

Neutrality Game

Game Design Document by Darrell Hardy

Game Overview

In this game, players drag "data objects" from the top of the screen to corresponding spots on the bottom of the screen before time runs out. Doing so scores points, but becomes more difficult over time as the game adds "friction" to the objects, making them slower to move.

The game abstractly represents a typical Internet user's experience downloading the data they want, at a price they can afford, at a speed they find acceptable. Over time, price goes up and speed goes down as the simulated ISP restricts bandwidth, forcing players to balance speed and money.

This document assumes the game is web-based and played on a computer with a mouse or touchpad, but it should easily be adapted to other devices with touch-screens.

Game Screen

The game takes place on one screen. The screen is divided into three zones and has several different elements on it, as labeled below.

A

Level 3-2

B

3342

C

05:04

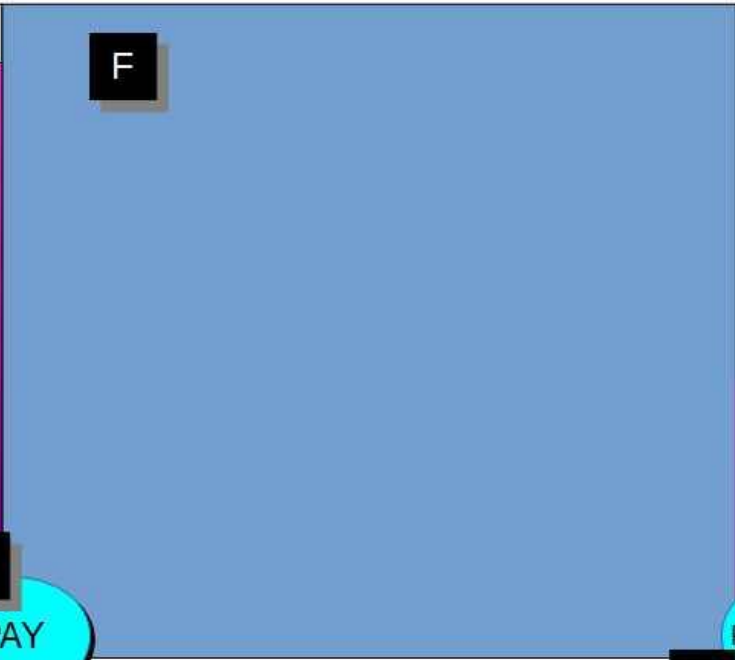
D

\$240

E



F



J

L



H

I



K



M

G



Ally



N

A. Level

This indicates what level and wave the player is on.

B. Points

Displays the player's current total points.

C. Timer

Displays seconds and tenths of seconds (ss:tt) and counts down to zero.

D. Money

This is how much money the player has to work with, and it increases at a steady rate.

E. Data Zone

This part of the screen displays the Data Objects the player needs to move. The Data Objects slowly bounce around the zone, passing in front of and behind each other.

F. Network Zone

The player drags Data Objects from the Data Zone through this part of the screen. When the game adds "friction," it does so in this zone.

G. Demand Zone

The player drags Data Objects down into this part of the screen in order to move them onto the corresponding Demand Slots in order to score points and complete levels.

H. Cost Bar

This represents how much money the player's ISP is charging for data access. This value raises steadily over time.

I. Pay Button

The player presses this to spend his money to pay the Cost.

J. Influence Bar

This represents how much influence the ISP has over what data is throttled. As it raises, more "friction" is added to the Data Objects.

K. Protest Button

The player presses this button to slowly reduce Influence.

L. Fast Lane Buttons

As the Influence bar rises, it overlaps buttons in the shape of the Data Objects. When it completely covers one of these buttons, the corresponding Data Object gets "friction" (as detailed under "Friction," below), and the button becomes active. By pressing the button, the player can pay to eliminate that friction.

M. Ally Bonus

This displays the text "Ally Bonus +N" where N equals the number Allies the player has.

N. Allies

This section displays an icon, portrait, or name for each Ally the player has. The player may have up to 10 Allies. By pressing an "empty" slot, the player pauses the game and calls up an interface by which he can invite other people to play the game.

