

GEOMATICS WITH DR STEPHAN WINTER

TALKING POINTS

1. How could research by Dr Stephan Winter improve computers? (see Introduction to the article)
2. How do humans and computers understand places? (see *Why can't computers understand the way we describe places?*)
3. What is Stephan developing for computers? (see *How is Stephan's research bridging the divide?*)
4. Name two problems that make it hard for computers to understand our descriptions of places (see *What makes this difficult?*)
5. How could this research save lives? (see *How could this research be useful?*)
6. Which other sciences are involved in geomatics? (see *What is geomatics?*)
7. Which industries need people who have been trained in geomatics? (see *Why would geomatics be a good career to go into?*)

ACTIVITIES YOU CAN DO AT HOME OR IN THE CLASSROOM

WHO IS BETTER AT DESCRIBING?

PART 1: With a friend, think of a place you both know – for example, your school, a local cafe or a favourite shop. Now, each write a description of where the place is and how to find it. How similar, or different, were your descriptions? Would a computer understand your descriptions?

PART 2: Use the voice interface on any devices you can use or borrow – phones, tablets and smart speakers – to ask for directions to your chosen place. How do the results differ on each device? How useful would the instructions be if you were driving or walking? If you do not own a smart speaker, try the Amazon Echo simulator at echosim.io.

WHAT MAPS CAN TELL YOU!

Visit Mapzone by Ordnance Survey to find out more about Geographical Information Systems and their practical uses in fighting crime, installing wind turbines, and making farms more environmentally friendly:
www.ordnancesurvey.co.uk/mapzone

National Geographic MapMaker Interactive enables you to display different information on a world map. You can display the territories of wild cats, locations of earthquakes and the average precipitation (rainfall) per year in countries around the world:
<https://mapmaker.nationalgeographic.org/>

Use the QGIS software to create a map showing where people with ill-health and disability in England and Wales live. You will use census data to create the map. Full instructions are provided here: <https://censusgis.wordpress.com/students/lesson-4-exploring-census-data-through-visualisation/>.

Note: you will need to follow some of the preceding lessons to understand how to use census data.