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SAGE

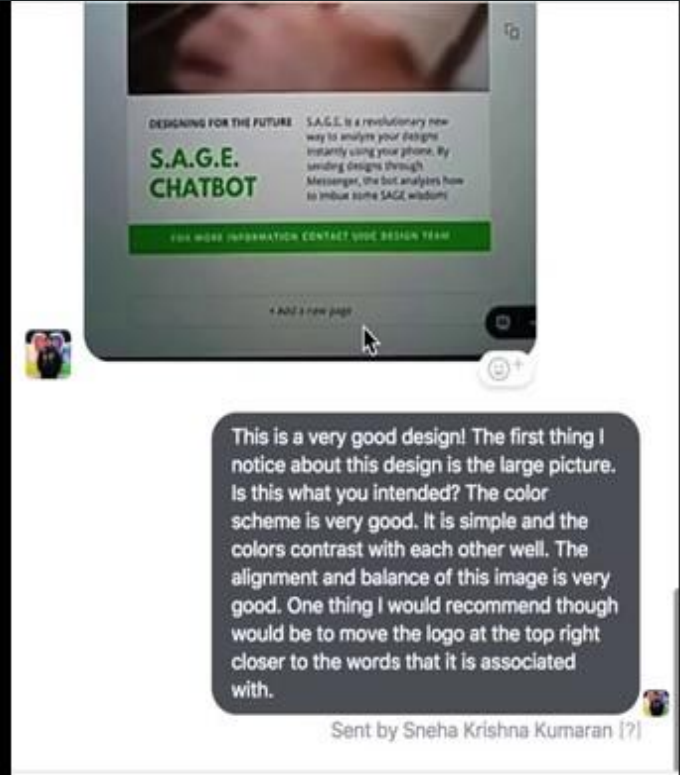
People don't like
sharing early work.
Why?

Research Questions

- At what stages do people seek feedback?
- How do people perceive receiving design feedback from:
 - Bot
 - Bot vs. online sources
 - Bot vs. humans
- What elements should be considered for the implementation of a design bot?

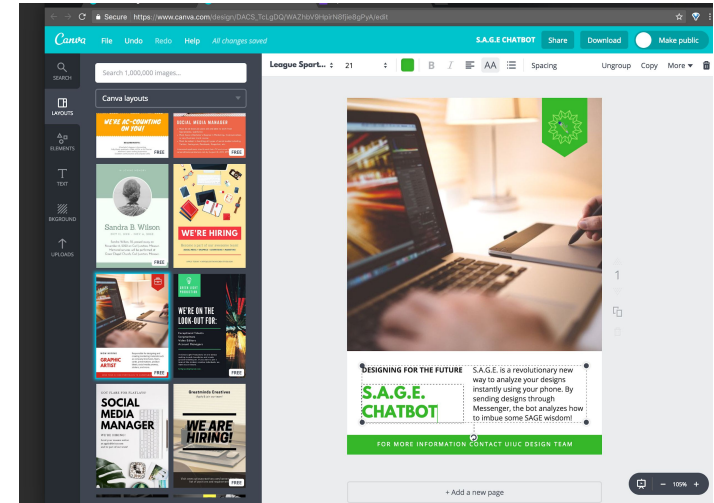
SAGE Design Bot

- Participants interacted with a Facebook messenger bot
- A member of the team remotely gave feedback on the uploaded designs



Method

1. Warm-up: demographic information
2. Task: create a poster that advertises SAGE
 - a. Create a poster using Canva.com
 - b. Send a picture of the design to SAGE
 - c. First iteration within 20 minutes
 - d. As many iterations after the first
3. Post-task interview



