

iStoryline: Effective Convergence to Hand-drawn Storylines

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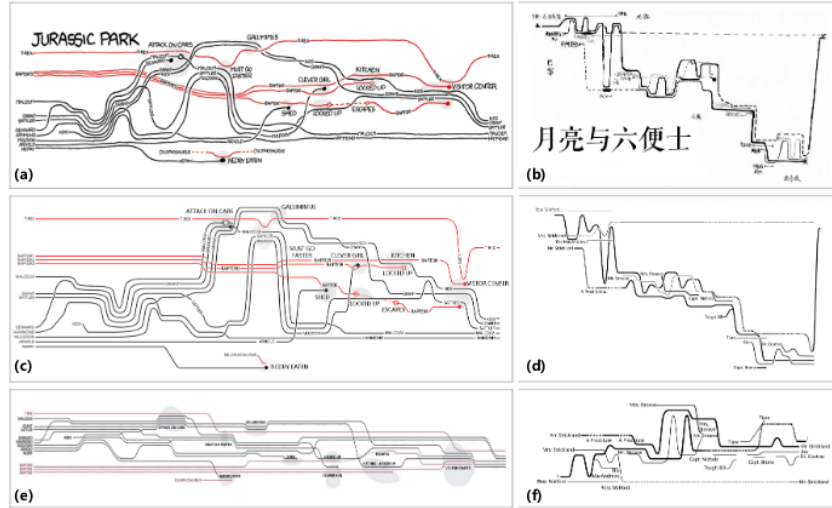


Fig. 1. Storyline visualizations for the movie *Jurassic Park* and *The Moon and Sixpence*: (a) and (b) hand-drawn illustrations, (c) and (d) iStoryline illustrations; (e) and (f) StoryFlow illustrations.

Abstract—Storyline visualization techniques have progressed significantly to generate illustrations of complex stories automatically. However, the visual layouts of storylines are not enhanced accordingly despite the improvement in the performance and extension of its application area. Existing methods attempt to achieve several shared optimization goals, such as reducing empty space and minimizing line crossings and wiggles. However, these goals do not always produce optimal results when compared to hand-drawn storylines. We conducted a preliminary study to learn how users translate a narrative into a hand-drawn storyline and check whether the visual elements in hand-drawn illustrations can be mapped back to appropriate narrative contexts. We also compared the hand-drawn storylines with storylines generated by the state-of-the-art methods and found they have significant differences. Our findings led to a design space that summarizes 1) how artists utilize narrative elements and 2) the sequence of actions artists follow to portray expressive and attractive storylines. We developed iStoryline, an authoring tool for integrating high-level user interactions into optimization algorithms and achieving a balance between hand-drawn storylines and automatic layouts. iStoryline allows users to create novel storyline visualizations easily according to their preferences by modifying the automatically generated layouts. The effectiveness and usability of iStoryline are studied with qualitative evaluations.

