Have your science go viral! On-line surveys and social media to teach science

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Some of the most important and controversial questions of the 21\textsuperscript{st} century involve science. Stem cells, climate change, peak oil, and biomedical ethics are debated in many arenas. We need to give students the tools and opportunities to become informed citizens and make thoughtful contributions to these discussions. In this poster, I report on an activity having students create a survey on the science and ethics of embryonic stem cells. After creating the survey, students used social media sites to quickly amass hundreds of responses within days! Surveying the public on controversial biology topics connects science learning to students’ communities and contextualizes classroom science to broader societal issues. In addition, using social media to recruit respondents provided a large data set to explore the public’s viewpoints and knowledge surrounding stem cells. This activity enabled students to test hypotheses, analyze data, and determine how to visualize their findings. This activity has been successful in college classes with non-science and biology majors and could be effective in classrooms covering a broad range of topics. Instructors could also utilize short surveys to sample the public’s understanding of scientific concepts. These data could be used as a starting point to a unit or reveal common conceptions on topics such as photosynthesis, genetics, or evolution.