电子游戏开发领域的专业人士的游戏化

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摘要

最近的一种做法在市场营销专业人员、教育工作者和供应商中变得非常普遍

将军。这一主题也迅速获得了游戏领域研究人员的青睐，因为游戏设计师的一些基本知识是成功游戏化活动的先决条件。这项工作的目标是对游戏化及其特征进行定义，确定创新背后的专业人员、游戏设计师的角色，以及这是否可能成为游戏开发专业人员的新工作领域。

关键词:游戏化，游戏设计，游戏元素。

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1. 介绍

随着数字融合、便捷的互联网接入和社交网络的狂热，所有的数字活动都变得越来越自动互动，甚至在移动时代，每个人的口袋里都有一台电脑。

游戏化是一个概念，它让许多不同领域的专业人士跟上了所有这些互动，并促进了他们的兴趣。整个时间的人得到的分数通过访问网站,奖牌的地方去(很好的例子是应用“四方”),增加其状态(收到几个“喜欢”《社交网络》中)这些技术用来提高人们的兴趣,它的起源来自于游戏,通常被称为“游戏的元素。”

使用这些特定的游戏开发知识引发了以下问题:如果这一概念如此流行并被用于各种目的，如娱乐、经济和
4318/5000
教育类游戏是最适合提高普通活动参与度的专业游戏，这将是游戏开发者的新工作领域吗?以下主题将介绍与本文相关的作品，如游戏化中使用的元素，严肃游戏。在描述了专业人员在该领域所需要的特征之后。随后，对现有的专业类型进行了描述，最后得出结论。

2. 相关工作

下文将介绍严肃游戏和游戏化的区

别。也描述了游戏化中使用的元素。

2.1 游戏化(游戏化 X 严肃游戏)

为了减少日常工作带来的压力，让工作变得不那么乏味和令人沮丧，来自各个领域的专业人士都在使用同样的技术，让游戏开发者的产品变得更有吸引力。

游戏化指的是技术和游戏元素的使用，以及“游戏思维”(游戏中使用的推理)和游戏外部环境中的游戏设计(日常生活中的应用)。它的目标是使一个共同的活动更有趣，参与一个有趣的同时给用户带来积极的体验，达到应用领域(市场营销、教育、制造、金融等)提出的最终目标。

虽然“游戏化”这个术语和它的实践在 2010 年左右开始流行起来，但它已经受到了供应商和开发商的高度重视想要创新产品的专业人士。

研究人员混淆游戏化和其他现有概念是很常见的。其中一种是严肃游戏，即带有明确目的的数字游戏，这不仅仅是一种娱乐，并且能够让由于安全、成本或时间等原因而无法实现的任务体验成为可能。

与游戏化不同的是，严肃游戏具有完整的目的:教学、模拟等等。而第二种则是将任务游戏化，即使用游戏元素(游戏邦注:如分数、奖励和成就等)将现实世界中的任何活动转变成更有趣的内容。在游戏环境之外。值得注意的是，由于游戏化是在游戏之外使用的，游戏化的活动不能被视为完整的游戏。

有了正确的知识和正确的处理，这些元素可以建模和定义用户的行为，说服他们按照系统设计者预先定义的方式行事[dedeterminet al. 2011b;Lockton等[2010]。

2.2 游戏化中的游戏元素

游戏的巨大优势是有原因的人们玩游戏并非出于经济动机或社会原因，他们纯粹是为了娱乐，他们想要获得乐趣(Ahn and Dabbish 2008)。就像我们在游戏中所做的那样，当我们将一项活动游戏化时，它必须被投射到期望的效果中，并且应该有一个应用设计，就像游戏设计师在游戏中所做的那样，使用相同的工具，但却是在现实生活中。

这些工具，即所谓的游戏元素，有很多，每一个都有自己的优势和特殊性。但根据[dededing, et al. 2011a]，我们可以根据它们的主要特征将其划分为 5 个层次，这些主要是:

