
Literacy Volunteers of Greater Hartford App-Trac Project



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Problem

- Goals
 - Monitor usage of literacy software applications to better evaluate students learning needs
 - Streamline current report generation for management.
- Scope
 - Develop a single student interface to LVGH applications and an administrator interface to monitor application usage.
 - Introduce a streamlined data gathering and processing system.
 - Reduce human overhead.
 - Free up valuable staff time.
 - Reduce operational costs.

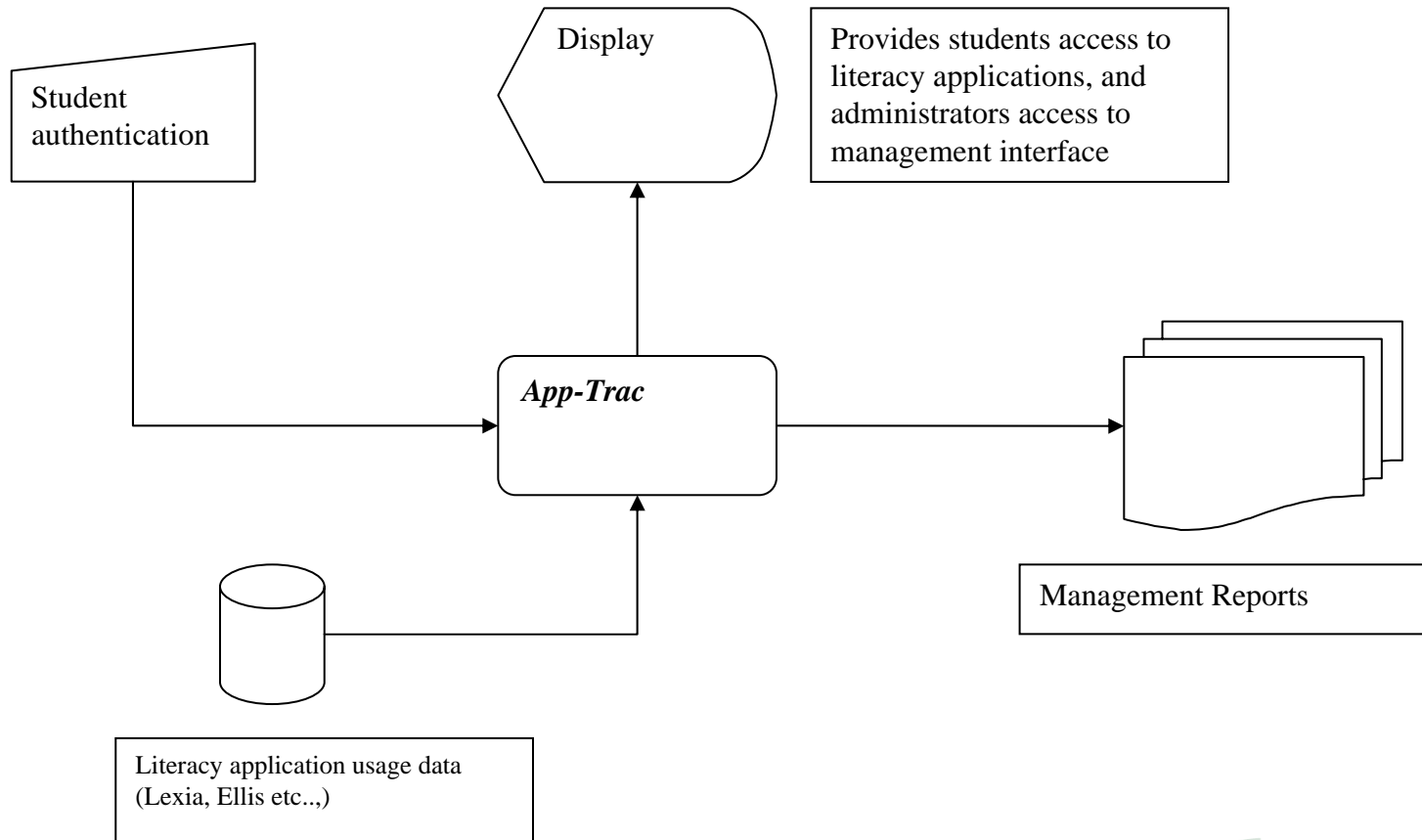


Envisioned Product Functions

- Present a single student portal for LVGH application suite.
- Interface with 3rd party user data from Lexia and Ellis and other literacy apps.
- Provide administrative capability to customize the set of accessible applications.
- Generate customized reports that meet managements/instructors needs.
- Provide a administrative interface to streamline system management and reporting functions.



