

Level 4 game design Evaluation

The purpose of this survey is to evaluate the game-play of three different game designs. Based on the results of this survey, one or more of these game modes will be implemented.

Background:

For this game, we are concerned with ad targeting and tracking in web browsers. When you visit a website, you are most likely being tracked, this tracking can be an advert on the page, hidden 1x1 pixels or cookies with the purpose of capturing url redirects and search terms (along with other information).

We can decide if we are being tracked in the following way:

- Intercept all of the outgoing network requests (HTTP requests) from the website
- Look at the url of the request and compare it with a list of known urls for ad trackers
- If we have a match, we can count the request as a "tracking request"
- Furthermore, in the case of the response being an advert, we can grab the image as well
- Finally we can extract more information for the ad trackers by looking them up in a table
 - The table is maintained by DuckDuckGo (see more: <https://github.com/duckduckgo/tracker-radar>)
- We can get a name and some other meta data

There are some limitations to this, for example, we might not have information on a specific ad tracker. In this case we need to still be able to classify "unknown" ad trackers with some other criteria.

Even though we can grab the images of adverts, we have no textual descriptions of them. Therefore game mode 2 (category) would only be possible if we can classify them in categories.

So to build our game we have:

- Number of ad trackers on a specific page
- Total number of ad trackers since starting a game session
- The names of the ad trackers found (possibly with some additional information)
- The advertisement images

Additionally, for the technologies we have:

- A web app where you can create an account and play the game
 - Each player has a rank and achievements/metrics
 - They can select to play different game modes
 - For a prototype, see: <https://www.figma.com/file/IOYS45UXzcAzmOSj2xMABl/Design-2?node-id=5%3A0>
- A browser plugin/extension that can intercept network requests of players (no sensitive data is used in any way)
- Communication between the plugin and the web server to build our game states

In the following sections you will see three different game designs/mode using the information above to create an engaging game-play along with more detailed explanations. In the first two game modes, players can chat with each other while playing through the lobby. Responses will be submitted anonymously and the survey will take approximately 10 minutes

to finish.

For any questions, feel free to email me:

Email: 2329664k@student.gla.ac.uk

Supervisor's email: Matthew.Chalmers@glasgow.ac.uk

* Required

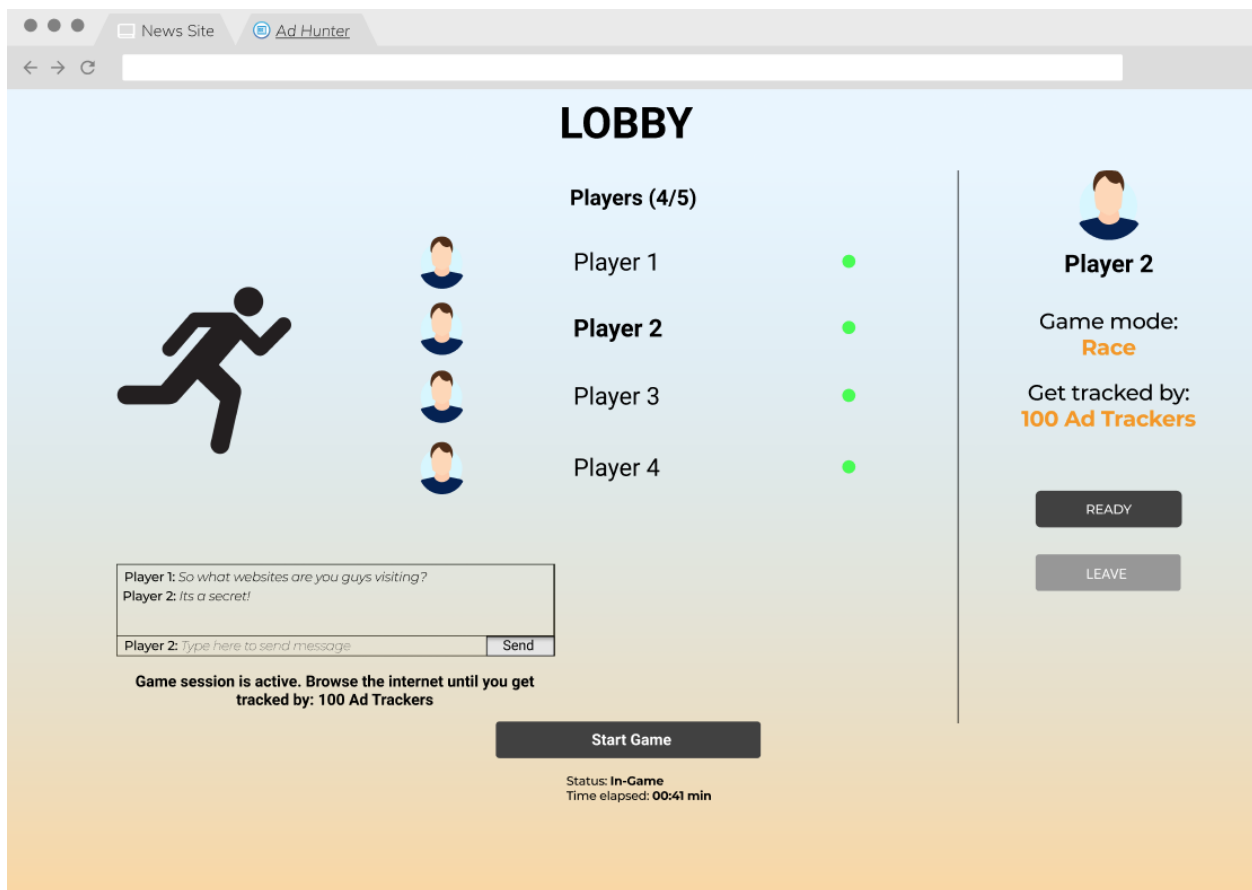
Game Design 1 - Race

For the first game design we will be utilising the number of ad trackers as our main game metric.

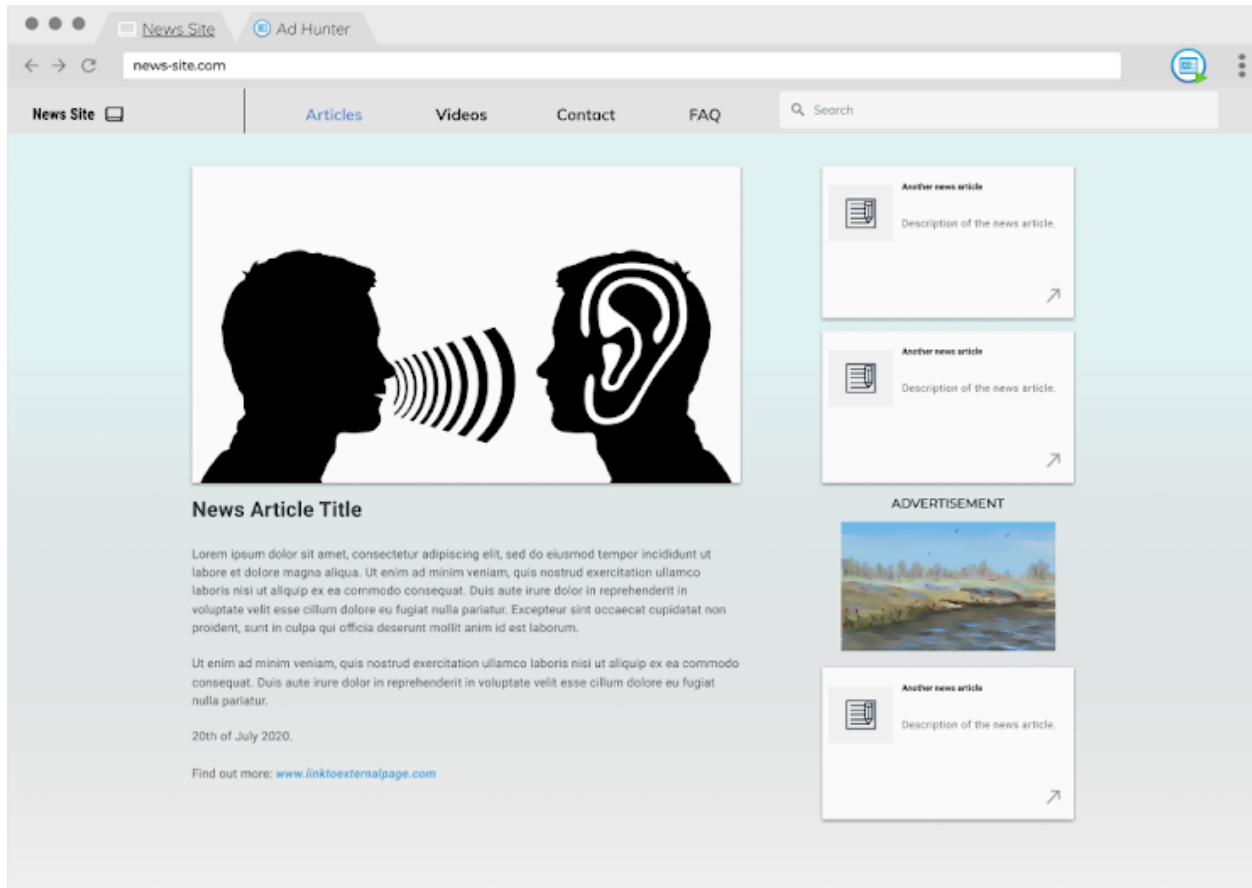
It will be a very simple racing game, where the winner is the player that reaches a certain amount of ad trackers (possibly distinct) first.