Resources and Variables

Levels and Waves

Game play is divided into "levels" and each level is divided into a number "waves." The game starts at Level 1, Wave 1. As the player completes each wave, the wave value increments. When the player completes a level, the level value increments and the the wave value resets to 1. (For example, if there are three waves in Level 1, when the player completes Level 1 Wave 3, the game advances to Level 2 Wave 1.)

Level 1-2: 3 Waves

Level 3-5: 4 Waves

Level 6+: 5 Waves

Points

Players score 20 points for each Data Object they match to its corresponding Demand Slots. When they complete a Demand Sequence, they score 1 bonus point for each tenth of a second remaining on the timer.

Timer

The timer starts at 10 seconds and counts down in real time.

Money

The player starts each level with \$80. This amount goes up \$10 per second.

Influence Bar

Influence starts at zero at the start of each level, and goes up at a rate of N per second, where N equal the current Level. It has a max value of 100.

Friction

The higher the Influence value, the more "friction" is applied to the Data Objects. Friction is a multiplier applied to the speed at which the Data Object can be dragged. (For example, if an Object's friction is .5, the speed is divided in half; at .75, the speed is 75% of normal.)

Influence	Data Object	Friction
25	Circle	.75
50	Circle	.5
50	Triangle	.75
75	Circle	.25
75	Triangle	.5
75	Square	.75
100	Circle	.25
100	Triangle	.25
100	Square	.5
100	Pentagon	.5

Fast Lane Buttons

When the player presses one of these buttons, it eliminates the friction for the corresponding Data Object for 5 seconds and costs the player money, as detailed below:

Friction	Cost
.75	\$10
.5	\$20
.25	\$40

If the player does not have enough money to pay the cost, the game plays a "failure" audio cue when the button is pressed, and does not change friction or the player's money.

Protest Button

When the player presses this button, it reduces the Influence value by 1 plus the number of Allies. (So if the player has three Allies, pressing the button reduces Influence by 4.)

Cost Bar

Cost starts at zero at the start of each level, and goes up at a rate of 5 per second. It has a max value of 100 plus (10 times the current level).

Pay Button

When the player presses this button, it reduces the player's Money value by the current Cost value, and reduces the Cost value to zero. (This represents the player paying off his regular Internet bill.) If the player's Money is less than the current Cost, then Cost is reduced by the player's Money value, and the Money value is reduced to zero.

Allies

The player may have up to 10 Allies. Allies are drawn from all other players who are playing the game at this time. Each player can only be an Ally for the players who are also his Allies. (Which means Allies are clusters of 10 players.)

Game Objects

Data Objects

Data Objects represent the different types of data (blogs, streaming video, music, etc.) that the player is downloading. There are four types of Data Objects, each with its own shape and color:

- Green Circle
- Yellow Triangle
- Orange Square
- Red Pentagon

Data Objects appear in the Data Zone at the top of the screen, from where the player drags them down to the Demand Zone. (Note that the colors and shapes may be changed in later iterations, but must remain distinct from each other.)

Demand Slots and Sequences

There are four types of Demand Slots, each corresponding to one of the four types of Data Objects.

A Demand Sequence is comprised of two or more Demand Slots. Demand Sequences appear in the Demand Zone at the bottom of the screen. When the player has dragged Data Objects onto all the corresponding Demand Slots in a Demand Sequence, the Sequence is complete and the wave is finished.

Gameplay

Start of Game

Set All Variables

At the start of the game, the game sets all variables:

- Points, Influence, and Cost all = 0
- Level and Wave = 1,1
- Timer = 10 seconds
- Money = \$80

Populate the Screen

- Spawn two of each Data Object in the Data Zone.
- Spawn the first Demand Sequence in the Demand Zone. (See the "[Demand Sequences](#)" section, below.)

Moving the Data Object

First, the player must click on the Data Object in the Data Zone.

Then, the player must drag the Data Object through the Network Zone and into the Demand Zone

- If the player stops dragging the Data Object, it remains where it is.
- If the player stops dragging one Data Object and starts dragging another, the first Data Object snaps up into the Data Zone.
- If the Data Object has friction (see "Friction," above, under "Resources and Variables") it is applied while the Data Object is entirely within the Network Zone.

