

**HIGH-QUALITY,
IMPACTFUL, FAST
UX RESEARCH
FOR ENGINEERS**

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HIGH-QUALITY, IMPACTFUL, FAST UX RESEARCH FOR ENGINEERS

Psychology of attitude & behavior

1. High-quality noticeability test

2. Impactful A/B usability study

3. Fast, colorful collaboration tool

**WHAT'S A HIGH-
QUALITY, FAST, &
IMPACTFUL UX
RESEARCH?**



FAST

IGNORED

CRAPPY

HIGH-QUALITY

IMPACTFUL

SLOW

KEY

**DON'T LISTEN
TO USERS**

OBSERVE

BEHAVIOR

**I DON'T LISTEN TO
USERS BECAUSE OF
THE PSYCHOLOGY OF
ATTITUDE & BEHAVIOR**

**STRONG
RELATIONSHIP
BETWEEN ATTITUDE
AND BEHAVIOR**



SOLDIER POSITIONS ON WAR PREDICTED THEIR QUALITY OF FIGHTING

[STOUFFER, 1949]



PEOPLE'S ATTITUDE TOWARD A CERTAIN CAR MODEL PREDICTED ITS SALES

[BOGART, 1967]

~~STRONG~~

~~RELATIONSHIP~~

~~BETWEEN ATTITUDE~~

~~AND BEHAVIOR~~



**A CHINESE COUPLE VISITED 250 RESTAURANTS & HOTELS
IN THE US AND GOT ONE REFUSAL TO BE SERVICED.
A LETTER SENT TO THE SAME BUSINESSES ASKING IF
THEY WOULD SERVE CHINESE CUSTOMERS GOT A
REFUSAL FROM 92%.**

[LAPIERRE, 1934]



STUDENTS WERE ASKED ABOUT THEIR ATTITUDE TOWARD CHEATING.

A FEW WEEKS LATER, THEY WERE ASKED TO GRADE THEIR OWN TESTS. THERE WAS CLOSE TO ZERO CORRELATION BETWEEN ATTITUDE TOWARD CHEATING AND ACTUAL CHEATING.

[COREY, 1937]

TODAY

In a recent UK-wide study, 99% of people interviewed at motorway service stations toilets claimed they had washed their hands after going to the toilet. Electronic recording devices revealed only 32% of men and 64% of women actually did.

**MANY STUDIES
FOUND NO
RELATIONSHIP
BETWEEN ATTITUDE
AND BEHAVIOR**

SOCIAL PSYCHOLOGISTS STARTED ASKING

**WHAT AFFECTS THE
RELATIONSHIP
BETWEEN ATTITUDE
& BEHAVIOR**

6

1

ATTITUDE-BEHAVIOR RELATIONSHIP

**LEVEL OF
MEASUREMENT**

1ST PRINCIPLE

**A GENERAL ATTITUDE
FORMS A GOOD BASIS
FOR PREDICTING A WIDE
SET OF BEHAVIORS**

GENERAL ATTITUDE

**TO WHAT EXTENT DO
YOU CONSIDER
YOURSELF A 'SOCIAL
ANIMAL'?**

SPECIFIC BEHAVIOR

**NUMBER OF FRIENDS,
LIKES, COMMENTS,
AND SHARES ON
FACEBOOK**

2ND PRINCIPLE

A SPECIFIC & UNIQUE

ATTITUDE MIGHT

PREDICT A SPECIFIC &

UNIQUE BEHAVIOR



GENERAL & SPECIFIC ATTITUDES OF MARRIED WOMEN TOWARD USING THE PILL

[DAVIDSON & JACCARD, 1979]