In the prototype example shown below we first see the lobby, the player then visits a news site and then opens up the plugin interface to look at the current score, after a while they receive a notification from the plugin and they open the interface to see that another player wins and the game is finished. From there they can go to the summary page where they can see the final scores and a few more game related stats.

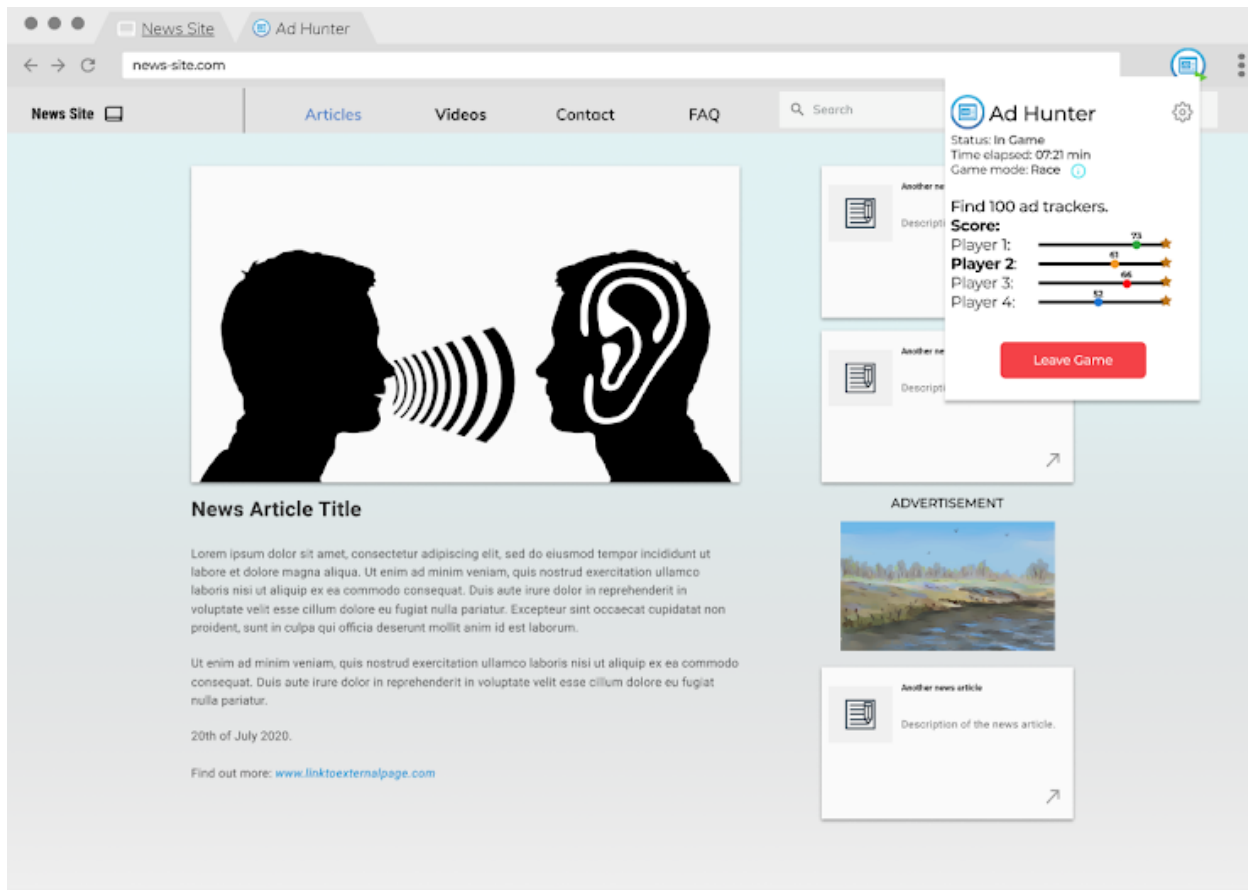
Lobby during an active game session



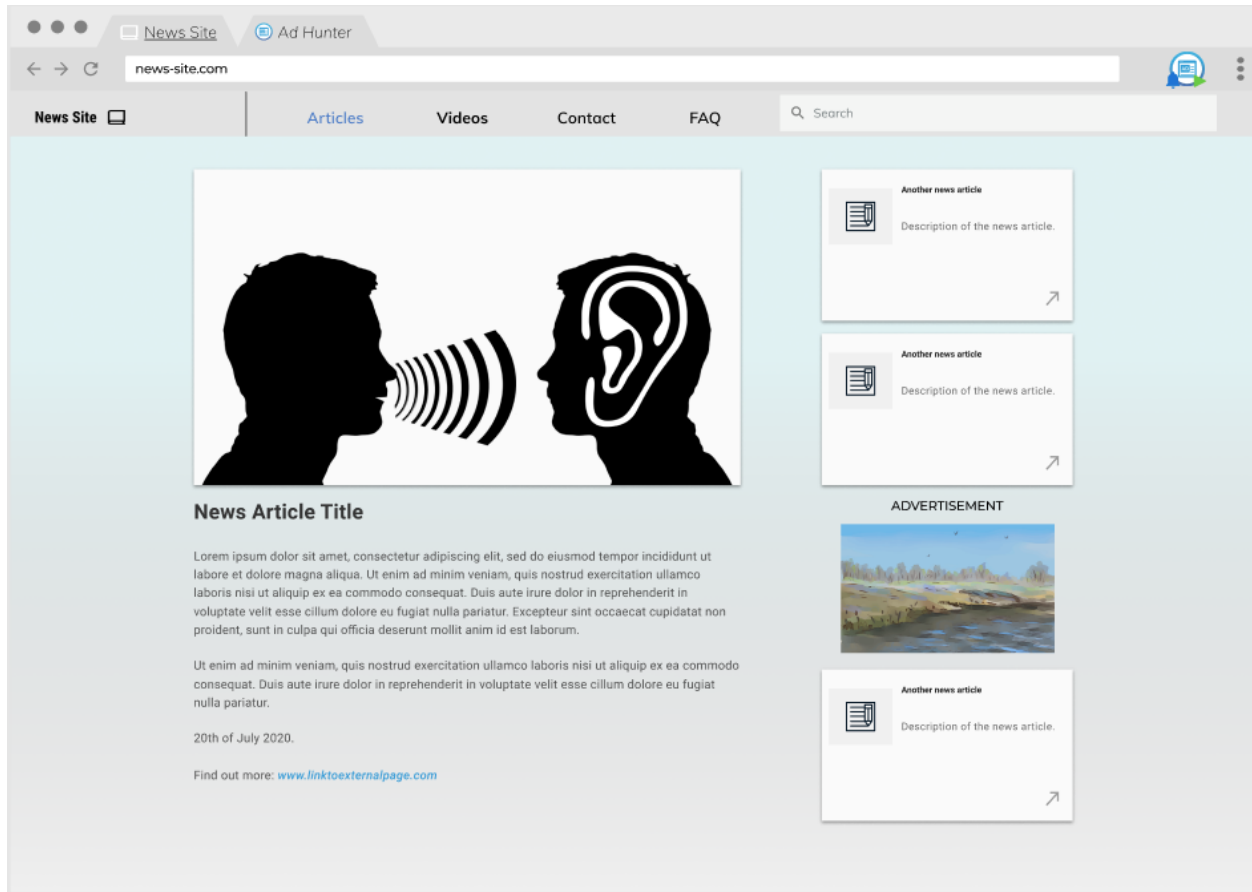
Plugin Icon (play button indicates that a game session is active)