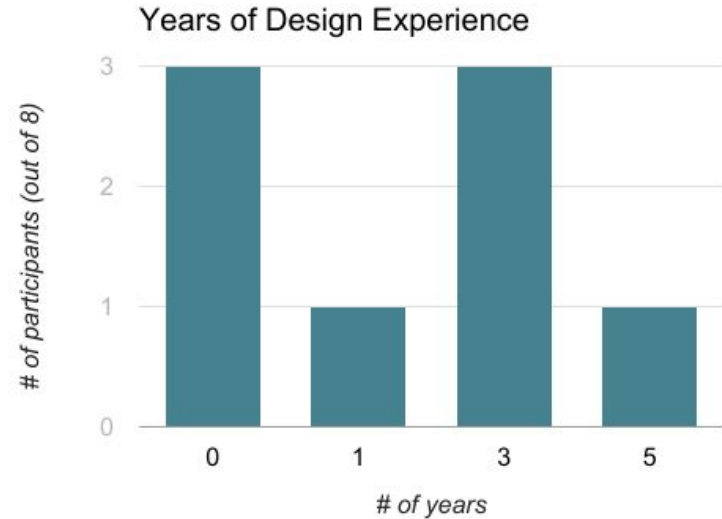
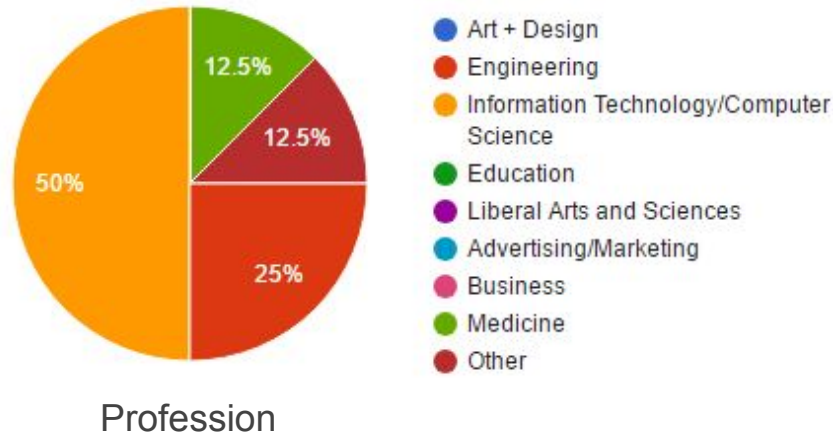
Canva.com

Interview Questions

- Quality/usefulness of the feedback
- Stages of design
- SAGE vs online communities & experts
- Perceptions of safety
- Perceptions of intellectual property
- Human-ness of SAGE

Participants

- 8 participants between the ages of 18 & 24



Was SAGE a Human or a Bot?

- Most participants thought SAGE was a **bot**
 - Preset notion that it was a bot
 - Advice for the most part sounded bot-like
- Certain choice of wording felt **too human-like**
 - Attributed it to machine-learning algorithms
- Differences in participants' perception can be attributed to **different members** of the team giving feedback (different styles of giving feedback)

Results

General Experience

Helpful feedback

- *“Real, natural feedback with a quick response time, rather than very friendly advice from friends.”*
- *“As I got more specific with the designs it was able to give me more specific feedback.”*

Not interactive (N=2)

- *“At one point, i felt that i did not agree with some points and there was no way to communicate.”*
- *“it would be better if [it could] point to the locations for feedback.”*

Slow response time (N=2)



Stages of Design

Some thought **too early is bad**

- “In the beginning i would mostly get **negative** stuff because of incomplete information.”

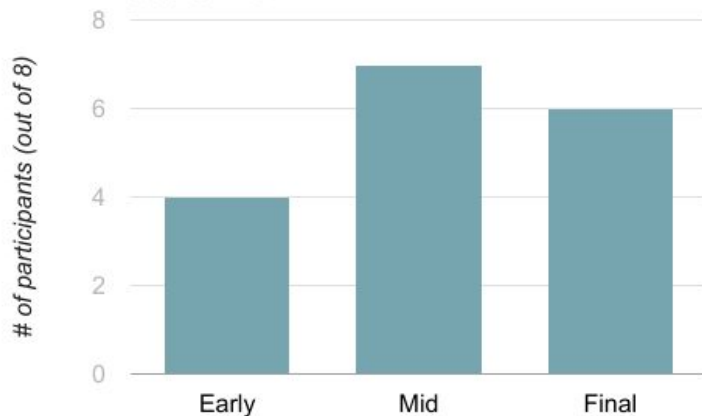
Some preferred **bot early, expert later**

- “An expert would give more concrete suggestions... **experimentation** would be better with the bot. the bot would give very generic feedback.”

