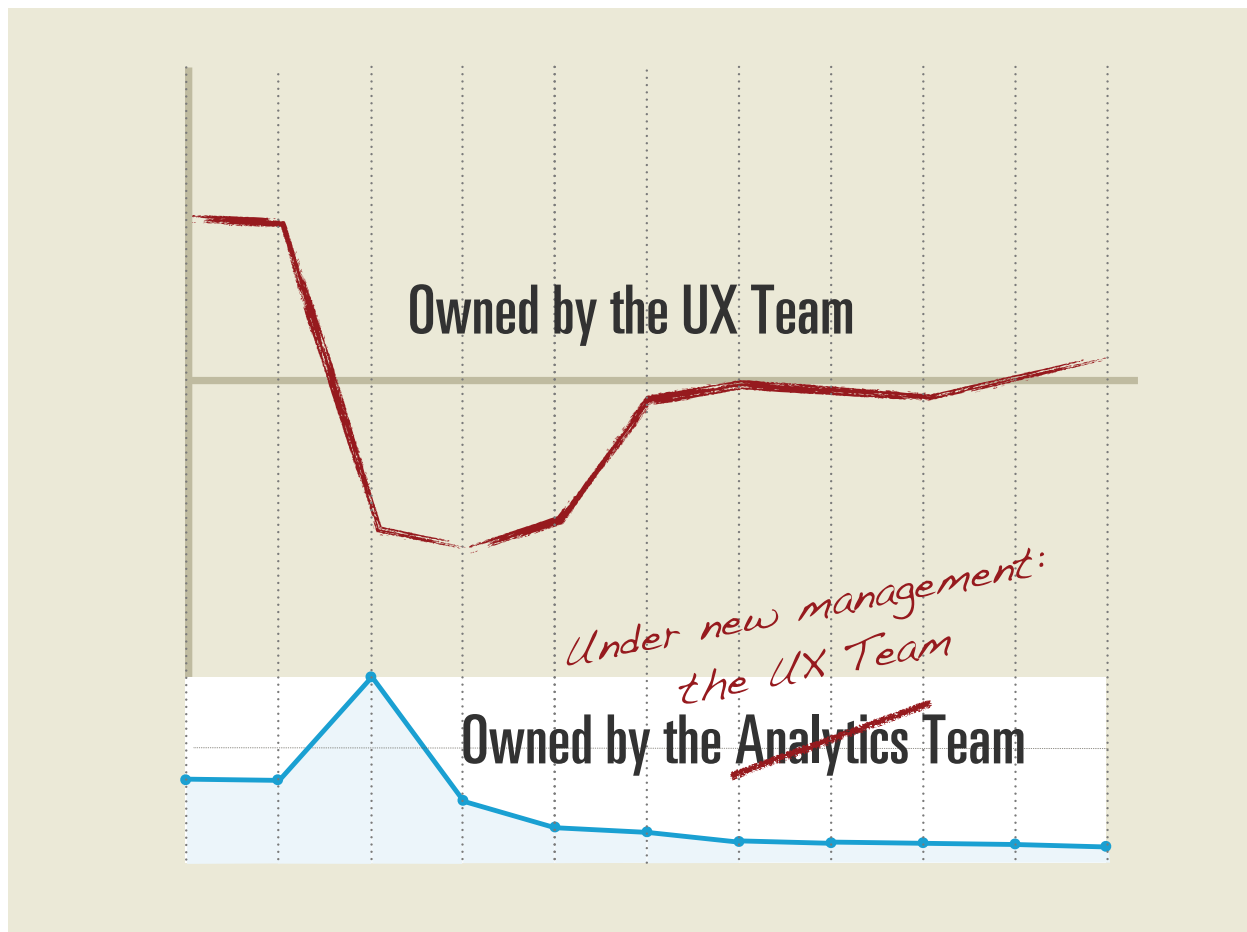




Observations trump
inferences.

