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## Roles

Project Manager: Andrew

**Team Communicator:** Noah

Secretary: Damien

Evaluator: Isaiah





## **Project Refresher**



### **Project Refresher: Early Insights**

**Data source:** Google Analytics provided March 31st

#### **Initial observations:**

- Search | American Battlefield Trust (156,990 views; 8.43%) Central hub for user navigation.
- **Gettysburg Battle Facts and Summary** (36,415 views; 1.96%) Strong interest in Gettysburg.
- Antietam Battle Facts and Summary (24,494 views; 1.32%) Consistent engagement.
- Fort Sumter Battle Facts and Summary (23,220 views; 1.25%) Notable Civil War battle interest.
- American Revolution Timeline (21,004 views; 1.13%) High engagement with timeline format.

#### **Highlights:**

- Gettysburg & Antietam: ~2m 30s 2m 38s → Strong content interest.
- Search Page: 4.59 views per user → Central for content discovery.

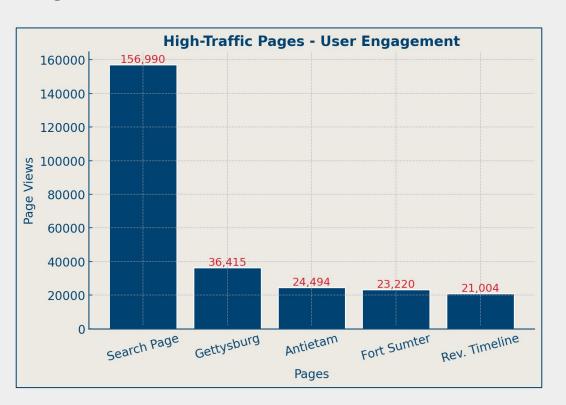


# 156,990

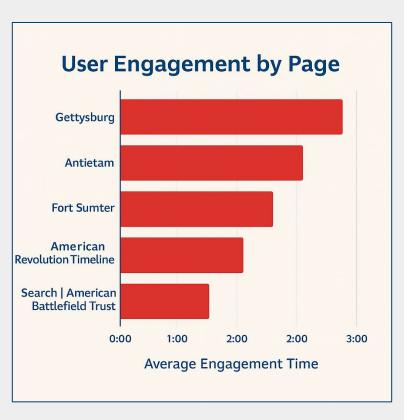
The Search Page drives user navigation and content discovery, making it a key area for optimization.



### **Project Refresher: Work Products**



### **Project Refresher: Work Products**



### **Project Refresher: Challenges**

- Privacy Restrictions: Limited access to under-18 user data restricts insights into student engagement.
- Data Gaps: Some analytics tools do not provide detailed demographic breakdowns.
- **Engagement Uncertainty:** Determining why users drop off at certain pages requires deeper qualitative research.
- Balancing Content vs. Conversion: Ensuring high engagement without disrupting user experience with excessive CTAs.
- **Time Constraints:** Need to synthesize findings and deliver actionable insights within the semester timeline.

### **Sankey Diagram Update**

#### **Initial Plan:**

We aimed to develop a Sankey diagram to visualize user pathways through the ABT website, showing how visitors navigate from high-traffic pages like the Search page to key educational content.

#### **Development Halted:**

Google Analytics did not provide sufficient granularity to accurately track multi-step user paths across the site.

#### Implication:

Without detailed flow data (e.g., session-based navigation or click sequences), we were unable to construct a reliable diagram that reflects true user journeys.



