

ONEGEOLOGY: SHARING GEOLOGY ON A GLOBAL SCALE

Ian Jackson

OneGeology

ABSTRACT: Few of the scientific and environmental challenges we face recognise political or science domain frontiers, and if we want to assess and address these challenges holistically then we need access to holistic geoscience data too.

Rich geoscience data does exist in the disparate repositories of nations, but when they are available (and in many instances it is exceptionally difficult to discover), then they exist in different analogue and digital formats and via different services, with different access conditions. The capability to develop and implement geoscience information management, analysis and delivery systems varies greatly across the institutions and nations of the world too.

OneGeology is a global initiative to improve the accessibility of one fundamental geoscience dataset - geological map data. It is improving the interoperability ("share-ability") of that data and last, but certainly not least, the transfer and exchange of know-how and experience to achieve these things through state-of-the-art web services.

Since its inception in 2006 OneGeology has been hugely successful and 117 nations are now participating, with more than 50 of those nations serving more than 250 geological datasets to a global and dynamic web map portal. To some such work may not seem too scientifically ambitious and the achievements none too ground-breaking. However, to draw that conclusion would be to fail to comprehend the technical, logistical, cultural and political challenges of a project that attempts deployment internationally, and especially one that seeks to build capacity in the developing world.

Sharing, applying and disseminating our knowledge will be crucial to the future success of geoscience. Without improved internet access to scientific data and the improved interoperability of that data, life in a digital world will be severely limiting for geoscientists and the users of their science. OneGeology is a project which has relevance to geoscience and beyond, not only because it can deliver data, but because the sharing concept at its core is central to the future of all multi-disciplinary science. Increasingly in our 21st century world, innovation happens at the edge.