Support ALL TYPES of users and their Cognitive Styles

Motivations

People have different motivations for using technology:
- **Abby** uses technology **only as needed** for his/her task. S/he prefers familiar features to keep focused on the task.
- **Tim** likes using technology to learn what new features can help him/her accomplish.
- **Pat** is like Abby in **some situations** and like Tim in others.

Make clear what a new feature does, and why someone would use it, but also keep familiar features available.

Information Processing Style

People like to gather different amounts of information to solve problems:
- **Abby** and **Pat** gather and read all the relevant information comprehensively **before acting** on the information.
- **Tim** likes to delve into the first option and pursue it, **backtracking** if need be.

**Let people gather as much information as they want, and no more than they want.**

---

1 The individual differences in cognitive styles explained here tend to statistically cluster by gender. See [http://gendermag.org](http://gendermag.org) for more information.
People have different amounts of computer self-efficacy (self-confidence) about using unfamiliar technology:

- **Abby** has low self-efficacy about unfamiliar computing tasks. If problems arise with technology, Abby often blames herself/himself. This affects whether and how Abby will persevere.
- **Tim** has high self-efficacy with technology. If problems arise with technology, Tim usually blames the technology. Tim sometimes tries numerous ways of trying to address the problem before giving up.
- **Pat** has medium self-efficacy with technology. If problems arise with his/her technology, s/he keeps on trying for awhile before giving up.

Make available ALL of (1) familiar features, (2) undo/redo, AND (3) ways to try out different approaches, to support ALL self-efficacy levels.

People tolerate different levels of risk (e.g., possibility of wasting a lot of time) when using technology:

- **Abby** and **Pat**, who rarely have spare time, like familiar features because these don't impose learning costs, and are predictable about the benefits and costs of using them.
- **Tim** is risk tolerant and is ok with exploring new unknown features, and sometimes enjoys it.

Make available why someone should use the feature (benefits) and how much effort it will take (cost); doing so supports decision making for all attitudes toward risk.

People learn software in different ways:

- **Abby** learns better through process-oriented learning; (e.g., processes and recipes, not just individual features).
- **Tim** learns by tinkering (i.e., trying out new features), but sometimes tinkers addictively and gets distracted by it.
- **Pat** learns by trying out new features, but does so mindfully, reflecting on each step.

Provide a path through the task for process-oriented learners, and for tinkerers, encourage mindful tinkering (e.g., slow down critical one-click tinkering with an extra step), so that it is not so addictive.