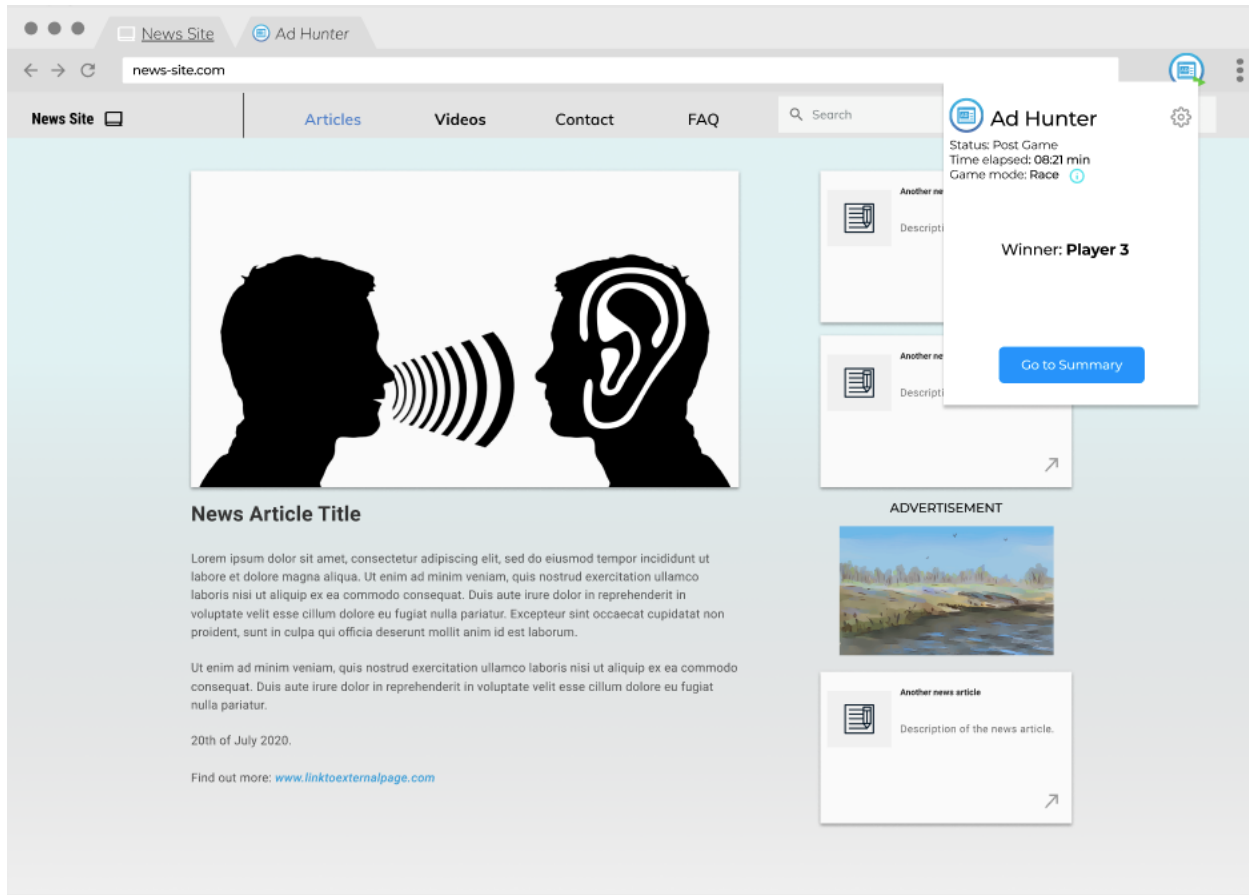
Plugin Interface



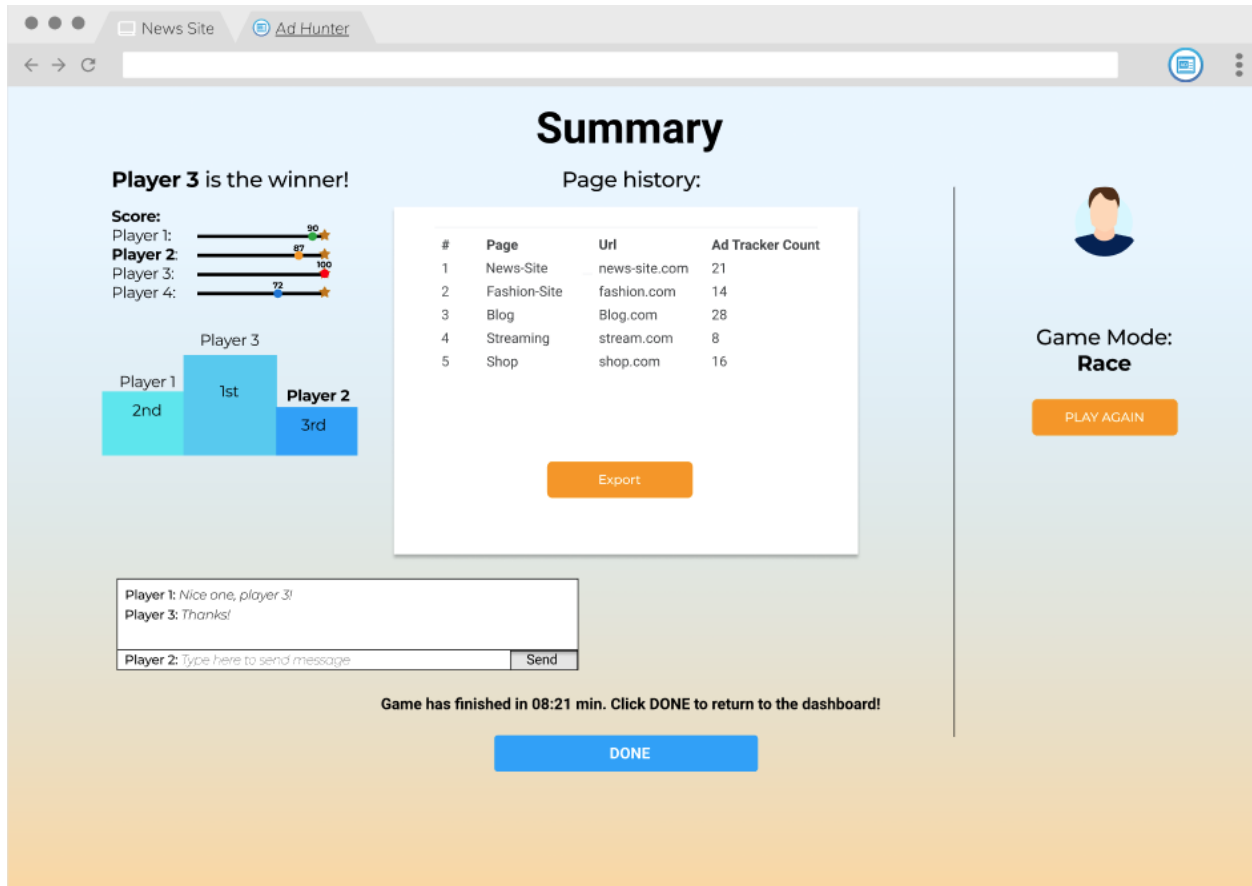
Plugin notification (indicated by the bell)



Plugin winner interface



Race Mode Summary



1. I would play this game mode *

Mark only one oval.

☐ Yes

☐ No

2. If you answered no to the question above, can you elaborate why?

3. I think this game mode would get boring after *

Mark only one oval.

- ☐ 1 game
- ☐ 3 games
- ☐ 5 games
- ☐ More than 5 games
- ☐ I think it would be boring from the first game
- ☐ I do not think it will ever get boring

4. How long would you say an average game should take? *

Mark only one oval.

