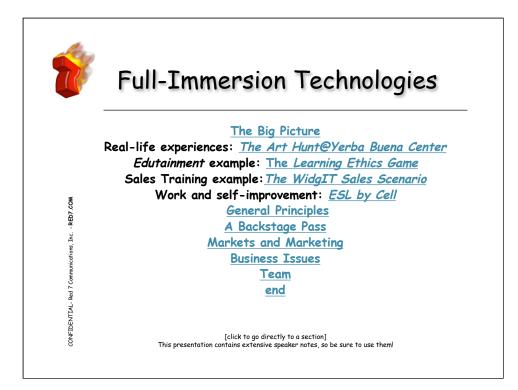
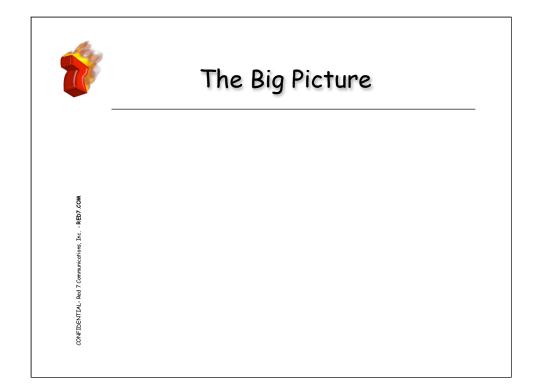


Hello, and welcome!

Today we'll be discussing a new software application we call **Full-Immersion Technologies**. I'd like to present you with several specific applications of the technologies, and at the same time I'd like you to remember that it's a very broad technology with many, many possible applications.

Full-Immersion Technologies can be used to support games or simulations, but to be more general I'll be referring to the applications in general as *scenarios*.





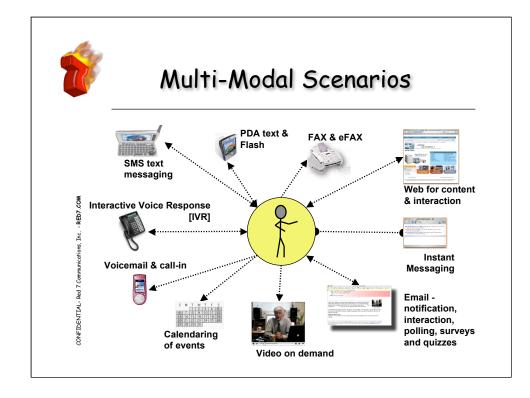
Let's begin with an overview.



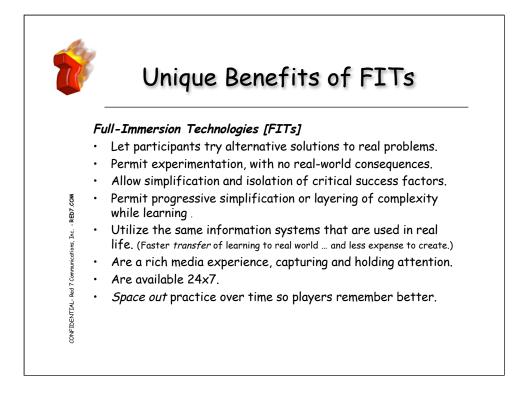
**Full-Immersion Games** are games or simulations that interact with you in such a way that they are difficult to distinguish from aspects of real life.

**Full-Immersion Learning Environments** are Full-Immersion technologies that are focused on systems or processes you want to learn about. They provide you with a non-threatening environment in which you can observe, experiment and practice until you've mastered the skills you want to acquire or improve.

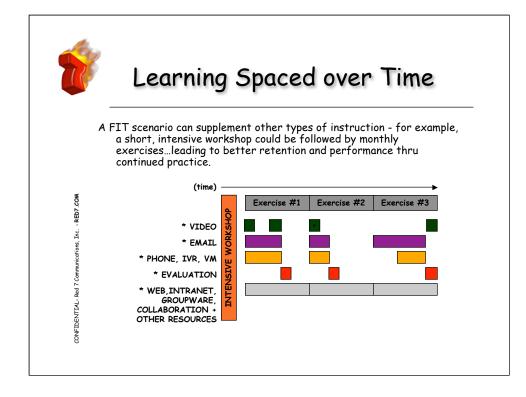
We start by building a *simulation* of real-world interactions, then we add excitement, drama, humor and challenge, so participants stick with it longer, and learn more or have more fun.



You use lots of electronic media in your *regular life* - and you'll also use them in the game. Full-Immersion Technologies utilize the media pictured here to add simulated *in-game characters* to your daily life. You'll receive voicemail, FAXes, email and phone calls from ingame characters. You can call an Interactive Voice Response (IVR) system to get information. You can schedule meetings with in-game characters using your online calendar. You can chat with them in Instant Messaging (IM) forums. Support materials are provided via video, both online and offline, and via web sites. It's completely pervasive!

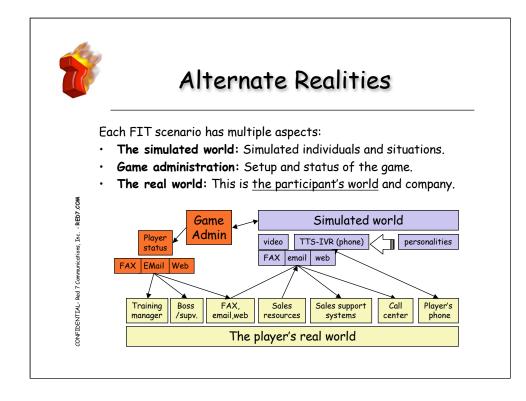


Like other simulations, **Full-Immersion Technologies** provide lots of benefits. But, even better than other simulations and games, FITs are integrated with real life and consequently make use of existing business and support systems, making a FIT scenario generally less expensive than other complex simulations.

