

Digital Geography and Geographic Information System in Schools: Towards a Hierarchical Geospatial Approach

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Abstract : This paper examines the opportunities of using a more hierarchical approach to geospatial enquiry in using GIS in school geography. A case is made that it is not just the lack of teacher technological knowledge that is stopping some teachers from using GIS in the classroom but that there is a gap in their understanding of how to link GIS use more specifically to the pedagogy of teaching geography with GIS. Using a hierarchical approach to geospatial enquiry as a theoretical framework, the analysis shows clearly how concepts of spatial distribution, interaction, relation, comparison, and temporal relationships can be used by teachers more explicitly to capitalise on the analytical power of GIS and to construct what can be interpreted as powerful geographical knowledge. An exemplar illustrating this approach on the topic of geo-hazards is then presented for critical analysis and discussion. Recommendations are then made for a model of progression for geography teacher education with GIS through hierarchical geospatial enquiry that takes into account beginner, intermediate, and more advanced users.

Keywords : digital geography, GIS, education, hierarchical geospatial enquiry, powerful geographical knowledge

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