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Sustainability and findability of important global geoscience information standards

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Important global geoscience information standards are developed, managed and governed by the Commission for the Management and Application of Geoscience Information (CGI), a commission under the auspices of the International Union of Geological Sciences (IUGS). CGI's standards include logical data models such as GeoSciML and EarthResourceML. These data models are supported by controlled vocabularies, currently numbering more than 50 with another 50 in various stages of preparation. Much of the development of the GeoSciML model and attendant vocabularies was influenced and showcased by the international OneGeology initiative. Similarly the EarthResourceML model and supporting vocabularies development occurred with the European Union's Minerals4Eu project. Without supporting initiatives and project like these, CGI struggles to maintain, let alone develop geoscience information standards yet these standards are influencing geoscience data management around the world. CGI is heavily reliant on the participation of individuals whose host organisations support their involvement. Without iconic cooperative projects, this support can erode. CGI is also reliant on server infrastructure provided by Geoscience Australia to publish and serve its geoscience vocabularies. This currently works well for both parties but nevertheless represents a single point of failure. The sustainability of CGI standards is open to several points of vulnerability.

Another challenge for CGI relates to the findability of its standards. CGI vocabularies are strongly FAIR-compliant, including scoring nominally very well in terms of being Findable. Yet this has not translated into visibility in a data-saturated world. There are many alternative geoscience vocabularies available for more localised needs, and while many of these reference CGI vocabulary terms and sources, locating truly international standards is difficult to the uninitiated.

CGI, through a strategic thought process, is realising that promotion of its standards is an increasingly important part its business. The leadership of the International Science Council and CODATA working with various international unions may be able to help with sustainability and findability of international standards, potentially providing information resources that improve visibility and findability.

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