Contextual Examples for Just-in-time Creative Learning

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The Challenges of Creative Software

People love to be creative, but creative software is often complex and hard to use.

While expert-made tutorials, examples, and documentation abound online, finding the most relevant content and adapting it to one’s own task is a challenge.

Existing systems help with specific applications and/or tools. But what about open-ended creative work that spans multiple applications?

The Right Content at the Right Time

In my dissertation work, I have created and evaluated multiple software systems that leverage existing expert examples and present them in-context for open-ended creative work. 183 people have used these systems to date.

Evaluations have shown that contextual expert examples can help people:

✔ spend more time on task
✔ get started more easily
✔ produce better work

“Where do I start?”

DiscoverySpace

DiscoverySpace introduces action recommendations to help users get started and explore creative possibilities.

It recommends photo editing action macros mined from online user communities, based on visual features of the user’s photo. E.g., for photos of people, DiscoverySpace might recommend skin smoothing effects.

With DiscoverySpace, novices were more likely to maintain confidence, accomplish tasks, and discover new features.

“How can I improve?”

CritiqueKit

CritiqueKit introduces interactive guidance and adaptive suggestions for improving creative feedback.

Checkboxes give reviewers awareness of their feedback’s characteristics. Dynamically-updating suggestions give reviewers ideas and inspiration.

A controlled experiment showed that novices using CritiqueKit gave more specific, actionable, & justified feedback.

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What now?

How do people learn creative skills from live demonstrations, and can software better support this?

Can speech and deictic interaction help people articulate their needs and find better contextual help?

How can contextual help and visual resources support people using software in different languages?

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