



UTILIZING IMMERSIVE INTERACTIVE RICH MEDIA PLATFORMS FOR ADVANCED LEADERSHIP LEARNING

By Albert Angehrn,
INSEAD, Director of the Center for Advanced Learning (CALT)

Albert Angehrn is a pioneer in the use of interactive technology for management and organizational learning. He provided an overview of ten years of work he has accomplished at CALT, where he designed and developed a variety of multimedia and Internet-based tools that support effective management education, especially simulations that foster collaboration and engagement, which are increasingly Web 2.0 enhanced and community-focused.

In the first part of the presentation, Albert walked through the conceptual underpinnings of game-based learning. Addressing the common argument that executives don't have the time to play games, he pointed out that millions of people play the game Solitaire on their laptops, wasting millions of hours of time. If this time would be dedicated to a still game-based, but more "educational" form of learning, such solutions could have major impact. He then focused on the notion of "serious games" which he defines as "games with a purpose." The games of interest to organizations are those that are conducive to experiential learning and focus on business situations. They deal with people in an organizational context and enhance the learner's understanding of how they interact and influence others in realistic leadership scenarios.

To this end, much of Albert's work has been devoted to designing effective "small world simulations" that utilize believable characters and real situations that challenge players (managers and leaders) to think and work through problems. The simulations are focused in one of three domains of importance to corporations: change management, collaboration, or innovation. The games Albert and his team at CALT have created are currently being used in many top business schools around the world as well in many corporations and public sectors, such as MIT, Stanford, IBM, IKEA, Credit Suisse and BMW.

The goal of CALT's simulations is to provide a realistic means for people to gain insight into their own thought patterns and behaviors, while increasing their understanding of how to work with and/or influence others. The pedagogical characteristics of these small world simulations have been extensively researched and are distinctively different from "traditional" management simulations. The theoretical underpinnings and the practical approaches behind them emphasize the following elements:

- A realistic scenario
- A challenging management mission
- A set of believable characters
- A range of managerial actions
- And a realistic dynamic (that reflects "different organizational dynamics including psychological and motivational, organizational and cultural factors, knowledge integration dynamics and technological opportunities and constraints")

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Changing how we address change

In regard to how small world simulations change how leaders address change itself, they focus at the individual level by challenging people to go to the limits of their competencies, and at the organizational level by modelling change dynamics and enhancing the readiness of people's ability to adapt to change. Engaging in realistic "serious" games, leaders learn experientially, by taking actions and making decisions that have an impact on sequential episodes of the game itself. They may work in teams to experience collaborative decision making as well. At IKEA, the game even required people to find their own group to do the game.

Some of the research at CALT has been oriented to developing leadership for different cultures, such as understanding the nature of leadership in China versus a Western European culture. CALT has also designed games for the public sector such as the Scottish government, which clearly had different leadership goals and issues than games for the commercial sector.

Over the years, a number of design-related insights have been gleaned that further drive the development of CALT simulations:

- They must hit straight on the most critical and complex learning areas
- They need to document the impact of the game and support "epidemic diffusion" (if a game is successful, it spreads quickly to others)
- They must go beyond the classroom context
- They need to keep the user-interface simple (it was found that managers become lost with sophisticated interfaces and complicated interfaces make people perceive the game as just a game, as opposed to a more realistic simulation)
- They must design their internal dynamics to push the players to the limits of their (in)competence by building in traps and breakdowns.
- They need to focus on "external dynamics" (the inter-player dynamics) and have a debriefing / reflection phase.

Changing how we address collaboration

CALT's simulations and games also focus extensively on developing collaboration among players because in many organizations, people are not skilled in collaborating spontaneously and genuinely with others. The collaboration building techniques designed into the games range from relatively "simple" to "complex." At the simple end of the spectrum, the collaboration is strictly internal, among the players of the game. At the complex end of the spectrum, some of CALT's more recently developed

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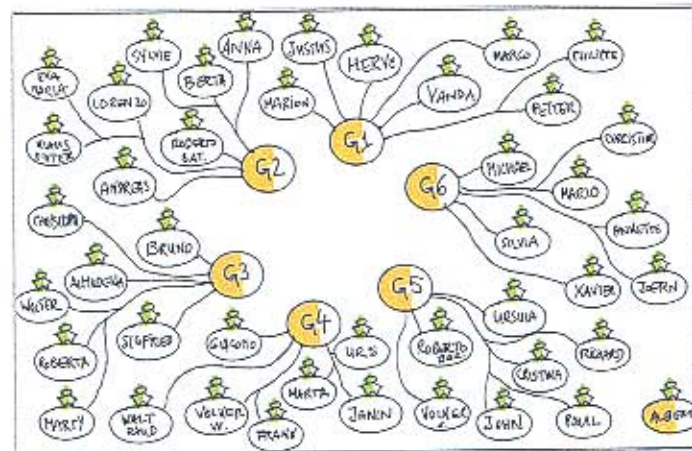
games take the collaboration beyond the game to external sources. CALT has also started using Distributed Collaboration technologies in connection with the games that extend the experiential time frame of the game to support sustained learning, with people communicating over shared networks on a continuing basis after the intensive game experience.