ATTITUDE

CORRELATION

USING BIRTH CONTROL

0.08

THE PILL AS A BIRTH CONTROL

0.32

USING THE PILL AS A BIRTH CONTROL

0.53

USING THE PILL AS A BIRTH CONTROL IN THE
NEXT 2 YEARS

0.57



2

ATTITUDE-BEHAVIOR RELATIONSHIP

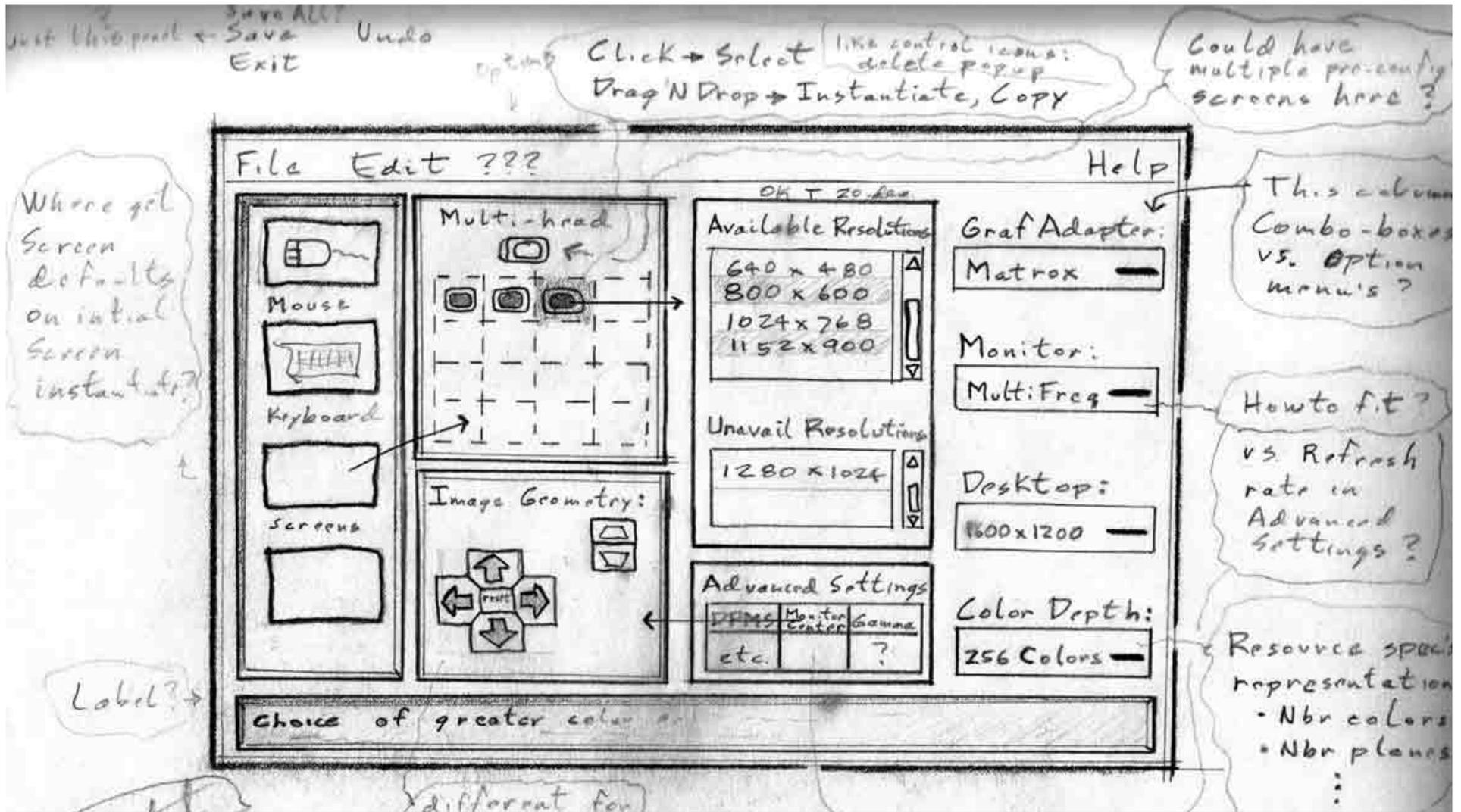
**TIME BETWEEN
MEASUREMENTS**

PRINCIPLE

**POSITIVE CORRELATION
BETWEEN ATTITUDE &
BEHAVIOR INCREASES IF
MEASUREMENT TIME-
DIFFERENCE IS SHORTER**

REASON

**BECAUSE PEOPLE'S
ATTITUDES ARE NOT
STABLE AND CHANGE
OVER TIME**



HOW MANY TIMES DID A USER DRAW A SCREEN THEY WANT, ONLY TO REJECT IT 3 MONTHS AFTER IT?

[AFTER YOU COMPLETED CODING THE DAMN THING]

3

ATTITUDE-BEHAVIOR RELATIONSHIP

**WAY OF ACQUIRING
ATTITUDE**



JOEY, 10-YEARS-OLD, WANTS A VIDEO GAME HE PLAYED AT A FRIEND'S HOUSE; HIS FRIEND MARK HEARD ABOUT THIS GAME FROM JOEY; THEIR FRIEND ANDY SAW A COMMERCIAL FOR THAT GAME. WHO IS MORE LIKELY TO NAG THEIR PARENTS TO BUY THE GAME?