Some preferred **throughout**

- “I would first create a design that I liked but **didn't know how to improve** [until] a certain point at which I would stop because I would just keep getting advice ... use until i'm very comfortable with the state of the project.”

At what stages of design did or would you use S.A.G.E. ?



Did People Use the Bot's Feedback?

- Changes in iteration were guided by feedback from SAGE
- At times, multiple iterations were needed for participants to **incorporate** certain feedback.
- Participants **couldn't converse** with SAGE for their reasoning behind design decisions.

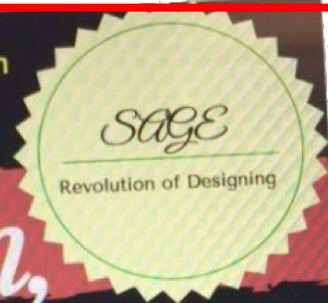


The Future

*Design,
Sage,
Greatness!*

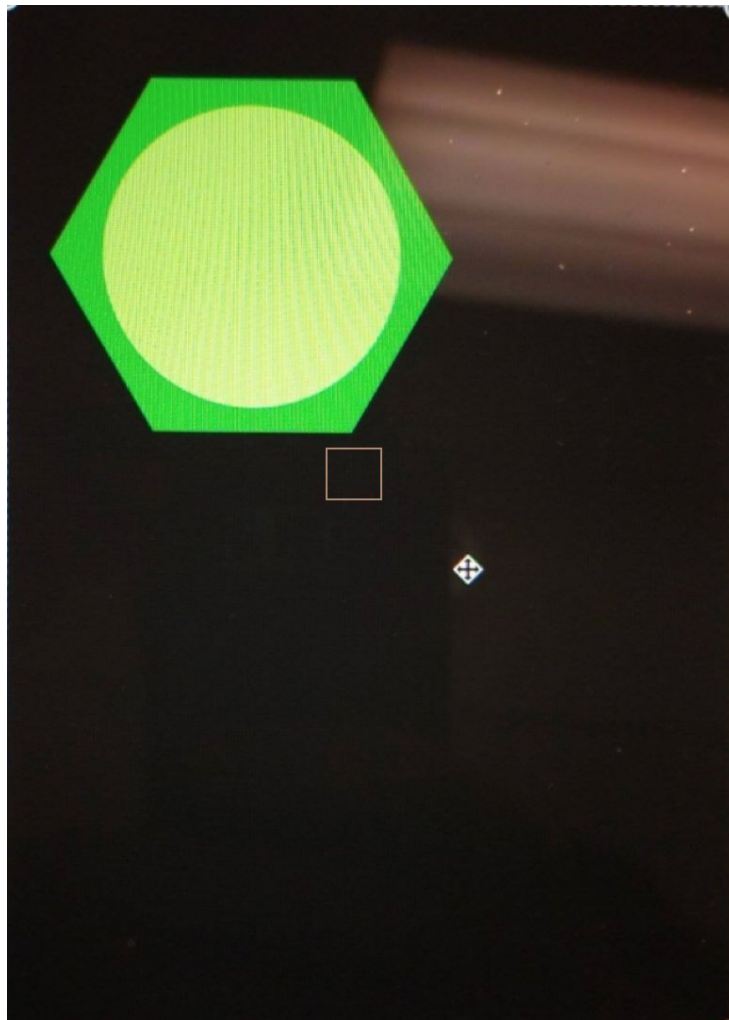


Get instant feedback on
your designs



*Design,
Sage it,
Greatness!*

The Future



The Graphic Design Expert



SAGE
DesignBot

**SAGE is the trusted opinion you can rely on
for design feedback, any time of the day.**

**Utilizing cutting edge machine learning
algorithms, SAGE is a artificial graphic
design bot that can spot the little things that
may be missing in your work.**

