

# Type *for* Change

Evolving people, organisations & concepts



6<sup>th</sup> - 8<sup>th</sup> April 2017

Missenden Abbey,  
Gt Missenden,  
Bucks

opp  
unlocking potential

## Evolving alongside AI *Can Type shape our futures?*





*John Hackston*

*Head of Thought Leadership, OPP*



# A quick quiz



-  Do you search for information on Google?
-  Have you ever bought anything on the internet?
-  Have you ever booked travel or accommodation on the internet?
-  Do you have Siri on your phone or Cortana on your computer?

Google

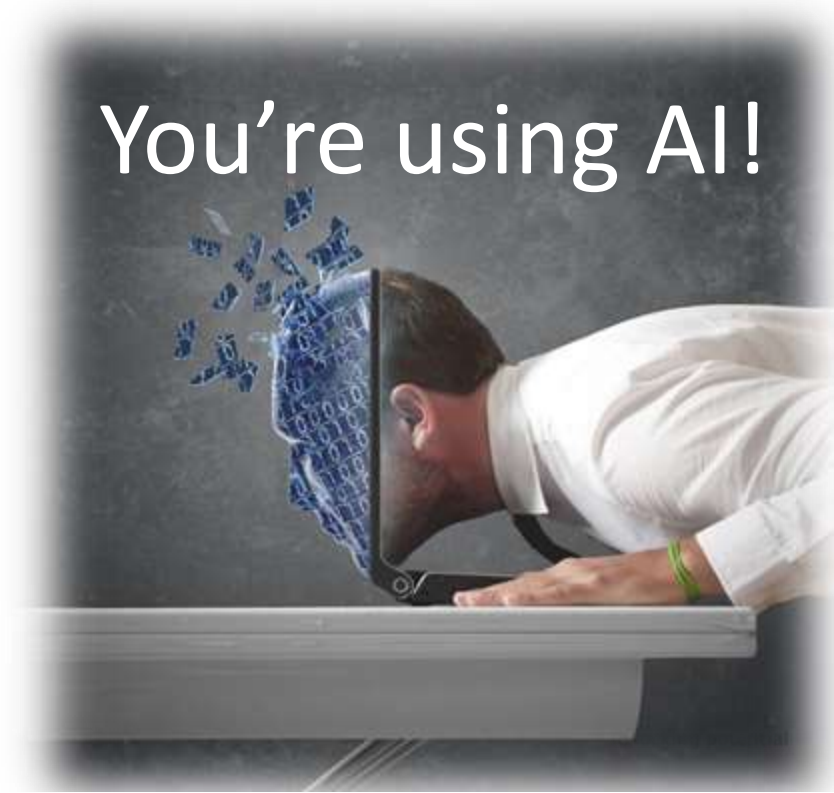
amazon

 Expedia®



What else can I help you with?

You're using AI!



# Today's agenda



- > What AI is (and isn't)
- > How AI is changing what you do
- > What you can do that AI can't
- > AI in personality assessment/feedback
- > Adding personality to AI
- > Ethical issues
- > A BIG question



# What is "Artificial Intelligence"?





# What is "Artificial Intelligence"?



# What is “Artificial Intelligence”?



- > Perceiving the environment and taking actions to maximise success
- > Mimicking of cognitive functions
- > Examples include:
  - Personal assistants in phones and computers
  - Intelligent Tutoring Systems in education
  - Spotting fraud via unusual spending patterns
  - Medical diagnosis and clinical decision support
  - Data mining
  - Email spam filters
  - “Intelligent” posting of articles on social media
  - Computer-aided interpretation of images, e.g. in medicine
  - Video game bots
  - Self-driving cars
  - Automated assistants for online enquiries
  - Industrial robots

# Small group discussion



- > How has AI already changed what you do and how you do it?
- > How do you expect it to change your life further?
- > Think about both:

Your everyday life



Your role as a type practitioner





# As a type practitioner, what can you do that AI can't?

In your groups, write down:

- > What you can do that AI can't
- > What AI can do that you can't
- > Now review and amend the other groups' ideas





**theguardian**

## Robots 'could replace 250,000 UK public sector workers'

Reform thinktank says sector could be 'the next Uber' and staff should embrace the gig economy amid rise in automation

## Robots will destroy our jobs - and we're not ready for it

Two-thirds of Americans believe robots will soon perform most of the work done by humans but 80% also believe their jobs will be unaffected. Time to think again

## Rise of robotics will upend laws and lead to human job quotas, study says

Report predicts rise in robotics will usher in 'industrial revolution 4.0' altering working practices and legal frameworks

## Millions of UK workers at risk of being replaced by robots, study says

Workers in wholesale and retail sectors at highest risk from breakthroughs in robotics and artificial intelligence, PwC report finds

## Robots won't just take our jobs - they'll make the rich even richer

Robotics and artificial intelligence will continue to improve - but without political change such as a tax, the outcome will range from bad to apocalyptic

# AI and personality assessment



- > Adaptive personality questionnaires
- > Using external data

# AI and personality assessment



## Psycholinguistic trait prediction

Write or paste some text in the box below to obtain a prediction. There is no minimum length. Please also tag the source of the text you are submitting using the selection box provided.

