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Storytelling with Tableau: A Hands-on Workshop

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ABSTRACT

In today's business world, storytelling with data is a powerful way to communicate, convince, and persuade. Such skills are highly desirable in all types of professions. Participants of this hands-on workshop will lean storytelling with Tableau, which skills can be applied to teaching subjects such as data analytics, visualization, and communication as well as presentations in our day-to-day job and research projects.

Keywords

Storytelling, data visualization, data analytics, Tableau.

INTRODUCTION

Storytelling has been part of our lives as old as human history. By hearing stories and telling stories, we grow together and stronger as a community. In the business world, this form of art is undeniably powerful because effective storytelling can connect with our stakeholders immediately, motivate them to make decisions and take action. Coupled with narratives and visuals, data stories can be highly interactive and effective in delivering a compelling story with insights and knowledge (Boy et al., 2015). It has become a powerful way to communicate, convince, and persuade, all leveraged with data. Data storytelling is a structured approach for communicating data insights (Dykes, 2016). Storytelling with data can be carried out in many different forms depending on the purpose of the communication, the mode of presentation, and how the audience interact with the data visualization (Carpendale et al., 2016; Kosara, 2016; Kosara and Mackinlay, 2013). Some popular forms include infographics, data visualizations, dashboards, which can be presented in either print and digital art forms.

Telling stories with data needs to be guided by a systematic approach. Lee et al. (2015) summarize and propose a framework for storytelling. Their model features a few key stages of data storytelling including explore data, make a story, and tell a story. Taking a step further in a more generalized manner, storytelling with data highlights the story and telling, yet it can only be successful if based on appropriate and insightful data discovery. Among many software applications for data visualization and storytelling, Tableau is highly ranked and has been widely adopted in businesses and education. The application is well developed and easy to learn. It transforms large amount of complex data to pictorial and graphical representations so we can discover insights and patterns more easily and quickly. The strengths of Tableau clearly reside toward the end of such process with visualizing and storytelling, and less in the beginning of such process (Figure 1).
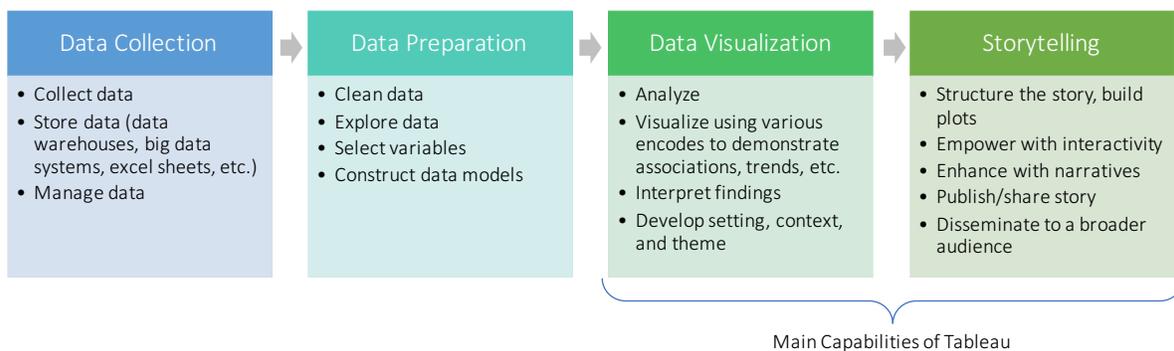

Figure 1. Storytelling with Data: A Process View

DESIGN OF THE WORKSHOP

The main objective of this workshop is to lean and practice storytelling with Tableau, which skills can be applied to teaching subjects such as data analytics, visualization, and communication. In addition, the skills of storytelling can also be applied in our day-to-day job and even research projects. After all, we often need to communicate with others using data, however and wherever we do it. At this workshop, we will use Tableau to "weave" our stories.

Participants can be new to Tableau or have used the software before and are interested in gaining advanced skills especially in building stories with data. If a computer lab can be arranged, a lab license will be provided, free of cost so the lab can be set up before the workshop. If not, the workshop room should have a screen, projector, and Internet. Each attendee will then need to bring his/her own laptop. Either way, each participant will receive a one-year free license of Tableau Desktop.

Flow of the workshop

The workshop will feature the following components, based on a 90-min structure. Should the length be different, these components shall be adjusted accordingly.

1) Introduce storytelling (15 min) Brief introduction to visualization and storytelling theories and one or two best practices (data stories).
2) Learn the fundamentals of Tableau (15 min) Hands-on with Tableau to learn its data connection and layout then creating a few views using some popular types of visualization. A sample data set will be used throughout the workshop.
3) Prepare the story (15 min) Learn to understand the context, identify key events, choose the right display, and sketch the premise and plots of the story.
4) Create the storybook (15 min) Use Tableau storybook, participants will build their own story.
5) Enhance storytelling with interactive and narratives (15 min) Add narratives and interactivity to the storybook. Participants will share their stories with one another.
6) Reflection (15 min) Summary of what we have learned, how to apply storytelling in our teaching and professional communication. Feedback on what else can be done and better. A reading list will be provided for the participants to continue their storytelling practice.

ACKNOWLEDGMENTS

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