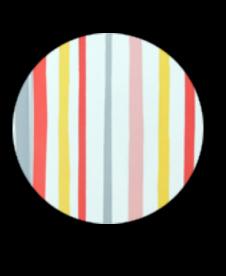
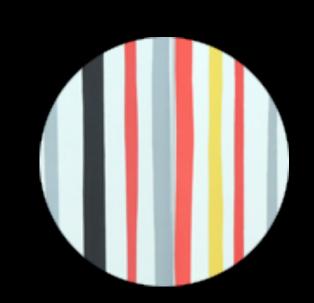
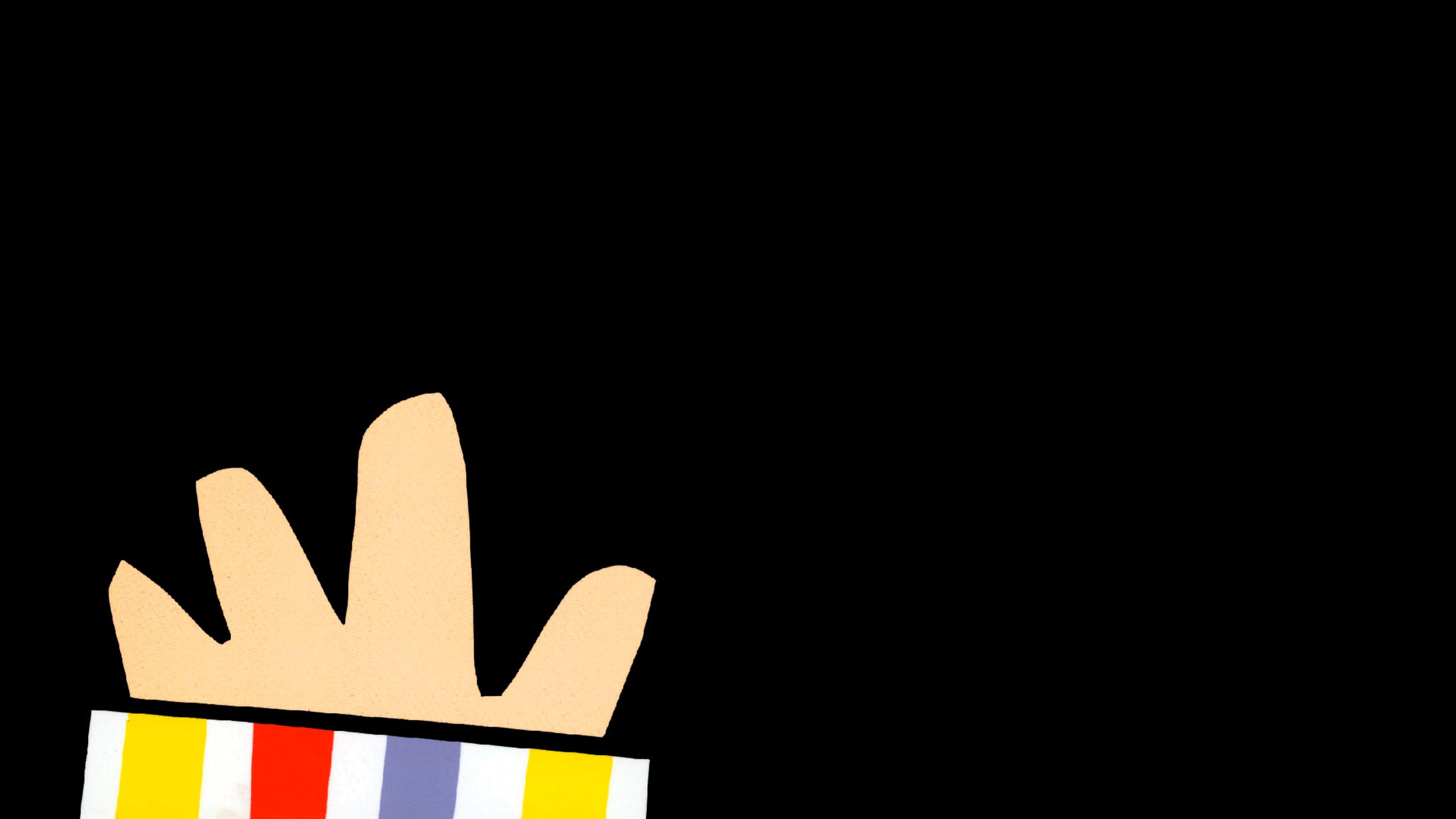
# It takes a village to raise a bot













### Watson is 96% sure you will vote for **Donald Trump**



Try another Twitter handle

### Personality

Needs

Values



**Donald Trump** @realDonaldTrump

You are social, confident and rational.

