



# Beyond Results

Design considerations for scientifically  
valid games that empower users after play

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Friday, 23 August 2019

Interdisciplinary Workshop on Game-based Assessment

Minneapolis, Minnesota

# Partners

**Georgia Tech**  **Institute for People and Technology**

**ACT**<sup>®</sup>



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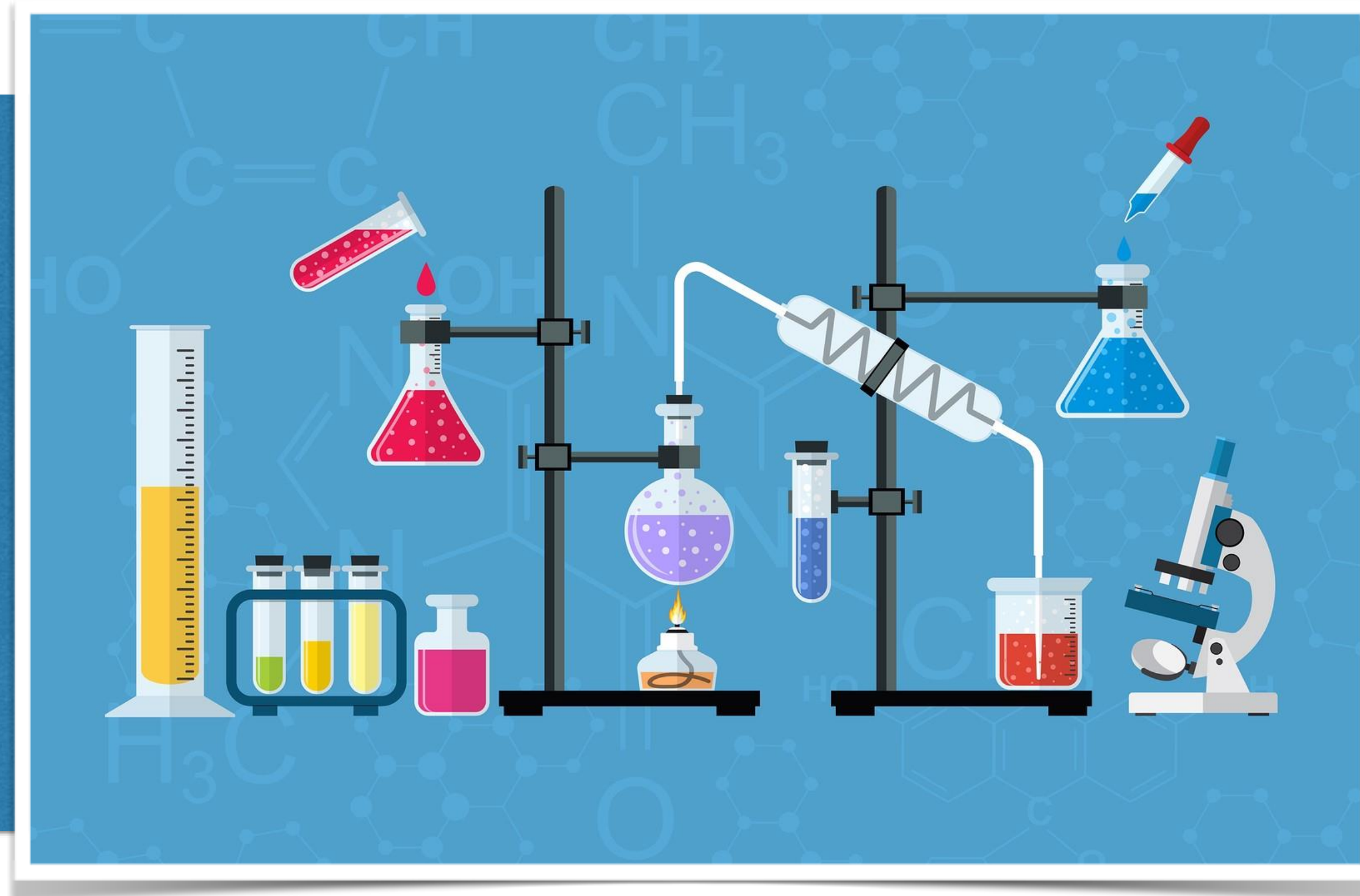
# Scope of our work

## Games as

- Valid, reliable experimental methods

## Feedback as

- Appropriate for age and experience
- Playful to encourage exploration
- Catalysts for self-empowerment and reflection



# Games as scientifically valid tools

- Game elements produce noise in data that we don't understand, which impacts validity
- Enemy avoidance, moving around, point collection, aesthetic, etc

