



Faerie Dust and Sparkles: Bringing Your AI Characters to Life

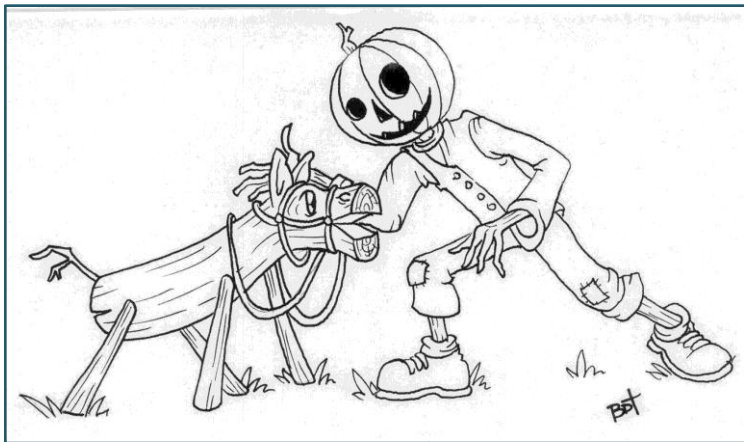
Kevin Dill

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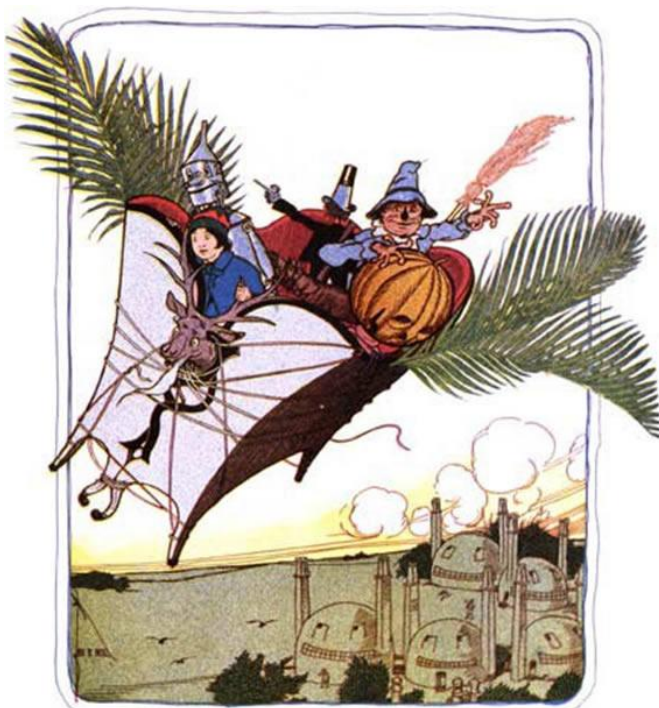


Magic Dust of Life

- The Marvelous Land of Oz (1904)
- (4 years before Model T)



<http://imgkid.com/return-to-oz-jack-pumpkinhead.shtml>



<http://dove80000.over-blog.com/article-l-univers-du-magicien-d-oz-index-a-c-116246455.html>



Character AI

- Not a technical talk
- Mindset, Philosophy, *Craft*
- Non-combat behavior





Idle Alive





Idle Alive

- Constantly moving, constantly attending
- No looping or repetitive animations
- No straight lines or crisp turns
- Believable, organic, grounded in and reactive to the world around him
- ***We won't be truly photorealistic until we achieve this!!***





Be an AI Artist

- Become an observer of life
 - How people stand, move, interact, gesture, ...
- Different situations
 - Halls & doorways
 - Parties and social groups
 - The mall
 - The boss's office



<http://bhavanajagat.com/2013/06/28/wholedude-whole-artist/>



Be an AI Artist

- *Crave criticism!!*
- Get lots of eyes on it
 - Your spouse & friends
 - Your players
 - The artists & animators
 - QA



<http://www.quotessays.com/gallery/constructive-criticism-quotes-3.jpg.html>



Behavioral Building Blocks

- Build bottom-up
- Think about our tiger
 - Breathing
 - Fidgets (yawning, stretching, etc.)
 - Attention
- Build those into animation *performances*
 - Sitting, standing, laying down, walking, running, ...
- ... and then into larger behaviors
 - Play, eat, sleep, fight, work, ...



Dan Toose

<http://dantoose.com/2012/10/21/top-down-and-bottom-up/>



Believable, Organic

- *Break the animation loop*
 - Combine asynchronous animations
 - Upper body
 - Lower body
 - Breathing
 - Attention
 - Expression
 - ...





Believable, Organic

- ***Break the animation loop***

- Combine asynchronous animations
 - Upper body
 - Lower body
 - Breathing
 - Attention
 - Expression
 - ...

- ***Avoid Repetition***

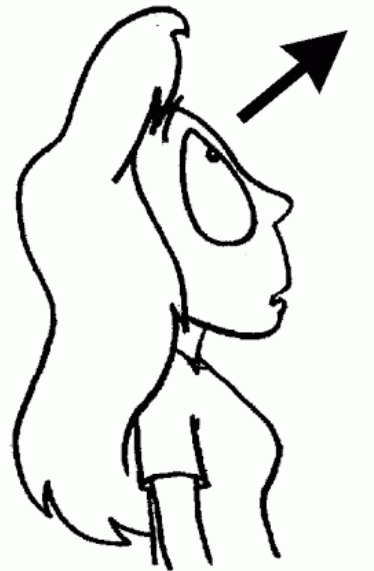
- Random variance
 - Speed
 - Blend weights
 - IK / bone positions
 - Wiggle (Perlin noise)
 - VO variants





Grounded & Reactive

- Attention
 - Neutral
 - Random
 - Object / entity
 - Event
- Duration
- Anticipation & Response



<https://englishhelponline.files.wordpress.com/2010/08/lookat.gif>



No Straight Lines

- Puppies don't use path planners
 - (and neither do people, really)
 - Parkour is a good step, but too directed & linear



<http://hellogiggles.hellogiggles.netdna-cdn.com/wp-content/uploads/2013/12/09/Golden-Labrador-puppy-running-towards-the-camera-with-other-puppies-in-the-background1.jpg>



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