

# Predicting Internet Traffic Across Websites Categories

The Data Cavaliers

Group Leader: John Hope

Adina Kugler, John Hope and Adam Kippenhan

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## Narrative Paragraphs

The internet dominates connections. People collect information from the internet and the way people interact with it determines their experience with the world. Websites entice people to visit as more clicks equates to more exposure and therefore more revenue for a company. Looking at some of the top types of websites, e-commerce, sports, and news, gives insight on how different industries utilize their websites. It is expensive to maintain constant website capabilities and companies need to manage both demand and cash flow. Websites will crash if there is an overflow of visitors and therefore managing traffic is essential as a crashing website decreases user experience [1]. Understanding when a website will hit peak traffic allows for preparing for website capabilities and finances.

As companies collect more and more data over time, web traffic data is incredibly useful to companies in order to optimize resource allocation for supporting their sites. If a company does not anticipate an increased number of visitors on their site, it could crash at any moment. Forecasting this traffic allows companies to get an idea of how many people they can expect on their site on a given day, at a certain time, in a given month, etc. Because of this, many major companies that are reliant on their websites to deliver their business, like e-commerce, news, and sports media companies utilize such forecasting methods.

## Hypothesis

1. E-commerce sites will peak each year in page visits around December, whereas sports sites will around major sport's championships, and news sites around November.
2. Furthermore, our time-series forecasting model will correctly predict the number of page visits within a certain range at least 50% of the time.

## References

- [1] R. Jogi, "How to Handle Heavy Internet Traffic on Your Website?," Cloud Minister Technologies. Sept. 28, 2021. [Online]. Available: <https://cloudminister.com>. [Accessed Oct. 5, 2022].