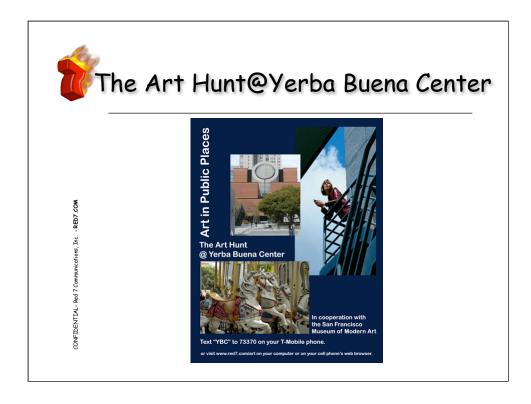


FITs can be used in education, training and performance support. There are many ways FIT scenarios might be woven into a training program. Here's an example - this diagram shows how a scenario might supplement an intensive short-duration workshop by providing periodic exercises or problems to be worked out by individuals or groups. On average, a new exercise might be presented once a month, and the exercises might vary significantly in complexity and media mix.

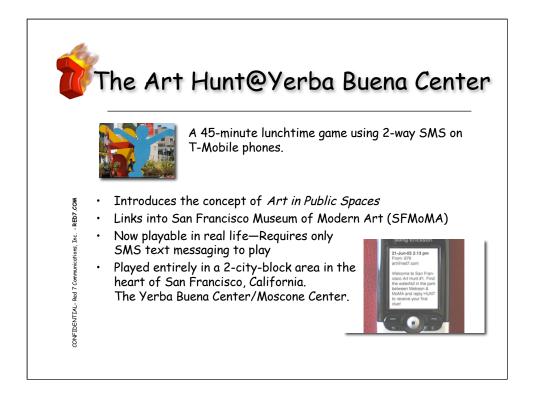
This provides additional practice for the participants, so they can transfer what they've learned in the workshop into their daily lives.



Each scenario has multiple aspects. For example, most administrative aspects can be separated out and automated, but the participant has to deal with <u>some</u> *administration* of the game, some aspects of which are shown here in orange, has to deal with <u>the real world</u>, shown here in yellow, and with the <u>simulated world</u>, shown here in purple

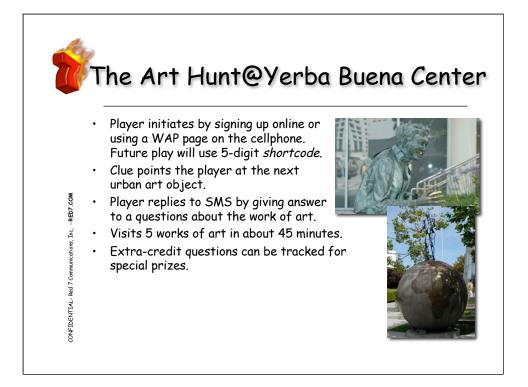


Our most illustrative game is *The Art Hunt at Yerba Buena Center*, in San Francisco.



You can play this game in 45 minutes or less on your T-Mobile cell phone using SMS text messaging.

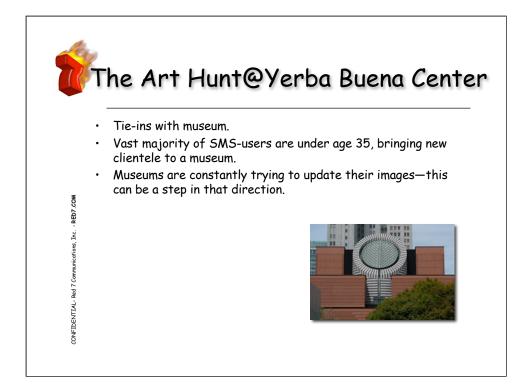
It's designed to introduce players to "art in public spaces." We expect to link the game to the San Francisco Museum of Modern Art, which is across the street from the Yerba Buena Center and a part of this important civic complex.



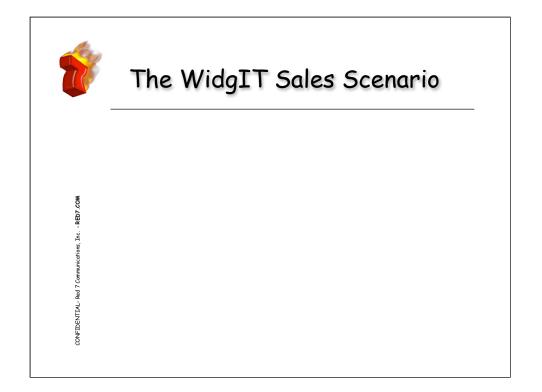
The player gets things going by signing up at a special page on a web site. This can also be done using a WAP browser on the cell phone itself.

In the future we will allow registration by sending a message to a five-digit *shortcode*. We do not do this now because of the high cost of maintaining a shortcode.

The game player receives a hint, finds a work of art and answers a question, then receives the next hint.



We hope to tie the game in to the museum bringing a new clientele to its doors.



Here's the "setup" or "backstory" for the **WidgIT Demo Game**, a short version of which is playable today.

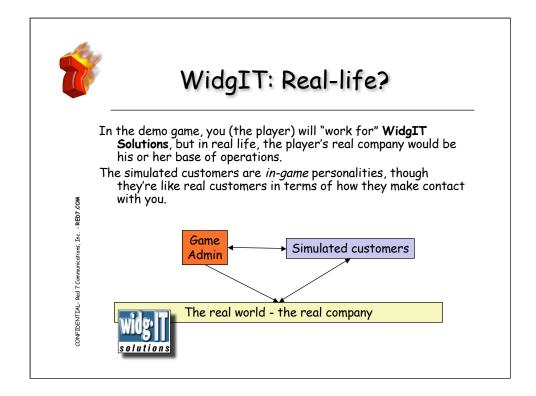


The sales demo game consists of a fictional company called **WidgIT Solutions**. It has a real web site and a real intranet site, real email, and simulated in-game characters.

It's a short game, consisting of about a dozen *nodes* (or possible states), and it's designed so that it's pretty easy for a player to succeed.

This game has been designed as a <u>learning game</u> - one that helps the player understand some basic processes used in the sales process.

FIT scenarios can be pretty complex, and can deal with complex skills, but this one is designed simply to illustrate the core concepts, not to blow the lid off the box.



