

▲●■ The Meta-Learning Lab

by Jay Cross, Internet Time Group

The Meta-Learning Lab presented its core beliefs and findings at the March 2002 meeting of the eLearning Forum at the SRI campus in Menlo Park, California. This is a recap of the event.¹



The Genesis of the Meta-Learning Lab

Bill Daul,² the networker Jim Spohrer has described as “human glue,” encouraged a group of East Bay denizens to meet one another for lunch about six months ago. Several of us were members of eLearning Forum³, and we think of ourselves as an eLearning Forum task force. Discovering we each believed in the untapped potential of learning to learn, we decided to meet to talk things out in



Tilden Park. We continued meeting at one another’s houses and began meeting with learning visionaries at ethnic restaurants in Berkeley.

We developed an infrastructure. Groove was a bust - a couple of us don’t like using the phone that much, so voice over IP was not really a plus. Our threaded discussions on EZ-Board were too easy to overlook; comments were more episodic than interactive. Blogs⁴ were too esoteric for the group to buy into.



QuickTopic,⁵ the free bulletin board which lists posts chronologically, proved to be a winner. We set up a knowledge base which is a useful reference but participation there is spotty.

What held this group together? Aside from the fact that we like one another, unlocking the possibilities of learning to learn excited us.

So what is this meta-learning? Meta-learning focuses on the process of learning, including how

¹ Sherrin Bennett helped get the message across by drawing conceptual map murals during the presentation.

² Bill is the founder of Human Landscaping, <http://www.human-landscaping.com/>

³ www.eLearningForum.com

⁴ www.blogger.com

⁵ www.quicktopic.com

people learn, barriers to learning, and improving the learning of both individuals and organizations.

Meta-learning analysis must be multidisciplinary, branching to other disciplines to escape the deep ruts worn by schools and higher education. Drawing from direct observation and down-to-earth metrics, meta-learning researchers borrow approaches from anthropology, psychology, economics, learning theory, cognitive science, sociology, political science, operations research, information architecture, and software design in their search for improvement.

We're on a crusade to rip the blinders off!

The Perspective from the Balcony

I just returned from the lovely colonial capital of Antigua, Guatemala. Facing the main square is an enormous building, once the administrative headquarters for all of Spanish Central America. A colonnaded balcony looks out over the plaza.



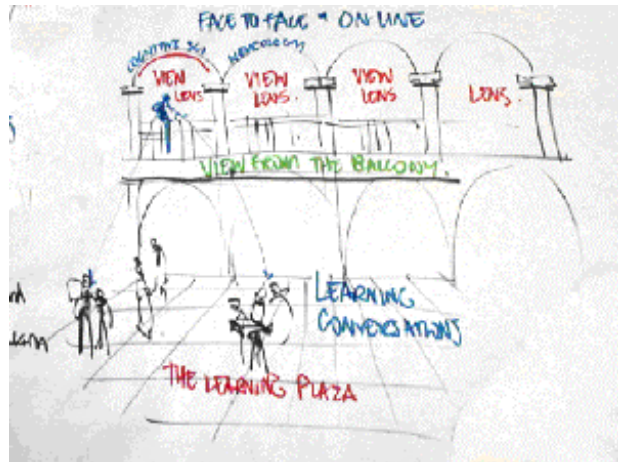
Permit me to use the balcony as a metaphor. Balconies are great vantage points. From the balcony, we can peer down into the main square and observe people learning.





Elders talk with youth. Children learn through play. People share knowledge. These particular learners happen to be pure Mayan but that's beside the point. Learning is universal.

The balcony's owner has kindly set out an array of binoculars, telescopes, opera glasses, telescopes, and spyglasses. These are no ordinary lenses. Each enables us to observe through the eyes of a particular profession. You can look through them to get an anthropologist's view of things, or a cognitive scientist's, or a psychologist's, or a business manager's. We see the patterns of what's going on in learning, formal and informal. All of which brings us to today's topic: meta-learning.



We're not going to deal with meta-learning in the abstract. Our interest is in applying the meta-learning perspective to business problems.