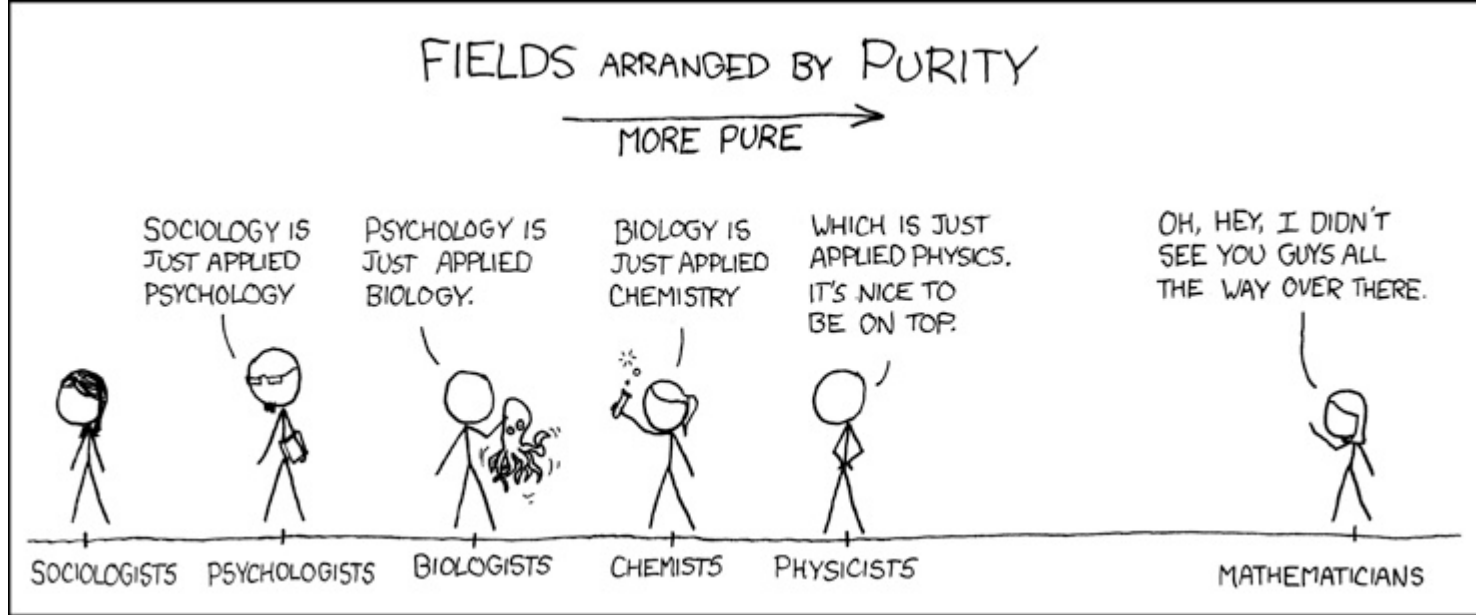
Index Terms—Hand-drawn illustrations, automatic layout, design space, interactions, optimization

Randall Munroe

- degree in Physics
- worked at NASA
- 4942 Munroe
- blog
- what-if?
- xkcd



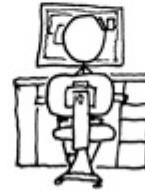
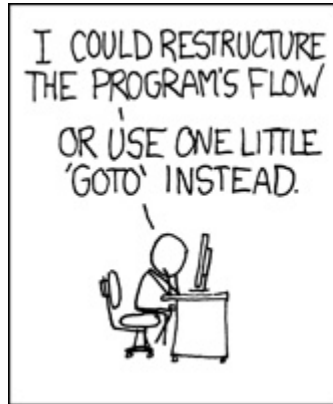
xkcd



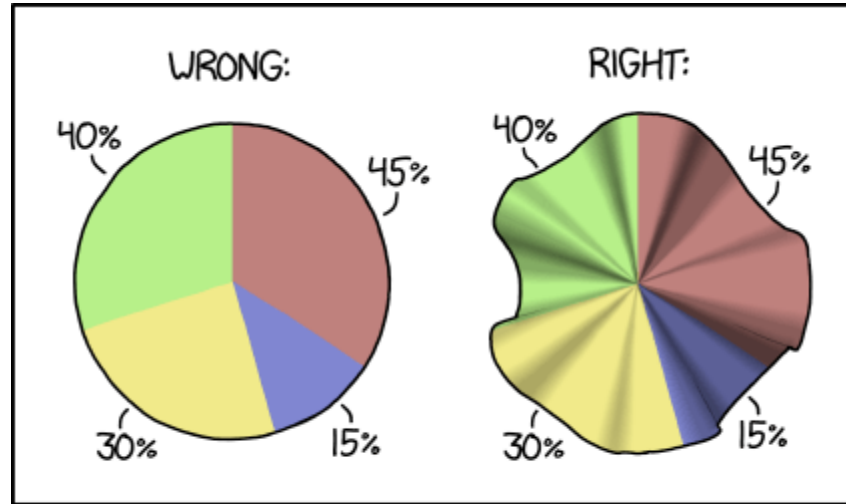
I wanted to pick a name that I wouldn't get tired of. That would just always mean me. So I just went down combination of letters that weren't taken, until I could find one that didn't have any meaning, didn't have any pronunciation, and didn't seem like an obvious acronym for anything.