Each game or simulation has multiple aspects. The **WidgIT Demo Game** is a <u>sales game</u> in which each participant plays the part of a salesperson. In this demo game, the simulated company, **WidgIT Solutions**, impacts your real world which is shown here in yellow. So please play along and imagine you've become a **WidgIT Solutions** salesperson.

			o the FIT
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The FIT needs each participant's contact information. In a *real* and fully-implemented scenario, custom-designed for your company, the information would be retrieved from your company's administrative systems. For demonstration purposes, your information must be entered at the *WidgIT Intranet* site. [see live link on screen to do this during a demo]

Each scenario uses whatever points of contact the participant has available. For example, if a player doesn't have text messaging on a cellphone, the FIT will send an HTML email instead. And if there's no HTML email, the FIT will send text email.



As the **WidgIT Demo Game** begins, you receive an email from the company president and another from your WidgIT sales manager, *Max*. They're in-game characters, but you receive real email and you can respond to them with real email.

Messages from in-game characters arrive in lots of ways the first message goes to your cellphone email as well as to your regular e-mailbox.

These emails contain clickable links to short videos which fill-out the game setup, making it more *realistic*.

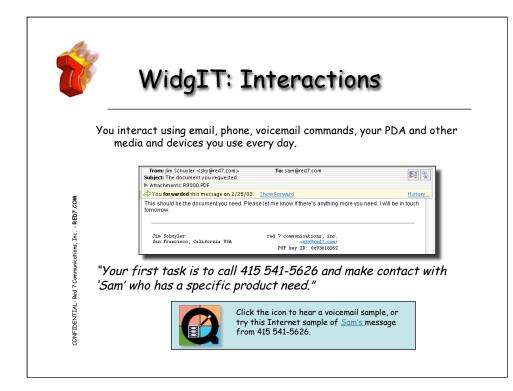


The message from Max gives you some information you need to make real progress. Max has sent you a (simulated) prospect report containing three contacts your call center received overnight. You read what Max has to say, and then you decide how to deal with the contacts.

WidgIT has a whitepaper on its intranet site that suggests how to prioritize customer requests, so you can read that if you desire, but, let's move forward for now.

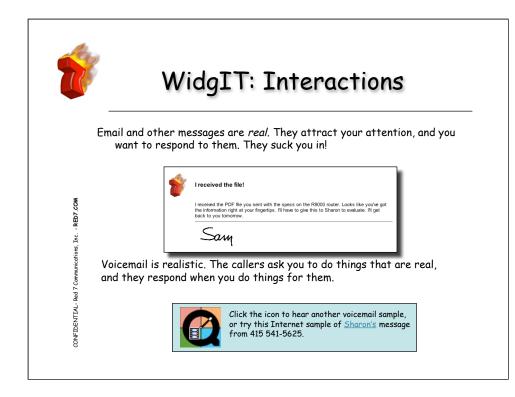
Two of these contacts have email addresses - so you could email them. They'll respond appropriately.

And one contact has no email address, but does have a phone number. Call the phone number - it's part of the game!



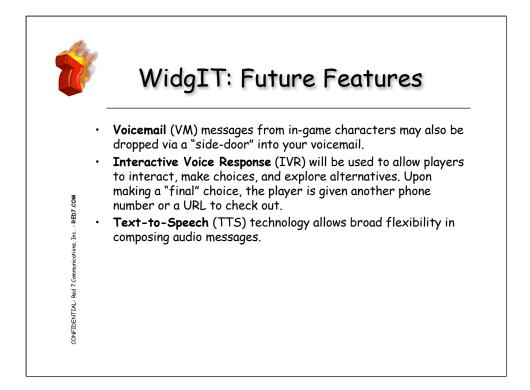
You send email to in-game characters using your regular email account - you don't need special software or extra email addresses.

You receive voicemail on your own voicemail system, or you call external phone numbers to pick up messages from ingame characters.



Email messages from in-game characters arrive in your regular email account.

These attractive messages are HTML email, with graphics and charts that help you recognize them and spot the important information. And, where appropriate, they may contain hot links to online support materials.

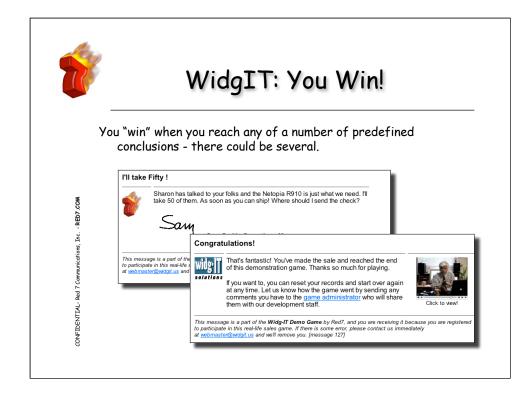


We've implemented core capabilities for the **WidgIT Demo Game**, including email, cellphone messages (SMS), audio, video, telephone, and simulated voicemail.

But, rather than having to call a phone number to pick up a message, live games will drop messages directly into your voicemail system.

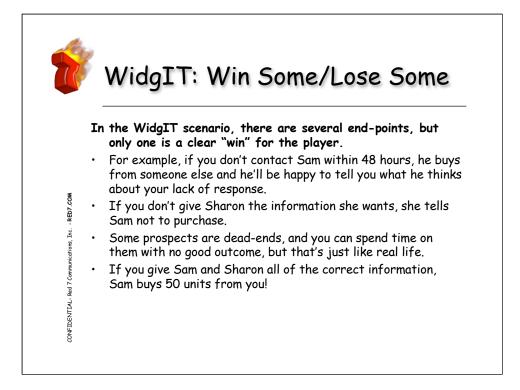
And Interactive Voice Response systems will allow players to interact with the system using voice or touchtone, so they can explore alternatives within the IVR system. After making choices, the player will be given another phone number or a URL where they may proceed with the next step.

Text-to-speech systems will allow the FITs to "speak" text which has been generated from player data!



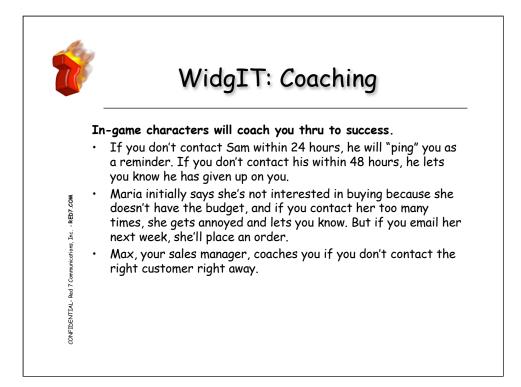
You *win* a Full-Immersion Game if and when you reach any of a number of predefined end stages.