• Have you ever booked travel or accommodation via the internet?  
• Do you have Siri on your phone or Cortana on your computer?  
If you answered 'yes' to any of these questions, then you are using a form of artificial intelligence. The media is full of stories about the future consequences of AI (for good or ill), the reality is that AI is here and it is useful if AI can understand something about our personality and behavior to us as well.  
Of course, there are many ways of understanding human personality, but the Myers-Briggs Type Indicator (MBTI) is increasingly being used in research to help robots work more effectively with humans. This is then used as a guide to change the robot or its behavior. Elsewhere, user's personality preferences, and results then used to customize an AI agent's personality.   
Picture: MBTI-based algorithms have been used to help robot teams work more effectively.

Other

Age ?

28

People who use language of this kind tend to be 25-29 years old.

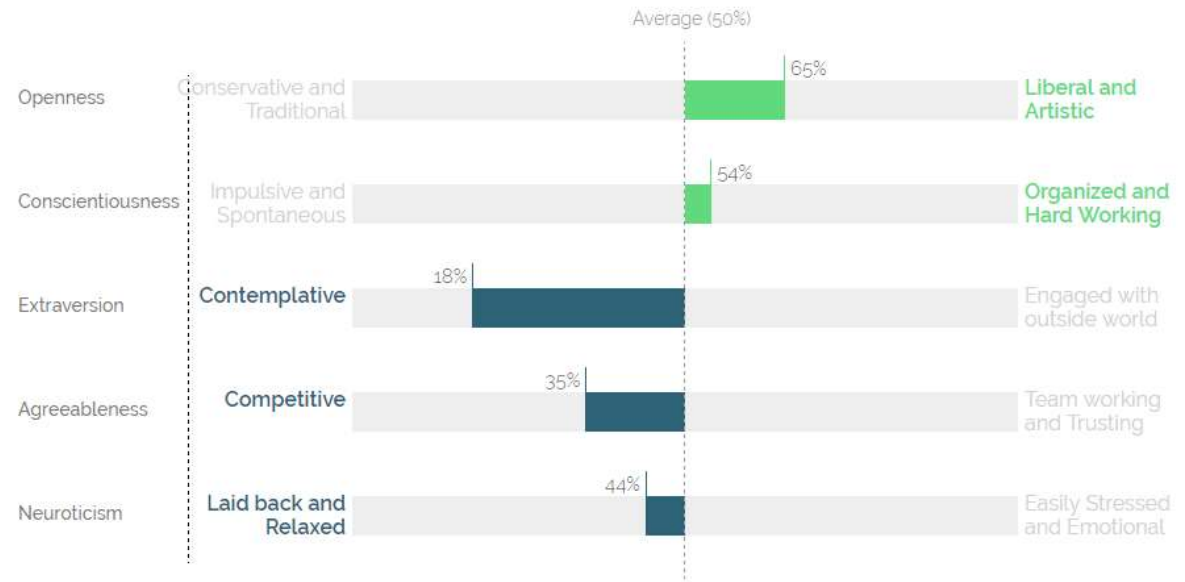
Psycho

Feminine

People who use language of this kind tend to be 25-29 years old.

### Big 5 Personality (Predictions are expressed as percentiles) ?

Take personality test



**Openness to experience** describes a dimension of personality that distinguishes imaginative, creative people from down-to-earth, conventional people.

People who use language of this kind tend to be intellectually curious and appreciative of what they consider beautiful, no matter what others think. Their imagination is vivid and makes them more creative than many others.

**Conscientiousness** concerns the way in which we control, regulate, and direct our impulses.

People who use language of this kind tend to be random and fun to be around but can also plan and persist when life requires it. Depending on the situation, they can make quick decisions or deliberate for longer if necessary.

**Extraversion** is marked by pronounced engagement with the external world, versus being comfortable with own company.

People who use language of this kind tend to be quiet and somewhat withdrawn. They don't need lots of other people around to have fun, and can sometimes find that people are tiring.

**Agreeableness** reflects individual differences in concern with cooperation and social harmony.

People who use language of this kind tend to find it difficult to get along with others when they first meet them. They might be suspicious of others' motives in this situation.



# AI and personality assessment



## Psycholinguistics

Write or paste some text in the box below.  
Please also tag the source of the text.