Envisioned Application Interactions



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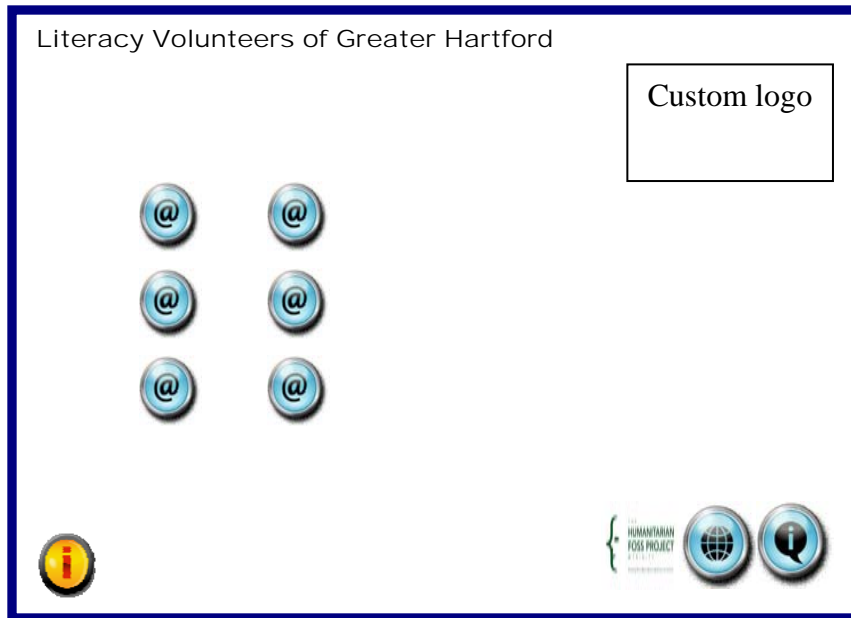
Envisioned User Interactions

- Student perspective
 - Customized screen with links to LVGH literacy applications and other applications configured by the administrator.
- Administrator Perspective (Management functions)
 - Customizing application set presented to students.
 - Setting the target source data for the literacy application usage data sources.
 - Customizing report generation functionality.
 - Viewing and modifying user authentication lists.



Envisioned Functionality

- Interface Functionality



Sample student interface

- Reporting Functionality
- Management Functionality
- Synchronization Functionality



Model-View-Controller Architecture



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M-V-C

- Model-view-controller (MVC) is a popular object-orientated programming pattern

“Separate business logic from presentation logic”

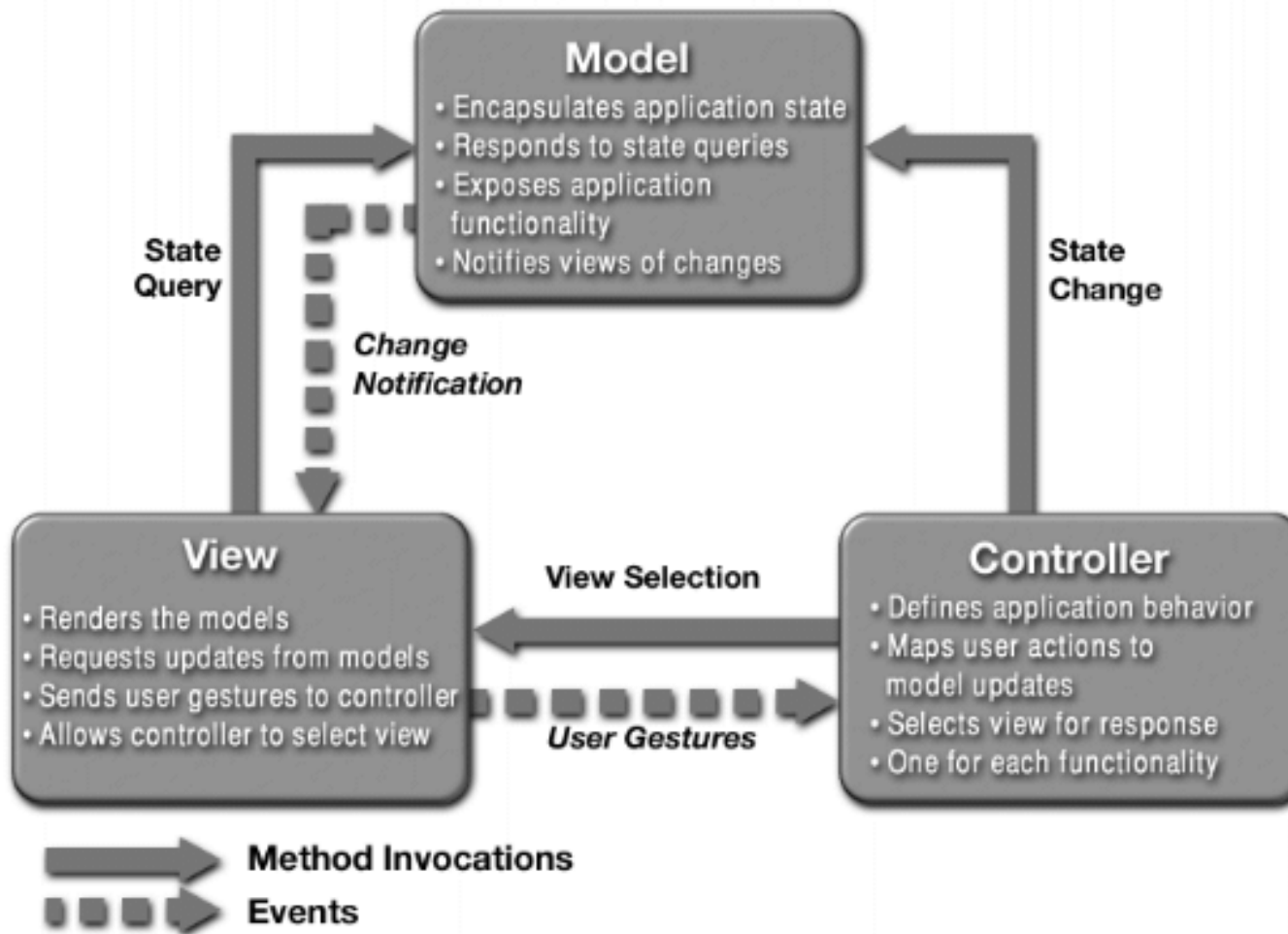
- Model - contains system information
- View - displays system information
- Controller - the main processor of the system



