Industry Design Case: Introducing Gamification Persona Tool

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Abstract
In this article, we aim to show our industrial experience of constructing a user centered gamification design framework for productivity software, developed empirically by testing out Game User Research and traditional User Experience Research methods and tools. Moreover, we highlight the benefits and lessons learned of creating Gamification Persona when using it as the main tool in order to gather and keep visible the right users' goals during the gamification process. Therefore, we argue that introducing Gamification Persona tool will facilitate the development of a final product which will better encompass users' goals, rather than simply focusing on their initial engagement with the product. This article is based on valid arguments from our industry experience and design cases of gamifying Microsoft Dynamics Enterprise Resource Planning software.

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Gamification; Games User Research, User Centered Design; Emotional Design; Gamification Persona; Productivity Software.

ACM Classification Keywords
Design, Miscellaneous.

Introduction

Despite the popularity which gamification gained in the digital world, there has not been yet presented a design framework that guides professionals though the gamification design and implementation process from a user centered point of view. Many of the gamification frameworks mostly guide designers towards easy fixes that would rapidly raise user engagement, or modalities to make an application look more appealing and give it the necessary 'eye-candy' gaze that video games have, or ways to keep the users 'hooked' in it [10]. In parallel, we can still notice the misunderstanding gamification fellows have about player user experience, especially player engagement, and what are the game elements which offer fun and sincere enjoinment.

Within this context, we argue for the need of a gamification framework that focuses on users' goals closely intertwined with the business goals. Furthermore, we prove through empirical research and design cases that introducing Gamification Persona as the main tool during the gamification design process is an effective approach for determining and keeping these goals visible throughout the implementation process. This article summarizes valid arguments of extensive empirical research conducted for *Gamification of Productivity Software: A User Centered Design Approach* [6], a master thesis project completed in joint collaboration of IT-University of Copenhagen and Microsoft Development Center from Copenhagen, Denmark.

The Need to Construct New Tools

Gamification is still a fairly new concept and its implementation demands for a new design process. First, we analyzed the intent of gamifying, which is to improve in a way or another users' experience by applying game elements into non-game applications. We consider that one of the most important elements from games that provide an extra level of user's satisfaction is the emotional kick that video games are the "emotional drug of choice for the next generation of junkies" as Sykes [9] defines them. The affective interaction facilitated during gameplay creates such a satisfying experience that players build addictions for. Therefore, we decided to investigate the emotional experiences of productivity software that a user would like and that would also improve the outcome of his work. From the start, this study did not try to change work processes or disrupt work efficiency in order to improve emotional state of users, but rather it focused on employees' personal satisfaction when using an application. Therefore, from the designer's role, we took an attempt to create a framework of methods and tools that facilitated the creation of more satisfying user emotional experience and fallow Elizabeth Sanders advise to construct new tools:

"Designers will transform from being designers of 'stuff' to being the builders of scaffolds for experiencing." [8]

Furthermore, Dan Dixton [4] call for a closer investigation of gamification user types matched the already defined intent of our project to construct "scaffolds for building everyday creativity" (Sanders, 2006) in the form of Gamification Persona, the main tool we used in our gamification design process. We argue for the need of creating a common language between game designers, gamification specialist, user experience designers and researchers, business analysts, programmers and testers in order to capture

the user requirements and to ease gamification implementation during the product development process. The need of facilitating this common language of designing for a gamification user was proven necessary during the implementation process of gamified features into Microsoft Dynamics NAV and AX applications, two of the Enterprise Resource Planning (ERP) software developed by Microsoft.

Defining the Tool: Gamification Persona

In addition to Cooper's persona [2] [3], the profiles descriptions for Gamification Persona encapsulated detailed information about users' personality types and the emotional states they enjoy or reject within the context of, both, their work and their leisure time. Gamification Persona profile description encapsulates and provides the necessary vocabulary about user's goals, user's emotional states and user's personality types with regards to games in addition to the traditional persona profile descriptions.

The birth of Gamification Persona took place at the beginning of the design process in the User Research and Analysis phase. We adjusted Pruitt and Adlin [7] scheme of constructing persona and carefully analyzed the structure of Canossa's Play-Persona [1] in order to fit the fun and engagement needs of a gamification user profile. Few particular methods used in game design to researching and gathering player data were tested and adjusted into the process of defining and constructing Gamification Persona. These methods are Cultural Probes, Personality Type surveys, Player Type questionnaires, and specific User Interview's questions targeting games topics.

