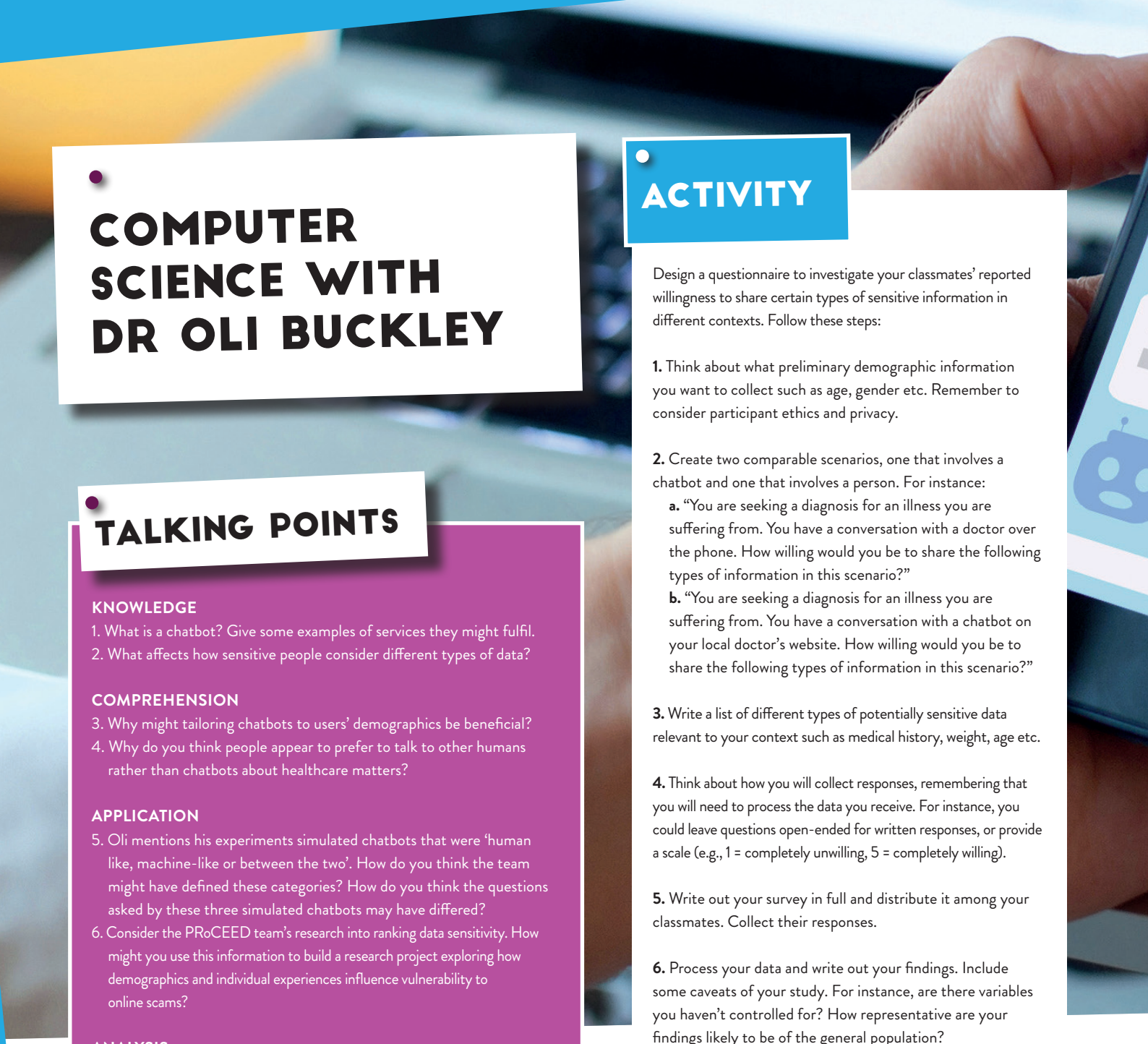

COMPUTER SCIENCE WITH DR OLI BUCKLEY

TALKING POINTS

KNOWLEDGE

1. What is a chatbot? Give some examples of services they might fulfil.
2. What affects how sensitive people consider different types of data?

COMPREHENSION

3. Why might tailoring chatbots to users' demographics be beneficial?
4. Why do you think people appear to prefer to talk to other humans rather than chatbots about healthcare matters?

APPLICATION

5. Oli mentions his experiments simulated chatbots that were 'human like, machine-like or between the two'. How do you think the team might have defined these categories? How do you think the questions asked by these three simulated chatbots may have differed?
6. Consider the PRoCEED team's research into ranking data sensitivity. How might you use this information to build a research project exploring how demographics and individual experiences influence vulnerability to online scams?

ANALYSIS

7. Why do you think research into technological development might typically be given preferential treatment compared to research into how people interact with technologies?

SYNTHESIS

8. Communication with the public about computer science research remains challenging, often due to entrenched attitudes within the sector. How would you customise a presentation that aims to convince talented but communications-sceptical computer scientists about the value of communicating their findings?

EVALUATION

9. Some believe that, as user interfaces have improved, younger generations are less computer-literate than slightly older generations in terms of understanding how computers work. From your personal experience, what evidence could you supply to support or refute this claim? What sorts of experiments might you use to test your hypothesis?
10. Oliver's team's research indicates that even the way a person uses a computer can reveal demographic information about them, such as age. Do you think this is a concern for cyber security? Explain your answer.

ACTIVITY

Design a questionnaire to investigate your classmates' reported willingness to share certain types of sensitive information in different contexts. Follow these steps:

1. Think about what preliminary demographic information you want to collect such as age, gender etc. Remember to consider participant ethics and privacy.

2. Create two comparable scenarios, one that involves a chatbot and one that involves a person. For instance:

- **a.** "You are seeking a diagnosis for an illness you are suffering from. You have a conversation with a doctor over the phone. How willing would you be to share the following types of information in this scenario?"
- **b.** "You are seeking a diagnosis for an illness you are suffering from. You have a conversation with a chatbot on your local doctor's website. How willing would you be to share the following types of information in this scenario?"

3. Write a list of different types of potentially sensitive data relevant to your context such as medical history, weight, age etc.

4. Think about how you will collect responses, remembering that you will need to process the data you receive. For instance, you could leave questions open-ended for written responses, or provide a scale (e.g., 1 = completely unwilling, 5 = completely willing).

5. Write out your survey in full and distribute it among your classmates. Collect their responses.

6. Process your data and write out your findings. Include some caveats of your study. For instance, are there variables you haven't controlled for? How representative are your findings likely to be of the general population?

7. Display your data. Can you create a graph, or is a different method of display more appropriate?

8. Present your findings to the group. Remember that all respondents should be kept anonymous.

MORE RESOURCES

You can find out more about the PRoCEED project, including its main aims and findings so far, here: **gtr.ukri.org/projects?ref=EP%2FS027424%2F1**

This article explains more about the growing role of chatbots in healthcare: **www.engati.com/blog/chatbots-for-healthcare**

This video from TEDx argues that an understanding of computer science is relevant for everyone and can be easy to gain. **www.youtube.com/watch?v=FpMNs7H24X0**