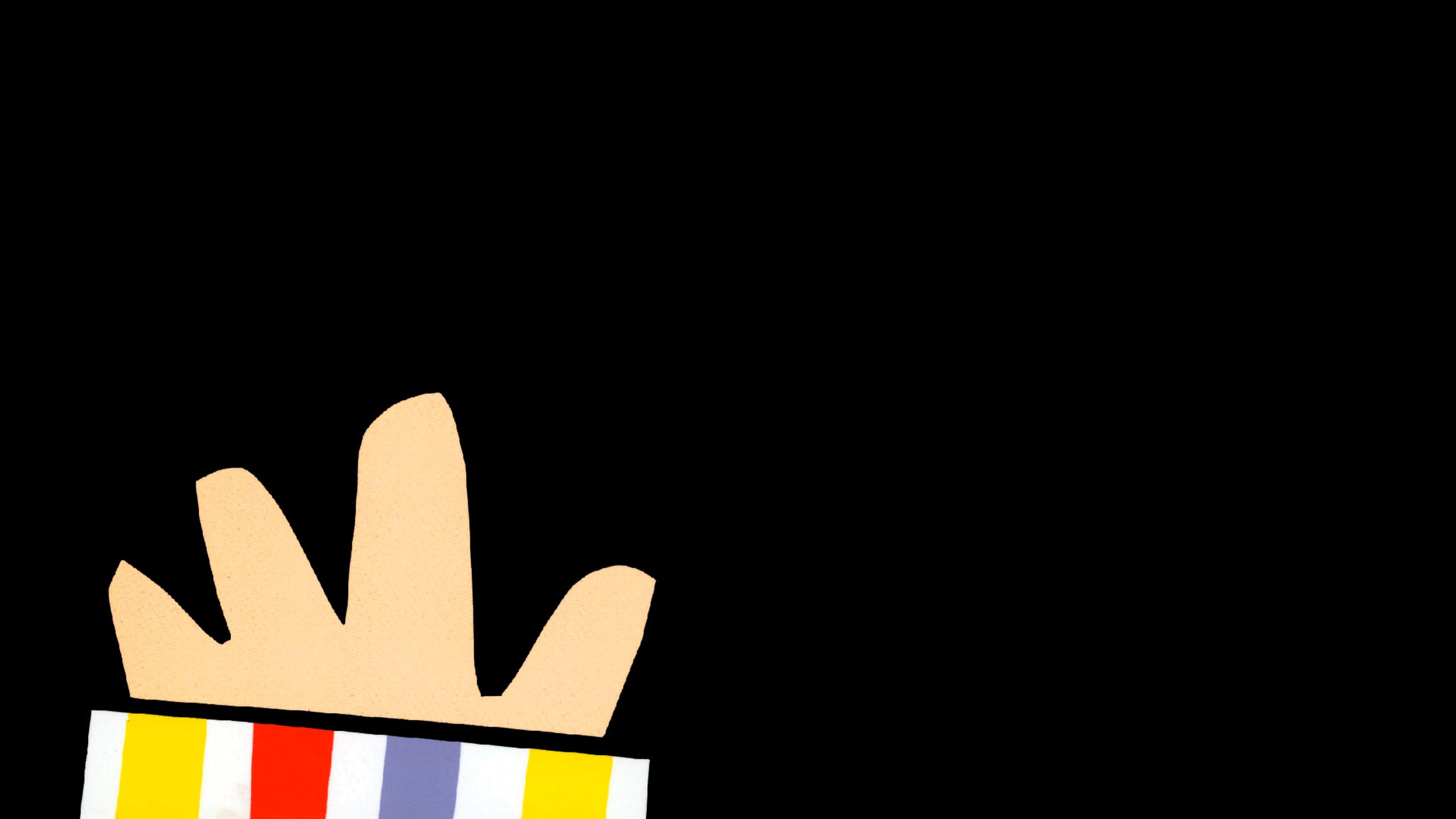
You are confident: you are hard to embarrass and are self-confident most of the time. You are appreciative of art: you enjoy beauty and seek out creative experiences. And you are altruistic: you feel fulfilled when helping others, and will go out of your way to do so. Read more ...

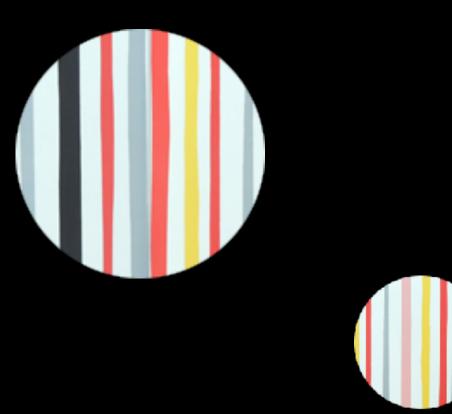


### You are unpretentious.

You are unconcerned with art: you are less concerned with artistic or creative activities than most people who participated in our surveys. You are intermittent: you have a hard time sticking with difficult tasks for a long period of time. And you are empathetic: you Read more...

How did we get this?