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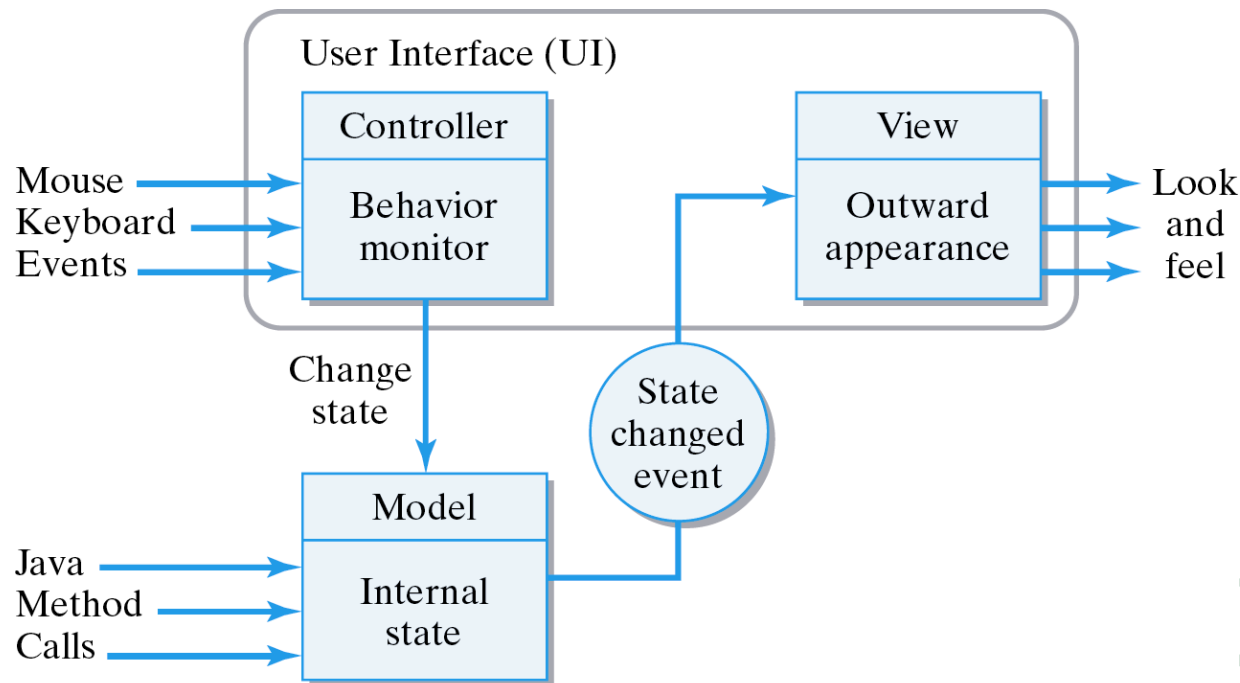
MVC Structure



Source: [Java Blue Prints J2EE Patterns](#)

Java's Swing Component use MVC Design

- Click a JButton: the *controller* puts *model* in pressed state, which changes its outward appearance (*view*).
- [JButton](#) combines Controller and View into a single [BasicButtonUI](#) class.
- Pluggable look and feel.



Advantages to MVC

- Advantages:
 - reducing bandwidth usage
 - allowing for more semantic structure
 - better accessibility
 - greater site consistency
 - easier maintenance
- Existing Frameworks:
 - [Apache Struts](#), [Ruby on Rails](#), [Symfony](#), [Spring](#).



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