# Game validity - method

- Online game study
- 212 participants, 18-58 years old
- Completed
  - Traditional assessment with HEXACO
  - Game-based assessment in 1 of 3 conditions



# Game validity - analysis

- **Validity of the gamified assessment**
  - **Score differences between traditional and game format**
- **Relationships between personality and gameplay**
  - **How personality characteristics might predict gameplay behavior**

# Was the game scientifically valid and reliable?

# Yes!

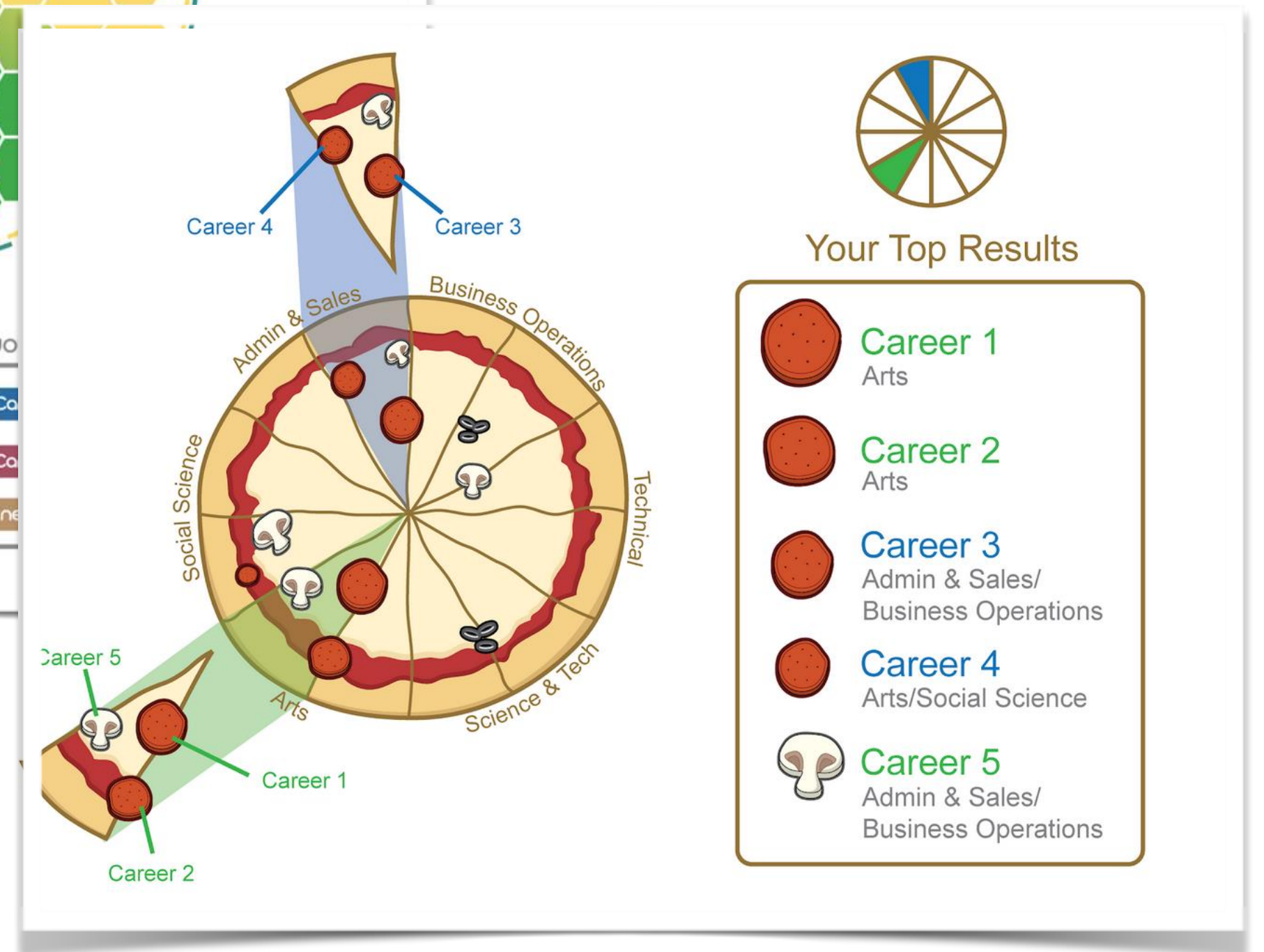
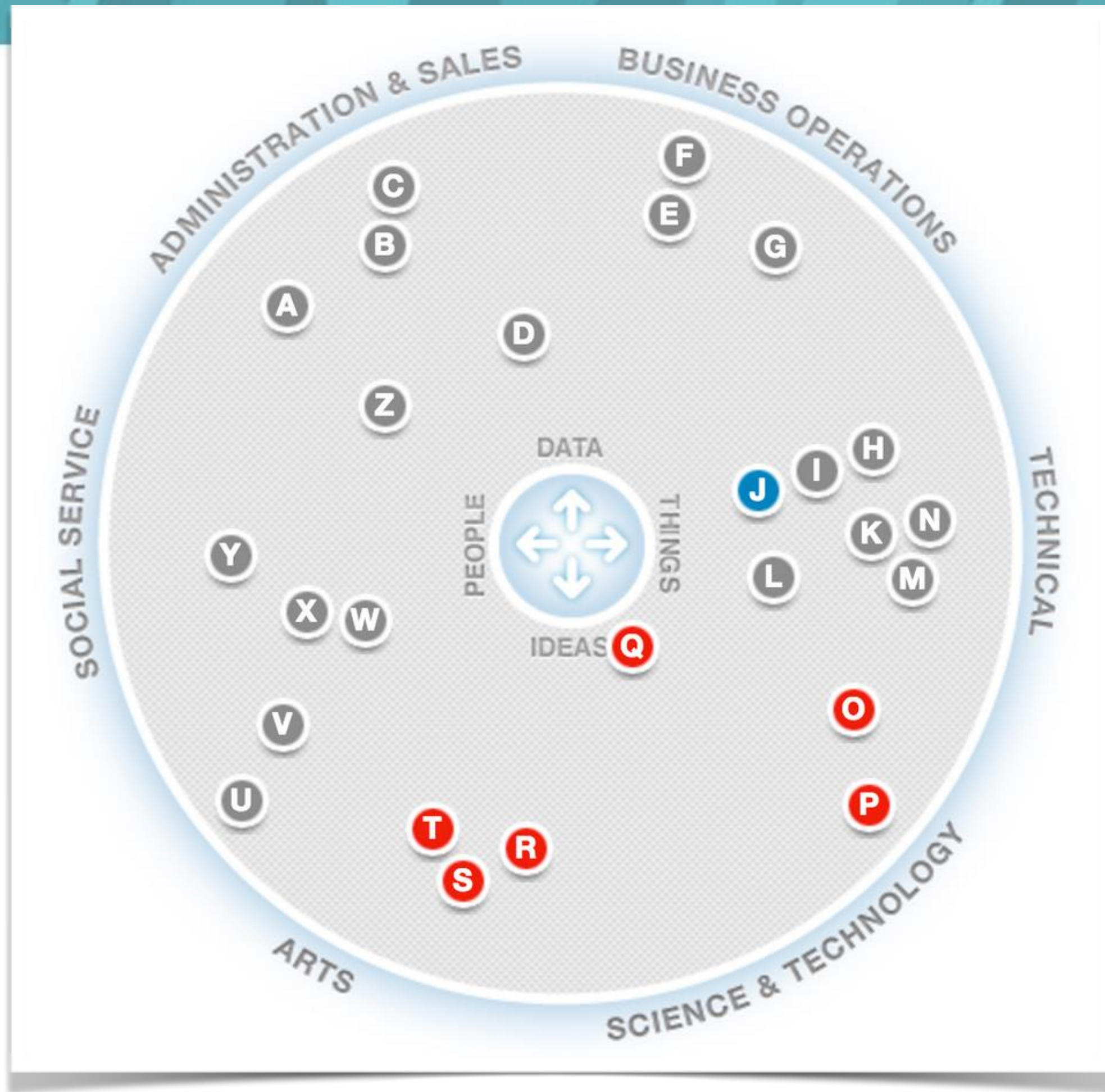
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- Levy, LM, Solomon, RES, Moore, J, Way, J, Liu, R, and Gandy, M. 2015. Actions Speak Louder than Words: An exploration of game play behavior and results from traditional assessments of individual differences. Paper presented at *Foundations of Digital Games Conference*, Pacific Grove, C.A.