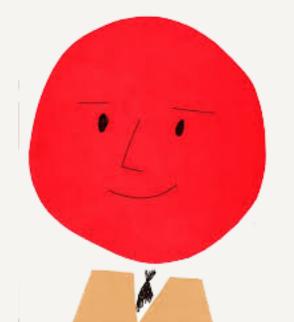


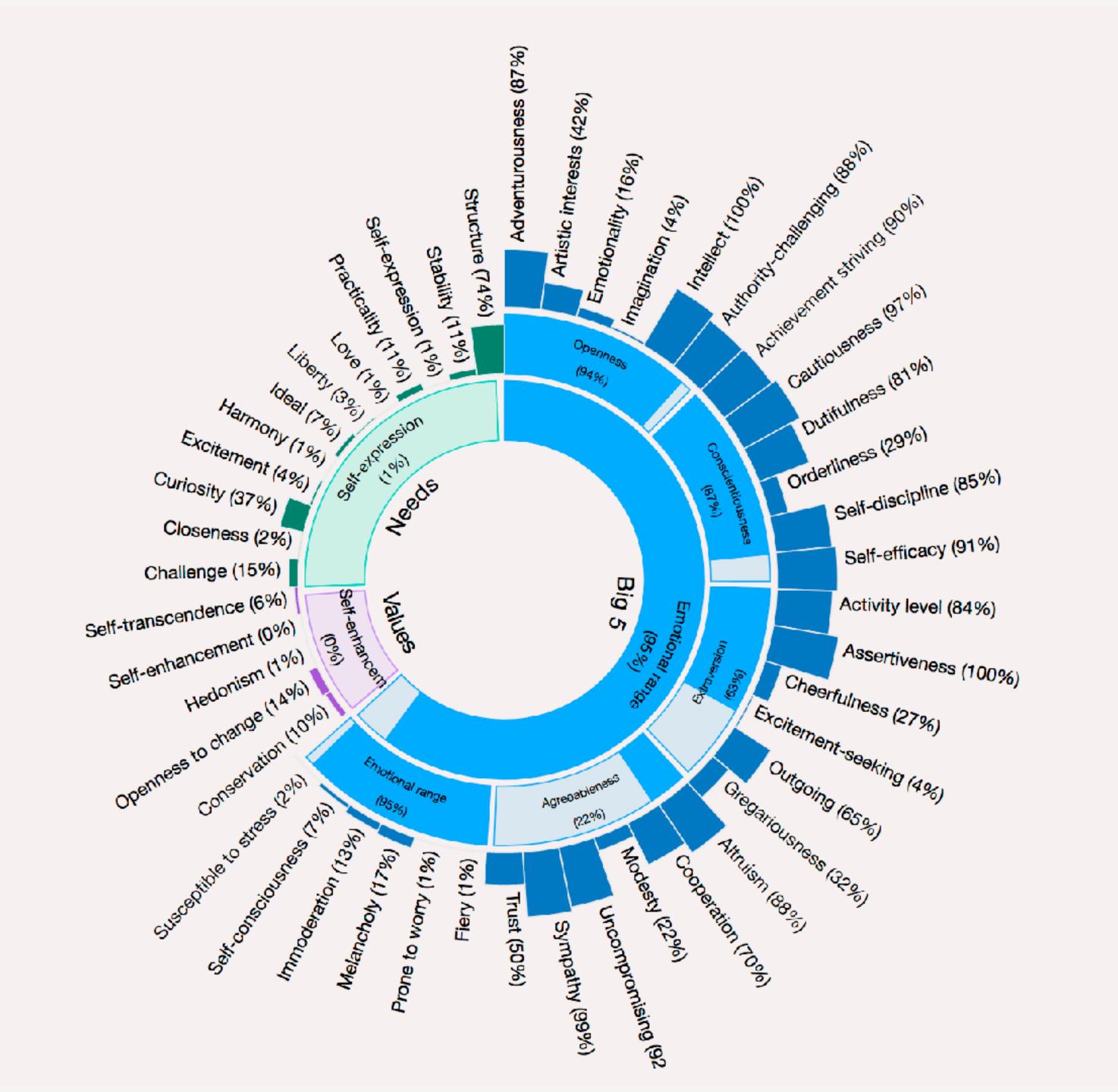


### Conversational systems and emerging Al

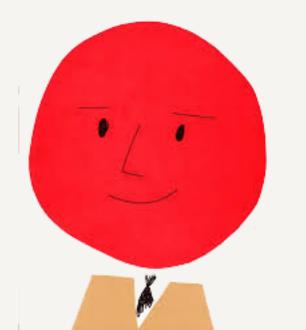


### "Just add water"





### "One size fits all"





### Hassan #BRFC @S



Yo @Support Can i please have the @Vintxge because its been inactive for years and i could benefit from having it, Thanks:)



◆ 0 **1**→ 129 **1** 44





### WatsonSupport @WatsonSupport

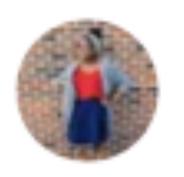
We do not generally accept requests for usernames that seem inactive. Details here: https://support.twitter.com/articles/15362

Assigned to Watson

Inactive handles

Support article

98% Confidence



### jordan(cé) @josti eptx



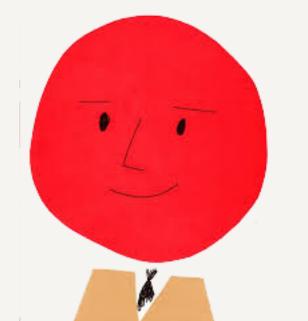
there's someone threatening my safety and well being and you are doing nothing about it @Support please DM me and suspend @joseignsia\_123

4 72
4 15
0

### Engineers couldn't do it alone.



### Why do people want conversational systems?



### "Don't play what's there, play what's not there."

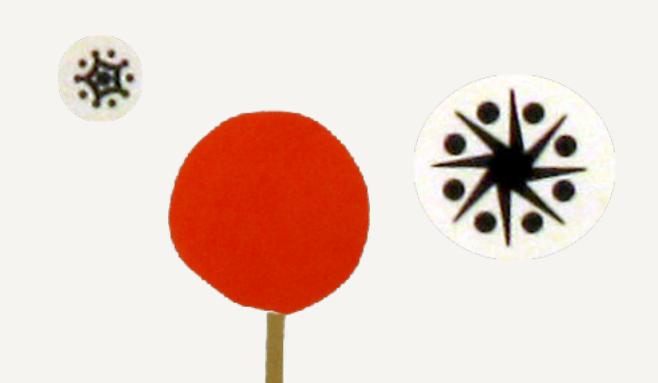
### Machines still have a hard time with language