## **Final Insights**



### Final Insights: Chrome OS

Data source: Computerworld, BuyBoard, Market Data Forecast

#### Facts:

- Chrome OS traffic = student engagement
- 72% of Chromebooks sold to education sector (2022)
- 50M+ Chromebooks in U.S. classrooms
- Chrome OS users are likely students a key audience for ABT

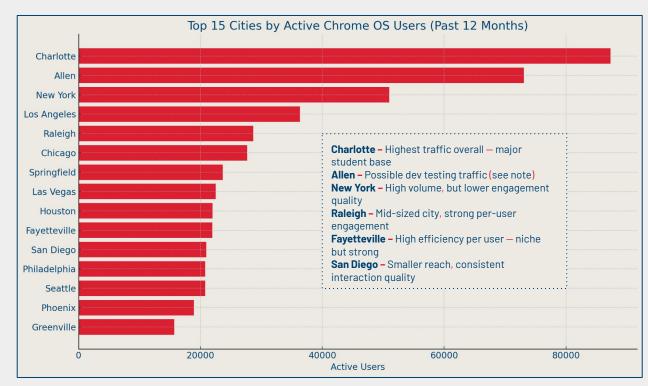
#### Why We Focused on Chrome OS:

- Chrome OS provided a reliable, privacy-safe proxy for identifying student users on the site
- It allowed us to uncover which cities have the most active student audiences
- Helped guide outreach strategies toward mid-sized cities with strong engagement
- Supported ABT's mission to reach educators and learners with tailored digital content

#### **Description:**

Highlights the top 15 U.S. cities with the highest number of active Chrome OS users from the past 12 months.

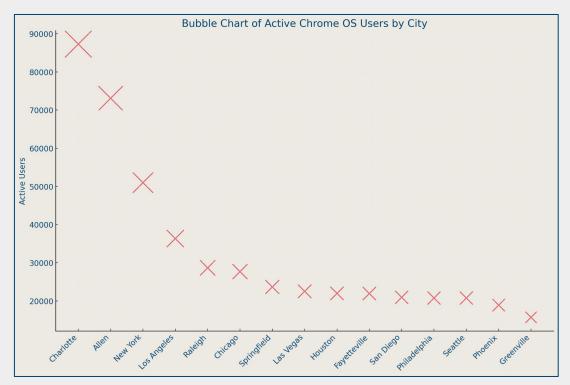
Each bar represents the total number of unique Chrome OS users accessing the website from that city.



Note: Allen, TX may include internal development traffic from ABT's web team, which could inflate usage numbers.

#### **Description:**

This chart visualizes the number of active users per city as X marks. Larger marks represent higher user counts. It emphasizes relative traffic volume across regions.

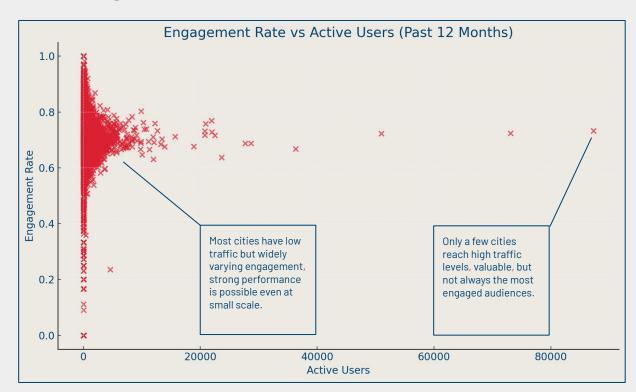


**Note:** This chart displays the same active user data as the previous bar graph but uses size and position to emphasize relative scale and the sharp traffic drop-off beyond the top cities.

#### **Description:**

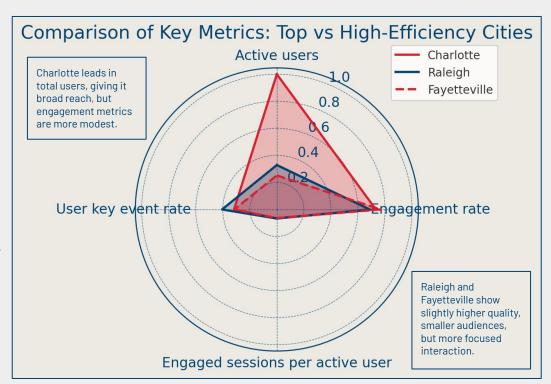
This scatter plot compares each city's total active users to its average engagement rate.

It helps determine where high traffic also means high-quality interaction.



