FUTURE STATES
FORUM

GAMIFICATION OF INDUSTRY

JUNE 26, 2013
DINNER DISCUSSION HIGHLIGHTS

We discussed the **gamification of industry, the role that serious games will play in the future,** and what organizations must do to take advantage of the capability.

Advances in technology and social networking are changing the way people learn, work, communicate and solve difficult problems. As part of this shift, sectors as diverse as education, health care, manufacturing, defense, pharmaceuticals, and hospitality are utilizing serious games (i.e., games that have a primary purpose other than pure entertainment) as innovative and cost-effective ways to train and educate their workforce. More recently, however, these same sectors are finding that **serious games can have a deeper and broader impact for internal and external audiences**. These serious games can **aid in recruiting and branding; they can serve as a platform for collaborative problem-solving and driving behaviors for organizational change**. Serious games offer an **engaging way to coach, facilitate cross-cultural communication and leverage internal and external networks**. As companies expand their global footprints, workforces become increasingly more technically proficient and employees and customers operate in constant connection with smart devices, the value of leveraging customized, serious games will continue to grow.

On June 26, Toffler Associates hosted a dinner to discuss the future of serious games and their value in improving performance across a variety of industries. To open the dialogue among the participants, we posed some broad questions:

- What opportunities will exist for organizations to create wealth using the proliferation of games?

- How will the evolution of various technological capabilities solve the world's hardest problems?

- What capabilities and resources will business leaders require in order to best apply gaming fundamentals to their organization?

Participants had the opportunity to share their various views, based on their diverse backgrounds and experiences. The themes that emerged from the evening help to focus attention on those areas that will be important not only to the developers of serious games, but also those organizations that wish to implement such capability to improve performance. Over the course of the evening, some themes emerged:

- **Serious games provide the opportunity for participants to fail safely, fail quickly, and fail often.** This is important not only for those organizations in which the stakes are high (e.g., military or medicine) but also those in which experience with different situations provides improved results (e.g. customer service, human resources, or even business or legal ethics)

- While the idea of using games to train or improve performance has been around for a long time, **advances in technology now allow organizations to collect and assess massive amounts of data on not only performance, but also interaction**. Game designers should ensure that they properly analyze and leverage this data and provide users and organizations with immediate and regular feedback to measure results, optimize performance, and encourage specific behaviors.

- Advancements in technology are changing the speed, impact, and global reach for many games, but **there are two central drivers for serious games: What purpose does the game serve (i.e., how will organizations use it?); and What is the best way to deliver the outcome (i.e., outcomes should guide but not limit creativity)**

What does the future hold for serious games?

As many of the participants pointed out during the dinner, using games to teach and train is not a new concept. At the heart of serious games lies the idea of competition, either with one's self or with others. Centuries ago, the Persians used chess to introduce military concepts; more recently, in the early 20th century, Charles Schwab tells of how he used the competitive spirit to challenge and motivate workers in his steel mill. These examples highlight how **games can teach and train, but also help to drive improved performance for an organization**. Around the turn of the 21st century, the term "gamification" came into use as a way to describe the application of game design and game mechanics outside of the traditional gaming context. In the past, many games designed for entertainment had the external benefit of teaching life lessons (e.g., one could argue that Monopoly highlighted the value of being a property-owner

vs. a renter). Close observers saw that the objectives could be flipped; that is, one could design a game meant to instruct that would have the external benefit of being enjoyable. By using game mechanics, organizations can find ways to improve engagement, motivate employees, change behaviors, and improve overall performance.

Another important general point of discussion was the difference between "gamification" and simulations. The group agreed that "gamification" leverages game mechanics, such as points, levels, badges and achievements to create engagement and interest.   Simulations, however, are immersive games that offer a realistic experience. Simulations, such as those for pilots or doctors, place people in a risk free environment which supports their engagement in an authentic experience, contextually demonstrating benefits and consequences.   Finally, serious games use traditional gaming techniques (for example video game technology or strategy) and build them around serious concepts such as business, education, environmental or social issues. In an effort to avoid an academic discussion and focus on the future of the industry, the group agreed to table a more detailed discussion, but they did feel it was important to initially address the distinction.

With technology changing the way people interact and learn, however, there are a number of lessons that designers, and those organizations that seek to leverage games to improve performance, must keep in mind as they shape the future of the industry.