PRINCIPLE

PAST EXPERIENCE

CLARIFIES ATTITUDE

AND INCREASES ITS

POSITIVE CORRELATION

WITH BEHAVIOR

APPLICATION 1 TO UX

IN USABILITY TESTING,

ASK ABOUT OPINIONS

ONLY AFTER USERS

ACTUALLY EXPERIENCE

THE PRODUCT

APPLICATION 2 TO UX

**ASK ABOUT PAST
EXPERIENCES RATHER
THAN PREDICTIONS
OF THE FUTURE**

4

ATTITUDE-BEHAVIOR RELATIONSHIP

CLARITY OF ATTITUDE

PRINCIPLE

HIGH, POSITIVE

CORRELATION BETWEEN

ATTITUDE & BEHAVIOR

INCREASES WHEN

ATTITUDE IS CLEARER



STUDENTS PARTICIPATED IN ELECTION IF THEY HAD MORE INFORMATION ABOUT CANDIDATES COMPARED TO STUDENTS WHO WERE NOT VERY UP-TO-DATE WITH CANDIDATE INFORMATION.

[DAVIDSON ET AL, 1985]



RESEARCHERS MEASURED PREGNANT WOMEN'S ATTITUDES TOWARD BREASTFEEDING, THEN MEASURED WHO OF THEM BREASTFED. A STRONGER CORRELATION BETWEEN ATTITUDE & BEHAVIOR WAS FOUND AMONG WOMEN WHO GAVE BIRTH BEFORE.

[MANSTEAD, PROFFITT & SMART, 1983]

5

ATTITUDE-BEHAVIOR RELATIONSHIP

**ACCESSIBILITY OF
ATTITUDE TO
CONSCIENCE**

PRINCIPLE

CONSCIENCE-

ACCESSIBLE

ATTITUDE BETTER

PREDICTS BEHAVIOR



COMPUTER GEEKS SPEND A LOT OF TIME THINKING ABOUT THEIR OWN COMPUTER SOFTWARE PREFERENCES. PEOPLE'S ATTITUDES BETTER PREDICT BEHAVIOR WHEN THEY ARE ASKED OR HEAR ABOUT THEM REPEATEDLY.

[POWELL & FAZIO, 1984, BORGIDA & CAMPBELL, 1982]

6

ATTITUDE-BEHAVIOR RELATIONSHIP

PERSONALITY

PRINCIPLE

PEOPLE WITH HIGH SELF

MONITORING DO NOT

DEMONSTRATE

CONSISTENCY OF

ATTITUDE & BEHAVIOR

**PEOPLE CONCERNED WITH
THEIR EXPRESSIVE SELF-
PRESENTATION TEND TO
CLOSELY MONITOR
THEMSELVES TO ENSURE
DESIRED PUBLIC
APPEARANCES**



**IT IS HARD TO PREDICT BEHAVIOR BASED ON ATTITUDE OF
PEOPLE WITH HIGH SELF-MONITORING SCORES.**

[SNYDER, 1974, 1979]

**THIS IS WHY YOU SEE
SOME PEOPLE MISERABLY
FAILING TO COMPLETE
TASKS IN A USABILITY
TEST YET ARE 'EXTREMELY
SATISFIED'**

THE SCALE

- _____ 1. I find it hard to imitate the behavior of other people.
- _____ 2. My behavior is usually an expression of my true inner feelings, attitudes, and beliefs.
- _____ 3. At parties and social gatherings, I do not attempt to do or say things that others will like.
- _____ 4. I can only argue for ideas I already believe.
- _____ 5. I can make impromptu speeches even on topics about which I have almost no information.
- _____ 6. I guess I put on a show to impress or entertain people.
- _____ 7. When I am uncertain how to act in a social situation, I look to the behavior of others for cues.
- _____ 8. I would probably make a good actor.
- _____ 9. I rarely need the advice of my friends to choose movies, books, or music.
- _____ 10. I sometimes appear to others to be experiencing deeper emotions than I actually am.
- _____ 11. I laugh more when I watch a comedy with others than when alone.
- _____ 12. In a group of people I am rarely the center of attention.
- _____ 13. In different situations and with different people, I often act like very different persons.
- _____ 14. I am not particularly good at making other people like me.
- _____ 15. Even if I am not enjoying myself, I often pretend to be having a good time.
- _____ 16. I'm not always the person I appear to be.
- _____ 17. I would not change my opinions (or the way I do things) in order to please someone else or win their favor.
- _____ 18. I have considered being an entertainer.
- _____ 19. In order to get along and be liked, I tend to be what people expect me to be rather than anything else.
- _____ 20. I have never been good at games like charades or improvisational acting.
- _____ 21. I have trouble changing my behavior to suit different people and different situations.
- _____ 22. At a party, I let others keep the jokes and stories going.
- _____ 23. I feel a bit awkward in company and do not show up quite so well as I should.
- _____ 24. I can look anyone in the eye and tell a lie with a straight face (if for a right end).
- _____ 25. I may deceive people by being friendly when I really dislike them.

WHAT DOES
IT MEAN TO
YOU?