•游戏界面设计模式:
标准组件的视觉效果很好交互并在特定的环境中解决已知的问题，包括原型的实现。我们在 foursquare 中使用

了徽章(游戏邦注:即为完成任务而给予用户的勋章或邮票)。facebook 应用程序的广泛使用排名，增加普及和应用程序的交互性，鼓励同一用户的持久性(持续时间)。等级:度量执行的进度和状态。帮助设定正确的挑战。

•游戏设计模式和机制
游戏设计的保留领域通常与游戏玩法有关。超时、资源限制、轮数。例如，许多应用程序使用有时间或地点限制的签入机制，就像在应用程序 get glue 中看到的那样，在 a 广播期间，您需要在那里签入电视节目。

•游戏设计原则和启发式
Isbister 和 Shafer 2008。:设计或分析和解决问题的评估方法方向。例子:游戏持续时间，明确目的。

•游戏模型(布瑞斯韦特和施赖伯)
2008;Eduardo 等人，2010;富勒顿,2008;游戏组件或游戏体验的概念模型。例子:MDA，挑战，幻想，好奇。

•游戏设计方法(Belman 和 Flanagan 2010;Fullerton, 2008:游戏设计的实践和具体过程。例子:游戏测试，游戏中心设计，价值意识游戏设计。

有些元素在游戏化的现有应用中更为常见，如奖励系统广泛应用于营销或鼓励教育，如可口可乐的推广，“加入 5 个瓶盖(任务)+ 3 美元，替换世界杯足球(奖励)的超级特殊球”。或者是老师的建议，“完成了复习和解决了习题的测试(任务)，获得了额外的分数(奖励)。”

在聚光灯下，它也是定制，广泛用于 gamified 网站,以及在游戏中我们可以给我们的脸(个性化化身)等网站 mercadolivre.com(显示可能的产品,你会请)甚至谷歌新徽章(这让到你感兴趣的突出问题按照徽章、你)和使用你的特征模型本身根据你的口味。

进度条、排名、得分等都有助于创造更具互动性和参与度的活动，同时提高用户对品牌或服务器的忠诚度，并增加用户在游戏化应用上花费的时间。

有些比较抽象和微妙，但是创造所有不同的内容，如目标、挑战、乐趣、体验、用户间的互动等。

3.专业特点

在游戏开发中，电子游戏领域的每个专业人员都有.它在创造游戏、创造高质量的配乐、出色的设计和真实的游戏、完美的机制和出色的动画等方面扮演着重要角色这对游戏是呈现给客户的，这涉及到一个团队相当广泛的。

程序员:他们太忙了.最好的实现，使用最好的算法和优化，为一个完整的结果，滥用人工智能和。

提取最好的硬件，负责游戏的正确执行，所以他们非常技术[Clua and Bittencourt 2005]。

美工和动画师:他们的主要工作是尽可能在游戏中产生最高的沉浸感，使其美丽和愉快的知识仅限于创造好的美学。[Clua and Bittencourt 2005]。2005]。

音效工程师:他们的目标也是产生最好的沉浸感，并尝试着在游戏中呈现出不同的细节(游戏邦注:Clua 和 Bittencourt 2005)。比如其他职位。

与这些专业人士不同的是，游戏设计师对整个过程有总体的了解，知道如何探索机制、美术和音效，以及主要的所有游戏元素，以及如何用这些元素影响公众。

并不是所有专业人士都必须为恰当地应用游戏化而感到宽慰。

根据 dededing 等人的说法，如果游戏化仅用于游戏设计，而不是综合游戏生态的技术或实践，那么它的使用将会更加有用。还有一个关于游戏化的建议就是游戏。因为是构成游戏化的游戏设计元素。游戏设计师是在游戏的专业领域中，没有太多其他的选择。

