

NTIA Digital Nation Data Analysis and Visualization

UW iSchool Capstone Project

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PROJECT DESCRIPTION



NTIA's Digital Nation Dataset is rich collection of data obtained by surveying people across America on their computer and internet usage. The team was tasked to understand and derive insights from the dataset that will help policy makers make decisions best tailored to the needs of the users. Before we set out explore the data, we looked at the mission statements of NTIA and BroadBand USA to ask questions that will help them achieve their goals.

PROJECT DELIVERABLES

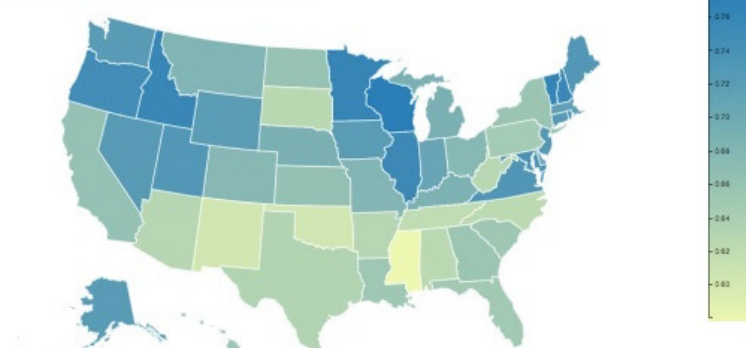
- State Broadband Profiles: Create profiles for computer and internet use in each state, and present the information using compelling visuals and infographics that can inform policy at the state level.
- Find a New Story: Uncover interesting patterns about Computer and Internet use in America in the tremendous dataset.
- Make it Repeatable: Develop necessary tools, code, and documentation so that people can continue the work after project is complete.

Digital Nation Data Visualization

Section I: Internet Usage by State

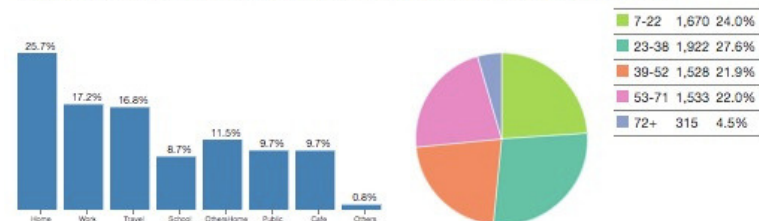
Internet Usage By Locations

Home Work Travel Cafe Public School



Section II: Different Locations of Using Internet with Age Distribution in Washington State

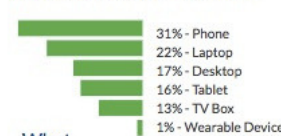
1. Mouse hover the pie chart to see percentages of people using Internet at each location in an age group;
2. Mouse hover the bar chart to see the age distribution of people using Internet at a specific location.



(Generation Z:7-22, Millennials:23-38, Generation X:39-52, Baby Boomers:53-71, Generation V:72+)
Data from 2015 NTIA Digital Nation Data

Digital Nation Washington State Profile

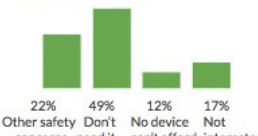
Devices people use to get on internet:



What do you use computer and internet for?



Why don't you want to use computer and internet?



Demographics Profile of Internet Households

Gender

Household Size

Income and Education Level

Age

32% hold a Bachelor's or higher degree

Avg. \$120,100

Average Annual Income of Households that use internet and computer: 12.01k (Average Overall is 10.28k)

Avg. 2.57

51% 49%

20% 24% 20% 27% 9%

7-22 23-38 39-52 53-71 >= 72

At Home or Work

During Travel

In School or Library

In Other Places

Data from Digital Nation 2015

Where do you usually use internet?

Location	Percentage
At Home or Work	43%
During Travel	17%
In School or Library	18%
In Other Places	22%

Deliverable Links:

- <https://nannxiao.github.io/ntia>
- <https://public.tableau.com/profile/janani.kumar#!/vizhome/DataStories>

NEXT STEPS AND RECOMMENDATION

- Incorporate feedback and enrich explorations.
- Thinking about what is not there in the data.
- Iterate on the visualization principles followed.

- Summary first, details on demand.
- Less in memory, more on screen.
- Feature Integration is important.

Reason	Percentage
Can't Afford it	12%
Not Interested	17%
Not Worth the Cost	22%
Nowhere to go that has	49%
Other	1%
No Computer	1%
No Mobile Device	1%

TALK TO US

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BroadbandUSA Connecting America's Communities