

LESSON 6:

“Data, Data Everywhere”



Marketers seek data to better know consumers



Spending on qualitative research has been in decline



Growth of online data may offer an explanation



Today, many online sources provide valuable data



Bias must be accounted for to minimize errors

Marketers' motivations behind web analytics are clear



Market research spending shows qual research declining

- US market research industry has grown 9% since 2007, but qualitative research has decreased by \$40M
- Qualitative research fell from 28% of US research dollars spent in 2001 to 22% in 2012
- Mobile research represents a very small proportion of research dollars

Rise of quant data may explain state of qual research

Raw Data

- ▶ Original source of data
- ▶ Typically difficult to use in analysis
- ▶ Analysis requires some degree of data processing
- ▶ Examples include qualitative research and most unstructured data and User Generated Content

Processed Data

- ▶ Data that is ready for analysis
- ▶ Processing can include merging, subsetting, transforming, etc.
- ▶ Typically well-understood standards exist for processing
- ▶ Examples include Google Analytics output and most reported data

Data owners sell brands' processed data to target consumers



Where do I find raw data and metrics?

The US Bureau of Census (<http://www.census.gov/>)

The main website for Census data in the US. Large amounts of downloadable data on population, demographics, and other indicators

Bureau of Economic Analysis (<http://www.bea.gov/>)

The BEA provides data and information for regional, national, and international levels as well as by industries

Bureau of Labor Statistics (<http://www.bls.gov>)

Homepage for Bureau of Labor Statistics provides access not only to data and tables but also to publications and up-to-the-minute factoids

Note: This list is just a sampling of available raw data resources and is not intended to be exhaustive

Where do I find raw data and metrics? (continued)

DATA.GOV (<http://www.data.gov>)

The home of the U.S. Government's open data. Here you will find data, tools, and resources to conduct research, develop web and mobile applications, design data visualizations, and more

Center for Disease Control and Prevention Statistics

(<http://www.cdc.gov/DataStatistics/>)

Data warehouse for all government-related health and medical statistics and surveys – as well as links to other agencies outside the U.S. Government

UNdata (<http://data.un.org>)

Many UN statistical databases via a single entry point. Users can now search and download a variety of statistical resources of the UN system

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Where do I find processed trend data?

Gapminder World (<http://www.gapminder.org>)

The world's most important trends in health, wealth, and other development for over 200 countries and territories; Includes an animated graphical presentation of statistics and raw data files available for download from the site's data page

World Resources Institute (<http://www.wri.org/resources/>)

Comprehensive online database, maintained by the WRI, that focuses on the environmental, social, and economic trends that shape our world

American FactFinder (<http://factfinder2.census.gov/>)

For quick look up for popular facts (population, income, etc.) and frequently requested data about US communities

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Where do I find processed visual data?

FlowingData (<http://flowingdata.com/>)

Highlights how designers, programmers, and statisticians are putting data to good use

Information Aesthetics (<http://infosthetics.com/>)

Collection of projects that represent data or information in original ways

Information is Beautiful (<http://www.informationisbeautiful.net/>)

Ideas, issues, knowledge and data visualized beautifully by David McCandless, a London-based author, writer, and designer

Note: This list is just a sampling of available raw data resources and is not intended to be exhaustive

Where do I find processed visual data? (continued)

GOOD Transparency (<http://www.good.is/departments/transparency/>)
A graphical exploration of the data that surrounds us (no longer active but a good source to mine)

Visual Complexity (<http://www.visualcomplexity.com/vc/>)
A visual exploration on mapping complex networks

MarketingCharts (www.marketingcharts.com)
Data aggregator that offers a quick view on stories, data, and charts covering a broad range of marketing topics

Note: This list is just a sampling of available raw data resources and is not intended to be exhaustive

Free data sources are everywhere to be found on the Web

- ▶ www.cia.gov/library
- ▶ www.clickz.com
- ▶ www.comscoredatamine.com
- ▶ www.crunchbase.com
- ▶ fedstats.sites.usa.gov
- ▶ www.gallup.com
- ▶ www.google.com/finance
- ▶ www.google.com/publicdata
- ▶ ngrams.googlelabs.com
- ▶ www.grabstats.com
- ▶ www.infousa.com
- ▶ www.jdpower.com
- ▶ jmc.ou.edu/FredBeard
- ▶ www.marketresearch.com
- ▶ www.melissadata.com
- ▶ blog.mint.com/category/trends
- ▶ www.nationmaster.com

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Free data sources are everywhere to be found on the Web

- ▶ www.neoformix.com
- ▶ www.oecd.org
- ▶ blog.okcupid.com
- ▶ people-press.org
- ▶ www.pewinternet.org
- ▶ www.quantcast.com
- ▶ www.realtimestatistics.org
- ▶ research.stlouisfed.org
- ▶ statehealthstats.americashealthrankings.org
- ▶ trendwatching.com
- ▶ viralvideochart.unrulymedia.com
- ▶ unstats.un.org
- ▶ www.visualeconomics.com
- ▶ www.warc.com
- ▶ datacatalog.worldbank.org
- ▶ www.youtube.com/trendsdashboard
- ▶ zipwho.com

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Technology growth has led to new online access points



Bulk Downloads



APIs



Web Scraping

When collecting data, bias must be avoided

Questionnaire Bias: Question or questionnaire that encourages respondents to answer one way rather than another

Sampling Bias: Sample is collected in such a way that some members of the intended population are less likely to be included than others

Interpretation Bias: Tendency to interpret ambiguous situations in a positive or negative fashion

LESSON 6:

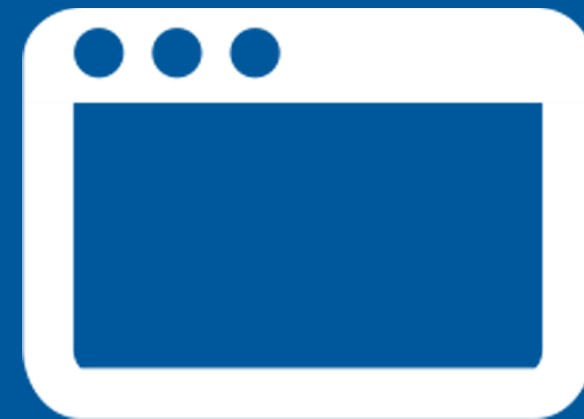
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Supplemental reading for this lesson

- **The future of qualitative research...numbers down, optimism up:**
<http://www.upwords.ca/the-future-of-qualitative-research/>
- **New ways marketers are manipulating data to influence you:**
<http://bits.blogs.nytimes.com/2013/06/19/new-ways-marketers-are-manipulating-data-to-influence-you/>

References

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3. Jeffrey Leek. 2014. "Raw and Processed Data." Retrieved from http://jtleek.com/modules/03_GettingData/01_02_rawAndProcessedData/#1
4. Timothy R. Graeff, 2005. "Response Bias." Encyclopedia of Social Measurement, Retrieved from <http://www.sciencedirect.com/science/article/pii/B0123693985000372?np=y>

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