#### **Description:**

This radar chart compares Charlotte, Raleigh, and **Fayetteville** across four key metrics. While Charlotte leads in total users, Raleigh and Fayetteville outperform in engagement quality, with higher session depth and key event rates. This shows that smaller cities can deliver more focused, impactful student interactions, making them valuable targets for outreach.



**Note:** Charlotte, Raleigh, and Fayetteville were selected for comparison to represent a mix of high-traffic (Charlotte) and high-efficiency (Raleigh and Fayetteville) cities, each offering a distinct engagement profile worth analyzing.

### **Final Insights: Chrome OS**

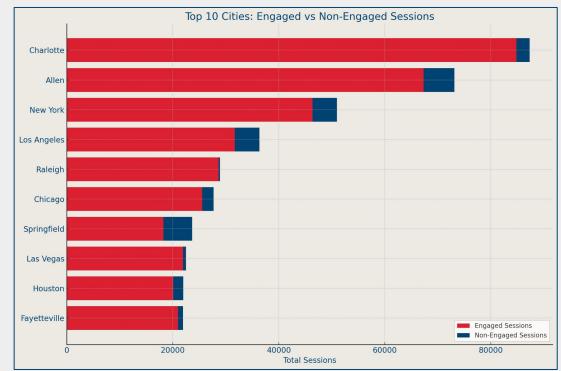
Action	Why It Works
Create Chromebook-friendly digital resources (lightweight, fast-loading, Google-integrated)	Students are using school-issued devices with limited power and strict software access.
Develop city-specific educational campaigns for high-traffic Chrome OS cities (like <b>Charlotte</b> and <b>Allen</b> )	Focuses attention where student activity is already strong.
Partner with mid-size school districts in cities like Raleigh, Fayetteville, and San Diego	These areas show strong student use and engagement, but often face less competition for outreach.
Host virtual battlefield tours tailored for schools	Ties directly into the Trust's educational mission while maximizing reach through accessible devices.
Continue monitoring device-level engagement trends	Chrome OS usage is a strong signal of where and how students interact with your content.

### **Additional Insights: Work Products**

#### **Description:**

This chart shows that while

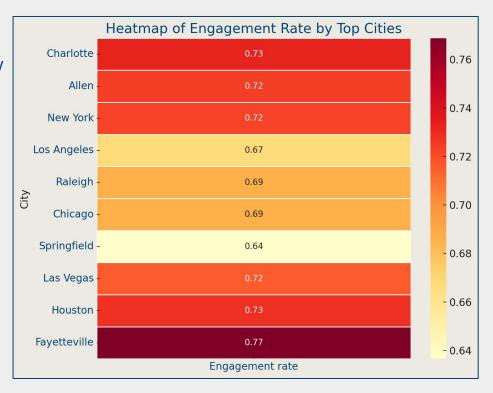
Charlotte and Allen have the
most sessions overall, a portion
of their traffic is non-engaged.
Cities like Raleigh and
Fayetteville have fewer sessions
but a higher share of engaged
users, making them strong
targets for meaningful outreach.



### **Additional Insights: Work Products**

#### **Description:**

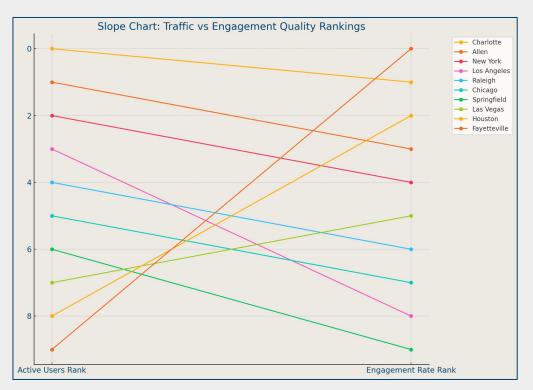
The heatmap shows engagement rates by city, how actively users interact with the site. Cities like **Fayetteville, Charlotte,** and Houston show higher engagement, suggesting deeper user interest. While traffic volume varies, this metric helps identify cities where visitors are more likely to explore content meaningfully.



