



Perceiving AJAX Performance

Piotr Zalewa
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Speed is the most important feature.
If your application is slow, people
won't use it.

Fred Wilson's 10 Golden Principles of Successful Web Apps

<http://thinkvitamin.com/web-apps/fred-wilsons-10-golden-principles-of-successful-web-apps/>



slowdowns hurt business metrics

- Bing - 2s slower - 4.3% drop in revenue/user
- Google - 0.4s delay - 0.59% drop in searches/user
- Yahoo - 0.4s delay - 5-9% drop in full-page traffic
- Mozilla - 2.2s off landing page - 15.4% more downloads
- Shopzilla - 5s speed up - conversion rate up by 7-12%



Please wait...





<http://www.flickr.com/photos/theivorytower/4126601940/>



<http://www.flickr.com/photos/scragz/91147636/>

Requests take time

Uploading data

Processing request on the server

Downloading data

Computing the response



Quantitative

Uploading

Downloading

Undeterminable

Processing request on the server

Computing the response



Inform users



Progress Bar

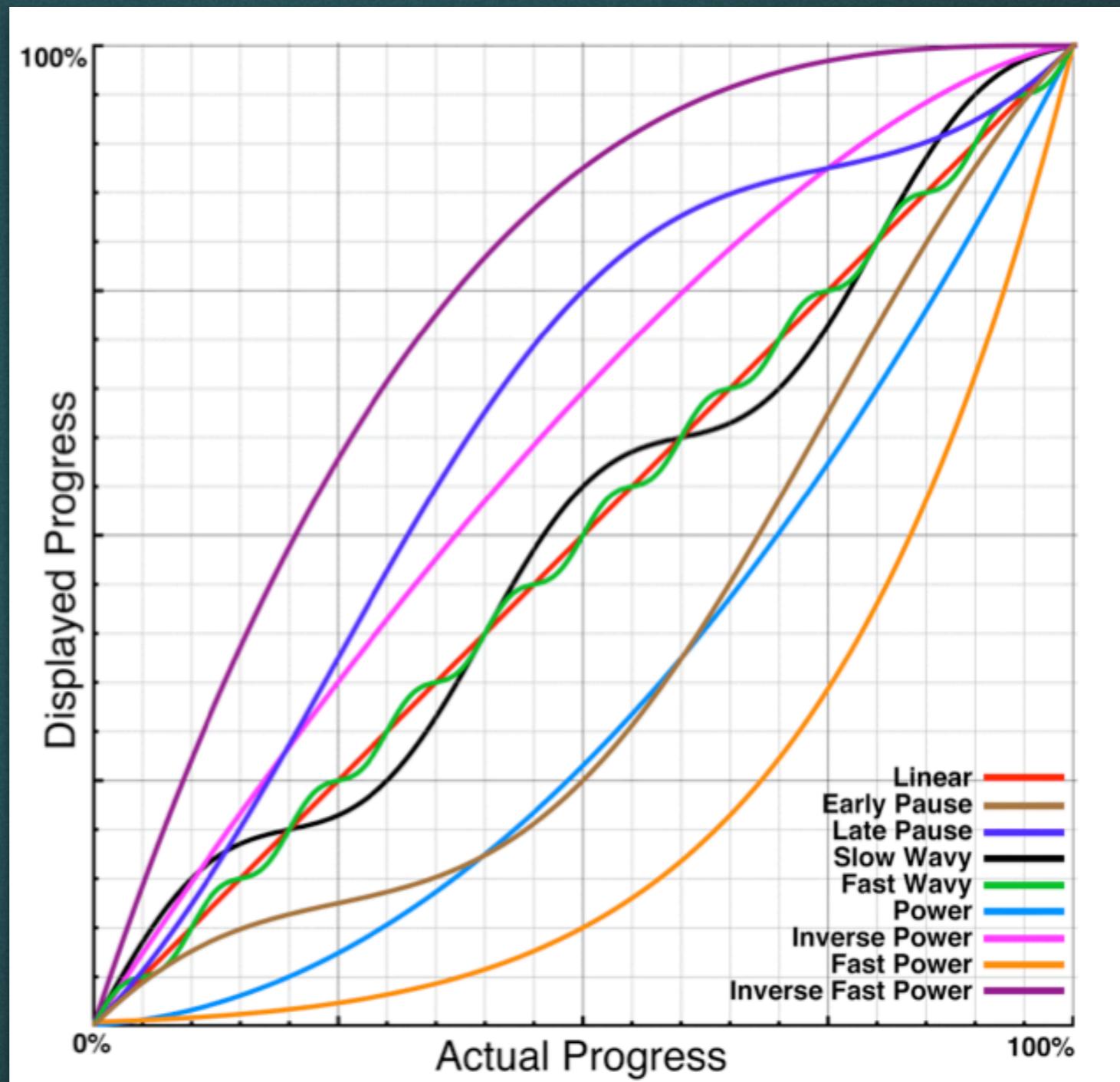


<http://www.flickr.com/photos/sainz/485663542/>

Humans do not perceive the
passage of time in a linear way.
This [...] causes human perception
of process duration to vary.

