

Statement of Purpose
 Courseware and portfolio systems are usually designed as relational databases to allow a minimum of data duplication while giving users different roles and permissions to interact with their content and data. Students and faculty have expectations about how different tools should be used to organize data into familiar structures with implicit rules for interacting with the data in those tools. The design of these tools have not allowed a lot of interplay between the tools. It is difficult to publish a portfolio that reuses classroom content (ie. assignments and discussion threads) that the student otherwise has access to view and manipulate in the limited manner the tool allows.

Furthermore, if a student enrolls in another institution or another class that doesn't use the same instance of the courseware, the data from the different classes can not be combined to create new content.

What is needed is a student centered content management system that serves as the student's virtual backpack and their main platform for lifelong learning. The interface between their content management system and the classroom management tools deployed in a LMS has not yet been designed.

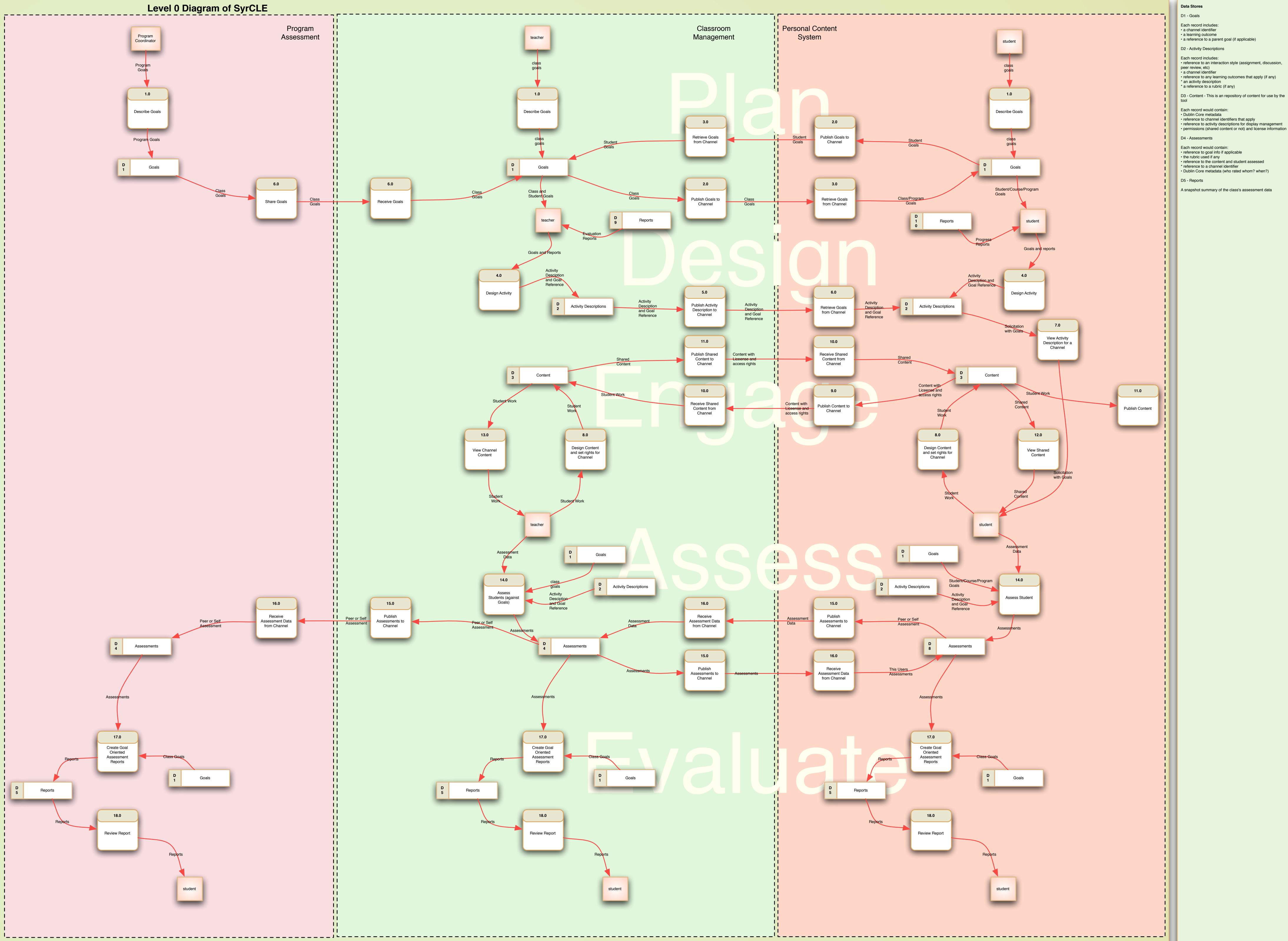
This data flow diagram is intended to describe the flow of information into, out of and within a distributed, networked LMS that has two main components: course content and student content management tools.

Assumptions
 I assume that you are still reading this.

Data Flow Diagram for LMS with Personal Content Tool and Class Content Tool

SyrCLE: An experimental approach to courseware and portfolios

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Data Stores

D1 - Goals
 Each record includes:
 • a channel identifier
 • a learning outcome
 • a reference to a parent goal (if applicable)

D2 - Activity Descriptions
 Each record includes:
 • reference to an interaction style (assignment, discussion, peer review, etc)
 • a channel identifier
 • reference to any learning outcomes that apply (if any)
 • an activity description
 • a reference to a topic (if any)

D3 - Content - This is a repository of content for use by the tool
 Each record would contain:
 • Dublin Core metadata
 • reference to channel identifiers that apply
 • reference to activity descriptions for display management
 • permissions (shared content or not) and license information

D4 - Assessments
 Each record would contain:
 • the rubric used (if any)
 • reference to the content and student assessed
 • reference to a channel identifier
 • Dublin Core metadata (who rated whom? when?)

D5 - Reports
 A snapshot summary of the class's assessment data