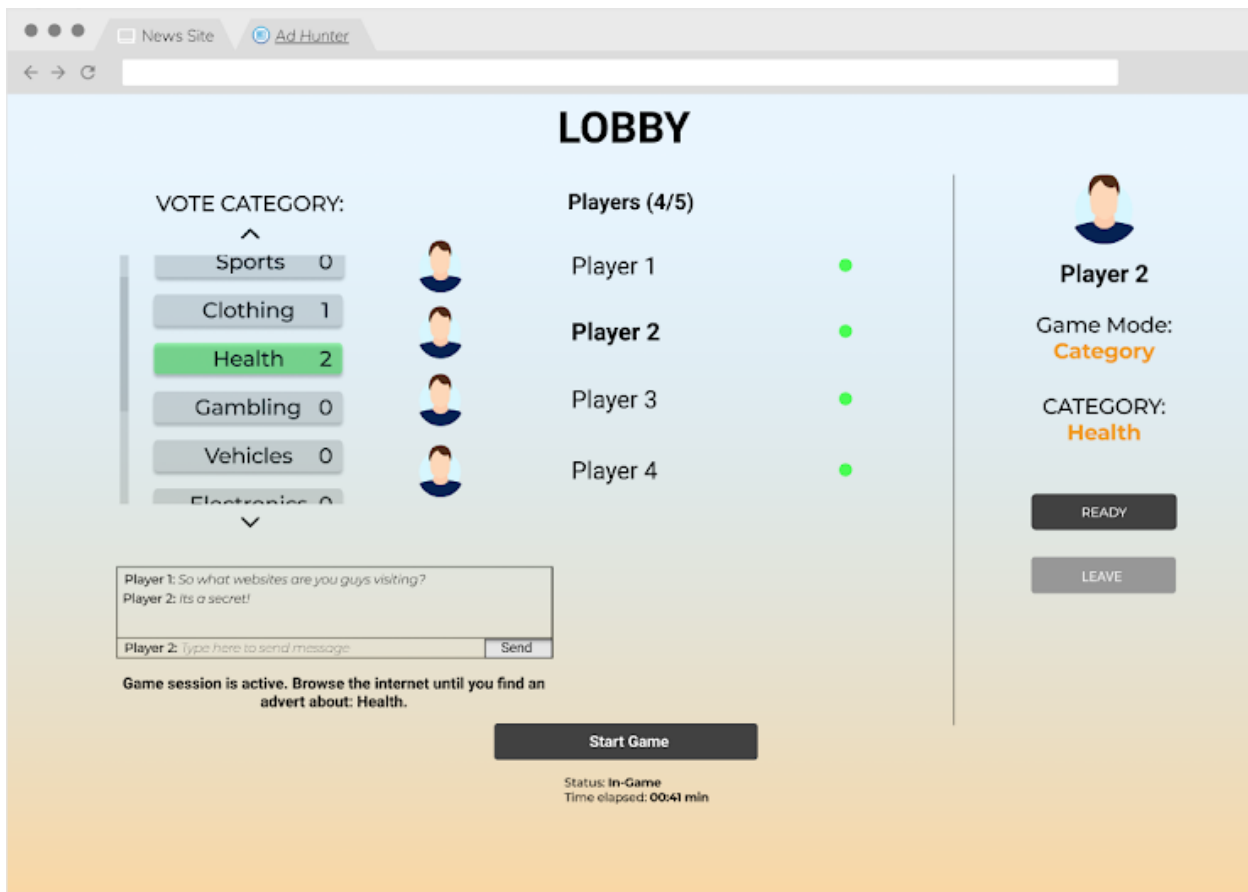
- ☐ 1-5 minutes
- ☐ 5-10 minutes
- ☐ 10-20 minutes
- ☐ More than 20 minutes

5. Anything else to add?

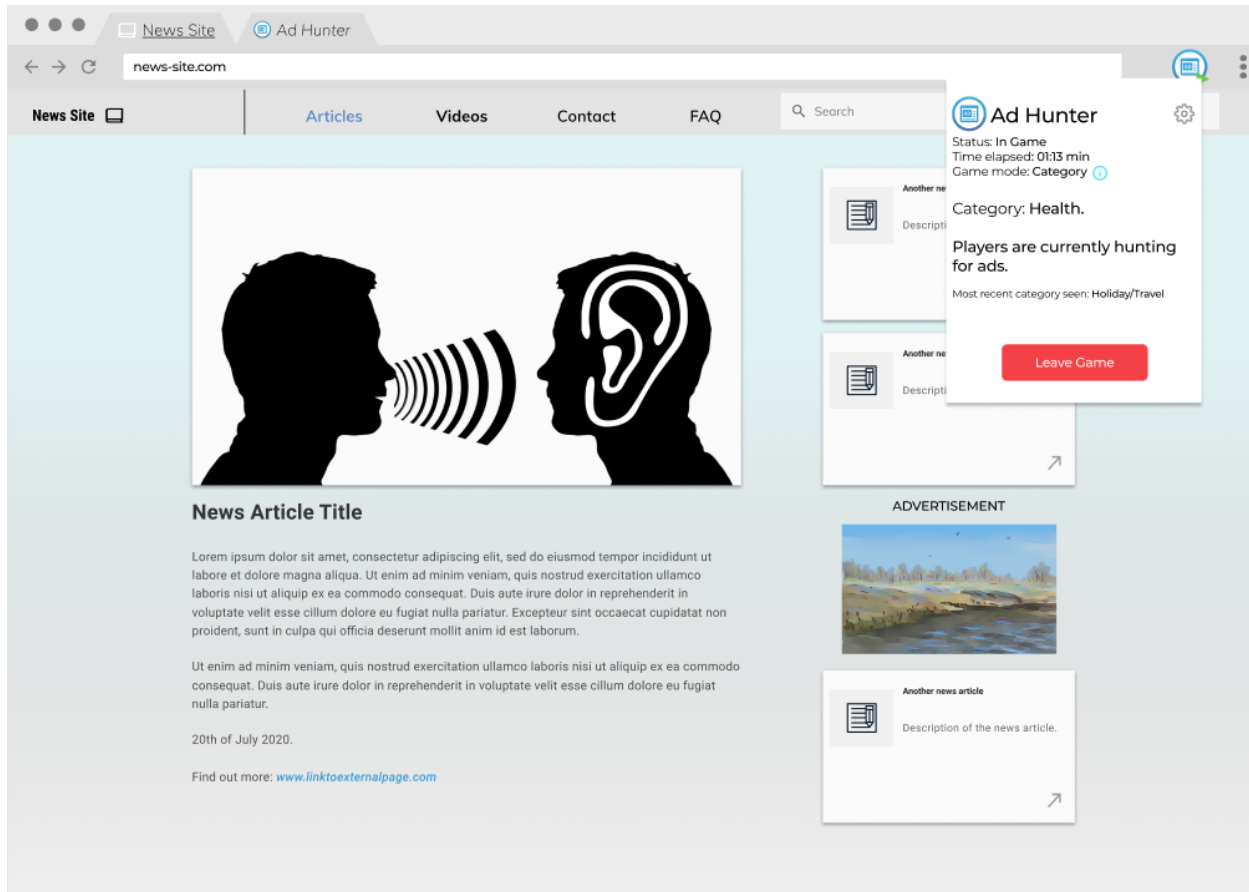
Game Design 2 - Category

For the second game design we will be working directly with adverts on pages. We can grab an advert image shown on the page and try to classify it into a category (e.g health, technology, education, holiday/travel, etc.). These categories will be finite and in the optimal scenario every advert should belong in on of these categories.

In the prototype example shown below, we first see the lobby and then the plugin interface while the players are still looking for adverts in a specific category (in this case, the category is health). On the next page the player visits, we can see an advert about toothpaste and a notification from the plugin. The player opens the interface and sees that they have won, and again they end up in the summary page.



Plugin interface showing status of the game



Health related advert and notification

News Site

Ad Hunter

news-site.com

News SiteArticlesVideosContactFAQSearch

1 EAT A HEALTHY DIET

2 BE PHYSICALLY ACTIVE EVERY DAY, YOUR WAY

3 GET VACCINATED

4 DON'T USE ANY FORM OF TOBACCO

5 AVOID OR MINIMIZE USE OF ALCOHOL

6 MANAGE STRESS FOR YOUR PHYSICAL AND MENTAL HEALTH

7 PRACTICE GOOD HYGIENE

8 DON'T SPEED, OR DRINK AND DRIVE

9 WEAR A SEAT-BELT WHEN DRIVING AND HELMET WHEN CYCLING

10 PRACTICE SAFE SEX

11 REGULARLY CHECK YOUR HEALTH

12 BREAST FEEDING BEST FOR BABIES

12 TIPS TO BE HEALTHY

News Article about health

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur.

