

Every author's lifespan is represented by a circle with a circumference of 100 years. Every novel is represented as a point on the timeline (circumference) which consequently forms a triangle with author's death age/last book published. The circle with demonstration of triangles to point out the age of the author when he/she completed a novel is noticeably depicting the primary idea of looking at the timespan between the first published book and the masterpieces. (Refer figure 1.2 Debut and masterpieces) The first triangle in a circle represents the debut novel and subsequent triangle as masterpieces. The age in the

circle is clearly mentioned from which the user can derive the actual timespan between the debut novel and masterpieces. Figure 1.2 Debut and masterpieces (left image) With the add-on of a red dot on the first vertex of the triangle, the user can apprehend unmistakably if the debut novel coincides with a masterpiece. Figure 1.2 Debut and masterpieces (right image) Otherwise, a thick black stroke is drawn between the second vertices of the triangles separating the debut novel and the first masterpiece. Also, each consecutive triangle clearly depicts the author's number of successes, while the spacing between triangles provides an insight on how scattered the masterpieces in an author's career are.



Figure 1.2 Debut and masterpieces

c) Are there weaknesses with the design that may hinder its effectiveness? Why? (5 pts)

Yes, there are few points to consider that are affecting the effectiveness of Figure 1. The original design. Few of the cognitive encoding errors can be linked to this design. Referring Figure 1.3 Change blindness, some of the colors are overlapping like yellow and orange which are hindering the visualization. Only with the age numbered on the right we can figure out the difference that there are four novels and not three. Also, the area/shape covered by the triangle in the author's lifespan, which is the primary focal point for the user, is insignificant to the purpose of the visualization. User's unfamiliarity with certain intricate points like intention of red dot, black strokes and asterisks in the graphs may pose difficulty in comprehending the graphs and might be time consuming. Rating of the novel mentioned below the author's name along with hometown is confusing and is not relevant to the intention of the graph. Also, different color schemes should be experimented to provide readers with multiple levels of readings. Refer Figure 1. The original design., Intended purpose of the visualization is reflected just on heading of the article and no clear mention is provided in the subsequent paragraph. And importantly the data representation is not universally known to all the people.

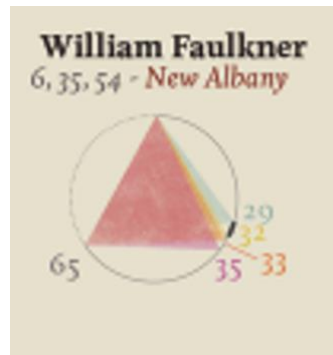


Figure1.3 Change blindness

Question 2 (10 points)

Consider the redesign shown in Figure 2 and answer the following questions. Justify your answers and strengthen your arguments/conclusions with reference to relevant concepts, principles, theories, heuristics, or other considerations.

a) What are the most significant changes made in the redesign? (3 pts)

Some of the noticeable changes in redesigned representation are the introduction of timelines in a linear format and the peaks replace triangles showing each author's age at novel completion of masterpieces according to Modern Library. If there are multiple peaks, then they denote different masterpieces. The conception of the author's death or if it's still alive is simply depicted by dot "." in the end or "still alive" is mentioned respectively. Irrelevant information such as the ranking of the novel in that year and hometown of the author has been eliminated in redesigned representation and transforming circles to linear scale/ timelines where each peak represents the masterpiece with colors reflecting the continent belonging to the author's hometown are shown which gives a holistic idea of the place and answers questions which were hard to answer in original design.

b) In your opinion, is the redesign effective? How and why? (4 pts)

The redesign represents the same data with different mental models. Redesigned representation is effective in many ways and has addressed issues encountered in the original design. Such data representation is universally known to people and doesn't necessitate the requirement of training and resources to understand the graph. Redesigned representation gives an approximation of age as it's difficult to get the exact age at which masterpieces/ debut novels were released which is obscuring the actual data. Interestingly, there is inconsistent information as no difference is indicated between the debut novel and the masterpieces. Refer Figure 1.2 Debut and masterpieces (left image) for author James Joyce, if the author has their debut novel as a masterpiece, no such information is studied in the redesigned graph, refer Figure 2. A redesign. for James Joyce we can only conclude that he has three masterpieces, but the redesign fails to fulfill the primary purpose of the design which is visualizing the timespan between the publication of their debut work and masterpiece(s). Overall, the logic is not clear, and the visuals somewhat distract from the primary message.