• Have you ever booked travel on your phone?  
• Do you have Siri on your phone?  
If you answered 'yes' to any of these questions, the media is full of stories about the usefulness of AI to us as well. Of course, there are many ways in which AI is useful. The Myers-Briggs Type Indicator (MBTI), an increasingly popular personality assessment, is increasingly used by humans to react to robots; this is the user's personality preferences, which are determined by MBTI-based algorithms.

Other

Big 5 Personality (Prediction)

Openness	Conservative and Traditional
Conscientiousness	Impulsive and Spontaneous
Extraversion	Contemplative
Agreeableness	Competitive
Neuroticism	Laid back and Relaxed

## Age

Openness to experience describes conventional people. People who use language of this kind tend to be more creative than many others.

Conscientiousness concerns the way people make decisions. People who use language of this kind tend to make quick decisions or deliberate for longer if necessary.

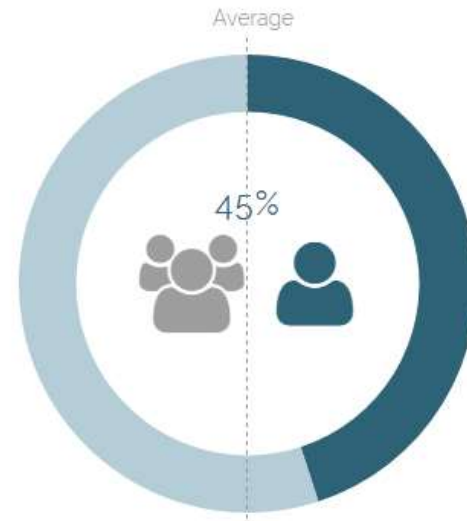
Extraversion is marked by pronounced emotions. People who use language of this kind tend to be more outgoing than people who are tiring.

Agreeableness reflects individual differences in how people relate to others. People who use language of this kind tend to be more cooperative than people who are more competitive.

People who use language of this kind tend to be more creative than many others.

Agreeableness reflects individual differences in how people relate to others. People who use language of this kind tend to be more cooperative than people who are more competitive.

## Leadership Potential



Your personality is 45% similar to that of a leader

## Jungian Personality Type

### Introverted iNtuitive Thinking Judging

INTJs are very analytical individuals. They are more comfortable working alone than with other people, and are not usually as sociable as others, although they are prepared to take the lead if nobody else is up to the task, or they see a major weakness in the current leadership. They tend to be very pragmatic and logical individuals, often with an individualistic bent and a low tolerance for spin or rampant emotionalism. They are also commonly not susceptible to catchphrases and commonly do not recognize authority based on tradition, rank or title. Hallmark features of the INTJ personality type include independence of thought, strong individualism and creativity. Persons with this personality type work best given large amounts of autonomy and creative freedom. They harbour an innate desire to express themselves; that is to be creative by conceptualizing their own intellectual designs. Analyzing and formulating complex theories are among their greatest strengths.

Take more psychometric tests



Developing Big 5 Personality (Prediction):  
6TH WORKSHOP ON COMPUTATIONAL  
APPROACHES TO  
SUBJECTIVITY, SENTIMENT AND  
SOCIAL MEDIA ANALYSIS  
WASSA 2015

## Personality Traits on Twitter

—or—

### How to Get 1,500 Personality Tests in a Week

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## 7 Conclusions

We use the self-reported Myers-Briggs type of Twitter users to collect a large corpus of tweets and train predictive models for each dimension.

Our results show that we can model the I-E (INTROVERT-EXTROVERT) and F-T (FEELING-THINKING) distinction fairly well. Learning the other two dimensions turns out to be hard. We find that linguistic features account for most of the predictive power of our models, but that meta-information, such as gender, number of followers, statuses, or list membership, add valuable information.

The distribution of Myers-Briggs personality types observed in our Twitter corpus differs from the general population, however, the data reflects real language use and sample sizes with sufficient statistical power. Our results suggest that while theoretically less well-founded than traditional approaches, large-scale, open-vocabulary analysis of user attributes can help improve classification accuracy and create insights into personality profiles.

ling

comfortable  
usually as sociable  
lead if nobody else  
the current  
gical individuals.  
ce for spin or  
ot susceptible to  
hority based on  
l personality type  
ilism and creativity.  
large amounts of  
innate desire to  
aptualizing their  
g complex

# AI and personality assessment



IBM Watson Developer Cloud

Service



## Personality Insights

Gain insight into how and why people think, act, and feel the way they do. This service uses personality theory to infer attributes from a person's unstructured text.

