American Library Association (ALA) Games and Gaming Round Table (GameRT) Redesign

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[Link to High-Fidelity Prototype]

Executive Summary

Welcome to the American Library Association (ALA) Games and Gaming Roundtable Redesign. This project was a collaboration of Stacey Spencer and Andrew Pederson. The goal of this project was to create a redesign of the ALA's games-in-libraries website Games and Gaming Round Table (GameRT) in the prototyping tool Figma using interaction design principles learned in this course.

As we progressed, we decided to narrow this project's scope. We focused on developing the board game recommendation component of GameRT, rather than being bound to a strict remake of the original GameRT website. We used Fogg's (2007) Functional Triad framework as a lens to develop our project's prototype as a tool. Mayer's (2017) design guidelines were crucial in developing the look and feel of the prototype. Stakeholders for GameRT include: GameRT board members, ALA members, game specialist librarians, and board game enthusiasts.

This project was evaluated by peers and a small group of users. Overall, users were more pleased with our high-fidelity prototype than the original GameRT site; however, user testing and reviews also revealed room for minor improvements. Improvements incorporated thanks to feedback included: a brighter color scheme, additional explanatory text, grid line utilization, improved navigability, and more detailed information about the games. You can view the final version of the high-fidelity prototype by following the link below.

Link to High-Fidelity Prototype

Problem Analysis and Requirements

Part I: Analysis

Technology Description

Our tool is the American Library Association's Games and Gaming Round Table. It is a resource to provide librarians and patrons with information about games of all kinds and how those games can be used in libraries and schools. It is intended as a "forum for the exchange of ideas and concerns surrounding games in libraries." Current users include ALA members, librarians, educators, patrons, board game enthusiasts, and GameRT members.

Problem Introduction

Current users would want to do the following tasks with this tool:

- Search and find games for a library program
- Search and find games for personal use depending on age, ability, resources, etc.
- Discuss the nature and value of board games in libraries
- Raise awareness of the value of play in libraries and other learning environments
- Develop a community for board game proponents and enthusiasts in libraries

Currently, users cannot search on this website. There is no way for users to communicate either. They can browse through resources and game suggestions posted to the site.

The context in which these tasks could be performed:

- At the library when planning a program
- At any time when trying to choose a game for a specific scenario
- When a user wants to learn more about board games and their value
- When a user wants to reach out to other board game players in the context of libraries
- During a library game collection development process

The interaction issues that affect this site include:

- The site is almost entirely text-based when board games are a visual, tactile medium
- The site is very dry when board games encourage play
- Inconsistent formatting
- The site has broken links
- The navigation bar is hard to notice and unresponsive
- The site does not encourage interaction
- The site does not foster community development as part of its design
- The site may be challenging to navigate for color-blind users
- Tracking down specific pieces of information is challenging

User Analysis Data & Methodology

Total Participants: 6

We chose usability testing as our method. Because of COVID-19 restrictions, testers created a user group of people most accessible to them that match the following criteria:

Participants must have access to Zoom and access to some form of a microphone. Interviewers must be able to monitor users via screen share.

Test Scenarios

You are a librarian planning a gaming program and you would like to use a trustworthy source to guide you.

1. Find the Mission Statement
2. Identify the President of the Executive Board
3. Find the Public Library Resource page
4. Email yourself the Public Library Resource page
5. Find a game recommendation
6. Find the article “Programming: The New Literacy”
7. Find and fill out the GameRT Interest Form

Each of these tasks will be successful when the participant can use GameRT to access the information requested.

Procedure

Participants will receive an overview of the usability test procedure. Participants will take part in the usability test from their own homes. The facilitator will ask the questions out loud and fill in the background/demographic questionnaire for each participant, recorded on our online survey.

The facilitator will read the script to guide each participant through this test. Any comments will be recorded, and an assessment of how difficult it was will be recorded for each task. The difficulty of the tasks will be rated from very easy, easy, neither easy nor difficult, difficult, and very difficult. The participant’s comments and interaction will be observed and recorded through zoom with screen share on.

After attempting each task the facilitator will read the post-task questionnaire and record the results. The facilitator will ask the participant for any additional feedback they wish to provide. After all the tasks have been attempted the facilitator will ask the post-test questions and record those as well. The post-test questions are as follows:

- What did you like about the site?
- What did you not like about the site?
- What could be done to improve the GameRT site?
- As a user, what do you expect of a Library Resource?

- What is your overall opinion of the GameRT site?

This test will be moderated to collect the most information possible and to ask follow up questions. This test will be using concurrent think-aloud, this will allow the facilitator to collect first impressions during a task. Follow up questions will then be asked to encourage any further exploration into the participants' thoughts. This test will use one pre-questionnaire to gather demographic information. Then after every task, there will be a post-task questionnaire and once the whole test is complete there will be a System Usability Scale (SUS) post-test questionnaire. The following questions were rated from Strongly Agree (5) to Strongly Disagree (1):

- I think that I would like to use this system frequently.
- I found the system unnecessarily complex.
- I thought the system was easy to use.
- I think that I would need the support of a technical person to be able to use this system.
- I found the various functions in this system were well integrated.
- I thought there was too much inconsistency in this system.
- I would imagine that most people would learn to use this system very quickly.
- I found the system very cumbersome to use.
- I felt very confident using the system.
- I needed to learn a lot of things before I could get going with this system.

Metrics

Ease of task completion: Participants will be asked how easy or difficult they felt the task was. Just because the task took more or less time to complete than others that do not equate to being more or less difficult. They will also rate the difficulty of each task.

Usability satisfaction: Participants will use the SUS survey.

Participants

Table 1. Participant number, age, gender, game habits, library awareness, internet exposure.

Participant	Age	Gender	Games in a group	Aware libraries have games?	Daily time on the internet

Participant 1	45-54	Female	Weekly	Yes	31-60min
Participant 2	25-34	Prefer not to say	Little to never	Yes	241+Min
Participant 3	25-34	Female	Almost every day	Yes	241+Min
Participant 4	25-34	Male	Almost every day	Yes	241+Min
Participant 5	18-24	Female	Weekly	Yes	241+Min
Participant 6	55+	Female	Little to never	No	121-240Min

As shown above, the participants in our study ranged from 18-55+. This wider range of ages provides better feedback representing more age groups and how they would respond to our test site.

Most of our participants were female, a better mix would have been preferred. There is a good mix of gaming habits and heavy internet users.

Results

The results for our test are as follows. First, is a task-based usability performance followed by a SUS analysis and then interview feedback analysis.

Table 2. Tasks, difficulty to complete.

Tasks	Very Easy	Easy	Neither Easy nor Difficult	Difficult	Very Difficult
Task 1	50%	33.33%	16.7%	0%	0%
Task 2	66.7%	33.3%	0%	0%	0%

Task 3	66.7%	16.7%	16.7%	0%	0%
Task 4	60%	0%	0%	40%	0%
Task 5	16.7%	50%	0%	33.3%	0%
Task 6	0%	0%	50%	0%	50%
Task 7	83.3%	0%	16.7%	0%	0%

Table 3. System Usability Survey. Usability parameters, opinions on usability.

Usability Parameters	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
I think that I would like to use this site frequently	33.3%	16.7%	16.7%	33.3%	0%
I found the site unnecessarily complex	33.3%	33.3%	16.7%	16.7%	0%
I thought the site was easy to use	0%	16.7%	16.7%	33.3%	33.3%
I think that I would need the support of a technical person to be able to use this site	50%	50%	0%	0%	0%

I found the various functions in this site were well-integrated	16.7%	16.7%	33.3%	33.3%	0%
I thought there was too much inconsistency in this site	16.7%	33.3%	33.3%	16.7%	0%
I would imagine that most people would learn to use this site very quickly	0%	16.7%	0%	83.3%	0%
I found the site very cumbersome to use	0%	50%	0%	50%	0%
I felt very confident using the site	16.7%	33.3%	16.7%	16.7%	16.7%
I needed to learn a lot of things before I could use this site confidently	33.3%	33.3%	33.3%	0%	0%

Interview

participants were after the Usability Test and System Usability Survey. These questions were open-ended to get more in-depth insight into their thoughts and opinions.

Likes

- The first like mentioned by two participants was the topic of the site. They really enjoyed the idea of integrating gaming in an educational and beneficial way.
- Another like was that the site was not messy or cluttered and that the tabs on the top of the page were a different color so they would stand out.

Dislikes

- 4 of the 6 participants thought the site was too text-heavy.
- All of the participants thought it was too boring of a site for such a fun topic.

Comments

All participants suggested adding some color and images to liven up the site.

All of the participants suggested some rewording/reordering of the top tabs.

Three participants mentioned that the logo is too small and there was no indication of the group's full name.

All participants expect library resources to be easy to use, up to date, and "professional looking."

4 of the participants felt neutral about the site—it is an interesting topic with good information but poorly worded and presented.

Environmental Analysis

This product could be used on a mobile or desktop view. This will be used anywhere: at home, at the library, on a mobile device when picking out a game at the store, or in schools and other learning environments. It can also be used at any time of the day and year. We anticipate sporadic usage. This product should be online for many years with periodic updates. This site can be used by anyone with internet access, so it should be easily accessible.

Cultural Analysis

Users of any age with basic computer literacy should be able to use this site. People under the age of 18 may be less likely to use this site despite its focus on games because of its academic nature. It should be accessible to color-blind, blind, hard of hearing, deaf, and computer illiterate.

Personas

Persona 1: Lisa

Age Range: 30-39

Occupation: Children's Librarian

Family status: Married, 3 children

Goals:

- Plan children's game program for public library, ages 7-12
- Plan game night for family with kids ages 6-14
- Plan teen game night, ages 13-16

User interaction

- At library, home, on the go
- Anytime during the day, before a program, planning a program, before a game night
- Monthly usage for monthly game nights at the library and at home

Disabilities: Dyslexia

Frustrations/Dislikes

- Large amounts of text
- Small text
- Irrelevant information

Likes/Preferences

- Easy to document
- Easy to reference back to
- Examples
- Pictures

Personality

- Driven
- Efficient

LISA

Bio: Lisa has been a pat-time children's librarian for the last 10 years. Her programs focus mostly on older childrens, over the age of 7. She has three children of her down between the ages of 6 and 14. As as busy mom with three kids and two part time jobs Lisa needs easy resources to help plan her programs.