他可以工作的地方。独立于游戏化领域，游戏设计师的技术在他们之间总是共通的，这使得游戏化成为游戏设计师可以应用其知识的新职业。

4. 专业人士在游戏化

由于游戏化可以应用于无数领域，游戏化领域所需的知识对于应用程序的适应性至关重要。单靠游戏设计师是不够的经验，既然要取之多。考虑到风格，思维方式和大众品味。一个熟悉该领域并知道如何正确影响目标的专业人士将是必要的，以使重要的“细节”不被遗忘或在应用程序中被错误对待 gamified。然而，同样的作品也必须知道游戏设计方法，这样才有对称性在开发过程中。知识的结合是非常重要的，目标用户对应用的游戏设计元素的反应是不同的。游戏设计师应该充分了解他所接触的公众，也要知道哪些元素适用，而且很多时候没有一个市场营销、商业、教育或交流方面的专业人士来解释观众的预期反应就可以做出来应用程序无效。

能与之合作的专业人士

例如，游戏化是指专攻某一领域(教育、交流、或者是市场营销者，生产工程师，教育家，经济学家。

4.1 游戏设计和游戏化

制作普通媒体未曾见过的体验的工作使游戏化专业人士成为一种新型的游戏设计师。游戏化的应用所产生的公众反应是非常重要的，因为目标用户

通常非常多，知道如何取悦最多的用户决定了这款应用的成功。

在游戏化领域，应用程序永远不会完整、正确和完善，不断生成新内容将吸引更多用户人们离开这些任务会变得更具挑战性。观察用户的反应将要求团队增加应用的复杂性，因为答案通常是简单性，这是游戏设计师的工作，识别这些情况并以一种取悦每个人。

5. 结论

游戏化是当前的一个主题，并没有一个明确的学术定义，但它们在我们的日常生活中越来越多地出现，使得它不可能被忽视。这绝对是一种实践有一个未来，没有专门的专业人员负责它的实现。

因为游戏元素需要大量的知识，所以游戏设计师是该领域的有力候选人，当且仅当他们选择专攻某个领域，在那里他们可以应用自己的知识市场营销、教育、制造、金融等领域)。

比了解你可以使用的工具更重要的是了解它产生的效果，人们必须做出什么反应，以及哪种工具最适合所提出的目的。也就是说，专业游戏化是指那些既拥有游戏设计师的知识，又了解游戏设计师的人在哪里以及如何应用它们，这将因地区而异。

最受推荐的是市场营销领域的游戏化专业人士，游戏化专业人士在教育领域，游戏化在生产领域，等等。

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Gamification for Professionals in the Development Area of Electronic Games

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Abstract

A recent practice is becoming very common among marketing professionals, educators and vendors in general. The theme is also quickly gaining the favor of researchers in the field of games, since some basic knowledge of the game designer are prerequisites for a successful gamified activity. The objective of this work is to bring a definition for the gamification and its characteristics, identifying the professionals behind the innovation, the role of game designer and if this is a possible new area of work for the professional in game development.

Keywords: gamification, game design, game
elements.

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1. Introduction

With digital inclusion, easy Internet access and the fever of social networks, all digital activities are becoming more and more automatically interactive, even more with everyone having a computer in your pocket with the mobile era.

The gamification is the concept that came to make many different areas professionals keep up with all these interactivity and promote their interests. The whole time people are getting scores by visiting sites, medals for places to visit (great example is the application "Foursquare"), increasing its status (receiving several "Likes" in the social network) these techniques are used to increase people's interest, its origins came from the games and are commonly called "elements of games."

The use of such specific knowledge of game development raises the following questions: If this concept is so popular and is being used for various purposes as entertainment, economics and

educational which will be the professional best suited to successfully increase the engagement of common activities, this will be a new work area for games developers? In the following topic will be presented works related to this article, such as elements used in gamification, serious games. After the description of the features that a professional needs to act in the area. Soon after, describes the types of existing professional and finally the conclusions.

2. Related Work

In the next subsections will be presenteddifferences between Serious Games and Gamification. Also described the elements used in Gamification.

