Online homework systems can have several benefits: giving students immediate feedback on their understanding of the course material, optimizing instructor time, and utilizing randomizations that can discourage students from copying work from other students or sources. There are also several potential disadvantages to using these systems: a focus on mechanical and lower-level thinking skills, development of bad communication habits, a lack of detailed feedback to students, and student frustration when they cannot find the correct answer.

In this talk, I discuss several iterations of how I have implemented homework in WebWork (and occasionally JiTT, Just in Time Teaching) alongside traditional written homework. In particular, I discuss how I have developed new conceptual questions to focus student efforts on theoretical ideas as well as how I have used and iteratively improved this hybrid approach to achieve desired outcomes while seeking to not unduly burden students or instructors. (Received September 20, 2016)