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*Undergraduate Mathematics Education in 21st Century — Rethinking Curriculum : Introduction*

Despite the rapid changes of communication, technology and information, Hillel (2002), reporting on the Working Group on “Trends in Curriculum” at the 1999 ICMI Study on Teaching and Learning of Mathematics at the University Level states:

”A fairly accurate picture of undergraduate mathematics is that, by and large, it is still dominated by the ‘chalk-and-talk’ paradigm, a careful linear ordering of course content, and assessment that is heavily based on final examination. Even the highly publicized ‘computer revolution’ has not really made a sweeping impact on mathematics. . . . That said mathematics in 1999 looks a lot more like mathematics in 1939 than is the case with any of its sister sciences.” (p.64)

Furthermore, Hillel (2002) adds that, ”Steen has written that ‘strong departments find that they replace or change significantly half of their courses approximately once a decade’ and ‘as new mathematics is continually created, so mathematics courses must be continually renewed’ (Steen 1992). These on-going updates to the curriculum can be regarded, in a sense, as ‘deterministic’ aspects of curriculum change, ones that do not put into question the purpose, goals, and means of undergraduate education.” (p. 61)

In this mathematics education session, we will reflect and criticize on the present-day university curricula and think about possible directions for the near future.

Hillel, J. (2002). “Trends in curriculum” in *The Teaching and Learning of Mathematics at University Level*, D. Holton, Ed. Springer Netherlands, pp. 59-69.