The Gamification of Television: is there life beyond badges?

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Abstract

The television domain is an apt target for *gamification* given demand for new ways to track, engage and retain viewing audiences. While early applications in social TV show promise, we identify three challenges that need to be addressed. First, television is by nature a lean-back experience; game design must adeptly balance passive attention with active interaction behaviors. Second, a focus on loyalty requires fine-grained interactions to better profile the user; games are ideal for this purpose but are under-utilized in context. Third, badge fatigue is inevitable; we need new ways to evolve experiences to keep viewers interested and challenged. In this paper, we look at how recent trends in companion devices for television viewing provide new tools and opportunities for addressing these concerns. We present some ideas (attention-preserving toolkits, games-with-a-purpose, context-sharing frameworks) that we believe could be a good starting point for related research exploration.

Keywords

gamification, social television, engagement, toolkits

ACM Classification Keywords

H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

Introduction

The television ecosystem is facing mass fragmentation [1] in both content and community, leading to growing demand for new ways to track, engage and retain the TV audience. Recently, social TV applications [2] have tackled the issue with a *gamification* strategy inspired by Foursquare. Gamification refers to the integration of game mechanics into applications to make them fun or engaging for users. Social TV applications like Miso and GetGlue apply this idea to the content domain, letting users 'check-in' to the TV shows, movies or videos that they were currently watching. Based on their check-in history, users can then unlock badges or gain exclusive access to content. An associated social network makes check-ins observable, allowing a user to befriend or follow others for content discovery or conversation.

Because the application identifies the viewer, his social influences, his affinities (what he likes) and activities (what he watches, and when) it is prized by marketers and content providers. And, because data is voluntarily given (vs. implicitly inferred) it has potential for better analytics with fewer privacy violations. However, the current crop of applications faces multiple challenges in sustaining user engagement beyond the initial novelty phase. In the following sections, we articulate three key challenges faced, and present some thoughts on ways in which these can be addressed with more research.

The Attention Challenge

Interacting with these applications requires a significant *residual attention* from the user, both in setting viewing context (given interaction is on a different device from consumption) and in performing related actions (e.g., share, check-in). Both activities involve different levels of effort from simple button presses (check-in) to text entry (comments) and multi-step navigation (search). Content providers are justifiably concerned that tasks like this fragment user attention, and adversely impact user engagement with onscreen content. Further, this affects the lean-back experience expected by viewers.

Q: How can we support the lean-forward interaction behaviors of games, while preserving user attention?

The Analytics Challenge

Gamification has value to applications beyond loyalty. If we focus on this domain however, we can identify some unmet needs in the currently deployed applications. For instance, most treat check-ins homogeneously, giving a check-in the same weight regardless of when its time of occurrence relative to the show's airtime or duration. A viewer is also not given a reason or incentive to checkin more frequently. However, the behaviors are significant indicators of degrees of user engagement in a *content* ecosystem. To obtain better analytics for loyalty, we need to achieve a better frequency and granularity of check-in activity from users. This presents the perfect opportunity to explore the deeper value proposition of game mechanics to motivate different behaviors.

Q: Can we use games to persuade viewers to check-in more frequently, or take other actions (like, comment, share) to get finer granularity of analytics for profiling?

The Sustainability Challenge

Most social TV applications have focused on superficial features like badges to facilitate the onboarding of new users. We feel badge fatigue is unavoidable especially as copycat applications proliferate. Retaining users in the long term will require new experiences or incentives that engage and challenge their expectations. Because

the domain is diverse in user demographics and needs, there is unlikely to be a one-size-fits-all solution to this problem. Instead, we turn to Bartle's player types [3] as inspiration to categorize audiences and evolve the experience in suitable ways for each group.

Q: How can we characterize viewer personalities? Can we create a pluggable framework that tailors players' 'journeys' to suit dynamic needs or personality profiles?

