The Measured Word: Technological Advances and Human Considerations in Writing Assessment

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Teaching writing is a grading intensive process, one that is challenging whether we rely on individual human evaluators, groups, or on machines. Decades of research in human judgment and decision making demonstrate that we are not always at our best, or as consistent as we may wish to believe. An individual's performance will vary. A coordinated team assessment effort relies on group expectations and
consensus-building that can obscure what we wish to measure. Machines are usually consistent, but face different challenges despite the continual improvement of automated grading systems. Recent studies (like the 2011 ETS-NJIT E-Rater study) demonstrate that software is capable of performing on par with human graders evaluating freshman writing placement samples; critics point out these are short and time-limited writing samples and the humans evaluating them use machine-like heuristic grading criteria. To better understand what problems remain to be solved, we will examine a small number of approaches, best practices in writing assessment by individuals, groups, and machines. Each approach offers partial answers to the questions of what makes writing good or communication effective, what distinguishes human writing from machine-prepared text, how such qualities and characteristics can be measured, and why these questions should be important to communicators, evaluators, teachers, and students.

The Least Usable Button: Applications of Cognitive Load Theory in User Interface Design

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Cognitive load theory considers the limits on human working memory and related ramifications for information processing and executive function. Considering cognitive load may be helpful when designing useful, usable interfaces. The designer's logical impulse is often to make everything easy, i.e. make every button as easy as possible to push, keeping the cognitive load associated with every element, item, or task as low as possible. An alternative involves managing the cognitive load, designing certain 'buttons' that are more difficult to 'push' in order to meet usability objectives outlined by Nielsen, Norman, and other contemporary usability experts.

Matt Rolph's Bio-Sketch

Matt Rolph is a PhD Candidate in Communication and Rhetoric at Rensselaer Polytechnic Institute. His thesis is titled "This is not a test: Communication, Usability, and Gamification in the near future of standardized assessment", and focused on assessment designs for writing and critical thinking. He holds a BA in English Literature (2000) and an M.Ed. in English Education: Teaching of Writing (2004) from Plymouth State University, where he also served as coordinator for the College of University Studies, an advising program for first year students without declared courses of study, associate director of the Medieval and Renaissance Forum, technical liaison for the New Hampshire chapter of the National Writing Project, lecturer in Interdisciplinary Studies, and instructor for Composition, Introduction to Literature, Technical Writing, and the First Year Seminar in Critical Thinking and the Nature of Inquiry.