Out topic is **Applied** Meta-Learning.

Mindful Learning

What I'm about to say is controversial. Certainly, not everyone buys it. The topic is Mindful Learning. The thesis is from Harvard's Ellen Langer. An experiment is probably the best way to describe what this is.

Two groups of college students, one on the east coast and one on the west, were given the exact-same paper and were instructed to read the paper

attentively because they'd be tested on the topic.

There was one difference. One group was told the information might not be true.

That group, the one who were told the information might not be right, scored significantly higher than the other group. Why? Because uncertainty engages the mind.

Instead of prefacing eLearning programs with authoritative plugs, designers would do better to begin with "This might be wrong," and perhaps a contest for spotting typos.

Reflection

People learn from their mistakes. And their strengths. All it takes is reflection.

Remember the Chinese proverb, "Give a man a fish and he will be fed for the day. Teach a man to fish and he will never be hungry again."

The Meta-Learning Lab doesn't stop there. We want to change the process. We say, "Teach the man to be a better fisherman, and his family will be always have plenty to eat."



Here's an excerpt from my personal weblog:⁶

A key aspect of improving how one learns is to make the learning process **explicit**. When you make it visible, you can exercise the skill, raise the bar, and improve performance. (This could also be thought of as "getting over learned helplessness.")

⁶A Blog or weblog "A Weblog (also known as a blog) is a personal Website that offers frequently updated observations, news headlines, commentary, recommended links and/or diary entries, generally organized chronologically. Weblogs vary greatly in style and content." from Triumph of the Weblogs by Kevin Werbach. See <http://www.internetttime.com/itimegroup/weblogs.htm>

By paying attention to a suggestion made by a friend, I realized that for me, sleep produces great ideas. Now I awake expecting them. Before my first cup of coffee, before bringing in the New York Times, and before checking my messages, I let the new ideas pop out. I record them in a blog, sometimes private, other times public.

This morning brought a few ah-ha's for the upcoming presentation to eLearning Forum. One of them was to show this very log as a way I make my own learning processing more explicitly. Until working with the Meta-Learning Lab, this blog was titled "Just Jay."

No more courses

When I returned from vacation , I received an email from a friend Marcia Conner, asking about the effectiveness of eLearning. Here's my reply, which I posted in my weblog on Research on Learning and Performance:

i got in from guatemala last night and will use that as an excuse for a wimpy answer to your question. (photos and commentary from a great vacation are up at jaycross.com)

the older i get, the more i trust my gut and the less i believe statistics.

my gut tells me that elearning sometimes works well. for the successes, i point to my son and his peers learning everything from homework assignments to network administration via the web. that's also where he learned a lot more than his dad ever did about meteorology, PERL, San Francisco politics, environmental action groups, obscure singers, and more. in my own case, i've learned more professionally from Amazon and Google in the last seven years than from a similar span at Princeton & Harvard b-school. at smartforce we accelerated sales development by the better part of a year; it wasn't perfect -- it wasn't even pretty, but it was at least \$10 million more cost-effective than the cram sessions it replaced. in the informal arena, a lot of what my generation learned on the playground is now learned via instant messenger. so my gut says elearning works well.

of course, i've seen cases where massive elearning projects fell flat. my comparison of elearning to napoleon's march to moscow came up with only 10% of corporate elearners achieving their objective. i've attempted courses on communications and negotiations and customer service that were so awful you'd have to be brain-damaged to sit through more than five minutes' worth. i'm not convinced that a two-hour CD on sexual harrassment is going to tame the hormonal urges of predatory beasts. ASTD and Elliott found that a third of the recruits don't even show up for

mandatory elearning. someone was telling me about the courseware peddled by the american bankers association. several large banks bought licenses, citi among them. how many participated? not one person. over the course of a year. a researcher at SRI described a \$2 million corporate university program that attracted only two participants. both of them dropped out. so my gut says elearning can fail miserably.

