CRITIQUEKIT: A Mixed-Initiative, Real-Time Interface For Improving Feedback
C. Ailie Fraser, Tricia J. Ngoon, Ariel S. Weingarten, Mira Dontcheva, Scott Klemmer

Giving Feedback is Hard
Feedback is a formative part of learning. However, good feedback is rare because it is time-consuming to give and people are not consistently skilled at providing it. How can we guide reviewers toward improving the feedback they give?

What Inspired Us?
Password Validators

CritiqueKit introduces an approach for reusing prior feedback, reducing it to be useful in a general context, and retraining the system about what is useful in real time.

CritiqueKit Web Architecture
The CritiqueKit architecture comprises five components: a web interface, a corpus of feedback, a feedback classifier, a text processor, and a recommendation engine.

Dynamic Suggestions Lead to More Benefits than Static
CritiqueKit has been used by 95 reviewers and 336 feedback recipients, in 2 real-world deployments and 2 experiments. We found that linking suggestions dynamically with the real-time checkboxes is more effective at improving feedback than static suggestions. The table to the right summarizes our main findings from these studies.