

EVALUATION TOOL

This past week, the Pixel Pushers have continued apace. Our primary focus has been the creation of an evaluation tool for teachers to easily monitor and review student activity within the Minecraft game world. To that end, the primary goals of this evaluation tool include:

Quantitative data: distance traveled, numbers and types of blocks placed, etc.

Qualitative data: notably, a visual representation of a player's actions upon the game world, especially in the mining or construction of blocks and structures.

Further, the data are to be filterable by player and time. If Teacher A wishes to observe the actions of Student 1 in a given session, the Teacher can simply select Student 1's username to watch a timelapse of blocks mined and placed by the student.

Ideally, the application will include basic VCR functions (play, pause, fast forward, rewind) as well as the capability to track multiple players at once – especially to observe in-game collaborations.

PROGRESS

Our programmers have been hard-at-work laying the foundation for this evaluation tool. We've successfully been able to pull block metadata out of a Minecraft in a single player game or on a multiplayer server. Whenever a block is destroyed or placed, we currently track 5 points of data:

1. Username of the player interacting
2. Block ID (dirt, wood, etc.)
3. Whether the block was placed or destroyed
4. Timestamp of the action
5. Location of the block

We've also found code from an open-source Minecraft map viewer that allows the user to navigate through a 3-dimensional rendering of a Minecraft world (including underground) and to highlight blocks by type. With some tweaks to functionality, it appears to be a perfect fit for our purposes.

For next week, we aim to feed the data we're tracking into this map viewer to produce a rough version of the above evaluation tool, where we can begin refining usability and user interface to meet our needs.

THE LONG VIEW

This week, we've also made strides with the project itself: such as the creation of our team name, logo, and other art assets. While our programmers are busy with the evaluation tool, our designers and artists have moved ahead with our half-sheet, poster, and website. Our goal is to have as much of this out of the way as early as possible to allow us to concentrate fully on our tasks the rest of the semester.

In addition, we've completely mapped the existing in-game teacher UI in the MinecraftEdu software, which will be a useful referent for adding or streamlining teacher functions in-game, or to create an easily navigable analog within the evaluation tool.