2.1 Gamification (Gamification X Serious Games)

To reduce the effects of stressful daily tasks and make them less tedious and frustrating, professionals from various fields are using the same techniques that game developers use for their products become more attractive.

Gamification is the use of techniques and elements of games, along with the 'game thinking' (reasoning used in games) and game design in a context outside of games (applications in everyday life) [Deterding, et al. 2011]. Its goal is to make a common activity more fun, engaging an dinteresting as well as causing the user a positive experience, reaching the end proposed by the application area (marketing, education,manufacturing, finance, etc.).

According to Deterding et al. 2011a and Deterding et al. 2011b by being very recent, gamification retains few academic studies about it, the term and its practices began to become popular around 2010, although it is already highly valued by vendors and professionals who want to innovate their products.

It is common for researchers have a confusion between gamification and other existing concepts. One of them are serious games, games that are, digital, and designed with a definite purpose, which is not mere entertainment, and makes possible the experience in tasks that are unable for reasons of safety, cost or time [Susi et al. 2007].

Differently from the gamification Serious games are games, complete with purpose: to teach, simulate, among others. While the second is the gamification of a task that turns any

activity in the real world, into something more interesting using elements of games (score, reward, and achviements etc..) Outside the context of games. It is noteworthy that as the gamification is used outside of gaming, an activity gamified cannot be considered a full game [Deterding, et al. 2011a].

With the right knowledge and if handled correctly, these elements can model and define the user's actions, persuading them to behave in a way that predefined by the designer of the system [Deterding et al. 2011b; Lockton et al. 2010].

2.2 Elements of games in Gamification

The great advantage of games is given why
people do not play for financial incentive or social reasons, they play for pure entertainment, they want to have fun [Ahn and Dabbish 2008]. As is done in games when we gamified an activity, it must be projected to have the desired effect, there should be an application design, much like what the game designer does in games, with the same tools, but in real life.

These tools, called elements of games, are numerous, and each has its advantage and particularity. But according to [Deterding, et al. 2011a] we can classify them into five layers according to their main features, these being about:

• Game interface desgin patterns: Standard components for a good visual interaction and to address known issues in a particular context, including the implementation of prototypes. We have the example of the badges (medals or stamps given to users to complete a task) used in the foursquare, among others. Ranking widely used in facebook´s applications, increasing popularization and application interaction, encouraging permanence (duration) of the same users. Level: measuring progress in implementation, and status. Helping to set the right challenge.

• Game design patterns and mechanics [Hunicke et al 2004]: Reserved area of game design is commonly concerned with the gameplay. Timeout, resource limit, rounds. Many applications use for example a check-in mechanical with a limit of time or place as may be seen in the aplication get glue whereyou need to check in during the broadcast of a TV show.

• Game designs principles and heuristics [Isbister and Shafer 2008.]: Orientations on the evaluative approach problems of design or analysis and solution. Example: Game duration, clear purpose.
• Game Models [Brathwaite and Schreiber
2008; Eduardo et al. 2010; Fullerton , 2008; Hunicke et al. 2004]: Conceptual models of components of games or gaming experience. Example: MDA, challenge, fantasy, curiosity.

• Game Design methods [Belman and Flanagan 2010; Fullerton , 2008]: Practices and specific processes to game design. example: Playtesting, playcentric design, value conscious game design.

Some elements stand out for being more common in gamified existing applications, as the reward system is widely used in marketing or encouragement of education, as in the promotion of coca-cola, "join five bottle caps (mission) + $ 3.00 and replace the super special ball of world´s cup soccer (reward) "or the proposal of a teacher," delivered the revision and solved exercises of test (mission) and earn an extra point (reward)."

In the Spotlight it´s also the customization, widely used in gamified sites, as well as we can give our face in games (personalizing an avatar) sites like mercadolivre.com (show the possible products that you would please) or even Google New Badges (which brings into prominence the issues that interest you in accordance with the badges, that you have) and use your characteristics to model itself according to your taste.

