

Scenario(context):

Act1: big lecture hall, Yang cannot see the screen (from the his eye), even though he managed to sit at the front of the classroom where is closest to the screen. The slides are still very blurry to see. It's a CSE 373 class. The instructor is teaching binary heaps. It has been proven very helpful to use graphs to help students understand data structures. Normal students reflected following the visualization is not only helpful to absorb in class material but also helpful in homework and exam. However, Yang a low visioned student cannot watch the diagram clearly. In class, most of the time he was just trying his best transcribing what the instructor said since he couldn't read words on slides clearly. When instructor asks students to work in pairs to discuss the diagram, Yang will always feel awkward since he couldn't see the diagram. Yang feels depressed. He starts avoiding taking classes that involving many diagram understanding which unfortunately is required in most of the STEM classes.

Act2:

Still in lecture, although Yang still can't see the screen clearly. But now he feels better because he always brings his tablet which installs an app called Lecture Viewer. Now he doesn't need to manually transcribe instructor's word because the app will do the job for him. When he opens the app, he can either use hand writing or voice search the class, find the lecture slides instructor uploaded and start listening. When instructor moves to new slides, Yang can easily follow by swiping to next slide. He can either use digital magnifier or script reader to help understand the text in that slide. If the slide contains a graph, Yang can click on it and jump to a new page where he can press and hold anywhere on the graph to zoom in. He can also drag around to see different part of the diagram. Now, when instructor asks pair discussion, Yang doesn't feel embarrassed anymore because he can see and understand diagram on his tablet. He feels more confident now and reconsiders pursuing STEM degree.

