A Collective Vision for the Future: GeoJournals, an Online Aggregate of Fully Interlinked Geoscience Society Journals

The future of geoscience society journals is at a turning point, and the path taken will profoundly influence the geosciences. In planning for the future, GSA has been working with the American Association of Petroleum Geologists, the Society for Exploration Geophysicists, the Mineralogical Society of America, and SEPM—Society for Sedimentary Geology to explore publishing scientific literature in a way that will make it more accessible and easily usable for professional scientists, students, and all members.

One of the primary purposes of scientific societies is to disseminate scientific research. For publications, students and professionals increasingly rely on electronically available literature, in many cases almost exclusively. Many journals are interlinked and searchable, providing benefits not possible through print publications. To continue our mission of disseminating scientific research results in the future and to preserve past scientific literature, it is imperative that geoscience societies publish online, convert past issues to electronically searchable formats, and integrate their journals into a common aggregate.

Readers want the ability to go seamlessly between journals—to click on a reference in the paper they are reading and be taken instantaneously to the referenced paper, regardless of the journal. When doing research, we are usually interested in a topic, not in a specific journal article. When we see a reference that looks as if it will give us the information we want, we would like to be able to easily access that article. If it isn’t what we are looking for, we want to go back to the original article easily and keep reading. If it is, we want to be able to use the new article to continue moving through the literature until we find everything of importance to us. When reading an article for its content, it would be great to be able to check whether the references really do support the arguments. Certainly, instances of misquoting should decrease if this is easily checked! In addition, we want to be able to search all of the geoscience literature for a specific topic and to easily access the results of our search. Through the Web, we have learned to expect easy linking and searching; commercial publishers have shown that such expectations are reasonable. Many geoscience societies now have their journals online, and some have search and/or interlinking capabilities within their own set of publications, but this limited accessibility does not meet our growing expectations.

Our collective vision is to create an electronic geoscience publication aggregate with a wide disciplinary breadth that will include the peer-reviewed, high-quality publications of geoscience societies, both nationally and internationally. Within this aggregate, references would be fully interlinked and all content will be searchable. We also want to make back issues of all geoscience society publications available online and to have them fully linked with the current literature. Citation statistics show that citing of articles increases for 5 to 7 years and then gradually declines. Thus, cross-linking of references to back issues and the ability to search and easily link to them is important. Plus, electronic access to past literature is crucial to its continued use in the future.

Initially, the aggregate would be composed of journals, but eventually would include books, maps, and as much available digital geoscience data as possible.

The site should be the first and last place to search for publicly available, high-quality, noncommercial, digital geoscience data. We envision major societies working in partnership to spearhead the formation of the aggregate and to help bring smaller societies online with support from industry and other sponsors. When combining our efforts, we can also merge our growing technological abilities to make articles interactive—published with three-dimensional images, data sets, or maps with multiple layers that can be manipulated by the reader.

An electronic geoscience publication aggregation will increase the value of geoscientific society publications to the greater geoscience community and make them more accessible to a wider audience (i.e., industry, developing countries, scientists in different disciplines), thereby resulting in a much greater readership. We believe that formation of such an aggregate is an essential step in meeting our mission of disseminating scientific research results in the future and that this aggregation will have the most powerful impact on our science in many decades.