Dear Mr. Corum and Mr. White,


I wholeheartedly enjoyed playing around with the Mars Curiosity Rover Tracker. First, the information about each leg of the rover’s trip is displayed in a clear, consistent, and familiar fashion. It was very easy to see that the rover’s entire route is overlaid on the map of Mars, and that its position on the map is coordinated with a day on the timeline, a caption, and images taken at that location. This thoughtful display allowed for a wide range of intuitive controls. It was obvious that you could navigate between different parts of the rover’s trip by clicking on a section of its route, a day on the timeline, or one of the back and forth buttons prominently displayed at the top of the screen because each of these elements stood out visually from their surroundings. Additionally, each element provides minor visual feedback upon a mouseover event. This, coupled with larger changes of state when the user clicks an element, makes for very informative feedback (one of Ben Shneiderman’s golden rules of interface design [1]). It is clear that you were aware of who I imagine was your intended audience (intelligent astronomy enthusiasts) by the wealth of data available to explore, and the keyboard shortcuts for navigation. Lastly, it is very easy to reverse any of the allowed actions, avoiding potential frustration. Clicking the next button can be reversed by clicking the back button and vice versa, and clicking a node on the rover’s trail or a day in the timeline can be reversed by clicking the browser’s back button.

Although I was impressed with the tracker as a whole, I have thoughts on how it might be improved. The page was a little inconsistent by several evaluation metrics. First, while the information was generally displayed in a very economical way, it was frequently necessary to scroll up and down to view the images. This could be addressed with a horizontal gallery of thumbnails (enlarged by clicking) displayed across the bottom of the screen instead of displaying all the images at full size. This gallery could be used to address another shortcoming of the tracker related to range of exploration it offers and the user’s internal locus of control. Currently, the information can be explored along every dimension except for images. It isn’t always clear what day on the timeline or point on the map will be interesting to view and pressing the next button over and over can become a tedious drudge through the days (perhaps simulating the rover’s journey a little too well). Allowing the user to explore the entire image gallery while updating the rest of the page could make for a much more engaging experience.

I’ll end on a practical point. Although you did a very good job of preventing common errors like going outside the range of “Sol” tags, I noticed a minor bug while using the tracker. If you click the map and then try to use the arrow keys to navigate back and forth, the map will also move right or left depending on which arrow you
pressed. This problem may not be serious enough to warrant a fix but I thought it would be worth passing on.

Keep up the awesome work!

Sincerely,
Peter Enns