

1125-P5-3033

**Michael C. Barg\***, Dunleavy Hall, Rm. 339, Niagara University, NY 14109. *Find, Process, and Share: How an ODE Project led to Student Engagement in the Vidale-Wolfe Marketing Model.*

In a first undergraduate ODE class, one often learns about traditional problems in physics and biology. What does one do when the interests of their students lean more toward finance, economics, and marketing than the sciences? A project can help! To have students acquire the ability to interpret and communicate results, I introduced a reading/writing project into my course. The students are asked to Find, Process, and Share an article where relevant mathematics is discussed. One such project led to the Vidale-Wolfe marketing model, a model that appealed greatly to some of my students. While accessible mathematically at an elementary level (the ODE is first-order, linear and non-homogeneous), the context is non-standard, but quite alluring to “non-science” oriented students. Pushing slightly deeper into the model, one quickly encounters an interesting application of Green’s theorem! In this talk, I will describe the project and its implementation. I will discuss the Vidale-Wolfe model and suggest how it might enable students to see the value of some of their Calculus III knowledge. To demonstrate the efficacy of the project, data from my last three sections of the course will be presented. Additional anecdotal evidence and commentary from students will also be provided. (Received September 20, 2016)