characters

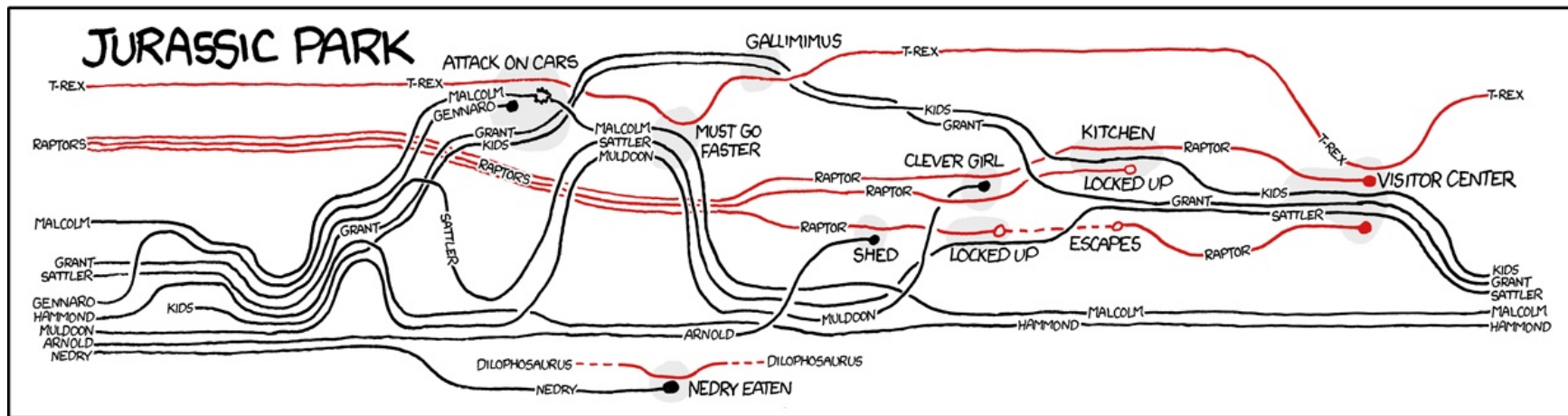


Visualization

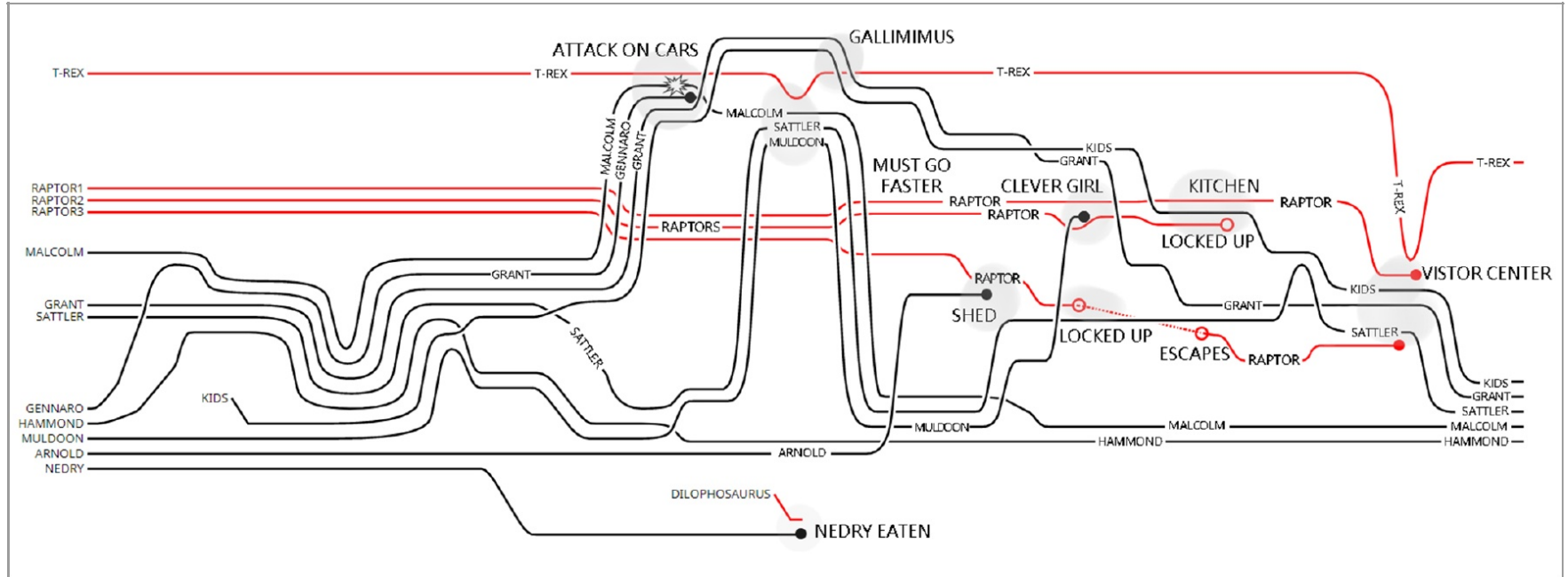


HOW TO MAKE A PIE CHART IF YOUR
PERCENTAGES DON'T ADD UP TO 100