Rethinking The Progress Bar
<http://chrisharrison.net/projects/progressbars/index.html>





Harrison, C., Amento, B., Kuznetsov, S., and Bell, R. 2007. Rethinking the progress bar.
<http://chrisharrison.net/projects/progressbars/ProgBarHarrison.pdf>



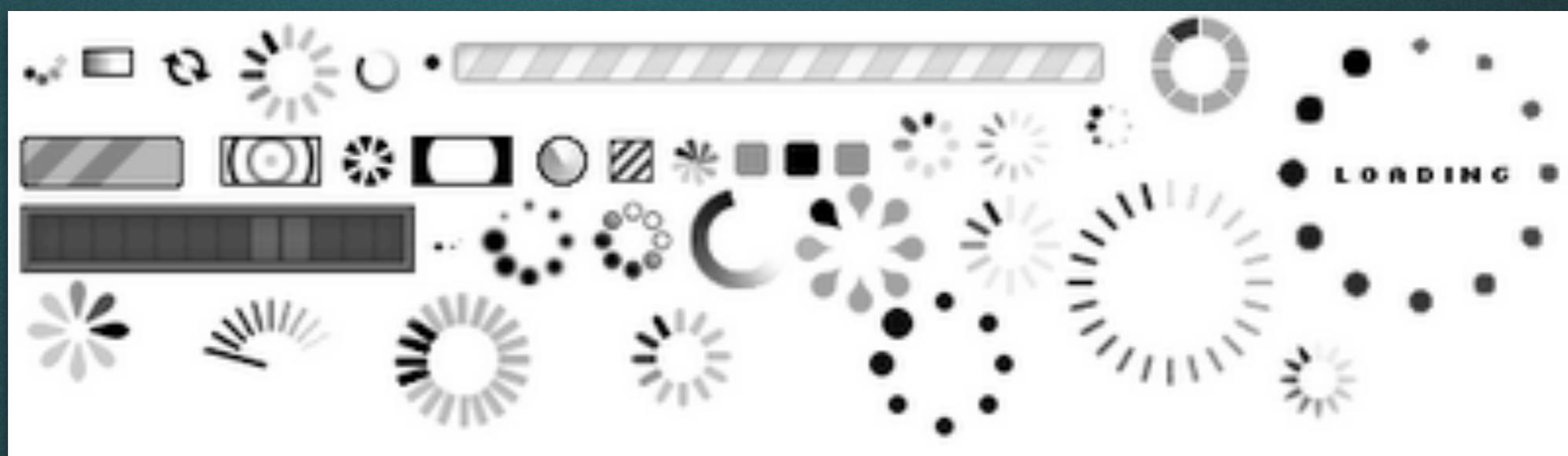


Spinner

known also as
Loading Indicator or Waiter

http://www.flickr.com/photos/denial_land/3282600913/





Mastering Spinner



Draw the [...] spinner icon as little
as possible, but one solid break
isn't bad and might be better than
one really long spinner.

John Wayne “Perceived Speed Performance”

<http://www.johnwaynehill.com/blog/2010/06/16/perceived-speed-performance/>



jsFiddle and Ajax

- Echo XHR Request
- HTML, JSON, JSONP, XML
- Defined in the fiddle
- Stored on Github
- Delay

Docs: <http://doc.jsfiddle.net/use/echo.html>

Example: <http://jsfiddle.net/zalun/6yLuQ/embedded/result/>



Spinner delay survey

- <http://survey.jsfiddle.net/spinner/>
- 2 Requests with the same (randomized) XHR Duration and randomized Spinner delays
- XHR Durations: 0.2, 0.4, 0.6, 1.0, 1.5 seconds
- Spinner delays: 0.0, 0.2, 0.4, 0.6 seconds
- Participant is choosing which request was faster and if both requests felt responsive





<http://www.flickr.com/photos/santos/4648899011>