The goals of each scenario are defined early in the creation process. Once defined, they are integrated into the FIT setup and one or more *nodes* or *states* are defined which represent the achievement of these goals.

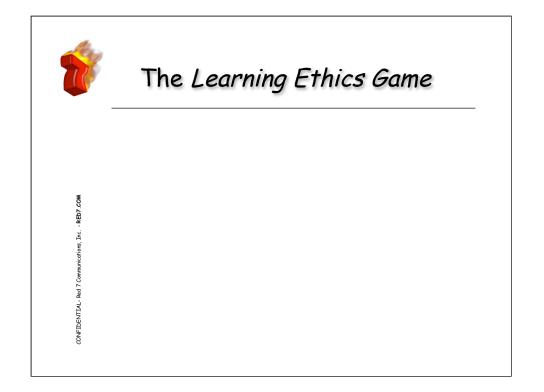


In the WidgIT Demo Game, there are several end-points. You reach the "<u>winning</u>" endpoint only if you contact Sam, <u>and</u> if he refers you to his tech guru, Sharon, <u>and</u> if you give Sharon the information she needs, so that Sam places an order with you.

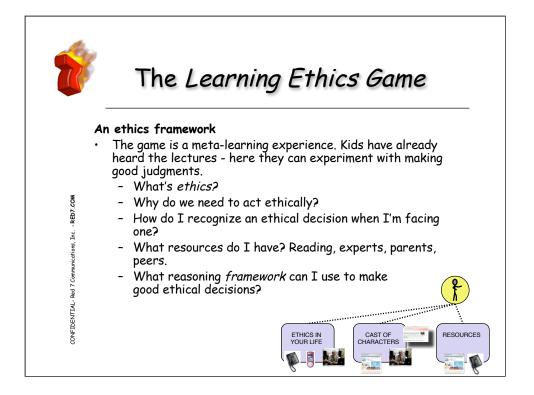
You can "lose" in several ways. For example, if you ignore Sam for the first 48 hours, he will buy product from someone else. If you don't get that info to Sharon, she'll convince Sam you're a slacker. In either case, you won't make the sale.



And just as in real life, we have integrated in some "sidetrips" which will waste your time and not contribute to your making a sale to Sam.



Red7 worked in cooperation with The Dalai Lama Foundation and the University of California at Irvine, to create a game for 13- to 23-year-olds dealing with the difficulty of ethical decision-making.

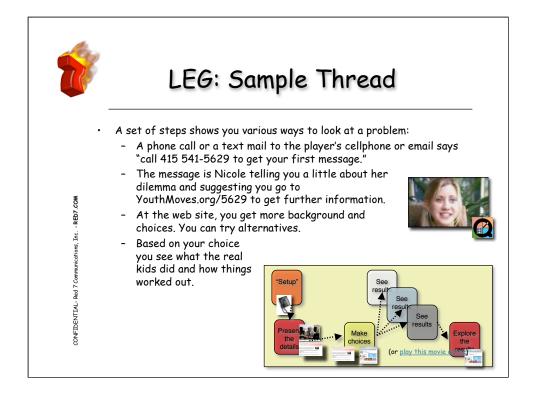


The *Learning Ethics Game* starts out by introducing the concept of *ethics* and building a framework within which the player can explore ethical concepts and make ethical decisions.

Scenarios use phone, text, web and video resources to reinforce the ethics framework, introduce or explain the cast of characters, and serve as general resources.



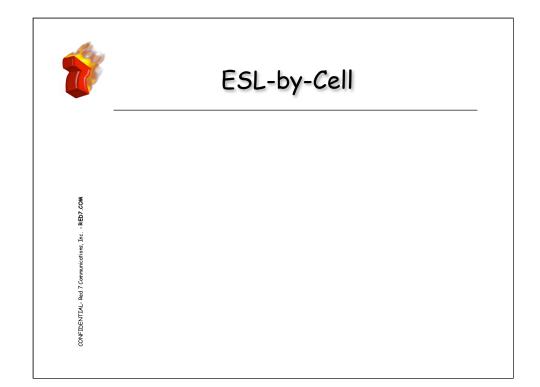
The *Learning Ethics Game* benefits from all of the FIT advantages over traditional educational experiences.



The *Learning Ethics Game* is composed of a number of stories. Participants can make their way thru the game in different ways, depending on the choices they make.



The game currently consists of four stories. We asked real teenagers to think about dilemmas they've faced in real life and then we shot three 1-minute video segments of each one.

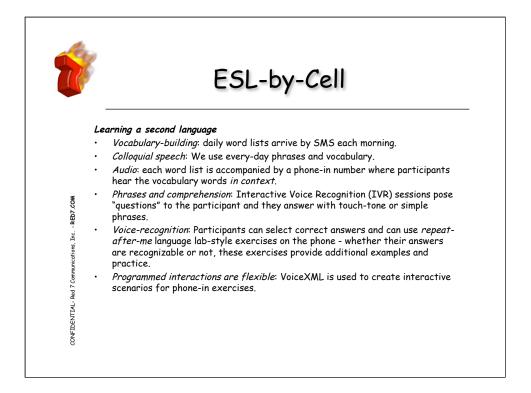


Learning English as a second language is increasingly important. It's important for international business; for communication; and for immigrants entering the US workforce.

We'll explore an application of Full-Immersion Technologies which would help workers expand their English language capabilities as a part of their daily routine.

