

GSL Public Lecture: 'Lost in translation - why talking about geoscience is so difficult' - Hazel Gibson

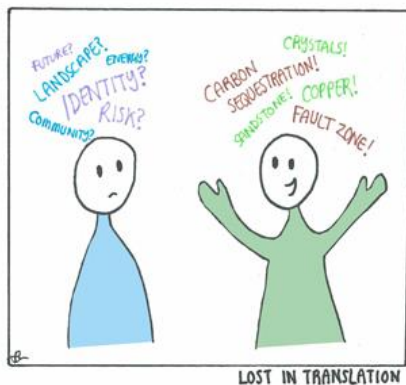
Monday 12 October - 14.30 BST

**Monday 12 October, 14.00 BST
Over Zoom
Details sent to registered delegates**

GSL Public Lecture: Lost in translation - why talking about geoscience is so difficult

For many, geology is an unfamiliar and intimidating subject. Most people don't think about geology until they have to, such as when they see it represented in dramatically destructive movies or think about the lurking threat of hazards, both natural and human-caused.

When members of the public are asked about geology, they often say that they don't know anything about it; so, when geoscientists need to talk about new geological technologies, geological resources or risk preparedness, they can at first find themselves facing a barrier of disengagement or fear. Even talking about the less controversial parts of our science can be a struggle, as non-geologists often seem to switch off just as you launch into your explanation of why ice is actually a mineral.



The problem is that conversations between geologists and the public aren't just desirable - they are essential. Combating the rise of misinformation around science subjects is a constant challenge, and it's not one that can be solved by throwing more facts into the ring.

The good thing is that there are ways to address these difficulties in translating our science, and geoscientists themselves are part of the solution. Geologists are more than a stereotype, and our diverse community holds the key to creating meaningful discussions between geoscientists and the public, by communicating values with the facts.

But in order for this to work, we as geoscientists need to understand how 'the gap' between experts and non-experts doesn't just come from a lack of public knowledge, but also from the way geoscientists think and talk about their subject. By acknowledging the role that all experts have in making our subject accessible and looking for the places where our own biases enable disconnection with the people we are speaking to, we can draw geoscience into the public, where it belongs.

Hazel Gibson - Sustainable Earth Institute

Dr Hazel Gibson is the Communications Officer for the European Geosciences Union. She has previously worked extensively around public perceptions of geoscience and science communication, including studying geothermal power, subsurface visualisations and the influence of regional geological heritage.



Combining experience in industry and science communication with an interdisciplinary research approach, Hazel has developed a whole new understanding of how expert and non-expert geoscientists conceptualise the geological subsurface and how that understanding can be used to improve the effectiveness of our communications.

Reading List:

- Bucchi, M., (2008) Of deficits, deviations and dialogues: Theories of public communication of science. In Handbook of public communication of science and technology (pp. 71-90). Routledge.
- Bullock, O.M., Colón Amill, D., Shulman, H.C. and Dixon, G.N., 2019. Jargon as a barrier to effective science communication: Evidence from metacognition. Public Understanding of Science, 28(7), pp.845-853.
- Frodeman, R., (1995) Geological reasoning: Geology as an interpretive and historical science. Geological Society of America Bulletin, 107 (8), pp.960-968.
- Gibson, H., Stewart, I.S., Pahl, S. and Stokes, A., 2016. A “mental models” approach to the communication of subsurface hydrology and hazards. Hydrol. Earth Syst. Sci, 20, pp.1737-1749.
- Kahan, D.M., Jenkins-Smith, H. and Braman, D., 2011. Cultural cognition of scientific consensus. Journal of risk research, 14(2), pp.147-174.
- Lacchia, A., Schuitema, G. and McAuliffe, F., 2020. The human side of geoscientists: comparing geoscientists' and non-geoscientists' cognitive and affective responses to geology. Geoscience Communication, 3(2), pp.291-302.

- Nisbet, M.C. and Scheufele, D.A., 2009. What's next for science communication? Promising directions and lingering distractions. *American journal of botany*, 96(10), pp.1767-1778.
- Seigo, S. L. O., Dohle, S., Diamond, L., & Siegrist, M., (2013) The effect of figures in CCS communication. *International Journal of Greenhouse Gas Control*, 16, 83-90.

GSL Lyell Collection Special Publications

- Geology for society in 2058: some down-to-earth perspectives
<https://sp.lyellcollection.org/content/early/2020/03/09/SP499-2019-40>
- Today in Thailand: multidisciplinary perspectives on the current tsunami disaster risk reduction
<https://sp.lyellcollection.org/content/early/2020/02/28/SP501-2019-97>
- Enhancing scientific and societal understanding of geohazards in Sri Lanka
<https://sp.lyellcollection.org/content/early/2020/01/31/SP501-2018-177>
- A psychosocial perspective on community resilience and preparedness in the context of earthquakes in Turkey
<https://sp.lyellcollection.org/content/early/2020/03/02/SP501-2019-110>
- Good and bad practice in the communication of uncertainties associated with the relationship between climate change and weather-related natural disasters
<https://sp.lyellcollection.org/content/305/1/19>