Persona 2: Nick

Age Range: 20-29

Occupation: Library Volunteer

Family status: Single

Goals:

- Learn about board games in libraries
- Look for board game recommendations
- Wants to communicate with other gamers

User interaction

- Uses at library and at home
- Uses during library volunteer shifts
- Uses a few times a year

Disabilities: Color blind

Frustrations/Dislikes

- Sites that use red to communicate information
- "Old" looking websites
- Not being able to find what he is looking for

Likes/Preferences

- Playful websites
- Dark color color schemes
- Interacting with others
- Sharing knowledge

Personality

- Fun loving
- Inquisitive

NICK

BIO: NICK IS A VOLUNTEER AT HIS LOCAL PUBLIC LIBRARY. HE RECENTLY LEARNED THAT LIBRARIES CAN HAVE GAMES AND WANTS TO LEARN MORE. LOVES TALKING ABOUT GAMES WITH OTHERS.

Persona 3: Hannah

Age Range: 50-59

Occupation: Library Collections Manager

Family status: Married

Goals:

- Learn about board games and games
- Learn about developing board game and game collections
- Learn about game centric library programming

User interaction

- Uses at library
- Starts using when library decides to incorporate board games
- Uses at daily at beginning of collection development

Frustrations/Dislikes

- Too many menus
- Getting lost
- Search tools that do not work

Likes/Preferences

- Organization
- Accurate metadata
- Cute things

Personality

- Professional
- Meticulous
- Rule follower

HANNAH

BIO: HANNAH HAS OVER 20 YEARS OF LIBRARY EXPERIENCE. SHE WAS RECENTLY PROMOTED TO LIBRARY COLLECTIONS MANAGER. HER LIBRARY DECIDED TO ADD A BOARD GAMES SECTION TO THEIR COLLECTION. HANNAH LIKES PLAYING BOARD GAMES WITH HER FAMILY BUT DOESN'T PLAY MANY BESIDES MONOPOLY, UNO, AND CHECKERS. SHE WANTS TO LEARN MORE PARTIALLY OUT OF INTEREST BUT MAINLY OUT OF PROFESSIOAL DUTY.

Task Analysis

Hierarchical Task Analysis (Textual Notation)

1. Fill out GameRT Interest Form
    a. Locate **Your Name** field
    b. Move the insertion point into the field
    c. Type full name
    d. Locate **Your Contact Email** field
    e. Move the insertion point into the field
    f. Type full email address
    g. Locate **What type of library do you work in?**
    h. Select appropriate response by clicking in the proper bubble
    i. Find **What is your background with Gaming?** field
    j. Move the insertion point into the field
    k. Type your response
    l. Find **What are you looking to learn?** field
    m. Move the insertion point into the field
    n. Type your response

o. Find **Are you interested in collaboration on authoring articles and other publications?** field
p. Select appropriate response by clicking in the proper bubble
q. Find **Are you interested in creating content for the GameRT website?** field
r. Select appropriate response by clicking in the proper bubble
s. Find **Submit** button
t. Click **Submit** button

For the task Description Method, we will use a Scenario to present the tasks. We decided to do this to mimic the natural flow of our most common user demographic.

Scenario Task Descriptions

1. **Lisa** would like to plan a gaming program for her 7-12 age group. She spends time searching online for game ideas and resources to help incorporate literacy and social skills into her program. She comes across the ALA GameRT website and decides to browse it for ideas and resources. While searching she comes across some information and a few games she can work into her program. She presents her findings at the next programming meeting.

2. **Nick** volunteers at a local public library and is active in his local board gaming community. One of his friends tells him that his school library has a board game collection. Nick's library does not have any board games. He wants to learn more about board games and ends up at the GameRT site after doing some searching. Nick learns about several new games from GameRT and puts together a list to share with his library's collections manager. The collections manager lets Nick know that the library has actually been considering adding board games to the collection recently and that he will take a look at Nick's list and will also look at GameRT.

3. **Hannah** is a collections manager who is tasked with developing a board game collection. After doing some research, Hannah quickly learns that board games have gotten much more popular than she realized. Hannah spends some looking at *BoardGameGeek* and some "Best of" lists on sites like *The New York Times* and *Popular Mechanics*. After giving these some consideration, Hannah decided that she wanted a resource more catered to libraries and librarians. Hannah finds GameRT, where she can find a selection of games curated for libraries. Hannah reads user comments on some of the top games on the site. She uses the Round Table Recommendations page to create a list of core titles. She registers for the site with the intention of learning more about board games later.

Project Scope

We will be focusing on a few different aspects of this website as we evaluate it. First, we will focus on learning about the people and organization that created this site by having users find the site's mission statement and board members. For librarians, resource credibility is very important.

Second, we will focus on using the site to help build a program by having users navigate to the public libraries' resource page, email themselves some reference material from that page, then find game recommendations. These are all actions a librarian would take in preparation for a program from this site.

Finally, we will have the users interact with the interest form. As part of our redesign, we would like to heighten the interactive elements of the site and develop methods for improved community interaction. At the moment, this is the only interactive feature of the website and we would like to get an idea of how users feel about this form to improve and expand upon it.

Instruments for Data Collection and Analysis

We will use Google Forms to record results and for data analysis.

Part II: Project Management

Assignment	Team member task	Goal Date	Due Date
Finish User Testing	Stacey: 4 user tests Andy: 2 user tests	10/4	10/6
Problem Introduction	Stacey: Add content, edit, complete Andy: Add content, edit, complete	10/5	10/6
Environmental Analysis	Stacey: Create, edit, complete Andy: Add content, edit, complete	10/5	10/6
User Analysis data and Instruments	Stacey: Create content for Google Form. Andy: Create Google Form.	10/5	10/6
Personas	Stacey: 1 persona Andy: 2 personas	10/5	10/6
Hierarchical Task Analysis	Stacey: Create, edit, complete Andy: Edit, complete	10/5	10/6

Task Description Methods	Stacey: Create, edit, complete Andy: Edit, complete.	10/5	10/6
Project Scope	Stacey: Create, edit, complete Andy: Edit, complete.	10/5	10/6
Project Management	Stacey: Create, edit, complete Andy: Edit, complete.	10/5	10/6
Problem Analysis	Stacey: Final edit Andy: Final edit	10/5	10/6
Team Member Evaluation	Stacey: Fill out Team Evaluation Andy: Fill out Team Evaluation	10/5	10/6
Conceptual Model	Stacey: Contribute, edit, complete Andy: Contribute, edit, complete	10/17	11/3
Interface Metaphors	Stacey: Contribute, edit, complete Andy: Contribute, edit, complete	10/7	11/3
Visual Aesthetics	Stacey: Contribute, edit, complete Andy: Contribute, edit, complete	10/12	11/3
Interaction Types	Stacey: Contribute, edit, complete Andy:Contribute, edit, complete	10/8	11/3
Inclusivity and Cultural	Stacey: Contribute, edit, complete Andy: Contribute, edit, complete	10/9	11/3
Describe design stuff	Stacey: Contribute, edit, complete Andy: Contribute, edit, complete	10/11	11/3
Describe information need	Stacey: Contribute, edit, complete Andy: Contribute, edit, complete	10/10	11/3
High-level architecture blueprint	Stacey: None Andy: Create	10/17	11/3
On plus and one minus	Stacey: Contribute, edit, complete Andy: Contribute, edit, complete	10/13	11/3
Describe similar products	Stacey: Contribute, edit, complete Andy: Contribute, edit, complete	10/14	11/3
Design Plan	**Stacey:** Contribute, edit, complete **Andy:** Contribute, edit, complete	**10/22**	**11/3**
6 Low Fidelity Prototype	Stacey: Create 3 prototype pages	11/2	11/3

	Andy: Create 3 prototype pages		
Describe completed functionality and features	Stacey: Contribute, edit, complete Andy: Contribute, edit, complete	11/26	12/1
Describe tools, apps,tech to make	Stacey: Contribute, edit, complete Andy: Contribute, edit, complete	11/26	12/1
Prototype Images	Stacey: Contribute, edit, complete Andy: Contribute, edit, complete	11/19	12/1
Describe what is not there and why	Stacey: Contribute, edit, complete Andy: Contribute, edit, complete	11/20	12/1
Prototype, content, color, element, access	Stacey: Create game forum and library forum Andy: Create homepage, game recommendation page, and library resource page	11/18	12/1
High Fidelity Prototype	Stacey: Redo profile page, add notifications, add favorites, add popups, Andy: Redo recommendation page, add upvote/downvote component, create game pages, create game suggestion page, add connections	11/28	12/1
Title Page	Stacey: Create title page Andy: Add image to title page	11/22	12/14
Executive Summary	Stacey: Contribute and edit Andy: Write draft	11/24	12/14
Problem Analysis and Requirements	Stacey: Write draft, edit, complete Andy: Edit, complete	11/26	12/14
Design Plan and Low Fidelity Prototype	Stacey: Edit, complete Andy: Add citations	11/28	12/14
High Fidelity Prototype	Stacey: Test text input, update profile page Andy: Add new images, incorporate gridlines, redo header	11/30	12/14
Evaluation Report	Stacey: Draft evaluation methods and data analysis Andy: Draft evaluation goals and questions	12/6	12/14
Appendices	Stacey: Assemble and format	12/11	12/14

	Andy: Help format		
Team Portfolio	Stacey: Update page numbers and appendices; submit Andy: Format document and final edits	12/12	12/14