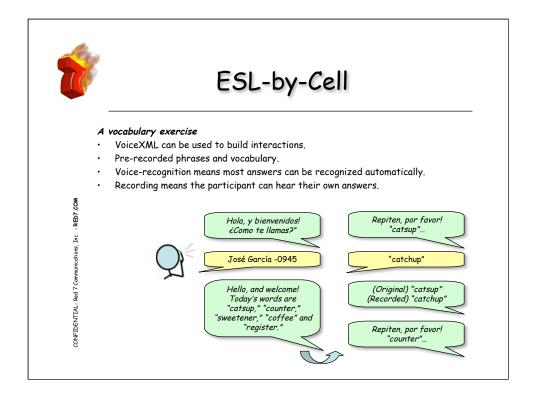
	ESL-by-Cell
	Learning a second language
	<ul> <li>"Language immersion" has been a core language-learning technique since the 1960s, and language labs have an equally-long history.</li> </ul>
	<ul> <li>Learning on-the-job links learning to economic success.</li> </ul>
WO	<ul> <li>So you can't forget about English when you go home, a FIT scenario follows you everywhere.</li> </ul>
CONFIDENTIAL- Red 7 Communications, Inc RED7.COM	

It's easiest to learn a new language when you hear it and speak it every day. And it helps a lot if someone's helping you along the way. We will use Full-Immersion Technologies to provide cellphone-based vocabulary, phrases and colloquial expressions, along with phonebased practice.

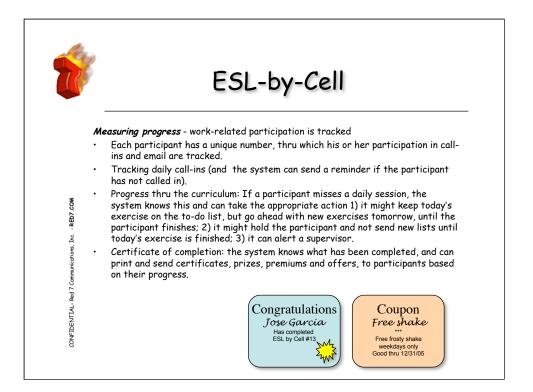


Learning a second language involves a number of activities, some of which are listed here. <u>Vocabulary</u> is fundamental, but understanding how to use that vocabulary in your everyday life, or in the work environment, is also critical.

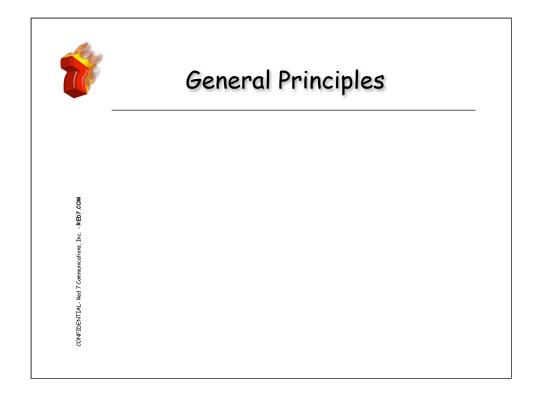
So a FIT scenario for ESL-by-cell must be tailored to the needs of a specific worker population. Food-service workers might be a good example. They need to know what everything is called, where it is, how people ask for it, how to direct people to it, and how to critically evaluate a customer's question or request and fulfill it.



A two-way interaction with an interactive voice response (IVR) system is described on this page.



In the on-the-job training environment, tracking employees and ensuring their completion of a "course of study" is critical. FITs track usage and can provide reports to supervisors and trainers, as well as certificates of completion, and coupons or other benefits for the employee.



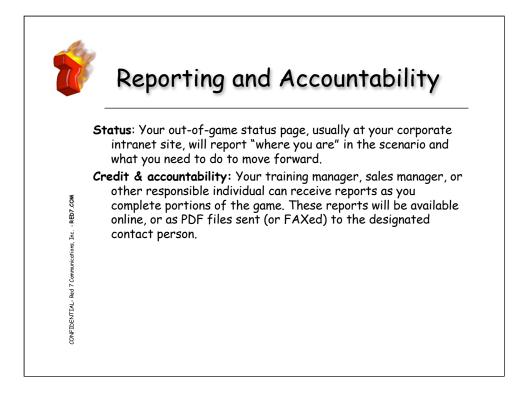
There are a few general rules which lie behind everything we do. And we try to make them especially visible in our FITs and scenarios.



First, the games must be <u>easy to play</u>- easy to interact with - easy to understand - attractive and useful. And they're *player* games, not *spectator* games. You must actively involve yourself in order to win and benefit from them.

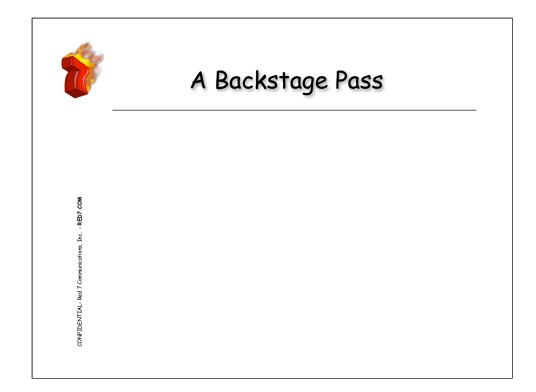
They also integrate well with real life. You have to use real resources to solve in-game problems.

And we <u>love</u> collaboration. Whenever we can find ways to get game players to collaborate in order to solve in-game problems, we'll do it.



Orientation is very important - that is, the <u>player should</u> <u>remain well-oriented at all times</u>. An in-game status page shows the player's in-game status - which customers have been contacted and how things are proceeding with them. And player contact info can be easily updated, by the player, whenever it changes.

It's also important that players be <u>supported</u> in their play. This means that a supervisor, or a training manager, should know when the player succeeds, and should be alerted when they've stagnated or reached a dead-end.

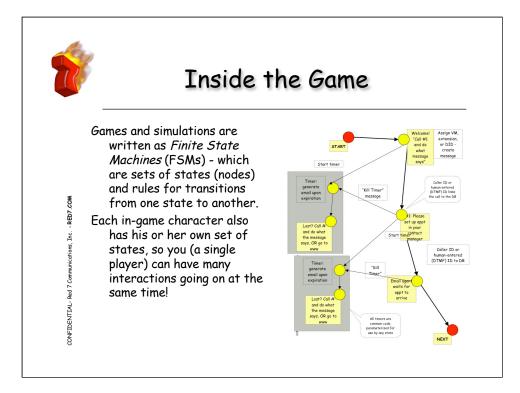


The next section contains some information for special groups within your organization. Technical, instructional design, and operations...

