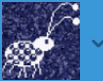
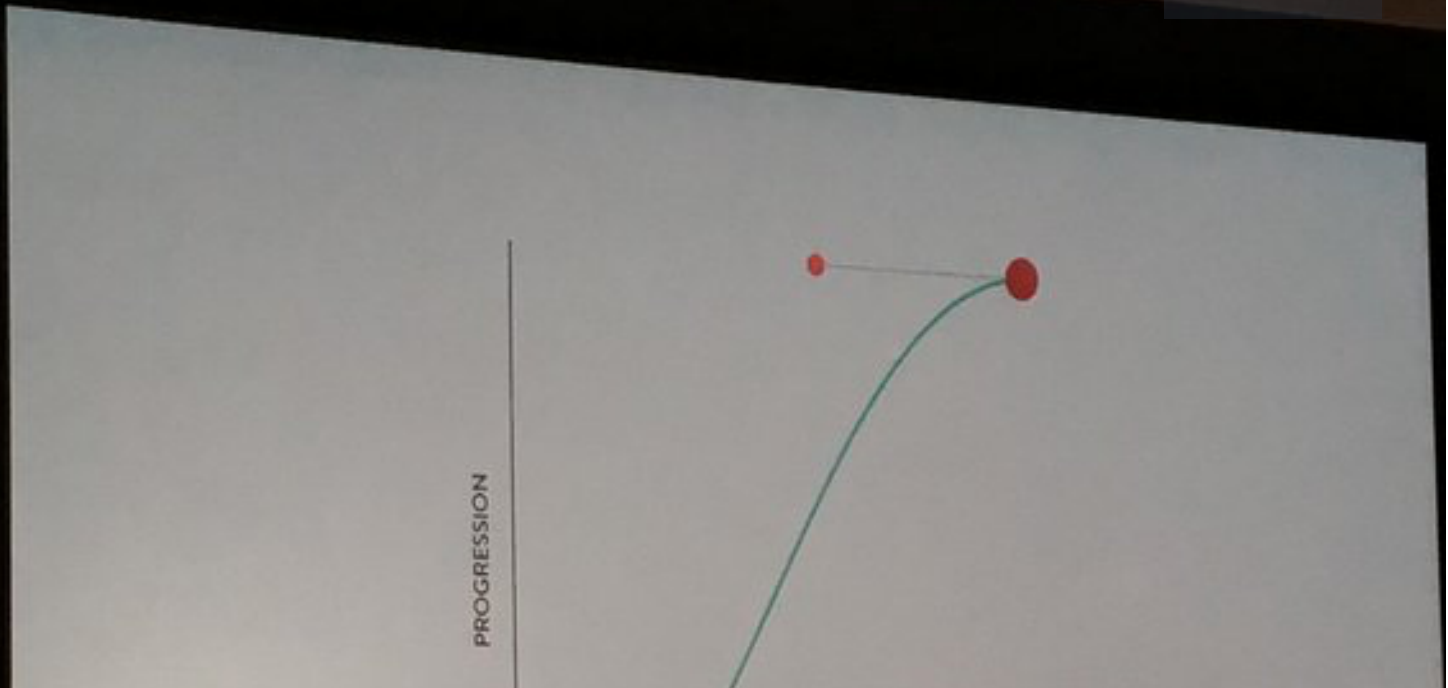


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AEASEA 2016 - Designing Meaningful Animation

Notes from Val Head's presentation on CSS animation, given at An Event Apart Seattle 2016.

by  Anne Gibson a year ago 13 Views



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Yay! @vlh to talk about designing meaningful animation! I am LOUSY at looking for animation opportunities #AEASEA

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The number of animations is not what makes the difference in usability, it's how they're used and how they fit that matter #AEASEA

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Good animation, like good design, should be almost-invisible #AEASEA

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Great UI animation has purpose and style #AEASEA

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Principals of animation: gain better understanding of how to communicate, and expand our vocabulary for discussing animation [#AEASEA](#)

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Disney Animation: The Illusions of Life written to show how they created animation that felt real [#AEASEA](#)

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12 Principals of Animation the12principles.tumblr.com has the ones in the book [#AEASEA](#)

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Tumblr
the12principles
4.0/5.0 stars – 330,709 ratings





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the 12 principals aren't equally important for web animation. 3 that are most helpful @vlh will cover today #AEASEA

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3 principles we'll cover:
Timing and spacing
Follow-through
Secondary action #AEASEA

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Code on the back side is CSS key frames adjusting sliding and fading right now in the example #AEASEA

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Timing & Spacing are the mama and papa bear of animation. If this is all you learn but you master it, you will rock #AEASEA

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timing: the amount of time it takes for something to happen.