Design Plan and Low Fidelity Prototype

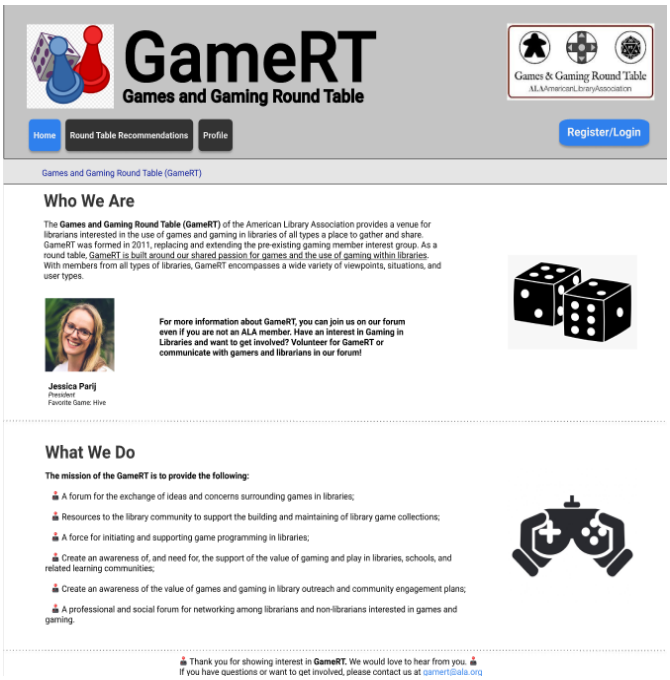
Part I: Design Specifications

Conceptual Model

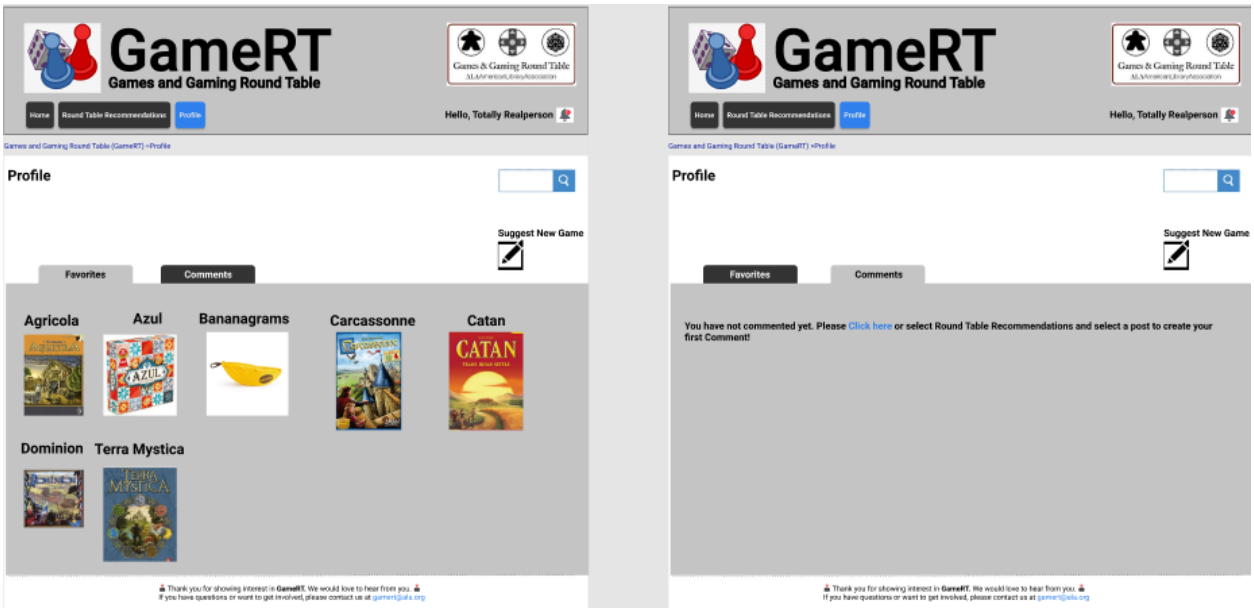
High-Level Description

The three main components of this product are 1) Game Recommendations, 2) Resources, 3) Forum. To support the functions of these components, there will be a home page for navigation and a profile page for interacting with the forum.

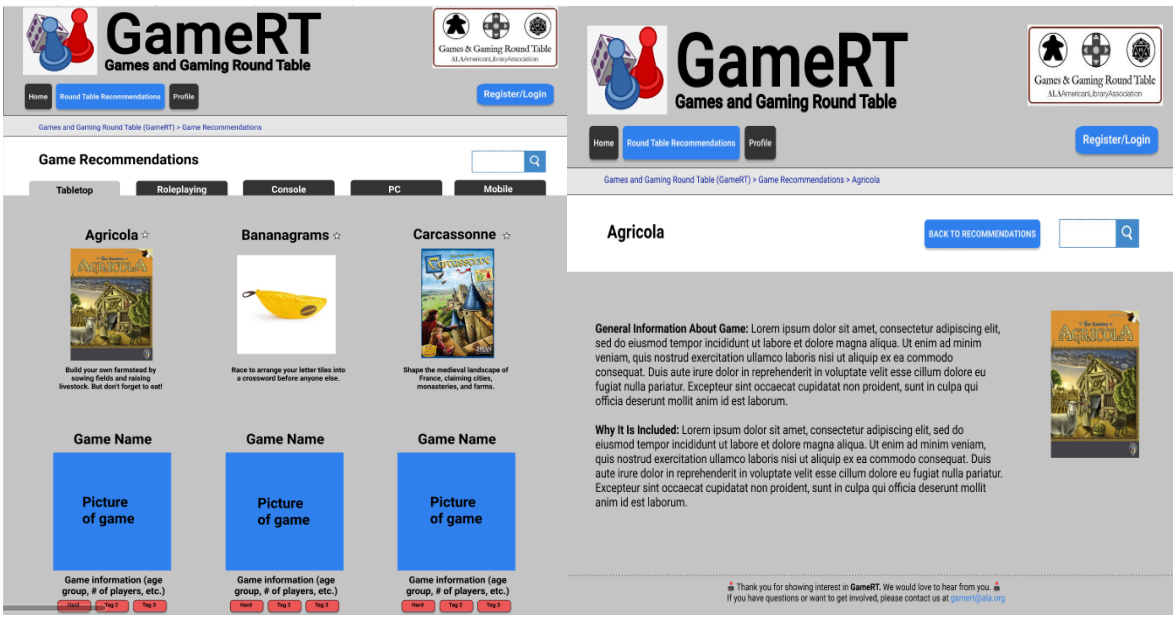
Home Page: This will host a description of the website and its goals. It serves as a hub where users can access the site's tools.



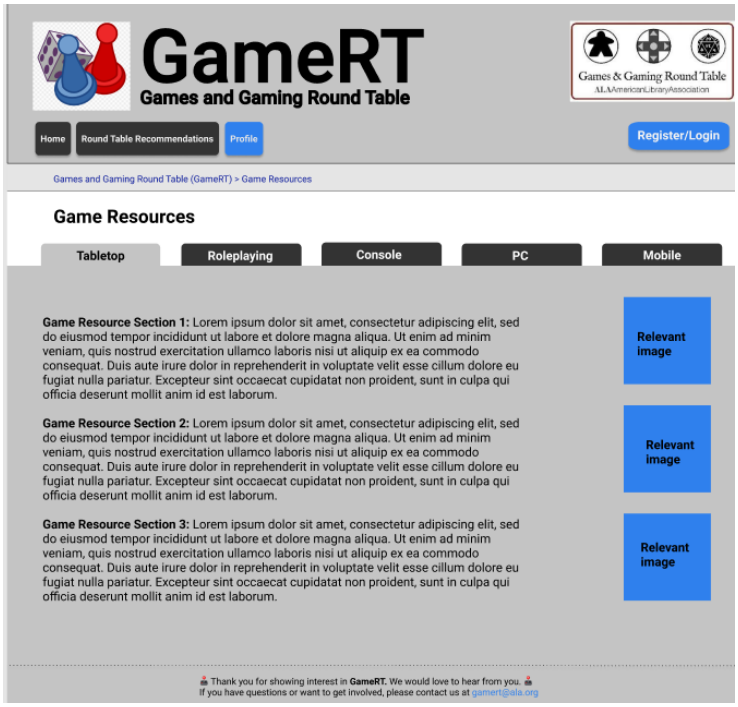
Profile page: Users will be able to see their posts and comments to quickly access them as well as favorite any posts to save them for later use.



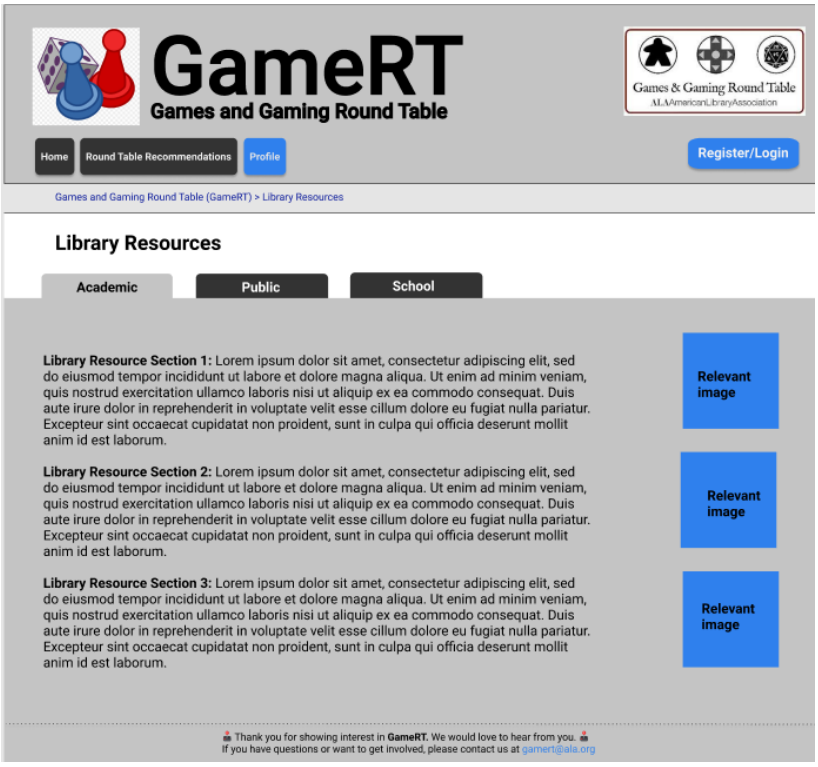
Game Recommendations: This section features a curated selection of games that are intended for library and educational settings. In Game Recommendations, the user will be able to search and browse for gaming recommendations based on their personal criteria.



