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Michael S Waters* (watersm1@nku.edu), Northern Kentucky University, Department of Mathematics, AST 355, Highland Heights, KY 41099. *Teaching Mathematics in a Technological Society.*

Due to advancements in technology, some topics in mathematics become more important (or possible) because technology makes them so. This manuscript explores some of those topics, examines the implications on mathematics teacher preparedness, and proposes ways to improve mathematics teachers' knowledge in light of current trends in technology.

Particular topics of mathematics explored are dynamical systems, discrete mathematics, exponential and logistic functions, complex algorithmic procedures, fractals and chaos theory, linear algebra and matrix theory, statistics, cryptology, and the mathematics of crime. Current levels of teacher preparedness are examined from the viewpoint of technological savvy, confidence, and use in the classroom. Types of technology reviewed are computers, mathematics and/or dynamic software, calculators, and computer algebra systems. The author suggests possible outlets for professional growth in areas of mathematics that require or are enhanced by technology. (Received July 07, 2005)