Crafting effective narratives with data

Know the audience

To communicate effectively, you need to know who your audience is, and what their priorities are. There is a range of possible audiences you may encounter when presenting and crafting an audience-specific message will be important. Some of these audiences you may present to are ...

Executive
- Communication skills
- Prioritize outcomes & decisions
- Cares much more about business impact than it's a percentual gain in a machine learning model accuracy or a new technique you're using

Data Science
- Data expert
- Prioritize rigor & insights
- Cares much more about how you arrived at your insights and to battle text them for repair

Business Partner
- Advanced data science skills
- Prioritize tactical next steps
- Cares much more about how your analysis impacts that workflow, and what should be their main takeaway from the data story

Considerations when crafting audience-specific messaging

<table>
<thead>
<tr>
<th>Aspect</th>
<th>What do you need to consider?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Format</td>
<td>What content do they love about the audience?</td>
</tr>
<tr>
<td>Preferences</td>
<td>What does the audience care about?</td>
</tr>
<tr>
<td>Constraints</td>
<td>How do you manage risks to that group?</td>
</tr>
<tr>
<td>Audience</td>
<td>Who is the stakeholder meeting with your audience?</td>
</tr>
<tr>
<td>Message</td>
<td>What is the audience's preference format?</td>
</tr>
<tr>
<td>Strategy</td>
<td>How much time does the audience have to consume a data story?</td>
</tr>
</tbody>
</table>

Choose the best medium to share your story

There are different ways you can deliver a data story. The importance of each is different depending on the audience of your data story and the setting you're delivering your data story in.

<table>
<thead>
<tr>
<th>Type</th>
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Crafting effective visuals

Choose the best visualization for your story

Each plot type is called for communicating specific things about specific types of data. That by choosing an appropriate plot type:

- Line plot
- Scatter plot
- Histogram

Show changes in numeric values over time
- Visualize numeric values by categories, it can be ranked or unranked
- Show the relationship between two numeric values
- Show the distribution of numeric values

To learn about the different types of visualizations you can use, check out our Cheat Sheet.

Keep visualizations minimal and avoid clutter

Removing title and labels to allow others to focus on the message of the plot. In particular, means over data points (these points that don't directly represent a data value, like the grid lines). A great example comes from [Darkhorse Visualizations](https://www.darkhorsevisualizations.com) which showcases better the value of visualizing visualizations.

Use text appropriately

While too much text can add clutter, text can also be an extremely effective tool at highlighting insights within your visualizations. Data Visualization cheat sheet provides an excellent example with the following visualizations.

Using text in data visualizations:

- When applicable, label axes and titles for clarity
- Label important data points when necessary
- Provide useful context around insights within the title or subtitle
- Adjust font size when highlighting specific messages within your visuals
- When applicable, try to answer common audience questions with visuals

Use colors effectively

The fundamentals of color theory in data visualization

Color is one of the most powerful tools available for communicating different aspects of your data visualization. There are different properties to keep in mind when choosing an appropriate color palette for your visualization:

- Hue represents the range of possible colors, from red, through orange, green, and blue, to purple and back to red
- Saturation is the brightness of the color, from black to white
- Chroma is the intensity of the color, from grey to a bright color

There are three constant types of color palettes that depend on these dimensions.

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Do not mislead with data stories

The easiest way to lose credibility when presenting data stories is to be manipulative (or unintentionally) misaligned with your data insights. That by choosing two practices to avoid misaligning with data stories.

- Graphs with the p-axis at the smallest value or at zero dramatically changes the story told by the plot
- Best practices to avoid misaligning with data stories

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