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?

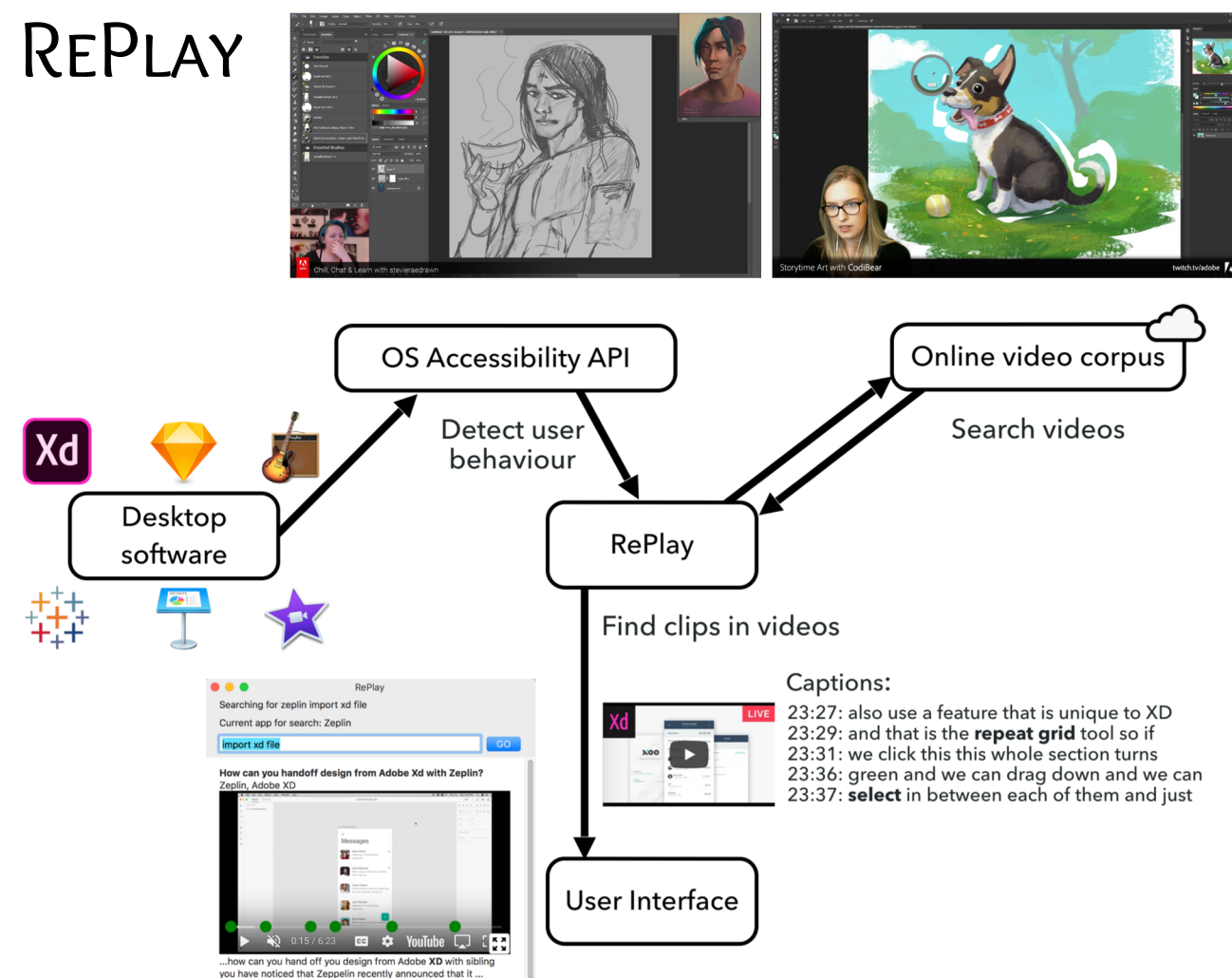## The Right Content at the Right Time

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**
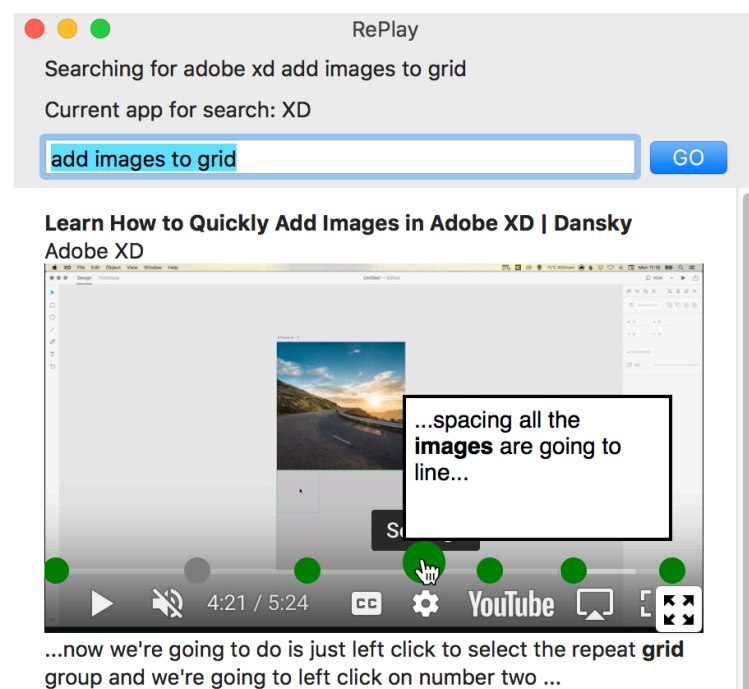

"I'm stuck, what do I do?"