Resources:

[API Reference](#) [Documentation](#) [Fork on Github](#)

Start free in Bluemix

### Try the service

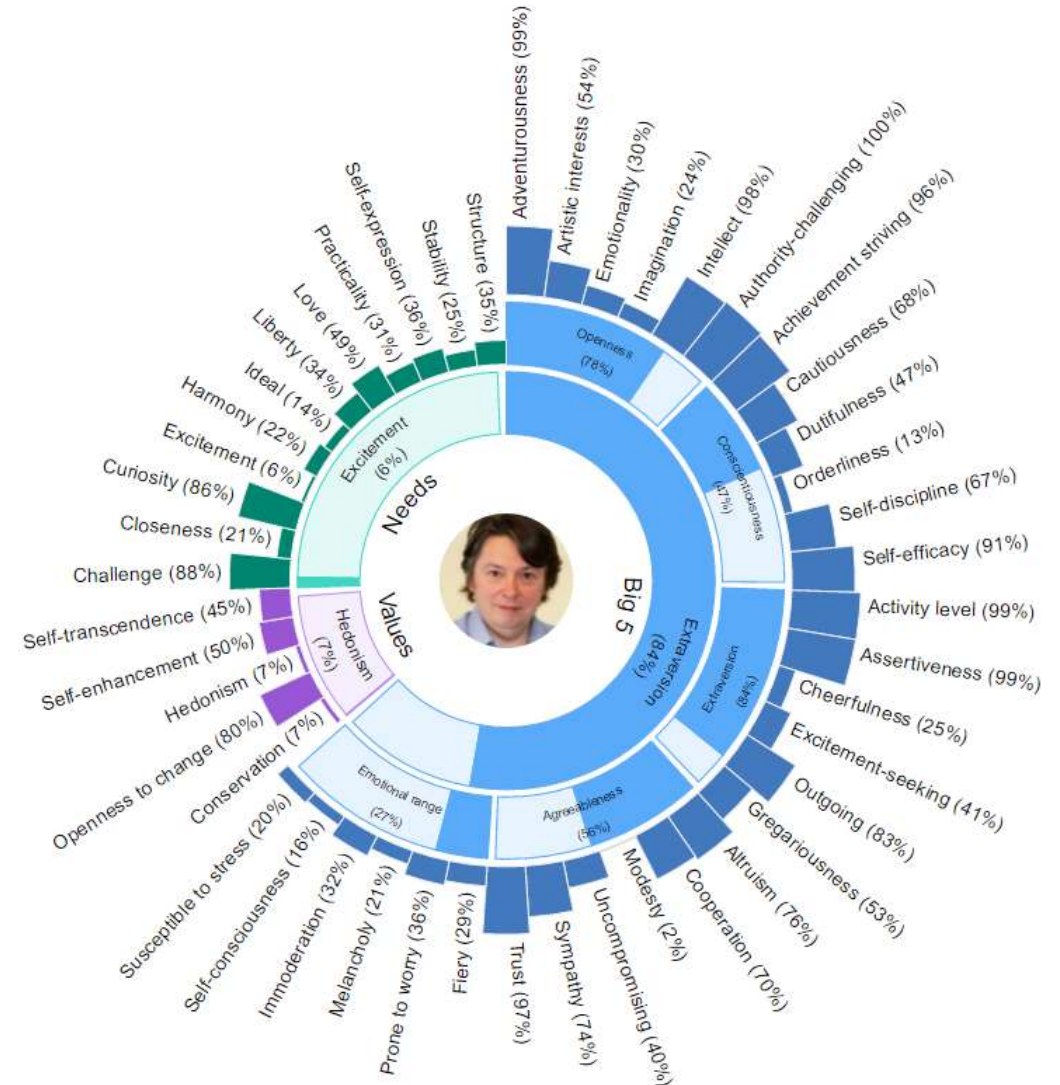
You need text written by the person whose personality you're interested in. It should contain words about their interests and responses.

You can play with the demo with as little as 100 words, but for a more accurate analysis, you need more text.

Tweets and Replies   Body of Text   **Your Twitter Personality**

Analysis for:  @JohnHackston

### Sunburst Chart Visualization






# AI and personality assessment



- > Adaptive personality questionnaires
- > Using external data
- > Gamified assessments
- > Biometric data
- > Chat



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*Sample Dialog*

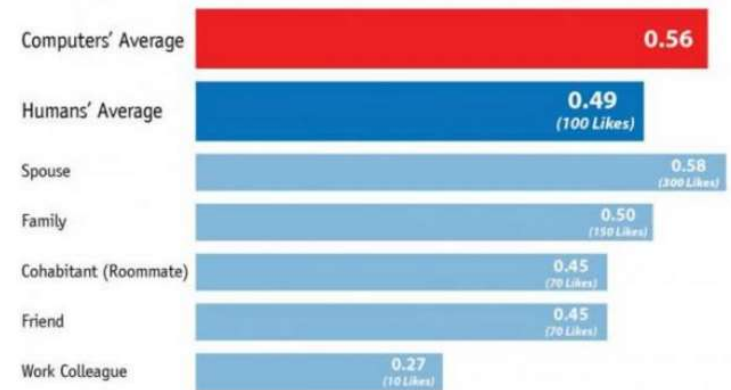
**Human:** Can I take the personality test now?  
**Bot:** Just keep chatting with me.  
**Human:** okay, what does CLAUDIO stand for?  
**Bot:** Yeah okay, C.L.A.U.D.I.O. = Cybernetic Lifelike Android Used for Dialogue Interaction and Observation.  
**Human:** What is my personality type?  
**Bot:** I have not made up my mind about you yet. But please keep chatting with me. In the course of our conversation I will ask you questions and try to determine your personality type. Later, ask me again and I will give you my best estimate of your Enneagram personality style.