No longer acceptable:

*“Analytics are controlled by a
different group.”*



No longer acceptable:

“Analytics are controlled by a different group.”

Data science is now an essential skill for every UX team.

No longer acceptable:

“I don’t understand what the metrics mean.”

Continually question what the metric is trying to tell you.

No longer acceptable:

"I'm not good with numbers."

**Keep the numbers simple, so you
can focus on the behaviors.**

Applying targeted
metrics to qualitative
research: a powerful
addition to the UX
designer's toolkit.

4

Who collects
the metrics?

Design:

The Rendering
of Intent



Terry W. Virts @AstroTerry · Dec 31

Happy COLD #NewYearsEve #America-
looking from Kansas to Montana here



1.2K



2.1K



[View more photos and videos](#)



Terry W. Virts @AstroTerry · Dec 31

Celebrating #NewYearsEve with my
crewmates #astrobutch @astrosamantha
Sasha and Elena



815



1.9K



[View more photos and videos](#)



Mike Monteiro @monteiro · Dec 30

I am going to miss Japan.

[instagram.com/p/xP9GnLuLk7/](https://www.instagram.com/p/xP9GnLuLk7/)

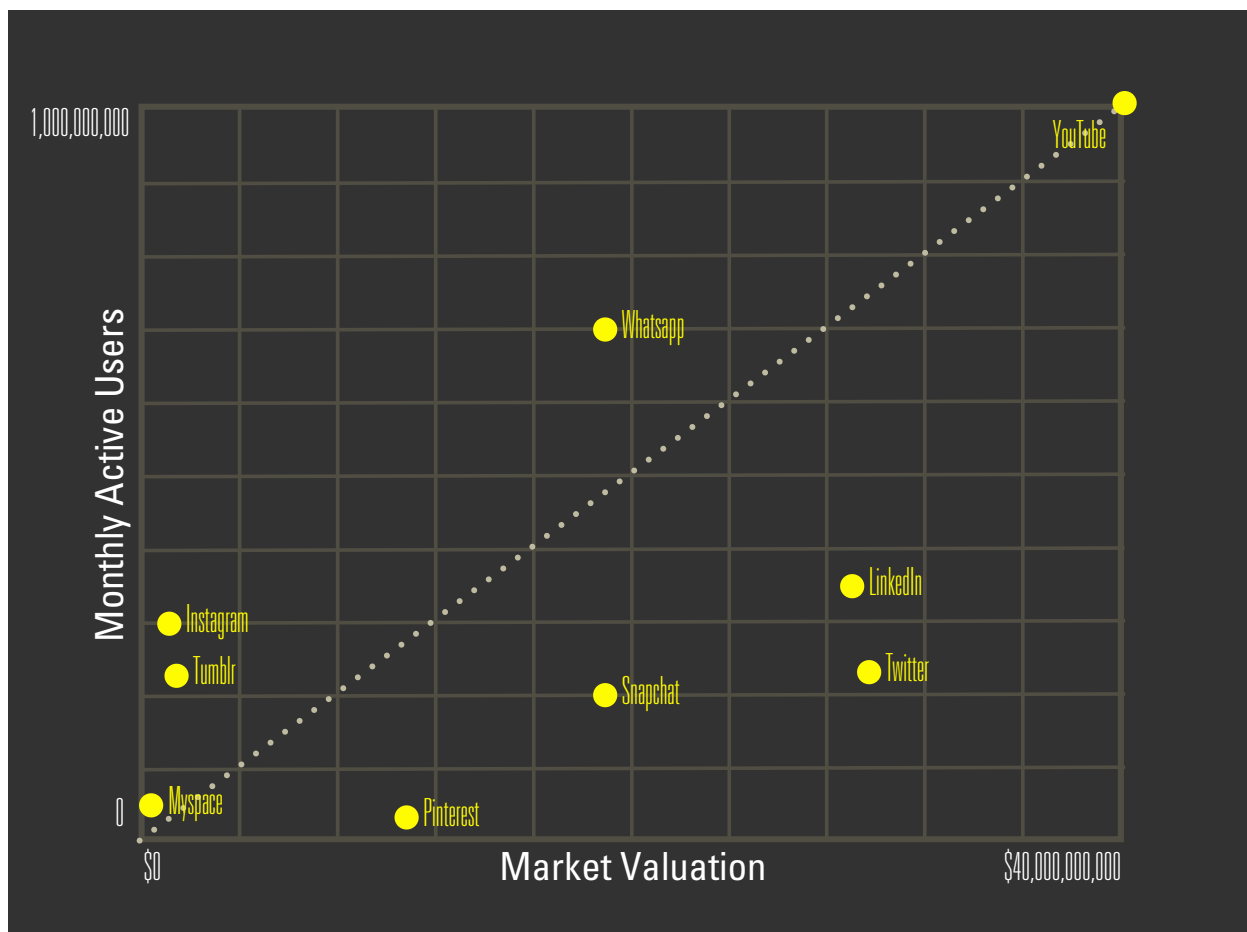


12



9





Vince Frantz

December 31, 2014 4:09 PM

To: Jared Spool <jspool@uie.com>

[Hide Details](#)

[New comment] Dealing with out-of-scope training?