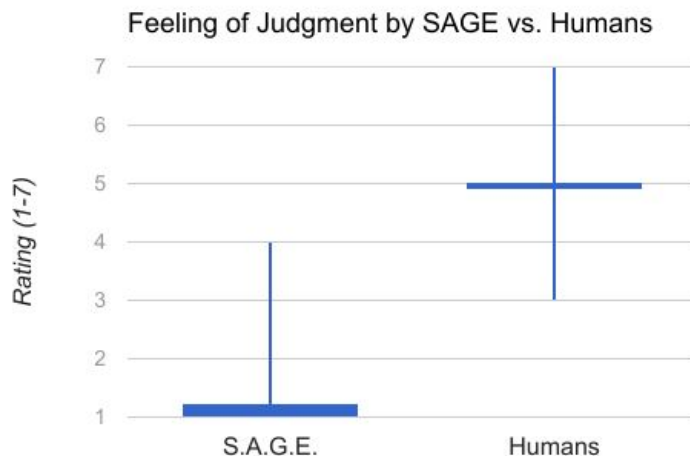
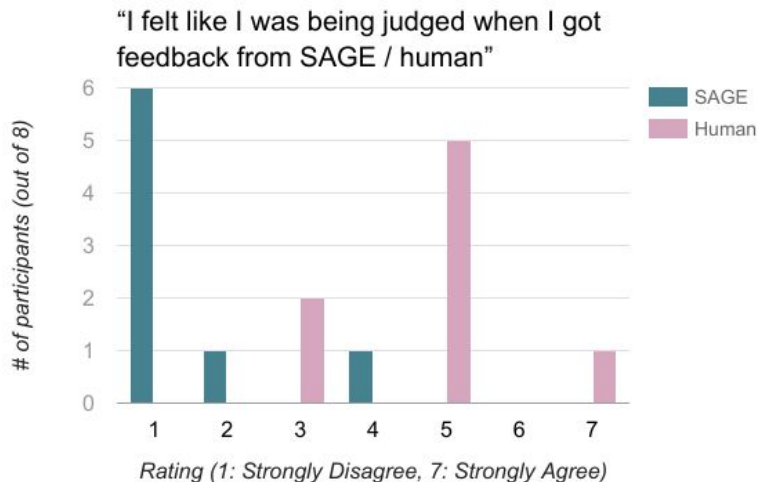
**Just send a screenshot of your work and
get specific, personalized feedback
instantly.**

Judgment

“I felt like I was being judged when I got feedback from S.A.G.E. / human”

- 1 - 7 Likert (7: strongly agree)
- 4.75 (Humans) vs. 1.50 (S.A.G.E.)

“It’s just a bot. But for human, everyone has a different opinion.” (P1)