Note: Chat robot subscription includes unlimited chatting with the A. I. for one month. Upon payment processing you will receive an email with a unique private URL web address to chat with the CLAUDIO bot. Your subscription will usually begin within 24-36 hours. Sorry, no refunds.

<http://www.alicebot.org/claudio.html>

## How accurate can computer models judge personality compared with humans?

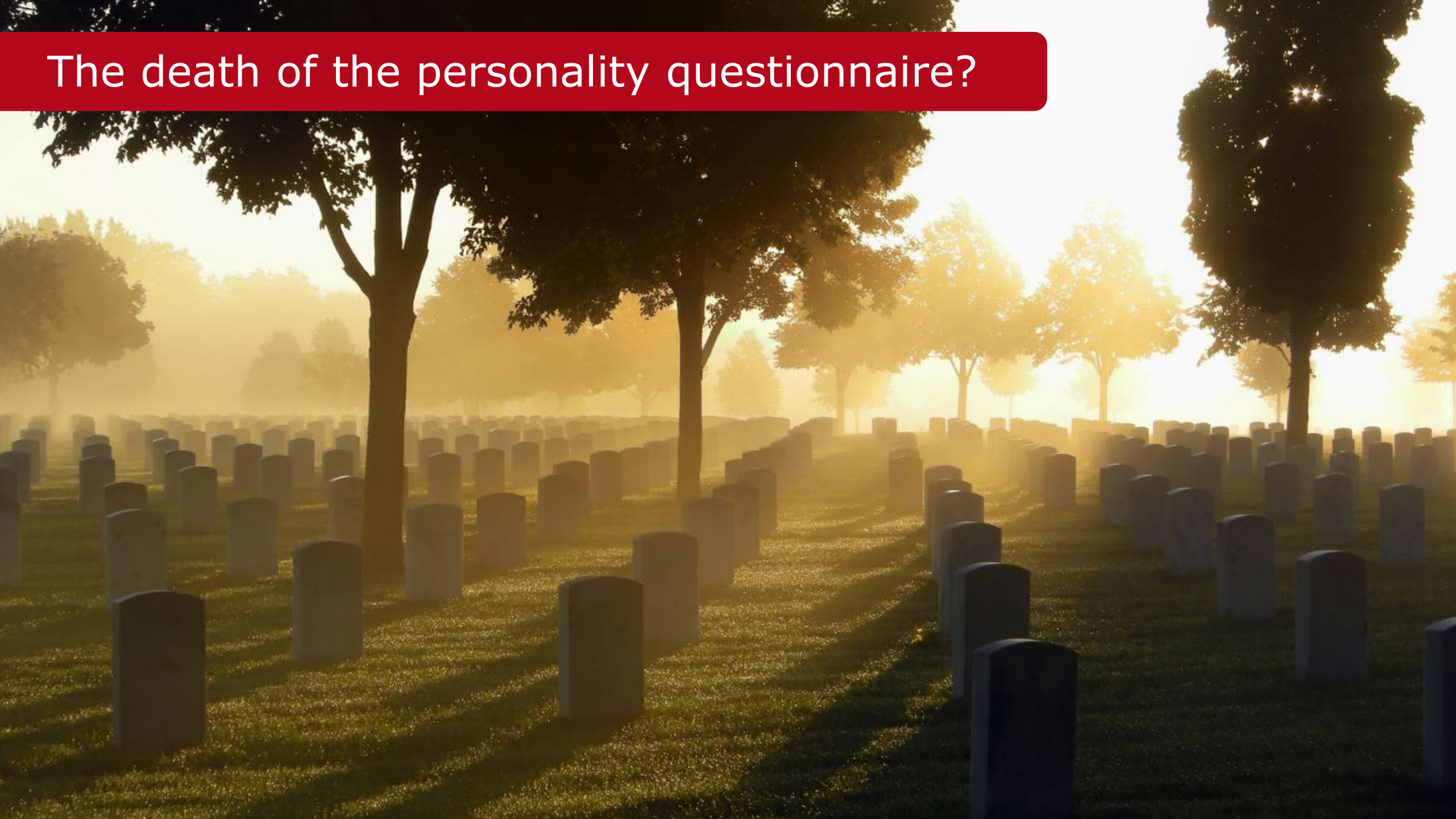
Accuracy, correlation with self-ratings  
(The number of Facebook Likes computer models need to achieve a higher accuracy)



Computers have learned how to assess human personality better than friends or family. Photo courtesy of University of Cambridge



The death of the personality questionnaire?