Each game is data-driven and can be completely customized without changing any software. Web interfaces are used. Common data-representation standards are used in order to achieve maximum portability (XML, ODBC, SQL, etc.)	Customize the look of the game "sales_game." Mission This is a demo Multi-Modal Real-Life Learning Game (MMRLLO). And that's a mouthful! This is CONFIDENTIAL information for use on by those with writen authorization.
	Color Use a color name, like "blue", or use a hax (RGB) value like #c0coff. (Yes, noted be "#" for hex values.)

Many scenarios can be run by a single Red7 server. Each scenario consists of a database, created after thorough analysis of your organization's training needs and based on a set of scripts and specifications detailing the scenario you want to implement.

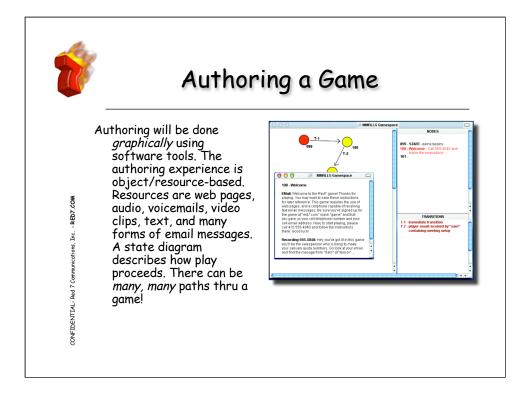
Once a scenario has been created, its presentationoriented variables can be altered so that different "flavors" of the scenario can be offered to different groups within the organization.



At the lowest level, each scenario is driven by what's called a *Finite State Machine*. An FSM is a set of states or nodes, and rules for determining when to transition or move from one state to another. At higher levels, there are much more sophisticated sets of variables and rules which determine how these FSMs, and even the nodes within them, interact.

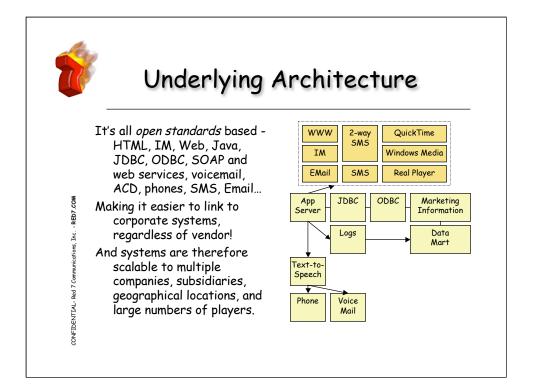
Each <u>in-game character</u> also has his or her own FSM, so a single player can have different interactions going on at the same time with many in-game characters.

All nodes and resources are described within ODBC databases - maximally scalable and portable, even from one computing platform to another.



Authoring is done graphically, using online software tools. Each new scenario is created this way, in a <u>sandbox</u> or <u>staging</u> system where changes can be tested without affecting real game players.

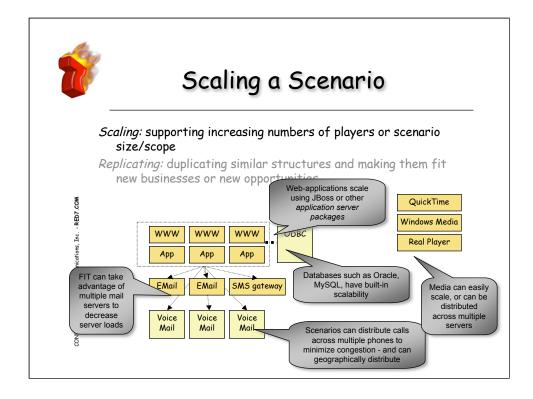
The many resources for each scenario are created offline. These include web pages, audio, video, text, and email messages. Web pages and email are flexible, and player data can be substituted anywhere within them. Audio and video are usually specific to the scenario. Textto-speech technology will permit us to generate some audio dynamically, in response to player data.



Our systems are open-standards-based. This makes it easier to link a FIT to your corporate systems.

For example, the FIT server could obtain player data from an LDAP server at your company. Or web services such as SOAP could allow each player's status information to be embedded within your company's regular intranet site.

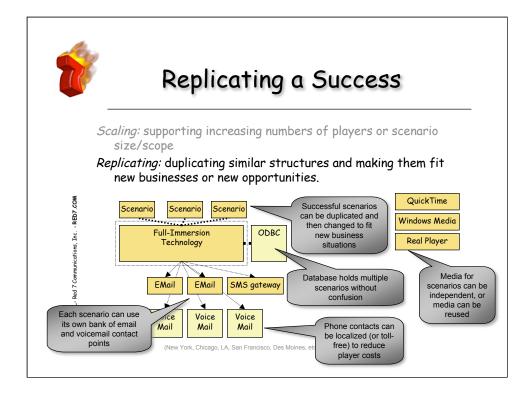
Because FITs and corporate systems communicate via these standard protocols, corporate IT can worry less about the particular hardware or software that is required to support a FIT scenario. This reduces the load the FIT places on the humans within your corporate systems!



There are two issues related to "scaling." The first is the actual scaling of the technology to handle more and more participants. Because FITs are built on web servers, web application software, email and other Internet software, they are scaled upward by adding servers, which can be coordinated by JBoss or other frameworks. These are the same technologies used by very-large-scale web sites.

The technology can similarly use whatever number of Email servers are required, and the databases can be expanded because ODBC systems are designed for expansion.

Telephone capabilities can be added as required, and the scenarios can be adjusted to create a uniform distribution of phone calls to avoid "busies."

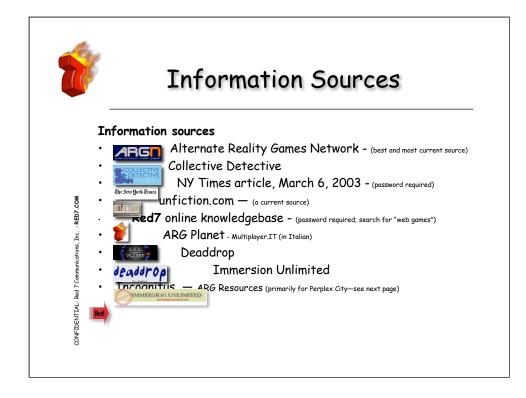


The other important issue is how to take a successful scenario and replicate it for other business units.

