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Mathematical Hobbies for the iGeneration

Today's school kids are addicted to tech tools like Google, Twitter, Facebook and the Smart phones. It is our collective responsibility to embrace the kids of this smartphone generation and to make them take interest in hobbies related to mathematics. I still remember my high school hobby of mathematical philately. But our kids today may not even know what philately means because we do not use postage stamps anymore. Times have changed and we need to reorient ourselves to teach our kids new ways of "seeing" mathematics everywhere. In this presentation, I would like to share some of my thoughts as how to respond to these new challenges and opportunities. Smart phones are great as teaching tools. I strongly believe that there is a use for photography in the math classroom – another way to get kids engaged. Once properly guided, our students will realize that the world is full of mathematics: parabolic shapes of the water fountains, catenaries of famous arches, curvy architectures, dome geometries, sun flowers, sea shells and even hand-carved formulas. Using the graphic calculator apps, one can make real-world connections by importing images from the built-in camera (or photo library) and overlaying graphs and equations on them to appreciate the mathematics underlying the real world. A smartphone math class, math photo competition and a math photo exhibition can be arranged to encourage the students to take part in such innovative activities.