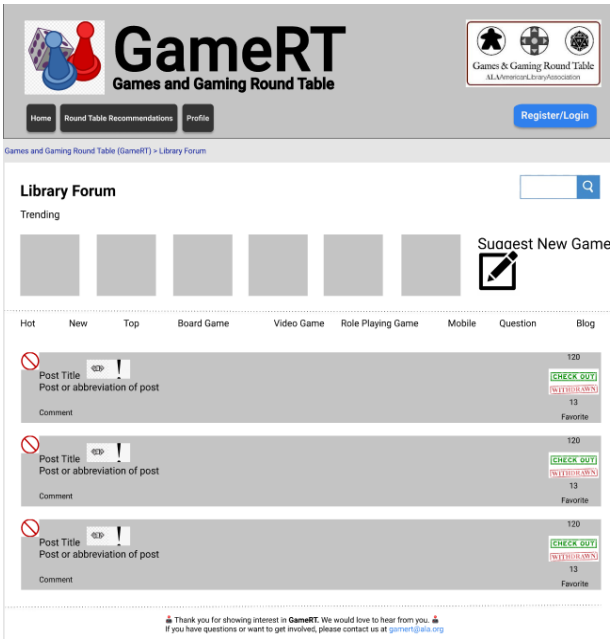
Game Resources: This section will be devoted to providing users with academic and web resources for board games, video games, and role-playing games. This is intended for public and personal use.

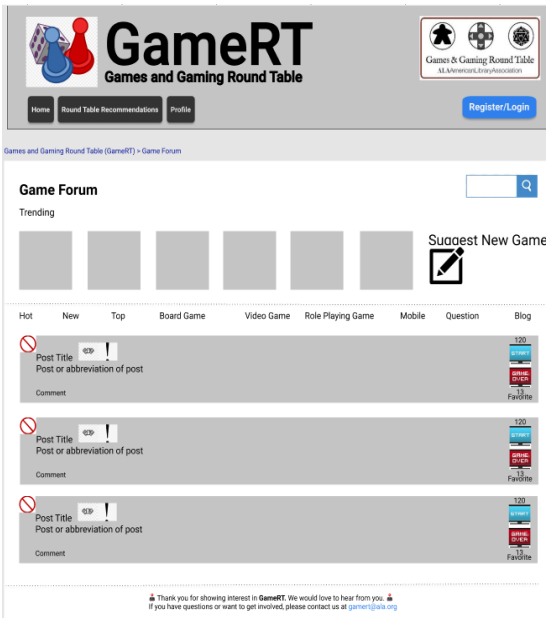


Library Resources: This section will provide resources for Academic, Public, and School Libraries, focused on gaming in these environments. In Library Resources the user will be able to search and browse for gaming and gaming program recommendations based on their personal criteria. This is intended for librarians to use for library programming.



Forum: In this section users will be able to post to their intended audience of gaming or library users. Here users will be able to ask questions and post their experiences with gaming. In Forums, users will sign in and do one of two things. Either interact with an existing post by commenting or liking the post or creating their own with a question about gaming or documentation of their own experience. Users can also discuss game-centric library programming.





Features

Round table members will provide two services on this site. They will post relevant information and/or approve user posts. Round Table members were designated to provide information to improve gaming literacy; these posts must be informational and help either the public or librarians in the pursuit to use gaming for good. Second, they will approve user posts to continue curating helpful information for others on the site.

Users will be able to create a login, then do any of the following actions. They can submit posts/questions for approval—the Gaming Round Table is a forum for open conversations about the positive impact games can have. This will encourage lifelong learning about games and libraries. They can approve posts made by users that are relevant to gaming. This way others can respond, help that user, and gain inspiration from their experience.

In the same way, users will be able to: leave comments; rate and report posts/comments; respond to posts/comments, and save posts to their favorites. For this aspect, we trust community voting and reporting to monitor content.

Framework

For this website, we will be incorporating the Functional Triad framework as defined by Fogg (2007). GameRT will function as a Tool according to this framework. GameRT will increase self-efficacy by encouraging users to learn more on the topic of gaming and gaming literacy. This tool will provide tailored information about gaming in libraries and how games can be used for education, play, and socialization. It will expedite the process of building gaming programming and developing game collections. Knowing that other users and experts have approved games in the collection will make beginners feel more comfortable, which will ease them through the process of selection and learning.

Interface Metaphors and Analogies

This website utilizes roundtables as a metaphor. Merriam-Webster (n.d.) gives two definitions for roundtable. Roundtables are “a conference for discussion or deliberation by several participants” or “the large circular table of King Arthur and his knights.” This metaphor emphasizes an open and equal flow of information and ideas. At a roundtable, all participants are made equal regardless of rank or status. In our model of GameRT, users have as much input as the creators of GameRT.

The round table metaphor is also helpful because it employs language already familiar to those in academia and ALA members (American Library Association, n.d.). Participants at a roundtable agree on a specific topic, then have an informal but thoughtful discussion where everyone is heard. We emphasize this in our design by allowing users to suggest games, upvote/downvote games already on the site, and creating a space for them to comment. As an added benefit, the word “table” is relevant to board games, which are also referred to as tabletop games.

This website also employs Forum as a metaphor. Members can freely and publicly exchange ideas. Sharp et al. (2019) argue that “A good metaphor will provide structure—preferably a familiar structure” (p. 440).” A forum is already an accepted design metaphor for a place where users can post permanent, and usually public, messages online. The forum metaphor alludes to Roman public squares, where visitors were free to speak and take part in social life as they pleased. This was incorporated into our low-fidelity prototype through the development of the user forums.

Visual Aesthetics

This site prototype will use elements of both classical and expressive design elements as outlined by Tractinsky (2014). We do this because our subject is playful (games), but the context is academic (libraries). We will use expressive design elements to highlight

the playfulness of games and classical design elements to demonstrate credibility. We strive to balance the fun of a game website with the utility of a library site.

Tractinsky notes that people prefer usability over aesthetics when trying to complete a task, but expressive design is more effective when shopping for “hedonic products compared to utilitarian products” (2014). Our site will exist in both worlds; librarians will be “shopping” for fun items to include in a collection, but this is done for formal reasons rather than hedonist pleasure. Games are intended to be fun, but this site treats them as materials worth of academic respect.

Interaction Types

This website will use **Instructing**, as described by Sharp et al. (2019), as its primary interaction type . Users will instruct the site via mouse and keyboard to navigate and to manipulate its interactive elements. Users will be able to instruct the website to save, like, report, and comment on posts. Users will be able to instruct the website through a search bar to find relevant posts, recommendations, and resources. Sharp et al. note that the instruction interaction type is beneficial to designs where “there is a frequent need to repeat actions performed on multiple objects” (2019). This relates to our prototype site because users will be doing repetitive actions to navigate and to interact with games.

Inclusivity and Cultural decisions

We intend for this website to be usable by the color blind, the blind using the read-aloud function, and by physically limited persons by using keyboard commands. We used blue as our accent color. This color is generally not affected by common kinds of color blindness and is generally considered a positive color. We referenced “The Principles of Universal Design” from *NC State University, The Center for Universal Design* (Connell et. al, 1997) to incorporate inclusive practices. These principles include:

Principle One: Equitable Use. We made buttons large to help visually impaired users.

Principle Two: Flexibility in Use. We made the buttons large to negate any mouse issues and to let the user be less precise when clicking. Game titles are accompanied by a large cover image; the titles and images both link to the same place, so users have more screen space to select. We incorporated multiple navigation methods, so users can choose which method is most comfortable.

Principle Three: Simple and Intuitive Use. It is common for websites to have navigation at the top of the page. We chose to make use of this familiar approach by having top page navigation consistent across all pages. We utilized this familiar approach to reduce cognitive load so users can instead focus on the content.

Principle Four: Perceptible Information. We have highlighted essential information by visually separating it from the rest of the page with banners and dotted lines that make use of the Gestalt Principle of Proximity (Interaction Design Foundation, n.d.). We have also maximized the legibility of essential information by keeping these parts large with minimal wording. We have also provided many ways to reach each destination, making it take less effort to reach goals.

Principle Five: Tolerance for Error. We have eliminated unnecessary information and made navigation simple so users can not get lost. We have also provided a constant way back to previous spots by including a linked breadcrumb and navigation buttons at the top of all pages. We included back buttons on all pages that are dead ends. A link to contact GameRT email is also present at the bottom of each page so users can reach out if they need help.

Interaction Design Principles

For this website, we will be incorporating the design guidelines as defined by Mayer (2017). These will include:

1. **Coherence Principle**: *Exclude extraneous words and pictures.* This website originally contained a lot of information that the average user may not need. To achieve this goal we cut the fat and trimmed the content down to what was most important. The amount of text used in the original site made it difficult for users to find information.
2. **Signaling Principle:** *Use cues that highlight the organization of the essential*. For this, we kept the navigation information at the top of the page so that information was always available. We also separated the mission statement and goals of this site on the homepage to make that information very easy to find and understand. We then highlighted the top-recommended games at the top of the game recommendation page in their own section to give aimless users a place to start. In our redesign, we made sure to bold important information and use large text headers to clearly organize sections.
3. **Spatial Contiguity Principle**: *Keep corresponding words and pictures together*. The previous site had little to no pictures involved. For a site about recommending board games, it failed to show the user what those games look and play like. This is important because the design of each game really speaks to the kind of player and setting the game was intended for. A game's box art will often indicate who the intended audience is. We designed the layout of the pages so that images of board games will correspond with appropriate title text. This allows users to make quick associations between box art and game titles.
4. **Segmenting Principle**: *Present in segments.* This was achieved by separating pages into discrete topics. Information heavy pages were broken up into tabs. Chunking is utilized through white space, lines of separation, and text breaks. Major page concepts like recommendations, resources, and forums are split into separate pages. Within those pages, topics like board games, role playing

games, and video games are split into different tabs. On individual game pages, information is split into chunks. The first chunk is actual data about a game (number of players, average game length, year of publication), followed by a second chunk: a short paragraph describing how the game plays.