Duration. #AEASEA

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1



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(Oh by the way if you're anywhere near Philly @TheFranklin has a great @Pixar exhibit on this RIGHT NOW) #AEASEA

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Spacing is the changes in speed over the duration of the action's timing. Rate of change #AEASEA

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It's also how it changes its rate of change over the animation #AEASEA

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Another way to think of spacing is the space between where the ball was in each frame (24/sec) to give illusion of physics
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Timing and spacing makes animated objects appear to obey physics. Establishes mood, emotion, reaction [#AEASEA](#)

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We interpret movement as emotional states. Happy buttons move differently than angry buttons [#AEASEA](#)

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On the web timing = duration, spacing = easing [#AEASEA](#)

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5 keywords for easing: linear, ease, ease-in, ease-out, ease-in-out. But *nothing* moves linearly [#AEASEA](#)

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The cubic-bezier function
cubic-bezier(0.42, 0, 0.58, 1);
Two X-Y coordinates. (Or, "Number barf") [#AEASEA](#)

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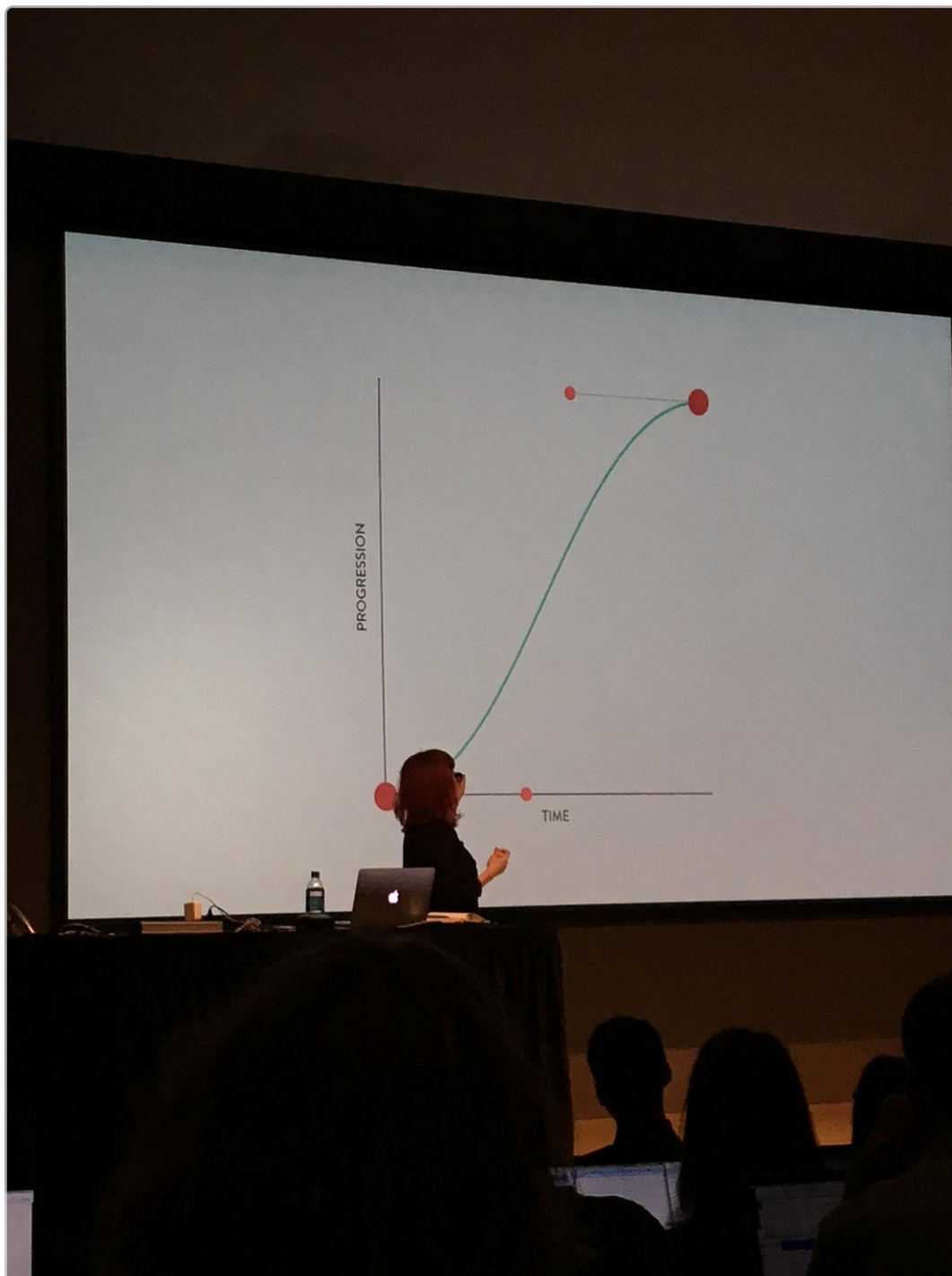
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Animations can be charted against time. The graph of an ease-in-out is a cubic bezier formula [#AEASEA](#)

