The amazing mysteries of the gutter: Drawing inferences between panels in comic book narratives


Abstract

Visual narrative is often a combination of explicit information and judicious omissions, relying on the viewer to supply missing details. In comics, most movements in time and space are hidden in the "gutters" between panels. To follow the story, readers logically connect panels together by inferring unseen actions through a process called "closure". While computers can now describe the content of natural images, in this paper we examine whether they can understand the closure-driven narratives conveyed by stylized artwork and dialogue in comic book panels. We collect a dataset, COMICS, that consists of over 1.2 million panels (120 GB) paired with automatic textbox transcriptions. An in-depth analysis of COMICS demonstrates that neither text nor image alone can tell a comic book story, so a computer must understand both modalities to keep up with the plot. We introduce three cloze-style tasks that ask models to predict narrative and character-centric aspects of a panel given n preceding panels as context. Various deep neural architectures underperform human baselines on these tasks, suggesting that COMICS contains fundamental challenges for both vision and language.

Related Material

[PDF] [Supp] [arXiv] [Video] [bibtex]
the gutters between panels. To follow the story, readers logically connect panels together by inferring unseen actions through a process called closure. @article{iyyer2017theam, title={The Amazing Mysteries of the Gutter: Drawing Inferences Between Panels in Comic Book Narratives}, author={Mohit Iyyer and V. Manjunatha and A. Guha and Yogarshi Vyas and Jordan L. Boyd-Graber and Hal Daum'e and L. Davis}, journal={2017 IEEE Conference on Computer Vision and Pattern Recognition (CVPR)}, year={2017}. Visual narrative is often a combination of explicit information and judicious omissions, relying on the viewer to supply missing details. In comics, most movements in time and space are hidden in the “gutters” between panels. To follow the story, readers logically connect panels together by inferring unseen actions through a process called “closure.” While computers can now describe what is explicitly depicted in natural images, in this paper we examine whether they can understand the closure-driven narratives conveyed by stylized artwork and dialogue in comic book panels. We construct a The space between the panels is called the gutter. If each panel is an idea, its job is to be the space between ideas, to give the reader a moment to absorb the contents of the first panel before connecting that idea with the contents of the next panel. Traditionally a gutter is always the same width, which implies a fairly smooth transition from panel to panel with no accent or alteration to the reading. Gutter and no gutter examples: Overlapping panels Creating your own sense of pacing and movement between panels will come to you as you work and develop your style. Trying all of these different types of panels in your layouts can be a good way to test run a device before committing to a final page layout. Go out and tell some great stories!