Progress bars, ranking, scoring with a reputation for helping to create a more interactive and engagement activity while increasing loyalty to the brand or server in general and also increases the time spent on the gamified aplication.

Some of them are more abstract and subtle, but
make all the difference, such as the goal, the challenge, fun, experience, interaction between users and many others.

3. Characteristics of the Professional

in Game development Each professional in the field of electronic games has its role in creating a game, building a quality soundtrack, a nice design and true to the game, a perfect, flawless mechanics, well done animations, all this to the game is presentable to the

client, which involves a team quite extensively with

Programmers: which are too busy working in
the best implementation, using the best algorithims and optimization, for a full time result, abusing of A.I. and extracting the best of the hardwares, being responsible for the proper execution of the game, so they are very technical [Clua and Bittencourt 2005].

Artists, animators: Their main job is to generate the highest immersion as possible in the game, making it beautiful and pleasant their knowledge is limited to creating a good esthetics. [Clua and Bittencourt 2005].

2005]. Sound engineers: their goal also is to generate the best immersion and are attempt to details in the game who make a big difference [Clua and Bittencourt 2005].Such as other positions.

Differently of those professionals the game designer has a general overview of the process knowing how to explore the mechanic, the art and sound, and mainly all the game elements, and how to affect the public with those.

It is not just any professional who must be relieved for apply propely the gamification.

According to [Deterding, et al. 2011a] the use of gamification will be more useful if it is reserved for the use of game design, not technology or practices of comprehensive ecology of games. The one more advice for working with gamification is the game designer because are the elements of game design that makes up the gamification. The game designer is the most specific position in the professional area of games, there are not many other options for fields where he can work. Independent of the gamified area the techniques of game designer will always be common between them making it indispensable, what makes gamification a new alternative profession where the game designer can apply their knowledge.

4. Professionals in Gamification

As the gamification can be applied in countless fields, the required knowledge of the gamified area is crucial for the adaptation of the application. The game designer, alone, may not be enough to bring the desired experience, since we have to take much

into consideration such as style, way of thinking and public taste. A professional who knows the area intimately and know how to impact their targets correctly will be necessary to make that important "details" not to be forgotten or treated wrongly in the application gamified. However, this same work must also know methods of game design so that there is symmetry during development.

The combination of knowledge is extremely important, the target audience responds differently to each element of game design applied. The game designer should be fully aware of the public that he handles and also be aware of which elements apply, and many times without a professional in marketing, commerce, education or communication to explain the expected reaction in the audience can make the application ineffective.

The professionals who can work with gamification are, for example, the game designers with a specialization in the area (education, communication, production) or the marketer, production engineer, educator, economist if adds up the knowledge of techniques used in game design.

4.1 Game Design and Gamification

The work of producing experiences not before seen in the common media makes the professional in gamification a new type of game designer. The knowledge of the reactions produced by the application gamified on the public is extremely important, since the target audience is usually very large, know how to please the greatest number of them decides the success of this.

In the area of gamification the application is never complete, correct and improve mechanical, constantly generate new content will attract more people leaving these tasks even more challenging. Observe the responses of users will require the team to increase the complexity of the application as often the answer is simplicity, is the job of game designer to identify these situations and respond in a way that pleases everyone.

5. Conclusion

The gamification is a current theme and without a definitive academic definition, but their use is increasingly present in our daily lives, making it impossible to be ignored. It's definitely a practice that has a future and without a specific professional responsible for its

implementation.

As demanded a vast knowledge of the elements of games, the game designer is a strong candidate for the area, if and only if, the same choose to specialize in an area where they can apply their knowledge (be it marketing, education, manufacturing, finance among others).

More important than knowing about the tools that you can use is to know the effect it generates, what reaction people have to do and which tool is best for the purpose proposed. That is, the professional gamification is indicated for the one who has the knowledge of the game designer and is also aware of where and how to apply them, which will vary from area to area.

The most recommended is arising gamification professionals in marketing, gamification professionals in education, gamification professional in production and so on.

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