CART 351 - Final Project (Prototype):

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CART 351-A Networks & Navigation
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Prototype Link: https://hybrid.concordia.ca/J_TAD/Prototype/Prototype.html
Presentation Link: shorturl.at/BHX14
Video link: https://www.youtube.com/watch?v=8AEDVcyvNbI

Title: The Daily Pixel

Written Report:

- High-level project description: a summary of what was in your project proposal:

My project is a web-based numbers game commonly referred to as a “picross” or “nonogram” which you complete on a daily basis in tandem with an opening pixel painting that serves as a possible puzzle for someone else.

With my project, I have set out to empower those who participate in my created space by challenging them mentally and physiologically through global collaboration and enlightenment to understand that every action (regardless of its repetitiveness and or relative independent scale to the large global actions) is in fact important.

- Description of which stage you are at in the project: what has been completed and what is still to be completed

My prototype only includes a variant of the final picross game and does not include the intended final pixel painting introduction, the submission process and upload of said painting as well as its integration as a possible puzzle for other players.

I would describe my current prototype as a very early stage of my final game, this is because I am relatively new to code and still slow when creating games without direct tutorials or support (ie: videos explaining a step-by-step process of completing a specified task).

- Detailed images/diagrams of the overall system (i.e. how data flows between the various components)

Process: Players complete a pixel painting in a 16 by 14 grid > The painting is converted into a picross puzzle with black squares being cells that need to be filled and vice versa for white tiles > The converted painting is saved as a possible puzzle for another user that day > The player receives a picross puzzle which they must complete that is pulled either from a collection of converted paintings made by other users OR one of a small pool of pre-made puzzles if there are no appropriate puzzles to give the player (ie: puzzles made by someone else) > Once the puzzle is completed, they are locked from completing another puzzle that day and rewarded with a display grid of nine puzzles made by other players with theirs from that day in the center (if there are not enough puzzles made by others, pre-made puzzles will take their place)

- For each component/feature, provide written descriptions of the usage/purpose and how it integrates into the project

1. Pixel painting: The user must digitally draw an arguably small art piece (16by14) using single pixels with a limited colour palette of black and white, which once completed will be submitted/converted into a picross puzzle of its own for someone else to complete.
2. Picross puzzle: The user must complete a simple 16 by 14 picross game designed by either other players or the system itself (pre-existing/pre-made puzzles which are only used if the system can't find an appropriate puzzle made by someone else) which changes/resets on a daily basis (a twenty-four hour cycle not linked to the player's completion of their puzzles but instead an actual change of day).

3. Puzzle Gallery: Once their painting and puzzle are completed, players are rewarded with a small gallery of nine puzzles created by other players with theirs in the center with the intention of inspiring them to view their small contributions to society throughout their lives as part of something grand which can only exist with their aid.

- Detailed explanations for which features/components are working and which need to be modified/adapted/scraped or reworked.

Currently, in my prototype, the picross game element of my final design is working but requires an additional modification to match what I originally intended.

For one, the picross game is a single puzzle (though I did this somewhat intentionally to limit user experience in regards to the user testing questions) and needs to be something that changes daily depending on the user.

Presentation:

[LINK: https://docs.google.com/presentation/d/1rPJgx6sttRqLjz0RUdYwXErQQM9nToMKBoN4rP8t-Vg/edit?usp=sharing]

- What is my project?

My project is a web-based numbers game commonly referred to as a “picross” which you complete daily in tandem with an opening pixel painting that serves as a possible puzzle for someone else.

- Start to finish

1. When opening the game for the first time in your day (the game is a daily task), you will need to complete a small black-and-white pixel painting of 14 by 16 cells.
2. After you’ve completed your small pixel painting, you will have to click a submit button below the canvas to continue to the actual picross game.
3. Your pixel painting is then converted to a picross puzzle with the black being numbered cells and the white being empty cells.
4. This new picross puzzle is then saved as a possible game for someone else to complete (You will never play the puzzle you’ve created that day, but you may play it sometime in the future)
5. After clicking submit, you will be given a picross game of your own that was either created by someone else earlier that day or one created by the site which you will need to complete.
6. Once you’ve successfully completed your daily picross puzzle, you will then get to see a collection of puzzles completed that day in a grid with yours in the center.
7. With this, your “Daily Pixel” is considered complete and you will need to tune the next day (not a 24hours from your game but the actual next day) to complete a new puzzle.