c) What lessons have you learned concerning information visualization in general given your own experience in exploring, decoding, and comparing the effectiveness of two visualization designs? (3 pts)

On comparing the effectiveness of the two designs, the original design was not universally known to people and requires some additional training and resources if not extensive, but it conveyed the primary purpose of the representation appropriately covering all the possible points whereas the redesigned graph has incorporated good encoding techniques but failed to identify the time gap between debut novel and a masterpiece and also if author's novel is released after he/she is dead. It is not always the case where redesign is better than the original design as sometimes it fails to address important questions. Design should be intuitive to the reader and with just a few changes in redesign, it can fulfill the purpose of maintaining its simplicity and consistency to information. Changes like adding a small red dot similar to the original design over the peak could represent that the debut novel is the same as a masterpiece.

Quick redesign

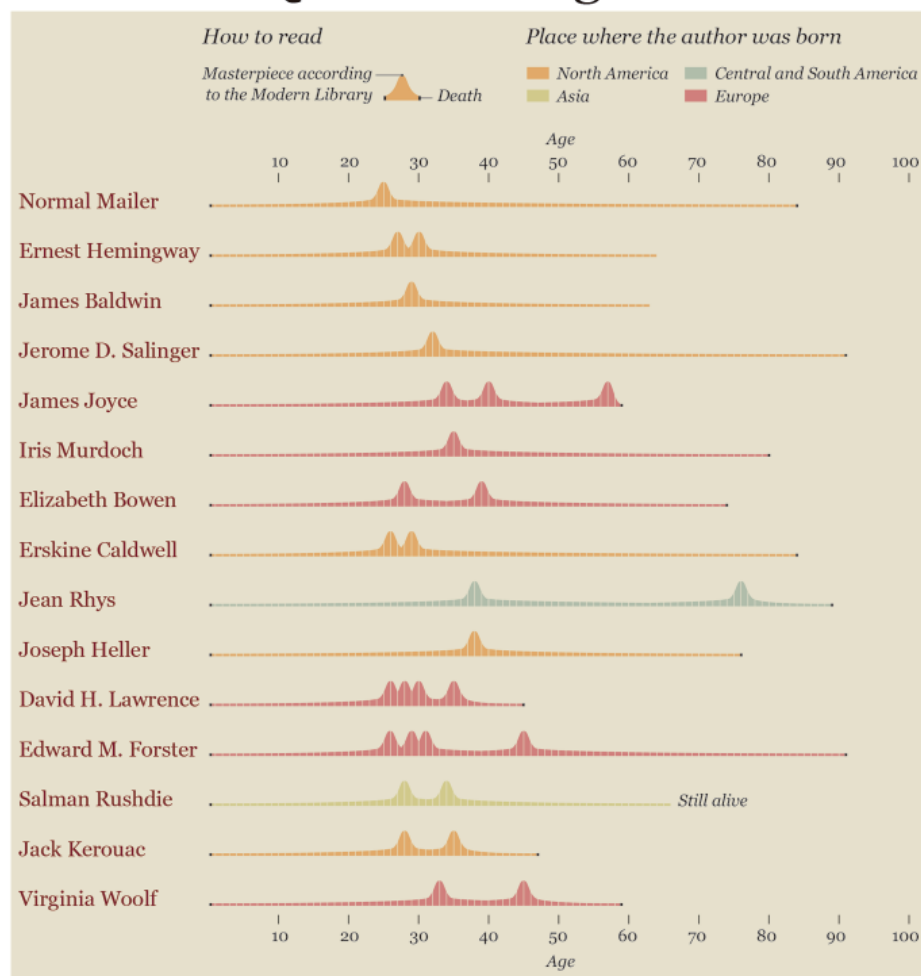


Figure 2. A redesign.

References:

- [1] <https://www.behance.net/gallery/18723903/From-first-published-to-masterpieces>
- [2] <http://www.glaucomanetegari.com/selected-projects/from-first-published-to-masterpieces>