Understand outcomes and "stay close to the function"

Designers of serious games intended to teach or train need to ensure that they are employing game mechanics that drive specific outcomes and have some relation to the original function an employee will perform.   Simulations leverage real-world application to prepare a user for a specific experience, but serious games take a more indirect approach. **Designers of serious games need to understand the market for their products and stay ahead of emerging trends.** That means understanding three aspects:

- The specific objectives of the end-user (i.e., what is the organization trying to achieve by using this serious game?);
- The ways in which the user prefers to engage in the serious game (i.e., different people learn in different ways, so what experience will provide the biggest bang for the buck?);
- The emerging technologies that will serve to improve delivery of the product

As with any consumer-focused industry, **serious games have to stay close to the customer and understand their objectives**; the challenge for many firms is that the end-user is a company looking to improve performance, and not just a "player" seeking an experience. At the same time, organizations that seek to leverage serious games must work closely with the industry to articulate their needs and share clear objectives to drive those outcomes.

Leverage data to drive value and improve understanding

While many organizations understand the value of simulations, the idea of serious games is still finding traction in some industries. While some industries are actively seeking to engage games to teach or train, many others cannot get past the "game" label – they still see it as a novelty that, while interesting, does not necessarily impact the bottom line. **Technology now allows serious games to collect massive amounts of data on those engaging in the games – this includes data on their behaviors while playing the game, not simply on their performance.** By staying "close to the function" and collecting data on performance, serious game companies can build case studies that prove their value across various industries, thus using the game to drive strategic change. The data will highlight how serious games can improve performance and save money in the long run, making a stronger case of their value to other organizations

Serious games are about engagement and changing behaviors

While many designers in the serious game industry look to prove value to organizations because of their ability to train specific skills, the group emphasized the fact that serious games were integral to teaching "soft skills" and were valuable in changing behaviors through structured rewards. Utility companies have instituted games that allow users to compare their energy usage month to month (or even compete with neighbors) and gain points and other incentives for reducing their consumption. While many people might have reduced their usage based only on the competitive forces and not on a desire to help the environment, the end result is the same value – **to have an impact, games do not have to change an individual's thinking, but rather modify their behaviors to achieve a similar result**.

Conclusion

The future of serious games is already unfolding, with accelerating adoption and expanded uses that bridge industries and capabilities. Serious games, when developed and used effectively, can provide a wealth of benefits to both organizations and individuals alike. Many organizations have employed serious games to improve training and overall performance, but one of the most important impacts for serious games in the future will be as agents for organizational change. As companies seek to adapt quickly to the changing operating environment, it will be important for them to ensure that employees across the organization understand those behaviors that will make them successful. Traditionally, this meant aligning leadership, communication, and incentives to change behaviors. While this approach was effective in some cases, it still required time to reach out to the entire organization and it was difficult to measure penetration of the message and the level of change quickly. Serious games offer the opportunity for organizations to communicate, engage, and measure behavior change quickly and often across the organization. Serious games do not diminish the role of leadership, communication, and incentives; rather, they serve as a fourth platform – engagement and measurement – to ensure organizations adapt quickly. Organizations will be able to collect, analyze, and leverage the wealth of data that each engagement interacts. Employees who interact with serious games, individually

or as groups, will have a better understanding of the new behaviors, and they can test various scenarios regarding new structures or processes in a safe environment.

The potential application for these games and the information that they provide will continue to evolve at a rapid and accelerating pace. Countless organizations are seeking to transform themselves to meet the dynamic challenges of future markets. **Organizations that embrace the full-spectrum potential of serious games will increase agility, improve employee and customer engagement, and successfully meet the challenges of the future.**

TOFFLER ASSOCIATES

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To accomplish this, we employ a collaborative approach to guide clients in the development of Knowledge Age business strategies. Our **Future Proof**[SM] business consulting service provides clarity by identifying the risks and opportunities that may lie ahead, enabling leaders to implement the changes necessary to create value, to sustain growth and to succeed in future operating environments.

We work with public-sector clients, such as federal agencies, the intelligence community, associations and educational institutions, to develop and implement ways to use resources more effectively and to build lasting public trust. We work with private-sector clients, like those in the transportation, aerospace, chemical, advanced materials, information technology and defense markets, to create and execute strategies that drive top-line growth.

We find daily inspiration in working with commercial enterprises and government agencies that are creating something that really matters to people, clients who are trying to make a difference in all of our lives. Our purpose is to help them achieve that. It is the passion that unites our firm as one community.

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