

10.2 Web Browsers & Navigation

1 Introduction

In contrast to traditional medium for comics, digital space allows comics' creators explore new design opportunities, such as "infinite canvas" and interaction allowance [2]. In this essay, I am going to discuss three visual perception mechanisms that can enhance webcomics readers' experience.

2 Perceptual Mechanisms to Support Webcomics

2.1 Perceptual Organization: Gestalt principles

Webcomics can take virtually any size and shape [2]. Panels can be organized vertically, horizontally, diagonally, circularly, and even in 3D space. In order to avoid confusion for readers considering this freedom for design, developers should consider human perceptual organization principles:

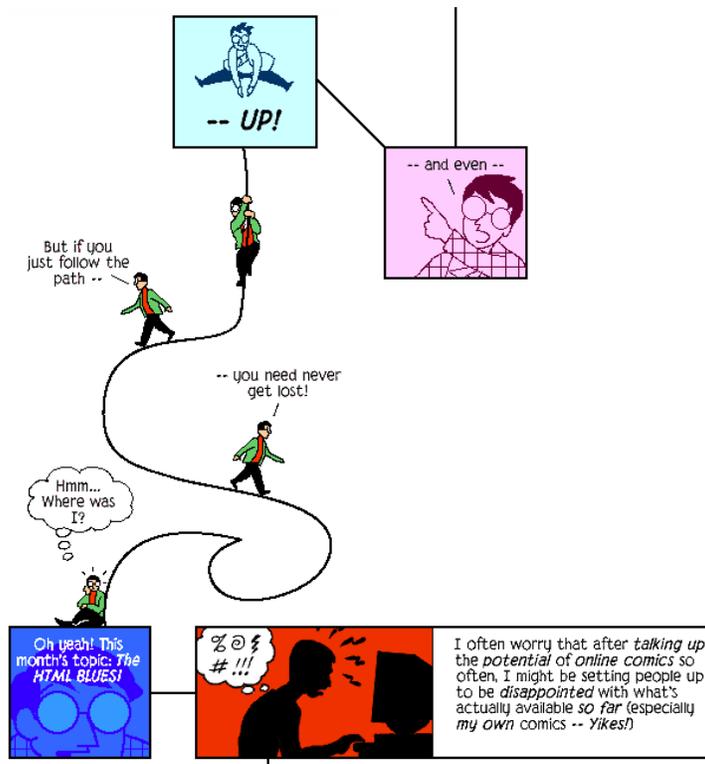
- Gestalt principle of *proximity* states that positioned close to each other objects tend to be grouped together [5]. That means that panels should be spatially organized according to their content: "chunking" panels of same story content close to each other.
- The relationship can be emphasized by *similarity* principle as well [5]. Similar elements tend to be grouped together, thus, panels with same features, like colour and shape are perceived to have relevant content.
- The application of *connectedness* principle (connecting elements with lines to group together) may over-rule previously discussed principles [5]. Moreover, connecting panels with well designed lines may be a good solution for providing direction and flow experience for readers.

See Figure 1 for an example.

2.2 Event Perception: Event Segmentation

Correct event perception is a core component for better understanding and memorizing [6]. Printed comics do not provide designers an opportunity to have lots of empty space, but in webcomics you can take advantage of an "infinite canvas" [2] and use empty gutter space to achieve proper event segmentation for readers. In other words, spatially separated (distant) panels may be perceived as different story events. In addition, using scrolling navigation techniques can enhance time

Figure 1: Gestalt principles of similarity and connectedness applied. The first three panels have same shape (square) and color (monotone, solid) features in order to differentiate panels from the next one, that starts a different topic. The design does not apply proximity principle, but connectedness helps to understand the flow of the reading. [1]



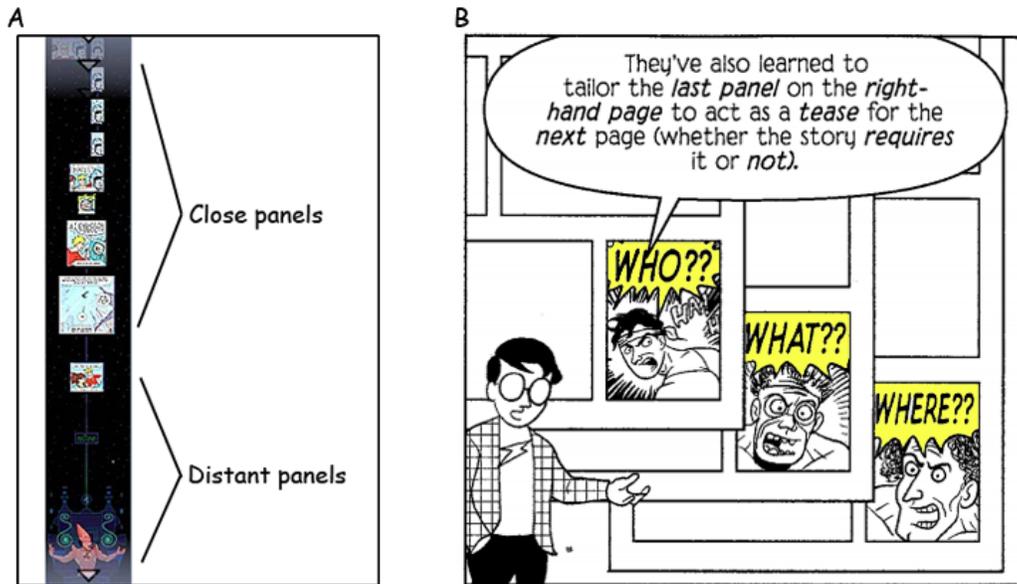
32 perception: scrolling large empty spaces between the distant panels, moving eyes
 33 on a screen and passing of the real time influence on perception of time within the
 34 story. See Figure 2, A for an example.

35 Another way to achieve event segmentation is through separation of events into
 36 different web pages and using hyperlinks for interaction. Same as in printed comics,
 37 the last panel can be designed as a “teaser” for the next page and create “anticipa-
 38 tion” moment in the story, which on its own can serve as a breakpoint [3]. See
 39 Figure 2, B for an example.

40 2.3 Visual Attention: Interaction through Preattentive Features

41 Understanding of visual attention and preattentive processing can help design ef-
 42 fective visual displays and get users to react to something before they actually con-

Figure 2: A. Panels separated by large gutter space are perceived as different story events by readers; scrolling supports time perception [1]
 B. Last panel is used as a “teaser” for the next page. The salient preattentive colour feature helps readers to “intuitively” find a “clickable” spot on the panel.



43 sciously know that it exists [4]. In webcomics, that is very useful for creating
 44 interaction. In order to help users understand where to “click” in order to see the
 45 next page (or anything else), the “button” should grab their attention. Thus, preat-
 46 tentive features that create high salience, like unique color [5] can draw attention
 47 and readers would “unconsciously know” where to “click”. See Figure 2, B for an
 48 example.

49 3 Conclusion

50 In this essay, I have presented how knowledge of perceptual organization, event
 51 perception and visual attention theories and proper application can enhance users’
 52 experience with webcomics.

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