DON'T

ASK WHAT
THEY NEED

INSTEAD

OBSERVE

WHAT THEY DO

DON'T

ASK WHAT IS

THEIR FEEDBACK

INSTEAD

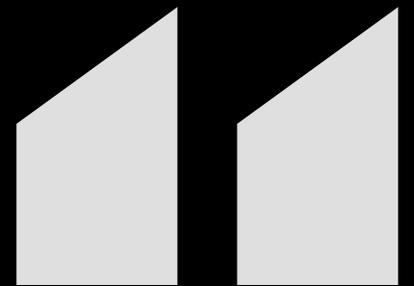
WATCH THEM

USE IT



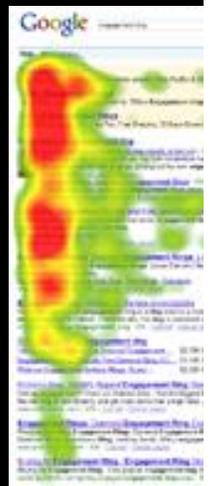
HIGH-QUALITY

**ONLY AN EYE
TRACKER CAN TELL
IF USERS NOTICE
STUFF**



**EYE TRACKERS
ARE NOT MIND
READERS**

EYE TRACKERS ONLY
TELL YOU WHERE
PEOPLE LOOK,
NOT WHAT THEY
NOTICE



NOTICEABILITY TEST

NOTICEABILITY TEST

A RESEARCH TECHNIQUE

FOR LEARNING

WHETHER PEOPLE

NOTICE KEY ELEMENTS

IN YOUR DESIGN

User Experience Research - Usability Testing - Improve UX
www.usability.com
Research is a leading user experience research and usability testing firm. Our UX research drives successful websites, mobile sites and apps, and other digital...

User Experience Researcher jobs in New York, NY - Indeed
www.indeed.com/jobs?l=User-Experience-Researcher-in-New-York-NY
Jobs 1 - 10 of 91 - Conduct user experience activity tasks, such as: Determine the appropriate user experience research, N.J.S.A. - 10 hours ago - save job...

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www.usmag.com
Apr 1, 2011 - My near-acceptance of an offer to head up a user research consultancy a couple of years ago resurrected my consideration of whether 'user...

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Agile user experience research - MauroNewMedia
www.mauronewmedia.com/.../agile-user-experience-res-...
Auer provides development teams with rapid, high-quality user feedback and professional usability insight on their user experience design solutions at any ...

Molly M. Stevens : User Experience Researcher in northern New ...
www.mollystevens.com/
Currently I work full-time for Google as the leader of the Ads User Research team in the New York, NY office. I am a user experience practitioner with a focus on ...

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Blink is a leader in user experience research and design. We help companies who depend on technology take the guesswork out of delivering great ...

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News for user experience research



New BlackBerry 10 a 'Mind-Changing' Experience, RIM CEO
CNBC.com - 4 hours ago
The CEO of embattled BlackBerry maker Research In Motion offered the latest version would offer a "mind changing" experience for users ...

Showing Off BlackBerry 10, RIM Aims To Both Fit In & Stand Out
ReadWriteWeb - by Dan Rowinski - 2 days ago
RIM shows off new BB 10 features, updates SDK
iWorld Canada - by Brian Bloom - 2 days ago

Ads Q

Got product feedback?
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Long (20+ min.)

Any time
Past hour
Past 24 hours
Past week
Past month
Past year
Custom range...

Any quality
High quality

user experience research

Sharon@google.com + Share

Google

+ Tomer Search Images Mail Drive Calendar Sites Groups Contacts More

When to Use Which User Experience Research Methods (Alertbox)
www.userjournal.com/user-research-methods-when-to-use-which-user-experience-research-methods-can-arise-a-wide-range-of-questions-know-when-to-use-each-method-by-mapping-them-in-3-key-...
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Iterative User Experience Research in an Agile
youtube.com
May 2, 2012 - 3 min - Uploaded by userzoom
During this insightful seminar we heard from Investec, Capgemini, Expedia, eBay and other big brand industry ...



User Experience Research - Music Library Website
youtube.com
Feb 8, 2011 - 8 min - Uploaded by askundergrad
Librarians from the University of Illinois describe the process of redesigning a library website based on ...