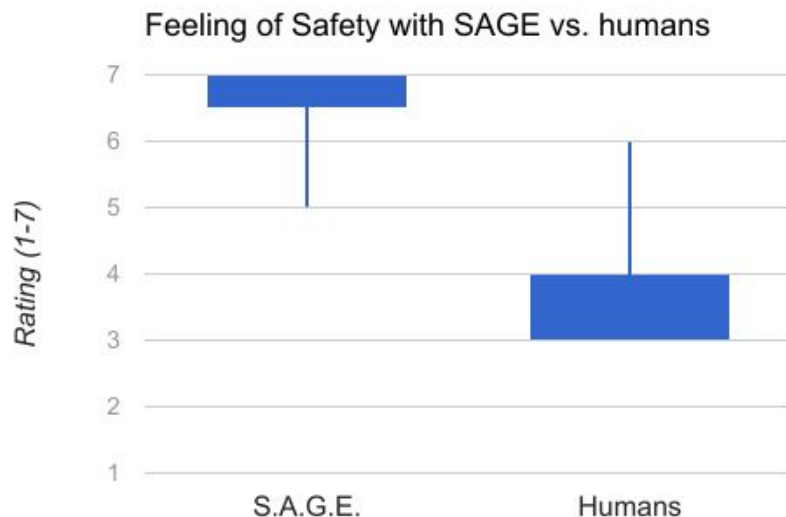


Intellectual Property

“How safe (from intellectual theft) do you feel using S.A.G.E./humans for feedback?”

- 1-7 Likert (7: very safe)
- 3.63 (Humans) vs. 5.75 (S.A.G.E.)

"Knowing that it's a product and I was paying for it or something then I'd feel safe. Just off the bat, I feel like SAGE wouldn't steal my work. A lot of its feedback was based on general principles. Humans might inadvertently use something potentially. Humans might or might not subconsciously try to use some ideas." (P5)



Sources of Feedback: Facebook

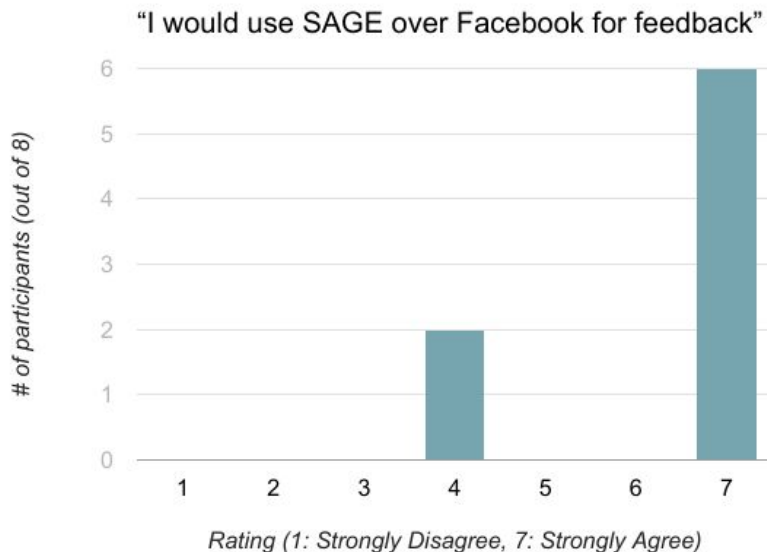
Mean: **6.25 / 7** preference for SAGE over Facebook, $\sigma = 1.38$

Safety/comfort issues

- *“never use facebook, copyright issue, very public”*

High quality & instantaneous feedback

- *“It’s more instantaneous feedback... it’s better for speed and for having a lot of design knowledge”*



Sources of Feedback: Reddit

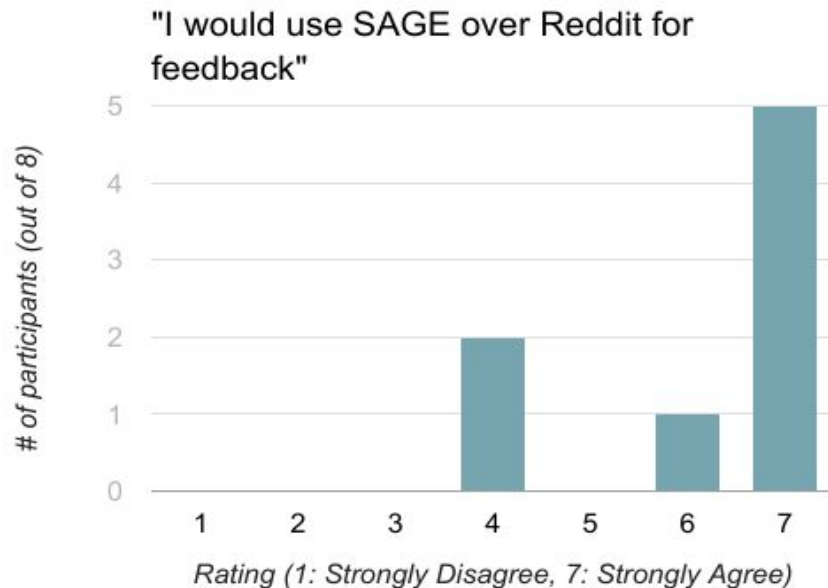
Mean: **6.125 / 7** preference for SAGE over Reddit, $\sigma = 1.35$

