International Journal of Science and Mathematics Education (IJSME)

Call for Papers of 2017 Special Issue

STEM for the Future and the Future of STEM

Guest Editors

Prof. Frances Lawrenz University of Minnesota

Prof. Koeno Gravemeijer; Eindhoven University of Technology; Netherlands

Prof. Michelle Stephan, University of North Carolina at Charlotte

Research about the future of STEM education is a rich field. A population with strong understanding of STEM is key to the successful future of the world. Effective life-long STEM education is the mechanism for providing that understanding. There are many innovative ideas for structuring STEM education in the future and it is opportune to consider the broad array of possibilities. The latter may encompass both considering how we can use what we know, and considering how STEM education may prepare students for a future society. The National Academies of Sciences in the USA (www.nap.edu) has published several reports on the former, often referred to as, the future of STEM, which could provide foundational information. On the latter, which we may denote as, STEM for the future, publications are less abundant. This Special Issue intends to bring together both perspectives. We welcome papers on empirical research (including qualitative, quantitative and mixed methods), secondary analysis, theoretical or philosophical position papers, and review articles on the emerging paths for STEM education worldwide. These papers may focus on both STEM as an integrated subject or one of the constituting disciplines. Researchers working in the following areas are encouraged to submit articles:

- International perspectives and trends in STEM
- Globalization and computerization effects on STEM
- Innovative learning environments for STEM education
- Involvement of diverse groups in STEM
- Optimizing the effectiveness of STEM learning
- Assessing the effectiveness of STEM learning outcomes and impact
- Preparing teachers for STEM education of the future
- How best to integrate, or not, STEM within its components and with other disciplines
- Reviews of existing research to envision the STEM education now and future needs
- Theoretical or philosophical position papers about STEM education for the future

The due date for paper submissions is **October 15, 2016**. People intending to submit articles to the 2017 Special Issue should contact Frances Lawrenz by **July 15, 2016**. All special issue manuscripts will be reviewed in a double-blind review process. IJSME manuscript guidelines @ http://www.springer.com/education+%26+language/mathematics+education/journal/10763