sometimes it works; sometimes it doesn't. just like computers. geez. makes me ask "how effective is high school?" i graduated with high honors but damned if i can remember a single formula from trig. speaking french with the owner of my hotel last week, you'd never guess that i finished French IV. looking at the general populace, half of all u.s. high schools grads cannot locate france on a map. more than half of the males attending california state universities and colleges do not possess sufficient skill to read the textbooks in their backpacks. if i'd skipped high school entirely, i wouldn't be able to quote t.s. eliot or tell you the year the magna carta was signed or name the capitals of every country in the world, but i don't know that it would have hurt my career. i learned more about mayans and guatemala in the last ten days than i would have from a three-unit college course. there's a reason that grades in college do not correlate to income, happiness, professional accomplishment, or anything but getting into schools that look at GPAs as an admission requirement. don't get me started on latin.

so i agree with all of you. it's a stupid question. i don't question the effectiveness of my hammer. if the nails go in, it works. if it's the best tool around, i'm not about to try pounding those nails with my shoe or a screwdriver.

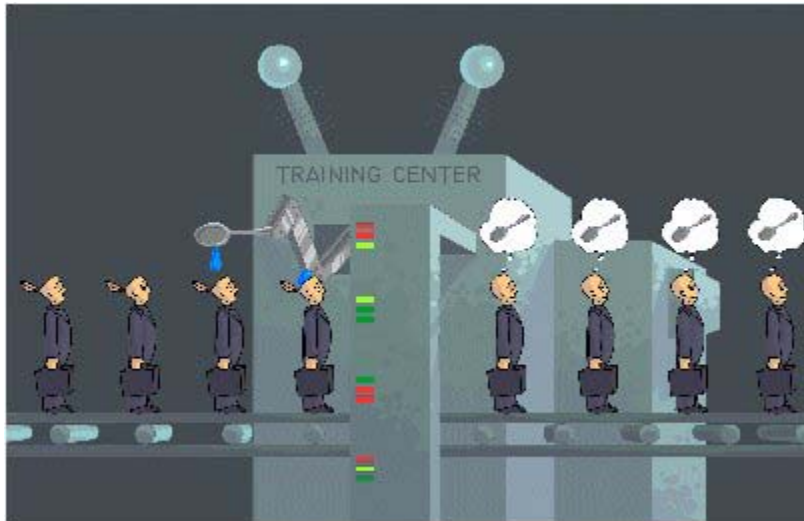
god i'm tired.

As you can see, I'm not a big fan of organized schools. I emailed my words to the group ("Reply All"), and the next day received a very reasoned response from Marc Rosenberg:

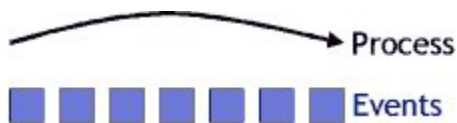
...most of the examples Jay points to of elearning working are NOT COURSES. In fact, the learning comes from somewhat intelligent (on the human side) browsing for something that actually means something to the browser. I understand where courses are the best solution, but there is no way courses are the ONLY solution. So why is everyone peddling courseware? Habit, I guess. Perhaps the need to have something you can "evaluate" with multiple choice questions. Or the need to have something people can "enroll" in.

Marc's insight sparked further thoughts, which I once again recorded in my blog:

bingo! the course is not the appropriate shell for most learning experiences. we all know the story: the fifty-minute hour and the two-day workshop were created for the convenience of the institution, not the learner. the course is a triumph of standardization and it is so ingrained in our thinking that we still buy & sell seat-time rather than performance improvement. it's the industrial model, which puts a higher value on efficiency than on effectiveness. you can have learning any color you want as long as it's black.



in an ideal world, the less time in training to accomplish the objective, the better. optimizing time invested requires a new way of thinking about learning. essentially, learning is a flow process, not an assembly line.



think of learning as a river. i can use calculus to describe the rate of flow at any point in the river by mentally divvying up the river into lots of little pieces. this provides useful descriptive information, but back in the real world a time-slice of a river is impossible to deal with. outside of the context of the current, the little chunks simply don't exist.

we need a better framework for thinking about learning.