Reddit is mean since it's anonymous

- “Reddit feedback was **too mean**, fb was **too nice**, sage was **just right**”

Safety issues

- “i wouldn’t want my designs to broadcasted to the world”

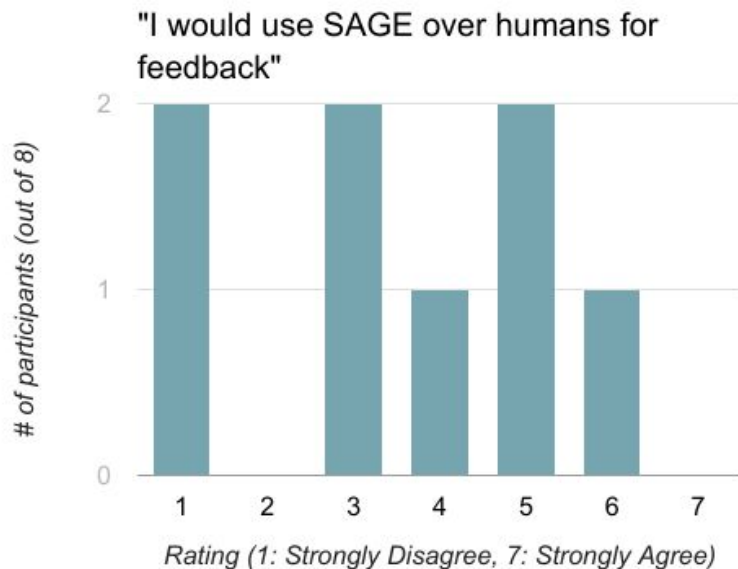


Sources of Feedback: Humans

Mean: **3.5 / 7** preference for SAGE over humans, $\sigma = 1.85$

- **Availability:** could get feedback whenever wanted with SAGE
- **Reliability:** has good design concepts
- Ability to **communicate** with SAGE was missing

“Human experiences are so varied and have different perspectives”



Sources of Feedback: Summary

- People prefer SAGE over receiving feedback **online** but **not** over **personal** connections
- When humans are unavailable or when they don't have enough expertise people want SAGE since it is **instantaneous** and has good **domain knowledge**

Discussion

- Participants felt **safer** with the bot
 - Intellectual property
 - Evaluation apprehension
- Positive elements
 - **High-quality** feedback
 - Responses **on-demand**
- Negative elements
 - Not enough specific feedback
 - Lack of a communication channel

Future Work

- During which iteration will SAGE be used the most?
 - Behavior with a human **expert**
 - Behavior with **choice** between SAGE and expert
- Implementing a conversational agent
- Adding a “loading” cue to increase user satisfaction

So... Are Bots the
Right Direction?

Unused

Informal Data

LMFAO IHY

HAHAHAHA

IM DYING

Lol did you believe it was a bot though?

We designed this experiment to see if designers are comfortable having bots give them feedback in private

Tbh I did like I was confused af and it was very human like but I thought you somehow coded some crazy algorithm

In the back of my head I was very confused

But I just let it go

Quality of Feedback & Usefulness

People found it useful but not perfect

- “It’s **easy to use**, but my expectation was that the feedback would be **organized** better. Also would have loved to have a **conversation** with SAGE and ask SAGE questions for more **depth**.”
- “The feedback wasn’t too specific so I think it can **add explanations** or examples to explain feedback.”