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RESULT

YOU GET A
CRYSTAL-CLEAR
ANSWER

HOW TO

PRINT SCREEN

CUT ELEMENTS & NON-ELEMENTS

MIX

PREP BLANK PAPER & SCISSORS,

SHARPIE AND TAPE

ONE KIT PER USER

HOW TO

AFTER USERS COMPLETE
A TASK ASK THEM TO RE-
ASSEMBLE THE KEY
SCREEN, SHUT UP, &
WATCH WHAT HAPPENS

ANALYSIS

**DID THEY PUT KEY
ELEMENTS IN PLACE?**

**DID THEY LEAVE OUT WHAT
DOESN'T BELONG?**

**DID THEY DRAW ELEMENTS
THAT WEREN'T THERE?**

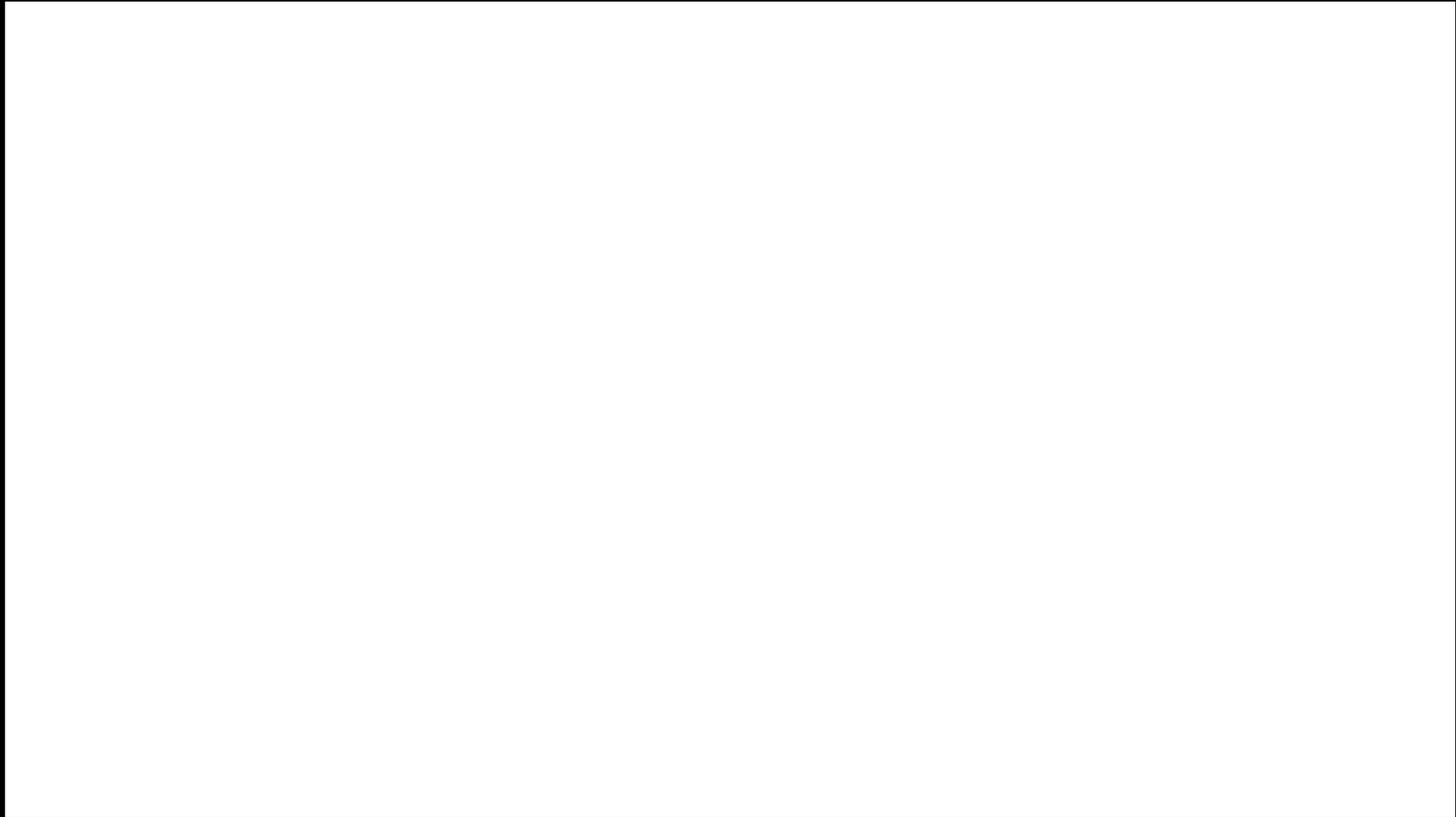
**WHY IS IT
HIGH-
QUALITY?**



IMPACTFUL

**A/B
USABILITY
STUDY***

LOOP11 (www.loop11.com/startups)