### **Additional Insights: Work Products**

#### **Description:**

This chart compares each city's traffic rank to its engagement rank. Cities like Raleigh and Fayetteville move upward, showing strong engagement despite lower traffic. In contrast, large metros like Los Angeles and New York slope downward, reflecting high traffic but lower engagement.



### **Additional Insights: Why This Matters to You**

#### Target the Right Students, Not Just the Most

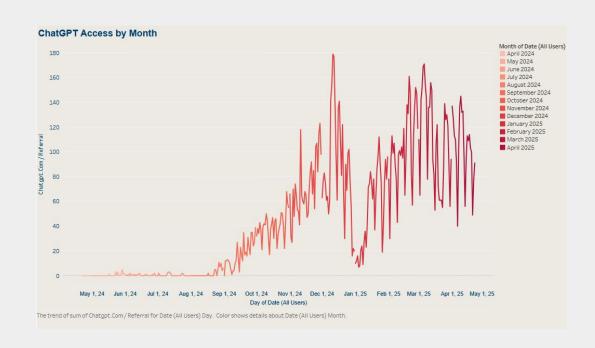
- High traffic isn't everything: Cities like Charlotte and New York bring volume, but not always deep engagement.
- Engaged cities are more valuable: Places like Raleigh, Fayetteville, and Houston show stronger interest per user, meaning students there are more likely to explore and learn from your content.
- Data reveals opportunity zones: These mid-sized, often overlooked cities offer high potential for impact with less competition from other content providers.
- **Guides smarter outreach:** Focus efforts where students are most **attentive and responsive**, not just where the biggest numbers are.

### **Access Activity: ChatGPT**

#### **Description:**

This line graph breaks down daily <u>ChatGPT.com</u> referrals to the American Battlefield Trust starting on April 22nd, 2024 to April 22nd, 2025.

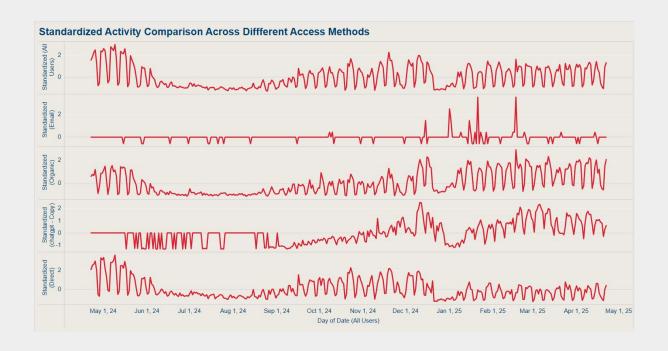
No referrals before September 2024, following pattern of school schedules afterwards.



### **Access Activity: Different Sources**

#### **Description:**

This chart breaks displays a standardized visualization of activity from all users, users accessing from email, organic access, ChatGPT access, and direct access.

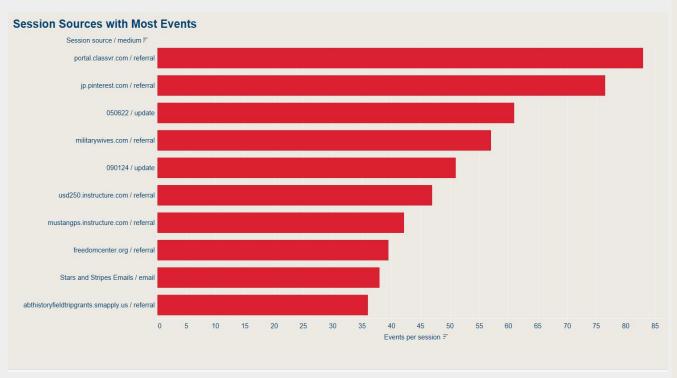


### **Access Activity: Session Sources**

#### **Description:**

This bar chart displays the session sources that generate the most events per session.

ClassVR leads, likely due to partnership with the ABT.



