Chapter 4
NASA*Talk* as a Discovery Learning Space:
Self-Discovery Learning Opportunities[1]

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ABSTRACT

The NASATalk online collaborative (www.nasatalk.com) gives educators a virtual place to talk about the many opportunities available from the National Aeronautics and Space Administration (NASA). NASATalk participants include K-16 educators, NASA-affiliated educators' support staff, and others interested in advancing STEM (science, technology, engineering and math) education. This chapter examines the self-discovery learning opportunities afforded by NASATalk for a three-day professional development workshop from the perspectives of the NASATalk team members, two NASA Aerospace Education Services Project specialists, and the workshop participants. For the conference, NASATalk hosted a public collaborative named the NASA STEM Educators Workshop as well as several blogs. The analysis discusses how various needs are met for orientation and entry, learner decision making, individuated learning, intercommunications and collaboration, and original discovery in the NASATalk content collaborative. A professional virtual community emerges where educators gathered onsite to receive instruction, but they turned to NASATalk to share their ideas and experiences by posting articles, blogs, comments, multimedia, links, and other educational resources.

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INTRODUCTION

This chapter describes a model of the NASA*Talk* online content collaborative. NASA*Talk* is a Web 2.0 site where educators can come to share ideas, suggestions, success stories, and even frustrations about using National Aeronautics and Space Administration (NASA) resources to enhance science, technology, engineering, and mathematics (STEM) teaching and learning. While NASA provides hundreds of educational outreach resources related to aeronautics and flight, ecosystems, forces and motion, life sciences, engineering design, the solar system, the Moon, and weather and climate, these resources can be difficult to locate and often need some adaptation to fit the needs of the educator.

NASA*TALK* BACKGROUND AND MILESTONES

The NASA*Talk* online collaborative (www.nasatalk.com) gives educators a virtual place to talk about the many opportunities available from the space agency. As a collaborative, the site invites teachers, parents, or informal educators such as Scout or 4-H leaders, and NASA-affiliated educators to participate, whether communicating with other educators, reading blogs from fellow teachers and educational researchers, or even creating their own blog. The vibrant site thrives through the contributions of its participants.

As a content collaborative, NASA*Talk* serves as a forum for discussions about educator experiences using NASA educational resources. The open source Joomla-based website provides a professional virtual community of practice for educators using and/or inquiring about NASA educational resources for their K-16 STEM educational settings. NASA*Talk* participants include K-16 educators, NASA-affiliated educators' support staff, STEM content experts, and others interested in advancing STEM education.

NASA*Talk* is designed and managed by the NASA-sponsored Classroom of the Future at the Center for Educational Technologies (CET) at Wheeling Jesuit University in Wheeling, WV. The idea for NASA*Talk* grew out of a 2006 Classroom of the Future™ educational technologies study that profiled effective use of new tools to support STEM learning, with primary focus on NASA science and technology innovators (Ruberg, Calinger, & Howard, 2009). As a result of the guidelines for best practice that resulted from the study, NASA wanted to test a web-based collaborative where educators could discuss how they use NASA resources in their classroom along with what works and what doesn't. Development for the virtual community, originally called the EdTech Collaborative, began in 2007. The EdTech Collaborative site debuted in 2008.

In October 2009 the Classroom of the Future changed the EdTech Collaborative site name and Joomla-based presentation to NASA*Talk* to make its focus clearer to the target audience. The NASA*Talk* name more clearly implies the intent of the virtual community—a place to discuss educational resources related to NASA STEM materials. NASA*Talk* goals align with its Classroom of the Future project proposal.

NASA*Talk* System

Joomla is a free content management system that serves as the core software backbone of NASA*Talk*. It is written in PHP and utilizes MySql for data management. Websites created with Joomla have a good amount of flexibility. The source code is open and may be modified by developers to fit their specific needs.

Presently, the NASA*Talk* website is running Joomla Core version 1.5.20 along with Mighty Extensions, a third party advanced management system to manage users, content, subscriptions, etc. Plugins for the site include the NASA and NASA Earth Observatory Images of the Day and Tweetboard. NASA*Talk* also has a development server.