

- Josh Whitkin, Founder
- Bonder Lab
- Oakland, California
- josh@bonderlab.com
- 510-485-9448
- @joshwhitkin

- About me
- Hard to reach teens
- Failure
- Designing successful Games for Health
- Final Thoughts

My Work Background

- 1st game dev: 1982, Apple II
- 20 years in commercial games, sims, VR
 - Credits on several hit PC games
 - Wrote 1st texture mapping tool (1991), book on 3D art
- 5 years in Mobile Phones, Toys
 - Hasbro VideoNow
 - 1st-gen Japanese smartphones
- 5 Years in Teaching & Research
 - Lecturer, Games Art & Design, Murdoch University (Perth, Australia)
 - First funded project in YAW-CRC (Battlefood co-creation)
- PhD in Design
 - Activity-Goal Alignment in Serious Games
 - Curtin University, 2013
- Now: Designer/Researcher

Industry Academia **Research & Design**

Academic Collaborators:

- Dr. Isabela Granic
 - Chair, Developmental Psychopathology department at Radboud University Nijmegen
 - Lead Author, "Benefits of Playing Video Games," APA 2013
 - Her game Mindlight nominated for Games for Change 2015 Award
- Dr. Ed Kravitz
 - Former faculty, Yale School of Medicine. Pain research, Clinical psychologist
- Dr. Caesar Pacifici
 - Online intervention efficacy research expert
- Marientia Gotziz, USC
 - Interaction Design and Media Research
- Dr Helen Corriea, Murdoch
 - mindfulness +CBT



Dr. Granic's research identifies what sorts of interventions work for anxious, depressed and aggressive children and adolescents, why they often fail to work, and how to improve interventions in innovative ways.

Outreach Partners

- Mia Doces, New Mission Ventures, Committee for Children
- Lee White, Northwest Media
- Nicola Survanshi, director, reachout.com
- Ross Kyrwood, CEO, YMCA-WA



REACHOUT USA

ReachOut USA (DBA of Inspire USA Foundation) is a 501(c)(3) nonprofit organization that meets youth where they are to deliver peer support and mental health information in a safe and supportive online space



SECOND STEP BULLYI

BULLYING PREVENTION

CHILD PROTECTION

Northwest Media, Inc.

Creating Innovative Resource Materials for Youth in Transition, Families and Agencies

I Bridge Lab Efficacy and Field Effectiveness



We are being the change we want to see.

• Reduce suffering of millions

- Especially internalizing male teens

Bring field effectiveness to lab-proven treatments

 Outcompete commercially successful products

HARD TO REACH TEENS

% of teens who play video games on a computer, game console or cellphone

Any i	income, race,
rural	, ageteens
game	e a lot.



All te	Iteens	
Sex		
а	Boys	84 ^b
b	Girls	59
Rac	e / ethnicity*	
С	White, non-Hispanic	71
d	Black, non-Hispanic	83 ^{ce}
е	Hispanic	69
Age	•	
f	13-14	74
g	15-17	70
Sex	by age	
h	Boys 13-14	83 ^{jk}
i	Boys 15-17	84 ^{jk}
j	Girls 13-14	64
k	Girls 15-17	56
Hou	usehold income	
1	<\$30K	70
m	\$30K-\$49,999	76
n	\$50K-\$74,999	66
0	\$75K+	73
Par	ent educational attainment	
р	Less than high school	68
q	High school	67
r	Some college	77 ^q
s	College+	71
Loc	ation	
t	Urban	72
u	Suburban	73
v	Rural	67
-		

Source: Pew Research Center's Teens Relationships Survey, Sept. 25-Oct. 9, 2014, and Feb. 10-March 16, 2015. (n=1,060 teens ages 13 to 17).

Note: Percentages marked with a superscript letter (e.g., *) indicate a statistically significant difference between that row and the row designated by that superscript letter.

*In this chart, the data presented for race and ethnicity is statistically significant under some calculations and not under others. It is significant in the mode of assessment that we use for the other data in this chart and report so we present it as significant here, but include this caveat.

PEW RESEARCH CENTER

Boys Socialize via Online Gaming

 Of teens who have met a friend online, 57% of boys have made a friend playing video games. ♥ That amounts to 34% of all teenage boys ages 13 to 17.

Online Gaming Builds Stronger Connections Between Friends

Yes, a lot Yes, a little No More connected to friends you play 38 21 games with who you already know More relaxed and 29 18 happy Connected to people you play 9 47 games with, but aren't friends yet More angry and 70 frustrated

% of teens who play online with others and feel...

% of all teens who spend time every day with friends doing the following...



Source: Pew Research Center's Teens Relationships Survey, Sept. 25-Oct. 9, 2014, and Feb. 10-March 16, 2015. (n=567 teens who play games with people online).

PEW RESEARCH CENTER

Teens watch lots more TV than game.



NOTE: Estimates are for September through May, 2003–07. Schooldays are nonholiday weekdays on which high school students ages 15 to 19 attended class.

Teens have access.

- 70% have or have access to three or four of those items
- about 1% of teens own no devices

Under \$30k
households have
approx. 10% less

Teens' Phone, Computer & Console Access

% of all teens who have or have access to the following:



Source: Pew Research Center's Teens Relationships Survey, Sept. 25-Oct. 9, 2014 and Feb. 10-Mar. 16, 2015 (n=1,060 teens ages 13 to 17).

Smartphones in USA vs Africa

Cell Phone Ownership Surges in Africa

Adults who own a cell phone



Source: Spring 2014 Global Attitudes survey. Q68.

PEW RESEARCH CENTER

Few Own Smartphones in Africa, But Cell Phones Common

Do you own a cell phone? Is it a smartphone?