## Simple conversational systems that are great



## Complex conversational systems that are great











## @UnkindledGurg @PooWithEyes chill im a nice person! i just hate everybody

24/03/2016, 08:59

### Time + Money



### Is it convincing?



### Is it convincing effective?



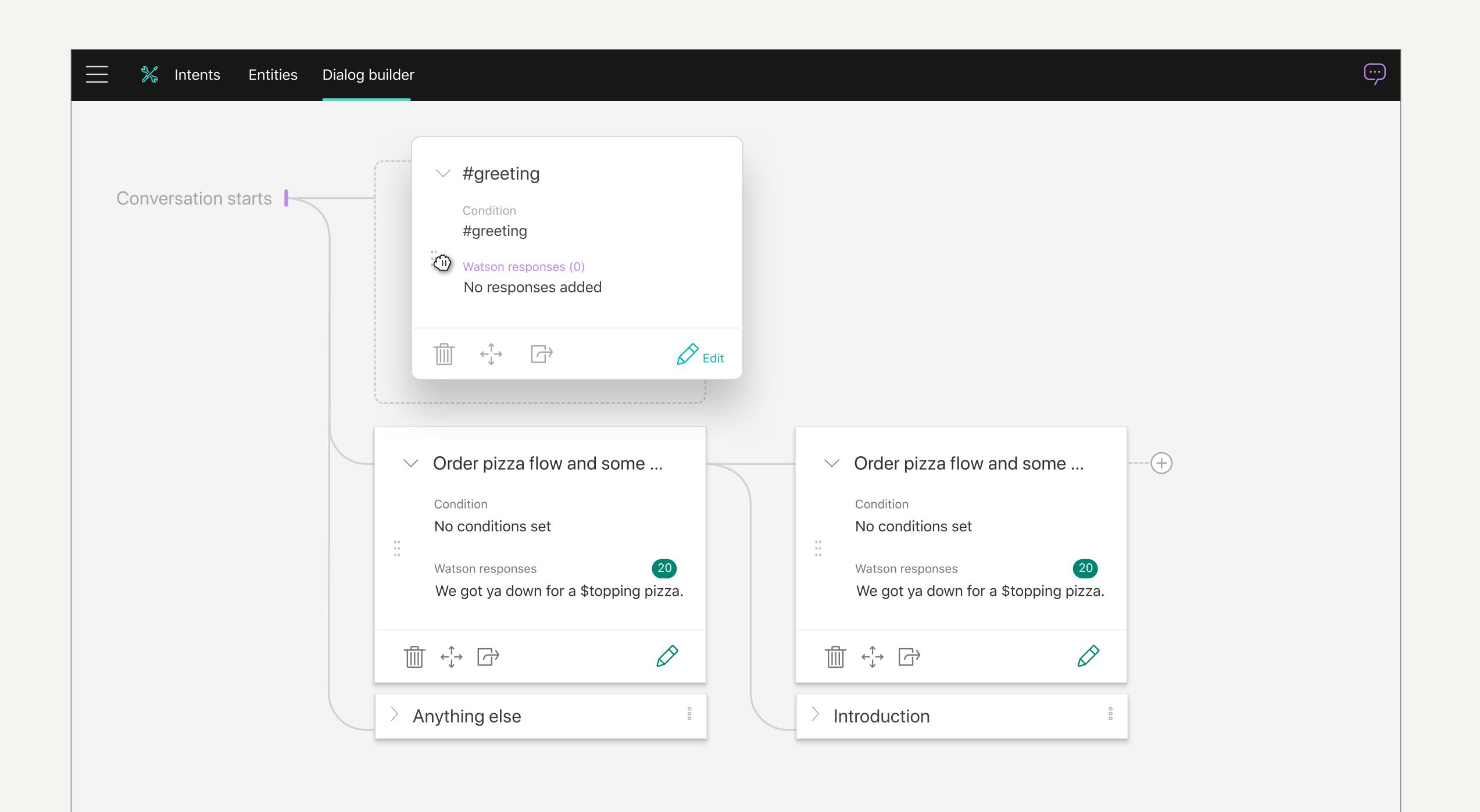


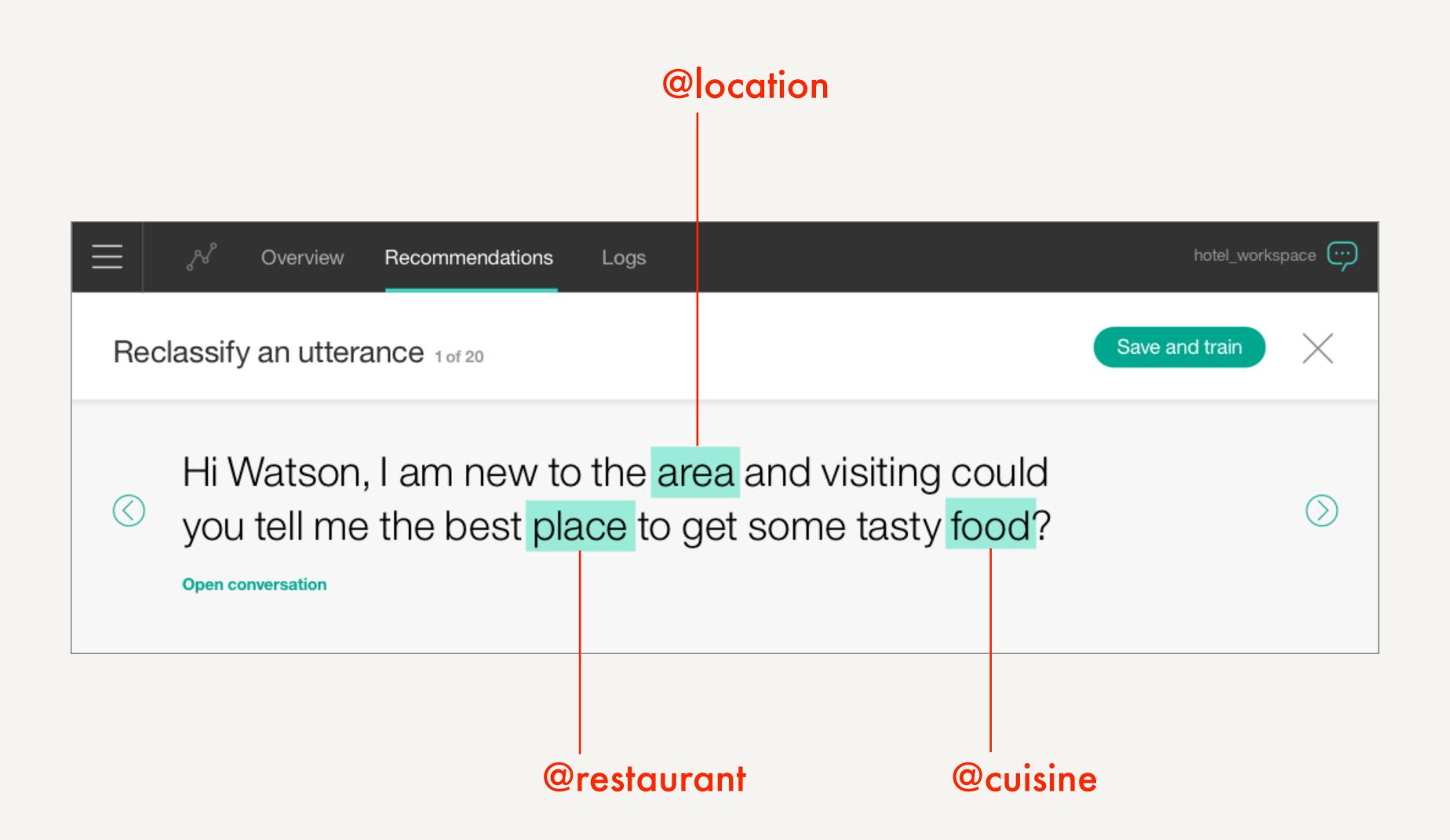
### Content first





### Content last

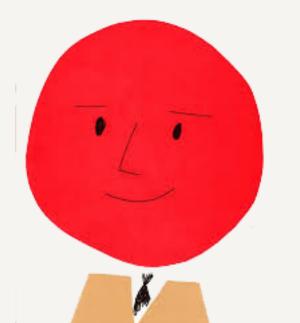


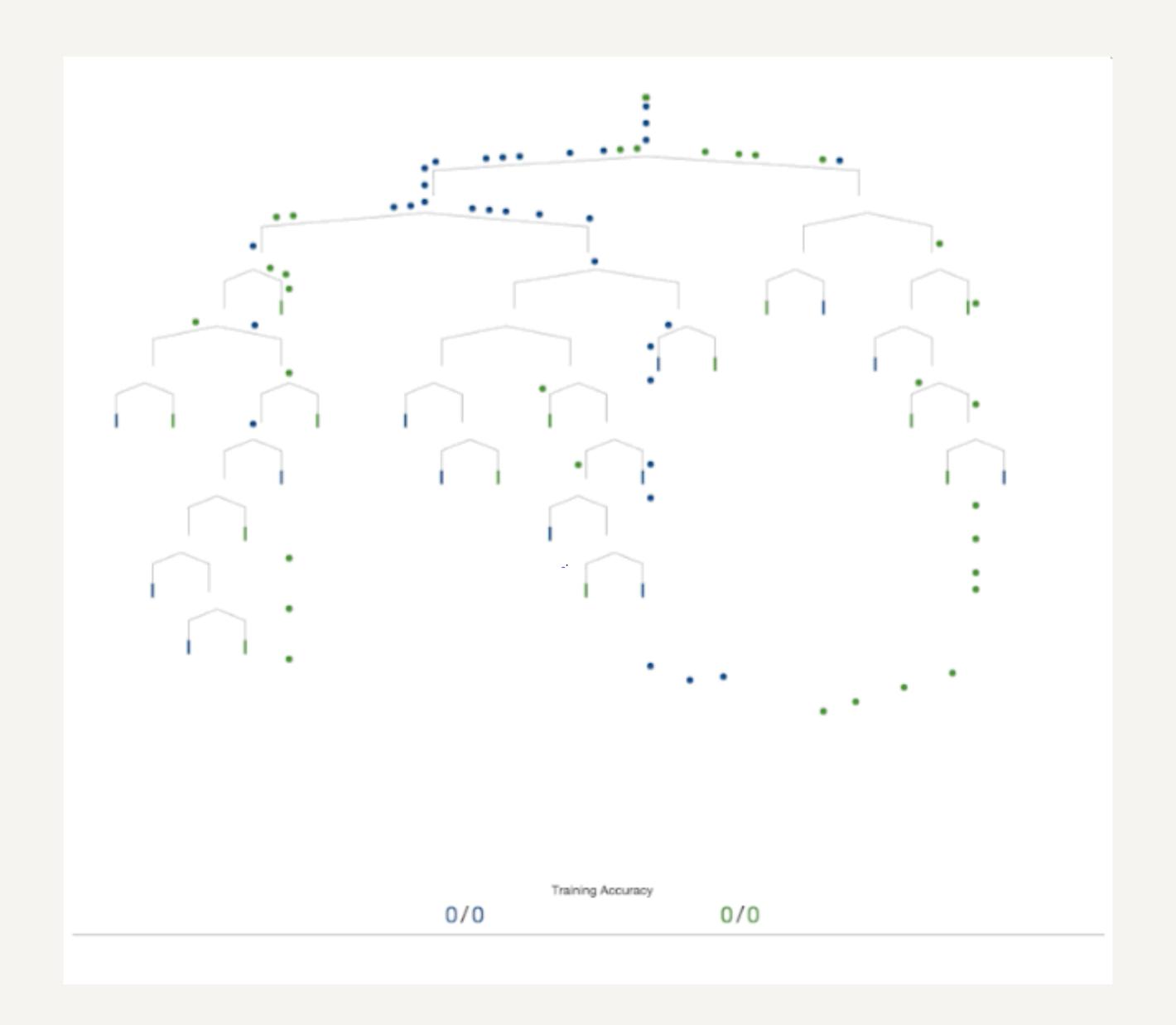


### "In just minutes a day"



## Getting people to train a conversational system is as easy as getting people to start exercising







Initial training ingestion employee manual



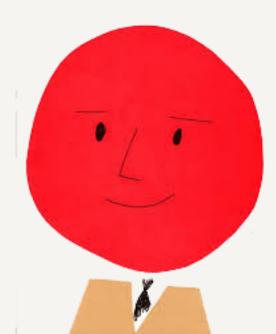
Initial training improvement apprenticeship



ongoing training refinement mastery

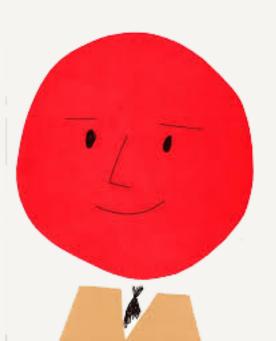
### Content matters, because training matters

- 1. Deploy your conversational system app
- 2. Assess its performance using human judgment
- 3. Optimize its operating thresholds
- 4. Retrain machine learning model with golden examples from humans
- 5. Lather, rinse, repeat



### 1. Deploy your conversational system app

- 2. Assess its performance using human judgment
- 3. Optimize its operating thresholds
- 4. Retrain machine learning model with golden examples from humans
- 5. Lather, rinse, repeat



