Effective E-Learning for Geoscientists in the Global Multi-Generational Workplace

Susan Smith Nash
American Association of Petroleum Geologists, P.O. Box 979, Tulsa, Oklahoma 74101-0979

ABSTRACT

This paper discusses e-learning for geoscientists in a rapidly changing world, and describes the types of web-based distance learning that can be most effective and affordable for individuals in diverse, distributed workplaces. In addition to formal learning settings, the paper discusses the aspects of informal learning that can be employed by geoscientists, and instructional design that aligns with multiple learning styles, generational characteristics, and learning goals and objectives.

INTRODUCTION

E-learning can be a highly effective and affordable way to provide high-quality geoscience education and professional development. However, there are a number of considerations to keep in mind while developing e-learning programs for geoscientists in a multi-generational workplace.

GENERATIONAL BELIEFS AND MISCONCEPTIONS

While it can be said that cohorts who share the same formative experiences, such as historical events and engagement with emerging technologies, share a certain worldview, it is reductive to say that all have the same attitude toward information technologies and communication strategies.

For example, it is common in today’s workplace to act on the belief that older workers are technology-resistant, and that all younger workers are “digital natives” with a natural desire to work with technology. What such stereotyping does is miss the point that many older workers have adapted to wave after wave of technological innovation, and are comfortable with using an integrative synthetic approach that incorporates many different levels and kinds of computer technology. It also misses the point that younger workers may be comfortable with the kinds of writing and research required in their education, and may be adept at text-messaging using cell-phones and capturing and sending images and videos via their smartphones, but may have little or no experience with the kinds of information architecture/networks, security and access protocols, software programs, and information/content management that one finds in today’s distributed workplace.

The sweeping statement that older and younger generations are different in their approach to information technology and training also misses the point that all who work with Internet-based information exchange have, at least to some degree, become comfortable with informal learning. Informal learning is often perceived as more effective and relevant than formal learning. As a result, some of the negative attitudes and resistance to formal learning, particularly with respect to software, may be a natural response from those who have found that they have learned very well on their own. Informal learning is generationally-independent.