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: July 2026

Information Literacy: This unit challenges students to locate, evaluate, and use information effectively. Information literacy includes, but is not limited to, digital, visual, media, textual, and technological literacy. Lessons may include the research process and how information is created and produced; critical thinking and using information resources; research methods, including the difference between primary and secondary sources; the difference between facts, points of view, and opinions, accessing peer-reviewed print and digital library resources; the economic, legal, social, and ethical issues surrounding the use of information.

P.1	Act as a responsible and contributing community members and employee.
P.4	Demonstrate creativity and innovation.
P.5	Utilize critical thinking to make sense of problems and persevere in solving them.
P.6	Model integrity, ethical leadership and effective management.
P.8	Use technology to enhance productivity increase collaboration and communicate effectively.
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P.9	Work productively in teams while using cultural/global competence.
6	Attend to precision
9.4.12.DC	Digital Citizenship
RL.CR.11–12.1	Accurately cite strong and thorough textual evidence and make relevant connections to strongly support a comprehensive analysis of multiple aspects of what a literary text says explicitly and inferentially, as well as interpretations of the text; this may include determining where the text leaves matters uncertain.
S.IC.B.6	Evaluate reports based on data (e.g., interrogate study design, data sources, randomization, the way the data are analyzed and displayed, inferences drawn and methods used; identify and explain misleading uses of data; recognize when arguments based on data are flawed).

W.IW.11–12.2	Write informative/explanatory texts (including the narration of historical events, scientific procedures/experiments, or technical processes) to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
9.4.12.TL.2	Generate data using formula-based calculations in a spreadsheet and draw conclusions about the data.
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.
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).
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.
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.
8.2.12.ETW.2	Synthesize and analyze data collected to monitor the effects of a technological product or system on the environment.
1.2.12prof.Cn11b	Critically evaluate and effectively interact with legal, technological, systemic, and vocational contexts of media arts, considering ethics, media literacy, social media, virtual worlds, and digital identity.
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.
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.
HS-ETS1-4	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.

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.