# AI and personality feedback

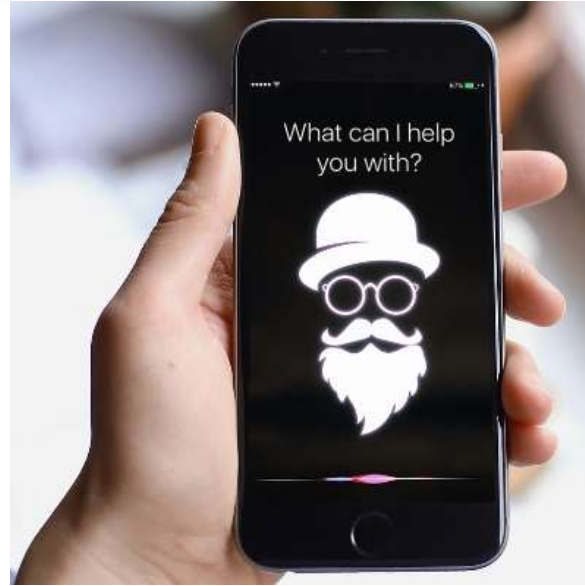


- Indexing and using existing content
- Expert interactive feedback
- Incorporating personality feedback into everyday life



# Adding personality to AI

- > Personal assistants
- > Social care robots



theguardian

Robot carers for elderly people are 'another way of dying even more miserably'

Michele Hanson

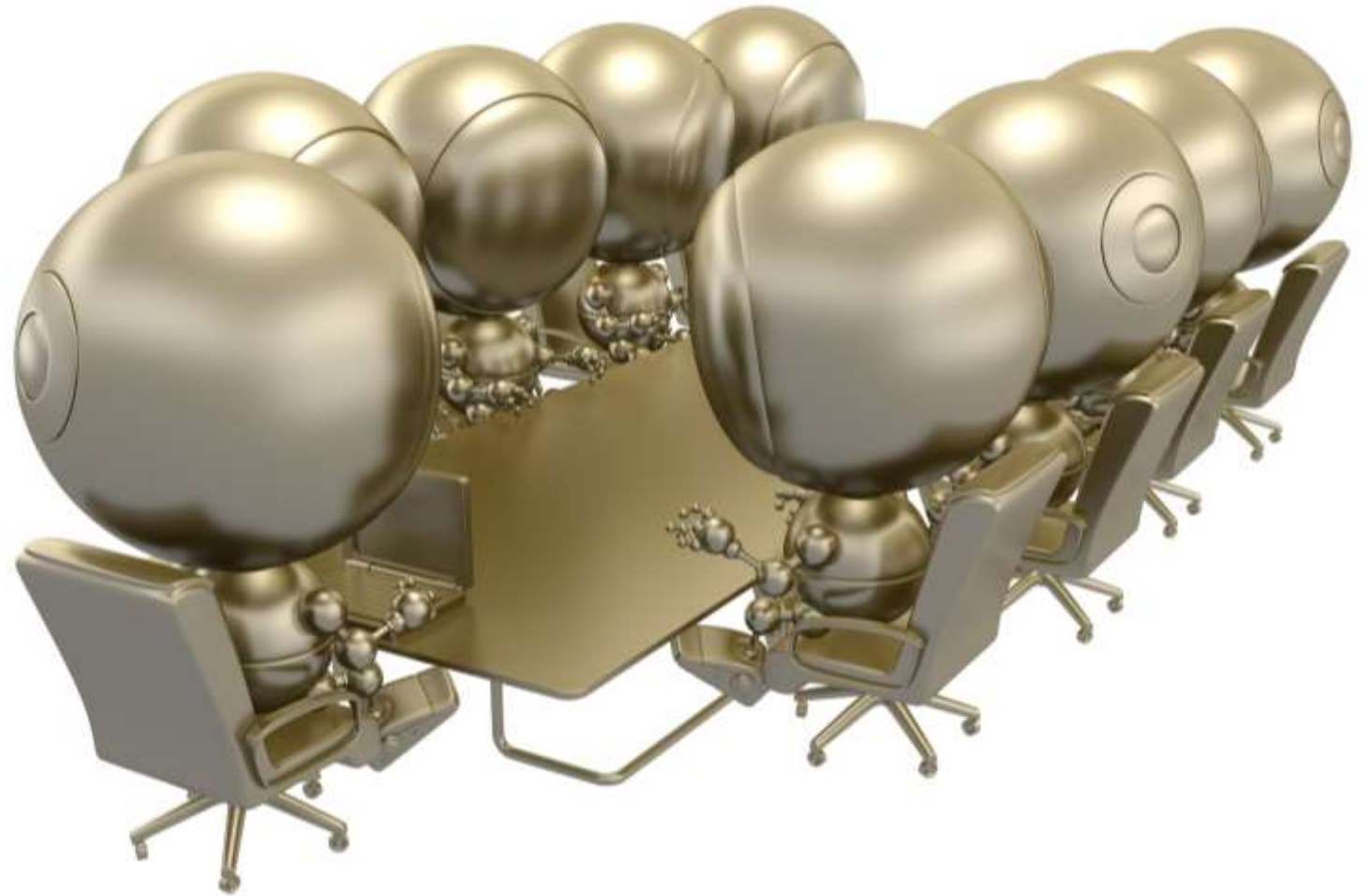
Japan has a robot with 24 fingers that can wash hair, while in Europe we're getting a 'social companion robot'. I'm going off for a little cry