### **Final Insights: Access Activity**

Action	Why it Works
Optimize for ChatGPT searches	ChatGPT has seen a huge spike in usage in recent years, and optimization will draw in more traffic from that direction.
Create experiences to attract students into signing up for the newsletter	Events to promote the newsletter will encourage interest in signups and continued interaction.
Continue optimizing the website for students	Students remain the highest demographic present.
Partner with other history-oriented organizations and websites for more traffic	Lots of access activity and events are sourced from other websites - this could drive more events.
Promote more VR and AR based experiences	Already a large success with classvr, more will expand the ABT's educational experiences.

### **User Engagement & Retention Visualization Analysis**

#### What is Engagement?

Engagement refers to how users interact with your website: how long they stay, what pages they view, and how often they return. High engagement means users are finding value and exploring your content.

#### What is Retention?

Retention measures whether users come back after their first visit. It answers: Are we keeping users interested over time?

#### Why It Matters for the American Battlefield Trust:

For a mission-driven site like yours, **engaged and returning visitors** are more likely to:

- Dive deeper into historical content
- Sign up for newsletters or events
- Share your resources
- Support your preservation efforts

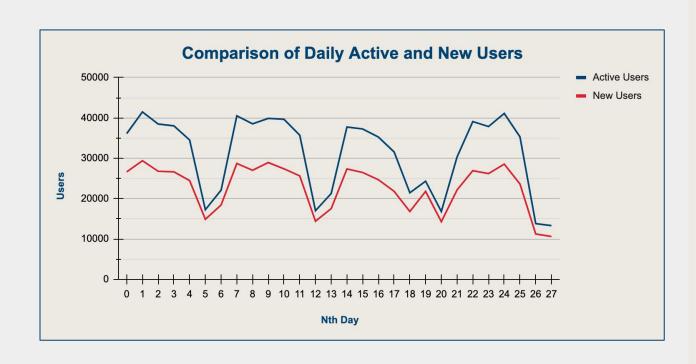
Tracking these behaviors helps you understand what content resonates and where you might improve to build longer-lasting relationships with your audience.

### **Daily Active and New Users**

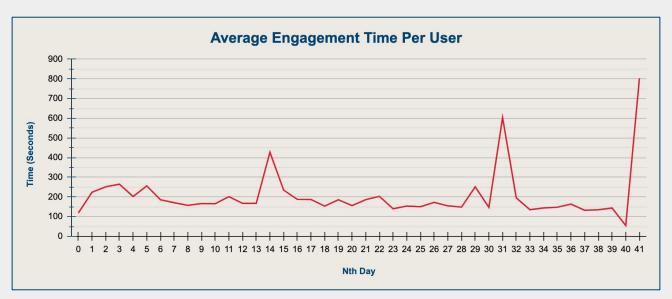
#### **Description:**

This double line chart displays daily trends in both active users and new users between March 31 and April 27, 2025.

Daily active users peaked at over 41,000 on April 1 and April 24, while new users ranged from 10,622 to 29,397 across the month. The chart illustrates a healthy balance of returning and first-time visitors, indicating steady engagement and successful outreach



### **Average Engagement Time**

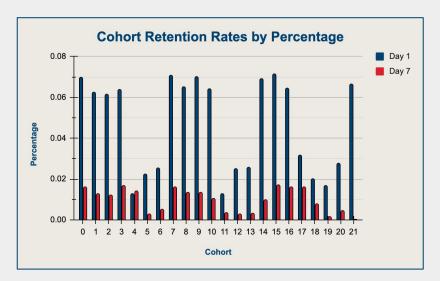


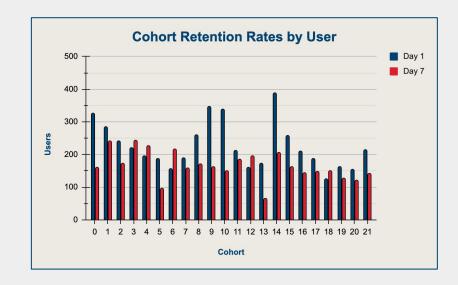
#### **Description:**

This line chart shows the **average engagement time per user cohort**, representing how long different groups of users spent interacting with the site.

