# **Maximize the Data-to-Ink ratio**

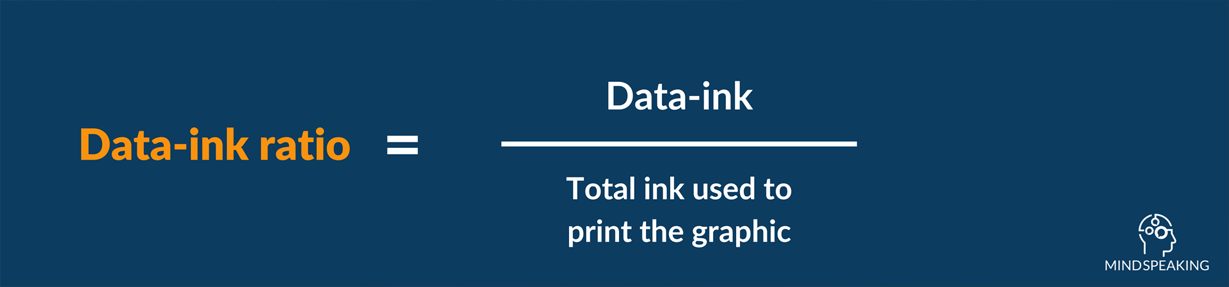
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The Data-to-Ink ratio is a term coined by visualization expert Edward R. Tufte.

He's a statistician and professor at Yale University and has published four books on data visualization.



**OK, but what does the Data-ink ratio mean?**

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Data-ink is the ink used to present actual data. Non-data-ink is ink that does not transport the information, but it is used for scales, labels, and decoration.

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**How to apply this:**

Remove those elements that don’t add new information to the graphic.

Using less ink (less chart elements) is often more effective, attractive, and imperative for viewers.  
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**Want an example?**﻿﻿  
﻿﻿Here's a demonstration in this **9-second video:**﻿﻿

<iframe width="560" height="315" src="https://www.youtube.com/embed/Yyreb0RdFUg" title="YouTube video player" frameborder="0" allow="accelerometer; autoplay; clipboard-write; encrypted-media; gyroscope; picture-in-picture; web-share" allowfullscreen></iframe>

Credit: [YouTube channel Delivering Data Analytics by Nicholas Kelly](https://www.youtube.com/watch?v=ZkcZlhCi3_g&ab_channel=DeliveringDataAnalytics)   
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﻿﻿**Want to get more explanation?**

Then watch the below video (8 minutes):

<iframe width="560" height="315" src="https://www.youtube.com/embed/N7\_JPYTMdWY" title="YouTube video player" frameborder="0" allow="accelerometer; autoplay; clipboard-write; encrypted-media; gyroscope; picture-in-picture; web-share" allowfullscreen></iframe>

Credit: [YouTube channel Delivering Data Analytics by Nicholas Kelly](https://www.youtube.com/watch?v=ZkcZlhCi3_g&ab_channel=DeliveringDataAnalytics)   
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