***THE BIG LIMITATION
OF A STANDALONE
A/B TEST IS THAT IT
ONLY TELLS YOU
WHAT, NOT WHY**

A/B USABILITY TEST

AN ONLINE RESEARCH

TECHNIQUE DURING WHICH

USERS ARE ASKED TO

COMPLETE TASKS WHILE UX

METRICS ARE COLLECTED

BEHIND THE SCENES

RESULTS

THINGS TO KEEP

OPPORTUNITIES FOR

IMPROVEMENT

COMPERATIVE DATA ABOUT

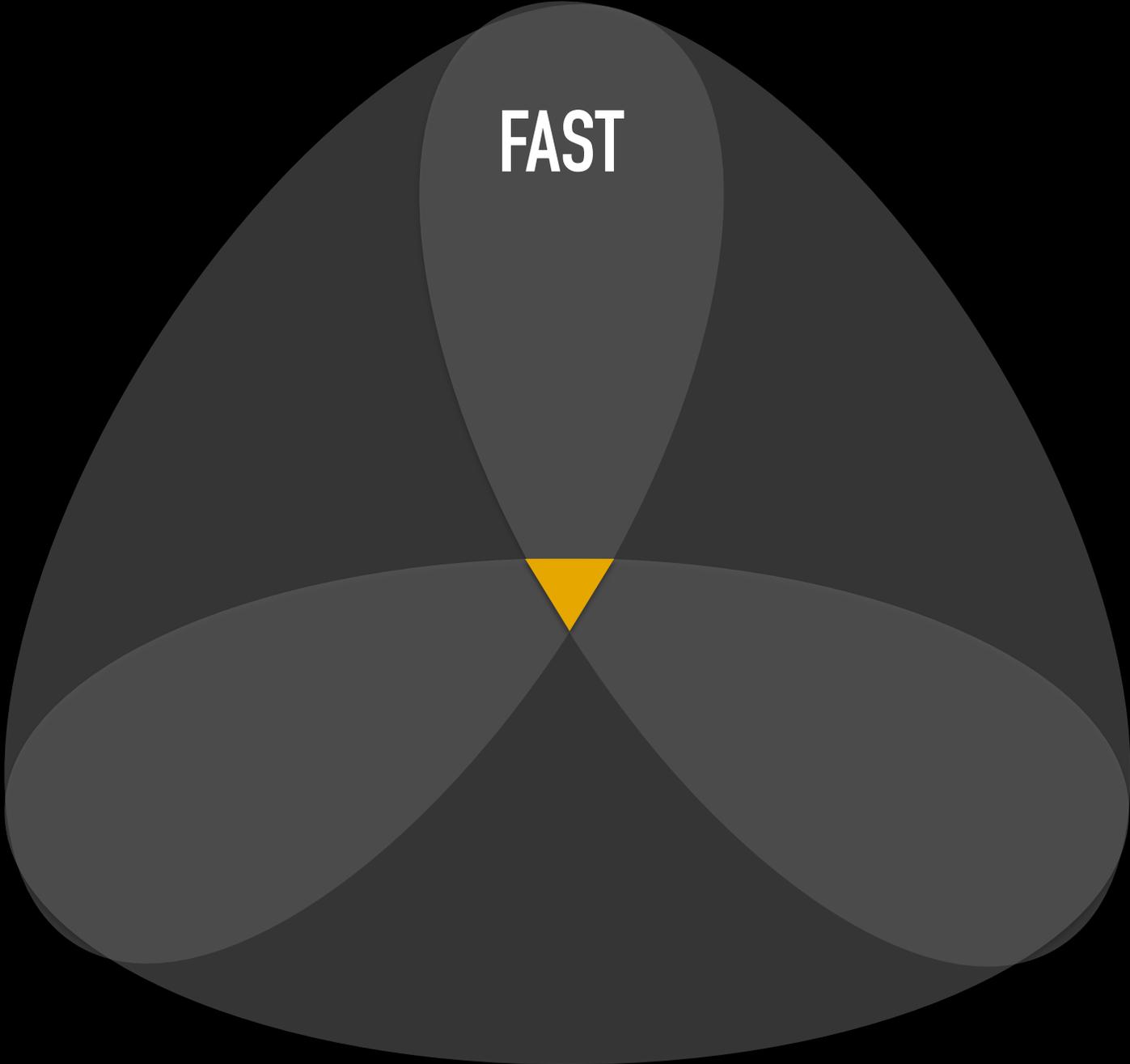
SPEED, SUCCESS, &

SATISFACTION

TASK EXAMPLE

**IMAGINE YOU ARE PLANNING
A VACATION IN BORA BORA
BETWEEN MAY 10 AND 20,
2013, WITH YOUR SPOUSE.
USE UNITED.COM TO BOOK
YOUR FLIGHTS.**

**WHY IS IT
IMPACTFUL?**



FAST

**COLORFUL
COLLABORATION
TOOL**

THE RAINBOW SPREADSHEET

**THE RAINBOW SPREADSHEET
A SPREADSHEET WITH
WHICH DATA COLLECTED
DURING A UX STUDY IS
CENTRALLY DOCUMENTED
COLLABORATIVELY BY A
TEAM**

