

Unit 3: Website Analytics

Content Area: **Computer Science**
Course(s):
Time Period: **Marking Period 3**
Length: **10-15 days**
Status: **Published**

Brief Summary of Unit

Data driven decision making is an important driver of innovation and advancement. There are many metrics that website analytics can track and viewing analytics of a site is important to help see not only which areas people are visiting, but what type of devices they use and what their viewing trends are. Analytics can help determine what areas may need enhancement, promotion, or deletion. Making decisions about the site based off of these metrics is an important skill which employers would be eager to see. Potential certification programs may be available.

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CS.9-12.8.1.12.NI.1	Evaluate the scalability and reliability of networks, by describing the relationship between routers, switches, servers, topology, and addressing.
CS.9-12.8.1.12.NI.2	Evaluate security measures to address various common security threats.
CS.9-12.8.1.12.NI.3	Explain how the needs of users and the sensitivity of data determine the level of security implemented.
CS.9-12.8.2.12.ED.3	Evaluate several models of the same type of product and make recommendations for a new design based on a cost benefit analysis.
CS.9-12.8.2.12.ED.5	Evaluate the effectiveness of a product or system based on factors that are related to its requirements, specifications, and constraints (e.g., safety, reliability, economic considerations, quality control, environmental concerns, manufacturability, maintenance and repair, ergonomics).
CS.9-12.8.2.12.NT.1	Explain how different groups can contribute to the overall design of a product.
CS.9-12.8.2.12.NT.2	Redesign an existing product to improve form or function.
WRK.K-12.P.4	Demonstrate creativity and innovation.
WRK.K-12.P.8	Use technology to enhance productivity increase collaboration and communicate effectively.
WRK.K-12.P.9	Work productively in teams while using cultural/global competence.
TECH.8.1.12.A.2	Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review.
TECH.8.1.12.A.3	Collaborate in online courses, learning communities, social networks or virtual worlds to discuss a resolution to a problem or issue.
TECH.8.1.12.C.CS1	Interact, collaborate, and publish with peers, experts, or others by employing a variety of digital environments and media.
TECH.8.1.12.C.CS4	Contribute to project teams to produce original works or solve problems.
TECH.8.1.12.D.4	Research and understand the positive and negative impact of one's digital footprint.
TECH.8.1.12.D.5	Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs.
TECH.8.1.12.D.CS1	Advocate and practice safe, legal, and responsible use of information and technology.

TECH.8.1.12.E.CS4	Process data and report results.
TECH.8.1.12.F	Critical thinking, problem solving, and decision making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.
TECH.8.1.12.F.CS3	Collect and analyze data to identify solutions and/or make informed decisions.

Essential Questions / Enduring Understandings

Essential Questions:

- What are viewers doing on our website, and how are they viewing it?
- How can we use this information to make their viewing easier/faster/better?
- How does analyzing data help us understand our viewers?

Enduring Understandings:

- Understanding data and how it can be translated into decisions about the website is a marketable trait in most any discipline.

Objectives

Students Will Know:

- how to view the analytics of the website.
- about the metrics of our viewer's device, including the resolution of the screen and connection speed.

Students Will Be Skilled at:

- making decisions based on the information about our viewers.
- deciding importance of sections of the site in order to improve viewer experience.

Learning Plan

- Discussion of website analytics.
- Review and comparison of CHS website analytics.
- Discussion on what information is important within these reports and what it says about our viewers.
- Discussion and research on making updates based on the analytics.
- Reviewing changes and their effects on the viewership.

Assessment

Assessments

- Formative: Daily assessments using examples from class notes and CodeHS.com, AP Classroom/Albert Checks for Understanding
- Summative: Teacher-created assessments/projects and CodeHS Computer Science Projects, AP Classroom/Albert Unit Assessments
- Benchmark: Check for understanding benchmark assessments on CodeHS, AP Classroom/Albert/Khan Academy Diagnostics
- Alternative Assessments: Student-centered activities such as a doorbell coding project, game design projects, and other activities involving real world applications
- Monthly Analytics Reports - presentations
- CHS Website adjustments

Materials

Core instructional materials: [Core Book List](#)

Supplemental materials: CodeHS

- Resource and certification program for Google Analytics - <https://skillshop.exceedlms.com/student/path/2938-google-analytics-individual-qualification>