This paper describes the results of a pilot quantitative international comparative study that investigated how STEM educators in Canada, China and Korea view the roles of technology in their teaching. The study incorporated the Technological Pedagogical Content Knowledge and Deliberate Pedagogical Thinking with Technology frameworks to emphasize that in addition to the relevant knowledge necessary for effective use of educational technologies, teachers have to acquire positive attitudes towards its impact on student learning. The results of this pilot indicate that according to the self-reports of 195 Canadian, Chinese and Korean STEM educators who participated in this research, they have significantly different levels of pedagogical, content and technological knowledge, as well as are offered significantly different opportunities for incorporating technology in their teaching. The opportunities for support and technology-related professional development for STEM teaching also vary dramatically among the participants. Most importantly, STEM educators in these countries have disparate perceptions of the role of technology in STEM: Canadian educators focus on technology as a tool to promote individualized student learning, Chinese educators view the main goal of technology use as improving documentation of student learning, and Korean educators view technology as a tool to promote student content knowledge. While the sample of this pilot was rather limited, this study identified directions for the future study. This paper reports on the first pilot project in a forthcoming series of international comparative studies that will investigate how teachers in Canada, China and Korea view and utilize technology to promote their pedagogical goals.

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