Unit 8: Website Analytics & Stakeholders

Content Area: **Computer Science**
Course(s):
Time Period: **Marking Period 4**
Length: **20-25 days**
Status: **Published**

Brief Summary of Unit

Good websites grow over time in the number of webpages they control, the number of viewers it attracts, and how much each viewer interacts with the website. These metrics can be quantified by trackng viewership and analyzing the data that is gathered. What use is this data if it is not shared with the stakeholders of the website? Student interns will present their research into how the changes they have made has affected the audience of the website.

Revision Date: August 2020

CS.9-12.8.2.12.EC.1	Analyze controversial technological issues and determine the degree to which individuals, businesses, and governments have an ethical role in decisions that are made.
CS.9-12.8.2.12.EC.3	Synthesize data, analyze trends, and draw conclusions regarding the effect of a technology on the individual, culture, society, and environment and share this information with the appropriate audience.
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.6	Analyze the effects of changing resources when designing a specific product or system (e.g., materials, energy, tools, capital, labor).
CS.9-12.8.2.12.ETW.2	Synthesize and analyze data collected to monitor the effects of a technological product or system on the environment.
CS.9-12.8.2.12.ITH.1	Analyze a product to determine the impact that economic, political, social, and/or cultural factors have had on its design, including its design constraints.
CS.9-12.8.2.12.ITH.2	Propose an innovation to meet future demands supported by an analysis of the potential costs, benefits, trade-offs, and risks related to the use of the innovation.
WRK.K-12.P.4	Demonstrate creativity and innovation.
WRK.K-12.P.5	Utilize critical thinking to make sense of problems and persevere in solving them.
WRK.K-12.P.8	Use technology to enhance productivity increase collaboration and communicate effectively.
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	Digital Citizenship: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.
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:

- How have our changes to the website affected the viewers of the site?
- How does analyzing data help us understand our viewers?
- How do we synthesize the data to present a proposal for change within the site?

Enduring Understanding

- Data driven decision making can assist not only our own decisions about the website, but help stakeholders easily see the reasoning for changes.

Objectives

Students Will Know:

- how to read the data about our audience of the website.
- how to justify changes based on data.

Students Will be Skilled At:

- synthesizing data into presentable portions.
- presenting information to small groups of people.

Learning Plan

- Model presenting data from Google Analytics and CMS analytics.
- Long term assignments of presentations of data from the previous time frame (monthly, bi-weekly, etc.)
- Develop a timeframe to present to staff webmasters, administration, principals, teachers, board of education, etc. on the progress of the website.
- Record and collect all presentations in order to review at the end of each year and keep for future

years.

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

Presentations on Analytics

Presentations for different stakeholders

Materials

Core instructional materials: Core Book List

Supplemental materials: CodeHS

CMS Analytics.

Google Analytics.