# Now what?

- From an assessment game
  - Who gets the data?
  - What does it look like?
  - What do they do with it?
- What are the *attitudes* towards, *interactions* with, and *interpretations* of results?



# How do students perceive assessment feedback currently?



# How do students want to explore assessment feedback?

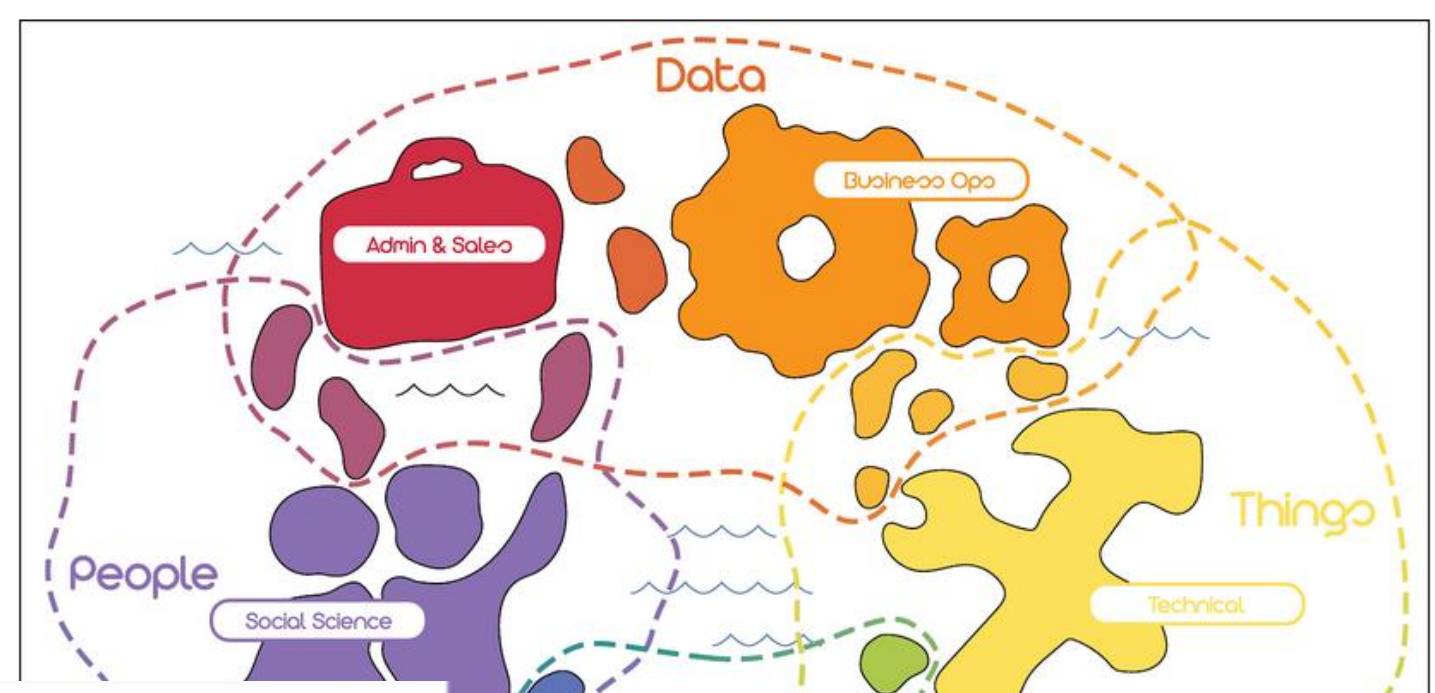
Sort by ▲ Passport

- Marketing Director
- Air Traffic Controller
- Research Scientist
- Grade School Teacher
- Journalist

