

Tigris: An Online Workflow Tool for Sharing Educational Data and Analytic Methods

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ABSTRACT: This demo will showcase Tigris – an online workflow tool developed as part of the **LearnSphere** project. LearnSphere is a community data infrastructure to support learning improvement online, and brings together a number of data repositories including DataShop (Stamper et al., 2010) and DiscourseDB (Rosé & Ferschke, 2016). Instruction is a data-rich activity — from exams to students’ participation logs. These data can be leveraged to understand instruction and iteratively improve it. However, access to the right tools and how to use them are critical obstacles to this unrealized potential. A Tigris workflow is a component-based process model that can be used to analyze, manipulate and visualize educational data. Using a community based tool repository, educators can quickly build new models, create derivative works, or improve existing tools. Tigris offers a standard set of analysis components which allow researchers to quickly start gathering information about their data and user-contributed workflows and tools to perform other methods of analysis. Tigris enables new opportunities for learning education researchers, course developers, and instructors to better evaluate causal claims, leading to improved teaching and learning. This data-driven course redesign is possible both through better analytics of relational data and through online platform support of controlled experimentation.

Demonstration movie: <https://www.youtube.com/watch?v=p2ecoKBd0q4&t=22s>

Keywords: Learning metrics; data storage and sharing; data-informed learning theories; modeling; data-informed efforts; scalability.

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