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Assignment 12

Task 1 - Time Visualization

(a) Time-to-time mapping would be great for visualising weather data, like for instance the prediction of the path a hurricane will probably take. This would help people to prepare if they are at risk. It would be possible to show a window, which contains the current state of the hurricane, illustrated as a weather map. Then the user could press play or pause and see how the hurricane moves. It might also be helpful to provide some kind of more accurate control over the time, like single frames or different speeds. This is helps everyone to understand if they are in danger since this is a simple way to encode time.

(b) A Gnatt chart is a good example for time to space mapping. Here the timeline at the top or bottom of the visualisation shows when different parts of a project should be finished. The user cannot interact directly with the temporal dimension, unless there is a possibility to zoom in for instance, then the user could change the scale of the time to see either more details or a broad overview over a year.

(c) It is very useful, since it is possible to show more data then non-interactive visualisations. For every time step, all information can be shown, which is sometimes very important like in the example mentioned in (a). A weakness is, that it is requires more time to look at it since it cannot be shown in one visualisation. Furthermore, it is better to have a digital version, since printing out would require to print every single time step.

(c) A weakness is, that one dimension must be kept free for the time and therefore cannot be used to illustrate other data. This means it is not possible to illustrate stuff in as much detail as it is with time-to-time mapping. But, it can be easily printed out, shown in papers or books and it does not require additional time to view the illustration.

Task 2 - Research: Horizon Graphs