We will also be including principles of navigation and wayfinding as described by Lynch & Horton (2007). These include:

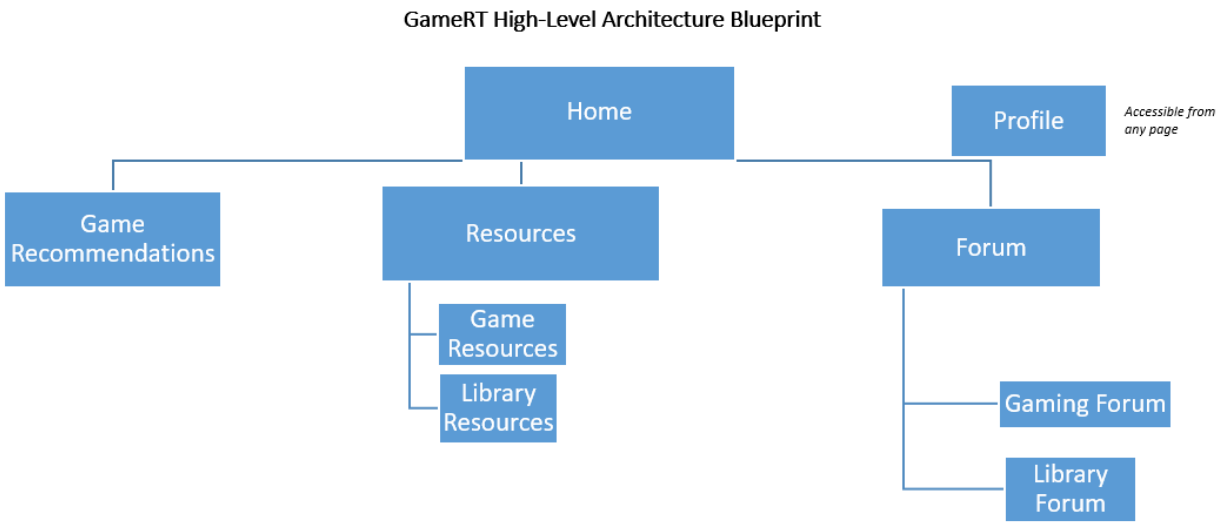
1. **Paths:** *Create consistent, well-marked navigation paths*. We did this by adding breadcrumbs to the top of the page. We also included back buttons for when users reach pages that are dead ends.
2. **Regions:** *Create a unique but related identity for each site region*. By catering each page to its purpose but keeping the main design points constant, we were able to create a cohesive look while differentiating each section.
3. **Nodes:** *Don't confuse the user with too many choices on home and major menu pages*. While we wanted to provide our users with a comprehensive experience, we also did not want to overwhelm our users or muddle our content. To achieve this, we determined which functions would comprise the core of our site and organized it accordingly. This reduces the cognitive load of the home page and gives them the option to view more if they want.
4. **Landmarks:** *Use consistent landmarks in site navigation and graphics to keep the user-oriented.* To achieve this goal, buttons are located at a fixed position at the top of every page so users can't lose their way. We also used the breadcrumb navigation to allow users to view each step they took to reach their destination.

Information Needs

The data requirements for finding information about games are: genre, age group, platform, intended use, and group size. With any of this information, a user will be able to search or browse for a game that meets their needs.

The data requirements for finding library resources include: library type, genre, age group, platform, intended use, and program size. The system will take these searched terms and bring up related results for either game or resource recommendations

High-level Architecture Blueprint



Plus and Minus Scenario

Erin would like to propose a gaming program for her next children's program. She uses the GameRT website and collects posts from other librarians/members and game suggestions for her program age group. At the next meeting, she *enthusiastically* presents these resources and posts to her coworkers. Her coworkers are *impressed.* The children in attendance love the games and take the list home to share with their families. After hosting the program she posts on the forum about her own experience. Members leave nice comments about her program and post.

Erin would like to propose a gaming program for her next children's program. She uses the GameRT website and collects posts from other librarians/members and game suggestions for her program age group. She gets *frustrated* when she doesn't find the exact games she is looking for. While planning, one of her coworkers asks about the site she is using. *Embarrassed,* she quickly closes the site and changes the subject. At the next meeting, she brings the idea up *quietly* and gets approval to host it. The program goes fine but the children seem *unenthused* about the games. When coworkers

ask how it went she gives them a *muted* response and changes the topic of conversation.

Similar Products

The following products will be grouped into a few different groups for comparison.

First there are websites *designed to provide board gaming recommendations*. These include BoardGaming.com, Board Game Atlas, Board Game Quest, and Dice Tower. These websites provide a vast amount of information on many different board games. The best part of these sites is their depth of information about each game. The downside of these sites is the lack of information on gaming literacy and games as education. They focus purely on board games as entertainment.

Next there are *video game websites* including PC Gamer, TasteDive, and Quantic Foundry Video Game Recommendation Engine. One problem with sites like PC Gamer is they are notoriously biased and contain a lot more information than reviews. Like the board game websites, these focus on only video games and lack educational and literacy values.

Trying to find a website just for roleplaying recommendations was almost impossible. Besides Pathfinder and Dungeons and Dragons, most of these games blend into the board game community but from an educational perspective are very different. We were able to find the following site RPGnet; this site is current but again lacks the educational aspect of the library guide.

The last group is the library websites All of these sites lack the vast amount of detailed information the others provide. Provo City Library provides information on what games and how this library uses them, but it is limited to just those games. The UNL Board GameLibguide helps users find game recommendations, but does not provide any resources for how to use them for educational purposes and has limited reach. Finally, ALA's Games in Libraries site explains how games can be used for literacy; however, it does not provide a wide array of recommendations. We hope to bridge the gap between all four types of sites.

Part II: Low Fidelity Prototype

(https://www.figma.com/file/CebSvFsz03UwzKnC6jaP4C/GameRT-Low-Fidelity-Prototypes?node-id=66%3A117)

Part III: Peer Evaluations

The design aligns with expected user tasks

> **Excellent**. This is a specific website rather than a general one and I think 'librarians interested in games and use of games in libraries' will be able to do all the expected tasks easily.

Placement of key functions/features to support user interactions

> **Excellent**. By just clicking on the tabs, the user can move forward.

Information organization

> **Good**. In general, the information is organized well. However, it seems there's so much information packed but as I am not very familiar with this field, it may be alright for the intended users.

Visual Aesthetics

> **Excellent**. It's uncluttered and no overuse of bright colors. Adequate color contrast between text and background color.

Navigation supports user tasks and optimal performance

> **Good.** Overall it navigates smoothly. My only concern would be linking to a unique page when clicked on a game profile. If it's directing to a new page, this would be misleading, considering the intensity of the information.

Consistency and Standards

> **Excellent**. The main page remains consistent and the user only changes tabs.

