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comment

Interactive comment on "Retrospect and prospect of a section-based stratigraphic and palaeontological database – Geobiodiversity Database" *by* Hong-He Xu et al.

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Novel big datasets are more critical for interdisciplinary research than ever before. One of the significant advances in the era of artificial intelligence is deep learning. The basic structures of deep learning, such as the multi-layered perceptron and the methods of back-propagation, were formalised theoretically thirty years ago. However, the lacking of massive data and insufficient computing capacities limited the potential of the model. In the last decade, with the advent of large amounts of data and powerful GPUs, the potential of deep learning is rediscovered, and it is being applied to many domain research such as in medical, biology, chemical engineering, and others. As

a researcher from the computing community, I see many research opportunities with the GBDB dataset. They are spatiotemporal dataset with rich information such as the hierarchical data (Taxonomy of species). The stratigraphic data is featuring and interesting. The authors provide clear data structures, distribution, and Geospatial visualisation. I am expecting to collaborate with the experts explore the hidden but new knowledge from the dataset with advanced data science and artificial intelligence technologies.

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