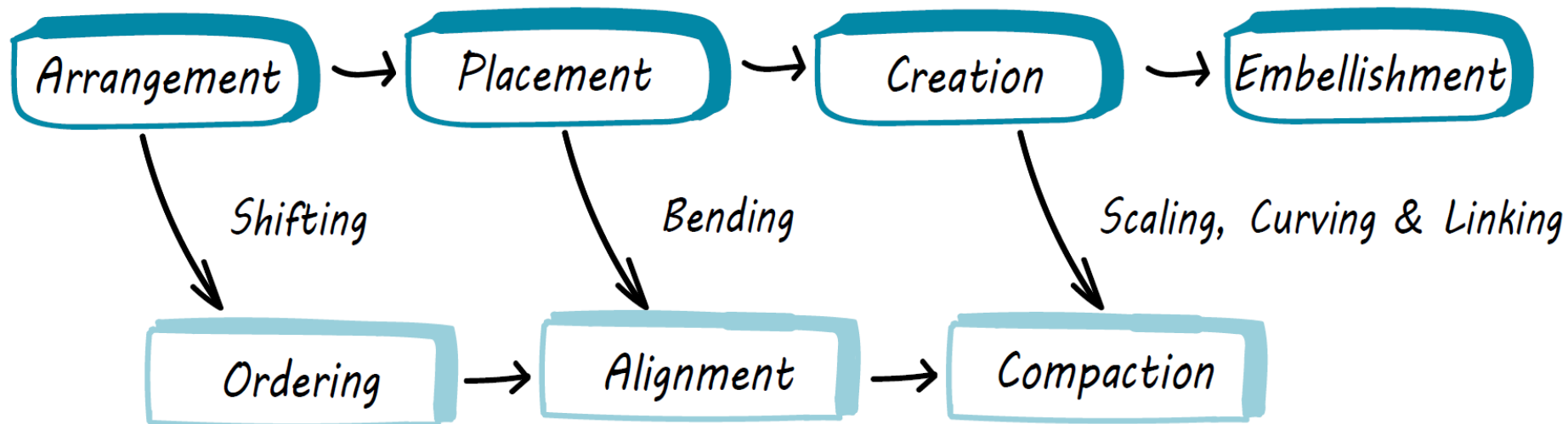
Storyline Visualization



iStoryline



Workflow



References

Artykuł: [iStoryline: Effective Convergence to Hand-drawn Storylines](#)

xkcd: [xkcd.com](#)