High Fidelity Prototype

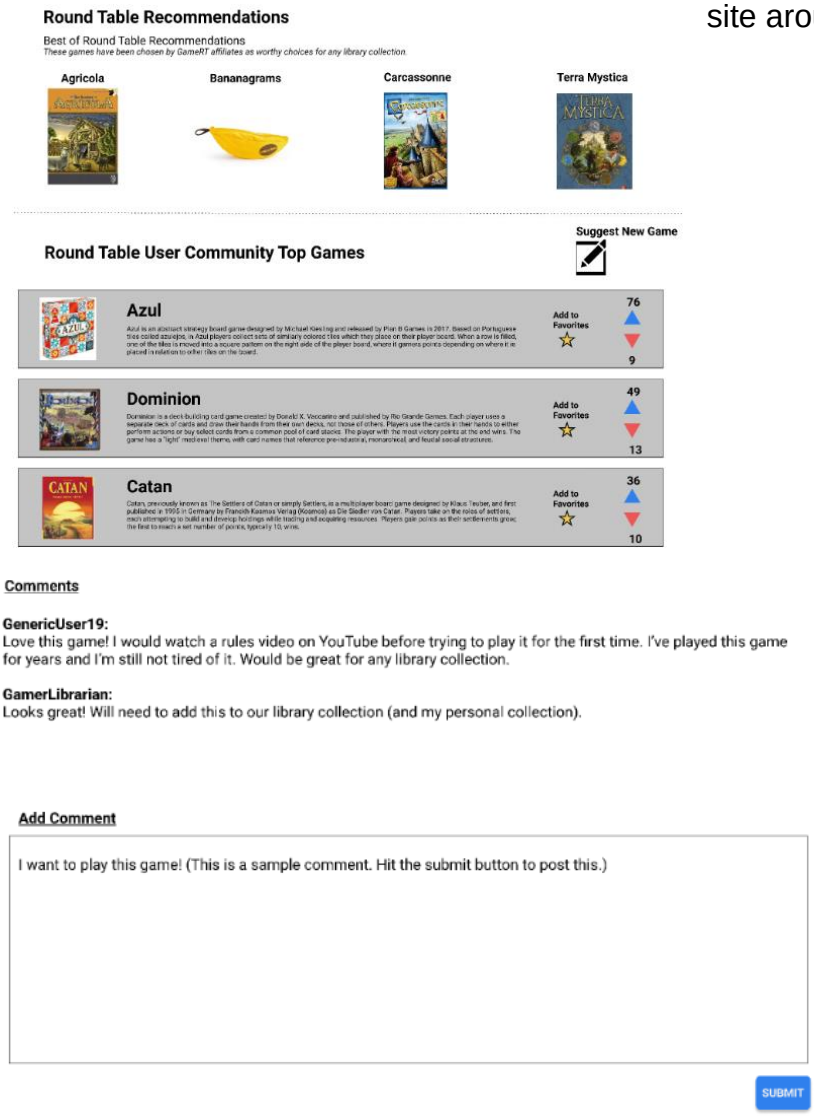
Part I: Descriptions

Descriptions

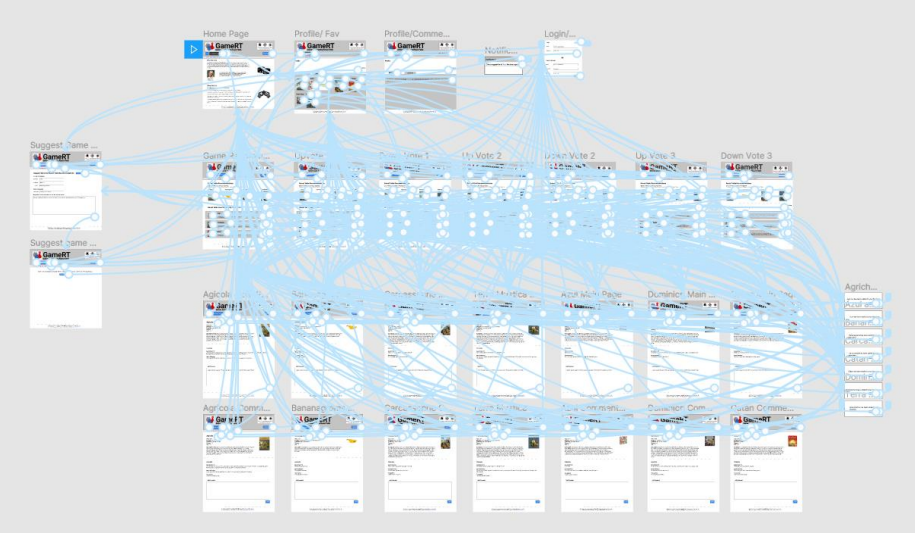
- **Describe the functionality and features**
  - **Round Table Recommendations:** GameRT users can view games suggested by the Round Table user community. Users can upvote or downvote games to increase or decrease their prominence on the site. An upvote means they think the game is of high quality and is appropriate for the site, while a downvote means the game is low quality and

inappropriate. Clicking the Add to Favorites button will add a game to the user's profile page. To heighten interactivity and user input, we added a Suggest New Game button that lets users recommend games to be added to the site. GameRT board members will review the game and if it meets their criteria, they will add the game—and information about the game—to the site.

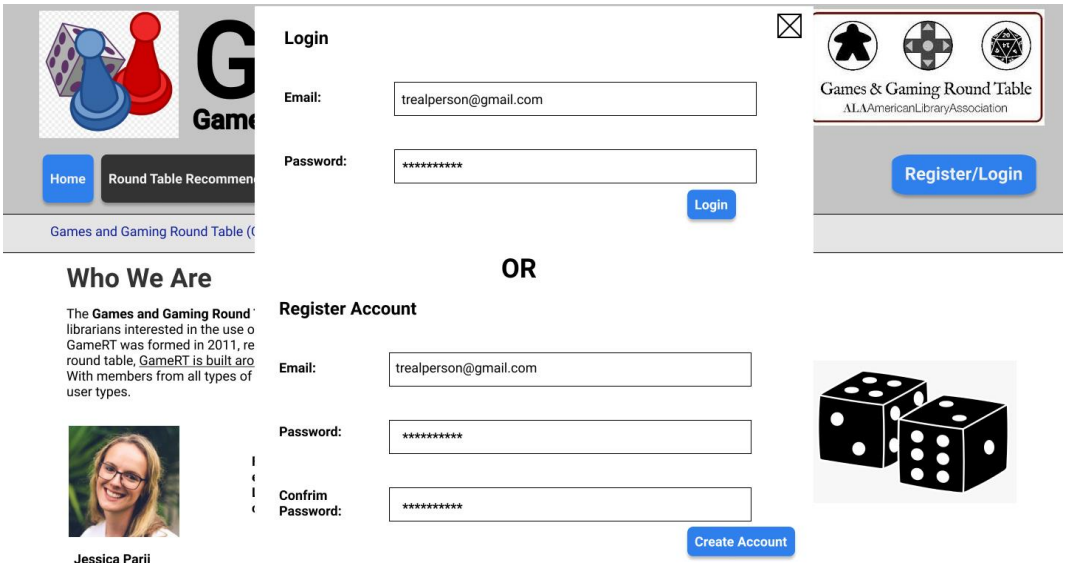
- **Comments:** Users can comment on individual game pages. We wanted to allow users to discuss games to develop the round table metaphor we used a concept to build the site around.



- **Unified Navigation Across All Pages:** We created a header that appears on every page of this prototype. This header features buttons that link to the main section of the site: the homepage, the Round Table Recommendations page, and the Profile page. The button color changes to blue to highlight the current section of the site being used. In addition to the buttons in the header, we utilized breadcrumb trails to indicate page hierarchy and as an extra means for navigation.



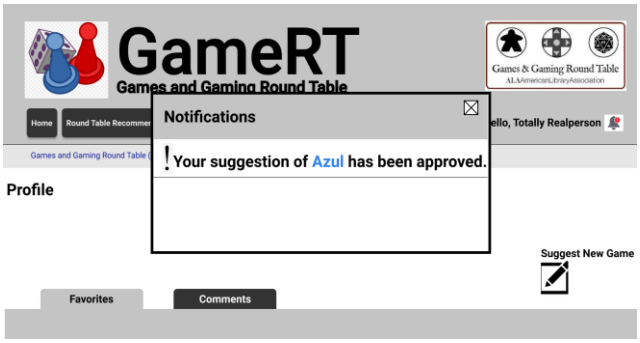
- **Login/Register Account:** We created a login/register account pop-up that can be prompted from any page that allows users to make their own account so they can keep track of games they have favorited.



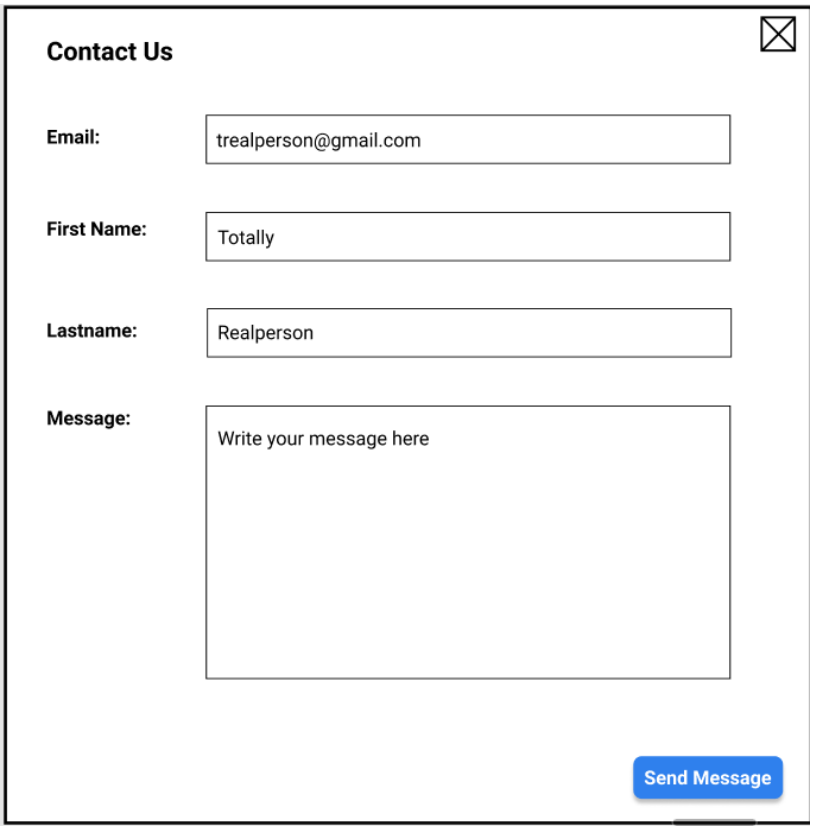
- **Favorite:** Once they have an account users can favorite a game from the Round Table Recommendation page and it will be saved to their favorites tab in the profile.

- **Suggesting Games:** Users can also suggest a game for the site, with or without an account, by filling out a short form.

- **Notifications:** If that user has an account they will be notified on the site when their suggestion has been approved.



- **Contact Us:** We also added in an contact option at the bottom of every page that pops up over their current page. This is for questions and help, not recommendations like the form shown above.



- **Describe the tools, applications, technology used to create the prototype**
  - We used Figma to create this prototype. Figma is a low/high fidelity prototyping tool that allows you to design and prototype at the same time. The free version of this software also allows for two editors to work together online. This allowed both of us to edit the same designs at the same time, keeping our vision unified and our work cohesive.
- **Describe what was left unimplemented and why**
  - Because of the limitations of this kind of prototyping we did not include a search bar because it would not make it work. Figma does not support search functionality. We would have liked to include this feature so users could search by different requirements like age recommendations and number of players. The game profiles have been created to include this information so a search function could be included in a real website to achieve this.
  - If this project were to move past the prototype stage, it would feature significantly more games. We wanted to include enough games to give an idea of what the graphical user interface looks like, but acknowledge that it would change once more games were added.

- We decided to focus on game recommendations and commenting instead of trying to do an entire remake of the original GameRT website. We did this because we wanted to focus on the interactive elements associated with the game recommendations and comments. Additionally, we realized that remaking the whole site in the prototyping tool would be extremely time consuming and wouldn't be developing the interactive components of the site. We wanted to focus on this project as an interactive tool, not a fully functional website.