**THE SPREADSHEET SERVES
AS THE CENTERPIECE FOR
LESSONS LEARNED FROM
A STUDY AND LATER TURNS
INTO THE FINAL REPORT**

The rainbow spreadsheet (sample) ☆

Comments

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\$ % 123 ▾ | 10pt ▾ | **B** Abc A ▾ ▾ ▾
 ▾ ▾ ▾ ▾ ▾

	A	B	C	D	E	F	G	H	
1		P1	P2	P3	P4	P5	P6	Possible solution	Notes
2									
3	User is annoyed by the slow login process								
4	Uses the "Calculate" button								
5	Says something positive about the calculator feature unprompted								
6	Asks for help with finding the "Management" page								
7	Expected the process of adding a new contact to be much quicker								
8	Discovered the voice feature								
9	Understands the meaning of submitting a lead request								
10	Surprised (in a bad way) by the results page of the lead search								
11	The user experiences flow								
12	Double-clicks icons (rather than single-clicks)								
13	Confused by the last paragraph in the Lead page								
14	Says that the Reports page has a clean look								
15	Keep clicking the "visit now" text in the home page								
16	Attempted submitting a lead request without filling in 2 mandatory fields								
17	Thinks the product is relatively slow								
18	Didn't notice the message bar								
19	Complains about font size								
20									
21									
22									

+ **Observations** ▾ Metrics Participants Raw

The rainbow spreadsheet (sample) ☆

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\$ % 123 10pt
B Abc **A**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1		Task 1			Task 2			Task 3			Task 4							
2		Success	Time	Satisfaction	Success	Time	Satisfaction	Success	Time	Satisfaction	Success	Time	Satisfaction	Success	Time	Satisfaction	Success	
3	P1	1	25	4	1	98	1	0	10	1	0	289	5					
4	P2	1	32	6	1	99	2	0	9	4	0	274	4					
5	P3	1	18	5	1	69	1	1	8	4	0	356	6					
6	P4	1	54	6	0	111	3	0	9	5	0	215	5					
7	P5	1	21	5	1	100	4	1	10	3	0	199	7					
8	P6	0	27	7	1	97	2	1	11	1	1	178	6					
9	Mean	0.8	29.5	5.5	0.8	95.7	2.2	0.5	9.5	3.0	0.2	251.8	5.5					
10	Count	6	6	6	6	6	6	6	6	6	6	6	6					
11	Standard deviation	0.4	12.9	1.0	0.4	14.0	1.2	0.5	1.0	1.7	0.4	66.8	1.0					
12	95% confidence	0.3	10.4	0.8	0.3	11.2	0.9	0.4	0.8	1.3	0.3	53.5	0.8					
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		

+ ☰
Observations
Metrics
Participants
Raw

The rainbow spreadsheet (sample) ☆ 📁

Comments

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fx

	A	B	C	D	E	F
1		P1	P2	P3	P4	P5
2	Scheduled session	Nov 12, 10:00	Nov 12, 11:00	Nov 12, 12:00	Nov 12, 1:00	Nov 12, 2:00
3	Gender	Male	Male	Female	Female	Female
4	Age range	18-23	31-40	31-40	24-30	41-50
5	Role	Media planner	Archeologist	Librarian	Student	Professor
6	Company	Ogilvy & Mather	Independent	NY Public Library	Stanford	NYU
7	Video URL	www.intranet.com/study24/p/				
8						
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22						