20th of July 2020.


Find out more: www.linktoexternalpage.com

Another news article

Description of the news article.

ADVERTISEMENT

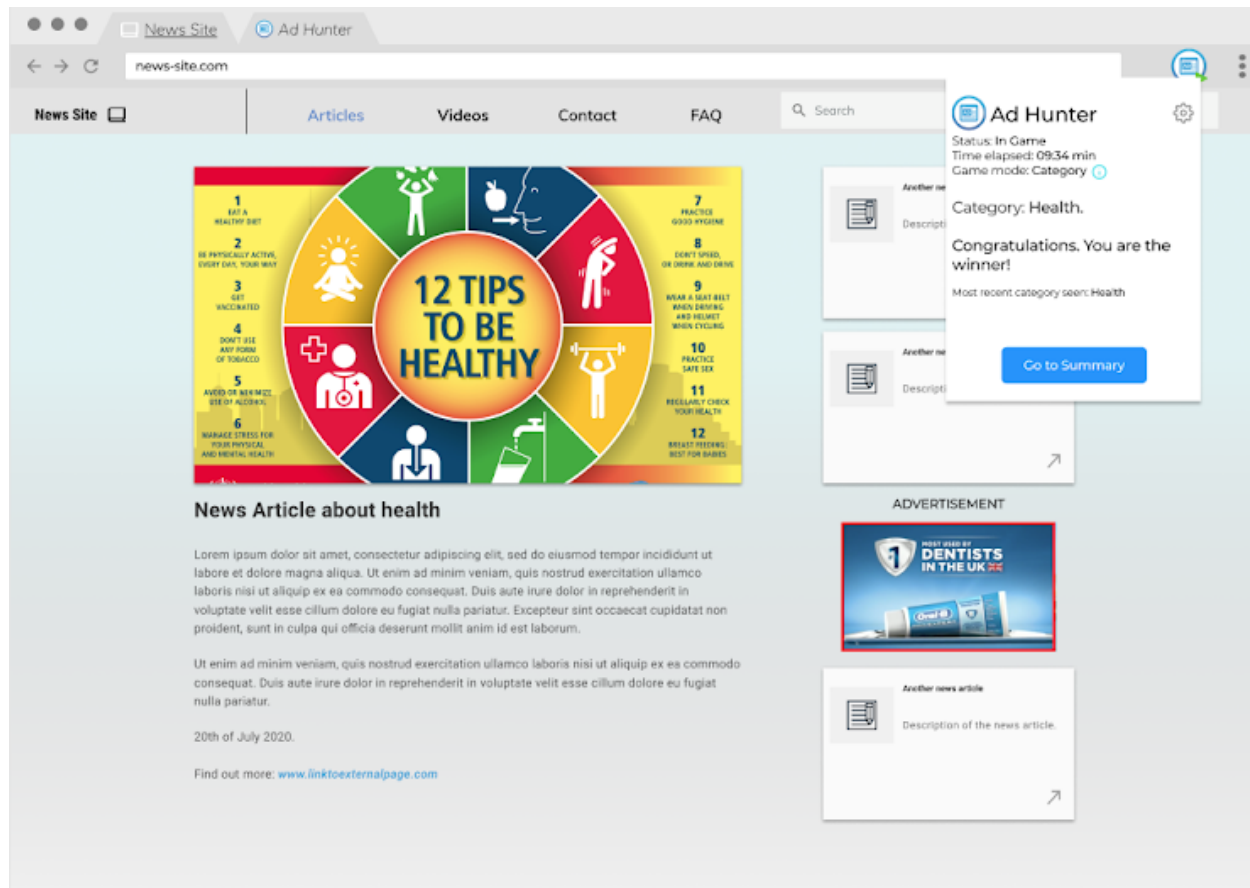
1 MOST USED BY DENTISTS IN THE UK

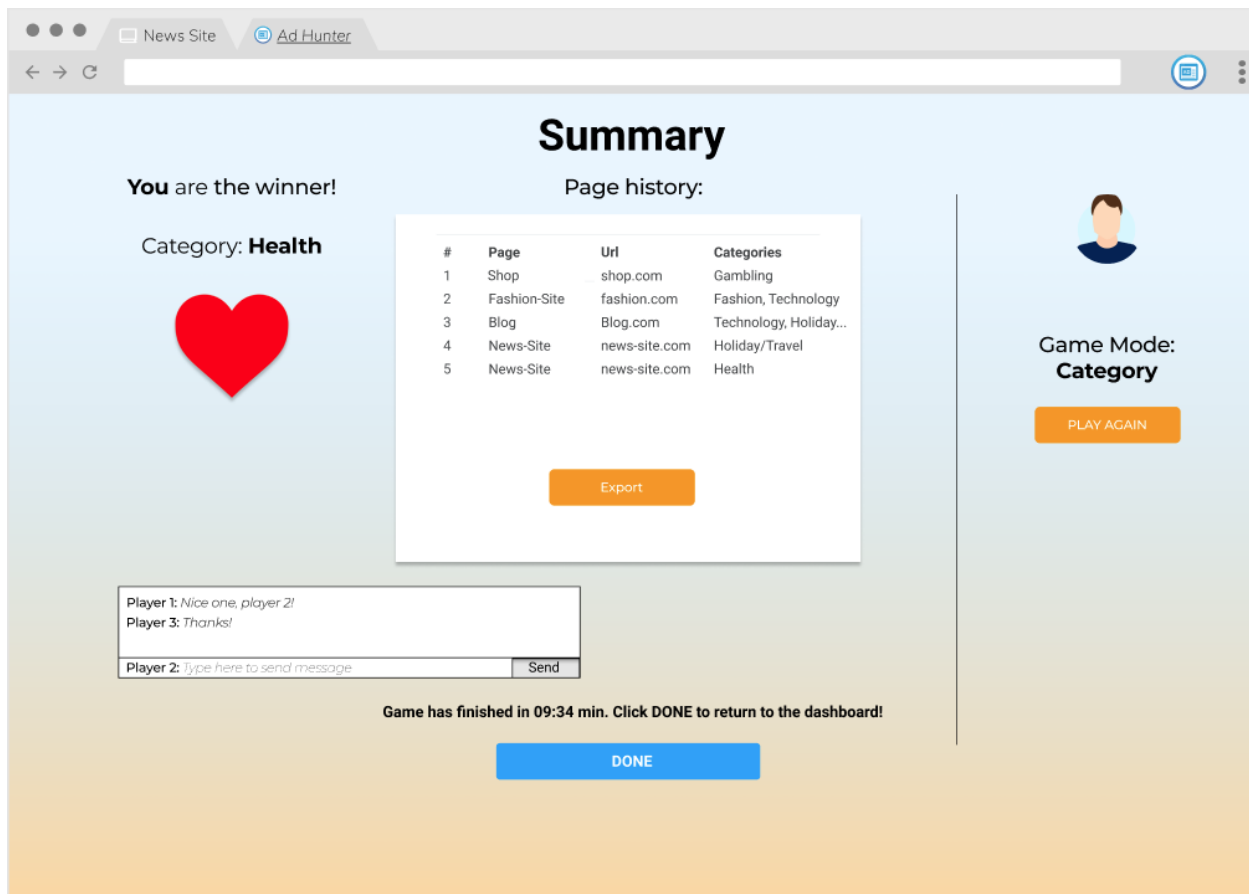


Another news article

Description of the news article.

Interface when health advert is found for the winning player





6. I would play this game mode *

Mark only one oval.

☐ Yes

☐ No

7. If you answered no to the question above, can you elaborate why?

8. I think this game mode would get boring after *

Mark only one oval.

- ☐ 1 game
- ☐ 3 games
- ☐ 5 games
- ☐ More than 5 games
- ☐ I think it would be boring from the first game
- ☐ I do not think it will ever get boring

9. How long would you say an average game should take? *

Mark only one oval.