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A chart by [@vlh](#) of an ease-in-out

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Andrea 🦄🎨 & 🐶🖼️
@amcvittie

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Ooooooh. Cubic-bezier.com #AEASEA

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Show energy by overshooting the destination and settling back in to a space #AEASEA

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Follow through: not everything stops at once. A bulldog's cheeks or the wobble of the road runner stopping #AEASEA

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Secondary action: supplemental action that reinforces and adds dimension to the primary action. Sprites with little fireworks #AEASEA

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""-(๖๖)""
@whozzawuzza

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And @vlh takes the ever bold move of live coding during a presentation. Godspeed. #aeasea

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1 3



Zeldman
@zeldman

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RT @theobserving How timely... just as @vlh discusses cubic-bezier discusses this at #aeasea. Nice.

[twitter.com/anatudor/statu...](https://twitter.com/anatudor/status...)

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Mad props to @vlh for successfully live-demo-ing coding changes to a modal for animation #AEASEA

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The bigger picture: your animations won't live in isolation. they should probably go together. Choreography! #AEASEA

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Similar objects animate in similar ways. (All headlines should animate similarly. All thumbnails animate similarly.) #AEASEA

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Entrances should inform exits. Have a consistent model of where things are offscreen #AEASEA

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Modals should come in from the bottom and leave to the bottom. "I live down here!" #AEASEA

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Step 1 should animate the same way as step 2, as step 3... #AEASEA

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"I'll always make my duration .3 seconds" Sounds easy but if they move different distances, feels weird, unrelated [#AEASEA](#)

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Match velocities, not durations, when creating UI animations.
[@vlh](#) [#aeasea](#)

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Consistent vs cohesive choreography. Consistent suggests repetitive, but it might not always be what you want. [#AEASEA](#)

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Consistent animation makes sense in a nav (esp. for a watch company). But across items, consistent items aren't required [#AEASEA](#)

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It needs to feel similar, like being conducted by the same person, but not dead-on consistent #AEASEA

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Your brand's personality and motion personality should match. "How does my brand move?" #AEASEA

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check your branding style guide, voice and tone for content, to find cues for motion descriptions for the brand #AEASEA

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Follow throw and anticipation: energetic, friendly, bold #AEASEA

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Squash and stretch: high energy and playfulness, childlike qualities [#AEASEA](#)

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don't overdo squash and stretch unless you're making muppets.

Ease-in-outs: balanced and measured [#AEASEA](#)

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Smaller movements: calm and subtle
Opacity and blur: soft and stable animation of things
appearing/disappearing [#AEASEA](#)

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Like all design, the connections are a little subjective. "Playful" will be different for everyone [#AEASEA](#)

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Animation belongs in your style guide (or other doc) to save you from having to do it again. Provides consistency, consensus

[#AEASEA](#)

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Document categories of animation

- ▶ Entrances and exits
- ▶ Give emphasis
- ▶ Give feedback
- ▶ Transitions between states
- ▶ Personality and brand
- ▶ Orientation
- ▶ Storytelling



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Categories of animation [#aeasea](#)

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Document your building blocks [#aeasea](#)

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Build your own animation library! Makes decisions faster, projects faster, and you're super cool #AEASEA

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Inspiration: artofthetitle.com Capptivate.co (animated interactions in mobile apps) Vimeo staff picks of the day #AEASEA

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CAPPTIVATE.co

Awesome iOS UI Animations for this App and More!

capptivate.co



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And @vlh has a newsletter at uianimationnewsleter.com to check out for more #AEASEA

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