

Improving perceived performance of web pages

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**“Alice: How long is forever? White Rabbit:
Sometimes, just one second.”**

— Lewis Carroll, “Alice's Adventures in Wonderland”

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- 0-100 ms: Instant perception
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- 300-1000 ms: Machine is working
- 1000+ ms: Likely mental context switch
- 10 000+ ms: Task is abandoned

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These values are hard-wired.

Active vs. passive mode

Active mode: the user is **doing** something.

Passive mode: the user is **waiting** for something.

Occupied time is perceived to be faster than unoccupied time.

Defer non-essential content

Do not load content below the fold immediately.

Render first what the user **sees** first. Then render what he wants to **use**. Then comes **everything else**.

Use placeholders & animations

Skeleton screens vs. spinners

Interface animations

A progress indicator on a page that loads in less than 5 seconds or less will make that page feel slower than it really is.

Load something useful first

Let the user **interact** with the page as soon as possible.

Show the **most relevant** info first.

Auto-preloading

Predict where a user is **likely to go** based on the page they are currently on and the previous pages in their path.

Optimistic actions

Do it now, worry about the outcome later.

Minimize clutter

Too much information all at the same time is perceived to be slower, perhaps because it must be skimmed in its entirety before the user can decide what to do next. If too much of that information is irrelevant to his immediate task, he will blame the website for wasting his time. Too much information all at the same time is perceived to be slower, perhaps because it must be skimmed in its entirety before the user can decide what to do next. If too much of that information is irrelevant to his immediate task, he will blame the website for wasting his time. Too much information all at the same time is perceived to be slower, perhaps because it must be skimmed in its entirety before the user can decide what to do next. If too much of that information is irrelevant to his immediate task, he will blame the website for wasting his time. Too much information all at the same time is perceived to be slower, perhaps because it must be skimmed in its entirety before the user can decide what to do next. If too much of that information is irrelevant to his immediate task, he will blame the website for wasting his time. Too much information all at the same time is perceived to be slower, perhaps because it must be skimmed in its entirety before the user can decide what to do next. If too much of that information is irrelevant to his immediate task, he will blame the website for wasting his time. Too much information all at the same time is perceived to be slower, perhaps because it must be skimmed in its entirety before the user can decide what to do next. If too much of that information is irrelevant to his immediate task, he will blame the website for wasting his time.

Feedback

Tell them what you're **doing** & tell them what you've **done**.

Strive for success

Perceived time is longer when the task is unsuccessful.

Sources

[A Designer's Guide to Perceived Performance](#)

[Why Perceived Performance Matters, Part 1: The Perception Of Time](#)

[What you see is faster than what you get - ways to speed up perception](#)

[Perception is king, when it comes to website performance](#)