Webwork, the online homework system that over 300 institutions uses worldwide is modernizing. Those of us working on the project are looking to the next major version as an opportunity to create a homework system that the next generation of professors can adapt to their needs. We are looking to design an easier-to-use, more flexible and more-adaptive homework system that gives students the opportunity to practice mathematics problems (the original goal of WeBWorK), but also is useful in evaluation and assessment. This talk will discuss the direction of webwork including how a well-designed open-source framework can give its users the flexibility to adapt the software. We will address how current users are using WeBWorK to address issues like the impact of technology on teaching and learning to possible of using WeBWorK in new situations like adaptive learning environments. (Received September 17, 2013)