

Complexity, Uncertainty and Wonder: Physical Geography for Grown-ups of All Ages

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Starting point:

- The world is more interesting than my newly arrived undergraduates have been led to believe!
- The world is complicated, we don't understand all of it, and scientists often don't agree.
- Students don't appreciate that uncertainty and controversy are important and exciting.
- Widely used A-level text books ignore recent science and simplify things to the point of being wrong.

Conclusions:

- The world being complicated is exciting, important, and need not be overwhelming.
 - The world is also very simple. We can find underlying themes and principles that provide us with a clear framework for understanding.
 - To oversimplify the world is to do it, and our young explorers, a serious disservice.
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- Glaciers provide a valuable case study for teaching, but the rapidly moving research frontier that makes it exciting for students to learn makes it hard for textbooks and teachers to keep up.
 - We should explore opportunities for resources that bridge the gap, via collaboration between Schools and Universities.
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- Geography isn't *completed* yet: we are still finding things out.
 - Our challenge, as guides, is to find ways of helping the explorers to be excited by uncertainty and controversy in the subject, not ignorant of it or growing up to be scared by it.
 - We don't need a "junior version" of the world: Physical Geography is a subject for grown ups, whatever their age.