In practice, we built the gamification Persona profile as an additional layer of the already existing Microsoft Dynamics persona profiles descriptions summarized in the Microsoft Dynamics Customer Model. We called Secondary Data this existing Microsoft resource and use it as the starting point of our gamification user type investigations. A list of steps and all deliverables of Gamification Persona profile construction under User research and Analysis (UR+A), the second phase under the grand scheme of the productivity software gamification design process shown in figure 1.

Gamification Persona in the Design Process

In order to prove the validity of Gamification Personas tool and its benefits, we created Gamification Personas profiles for ERP users and used them as the main tool during the user centered gamification design process of Microsoft Dynamics ERP products. Regarding games and ERP use, a great volume of user data was gathered and analyzed during the UR+A phase. We faced the challenge of merging users' goals (in terms of games especially) with business requirements into a format that would be easy to use by all parties involved in the product development.

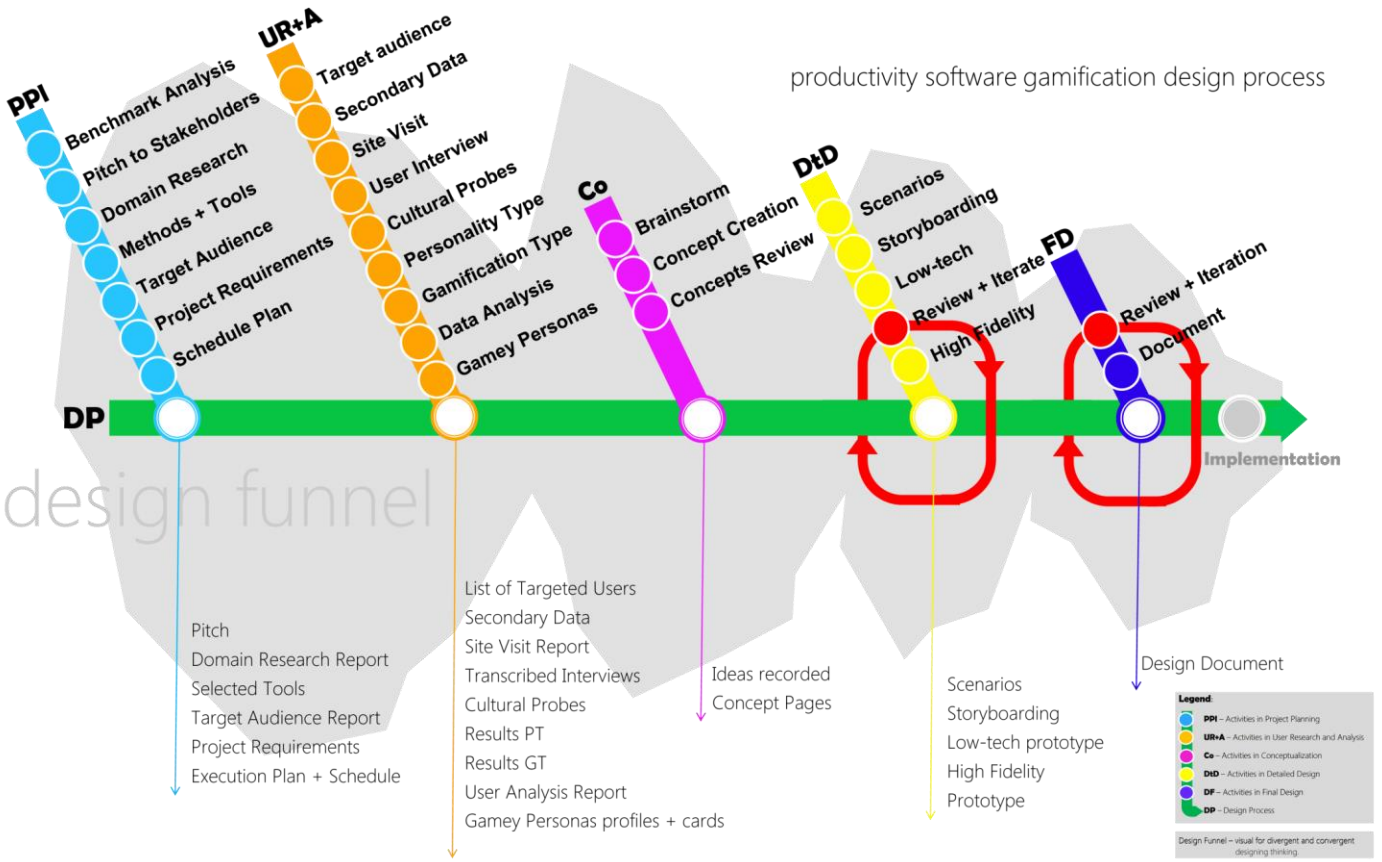

Figure 2. Productivity Software Gamification Design Process.

We needed a layout of each Gamification Persona profile that would sum up the design requirements, limitation, as well as the metrics to measure the success of the gamification solutions. Previous experience of Microsoft Dynamics persona use has shown that it is not efficient to use an extensive detailed profile description during the design and development process. Therefore, we adopted the approach of creating Gamification Persona posters, also suggested by Pruitt and Adlin [7] in their description of persona lifecycle during product development. Lene Nielsen [5] also suggests this approach. In our case, we adjusted the poster method to a card format (e. g. A5 page size) in order to accommodate a flexible and dynamic discussion environment. For each Gamification Persona detailed profile, we created a card

that summarized the main users' goals in terms of their experiences with the product, their personality type that relates to their player type, and the emotions felt towards the investigated product, as well as, emotions they like experiencing while playing games. Refer to the image below for an example of the Gamification Persona cards.

