MICHIGAN STATE UNIVERSITY

Data Visualization and Institutional Research

November 8, 2018

Jacqui Broughton
Data Resource Analyst
Institutional Research – Office of Planning and Budgets

Resources and links to examples are included below. If interested in obtaining slides from this presentation, please contact the presenter at brought7@msu.edu

Presentation

If interested in obtaining a copy of the presentation, please contact the presenter.

Examples of Infographics from MSU-IR
University Metrics:
https://opb.msu.edu/functions/institution/documents/University_Metrics_Infographics.pdf

Data Visualization Resources (current as of November 2018)

Journals, Books, and Blogs

Berinato, S. (2016). *Good charts: The HBR guide to making smarter, more persuasive data visualizations*. Boston: Harvard Business Review Press.

Cleveland, W.S., & McGill, R. (1984). Graphical perception: Theory, experimentation, and application to the development of graphical methods. *Journal of the American Statistical Association, 79*. 531-554. doi:10.2307/2288400

Duarte, N. (2016). *Slidedocs: Spread ideas with effective visual documents*. Retrieved from https://www.duarte.com/slidedocs/

Evergreen, S.D.H. (2017). *Effective data visualization: The right chart for the right data*. Los Angeles: Sage Publications, Inc.

Evergreen, S.D.H. (2018). *Presenting data effectively: Communicating your findings for maximum impact*. Los Angeles: Sage Publications.

Evergreen, S.D.H. (n.d.) *Evergreen data: Intentional reporting and data visualization*. Retrieved from http://www.stephanieevergreen.com

Few, S. (2012). *Show me the numbers: A handbook for data driven design:* Los Angeles: Sage Publications.

Kirk, A. (2016). *Data visualization: A handbook for data driven design*. Los Angeles: Sage Publications.

Knaflic, C.N. (2015). *Storytelling with data: A data visualization guide for business professionals*. Hoboken, NJ: Wiley.

Kriebel, A., & Murry, E. (2018). #*Makeover Monday*: *Improving how we visualize and analyze data, one chart at a time*. Hoboken, NJ: Wiley.

Lupi, G. & Posavec, S. (2016). *Dear data: A friendship in 52 weeks of postcards*. New York: Princeton Architectural Press.

Reynolds, G. (2014). *Presentation Zen design: A simple visual approach to presenting in today's world*. New Riders. and http://www.presentationzen.com/

Reynolds, G. (n.d.). Top Ten Slide Tips [blog post]. Retrieved from
    http://www.garrreynolds.com/preso-tips/design/

Schwabish, J. (2017). *Better presentations: A guide for scholars, researchers, and wonks*. New York: Columbia University Press.

Examples of Various Graph Types

The Data Visualisation Catalogue: https://datavizcatalogue.com/

The Data Viz Project: http://datavizproject.com/

Information is Beautiful: https://informationisbeautiful.net/

The Promatix School of Vizcraft and Vizardry: http://www.promatixbi.com/school-of-vizcraft-and-vizardry

The Visualization Universe: http://visualizationuniverse.com/

VizWiz: Data Viz Done Right: http://www.vizwiz.com/

#MakeoverMonday: http://www.makeovermonday.co.uk/

Frequently Used Tools for Data Visualization in IR

The table below displays various tools the IR staff at Michigan State uses for data visualization. While these tools are capable of much more than the below, and staff use them for other purposes, but this is intended to show how they are currently being utilized for visualization.

Tool	Accessibility Tool	Business Intelligence	Commonly Available Platform	Data Prep	Icon Selection/ Design	Infographics	Interactive	Open Source	Presentations	Reports
Adobe Illustrator					✓	✓				✓
Adobe InDesign					✓	✓				✓
Cognos		✓					✓			✓
Color Brewer	✓									
Color Oracle	✓							✓		
Colour Contrast Analyser	✓							✓		
D3							✓	✓		
Material Design (Google)					✓			✓		
MS Excel			✓				✓			
MS PowerPoint			✓		✓	✓			✓	
MS Word			✓							✓
Python				✓				✓		
R				✓				✓		✓
React							✓	✓		
SAS				✓						✓
Stata				✓						✓
Tableau & Tableau Prep		✓		✓		✓	✓			✓

Institutional Research
Office of Planning and Budgets
MICHIGAN STATE UNIVERSITY