LinkedIn Groups



Vince Frantz just posted a comment in UX Consultancy Owners

Dealing with out-of-scope training?

When you encounter a client that needs training, but it isn't in your project's scope of work, what do you do?[see more](#)



I also like training but actually don't like re-training. ...

Vince Frantz, Founder, User Experience Lead at Sprokets

[Respond Now](#)

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January 6, 2015 10:45 AM

To: Jared Spool <jspool@uie.com>

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Reply-To: Reply to Comment

Noreen Whysel commented on your post.

facebook



Noreen Whysel commented on your post.

Noreen wrote: "Call Ghostbusters."

Reply to this email to comment on this post.

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"The medium of design is behavior"

Robert Fabricant

9,482

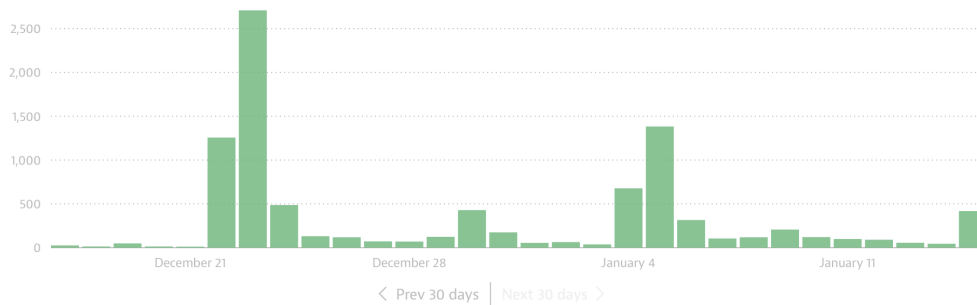
Views (30 days)

2,248

Reads (30 days)

109

Recs (30 days)



Stories

Views

Reads

Read ratio

Recommends



Beans and Noses

[View story - Referrers](#)

374

260

70%

18



Safe Conferences Are Deliberately Designed

[View story - Referrers](#)

8.3K

1.7K

21%

86



Developing a UX Practice of Practicing

[View story - Referrers](#)

