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Eroding the bedrock of our profession?: learning and teaching about rivers in the age of AI

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Daearyddiaeth a Gwyddorau Daear | Geography and Earth Sciences

The age of AI is here.

How well equipped are we for the potential – indeed, inevitable – changes in learning and teaching that natural language processing tools like ChatGPT and Bard will bring about?

With our backgrounds as university lecturers and educational consultants, we argue that AI poses both threats but also many opportunities for learning and teaching about river geomorphology, and also many other aspects of physical geography and the wider geosciences.

Using examples of educational activities and approaches based around investigations of Welsh river potholes – roughly circular depressions eroded in the rocky beds and banks of turbulent, upland rivers – we show how ChatGPT can be ignored, acknowledged, or embraced in our attempts to stimulate critical thinking and other essential skills.

ChatGPT can also be employed in some more frivolous activities that nonetheless may have educational value.

These activities and approaches have been designed for field, classroom and online contexts, and draw on the sciences, social sciences, the humanities and the arts in an attempt to develop a more creative, blended perspective on rivers that can go beyond what is traditionally taught in physical geography or geosciences curricula. Wider lessons may apply: irrespective of our particular backgrounds and interests, AI will force us all to think very carefully about which traditional educational activities and approaches we wish to retain, adapt, develop or jettison.

In the age of AI, the bedrock of our profession may be subject to some erosion but, as a consequence, broader and/or entirely new learning and teaching pathways also may be created.

