EDITORIAL: Expanding spheres of influence- the zenith, the nadir and everything in-between

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The Montana Mathematics Enthusiast has now entered its fifth year in existence. The changes the journal has been through since its inception has been healthy, especially it's ever increasing sphere of influence in the intellectual community. Being a meticulous keeper of journal records, I have watched with both awe and enthusiasm (no-pun intended) on the far reaches from the world the journal has been accessed. In terms of the number of countries the journal has been accessed from, we have reached a zenith at 102 give or take a few. Last week for the very first time the journal was accessed from Niger, Senegal, Chad and Algeria. While this was pleasing from a statistical (rarity) point of view, there was nevertheless a pang of regret that the journal has so far under-represented three regions of the world, namely Africa, South America and Southwest Asia – and this is our statistical nadir.

Several changes are evident. The editorial board has been expanded to include mathematics education researchers outside the Anglo-American domain of influence. The journal now exists in a print form, published by Information Age Publishing, in addition to the online version remaining free to the community. Presently efforts are being channeled at soliciting manuscripts from researchers in Southwest Asia, Africa and South America. I have received e-mails of interest from colleagues in Turkey and Iran interested in publishing their work in mathematics education in English. In addition, a focus issue on statistics education around the world has materialized as a result of the International Conference on Teaching Statistics (ICOTS-7) in Brazil. Vol.6 of the journal will include several papers from researchers in South America and Central Europe who participated in ICOTS-7. Another focus issue in the works is Non-European mathematics, which will include submissions from colleagues in the African continent.

At a recent conference in Germany, I received some very flattering compliments about the journal. I was asked if there was any particular issue that was representative of the true aims and scope of the journal. This issue [vol.5, no.1] represents the true spirit of the journal both in terms of its content and the geographic reach. The description of the journal states that it "exists to create a forum for argumentative and critical positions on mathematics education, and especially welcomes articles which challenge commonly held assumptions about the nature and purpose of mathematics and mathematics education." To this end, in this journal issue, I am proud to present to the readers an entire forum on the topic of **Ethics and Values in Mathematics Teaching and Learning**. The forum grew out of a provocative submission from Ted Eisenberg, which resulted in a critique from Renuka Vithal and insightful commentaries from Wolff-Michael Roth and Brian Greer. The process followed to handle the "sensitive" nature of Eisenberg's manuscript is commented on by Ted himself in his paper. Essentially an open peer review process was structured where the author was told the identities of the reviewers and vice versa.

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The product of this strategy is the stimulating forum presented in this issue. I would like to personally thank Ted Eisenberg, Wolff-Michael Roth, Brian Greer and Renuka Vithal for being willing participants in this project. In addition Alan Bishop and Kurt Stemhagen have contributed papers pertaining to the issue of ethics and values in mathematics education.

This journal issue represents all continents except (regrettably) South America. Murad Jurdak (Lebanon) contributed a paper entitled "The Action Map as a Tool for Assessing Situated Mathematical Problem Solving Performance" which is rooted in activity theory. The other feature articles include a paper from M.K. Akinsola (Botswana) on a study conducted with pre-service teachers on the psychology of problem solving. Both these papers are quantitative in nature and adequately portray the place of such methodologies in mathematics education. At the other end of the spectrum the issue has three theoretically based reflective papers. Kristin Umland reflects on the current state of research in the area of mathematical cognition. Yuichi Handa's article reflects on teaching a poorly conceived lesson in relation to the literature on comparative lesson study. The featured Montana article by David Davison and Johanna Mitchell analyzes philosophies of mathematics emerging from the ongoing "math" wars and reform efforts in the U.S.A. They analyze "How is Mathematics Education Philosophy Reflected in the Math Wars?"

Another special paper in this issue is a practical application of the thought experiment of Imre Lakatos to mathematics education classrooms. The paper from South Korea by Jaehoon Yim, Sanghun Song and Jiwon Kim on mathematically gifted elementary students' revisiting of Euler's polyhedron theorem explores how the constructions of mathematically gifted fifth and sixth grade students using Euler's polyhedron theorem compare to those of mathematicians as discussed by Lakatos in *Proofs and Refutations*. In their study, eleven mathematically gifted elementary school students were asked to justify the theorem, find counterexamples, and resolve conflicts between the theorem and counterexamples. This journal issue also includes two articles aimed at practitioners in the classroom on the geometric nature of proof by Sue Waring and Steve Humble (a.k.a Dr. Maths in the U.K).

I hope that the 166 journal pages that comprise this issue do not represent a zenith but indicate to the community that interest in mathematics education is present in the far reaches of the globe- and that the journal's philosophy of open access and a spirit of community has been instrumental in fostering interest in under-represented regions of the world in publishing their research. The journal will continue to work on its sense of agency in making the world of publishing a more equitable enterprise for under represented voices and issues in the ongoing mathematics education debates.