Finally, the player drags the Data Object into the Demand Zone and onto a Demand Slot.

- If the Data Object does not match the Demand Slot, or if the player stops dragging the Data Object, the Data Object remains where it is.

- If the player stops dragging one Data Object and starts dragging another, the first Data Object snaps up into the Data Zone.
- If the Data Object touches its corresponding Demand Slot:
 - An audio cue plays
 - The Data Object disappears
 - The Demand Slot disappears
 - Points increases by 20

If the player completes the Demand Sequence, so that there are no Demand Slots left:

- The screen displays the message "Wave Complete!"
- Score increases by 1 point for each tenth of a second remaining on the timer.
- If there are more waves remaining in the level:
 - Set the Timer to 10 seconds.
 - Increment the Wave value
 - Display the Demand Sequence for the next wave (as detailed below)

If the player completes the final wave of the level:

- The screen displays the message "Level Complete!"
- Set the Timer to 10 seconds
- Increment the Level value
- Set the Wave value to 1
- Set Influence and Cost to 0
- Set Money to \$80
- Populate the Data Zone with Data Objects (as details under "Start of Game")
- Display the Demand Sequence for the next wave (as detailed below)

Winning and Losing

The player loses the game if the Timer counts all the way down to zero. (This represents the player unable to download the data he needs in a timely fashion.)

The player loses the game if Cost reaches its highest level for 10 seconds. (This represents the player unable to pay his Internet bill.)

The player wins if he completes all the levels. This is extremely hard, and possibly impossible, to do.

When the player loses, a message appears explaining that this is what it's like living in a world without Net Neutrality, and offers a call to action to prevent such a world from happening.

Demand Sequences

Below is a table showing how the Demand Sequences are constructed for each level and wave. While the specific contents of each Sequence can be determined programmatically, the table provides rules as to how many Demand Slots are in each Sequence, how many different shapes can be in that Sequence, and what shapes are required to be in that Sequence.

Level	Wave	Slots	Contents
1	1	2	No more than one of each
1	2	3	No more than one of each
1	3	3	No more than two of each
2	1	3	No more than one of each
2	2	3	No more than two of each
2	3	3	No more than two of each
3	1	3	No more than two of each
3	2	3	No more than two of each
3	3	4	No more than two of each
3	4	4	No more than three of each
4	1	3	No more than one of each, at least one triangle
4	2	3	No more than two of each, at least one triangle
4	3	4	No more than two of each, at least one triangle
4	4	4	No more than three of each, at least one triangle

5	1	3	No more than one of each, at least one triangle or circle
5	2	4	No more than two of each, at least one triangle or circle
5	3	4	No more than two of each, at least one triangle or circle
5	4	4	No more than three of each, at least one triangle or circle
6	1	4	No more than two of each, at least one triangle or circle
6	2	4	No more than three of each, at least one triangle or circle
6	3	4	No more than three of each, at least one triangle or circle
6	4	4	No more than four of each, at least one triangle or circle
6	5	5	No more than four of each, at least one triangle or circle
7	1	4	No more than three of each, at least one triangle or circle
7	2	4	No more than three of each, at least one triangle or circle
7	3	4	No more than four of each, at least one triangle or circle
7	4	5	No more than four of each, at least one triangle or circle

7	5	5	No more than four of each, at least one triangle or circle
8	1	4	No more than three of each, at least one triangle or circle
8	2	4	No more than four of each, at least one triangle or circle
8	3	5	No more than four of each, at least one circle
8	4	5	No more than four of each, at least one circle
8	5	5	No more than four of each, at least one circle
9	1	4	No more than three of each, at least one circle
9	2	5	No more than three of each, at least one circle
9	3	5	No more than four of each, at least one circle
9	4	5	No more than four of each, at least one circle
9	5	5	No more than five of each, at least one circle
10	1	5	No more than five of each, at least one circle
10	2	5	No more than five of each, at least one circle
10	3	5	No more than five of each, at least one circle
10	4	5	No more than five of each, at least one circle and triangle

10	5	5	No more than five of each, at least one circle and triangle
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