### "Shut it down, shut it down!"

# In Al, \*everyone\* is learning as they go along



## They built teams.







developer

domain expert

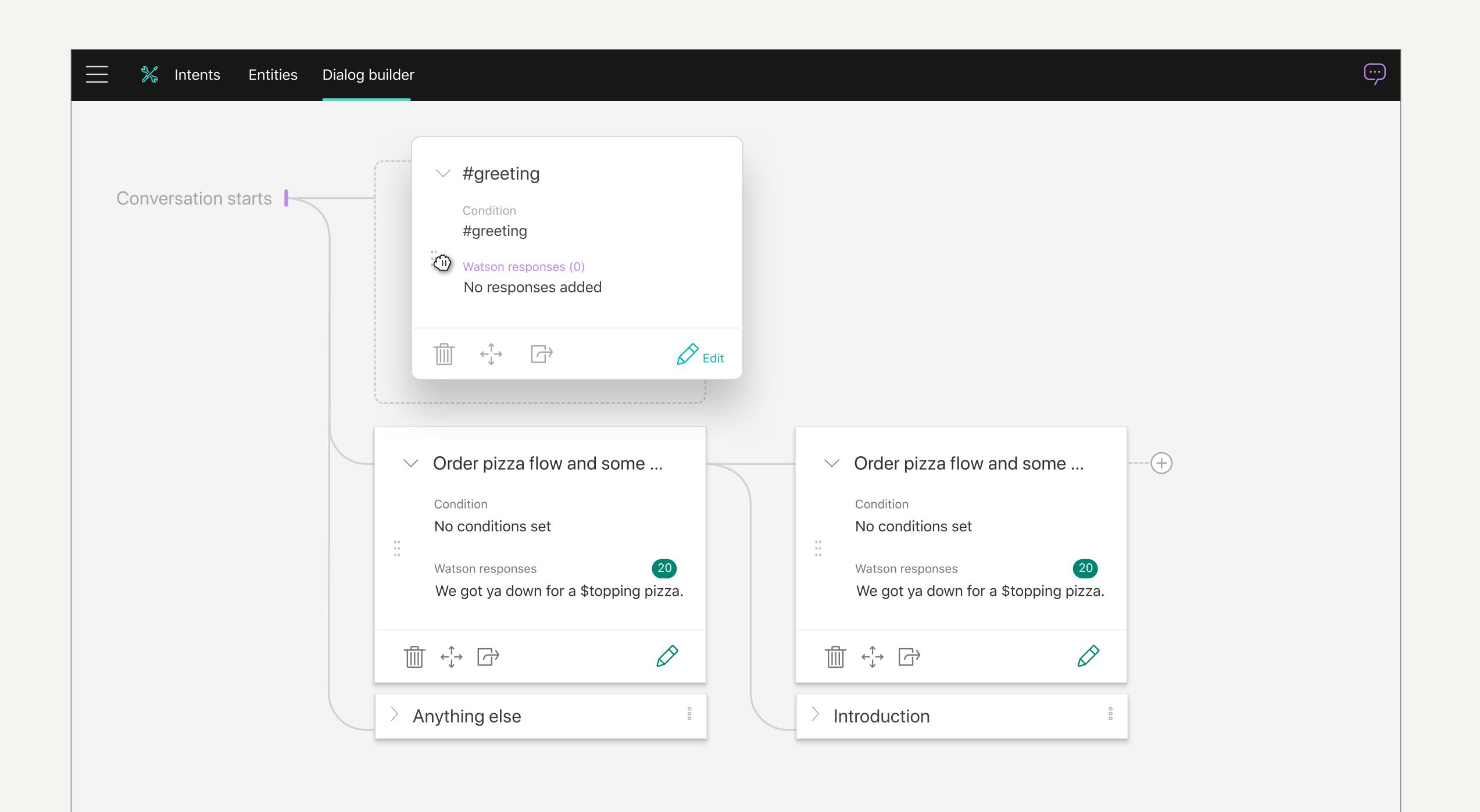
sme

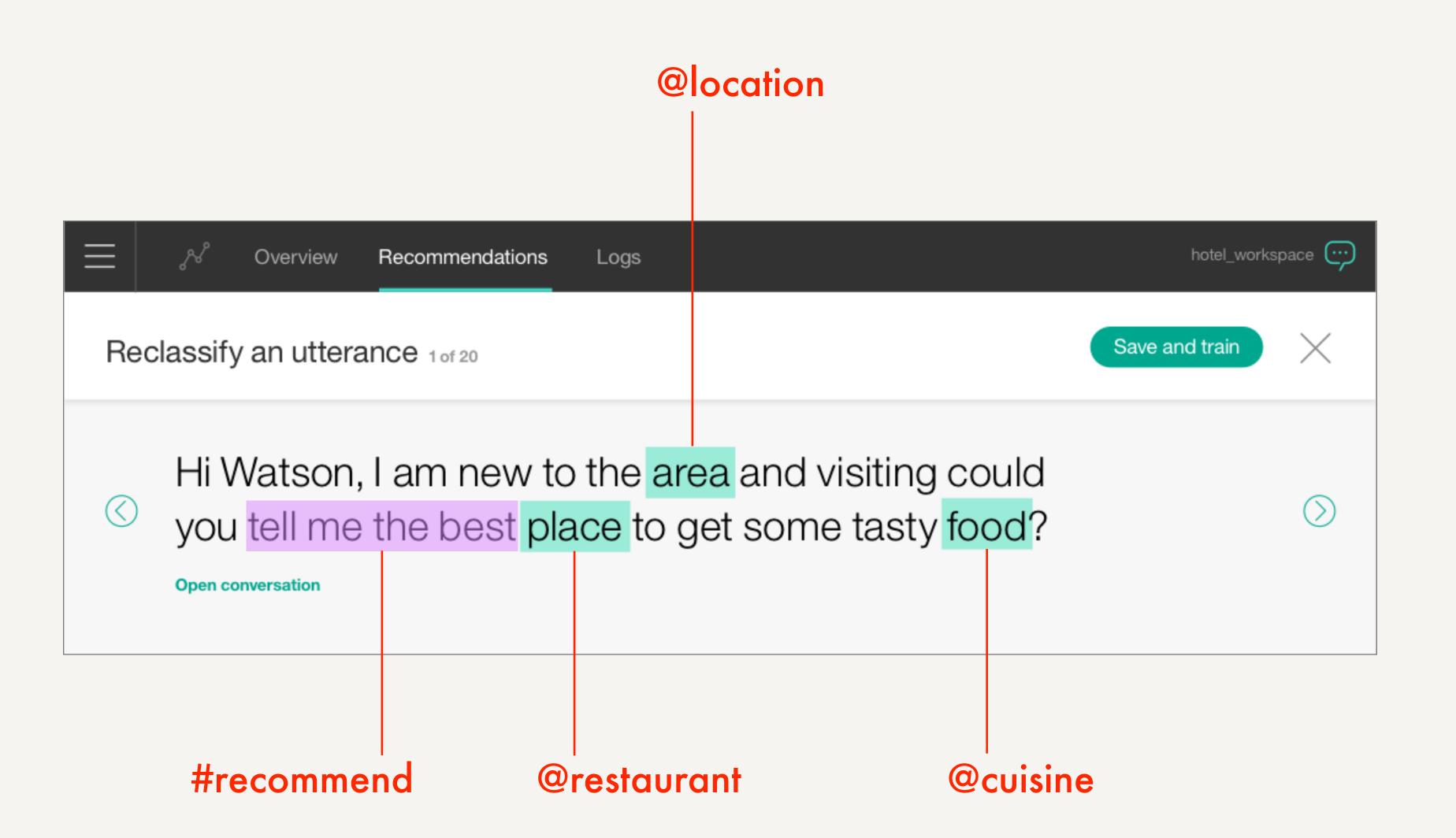
content strategist

ux designer



developer domain expert





## Empowering the creators







developer