Filters ▼

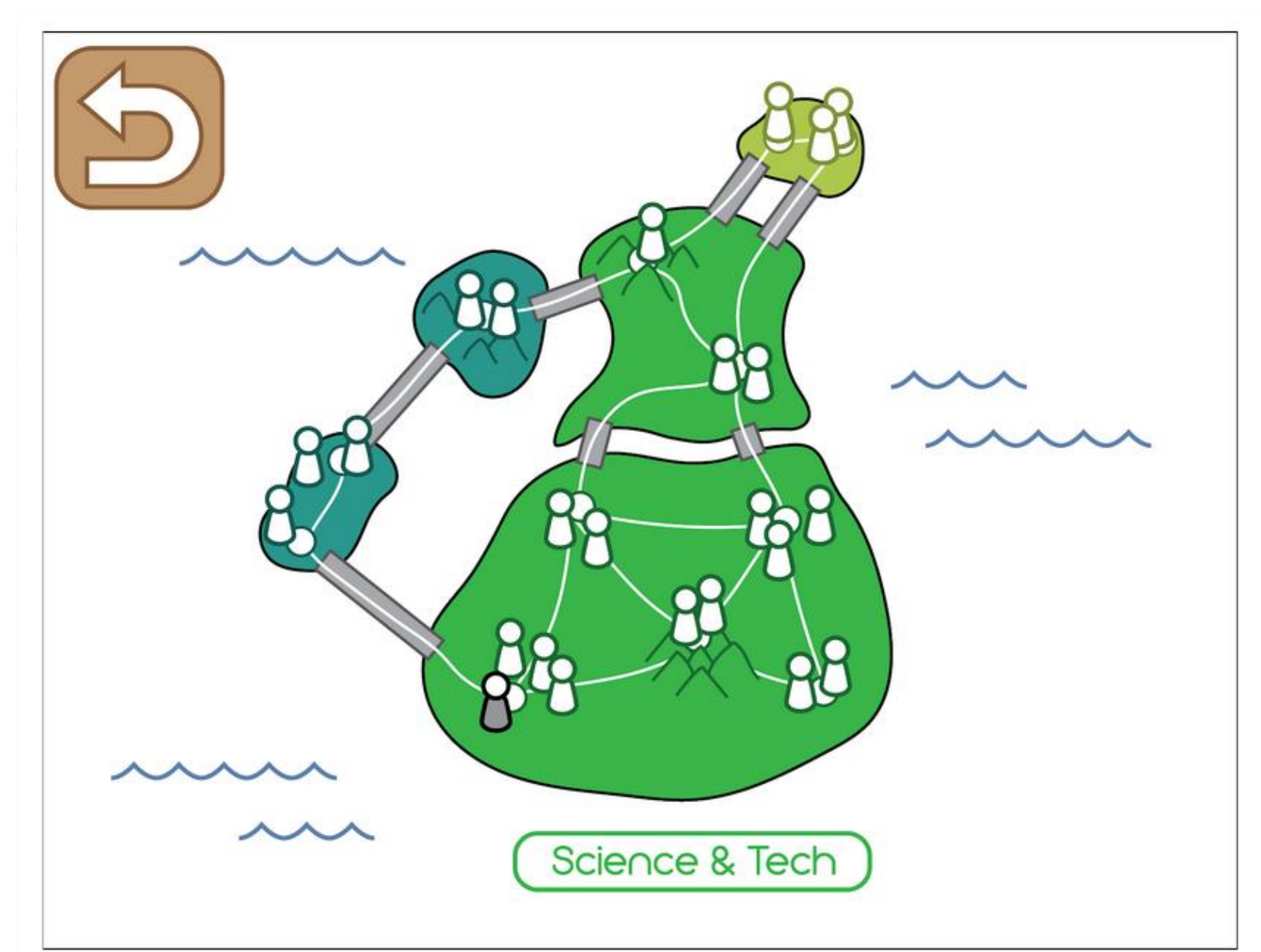
You might like

- Career
- Career
- Career



Passport

- Marketing Director  
Admin & Sales  
Last viewed: Aug 22, 2016
- Research Scientist  
Science  
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- Air Traffic Controller  
Business Ops  
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- School Counselor  
Social Science  
Last viewed: Aug 18, 2016
- Marketing Director  
Admin & Sales  
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Science & Technology

I'm an Research Scientist! What would you like to know about my job?

- Overview / Description
- Skills & Education
- Salary
- Work-Life Balance
- Day in the Life
- Challenges & Rewards