Times varied widely: most cohorts averaged **150–250 seconds**, while several peaked at **400+ seconds**, and **one cohort exceeded 800 seconds**. These spikes point to **highly engaging content** that resonates deeply with certain audiences.

### **Cohort Retention Rates**





#### **Description:**

These graphs display two cohort retention views to show how well users return after their first visit.

The **left chart** shows **percentages**: Day 1 retention ranged from 6% to over 8%, but dropped to 0–2% by Day 7 across most cohorts. The **right chart** shows **actual user counts**, reinforcing the impact: for example, Cohort 0 retained **327 users** on Day 1, but only **160** by Day 7.

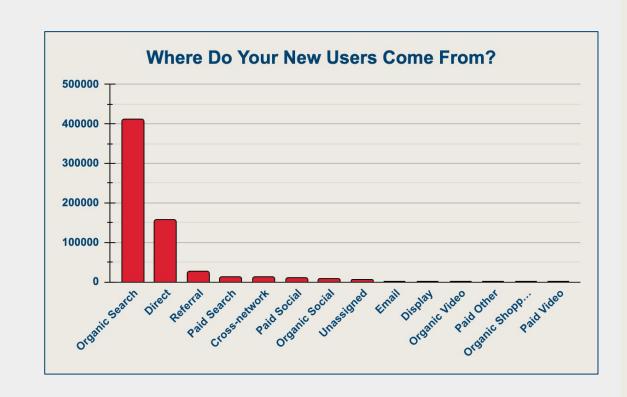
Together, these visuals highlight strong initial interest but a significant drop in returning visitors over time, suggesting an opportunity for re-engagement strategies.

### **New User Acquisition by Source**

#### **Description:**

This vertical bar chart breaks down **new user acquisition by traffic source**.

The majority of new users came from Organic Search (410K) and Direct traffic (157K), followed by Referral traffic (~27K) and Paid Search (~12K). This reflects the strong impact of SEO and brand recognition, with room to explore paid and referral strategies further.



### **Key Takeaways: User Engagement & Retention**

**Strong Initial Engagement:** High daily active users and new visitors show effective outreach and interest in Trust content.

**Varied Engagement Time:** Most users spend 2–4 minutes on the site, with some cohorts engaging for much longer, highlighting particularly compelling content.

**Retention Challenges:** While Day 1 return rates are promising (6–8%), retention drops significantly by Day 7 (0–2%), indicating a need for better re-engagement strategies.

**Organic Search & Direct Traffic Lead:** SEO and brand recognition drive most new users, underscoring the importance of optimizing landing pages and search visibility.

**Opportunities for Growth:** Introducing email series, promoting engaging content, gamification, and personalized experiences can help boost retention and deepen visitor connection with the mission.

### **Final Insights: User Engagement & Retention**

Action	Why it Works
Introduce a Return & Learn Email Series	Retention drops by Day 7. A follow-up email series keeps users connected and learning, increasing their likelihood of return.
Highlight Most Engaging Pages via Smart Banners or Pop-ups	Your engagement time data reveals standout content. Promoting these pages helps guide new users toward proven, sticky experiences.
Offer Membership Badges for Returning Users	Light gamification (e.g., badges or progress) encourages repeat visits and exploration, boosting loyalty over time.
Use Exit-Intent Prompts with Historical Quizzes or Freebies	Converts one-and-done users by offering something fun or valuable before they leave, especially effective for first-timers.
Create a Start Your Journey Hub for New Visitors	Helps orient users, especially those arriving via search or direct links. A curated experience increases the odds of continued engagement.
Optimize Landing Pages for Organic Visitors with Clear Next Steps	Since Organic Search is the top acquisition source, ensure landing pages guide users toward signup, related content, or return pathways, turning discovery into deeper engagement.