Part II: High-Fidelity Prototype

(https://www.figma.com/proto/CebSvFsz03UwzKnC6jaP4C/GameRT-Low-Fidelity-Prototypes?node-id=211%3A133&scaling=min-zoom)

Part III: Peer Evaluations

PE1:

The design supports expected user tasks and goals

Good I was able to accomplish all the tasks you listed except Notification. I really couldn't figure out what I needed to do with that task. I'm thinking you may have not intended it as a task really more as an outcome of setting up my profile to received notifications, but I wasn't sure.

There is an appropriate amount of content to support user goals

Good Users can find games. I would like to see what happens when the user registers. Each section could use a little more information about that section after the header. The game information pages are great. The information is useful and it allows users to add it to their favorites. Could there be a way to rate the games with 1-5 stars?

Placement of key functions/features supports efficient user interactions

Needs Improvement Right now, users can only look at games that are recommendations. There should be a way for users to filter a search to find games by genre or release date, etc. A help feature would also be good. What is the profile section? Is that where users can create their profile? Can they browse other user profiles?

Information organization and design (chunking, white space, etc.)

Excellent The games are organized very similarly to how items on a shopping site would be organized. The text for the name of the game is in close proximity to the image of the game.

Visual Aesthetics

Good Text and background provide a good color contrast. This design is more visual than the current one. Good use of icons and images of the books. Keep image backgrounds consistent. Some were white and some were clear. A little more color could be used to add interest. Also, I had to change the settings on my computer for the full page to fit on my screen. Use gridlines to clean up design.

Navigation supports user tasks and optimal performance

Excellent

Consistency and Standards

Good I noticed when I moved from one page to another, there was a “jerky” effect. It was noticeable going from Home to Round Table Recommendations and Profile to Round Table Recommendations. However, I think this is easily fixable by ensuring you use the same template for each page.

Overall design represents the selected conceptual models and interaction theories

Needs improvement The site overall needs to have more findability and navigability. As more people recommend games, how will they be organized so that people can find them? It would also be good to see how the forms show user input errors and allow users to recover from those errors.

PE2:

The design supports expected user tasks and goal

Excellent This is definitely an improvement over the current site.

There is an appropriate amount of content to support user goal

Good Users can find games. I would like to see what happens when the user registers. Each section could use a little more information about that section

after the header. The game information pages are great. The information is useful and it allows users to add it to their favorites. Could there be a way to rate the games with 1-5 stars?

Placement of key functions/features supports efficient user interactions

Needs Improvement Right now, users can only look at games that are recommendations. There should be a way for users to filter a search to find games by genre or release date, etc. A help feature would also be good. What is the profile section? Is that where users can create their profile? Can they browse other user profiles?

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Visual Aesthetics

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Navigation supports user tasks and optimal performance

Needs Improvement The breadcrumbs help users to figure out where they've been and where they are going. There is also a button at the bottom of the page that allows users to flip through pages. I'm not sure of the purpose of this button. I felt lost on this site and not sure what I was supposed to do or where I should go.

Consistency and Standards

Excellent All of the header styles and body text are consistent throughout. The layout is consistent on all pages.

Overall design represents the selected conceptual models and interaction theories

Needs Improvement The site overall needs to have more findability and navigability. As more people recommend games, how will they be organized so that people can find them? It would also be good to see how the forms show user input errors and allow users to recover from those errors.

Evaluation Report

Part I: Evaluation Framework

Evaluation Goals

- To reveal any navigation issues
- To gain insight into how users utilize the prototype's interactive elements
- To learn about user perception of prototype's design

Evaluation Questions

- Are users able to complete tasks more efficiently than the original GameRT site?
- Are users finding the prototype easier to use than the original GameRT site?
- Are users finding the prototype more visually appealing than the original GameRT site?
- Do users like the additional functionality of the prototype compared to the original GameRT site?

Evaluation Methods and Data Analysis

The first evaluation method used was *user observation*. For both the low-fidelity prototype and high-fidelity prototype testing, users were provided with 7 tasks. Users shared their screen via Zoom. This allowed us to observe what participants did when we could not meet in person. This observation showed where participants struggled and where improvements could be made.

Each task was followed by a *Single Ease Question (SEQ),* the participants were asked on a scale from Very Easy to Very Difficult how challenging each task was. This question not only gave facilitators an idea of how challenging users perceived a task to be, but also gave users a prompt to expand more on their thoughts.

To receive more feedback, facilitators asked *follow up interview questions*. These questions were designed to prompt more thoughts and ideas from users. These follow up interview questions were open-ended and allowed the users to expand on any

thoughts they had that did not fit elsewhere. These questions also help users think back on their experience and brought out more feedback

Finally, a *System Usability Survey (SUS)* was added at the end to prompt more exact feelings. The SUS is worded to discover users' true feelings on a scale of Strongly Disagree to Strongly Agree.

Data Collection Tasks and Questions

The tasks users were given were:

- Find the GameRT Mission Statement to learn about this site and its goals.
- Suggest a game to be added to Round Table Recommendations.
- Send us an email about a question you have.
- Create an account.
- Find a game recommendation for your library program.
- Favorite a game.
- Post a comment.

The follow-up interview questions were:

- What did you like about the site?
- What did you not like about the site?
- What could be done to improve the GameRT site?
- As a user, what do you expect of a Library Resource?
- What is your overall opinion of the GameRT site?

The following questions were used for the SUS:

- I think that I would like to use this system frequently.
- I found the system unnecessarily complex.
- I thought the system was easy to use.
- I think that I would need the support of a technical person to be able to use this system.
- I found the various functions in this system were well integrated.
- I thought there was too much inconsistency in this system.
- I would imagine that most people would learn to use this system very quickly.
- I found the system very cumbersome to use.
- I felt very confident using the system.
- I needed to learn a lot of things before I could get going with this system.

Data Collection Process

Users were observed through Zoom's screen sharing feature while facilitators took notes. A Google Form was created to keep track of users' responses and feedback. Facilitators talked users through the process, asking them to complete each task and expand on opinions and comments. The facilitator took notes as users worked through the tasks. They recorded the most important feedback that users gave and their own observations.

See Appendix A.

Part II: Observation Process

Table 1. Participant number, age, gender, game habits, library awareness, internet exposure.

Participant	Age	Gender	Games in a group	Aware libraries have games?	Daily time on the internet
Participant 1	25-34	Female	Weekly	Yes	241+Min
Participant 2	25-34	Female	A few times a year	Yes	241+Min
Participant 3	18-24	Female	Weekly	Yes	241+Min
Participant 4	55+	Female	Little to never	No	241+Min

As shown above, the participants in our study ranged from 18-55+. This wider range of ages provides better feedback representing more age groups and how they would respond to our test site. All of our participants were female—a better mix would have

been preferred. The participants had a wide variety of gaming habits. All participants were heavy internet users.

Results

The results for our test are as follows. First, is a task-based usability performance followed by a SUS analysis and then interview feedback analysis.

Table 2. Tasks, difficulty to complete.

Tasks	Very Easy	Easy	Neither Easy nor Difficult	Difficult	Very Difficult
Task 1	75%	25%	0%	0%	0%
Task 2	75%	25%	0%	0%	0%
Task 3	50%	50%	0%	0%	0%
Task 4	100%	0%	0%	0%	0%
Task 5	50%	50%	0%	0%	0%
Task 6	100%	0%	0%	0%	0%
Task 7	75%	0%	25%	0%	0%

Comparing these results to that of our first testing with the original website, the improvements made have greatly increased perceived ease of use for users. This helps to answer our evaluation questions.

Table 3. System Usability Survey. Usability parameters, opinions on usability.

Usability Parameters	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree

I think that I would like to use this site frequently	0%	0%	25%	75%	0%
I found the site unnecessarily complex	75%	25%	0%	0%	0%
I thought the site was easy to use	0%	0%	0%	25%	75%
I think that I would need the support of a technical person to be able to use this site	75%	25%	0%	0%	0%
I found the various functions in this site were well-integrated	0%	0%	0%	75%	25%
I thought there was too much inconsistency in this site	25%	75%	0%	0%	0%
I would imagine that most people would learn to use this site very quickly	0%	0%	0%	25%	75%

I found the site very cumbersome to use	50%	50%	0%	0%	0%
I felt very confident using the site	0%	0%	25%	25%	50%
I needed to learn a lot of things before I could use this site confidently	50%	50%	0%	0%	0%

Likes

- “Looks pretty clean, lots of white space. Big obvious buttons.”
- “Only a few tabs, in comparison very narrowed down. Like the format of the recommendation with the highlighted and the next section is very separate. Header is nice and cute. Can see the official logo. Like the joycons”
- “Easy to find things.”
- “Love the interface structure. Very easy to know where you want to go. Nothing is confusing and organized and obvious.”

Dislikes

- “More graphical and interesting.”
- “First para on home page is dense.”
- “I don't know. Blocky text.”
- “Aesthetic could be improved. Banner is kind of boring.”

Part III: Evaluation Results

See Appendix for data analysis of all evaluation methods.

Summary of Data and Feedback

For the task results, every task was completed with 100% completion rates, and every user-selected Very Easy or Easy for their rating. This tells us we have made these key tasks much easier than the original website.

For our SUS, every score was Neutral or better for each question. This means that when we asked a question where Disagree is a good thing, all users stated Neutral to Strongly Disagree. While when asked a question where agree was a good response all users responded Neutral or better. Overall, our redesign received better survey responses than the original site design.

The peer responses to our high-fidelity prototype were a bit more critical than the response we received to our low-fidelity prototype. Perhaps this can be explained because expectations were higher for the high-fidelity prototype. Both responses to the high-fidelity prototype noted an improvement over the original site.

Negative Feedback

Users in our survey mentioned that the site could use some more color. Our original design had a neutral, grey color scheme. We designed it that way intending to add a bright color scheme later. We picked a new color scheme and added more colorful images after receiving feedback on our high-fidelity prototype. Peer reviewers mentioned using grid alignment to clean up the interface. We discovered that Figma does indeed have a grid align feature. Unfortunately, the components align to their frames—the translucent box surrounding the component that allows for connectivity and interactivity—rather than the actual graphic. This meant we had to eyeball align some images. Using frames effectively was part of the challenge of learning Figma.