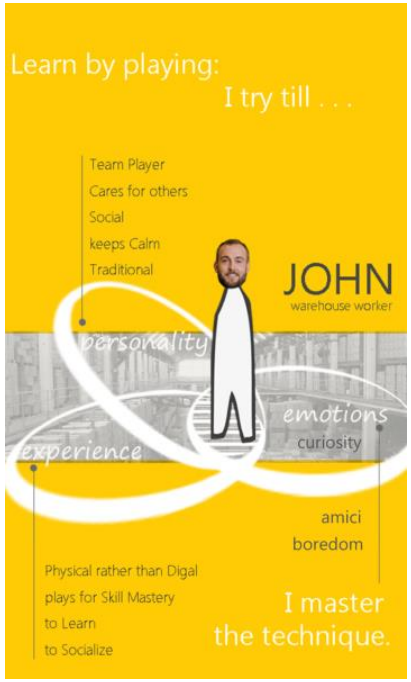

Figure 2. Microsoft Dynamics Gamification Persona card

During the process of gamifying Microsoft Dynamics NAV and AX applications, the Gamification Persona cards have been used from Conceptualization phase while brainstorming and reviewing ideas, through Detail Design phase while composing scenarios of use, sketching storyboards and low tech-prototypes and kept a close look at them during the Final Design phase while defining the high fidelity interfaces and writing the design document. The cards provided the necessary information during brainstorming sessions. In addition, the cards were a good tool to keep user's goals visible and ease the communication throughout the gamification implementation process. Furthermore, Gamification Personas detailed profiles and cards provided accurate metrics to measure the success of the gamification design solutions while testing the design concepts and prototypes with users.

Lessons Learned and Further Research

We attempt to satisfy the need for a gamification design framework that will guide professionals in creating meaningful, enjoyable, and emotional satisfying user experience that lasts, such as the player experience in games. The tools and methods we empirically adopted for the constructing of the gamification design framework and the Gamification Persona are proven to be the suitable lenses of game and psychology theories that one should adopt when implementing gamification. In our case, these lenses facilitated the foundation of a successful outcome noted in gamification design solutions for Microsoft Dynamics NAV and AX ERP applications.

The most important lesson learned from this project, was that gamification needs its own framework of design tools and methods, apart from games design or traditional user experience design. The tools can be adopted from relevant domain, but it requires adjusting and fine-tuning to better describe the needs and goals of a gamification user, rather than simply combine a

player needs with a user requirements. Therefore, we ask for your contribution in developing further the user centered gamification design framework by refining and adjusting the existing tools and methods, and also by proposing and implementing new ones.

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