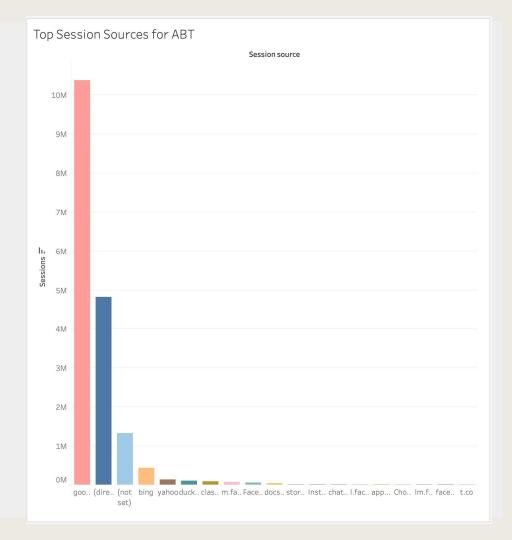
### **Top Session Sources**

#### **Description:**

This bar chart shows the the top session sources for web traffic coming to ABT's website.

From the thousands of sources that bring people to this website, this bar chart takes the top sources where the source generates more than 10,000 sessions.

Top sources included are **Google**, **Facebook**, **Google Classroom**, and **direct**.

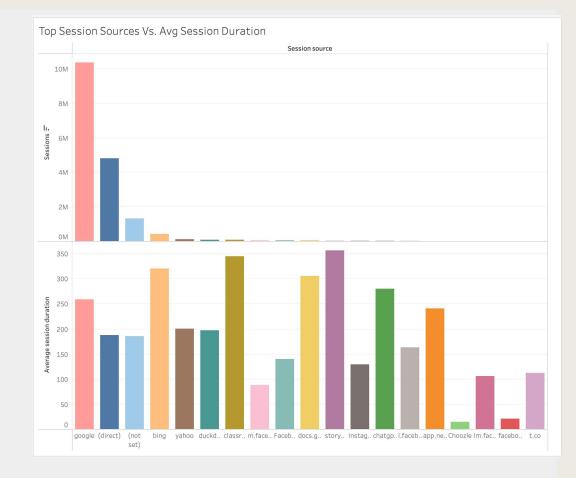


## **Top Sources Vs. Session Duration**

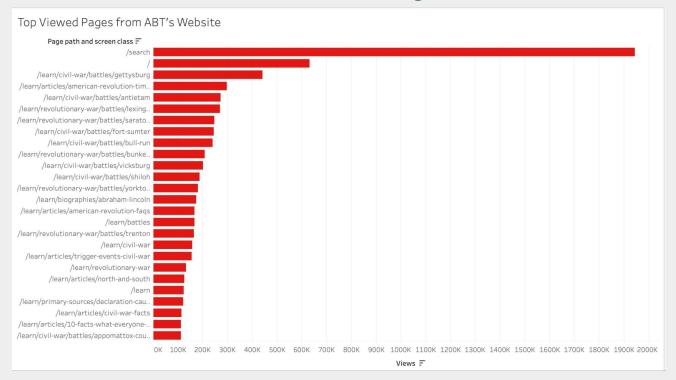
#### **Description:**

The top graph is the same graph as the previous slide and the bottom graph shows how long people stay on the website based on the sources to see how each source compares to each other. The session duration is measured in seconds.

Top session durations come from social media and school applications.



### **Most Viewed Pages**



#### **Description:**

This bar graph is showing the most viewed pages from ABT's website. It is showing the top most viewed pages with at **least 100,000 views**.

### **Final Insights: Web Traffic**

Action	Why it Works
Invest more in social media pages.	There is already strong web traffic coming from social media. Investing more on social media through more activity and ads could bring in many more users to the site.
Invest more into search from search engines.	Most users are coming from search engines like Google and Bing. Putting ABT's website on the top of the searches can increase user traffic coming onto the site and increase the amount of time spent on site as well.
Feature high visited pages more often on site.	Once users are on the site and are reading through the page, they can see other highly visited pages that feature other battles to keep the user engaged more. This can be done through the use of the right rail of the website.
Increased ads and referral links across top performing sources.	This can lead to more users seeing your website through paid ads across social media and other sites that have ads. These can be used to promote pages that fit a person's search or promote the website itself to expand your reach of people who visit your site.

## Questions?