Taking a Test Drive of a Simulation with Eagle Racing

Following this overview, Albert led us through a trial experience using a video simulation called Eagle Racing, which is aimed at collaborative decision making. Eagle Racing asks players to work in teams over the course of an entertaining, multi-episodic portrayal of a race-car company using actors who play the company's management roles and who must make high level decisions about the firm's financial future. Having lost its primary multi-million dollar sponsor, Eagle Racing finds itself short \$18 million in sponsorship. The Marketing Director, however, has identified two new potential sponsors: an English company that offers only a partial sponsorship but easily appears on the surface to be a good match, and a German company that is willing to pay the full amount of money needed in exchange for an exclusive sponsorship, but whose reputation is being publicly lambasted in a small newspaper for having reputedly sold arms to an Arab country. Playing as the Marketing Director, each group of players must make a choice in Episode 1 between the two sponsors in order to advise the CEO of Eagle Racing which option makes the best deal for the company.

Members of ECLF watched the video simulation and took on the assignment. We divided into teams and each table of 8 players debated the pros and cons of the two sponsors. In the end, nearly all of the teams preferred going with the British company, despite leaving Eagle Racing still in the hole for several million in funding. Some teams were more unanimous in their decision than others. The general consensus about the decision was that Eagle Racing risked incurring serious reputational harm by accepting money from the German company if the press rumors proved true. One or two teams had a few dissenting members who preferred the German sponsor, but given that a consensus had to be reached in a short time period, those members were voted down.

In making their decision, each team needed to work through the options to arrive at a single choice, obviously requiring them to collaborate effectively to take an action. Although we had a lot of fun, it was also clear that our brief involvement in the game, i.e., we worked only on one episode, did not allow us to experience the full depth of collaboration that Eagle Racing might help teams develop. Little time was available, unfortunately, to give the players a chance for deeper discussions, negotiation or persuasive tactics to sway each other.



However, what one could glean from this game was a very realistic simulation of common business conflicts that the team must understand and resolve. The one episode we saw brought up serious issues that managers must learn to deal with: financial responsibility, reputational risk, ethical decision making, weighing two options that each has pros and cons, dealing with groupthink, and so on. The objectives of the simulation were to force each team to deal face-to-face with tough decisions, under pressure, amidst unknown variables and risks based on rumors and cultural innuendo. Teams had to evaluate short-term vs. long-term objectives of Eagle Racing's financial condition, and weigh the opportunities available in each choice against the risks each choice presented. Each sequential episode plays on the repercussions from the choice made in the prior episode. This linked sequencing allows players to experience realistic consequences of their actions and decisions, just as they would in real-world business situations.

According to Albert, the various episodes of Eagle Racing ultimately end up addressing four key learning points:

- I. Selecting collaboration partners – this is the individual dimension of choosing a company to sponsor Eagle Racing and it involves getting teams to work through cultural conflicts, ethical issues, rumors and reputation, formal vs. informal objectives, and short- vs. long-term considerations.
- II. Complex group decisions – To Race or Not to Race – this is the group dimension of the episodes in which groups have to make decisions with incomplete information, weighing emotional vs. rational choices, formal vs. informal responsibility, respect for experts vs. managerial superiors.
- III. Organizational / Cultural Dimension – Collaborate or Compete – This decision making requires groups to examine the costs and benefits to the organization as a whole,
- IV. Organizational / Cultural Dimension -- Transparency vs. Diplomacy – this decision making requires teams to work through a conflict of open sharing and looking good (maintaining dignity) and helps them learn more about formal / informal communication processes.

Eagle Racing also simulates the types of traps that teams invariably face, such as the trap of groupthink in which no one is willing to challenge the majority. Research typically shows that group decisions are often worse than individual ones. Another trap related to complex group decisions is selecting the evidence one prefers, rather than seeking out additional evidence, brainstorming additional options, and so on. The



Challenger disaster is a tragic example of preferring evidence one wants to hear rather than listening to more accurate evidence that came from the ranks. The simulation is also a test-bed for groups to understand and witness their own process of collaboration (forming, storming, norming, and performing) and to become more aware of their resistances to collaboration as well as learn and improve their problem-solving and conflict resolution skills.

OTHER TOOLS AND APPLICATIONS

Following our test drive of Eagle Racing, Albert completed his presentation with a discussion of some of the recent work being done at CALT, based on the latest web trends. One of these is a shared social network, called CMTube, which is already being used by over 1000 globally distributed faculty, corporate trainers, and independent consultants at business schools and corporations around the world.

CALT designed CMTube to enable members of the community that uses CALT's tools to share their teaching experiences with others who teach it. Members can upload videos (a la YouTube) of their classes so others can see what they do, and they can exchange comments and maintain running threads of conversation. Each member is profiled, and others can engage with relevant people. Several unique social networking features are also built into it, such as being able to track and see the web of viral activity that takes off when someone shares something and others pick up on it, which allows you to track "degrees of separation" among members. In this way, everyone can effectively watch how an idea takes off and who is using it.

In closing, Albert was ebullient about the potential of videogames and simulations to foster a new depth of group dynamics that help people accept change, work in teams, and grow. He noted, "We need spaces where people can connect rather than play solitaire." In his work, the big question for all of us is, "How do we get people to give up their silos and hidden spaces and become more transparent?"

Albert's annotated presentation is available in three PDFs at:
<http://www.calt.inscad.edu/eis/eagleracing/ECLF/>