- ☐ 1-5 minutes
- ☐ 5-10 minutes
- ☐ 10-20 minutes
- ☐ More than 20 minutes

10. Given a category, would you say that you know what to do to get targeted with an advert in that category (i.e win the game)?

Mark only one oval.

- ☐ Yes
- ☐ No
- ☐ I have some ideas but I am not sure if they would work.

11. Anything else to add?

Game Design 3 - Hunting

As we have mentioned in the introduction, ad tracking servers belong to organisations and we can, in most cases, get the name of those organisations along with some additional information.

We can use this information to build game resources. More specifically, we can create a "book" of organisations which will be initialised with cards for all organisations in a "locked state". When an organisation is found, it is unlocked, awarding points and becoming available to trade.

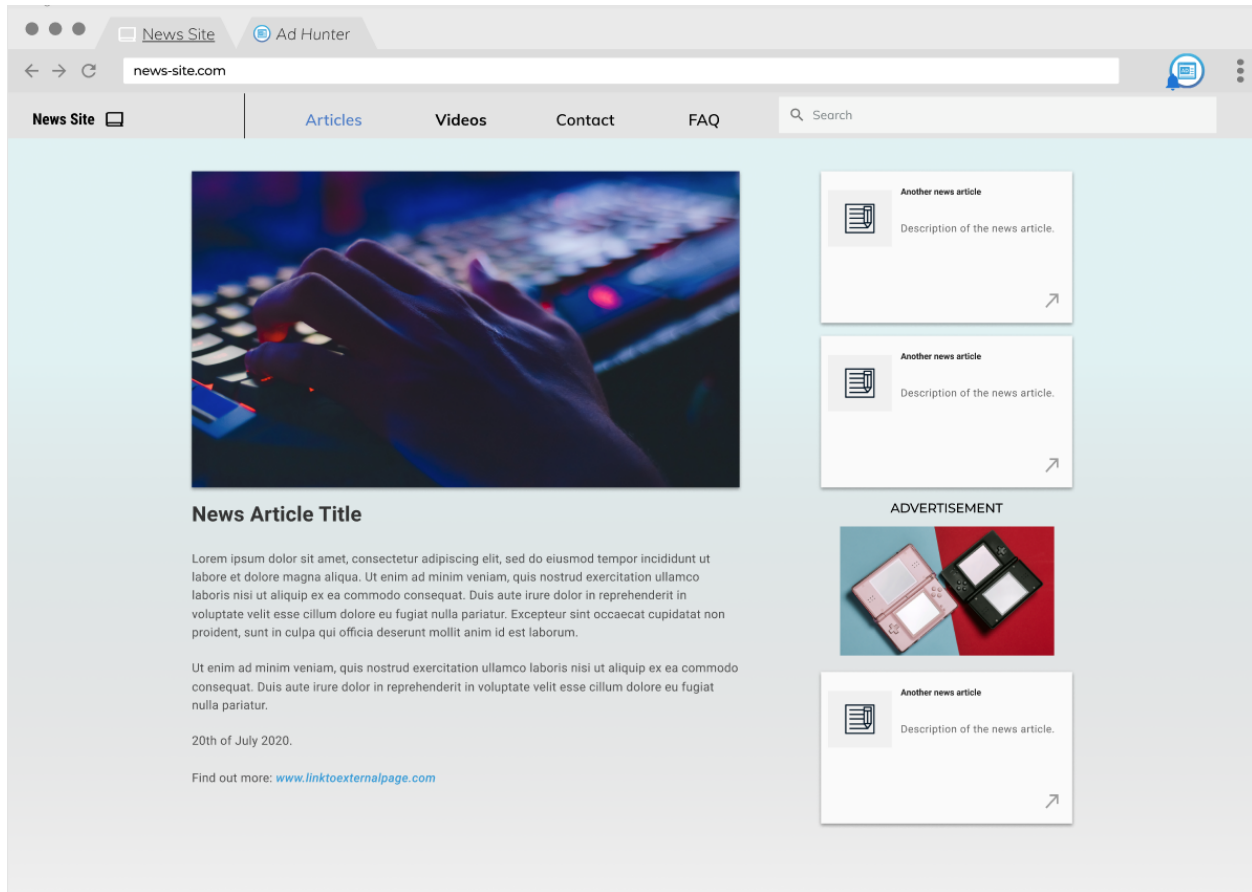
The purpose of this game mode is to fill the book with as many organisations as possible. To find an organisation, the player would need to get tracked by that organisation and some are more rare than others. Therefore, we can build some kind of scoring system based on the rarity of the organisations along with their meta-data (such as location) to use for the leader-board ranks.

There would also be achievements related to the book. For example, an achievement could be "Find 10 common organisations".

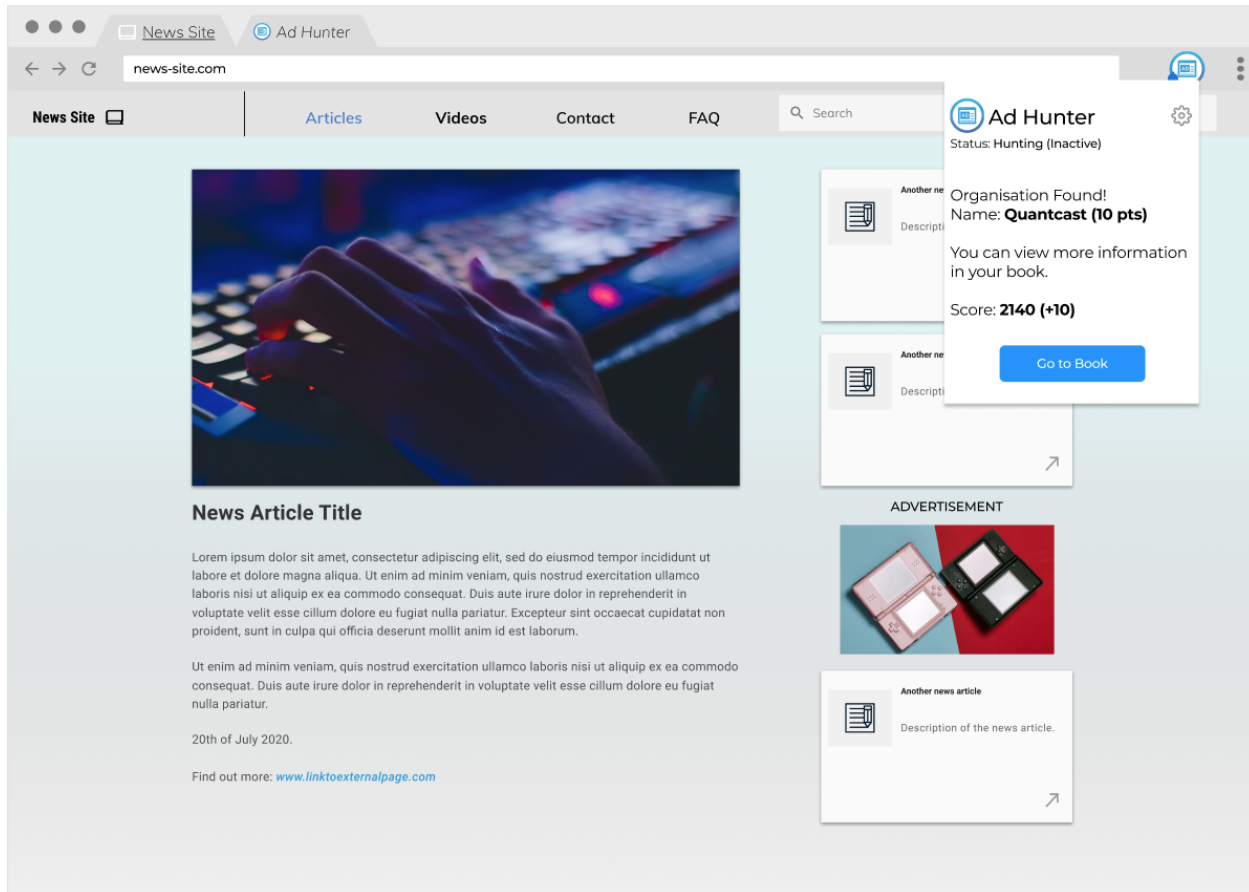
This game mode is different from the previous two in the sense that it is not active game-play. Players can select to have the plugin active while they casually browse through the internet, effectively capturing any distinct organisation that tracks them.