+ ☰

Observations

Metrics

Participants ▾

Raw

ADVANTAGES

INVOLVES THE ENTIRE TEAM

FAST TURNAROUND OF RESULTS

COMMITTMENT TO ACT ON RESULTS

VISUAL INFO CLARIFIES WHAT'S IMPORTANT

NO REPORT

goo.gl/w0zXw

**WHY IS IT
FAST?**

RECAP

PSYCHOLOGY OF ATTITUDE & BEHAVIOR

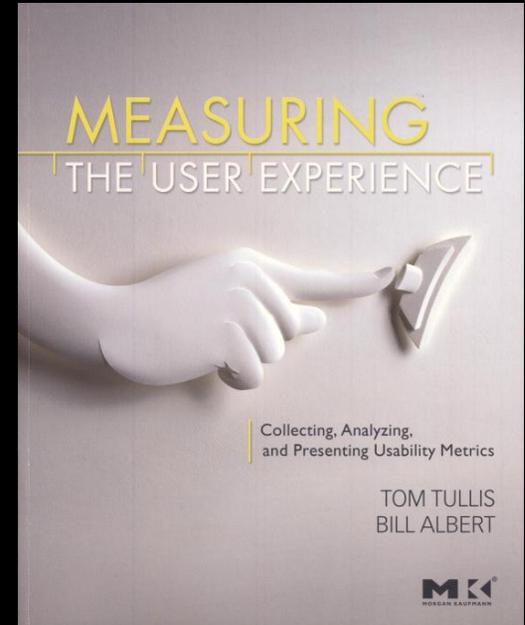
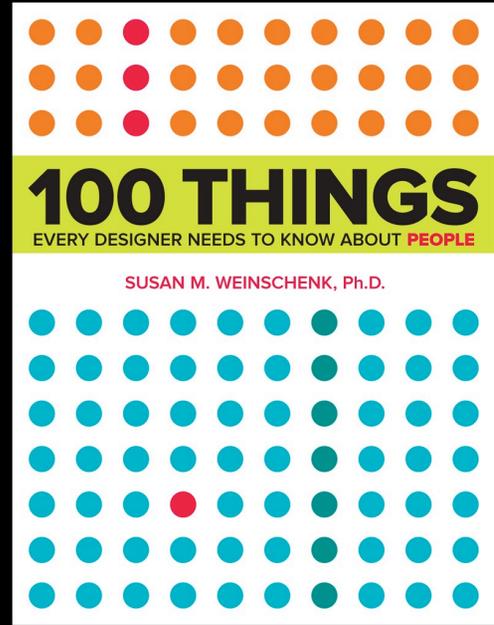
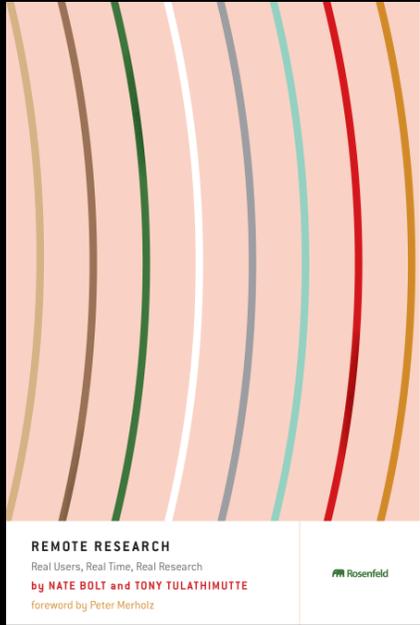
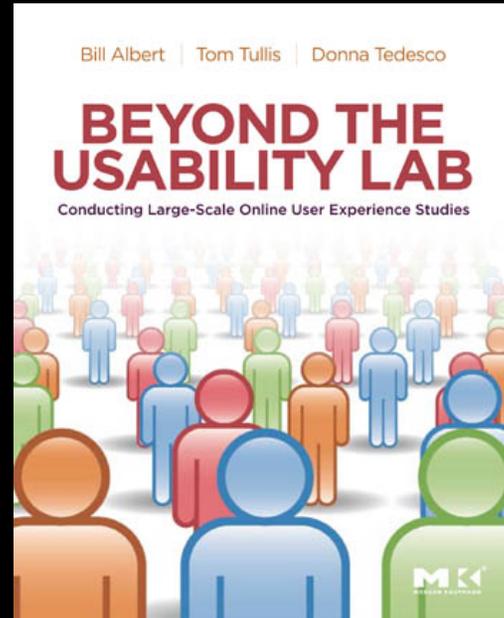
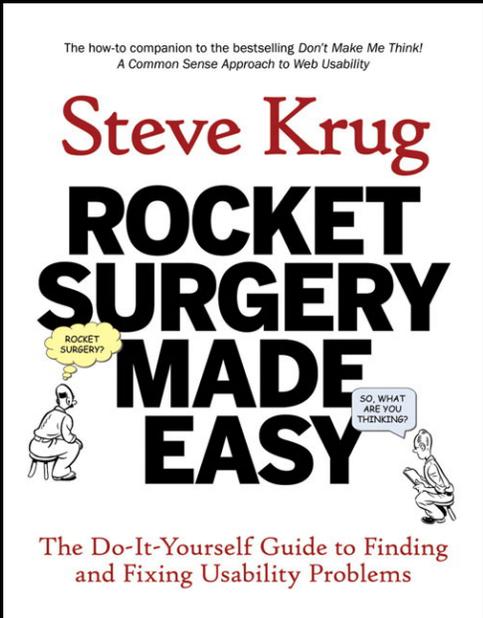
1. Level of measurement
2. Time between measurements
3. Way of acquiring attitude
4. Clarity of attitude
5. Accessibility of attitude to conscience
6. Personality

HIGH-QUALITY, IMPACTFUL, FAST UX RESEARCH FOR ENGINEERS

1. High-quality noticeability test

2. Impactful A/B usability study

3. Fast, colorful collaboration tool



FAST

HIGH-QUALITY

IMPACTFUL

**DON'T LISTEN
TO USERS**

OBSERVE

BEHAVIOR

THANK

YOU

@tsharon