# Adding personality to AI

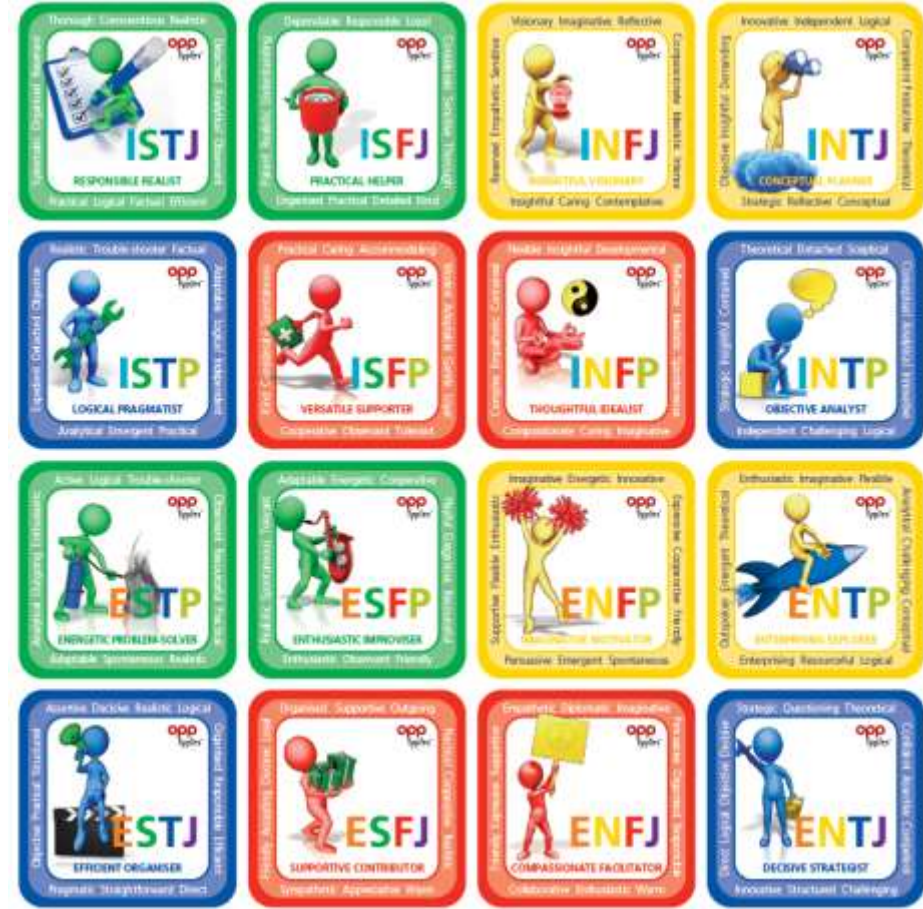
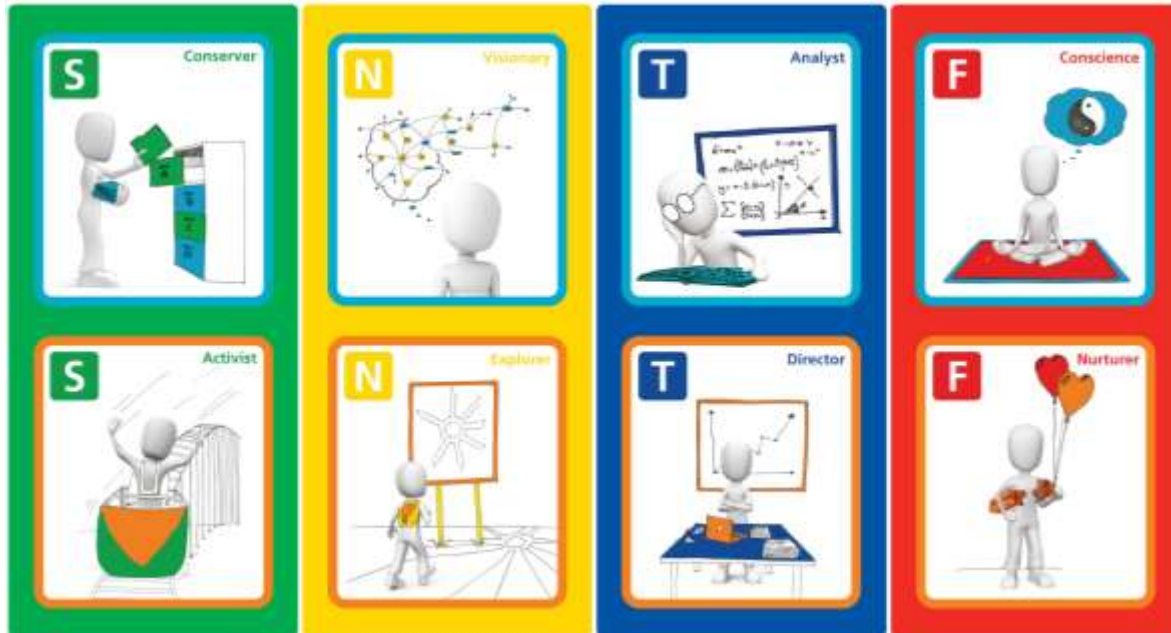