6.8K

2.6K

39%

119



Hiring UX experts versus giving your team their own UX skills

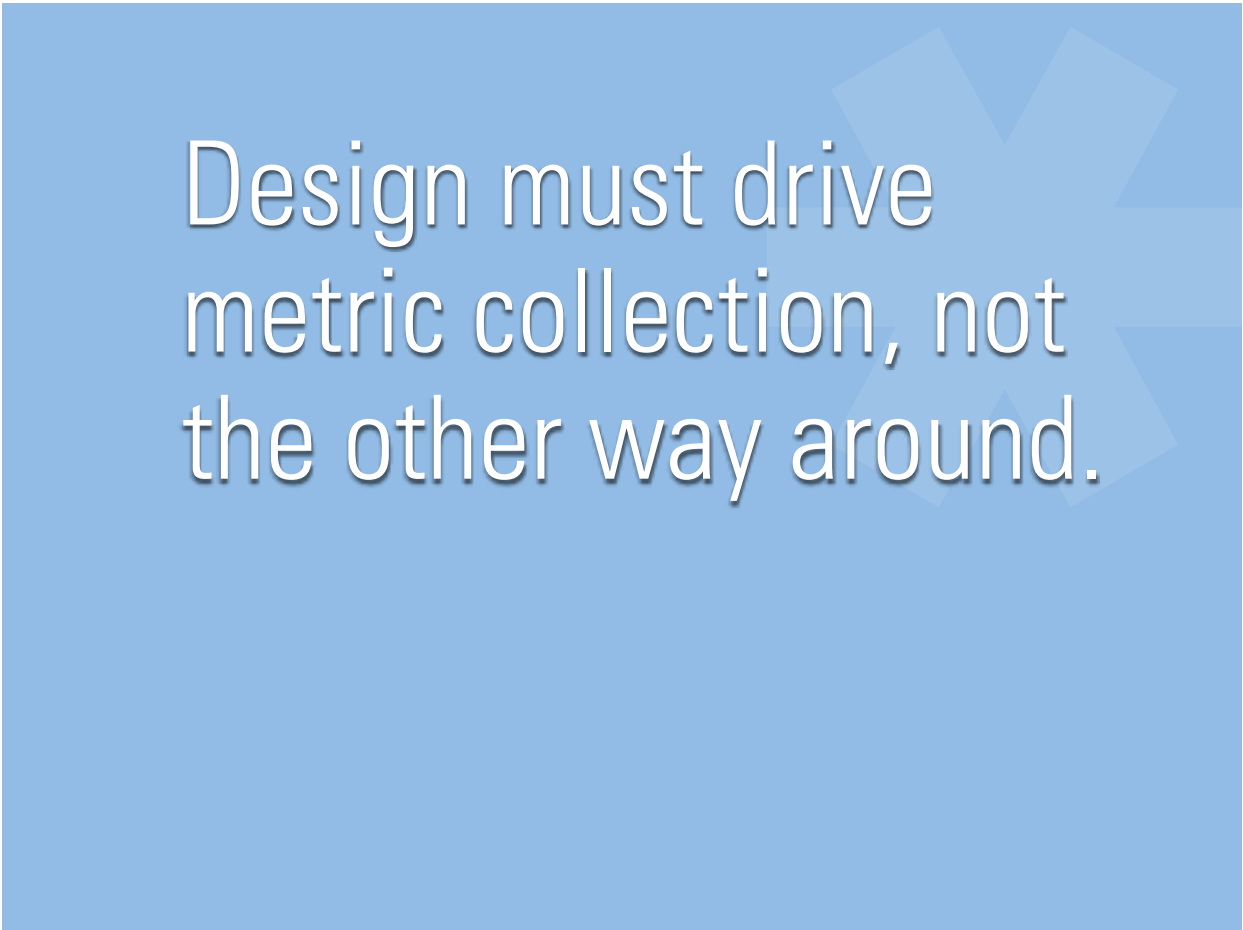
[View story - Referrers](#)

3.6K

1.9K

53%

95



Design must drive
metric collection, not
the other way around.



Is Design Metrically Opposed?

- ▶ We need metrics that help us improve the experience.
- ▶ Avoid jumping from observations to inference too soon.
 - ▶ Make sure you're testing alternative inferences.
- ▶ Customize metrics to match experience objectives.
- ▶ Data science is now an essential UX skill.

Find me at:

 **uie.com**

 **jspool@uie.com**

Don't forget to connect to me on the LinkedIn.

 **@jmspool**

Go ahead! Follow me on the Twitters.

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