- Inspirations

My principal inspiration for my project was Wordle.
A web-based word game created and developed by Josh Wardle (a Welsh software engineer) that is owned and published by The New York Times (a New York-based mass media company) where players must guess a daily five-letter word with only six guesses.
Associated feedback in the form of coloured tiles indicating when letters match or occupy the correct position in the x by 6 grid is there to aid players.
Like Wordle, I wanted to create a daily experience and brain teaser which people could enjoy on their off time and share/experience with others.

Other inspirations include Unravel and Unrailed.

Unravel is a puzzle-platform game developed by Coldwood Interactive (a small and independent game company based in the university town of Umeå, Sweden) and published by EA (Electronic Arts) which is centred around a small anthropomorphic creature made of yarn named Yarny.
In this game, players must navigate through a series of picture-esk environments using the unravelling yarn which makes up Yarny to solve puzzles all the while avoiding dangerous creatures, traversing obstacles, and avoiding completely unravelling all of Yarny’s yarn.

Unrailed is a co-op multiplayer game where you have to work together with your friends to build a train track across endless procedurally generated worlds.
Every step of the process of getting the train to the designated end goal (a train station on the other end of the map) requires diligent planning and routine among players.

One cannot simply place a track down for the train to progress further, players must mine iron and chop wood to construct tracks as well either clearing the way by chopping trees/mining paths in rocky mountains or establishing bridges across rivers.
Additionally, players must also keep a watchful eye on early game trains' steam as if not properly attended to, the train will explode and players will need to begin again.

Like Unravel and Unrailed! my puzzle game will compose of many individual steps/routines (Unravel: swinging, climbing, bouncing, and retracing yarn - Unrailed!: building, mining, and watching), but whereas there's merely a method to completion my game will use it to create a message/prove a point regarding routine itself and highlight the very actions that seem mundane.
Similar to these two games, the addictiveness of the challenges imposed on my players will become a routine but whereas in those games that were solely a way of maintaining their active player base (and ultimately their income from/for the project), I will use this to further push my notion of empowering those that see meaninglessness in their daily actions.

- What is a picross?

A picross, also known as a nonogram, are picture logic puzzles in which cells in a grid must be coloured or left blank according to numbers at the side of the grid to reveal a hidden pixel art-like picture.
These puzzles are often black and white—describing a binary image—but they can also be coloured. If coloured, the number clues are also coloured to indicate the colour of the squares.
To solve a puzzle, one needs to determine which cells will be boxes and which will be empty. If guessing is used, a single error can spread over the entire field and completely ruin the solution. An error sometimes comes to the surface only after a while, when it is very difficult to correct the puzzle. The hidden picture plays little or no part in the solving process, as it may mislead.
Many puzzles can be solved by reasoning on a single row or column at a time only, then trying another row or column, and repeating until the puzzle is complete.

- How do you play?

1. Fill in the cells with either an X (empty) or a black tile (filled) depending on the numbers in the columns and rows.
2. Left click once to fill the cell with a black tile, left click a second time to fill the cell with an X, and left click a third time to renew the cell to its default state.
3. You must fill in the cells so that all columns’ and rows’ marked tiles match/line up and ultimately complete a pixel art piece.

User Testing (Questions):

> Name:
> User Number (###):
> Date:

1. How familiar are you with picross games?

a) Very familiar
b) Somewhat
c) Not at all

2. I found this website easy to use

a) Strongly agree
b) Somewhat agree
c) Neither agree nor disagree
d) Somewhat disagree
e) Strongly disagree

3. I believe that this prototype is a good example of what the final product will be

a) Strongly agree
b) Somewhat agree
c) Neither agree nor disagree
d) Somewhat disagree
e) Strongly disagree

4. I would like to play this game again

a) Strongly agree
b) Somewhat agree
c) Neither agree nor disagree
d) Somewhat disagree
e) Strongly disagree

5. What stood out to you as the aspect of the website that needs the most help? [Short-form]

6. If you answered question 2 with either “Strongly disagree” or “Somewhat disagree”, how do you think the ease of use of the website can be improved? [Short-form]

7. What can be improved? [Long-form]