Designing a Gameful System to Support the Collection, Curation, Exploration, and Sharing of Sports Memorabilia

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ABSTRACT
Collectors often attach memories and stories to the objects they collect. These stories can be lost over time, and particularly when the collections are digitized. In this paper, we present semi-structured interviews with collectors of hockey memorabilia to inform a set of design guidelines for creating games and playful interfaces that support collectors. Our interviews highlighted the importance of narrative, organization, and authenticity to collection, and identified the need to support emergent behaviour. Our work provides an example of gameful design principles that could motivate collectors to digitize and share their collections.

INTRODUCTION
Artifacts play a significant role in the sharing of memories between people, across cultures, and throughout time. At a personal level, people assign meaning to objects, such as rocks from a beach in a faraway land, or a gift given to symbolize relationships (e.g., wedding rings, friendship bracelets). At a cultural or historical level, people associate artifacts with ancestry or heritage, such as totem poles (Native Americans), clogs (Dutch), or more specific historical artifacts, such as King Tut’s tomb or the Crown of Napoleon [2]. However, with the shift to digital records, such as photographs and 3D scans, it is not clear if the stories associated with these artifacts will be maintained the same way.

The digitization of collections allows collectors to easily share memories and stories about the artifacts with a wide audience, and also allows non-collectors to access information about these collections that might otherwise be inaccessible. In addition, the creation, curation, and exploration of digital collections of artifacts are activities that would benefit from interfaces that employ gameful design—designing for the experiential and behavioural quality of games, typically by using game design elements [3]. However, there is little guidance on how to design gameful systems that support the behaviours collectors engage in.

We recruited 4 participants (male) who met the following criteria: collect hockey memorabilia, have at least 500 items on display, and have 10+ years of experience as a collector. We used affinity diagramming [1] to determine themes for the interviews. The audio files of the interviews were then coded using the ELAN software. Frequency counts and quotations for each theme were extracted from the coded files and used to inform our design guidelines.

ANALYSIS & DESIGN GUIDELINES
Our analysis revealed several themes that evolved from the interviews and coding process. In this section, we describe the results of our study in terms of the design guidelines that emerged from this analysis.

Stories Must Be Shared
Narrative became an important theme throughout the interviews. The stories about an item often added to the intrinsic value. These could be stories about the original function, event, location, athlete, or stories that were created post-acquisition, such as getting the item signed by the athlete.

P2: “I won't buy anything off anybody if there's no story. If there's no story to it, I don't want it. Because the most important thing about it is the history of the piece, where it's come from, the route it's travelled.”

The design of gameful systems for collecting should focus on the importance of stories, both in the past and in the present. Often an item will collect multiple stories as it passes between collectors, and these stories should be preserved.
The authenticity of objects is valued by collectors. Physical authenticity should be supported recorded and played in some spaces.

Designers should create a system that does not restrict collectors or narrative, as narrative may grow with time. We are actively developing a prototype game (Figure 1) based on these design guidelines and past research on sand-box games [1], which will allow players to build trophy rooms, similar to the way collectors do with their physical collections. We plan to deploy the game to obtain feedback on the experience and on how the sandbox game motivates people to create, curate, and explore digital collections.

While players may come into the game with existing narratives about the items that they collect, it is our hope that the game itself helps to create new narratives. For example, the trophy rooms themselves could have a story associated with the room (e.g., a specific athlete or game). We also hope that items will collect narratives from players other than the one who submitted the item, or will have new stories over time as the physical copy of the item trades hands or is signed by an athlete, for example.

**Research Enabled by a Digital Archive of Memorabilia**
Collecting a digital archive of memorabilia that has not lost its connection to the original narrative is important. Other than the social value it provides to the public, there are several research questions that will be able to be addressed. Researchers will be able to look at the difference between physical and digital trophy rooms, which may inform designers about the differences between physical and virtual play. Also, narrative has not been extensively explored in the collecting literature, and our game will enable us to investigate how and when artifacts become associated with a narrative, and how these narratives change over time.

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**REFERENCES**