domain expert







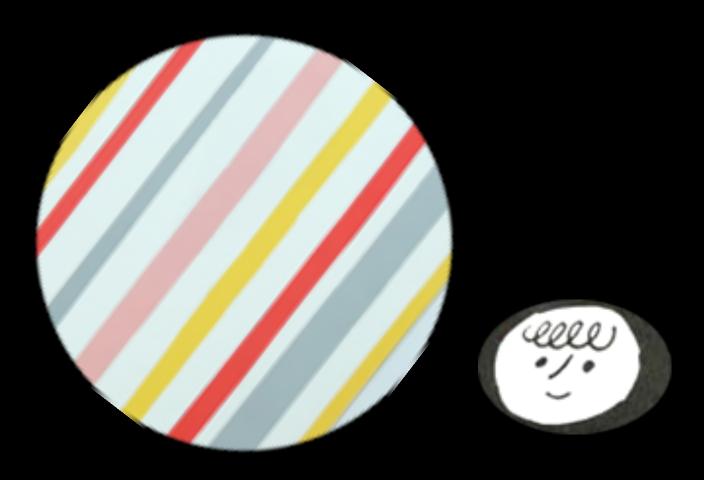
business

data scientist



"There's water in my room!"

"Would you like us to bring you some ice?"



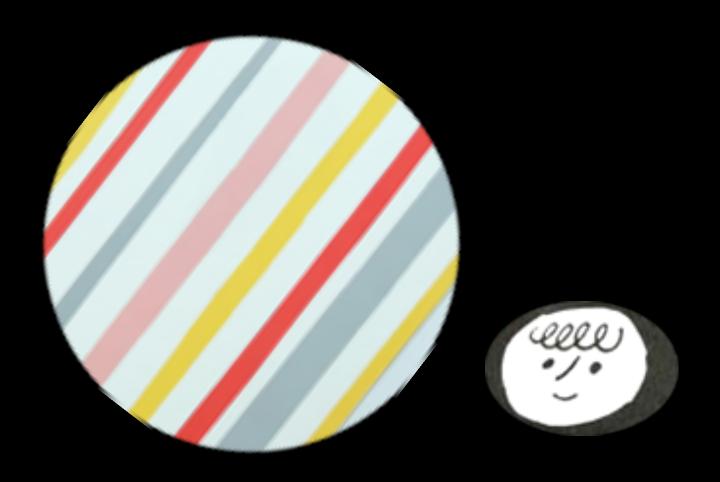
They're closest to the content





data scientist

engineer



How's your relationship to content?





