Ideation

UX Design I

Predrag Klasnja

Goal: Generate a lot of concepts from which you can generate a high-quality solution.

Parallel Prototyping Leads to Better Design Results, More Divergence, and Increased Self-Efficacy

STEVEN P. DOW, ALANA GLASSCO, JONATHAN KASS, MELISSA SCHWARZ, DANIEL L. SCHWARTZ, and SCOTT R. KLEMMER
Stanford University

Iteration can help people improve ideas. It can also give rise to fixation, continuously refining one option without considering others. Does creating and receiving feedback on multiple prototypes in parallel, as opposed to serially, affect learning, self-efficacy, and design exploration? An experiment manipulated whether independent novice designers created graphic Web advertisements in parallel or in series. Serial participants received descriptive critique directly after each prototype. Parallel participants created multiple prototypes before receiving feedback. As measured by click-through data and expert ratings, ads created in the Parallel condition significantly outperformed those from the Serial condition. Moreover, independent raters found Parallel prototypes to be more diverse. Parallel participants also reported a larger increase in task-specific self-confidence. This article outlines a theoretical foundation for why parallel prototyping produces better design results and discusses the implications for design education.

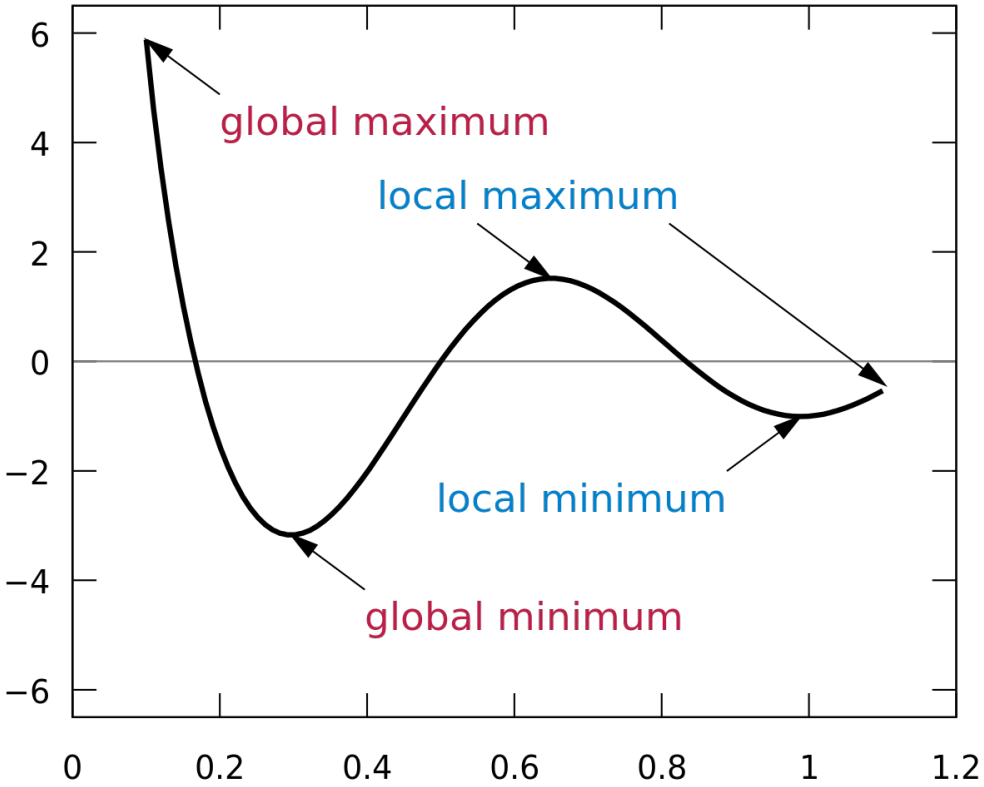
Categories and Subject Descriptors: H.1.m. [**Information Systems**]: Models and Principles

General Terms: Experimentation, Design

Additional Key Words and Phrases: Prototyping, iteration, feedback, juxtaposition, comparison, design, divergence, exploration, critique, self-efficacy

ACM Reference Format:

Dow, S. P., Glassco, A., Kass, J., Schwarz, M., Schwartz, D. L., and Klemmer, S. R. 2010. Parallel prototyping leads to better design results, more divergence, and increased self-efficacy. ACM Trans. Comput.-Hum. Interact. 17, 4, Article 18 (December 2010), 24 pages.
DOI = 10.1145/1879831.1879836 http://doi.acm.org/10.1145/1879831.1879836


global maximum
local maximum
local minimum
global minimum
6
4
2
0
−2
−4
−6
0
0.2
0.4
0.6
0.8
1
1.2

Basic Rules of Ideation

- Make ideas cheap!
  - Generate ideas as quickly as possible
  - Fill in just enough detail to get a sense of the idea
- Generate both variations of an idea and very different ideas
- Don't worry about idea quality or feasibility

Ideation outcome: Dozens (or hundreds) of solution ideas.

https://www.flickr.com/photos/wildrose115/26627319846

Tools for ideation

- Sketching
- Brainstorming
- Mindmapping
- Timed idea generation (e.g., generate as many ideas as possible in 5 min.)
- Generate a minimum of X (e.g., 40) ideas
- …

Ideate each important aspect of the problem and every time you get stuck.