

## Looking back from the future

by Jay Cross, Managing Director, Internet Time Group, 1999

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Corporate training is obsolete. It can't keep pace with e-Business. How, then, can we equip our people with the skills, knowledge, and innovative spirit they need to compete with fierce competitors? The answer requires a look into the future.

Unfortunately, most of us in business are so consumed with the day-to-day that we have no time to ponder what's coming tomorrow. We're "too busy chopping down trees to sharpen our ax." Over the last year, the Internet Time Group interviewed more than 50 thought leaders and conducted extensive web research to get a sneak peak at the corporate world three years from now. Let me share what we saw.

### Business & Organizations (circa 2002)

Networks changed everything. We're all connected, and nothing is ever finished. Old authority has given way to individual autonomy - You play by new rules or drop out of the game. Real time replaces calendar time.

Business is in permanent white water. Free-flowing networks subvert hierarchy, markets have become conversations, honest conversation drives out hype, and power flows to the customer. Markets are global.

#### **Business Climate 2002**

- Everything increasing exponentially
- Half-life of knowledge shrinking
- Front line makes decisions on the spot
- Services are provided in real time
- Teams, not individuals
- Customers are on the team

Corporations used to have the life cycle of a box turtle - about 40 years. Now, they're fortunate to live a dog's life - two decades. CEOs focus on corporate evolution and new-business incubation. (Back at the turn of the century, the business community realized that "reinventing the corporation" is impossible; an inventor creates an original only once).

Organizations are now seen to be organisms, not machines. Ecology replaces bureaucracy. Responsive hyper-organizations replace rigid organizational structures. Large organizations perform like schools of minnows, not whales. Members replace employees. Caring human beings replace mechanical jobholders.

<b>Traditional Organizations</b>	<b>Hyper-Organizations</b>
Rigid	Flexible
Predictable	Chaotic
Fixed	Flowing
Simple	Complex
Absolute	Relative
Linear	Linked
Transactions	Relationships
Individuals	Teams
Isolated	In context
One time	Iterative
Mass production	Mass customization
Central authority	Distributed intelligence
Teacher-focused training	Learner-focused learning

Responsibility is shifting from organization to individual. Everyone makes decisions on the spot. Organizational members help customers help themselves. We are each responsible for our own learning and development. (Pull learning has largely replaced push training). People concentrate on problem-solving and customer service. Computers are delegated the linear, repetitive functions that people used to do back in the twentieth century.

In 2002, the bottom line is no longer the bottom line. Leaders recognize that, in an information economy, it's inappropriate to value intellectual and customer capital at zero, to look at training as a cost rather than an investment, and to use industrial-age yardsticks to report performance. Qualitative, customized Balanced Scorecards have replaced financial statements.

## Technology (circa 2002)

All of us are jacked into the Internet 24/7. Broadband and fiber have put interactive video on most desktops in the office and set-tops at home. Virtual private networks and individualization have eliminated firewall problems. Cornea

and fingerprint scans insure that people are who they say they are. Wireless connectivity frees people to work wherever they please. We run applications and store files on the Internet, making them accessible from anywhere. Swarms of personal software agents continuously crawl the net, screening and feeding information to individual personal portals. A vast array of connected gadgets and gizmos both complicate and simplify our lives. The toaster talks.

At the office, high-resolution surround-screens flash with images and pulse with sound. The latest version of Windows makes it look as if you're really looking through squeaky-clean windows at people you're talking with and scenes you visit. It feels more and more like *You Are There*.

## Learning (circa 2002)

By 2002, people will be breaking free of the obsolete, inefficient model of learning imprinted on them by the school system. Real learning starts with the learner, not the teacher. People learn by solving problems, by making mistakes and correcting them, by hearing stories, by engaging multiple senses, and by following the call of their innate curiosity. Learning can take place outside of classrooms, classes need not last an hour, and the strongest motivation comes from within. Pages, documents, classes, and files are anachronisms, vestiges of a bygone era of factories and smokestacks.

The Internet revolution enriches learning with mass customization, collaborative filtering, object-orientation, production on the fly, easy-to-use authoring software, cheap video, rapid application development, plug-and-play modularity, wireless connectivity, abundant bandwidth, and more.

Tie together a new understanding of how people learn, the powerful tools of the information age, and the real time needs of e-Business with networks. Old-style learning reaches a tipping point, and the era of e-Learning dawns.

## e-Learning

"e-Learning" is a model for what corporate training will become in the next three to five years. It is the convergence of:

**A vision of loosely organized corporate ecologies**, a business climate of permanent white water, breathtaking advances in technology, high-speed broadband networks, and a shift of power and responsibility from organizations to individuals

**Today's emergent best practices**, from performance support through training to knowledge management. As novelist William Gibson observes, "The future's already arrived; it's just not evenly distributed yet.

**e-Learning is not a prediction.** (Half of all major corporate software projects fail, as do two-thirds of all knowledge initiatives -- and e-Learning is an even greater challenge). Rather, e-Learning is a catalyst to spark fresh ideas.