RePLAY

RePlay introduces an **application-independent** architecture for contextually presenting learning videos that leverages system accessibility APIs & online videos.

With RePlay, people spent **less time searching** for help and **more time working**, as it provides easy access to relevant moments within videos.
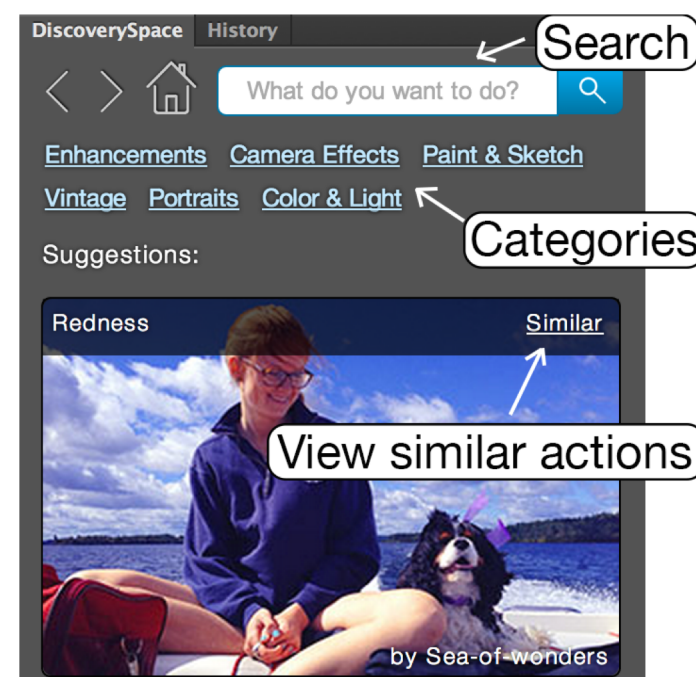

"Where do I start?"   DIS '16

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 Discovery-Space, novices were more likely to **maintain confidence**, **accomplish tasks**, and **discover new features**.
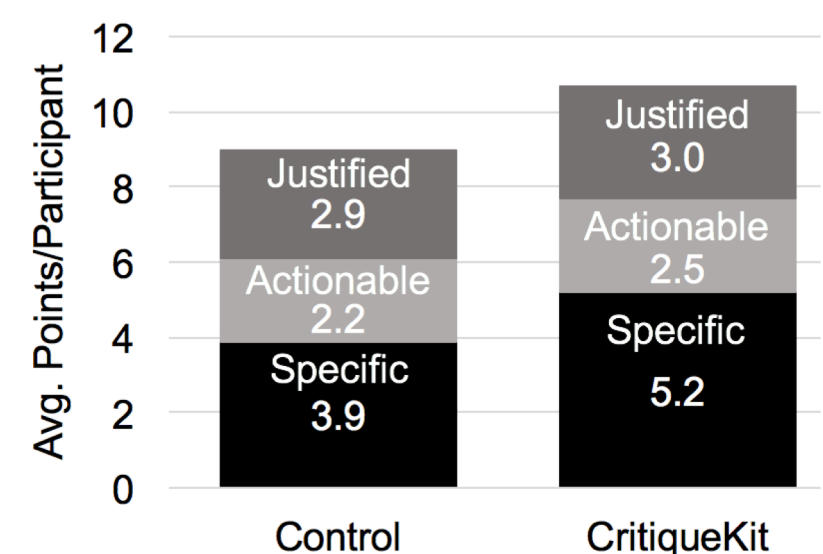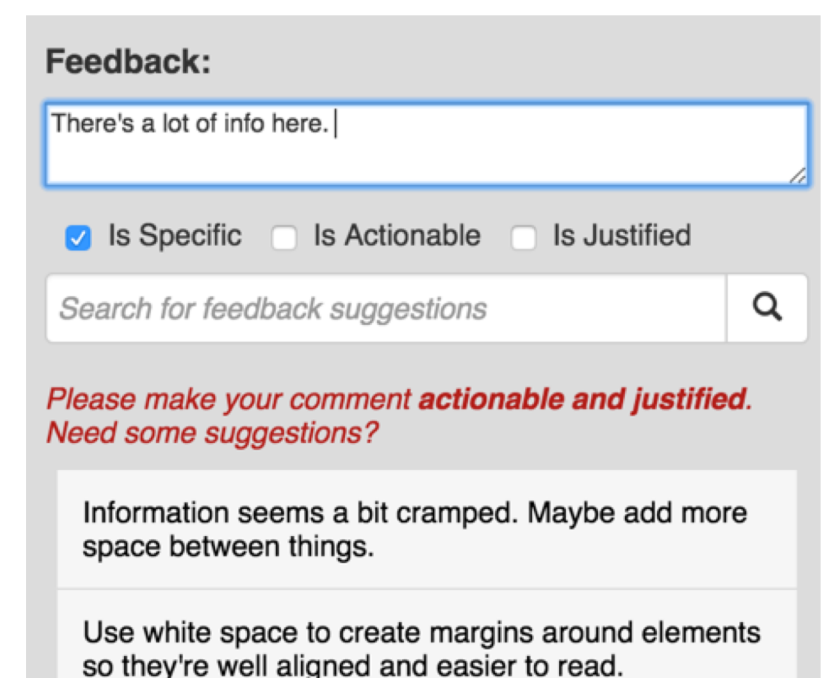

"How can I improve?"   CHI '18

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.

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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