Because each scenario is composed of *nodes* and *rules*, which can be copied within the database, a scenario can be cloned and then adjusted for a new application. New audio, video and messages can be added to the database at the same time. Existing video can be repurposed in some cases, reducing the production costs for additional scenarios.



The next section contains information about some Alternative Reality Games (ARGs) you may find interesting. ARGs are the sisters and brothers of FITs, and FITs will in many ways extend the influence of ARGs into profitable business areas.



The Alternate Reality Gaming Network (ARGN.COM) is a very good source of current information about games, primarily the online games. A bit more oriented toward developers than consumers. Developers are sometimes called *Puppet Masters*.

**Collective Detective** is similarly well-informed and always current, and more oriented toward game players.

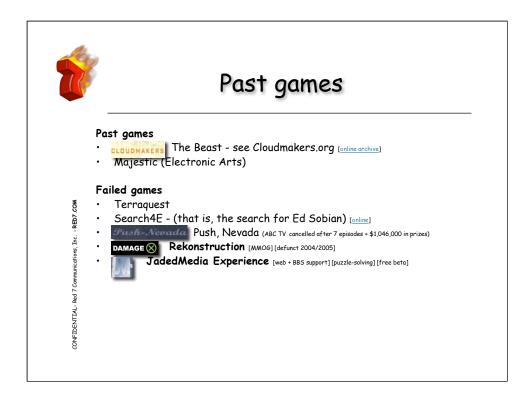
**Red7** also maintains an online knowledgebase which is available to its customers.



Among current online games, I'll single out several. Ultima Online, The Sims Online, EverQuest, and Game NeverEnding are massive multi-player games where people interact in simulated environments. They're not played in the real world at all.

Chasing the Wish is played primarily online, but is based on real-world locations and supposed real-world events. It's primarily email, IM, and web sites. (So far.)

JadedMedia Experience (JMX) is a set of puzzles, and in my opinion is a" spectator game" in the sense that a small set of players is solving the puzzles and a larger set of players is just coming along for the ride. A bit like reality TV.



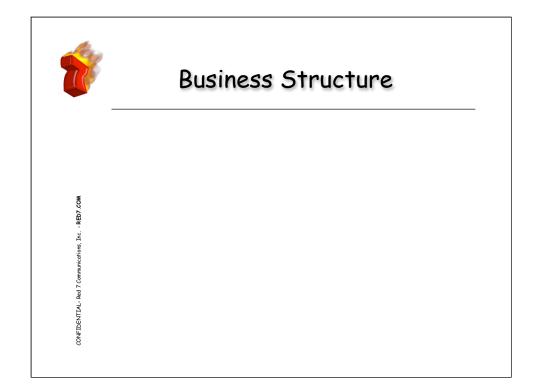
And here are some games from the past.

The most well-known is **The Beast** which is the internal working name of the game that accompanied the release of the movie **A.I**.

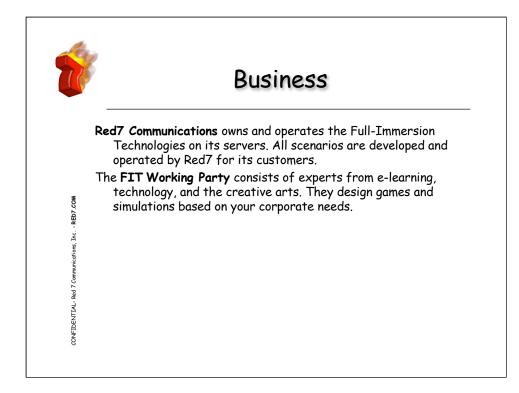
**Majestic** was the first game that could be called a Full immersion game, in that it utilized phone and FAX as well as online.

Among the "failed" games, it is not entirely clear to me that **Search4E** has been discontinued, and it's a <u>great</u> example of the use of high production values and how they can really make a game interesting.

**Push**, **Nevada**, is interesting and was played in conjunction with a TV series, which was discontinued mid-season.

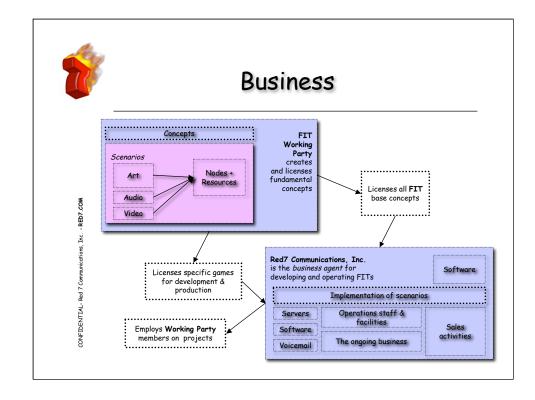


And finally, the business structure behind our FITs.

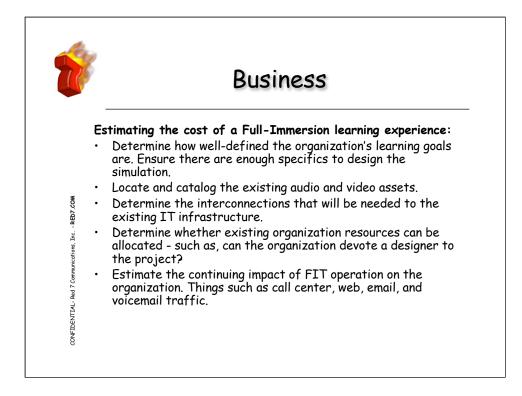


The **FIT Working Party** is a group of experts in elearning, technology and the creative arts. These folks are the creative brains behind new game concepts. If you want to create a scenario for your company, members of the Working Party will be available to help you design and implement your choices.

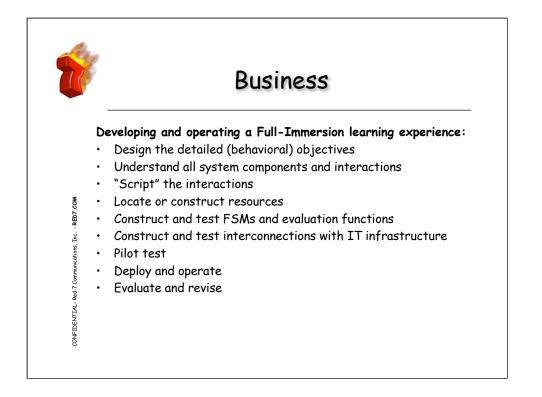
**Red7 Communications** has built the FIT infrastructure and runs it for customers. Contracting for the creation of your own scenario will be done thru Red7.