## How we learn

e-Learning rests upon solid evidence, old and new, about how people learn.

All learning is social. People learn what works by conversing with one another informally. e-Learning gives them freedom, unstructured time, and encouragement to learn this way (rather than stuffing their calendars with repetitive exercises and tests).

Learning isn't the pouring of knowledge into heads; it's **igniting a fire**. Just as information is not instruction, telling is not teaching.

<b>Training</b>	<b>e-Learning</b>
Calendar time	Real time
Training	Learning
Passive	Interactive
Listen	Learn by doing
Alone	Community
Teaching	Apprenticeship
Just in case	Just in time
Classroom	Anywhere
Absorb	Experiment
Graduate	In perpetuity

e-Learning 2002: Learning comes to the learner

Personal portals connect us seamlessly to customers, colleagues, and learning resources. Smart systems and personalized bots track our preferences, performance, accomplishments, and learning signatures to recommend learning experiences we may enjoy. Learners bozo-filter content rated poorly by their peers. Collaborative filters suggest links enjoyed by others in one's professional and social communities. One link may call up an informative customer comment or the next a celebrity lecture on the net. An entire world of learning is always but a micro-payment away.

Not that all learning takes place on a desktop. People learn in smart rooms, from wireless portables, anywhere they please. Receiving learning or being entertained or "going" to work ... all of these are as easy as turning on the tap.

## Let's eat!

Learning is food for thought. Online learning guru Elliott Masie describes classroom events as the gourmet meal of training. They're fun, but you wouldn't want to make them your steady diet; they're expensive. Masie also talks about junk food training (empty calories) and the need to stamp expiration dates on learning just like milk cartons at grocery stores.

## Training Diner 1980 e-Learning Bistro 2002

- Nothing à la carte
  - Wait half an hour for a seat
  - Limited menu -- basics only
  - All dishes prepared in advance
    - Open only at meal times
    - No self service - the waiter delivers the meal when it's ready
    - No take-out
  - Unneeded fat - e.g. travel, rehash what's known, overkill
  - No substitutions - you eat what everyone else eats
    - No eating between meals
    - Eat your peas - because you should, not because you want to
  - Wine choice is "red" or "white" of unknown origin
    - Menu is "conventional" - and therefore out of step with the times
    - Frozen ingredients - for convenience of the kitchen
  - Limited interaction with other diners
- Smorgasbord - choose what you want
  - Stay as long (or little) as you like
  - Broad selection -- food for everyone's tastes
  - Chef prepares dishes to order
  - Salad bar, desserts, self-service items 24/7
  - Eat at the table, at your desk, at home, while commuting
  - Eat when you're hungry, have a snack
  - Attractive, wholesome, fresh ingredients draw you in
  - Menu is experimental, seasonal, accommodating
  - Less fat/more fuel - more signal/less noise
  - Waiter can describe six boutique chardonnays for you
  - Visit with other diners to share epicurean experiences

If you were joining a new company, where would you rather eat?

Today's executives, IT managers, and training professionals are investing heavily in intranets, satellites, multimedia, and knowledge bases. Many are automating the past rather than bridging to the future, locking in on quick fixes and dead-end technologies. Training directors receive so many calls from vendors touting new "solutions" that it's impossible to keep up. At the end of the day, most corporations find themselves tethered to a dog's breakfast of stand-alone training widgets, a far cry from the interconnected world of e-business.

### The future is now

Several times last year, I predicted the arrival of a new product by 2002, only to read about it in *The New York Times* or *Slashdot* within a week. For example, I described a cigarette-pack sized computer with speech input and head-mounted display built into one's glasses. IBM announced

exactly the same product three days later! Soon after I had written about miniaturization, a Stanford professor unveiled a functioning web server that fit comfortably in a matchbox.

Now it's happened again. When I described an integrated, scalable, e-Business approach to learning in early 1999, I predicted that e-Learning would become reality in three years. It just went live! In late 1999. The on-line learning community already has 60,000 members. These are great times for learners -- and sad times for futurists.

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**Jay Cross** has been passionate about harnessing technology to improve adult learning since the sixties. Fresh out of college, he sold mainframes the size of Chevy Suburbans. Later, he designed the University of Phoenix's first business degree program. He has managed several software startups and is the former president of MegaMedia WorldWide. Jay advised CBT Systems during its transition to [SmartForce](#), the eLearning Company, and helped [Cisco](#) e-Learning Partners plan, implement, and market their initial web-based certification programs. Jay serves as CEO of [eLearning Forum](#), a 450-member think tank and advocacy group in Silicon Valley. He is a graduate of Princeton University and Harvard Business School.

[Internet Time Group](#) provides hands-on advice on implementing eLearning, developing information architectures, advising management, and accelerating sales. Jay and his team also provide out-of-the-box, results-oriented marketing advice to eLearning companies. Five hundred people visit [www.InternetTime.com](#) for eLearning information every day.

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