In the prototype below, we see a user casually browsing the web with the plugin active. The user then sees a notification from the plugin (they can choose to disable notifications) and opens the interface of the plugin. There we can see that the user has found a new organisation which will be added to their book. Finally, a prototype of the book is shown with the functionality of trading organisations with other players.

User receives notification when casually browsing the web



Organisation found interface

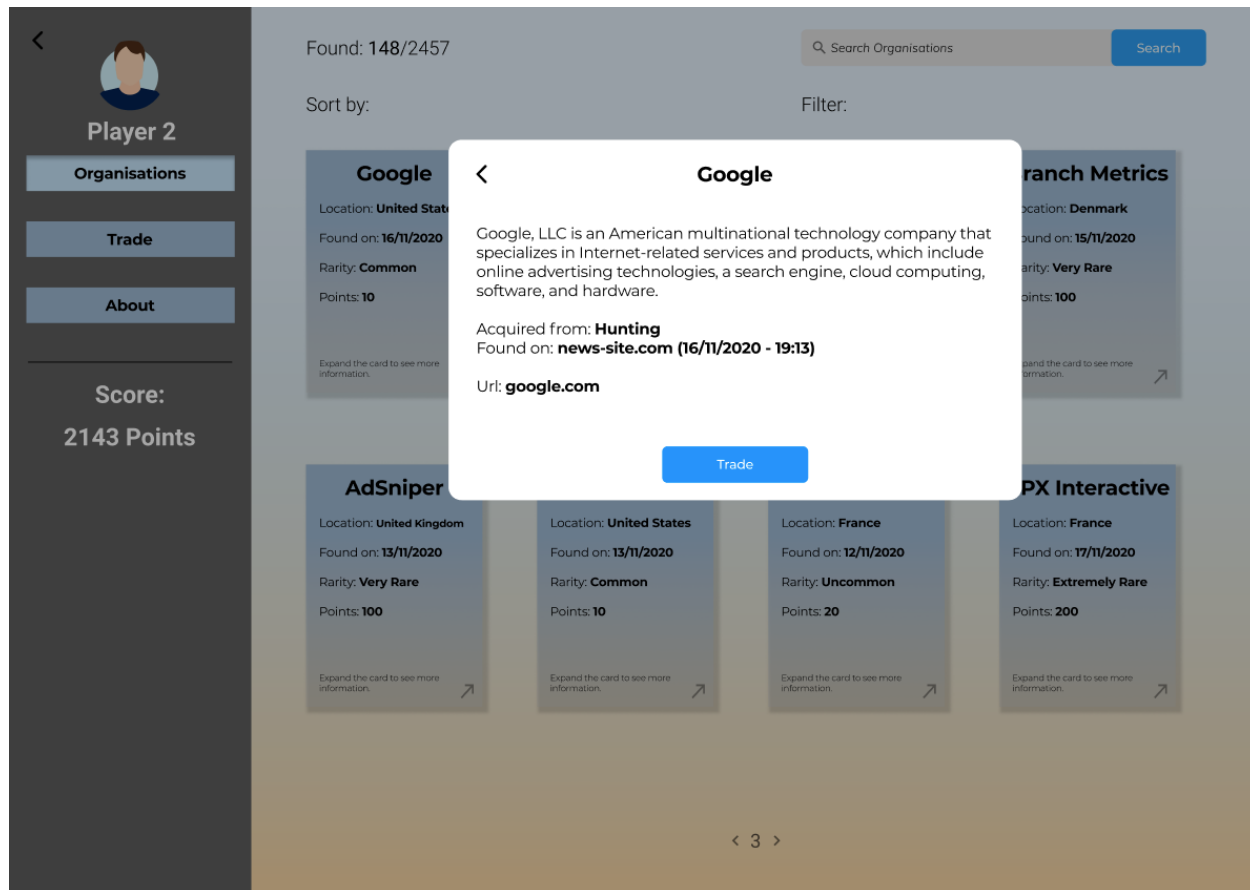


The book (CPX Interactive is an example of an organisation not yet found)

The screenshot displays a game interface for 'Player 2' with a score of 2143 Points. The main area shows a list of organizations found, with filters for 'Found: 148/2457', 'Sort by: Date Acquired', and 'Filter: Found: Any | Rarity: All | Location: All'. The organizations are displayed in a grid of cards, each with details on location, found date, rarity, and points. The 'CPX Interactive' card is highlighted with a lock icon, indicating it is not yet found.

Organization	Location	Found on	Rarity	Points
Quantcast	United States	16/11/2020	Common	10
Google	United States	15/11/2020	Common	10
4INFO, Inc.	Denmark	15/11/2020	Uncommon	20
Branch Metrics	Denmark	15/11/2020	Very Rare	100
AdSniper	United Kingdom	13/11/2020	Very Rare	100
Amazon	United States	13/11/2020	Common	10
Adobe	France	12/11/2020	Uncommon	20
CPX Interactive	France		Extremely Rare	200

Details for an organisation



Trading organisations between players

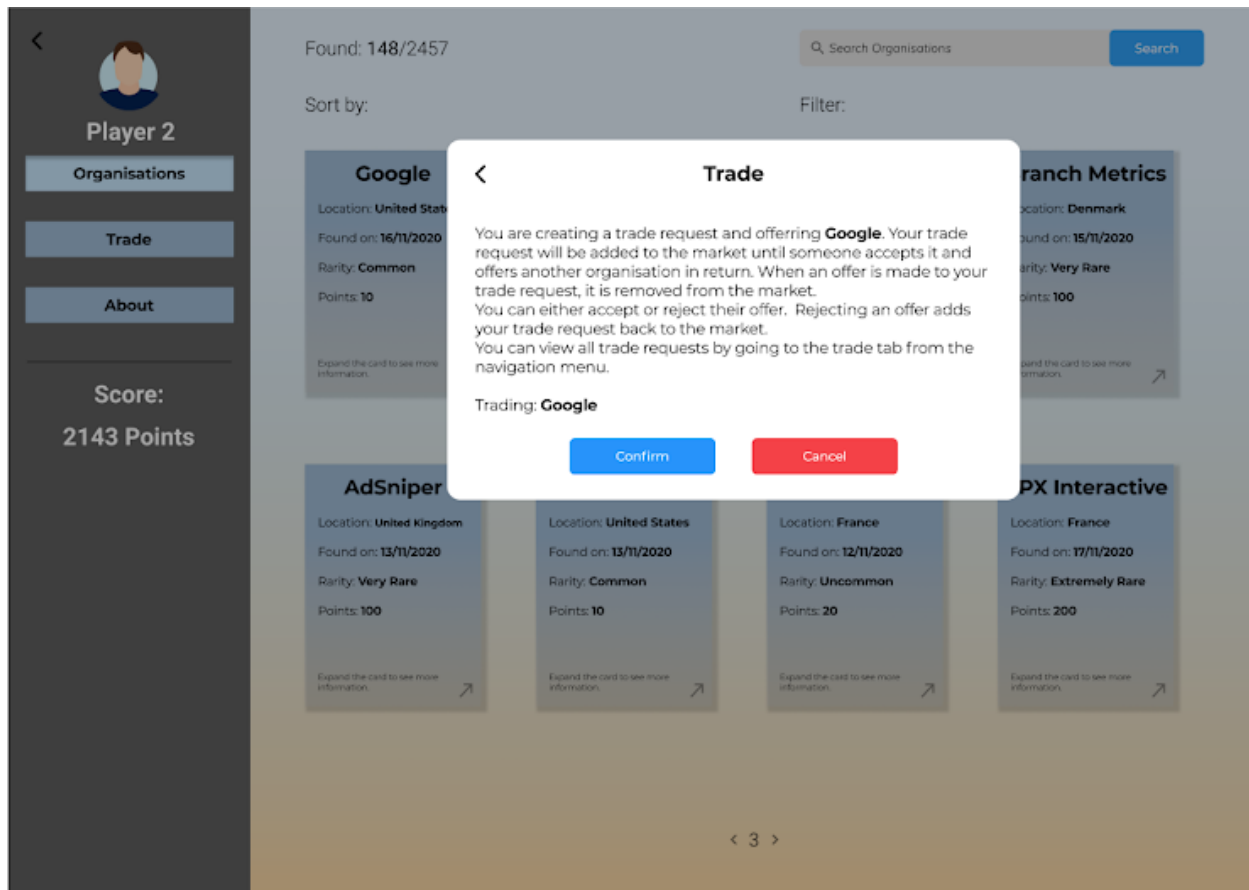
As you can see from the wire frame above, there is a trade button. Players can create a trade request, offering an organisation they have unlocked. The trade request is added to the market, where trade requests from all players are visible.