This diagram shows the interrelationship of the **Working Party** with **Red7**. The goal of both organizations at the moment is to find sponsors for scenarios and move them toward reality.



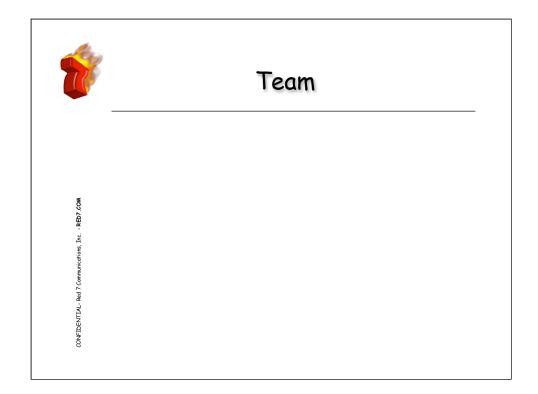
The cost of a scenario is straightforward enough to estimate. It requires similar effort to the creation of a multi-media training product of the same scope. And roughly the same production steps. Organizations that already own multi-media assets that can be repurposed may be able to create a scenario at minimal expense.



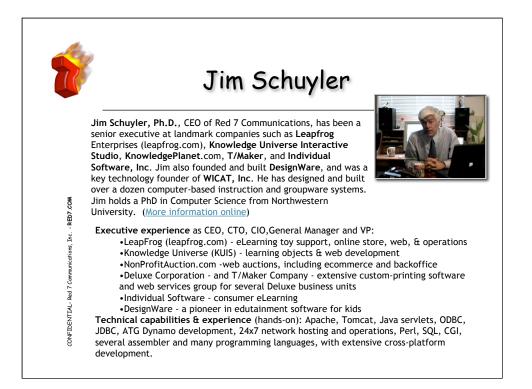
Development and roll-out is also similar to that of a multimedia product. The primary variables are those of design - meaning primarily determining the <u>scope</u> of the training interactions and then developing interactions that support those interactions well. As with any complex product, testing is critical.

Deployment and operation require a technicallyknowledgeable staff committed to making the player's interaction smooth and enjoyable.

Organizations should always plan an appropriate budget for evaluation and revision of materials, particularly if the organization's own products change frequently or substantially.



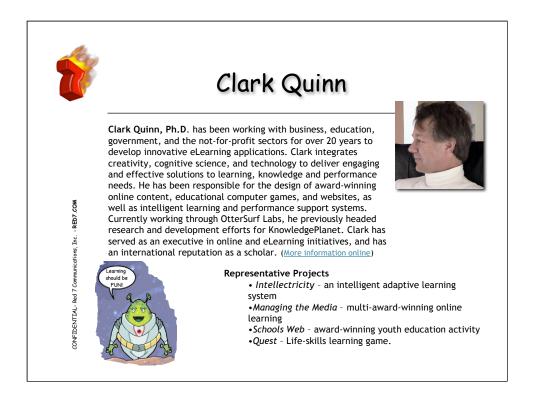
This section introduces the core members of the FIT Working Group.



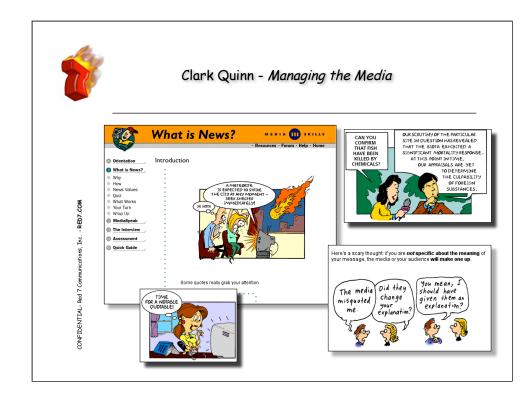
Jim Schuyler is CEO of Red7, which is building and operating the Full-Immersion Technology infrastructure.



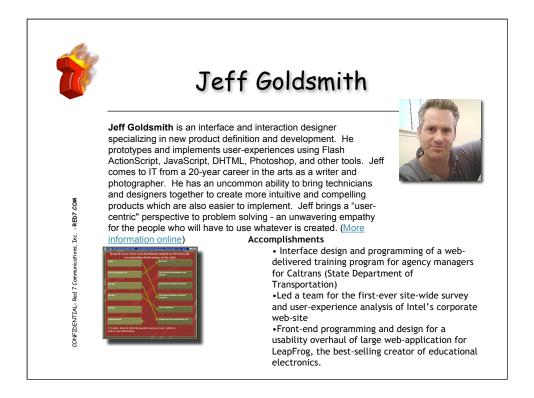
Jim's background in web development, edutainment software, business software, and e-Learning is extensive. Here are a few examples.



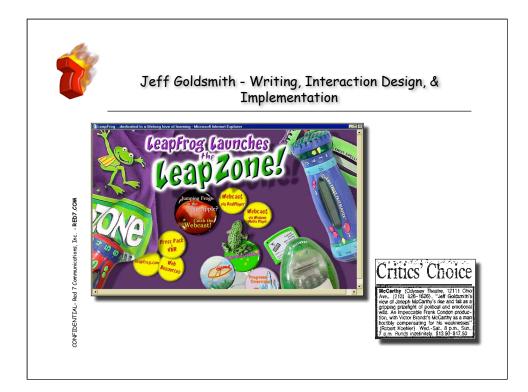
Clark Quinn has been developing e-Learning applications and engaging learning experiences for 20 years.



Clark has developed a number of award-winning e-Learning programs.



Jeff Goldsmith is our illustration, user-interface and animation expert. He has broad-ranging experience in user experience design and implementation. He also designs and implements complex Flash interfaces.





Jason Shaeffer is our project manager, and is an experienced videographer.





Red7 Communications, Inc. produced, owns and operates the **Full-Immersion-Technology** software framework.