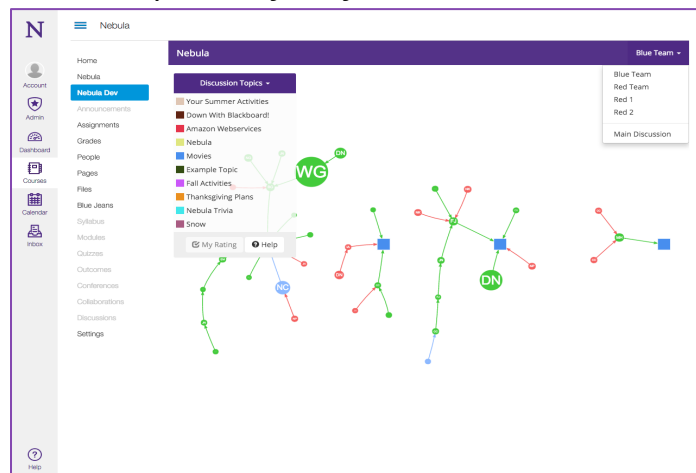# Nebula

*A Network Graph Interface for Canvas Discussion Boards*



**What is Nebula?** Nebula (Latin for *cloud*) is a Canvas tool, in development at Northwestern that provides a new way of viewing and participating in discussion boards. Discussions are presented as a network graph, in which posts are nodes and edges are replies to posts.

Nebula is a more visual alternative to the traditional discussion boards that display posts in a chronological list, using indentation to indicate discussion threads.

**Why Use Nebula?** We believe there are five main benefits to this network representation for student learning and development: First, it presents the entire discussion board history on one interface. Second, we can leverage different node colors and node sizing to provide participants with an overview of their own contributions to the discussion board, relative to their peers. Third, it allows participants to visualize the overall number of new ideas generated on the topic. Fourth, it gives a sense of the popularity of each thread based on the number of connections or replies that a post receives. Fifth, with Nebula Instructor, Nebula is supporting research about online learning communities.

**Who Developed Nebula?** Nebula is a collaborative effort between Northwestern's Department of Industrial Engineering (Jackie Ng, Seyed Iravani and William J. White) and Northwestern Information Technology (Jacob Collins and Bill Parod). We designed Nebula as an LTI (Learning Tools Interoperability) app to be compatible with Northwestern's educational platform, Instructure Canvas. Canvas is a software application that distributes online or blended courses over the Internet with features for managing training and educational records, and online collaboration.

**Want Nebula in Your Class?** Nebula is easy to install and compatible with any Canvas course. Northwestern faculty can simply visit http://learningapps.northwestern.edu, select Nebula and click "Install." Other institutions using Canvas who want to use Nebula can also download its source code and installation instructions at this site.

We look forward to having you on Nebula!