Data Storytelling

Valdivia Guzman, Alejandra Maria Pazos Alarcón, Christian Joshua

Condori Quispe, Yhónn Joel

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Resumen

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Abstract

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi vulputate tempus molestie.

I. Introduction

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II. State of Art

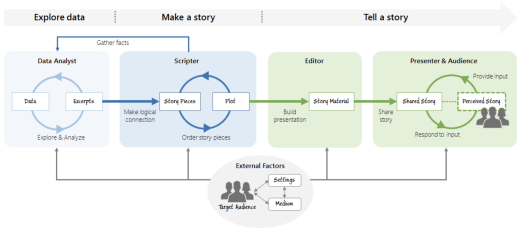
i. Data Storytelling

According to Knafilc's idea, data itself is difficult to understand, but there are stories in data bringing it to life that allow to communicate data in a much more efficient way. Data storytelling transforms data into a better form that can support decision making. In the way of exploration of how to better present and deliver data, how to make the process more vivid, convenient and plentiful[2].

Recent research in this domain has produced valuable concepts such as e.g. serious storytelling and cognitive big data. Questions like the difference between serious storytelling and entertaining storytelling are addressed. It also rethinks, if some methods and theories of traditional storytelling can support serious storytelling; and which domains or disciplines should be considered. These concepts are vital how data storytelling supporst cognition and human activities[2].

ii. Visual Data Storytelling Process

The three main components—exploring data, making a story, and telling a story—are introduced with their respective artifacts in a linear order.



Storytelling process: transforming data into visually shared stories[1].

ii.1 Exploring Data

Exploring data involves the set of activities centered around exploring and analyzing data. Data is the raw material that constitutes the source of the visual data story content. Pertinent data excerpts are collected through exploratory analysis. These may be simple such

as recorded data facts or steps from the analysis process. They may be more complex such as derived data insights, interesting sets or sequences within the data, and/or process details and variations. They may include the first quick externalizations of the data such as charts from spreadsheets or hand sketches made during the analysis. At this point in the process, this collection of excerpts may or may not be tied to any specific visual representation. The result of data exploration when making a visual data story is a collection of the chosen data excerpts[1].

ii.2 Making a Story

To make a story the data excerpts gathered in step one need to be assembled into a storyline that is interesting, illuminating, and compelling. The sequence plays a critical role in a story; the same set of excerpts can have impact or can fall flat. A significant part of making a story is the process of constructing the storyline or plot. The activities involved are ordering, establishing logical connections, developing flow, formulating a message, and creating the denouement. These activities that are often intertwined may be achieved sequentially, simultaneously, or through multiple iterations. Furthermore, it is possible while developing the storyline to find it necessary to go back to the explore data stage to gather more excerpts (e.g., insights or evidence). The final outcome of this step in the process is the plot of a story which describes how the story pieces are related (e.g., in time, cause and effect, patterns, etc.) and what they mean in an overall context[1].

ii.3 Telling a Story

Telling a story is the general process of materializing the abstract plot and delivering the story. It consists of the following activities: building a presentation (i.e., creating story material with the chosen medium), sharing the story using the story material, and finally receiving and handling the feedback from the audience. In the building phase of telling a story, a plot and story pieces are taken and turned into story material. Story material is the materialization of each piece of this abstract content through the development of visual representations, interactions, animations, annotations, or narration. For example, story material could be one or more visualizations assembled in a slide deck, a video with narration, an infographic presented on a poster, or a demo planned with an interactive system for the live presentation[1].

III. Conclusions

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References

[1] Bongshin Lee, Nathalie Henry Riche, Petra Isenberg, and Sheelagh Carpendale. More than telling a story: Transforming data into visually shared stories. *IEEE computer graphics and applications*, 35(5):84–90, 2015.

[2] Yangjinbo Zhang. Converging data storytelling and visualisation. In *International Conference on Entertainment Computing*, pages 310–316. Springer, 2018.