The Companion Device Opportunity

Our exploration of these questions is motivated and inspired by the popularity of mobile devices (tables, smartphones) as *companion* devices for television viewing. These provide a second screen to users for performing interactions or transactions correlated to the content viewed on a first screen (TV). The rich sensing capabilities of these devices (e.g., touch, tilt, camera, motion, microphone) and ubiquitous presence on or near users, presents a unique opportunity for developing toolkits and games that support the needs outlined earlier. We also see gamification extending beyond loyalty to driving 'games with a purpose' [4] centered on the large television-viewing audience. In the next sections, we walk through use cases and ideas for early research exploration in these contexts.

Attention-Preserving Toolkits

Many gaming interfaces require little residual attention from players, with the popular ones becoming 'second nature' to users. It seems intuitive to adapt these paradigms for use with social TV applications as attention-preserving input capabilities for check-ins and other activity. The game industry has already taken the first steps to re-work game interfaces to better control and manage the TV-viewing experience. For instance,

Nintendo's Wii-mote uses sensors to support natural player interactions with the screen through gestures. Microphones enable voice-activated interfaces that find usage today primarily for search (e.g., Google TV) but that could be adapted for control or navigation needs. Touch-based UI are just gaining popularity, supporting nuanced movements around the screen (touch-pad) or simplifying granular remote control for easy navigation (touch-screen). Finally, cameras are now emerging as interesting full-body motion sensors in platforms like Microsoft Kinect.

The maturity of this technology inspired us to explore *morphable interfaces* for attention-preserving inputs in social TV applications. Our intuition is that residual attention varies with the type of content (e.g., live sports takes more attention than game shows or soap operas) and required action (e.g., commenting takes more effort than check-in). By providing a toolkit with support for image recognition, dictionary-based voice recognition, and touch- and motion- based gesture recognition, we can enable any applications to select and activate an optimal input strategy. Thus, a user can check-in by simply shaking his phone, or scrawling a pre-defined character on the screen; both behaviors can be achieved discreetly, without requiring users to take their attention off the program. We can envision more complex requirements (e.g., text entry) as a combination of voice recognition and a gesture to activate (and deactivate) the microphone. The toolkit can be programmed to give discreet feedback (e.g., using audio) on the success or failure of performed actions, eliminating need for visual cues that require user attention. By identifying key use cases, we hope to create a standard library of 'input templates' that can be customized or extended for use in such applications.

Games With A Purpose

While morphable interfaces reduce user effort in taking an action, they don't motivate users to perform them in the first place. We need new ways to engage the user and persuade him to create more and better data. We see this as an interesting application of games with a purpose [4] where users are play games, ostensibly for entertainment, but actually contribute useful work. In this section, we presenting some use cases for context.

Games For Analytics: To motivate users to check-in more or disclose other activities (e.g., like), we need to make the experience fun. For instance, we envision a drinking game with phones, where users can now drink a 'virtual beer' whenever a specific call-to-action word is spoken onscreen (e.g., 'interception'). The action is observable, and can trigger an automated check-in for that show or that call-to-action. Or, we can ask users to "boo" content they don't like, including ads; basic voice recognition can automate a 'dislike' check-in in context.

Games For Search: The television is a visual medium with poor granularity in content metadata, making it difficult for users to discover relevant content. We can use the social TV user base as a crowd-sourcing task force to create useful clips [5] or knowledge [6]. We see potential for translating games like Peekaboom [4] and Verbosity[4] to this platform for just this purpose. Not only can this sustain user engagement outside live viewing hours, but it can create opportunities for new incentives that motivate further participation. Thus, we can 'unlock' the ability to rate a clip or vote down an answer only after users have achieved a certain history of engagement (check-ins, likes) with that content.

Games For Recall: A key part of evaluating viewer engagement is recall; how much of an impact did that content have on him? Call-to-action ("Check-in if you see this ad again") or guessing games like Peekaboom ("Name this celebrity" provide ways to elicit this data from viewers while still making it a fun and interesting way for them to engage with that community.

In conclusion, we observe that social TV applications are in their infancy, but are not currently exploiting the complete potential of game mechanics for engagement. Our research goal is to explore frameworks that allow such diverse 'games' to be deployed over the existing social TV application fabric, to support analytics but also drive sustainable engagement in the long run.

References

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