- > Personal assistants
- > Social care robots
- > Robot teams





# The MBTI® model as a basis for AI





# Ethical issues



What are the ethical issues (if any) in:

- Using AI for personality assessment
- Using AI in feedback
- Using the MBTI model to add personality to AI (e.g. social care robots)



# The simulation hypothesis



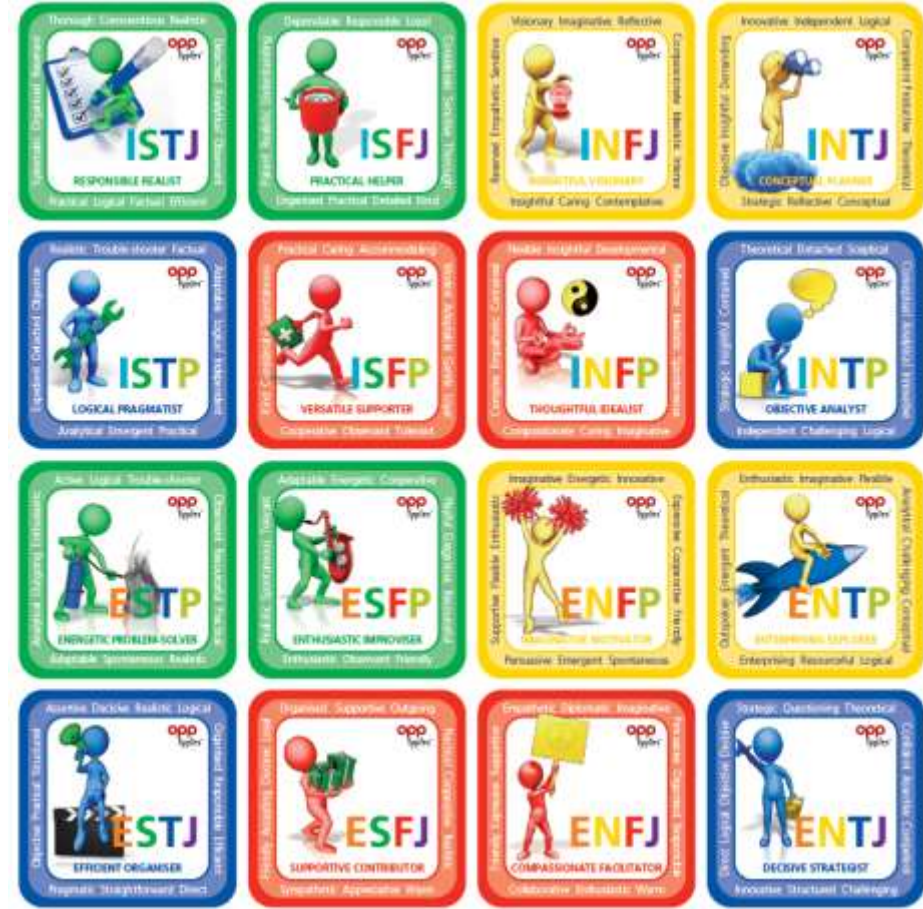
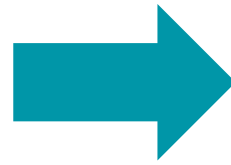
## How do you know you exist?

Nick Bostrom

- Will human civilisation(s) be able to run simulations?
- Will any of these run ancestor simulations?
- Then almost all people with our experiences are **simulations**



# The MBTI® model as a basis for... intelligence?





Thank you!

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