	Smartphone	Cellphone bu NOT smartphor	t No ne př	cell none
South Africa	34%	55%		10%
Nigeria	27	62		11
Senegal	15	69		17
Kenya	15	67		18
Ghana	14	69		17
Tanzania	8	65	27	7
Uganda	5	60	34	
MEDIAN	15	65	1	.7
U.S.	6	4	25	11

Note: Percentages based on total sample. U.S. data from December 2014 Pew Research Center surveys. Median percentage excludes the U.S.

Source: Spring 2014 Global Attitudes survey. Q68 & Q69.

Today's USA teens are more alone than ever.

Technology plays such a powerful role for social teens because it is **how they can get together**.

Real-life socialization eroded in the last two decades.

- Fewer part-time youth jobs
- Less access to cars and gas
- More likely to be in schools where their friends don't live within biking distance.
- Danah Boyd



...except online.

% of teens who regularly spend time with their closest friend at the following locations





% of <u>all</u> teens who ...

Have met an online friend	Have not met any online	
in person	friend in person	Refused
20%	77	3

Source: Pew Research Center Teens Relationships Survey, Sept. 25-Oct. 9, 2014, and Feb. 10-March 16, 2015 (n=1,060 teens ages 13 to 17).

Source: Pew Research Center Teen Relationships Survey, Sept. 25-Oct. 9, 2014, and Feb. 10-March 16, 2015. (n=1,009 teens with a close friend.)

I'm especially interested in

• Today's teens (esp. internalizing males)

 Finding the fun in evidence-based treatments for mental health

- Reducing social isolation
 - Father/teen bond
 - Peer: "true friends" from online buddies

AN EXAMPLE FAILURE

Aim: engage foster teen aging out, in life skill training.

- Practice independent living
 - Feel the rhythm of work, commute, sleep, play
- Set realistic expectations
 - apartment quality
 - Budget Earning vs spending
 - Free time, while working
- Imagine their future realistically
 - Would my friends do that to me?
 - Will my apartment, job be like that?

Efficacy Study

- N=120 at-risk youth
 - 18-25
 - residential trades training
- Intervention Design
 - 2 sessions, 3 hours each
 - Evening, voluntary, paid \$50
- Self-report
- 100 item battery;
- 64 items are from valid, reliable instruments



No significant post effects.

- Longitudinal still in progress.
 - Plus Job Corps' existing 3observer assessment
 - Followup via 3, 6, 12-month correlation with Job Corps' existing behavioral measures

Construct	questionnaire
Stages of Change	URICA 32-item
Self-efficacy	Personal Mastery Scale 7-item
Life Skills	Casey Foundation's ACLSA (25 items)

• But still. Ouch.

Why not?

- Wrong population
 - Too old
 - Already in intensive intervention
- Weak theoretical framework
- Too ambitious

A Better Process: Staged Gate

- Prototype lots
- Test roughly, early
- Fail quicker and cheaper



End user facing.

DESIGNING GAMES FOR HEALTH

A tale of two apps.

PHOBIA FREE

Scared of spiders? Phobia Free has been developed by two UK leading consultant psychiatrists to help you the same way a real therapy would if you visited the doctor. We use exposure therapy to help you engage and remain relaxed when dealing with spiders.









Welcome to The Room, a physical puzzler, wrapped in a mystery game, inside a beautifully tactile 3D world. Begin a mind-bending journey filled with beauty, peril and mystery in equal measure. Be transported into a unique space that blends spellbinding visuals with intriguing problems to solve.



So what wrong assumptions does this app make?

PHOBIA FREE

Scared of spiders? Phobia Free has been developed by two UK leading consultant psychiatrists to help you the same way a real therapy would if you visited the doctor. We use exposure therapy to help you engage and remain relaxed when dealing with spiders.





This app assumes users value utility more than engagement. <u>They don't.</u>

Utility is a local minima in Teen User Motivation

- Will teen patients take pills daily to save their life...
- ...if the pill makes them feel slightly nauseous?



Fail: "just add fun" in a Utility Framework

 Chocolate covered broccoli doesn't work.



 Kids actually like broccoli...if cooked and presented to their liking.



Embed Utility in a motivating activity

- "Teach me golf" vs "Let's play golf"
- One wants utility (learning skills, for fun later).
- The other wants fun now (if learning happens, great).





Good Impact Games are...





dumb ways to die video

Dumb Ways to Die

by DumbWays2Die 2 years ago • 100,673,318 views



Example: Rumination

- Stuck in a maze...
- Keep looking, or Ask stranger for help?
 - Short-term cost...
 - Uncertain outcome...
 - ...but typically winning strategy.





Example: depression

• How do I unlock more choices?

• (Zoe Quinn, "depression quest")

You have to be awake for work in a mere 8 hours, and you know that your work is so much worse on only a few hours sleep.

What do you do?

1: Force yourself to sleep.

2: Go to bed. It shouldn't be that hard.

3: Just close your eyes and let it happen. Why won't your thoughts back off for five seconds?

4: Snap out of it. What is wrong with you? Why can't you stop stressing out for five seconds?

5: You're probably going to go into work tomorrow exhausted and fuck everything up and get fired.

6: Go to your computer. Sleep is clearly not happening no matter how long you lay here.

Examples from CBT

- Social rejection = puzzle
- Hypervigilance
- Recall bias
- Rumination
- Social Reappraisal
- Acceptance



MagmaMagnus demands 500 gold coins to pass. Vote for who should pay the fee.

CLOSING THOUGHTS

Coerced play: You can lead a horse to water...

• Forced to play....choosing to play



Ad / PR campaigns

Three success criteria:



Good design comes from good teams.





- Josh Whitkin, Founder
- Bonder Lab
- Oakland, California
- josh@bonderlab.com
- 510-485-9448
- @joshwhitkin