Enhancements for SIMnet 2019 – **Accessibility**

SIMnet for Office 2019 introduces improved ShowMe[[1]](#footnote-1) and GuideMe[[2]](#footnote-2) interactivities which integrate more closely with the full Office simulation used in LetMeTry[[3]](#footnote-3) and SIMnet exam questions. The primary goals of these improvements are to ensure consistency across all interactivities when implementing changes to support Microsoft Office 365 updates, facilitate learning by reducing context switching, and improve accessibility of ShowMe and GuideMe interactivities.

Both the ShowMe and GuideMe interactivities are built upon the SIMnet simulation playback functionality. For example, while the ShowMe interactivity is presented to users as a video player, the video player is actually a control layer rendered in front of an HTML animation.[[4]](#footnote-4) The animation is the simulation itself playing back the primary answer which the user later performs in the GuideMe and LetMeTry interactivities.

Similarly, the GuideMe component presents the simulation for visual background rendering of the application in various states, but pauses before each action to await user input. During each pause, an instruction is given and the user must type or select the appropriate answer.

Fully sighted users will see the background rendering of the application in a given state and typically must either click on a certain item or type a certain value in order to continue. GuideMe steps may be answered with the mouse, keyboard, or combination of both.

Keyboard navigability in the GuideMe allows partially sighted and legally blind users to interact with the exercise as if it were similar to a multiple choice question. For example, if the instructions say “bold the selected text,” a student with a screen reader would perceive a series of distractor inputs describing controls present in the given application state and need to select the one corresponding to the Bold button.

This interface differs somewhat from the LetMeTry interactivity, in which there may be thousands of interactive elements available on the page and readable by a screen reader. By breaking up the LetMeTry steps into a greater number of simpler actions with familiar keyboard inputs and a curated list of options, the GuideMe presents a gradable element that is comparable in outcomes assessment to it’s LetMeTry counterpart and accessible to all users.

**Testing and next steps**

We previously engaged the National Federation for the Blind in the summer of 2018 to conduct a test on SIMnet and provide feedback for the platform overall. Based on that feedback from the NFB we mad dozens of changes and enhancements to the platform. Now that we have redeveloped the Show Me and Guide Me exercises we are in the process of engaging the NFB once more. The goal is to get to a place where the NFB agrees that the new Guide Me’s are a suitable replacement for the Let Me Try simulations. We will be having the NFB test the new elements at the beginning of 2019 once the content is live. We hope to have this all wrapped up in the first quarter of 2020.

1. SIMnet ShowMe interactivities are fully animated and narrated gradable elements presented as a video. Users must play the video to complete the exercise. [↑](#footnote-ref-1)
2. SIMnet GuideMe interactivities are partially animated click/key stream gradable elements. Users must perform expected actions to complete the exercise. [↑](#footnote-ref-2)
3. SIMnet LetMeTry interactivities are the final gradable element on each SIMbook page. The user is allowed to explore in a fully emulated sandbox environment and may use any valid method but must ultimately complete the objective given by the instructions. [↑](#footnote-ref-3)
4. This animation is fully described by an audio narration and accompanied by captions and full transcripts in accordance with WCAG 2.0 specifications. [↑](#footnote-ref-4)