In-flow Peer Review of Tests

Peer review is commonly used in computing courses for students to learn from, and provide feedback on, one another's work. Test-first development and peer review have been studied independently in computing courses, but their combination has not. In in-flow peer review, students provide feedback to one another on intermediate artifacts on their way to a final submission. I report on several studies of courses in which students conducted in-flow peer review of tests while assignments were in progress.

I also present a sample lecture on oracle-based testing for problems with relational specifications. Many problems have more than one right answer for a given input. For example, the specification for (unstable) sort considers many differently-ordered outputs to be correct. Fundamentally, these specify a relation between inputs and outputs, rather than a function from each input to a specific output. Testing relational specifications is challenging, because a particular input/output pair (e.g. a unit test) may satisfy some, but not all, implementations. I will discuss this testing problem, and a technique for using an oracle to judge correctness of implementations of relational specifications.

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Tuesday, March 1
10:00 a.m. GHC 6115
Host: Charlie Garrod