More topics

Passport

History

Sort by ▼ Filter

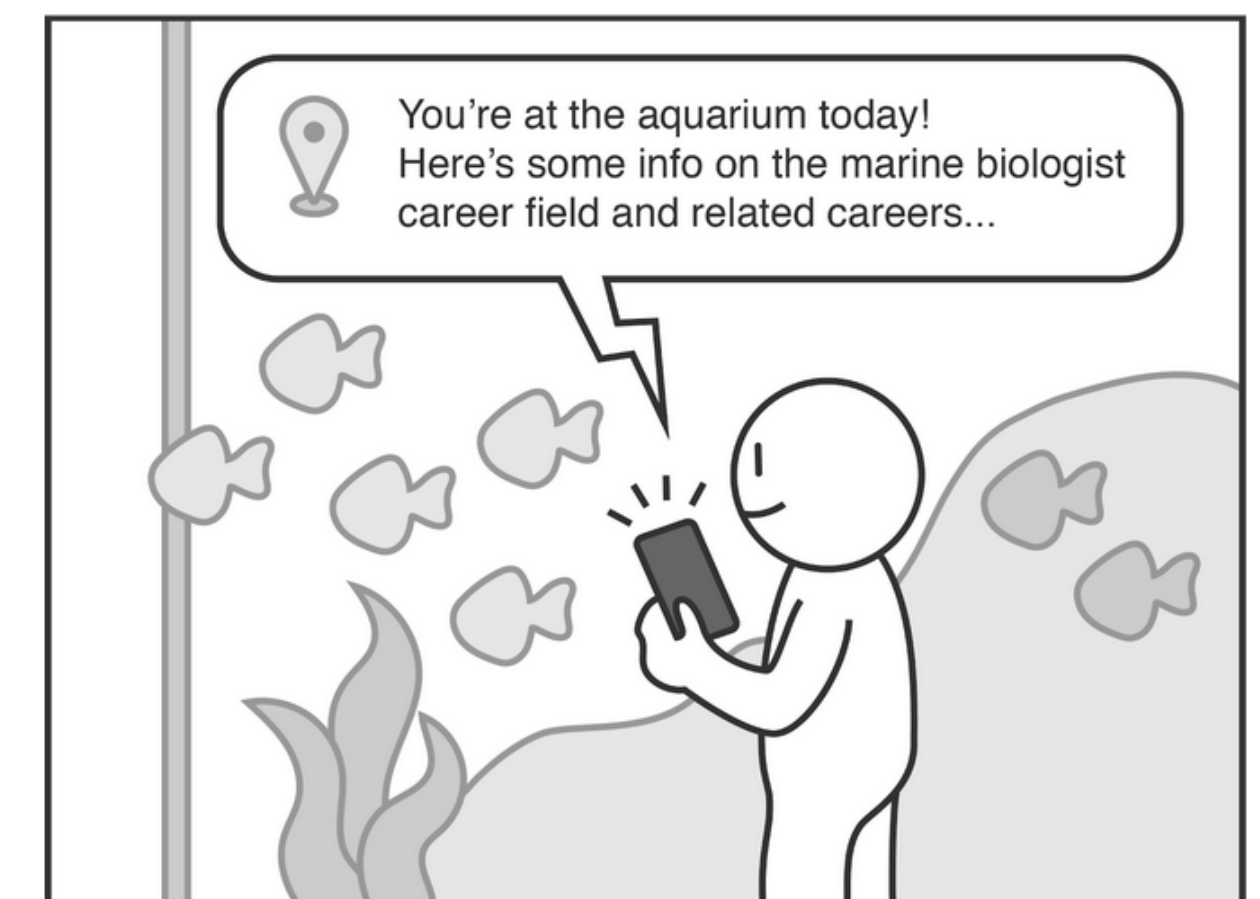
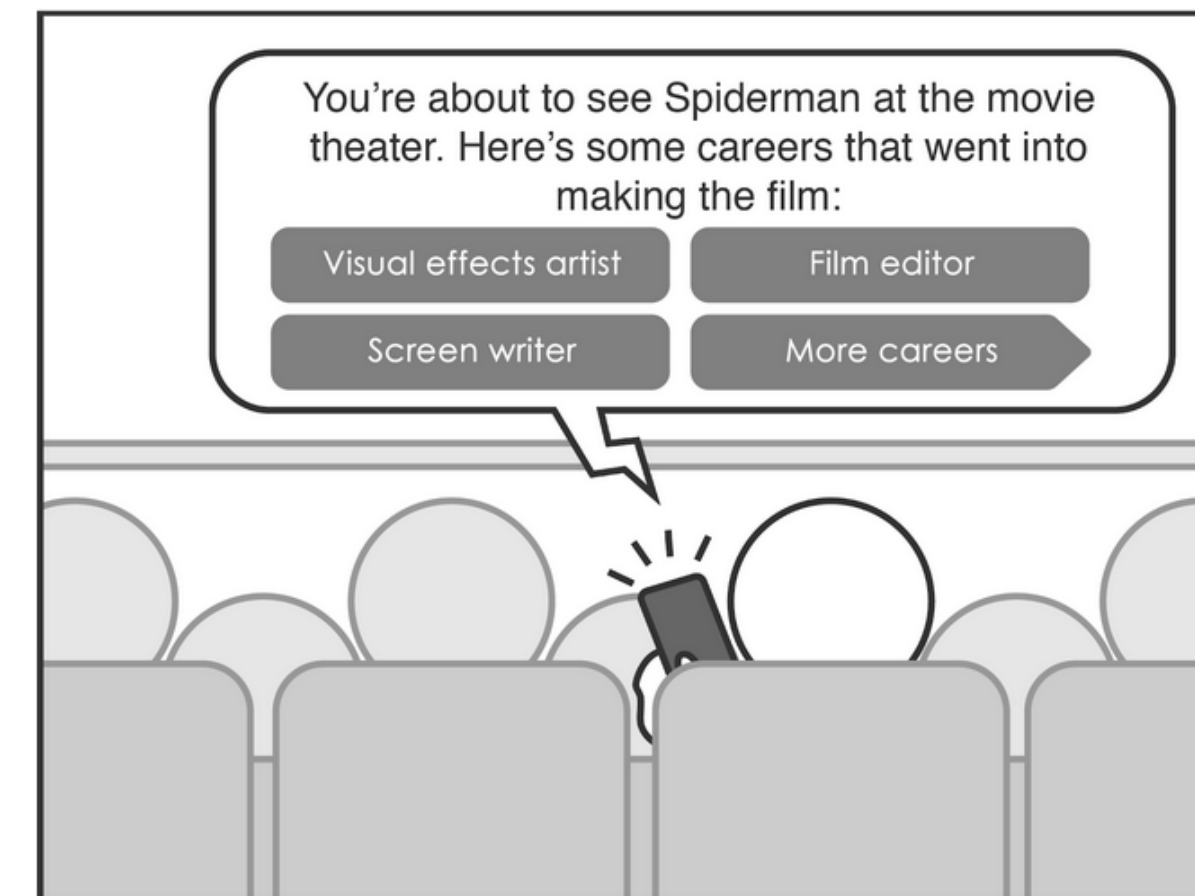
- Social Worker
- Writer
- Professor

