Internet Tracking

Milestone 5 – CSCI 435 – Spring 2025

*Please be sure that you complete all pages of this worksheet. Some sections may begin on new pages, so you may need to scroll past any blank space.*

*As you read the background material, fill in the answers to the following questions inside the provided boxes (1x1 tables). You do* ***not*** *need to write complete sentences for questions that ask for a short answer. Paragraph or bullet form is acceptable for questions that require an explanation or description.*

1. True or false? Animals and proles are free from Internet tracking.

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2. If a user can be uniquely identified, then their actions and behaviors while on a website can be associated with a real \_\_\_\_\_\_\_.

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3. What kind of user identification occurs when a user voluntarily logs into a website with a username and password?

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4. What kind of user identification occurs when a site determines who a user is even when they haven’t logged into the site?

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5. What two-word term describes what someone gives to the company operating a website when they agree to create a username and password for that site and are presented with the terms of service and privacy policy?

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6. True or false? Sites that require users to log in do **not** also track users via other methods.

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7. What is the two-word term for the currency in which “free” online service trade?

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8. Suppose 3 different websites are partnering with the same data broker. You do not log into two of the websites, but you log into an account on the third site with your email address. Can the first two sites uniquely identify you by your email address?

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9. Who was the founder of the field of information theory?

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10. What computing term means “binary digit”?

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11. How many unique identifiers can we make from 6 bits of entropy?

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12. How many bits of entropy do we need to create 1,000 unique identifiers?

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13. Suppose that we can get 128 bits of entropy from every web browser on Earth. Can we uniquely identify every person on Earth?

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14. Thanks to widely used but harmful technologies, what application do we use on a daily basis that is a privacy dumpster fire?

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15. What is the term for a small piece of information that can be set by a website and will then be transmitted by the browser each time a request is made to that site?

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16. A \_\_\_\_\_\_\_\_\_ cookie is set by a website the user explicitly visits.

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17. A \_\_\_\_\_\_\_ cookie is set by some kind of resource that a website loads. The user doesn’t explicitly visit the site that sets this kind of cookie.

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18. What kind of cookie expires whenever the user closes their browser window?

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19. What kind of cookie is stored on a user’s computer indefinitely?

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20. What kind of “cookie” misuses other technologies to try to prevent a user from clearing their normal cookie for a site?

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21. True or false? In order to clear cookies completely, it is necessary to configure the browser to clear all storage whenever it is closed.

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22. What kind of unique identifier often gets transmitted by browsers on cell phones?

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23. True or false? Google’s Topics API will eliminate Internet tracking.

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24. What European law (4 words or 1 acronym) has been interpreted to require annoying cookie messages on all websites?

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25. Suppose an email message contains a transparent 1x1 pixel image that has a unique URL. What two-word tracking mechanism does this message contain?

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26. True or false? Scammers can include trackers in emails to identify vulnerable victims.

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27. What two-word term refers to a technique that uses JavaScript code to create a unique identifier for a browser, even if the user has disabled cookies?

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28. True or false? The fonts installed on a computer system can help identify its user.

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29. What kind of short fingerprint can be made from an HTML 5 canvas element?

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30. What low-level 3D graphics technology can present both a privacy and security risk if it is enabled in the browser?

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31. True or false? The Web Audio API can be a privacy risk.

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32. If you were going to enable *one* of Do Not Track or Global Privacy Control in your browser settings, which one should you enable?

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33. What technology can be built into the browser to monitor the user and send information back to the browser’s developer?

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34. True or false? Google Chrome has been found to report every URL visited back to Google, even in incognito mode.

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35. Is Microsoft Edge better for privacy than Google Chrome?

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36. Which browser is the upstream open source project for both Google Chrome and Microsoft Edge?

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37. True or false? Mozilla Firefox does **not** contain telemetry.

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38. Which major browser has implemented a cryptocurrency-based rewards scheme for viewing ads?

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39. LibreWolf is a community rebuild of what browser?

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40. What is the term to describe something that is enabled by default, but which the user can turn off?

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41. What is the term to describe something that is disabled by default, but which the user can turn on?

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42. What planet gets destroyed in order to make room to build a hyperspace bypass?

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*Please continue to the next page*.

# Screenshot

*Replace the following image with a screenshot of your EFF Cover Your Tracks (Panopticlick) results. Be sure the top part of the results, showing the summary of your exposure to trackers, is displayed in the screenshot.*



# Submission

*When you have completed this worksheet, export it to PDF format. Upload the PDF file as your Moodle submission for this milestone.*