A theory of work gamification: Something old, something new, something borrowed, something cool?

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A key assumption driving organizations’ adoption of work gamification – applying principles of digital and computer games to work contexts – is that such efforts increase worker motivation, effectiveness, and performance. This paper presents a theory of work gamification, positioning work gamification as an intended enhancement of traditional performance management systems which promotes increased worker access to performance information, and improves task enjoyment. In addition to explaining why work gamification should be expected to have motivational and work effectiveness benefits, the theory also highlights the application and worker characteristics that may act as important boundary conditions to the efficacy of gamification applied to work. Theoretical and practical implications of work gamification are discussed.

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Performance management systems in organizations are intended to encourage workers to achieve goals and outcomes consistent with the organization’s objectives (Aguinis, 2009; Gruman & Saks, 2011). At the most fundamental level, performance management systems seek to improve worker performance via two distinct but related paths: increasing worker access to performance information (e.g., identifying performance requirements, setting achievable and measurable goals, providing feedback on goal progress), and energizing worker behavior (e.g., providing incentives for goal attainment [Aguinis & Pierce, 2008; DeNisi & Pritchard, 2006]). Though the importance of performance management systems has been recognized for quite some time (Beer, Ruh, Dawson, McCaa, & Kavanagh, 1978), the digital age has significantly expanded performance management capabilities (Folan & Browne, 2005). This paper focuses on the latest technology-embracing approach to performance management: work gamification.

Work gamification is about applying game features in the work context to improve worker performance (de Marcos, Domínguez, de Saenz, & Pagés, 2014; Hamari, 2013; Papastergiou, 2009). In some ways, work gamification represents both something old and something new with respect to performance management. Something old is the value of providing performance information to direct and correct worker performance (e.g., Locke & Latham, 1990; DeShon, Kozlowski, Schmidt, Milner, & Wiechmann, 2004). The new twist on providing performance information is that gamification offers real-time – possibly continuous – access to performance information. We refer to this as the information pathway to work motivation and effectiveness afforded by gamification. However, instead of relying only on more frequent access to performance information, work gamification also seeks to make work more intrinsically motivating, by making the process of work itself more rewarding.
Thus, work gamification is supposed to be more than performance management with a shorter time lag. Work gamification does this with something borrowed – it borrows features from video games (e.g., social salience and comparability of performance information) to create something cool – namely tasks that are more game-like, and thus more enjoyable (Yee, 2006). We refer to this as the affective pathway to motivation provided by work gamification. (See Table 1 for a summary of how and when the old, new, borrowed, and cool aspects of work gamification should enhance traditional performance management systems.) Given these intended benefits, gamification can be seen as using technology to create real-time access to performance information (the what to do), as well as make tasks more enjoyable (the want to do).

Work gamification represents a growing movement in performance management, with the gamification industry anticipated to be worth $5.5 billion by 2018 (Dale, 2014). However, it has been projected that 80% of current gamification applications will fail to meet their business objectives (Dale, 2014). This is because despite its growing popularity in organizations (Donston-Miller, 2012; Schawbel, 2013), how, why, and when work gamification enhances worker motivation, effectiveness, and performance remain unclear, as do the potential challenges associated with making work more “game-like.” This paper articulates a theory of work gamification that explains how gamification uses technology to revolutionize performance management. In particular, we present a theoretical model of work gamification that demonstrates how, when, and why it may enhance worker motivation, effectiveness, and performance, and articulates the application and worker conditions that should condition the efficacy of work gamification in organizations.

1. Foundations of gamification

Gamification means that game features are “embedded into activities that are not themselves games” (Werbach & Hunter, 2012: 27). It is increasingly common to see gamification applied to non-game contexts, including education, marketing, and more recently work (Dignan, 2011; Domínguez et al., 2013; Hamari, Koivisto, & Sarsa, 2014; Papastergiou, 2009). At its essence, work gamification frames work in the metaphors, language, and features of digital and computer gaming (Bunchball, 2012). However, work gamification does not mean changing work into a game; rather, it involves using game features to direct and energize desired worker behavior. Game features commonly associated with gamification include points, levels, badges, leaderboards, and character sheets (Dale, 2014; Kapp, 2012; Maciuszek & Martens, 2012; Zichermann & Cunningham, 2011). This section describes these core game features associated with work gamification, and provides illustrations of how they are used in games and in work.

Game features such as points, badges, and levels are frequently used in work gamification (Flatla, Gutwin, Nacke, Bateman, & Mandryk, 2011; Kapp, 2012). In games, points and levels can be accrued for the performance of specific tasks important to the ultimate goals of the game (e.g., rescuing the princess, finding the treasure). Achievement badges and the ability to “level up” are provided for displaying competence or mastery in a certain area (Simões, Redondo, & Vilas, 2012). By accruing points, leveling up, or earning a badge, players accomplish small, easily achievable short-term goals that represent progress toward the accomplishment of challenging, distal goals, and show worker capability (Kapp, 2012). For example, World of Tanks (a multiplayer online game that involves fighting battles with customized tanks) players can earn “mastery badges” for demonstrating skill at controlling an armored vehicle, or “epic badges” for showing extraordinary skill during battle. In Super Mario Brothers, players earn points by defeating enemies or collecting coins.

Companies have applied points, badges, and levels to work in several ways. The consulting company Badgeville offers an off-the-shelf service with customizable options that companies can use to configure any type of goal specific to their industry (e.g., completing expense reports, learning new skills, and knowledge sharing, [Badgeville, 2013]). SAP Software Solutions provides an application – Roadwarrior – where sales representatives can level-up for top performance with customers. Some companies also award achievement badges for worker accomplishments; at IBM, Kudos Badges are earned in association with performance metrics established by the company (ISW, 2013). These game achievements – points, badges, and levels – are generally tied to specific and immediate rewards. At Samsung, points earned can be redeemed in a mobile storefront containing real-world rewards – such as exclusive deals or gift cards – or donations can be made to a favorite charity (Donston-Miller, 2012).

Table 1
How and when work gamification enhances traditional performance management systems.

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Enhancement of performance management</th>
<th>Boundary conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>Access to performance information</td>
<td>WORKER: Some people will benefit more</td>
</tr>
<tr>
<td>Gamified</td>
<td>Access to more visible, comparable, and immediate feedback</td>
<td>• Competitive traits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Performance level</td>
</tr>
<tr>
<td>Informational</td>
<td>Efforts to make work more intrinsically motivating</td>
<td>APPLICATION: Some applications will be more beneficial</td>
</tr>
<tr>
<td></td>
<td>Use game-features (from video-games) to make work tasks more enjoyable</td>
<td>• Middle-term</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Self-managed</td>
</tr>
</tbody>
</table>

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