Part IV: Design Evolution

Interface and Interaction Design Changes

We started our design working from the original website provided by the American Library Association. From there, each of the team members designed their own pages in Figma. This allowed us to see each other's designs as we progressed, which kept our design cohesive. This part of the process involved developing components, like buttons and the header, that we would use across every page. We based the design on parameters as described in the Problem Analysis and Design Plan.

To improve upon the low-fidelity prototype, we reviewed our peer review comments, user testing results, and our professor’s suggestions, then discussed on Zoom which changes we would make and how we would implement them. We narrowed the

scope of the project to only focus on the prototype's interactive elements. We then filled out the site with images and real content instead of filler. Following that, we connected page components (like buttons) to frames to simulate a website, creating a functioning interactive prototype.

We followed a similar process to improve the high-fidelity prototype. After reviewing all feedback and user testing, we determined which issues we would be able to fix with the time we had remaining. These improvements ended up being refinements, rather than the structural changes we implemented between the low and high fidelity prototypes. We endeavored to make the prototype more visually pleasing and stimulating by implementing a new color scheme, removing white space surrounding images, and fixing gridding issues.We also fixed any page connectivity issues that we had missed.

Major Changes

The biggest change made from the low-fidelity prototype to the high-fidelity prototype was the amount of content included. Not only were users confused about why similar information was stored in different places, but implementing all of these pages would be very time consuming for a prototype. We decided to focus on the core aspect of this prototype: suggesting games for librarians and library patrons. We decided the reference portion of the original idea was more appropriate for another project.

Most Valuable Evaluation Method

Both peer evaluation and user evaluation were valuable in our development because they showed different kinds of issues. The peer evaluation caught much more detailed issues, while users talked more about the process they discovered through usage. While both are very important in testing for usability, the peer evaluation provided a more detailed analysis that was more focused and applicable.

See Appendix D for the Change/Revision Log.

Part V: Project Reflections and Recommendations

Reflections

One lesson learned early on is that you can't implement everything you want to right away. Sometimes scaling back and focusing on a specific part of a project creates a better product overall. Because of limitations in the software we used, we could not add everything we wanted, but that limitation also forced us to focus on simplifying some

parts of our idea. This led to what we believe to be a better overall product and proof of concept that can be expanded on later.

Another lesson learned was to spend more time anticipating the interaction needs of a design. If we more concretely determined which interaction methods would be necessary at the beginning of the project, we could have picked a more appropriate prototyping tool. We didn't realize the limitations of Figma until it was too late.

Working on this project really underscored the necessity for user feedback. There were some issues, like page functionality, that was obvious to us because we spent so much time describing them in the design plan before implementing them. However, to a user unfamiliar with the project, some elements of the prototype's functionality were unclear. This led us to include more descriptive text explaining the site's different functions.

Recommendations

The biggest improvement that could have been made for this project was using a prototyping software that was capable of doing more user interaction-based activities. When looking at Figma originally we thought it had enough functionality to allow us to achieve all of our design goals. We picked Figma because it allowed for collaboration and met our initial design needs, but we didn't understand its limits as a prototyping tool.

If we had enough time to switch this project over to a more hefty prototyping tool we would have included the ability for users to input text into the forms themselves. Unfortunately, to do this on Figma is very complex and dense, to the point both of our computers were suffering from slowdown trying to keep the design page running. The same issue came up when trying to implement a search function. Being able to type simply is not doable with our computer or the time allowed for this project.

With searching, we would like to have added tags to each game so the style, type, and even theme of the games would be included to further the ability for users to collect games for a specific purpose. This was hinted at in the low-fidelity prototype, but we quickly realized the immense challenge of implementation.

We also could have included a few more pages or tabs in our design specifically focusing on why games should be included in libraries. We also would have liked to include more kinds of games specifically like RPGs, video games, VR/AR games, and mobile games.

Appendix

Appendix A: Questions, Methods, Instruments, and Analysis

Evaluation Question	Data Collection Instrument/Method	Data Analysis Method
Are users able to complete tasks more efficiently than the original GameRT site?	Observation and SEQ	Observation notes, SEQ ratings
Are users finding the prototype easier to use than the original GameRT site?	Follow up questions, SEQ and SUS	SEQ and SUS scores tell us if things are easier. Follow up questions elaborate.
Do users like the additional functionality of the prototype compared to the original GameRT site?	Follow up questions and SUS	Follow-up questions elaborate on users' feelings. SUS gives them a chance to put it in qualitative data for us.
Are users finding the prototype more visually	Follow up questions and SUS	Follow up questions focus on things users would change tell us

appealing than the original GameRT site?		this. SUS questions on the site also give us quantitative data on this.

Appendix B:Change Log

Source (UT, PE)	Issue Priority (Low, Medium, High)	Issue Description	Recommendation	Changed (Yes/No)
UT – Low Fidelity	High	Many tabs, confusing and unnecessary	Cut down on how many places users can get information	Yes
PE – Low Fidelity	Medium	Some sections are too text heavy	Break text up with bullets, para, pictures	Yes
UT – High Fidelity	Low	Banner is boring	Add some color to the banner	Yes
PE – High Fidelity	High	Can not type anything	Add text input	No. Task was too time-consuming and complicated for this software. Figma does

				not natively support text input. We found how to do it HERE but to implement it on every text box would be too complex. Would also cause aesthetic issues
PE – High Fidelity	Medium	Some of the pages don't line up	Use grids to align	Yes
PE – High Fidelity	Medium	Search functionality	Add search options	No. This prototype software did not have the capability to make this functional
PE – High Fidelity	Low	Uninteresting color scheme and images	Pick new color scheme; add more colorful imagery	Yes
PE – High Fidelity	Medium	Purpose of features unclear	Added explanations of functions to home page and brief descriptions on individual pages	Yes

*UT= Usability Test, PE = Peer Evaluation

Appendix C: Peer Review

Low-Fidelity Prototype

Peer Reviewer: Nebi Sevim

The design aligns with expected user tasks

Excellent. This is a specific website rather than a general one and I think 'librarians interested in games and use of games in libraries' will be able to do all the expected tasks easily.

Placement of key functions/features to support user interactions

Excellent. By just clicking on the tabs, the user can move forward.

Information organization

Good. In general, the information is organized well. However, it seems there's so much information packed but as I am not very familiar with this field, it may be alright for the intended users.

Visual Aesthetics

Excellent. It's uncluttered and no overuse of bright colors. Adequate color contrast between text and background color.

Navigation supports user tasks and optimal performance

Good. Overall it navigates smoothly. My only concern would be linking to a unique page when clicked on a game profile. If it's directing to a new page, this would be misleading, considering the intensity of the information.

Consistency and Standards

Excellent. The main page remains consistent and the user only changes tabs.

High-Fidelity Prototype

Peer Reviewer: Adrian Ramon

The design supports expected user tasks and goals

Good I was able to accomplish all the tasks you listed except Notification. I really couldn't figure out what I needed to do with that task. I'm thinking you may have not intended it as a task really more as an outcome of setting up my profile to received notifications, but I wasn't sure.

There is an appropriate amount of content to support user goals

Good Users can find games. I would like to see what happens when the user registers. Each section could use a little more information about that section after the header. The game information pages are great. The information is useful and it allows users to add it to their favorites. Could there be a way to rate the games with 1-5 stars?

Placement of key functions/features supports efficient user interactions

Needs Improvement Right now, users can only look at games that are recommendations. There should be a way for users to filter a search to find games by genre or release date, etc. A help feature would also be good. What is the profile section? Is that where users can create their profile? Can they browse other user profiles?

Information organization and design (chunking, white space, etc.)

Excellent The games are organized very similarly to how items on a shopping site would be organized. The text for the name of the game is in close proximity to the image of the game.

Visual Aesthetics

Good Text and background provide a good color contrast. This design is more visual than the current one. Good use of icons and images of the books. Keep image backgrounds consistent. Some were white and some were clear. A little more color could be used to add interest. Also, I had to change the settings on my computer for the full page to fit on my screen. Use gridlines to clean up design.

Navigation supports user tasks and optimal performance

Excellent

Consistency and Standards

> **Good** I noticed when I moved from one page to another, there was a “jerky” effect. It was noticeable going from Home to Round Table Recommendations and Profile to Round Table Recommendations. However, I think this is easily fixable by ensuring you use the same template for each page.

Overall design represents the selected conceptual models and interaction theories

> **Needs improvement** The site overall needs to have more findability and navigability. As more people recommend games, how will they be organized so that people can find them? It would also be good to see how the forms show user input errors and allow users to recover from those errors.

Peer Reviewer: Karen Ballengee

The design supports expected user tasks and goal

> **Excellent** This is definitely an improvement over the current site.

There is an appropriate amount of content to support user goal

> **Good** Users can find games. I would like to see what happens when the user registers. Each section could use a little more information about that section after the header. The game information pages are great. The information is useful and it allows users to add it to their favorites. Could there be a way to rate the games with 1-5 stars?

Placement of key functions/features supports efficient user interactions

> **Needs Improvement** Right now, users can only look at games that are recommendations. There should be a way for users to filter a search to find games by genre or release date, etc. A help feature would also be good. What is the profile section? Is that where users can create their profile? Can they browse other user profiles?

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Navigation supports user tasks and optimal performance

Needs Improvement The breadcrumbs help users to figure out where they've been and where they are going. There is also a button at the bottom of the page that allows users to flip through pages. I'm not sure of the purpose of this button. I felt lost on this site and not sure what I was supposed to do or where I should go.

Consistency and Standards

Excellent All of the header styles and body text are consistent throughout. The layout is consistent on all pages.

Overall design represents the selected conceptual models and interaction theories

Needs Improvement The site overall needs to have more findability and navigability. As more people recommend games, how will they be organized so that people can find them? It would also be good to see how the forms show user input errors and allow users to recover from those errors.

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