Other players can accept the trade request and offer an organisation they own in return. When this happens, the trade request is removed from the market and is only visible for the players that are engaged in the trade.

The first player can accept the request, effectively trading organisations with the other player. Rejecting the offer adds the trade request back to the market.

An idea is for the trade not to remove the organisation from the players book but instead only add the new one. The reasoning behind this is that players could potentially tell each other what website they got tracked by a specific organisation. Trading makes this exchange of information easier by giving each other the organisations directly.

Trade interface for Google



The market, showing all trade requests that are active

The screenshot displays a user interface for a market platform. On the left is a dark grey sidebar for 'Player 2' with a score of 2143 points. The main area shows a list of trade requests under the 'Market' tab. Each request includes a player icon, name, date added, offering name, and a 'Make offer' button. A search bar is at the top right, and a pagination indicator '< 1 >' is at the bottom.

Player 2
Score: 2143 Points

Organisations
Trade
About

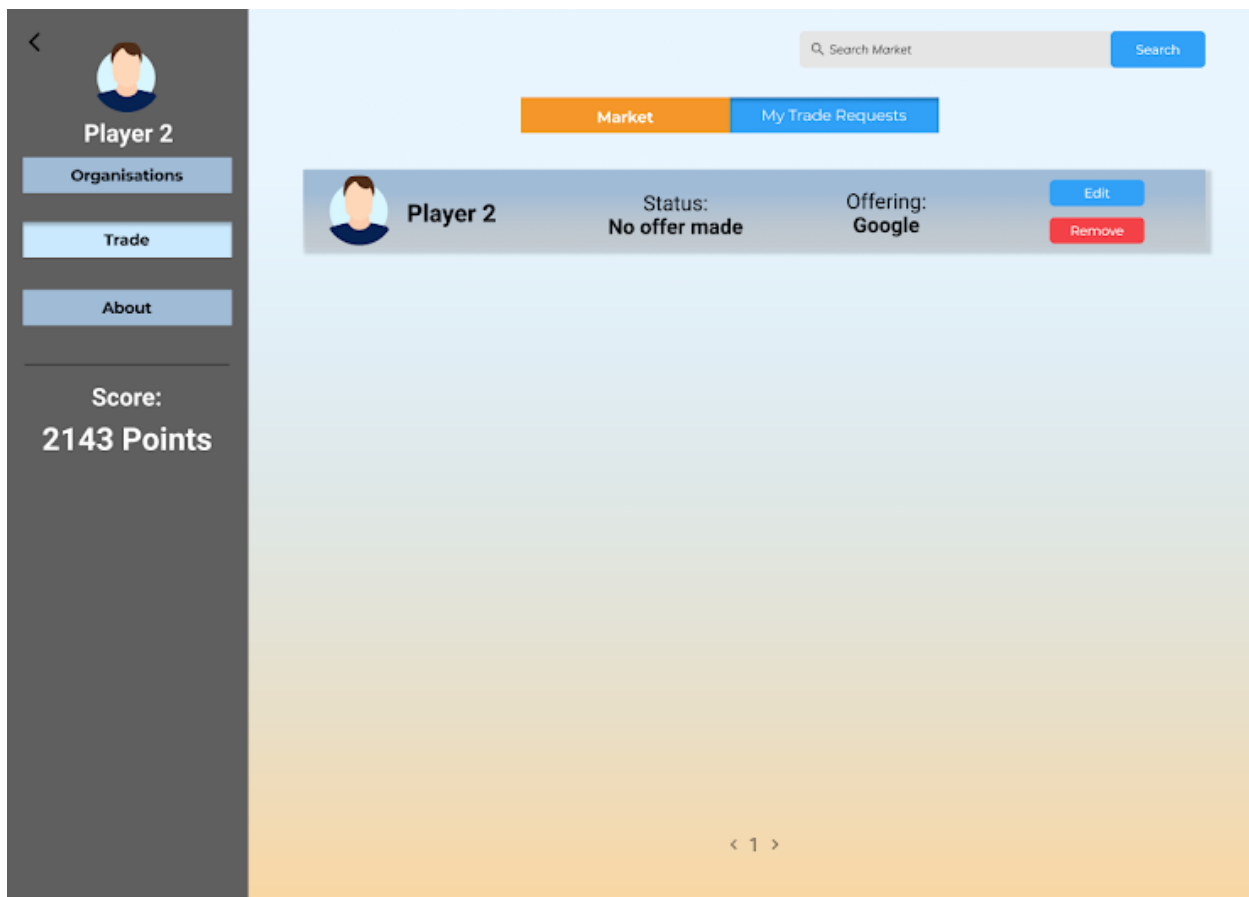
Search Market for organisations Search

Market My Trade Requests

	Player 2	Date Added: 15/11/2020	Offering: Google	Make offer
	Player 3	Date Added: 15/11/2020	Offering: 4INFO, Inc.	Make offer
	Player 1	Date Added: 14/11/2020	Offering: Quantcast	Make offer
	Player 3	Date Added: 14/11/2020	Offering: Lucky Orange	Make offer
	Player 1	Date Added: 13/11/2020	Offering: Branch Metrics	Make offer


< 1 >

Trade requests for our player, with the option to edit or remove them (and no offers made yet)



Offered made to our player's trade request

<



Player 2

Organisations

Trade


About

Score:
2143 Points

Q Search Market

Search

MarketMy Trade Requests

Player 2

Status:
Player 1 offers Trip Advisor



Offering:
Google

Accept Offer

Reject Offer

< 1 >

Information about this game mode



Player 2

Organisations

Trade

About

Score:
2143 Points

What is the book?
The book is a collection of organisations that are known for serving ads to users or tracking them. You can acquire organisations in your collection in two ways, by browsing the internet until you get tracked by them or trade with other players.

Hunting
This is a passive game mode, meaning you can hunt while you casually browse the web. Simply enable the option in the settings of the plugin. The plugin will run in the background and identify any new organisations you get tracked by (you can also choose to receive notifications). These organisations are added to the book.

Trading
Players can use the market to trade organisations with each other. When a trade request is made, it is added to the market, and it becomes visible for all players. Then players can engage in trade requests, offering organisations to acquire new ones.
Trading **does not remove the organisation from your book**, you can think of it as an exchange of information; players could possibly tell other players where they found an organisation. The trading simplifies things by trading organisations directly.

Organisation Information
Each organisation in the book has a **name**, a **location**, a **rarity**, the **date it was found** as well as the **number of points** it is worth. Additionally, expanding an organisation shows a **short description** (this can be useful for organisations not yet found), the **url of the organisation** and the **method of acquisition** (hunting or trading).

Rarity
Some organisations are found more commonly than others, the rarity field aims to reflect that. The points that an organisation is worth are based on its rarity. Rarity is defined by looking at the prevalence field (a metric on how common the organisation is) of the organisation.

Tracker Radar
You might be wondering, where does the information we have on the organisations comes from. The data is publicly available from [DuckDuckGo's Tracker Radar](#). A tool that crawls the top websites and automatically generates information about any trackers of that website.

12. I would play this game mode *

Mark only one oval.

☐ Yes

☐ No

13. If you answered no to the question above, can you elaborate why?

14. Is there anything that seems confusing about how to collect organisations? *

15. Is there anything that seems confusing about how to trade organisations? *

16. Anything else to add?

Additional questions

17. Out of all game modes, which one do you think would be the most fun to play? *

Mark only one oval.

- ☐ Game mode 1: Race
- ☐ Game mode 2: Category
- ☐ Game mode 3: Hunting
- ☐ I do not think any of these game modes are fun

18. Do you think players should be able to chat through the plugin interface? *

Mark only one oval.

- ☐ Yes
- ☐ No

19. Do you have anything else to add about the game modes or the project in general?

Thank you for your time!

This content is neither created nor endorsed by Google.

Google Forms