

The GenderMag Heuristics To Avoid Gender-Inclusiveness “Bugs” in Software

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Abby



Pat



Tim

Support ALL TYPES of users and their Cognitive Styles¹

Motivations	<p>People have different motivations for using technology:</p> <ul style="list-style-type: none"> • Abby uses technology <u>only as needed for his/her task</u>. S/he <u>prefers familiar features</u> to keep focused on the task. • Tim likes <u>using technology to learn what new features</u> can help him/her accomplish. • Pat is like Abby in <u>some situations</u> and like Tim in others. <p>Make clear <u>what</u> a new feature does, and <u>why</u> someone would use it, but also keep <u>familiar</u> features available.</p>
Information Processing Style	<p>People like to gather different amounts of information to solve problems:</p> <ul style="list-style-type: none"> • Abby and Pat <u>gather and read all the relevant information</u> comprehensively <u>before acting</u> on the information. • Tim likes to delve into the <u>first option</u> and <u>pursue it</u>, <u>backtracking</u> if need be. <p>Let people gather <u>as much information</u> as they want, and <u>no more</u> than they want.</p>
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¹ The individual differences in cognitive styles explained here tend to statistically cluster by gender. See <http://gendermag.org> for more information.

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Computer Self Efficacy	<p>People have different amounts of computer self-efficacy (self-confidence) about using unfamiliar technology:</p> <ul style="list-style-type: none"> • Abby has low self-efficacy about unfamiliar computing tasks. If problems arise with technology, Abby often blames herself/himself. This affects <u>whether and how Abby will persevere</u>. • Tim has high self-efficacy with technology. If problems arise with technology, Tim usually blames the technology. Tim sometimes <u>tries numerous ways of trying to address the problem</u> before giving up. • Pat has medium self-efficacy with technology. If problems arise with his/her technology, s/he <u>keeps on trying</u> for awhile before giving up. <p>Make available ALL of (1) familiar features, (2) undo/redo, AND (3) ways to try out different approaches, to support ALL self-efficacy levels.</p>
Attitude Toward Risk	<p>People tolerate different levels of risk (e.g., possibility of wasting a lot of time) when using technology:</p> <ul style="list-style-type: none"> • Abby and Pat, who rarely have spare time, like familiar features because these <u>don't impose learning costs</u>, and are <u>predictable about the benefits and costs</u> of using them. • Tim is risk tolerant and is ok with <u>exploring new unknown features</u>, and sometimes enjoys it. <p>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.</p>
Learning: by Process vs. by Tinkering	<p>People learn software in different ways:</p> <ul style="list-style-type: none"> • Abby learns better through <u>process-oriented learning</u>; (e.g., processes and recipes, not just individual features). • Tim learns by tinkering (i.e., <u>trying out new features</u>), but sometimes tinkers addictively and gets distracted by it. • Pat learns by trying out new features, but does so <u>mindfully, reflecting on each step</u>. <p>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.</p>