My Results

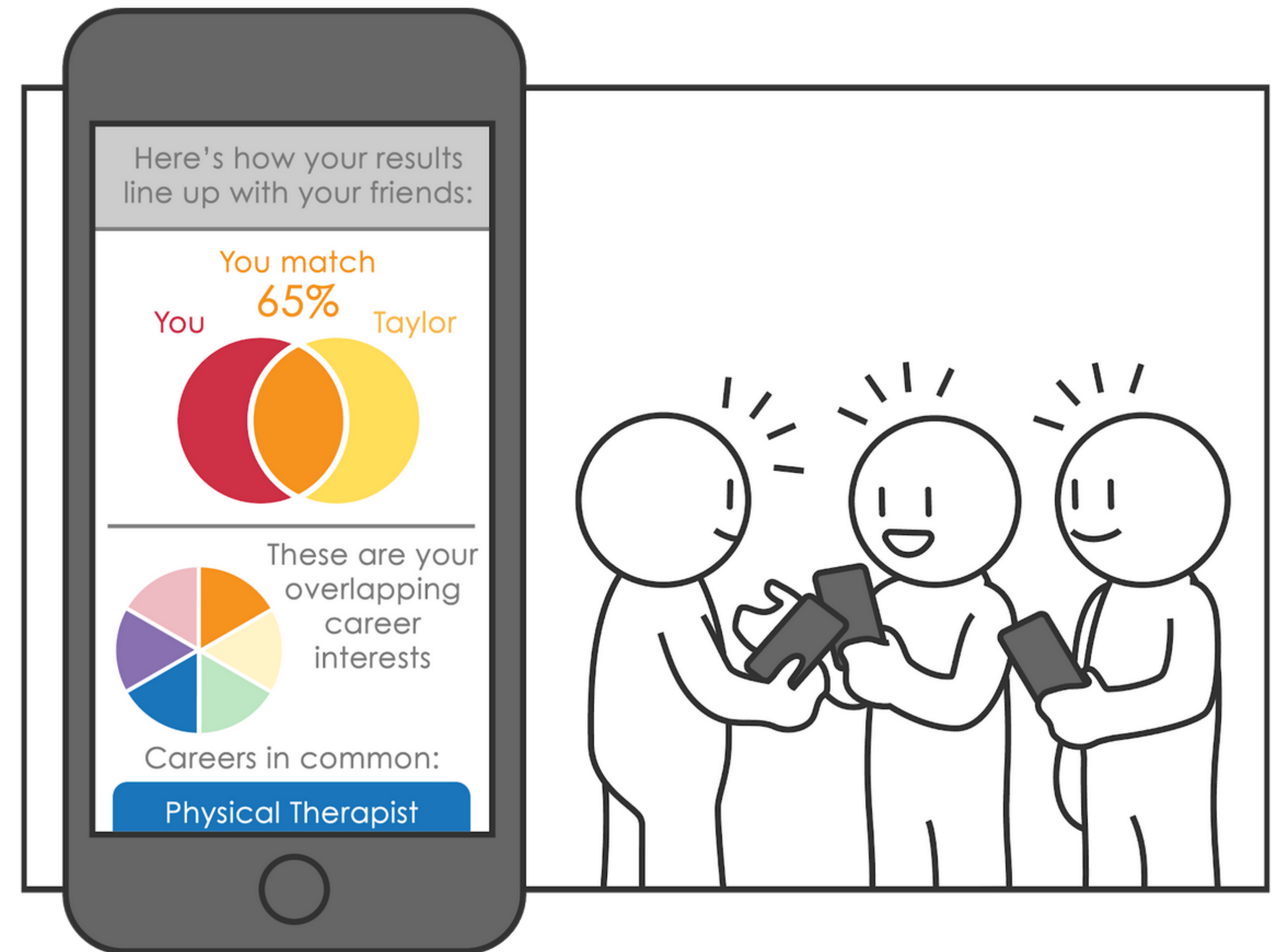
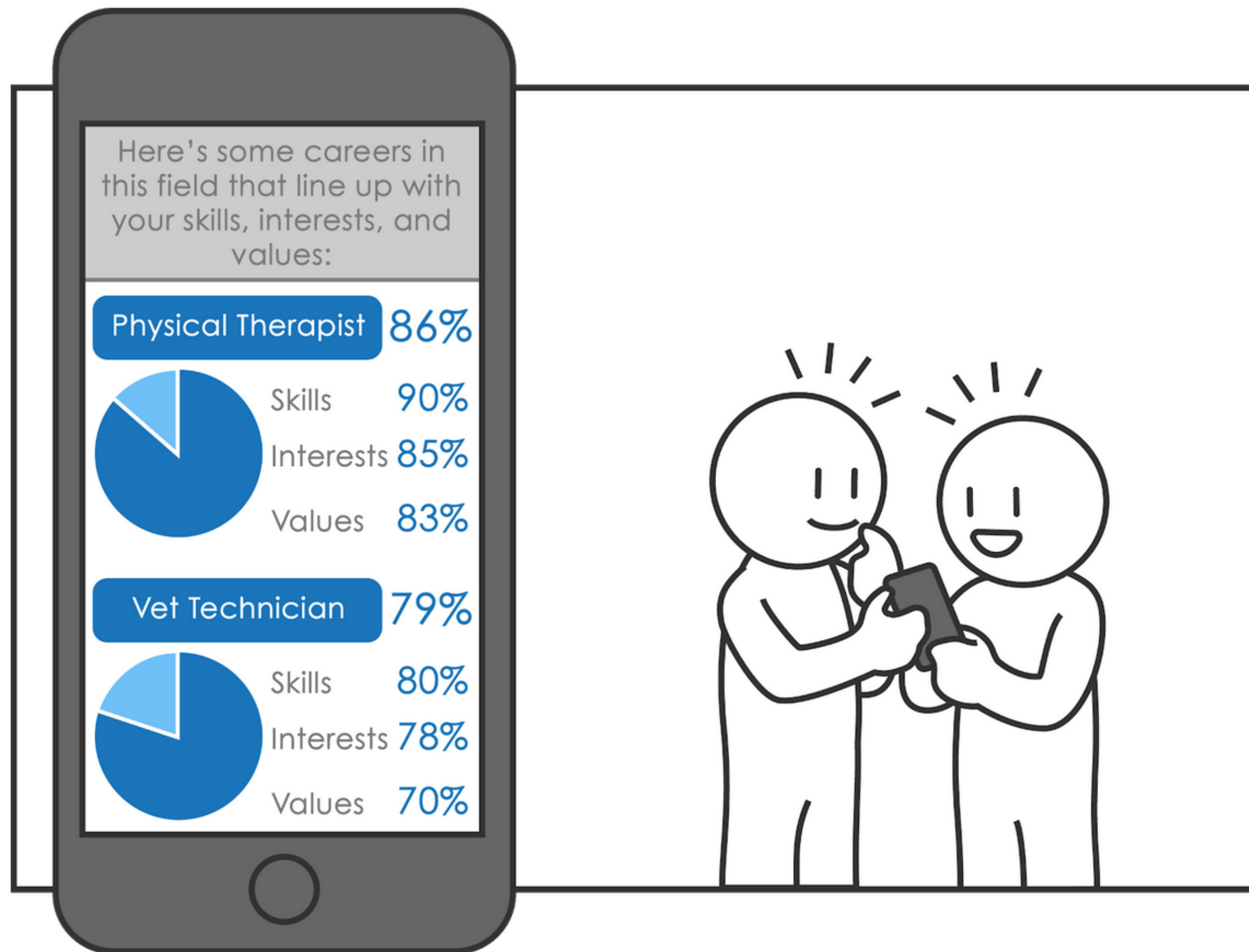
Explore

Share

# Context-aware mobile experience



# Context-aware mobile experience



# Conclusions

- Games can be designed to capture scientifically valid and reliable data
- Users should own that data and it be presented in a way that is accessible to them
- Interactive feedback to explore and grow with is desirable to students
- Social aspects of career exploration can be fun, but sometimes not wanted
- Similar tools could be useful for skill development, personal betterment, future of work

# Questions!



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## Acknowledgements:

Colleagues at ACT, Inc.

NSF Grant #0905127

