**Abstract**

We integrate available and new technologies to strongly enhance student engagement in upper division undergraduate courses on human evolution and history. First, we use peer-mentored discussion groups through the Blackboard system⬚appropriately scaled, constructed, and incentivized. These allow day-to-day monitoring of student understanding. Second, we use weekly Blackboard e-quizzes directed at important issues or areas of confusion including those revealed by discussion groups. Third, we use a novel digital textbook. This technology provides diverse, sophisticated assets ranging from animations and interactive questions to an extensive glossary hyperlinked to an electronic textbook. The ease of revision of this textbook allows us to react, year to year, to student need and experience. The real power of our approach derives from the extremely strong synergy between these three assets, as we will discuss. We describe successful applications of this model in large (ca. 500) and small (ca 25) classes.