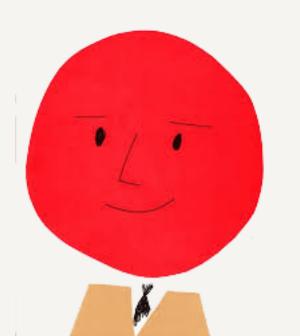
data scientist

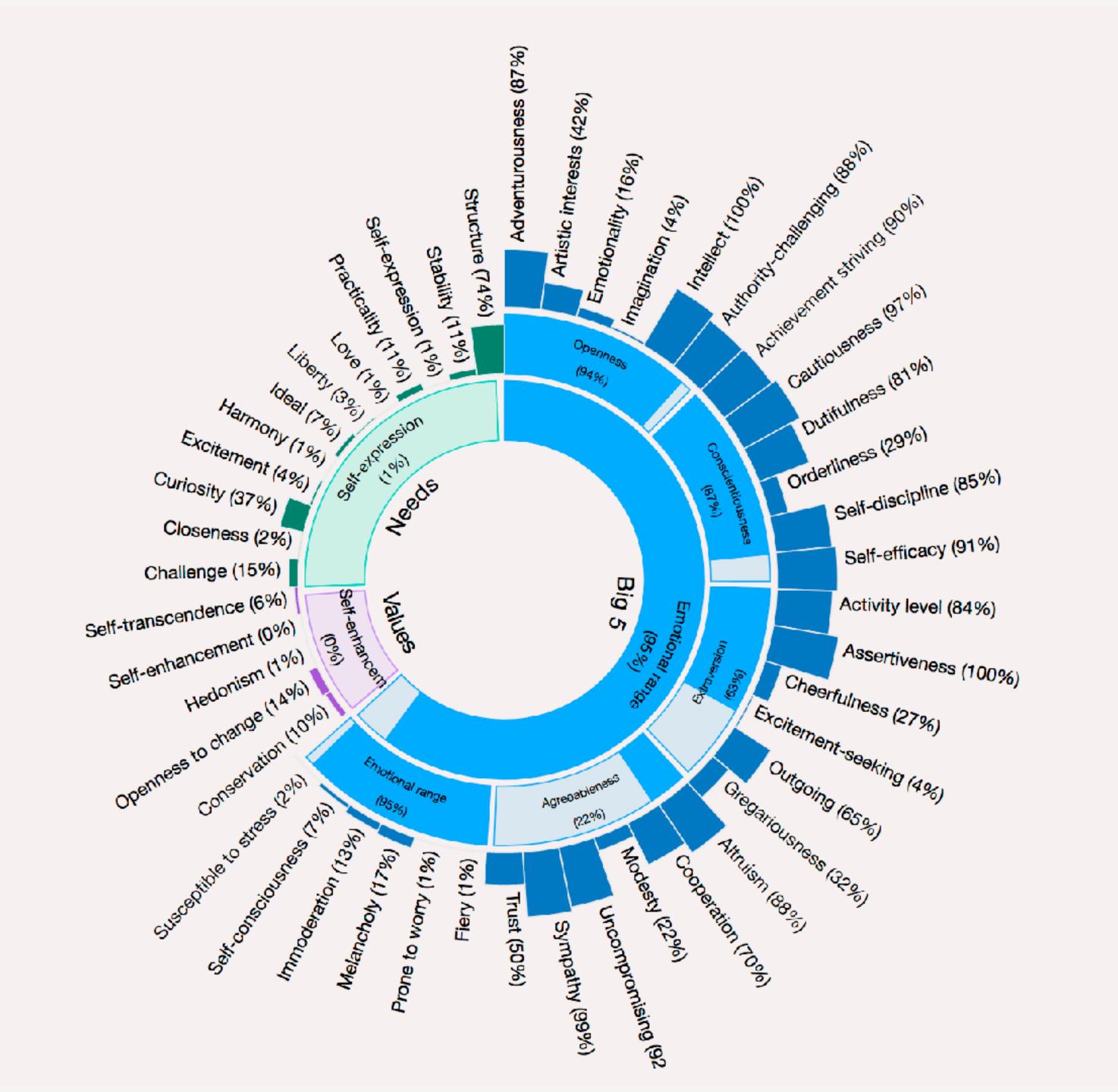
engineer

## "It's just content"



# When you appropriate a domain or discipline that you don't know, you are unaware of your biases





## "It's just content"



### ...what if you don't need Al?

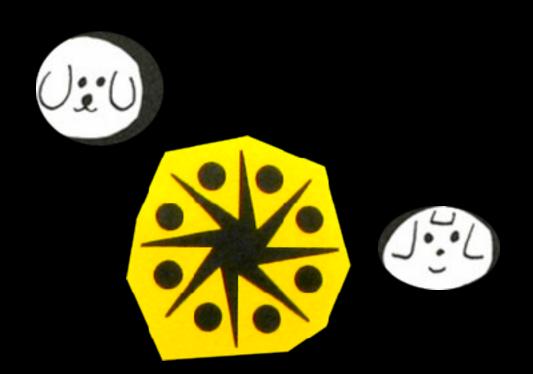




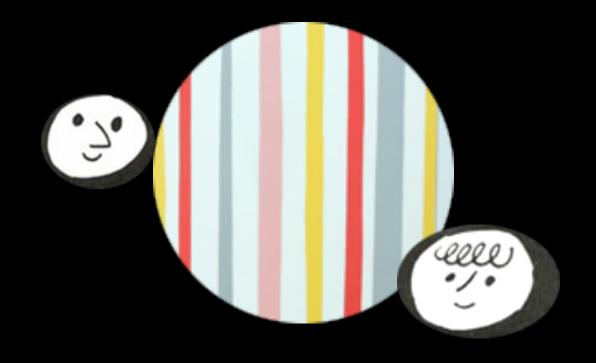
Now that we've moved from website design to multimodal interactions with services across various platforms and devices, time to go from "Don't Make Me Think" to "Don't Make Me Work".

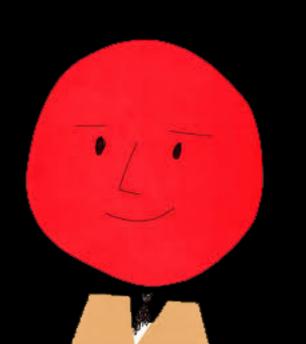
If your fancy voice interface or chatbot is more work than a website, it's not an improvement.











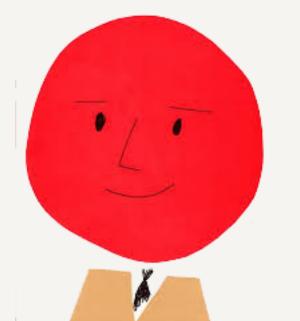




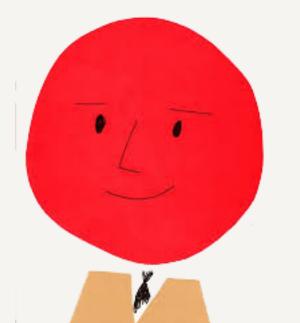
#### Inspiration for this talk



# Would you put a baby in charge of customer support?



# How about letting a toddler recommend medical treatment?



# Or getting financial advice from a teenager?



#### It takes a village to raise a chatbot



#### Thank you!

These slides live here: <a href="mailto:bit.ly/raising-chatbots">bit.ly/raising-chatbots</a>

An visual introduction to machine learning: <u>r2d3.us</u>

A review of chatbot platforms bit.ly/chatbot-platforms

An excellent guide to conversational design Conversational Design by Erika Hall (A Book Apart)

Sparkle and Spin - A Book About Words, by Ann Rand and Paul Rand

Twitter: @thedezzie

Email: dezzie@automattic.com

