**Use of ICT in Mathematics Education**

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**Aim:**

The proposed research group aims to promote the use of ICT in teaching and learning of mathematics. The group will also conduct research to inform the practice of technology-enhanced mathematics instruction.

**Themes:**

The use of ICT can strengthen mathematics teaching and learning. It is worth noting that, however, ICT is not a panacea for all education ills. The proposed research group thus aims to promote strategic use of ICT in mathematics education. Such strategic use focuses on facilitating students’ mathematics learning, instead of forcefully imposing an “e” to students’ learning or teachers’ practice.

The themes of the proposed research group cover both content-specific and content-neutral educational technology. For the content-specific educational technology, some representative tools include dynamic geometry software (e.g., GeoGebra), programming tools (e.g., Scratch), and data handling application (e.g., Spreadsheets), among others. Taking dynamic geometry software as an example, it allows users to draw and manipulate figures accurately and easily. Students are thus able to observe their geometric properties and relationships. As for the content-neutral one, the technologies generally relate to multimedia learning (e.g., instructional videos), communication (e.g., online discussion forums), and collaboration (e.g., web-based co-authoring documents). A mathematics flipped classroom, for example, should have leveraged these technologies to facilitate students’ mathematics learning before class (i.e., watching quality instructional videos; discussing mathematics problems online; solving mathematics problems in groups via Google Docs).

**Activity Plan:**

The proposed research group will (1) invite scholars and experienced mathematics/STEM teachers to share their ideas about the use of ICT in mathematics education through seminars and/or workshops (in an online or face-to-face mode) and (2) conduct research on the use of ICT in mathematics education and disseminate good practice through conference presentations and journal articles.