Putting a value on meta-learning

Imagine that you are chief learning officer for a Silicon Valley high-tech company.

© 2002 Internet Time Group, Berkeley, California



You read about a new CD-based course that's just come out: Mavis Beacon Teaches Reading. It takes four hours to complete. It costs \$39 retail.

This is not a remedial course, Bonehead English in a Box. Exhaustive research has shown that highly literate knowledge workers improve their reading and comprehension an average of twenty percent.

Would you, as chief learning officer, put Mavis Beacon Teaches Reading into your core eLearning package?

Of forty people in the room, not a one was going to endanger his or her career by implementing Mavis. Probably a smart move. Others would question the value of a program in reading. What about leadership training instead?

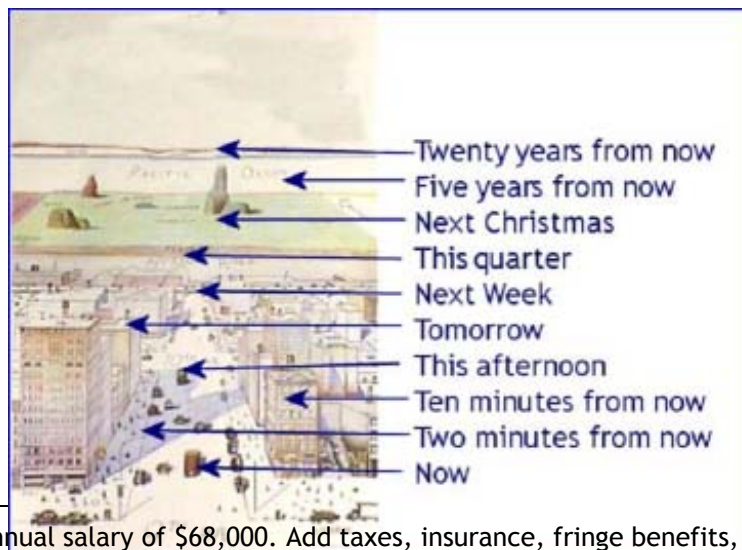
Consider the economics. How much time does a knowledge work dedicate to reading reports, webpages, newspapers, email, journals, and memos? It's at least two hours a day. That's about 500 reading hours a year. Or 5,000 hours a decade.

A twenty-percent improvement is a savings of 1,000 hours. That's a savings of \$4,000.⁷ Not a bad return on \$39.

But the numbers are flawed. Knowledge workers are the source of innovation. They are expected to do more than just earn their keep. So we should really be assessing the increased value associated with 1,000 newfound hours rather than the cost of those hours.

No matter. No matter how you slice it, improving reading skills is a spectacularly sound investment. So why didn't our Chief Learning Officers choose to implement Mavis Beacon? I'll suggest that it's time myopia.

In the homo sapiens' long evolution from dwelling in caves to living in condos, the last ten thousand years are but a blink of the eye. Human brains are better suited for avoiding tigers right now than for thinking ahead. Our mental circuits are



⁷ Assuming conservatively an annual salary of \$68,000. Add taxes, insurance, fringe benefits, and a little overhead. This individual costs us \$100,000 a year.

wired to emphasize the short term.

If you're only thinking ahead a few weeks, taking the reading course is not a sound decision. There's insufficient time to reward the investment. By looking at things from different perspectives, meta-learning attempts to cut through the bias of snap judgments and fuzzy thinking.

For further study

The Meta-Learning Lab welcomes your participation. Here's how we are structured.



The **core group** maintains the identity and intellectual capital of the Lab. Current members are Jay Cross, Clark Quinn, Bill Daul, Claudia L'Amoreaux, and Claudia Welss.

The **community** consists of advisors, colleagues, and co-conspirators. Sign up for our mail list at www.meta-learninglab.com.

Ad-hoc project teams are where the rubber meets the road. We learn by doing. We field-test everything we do. Currently we are seeking developmental partners. Our target customer is an organization that is unafraid of innovation, willing to experiment, and is sufficiently large that meta-learning can yield at least a million dollars in benefits. Typical assignments include:

- Meta-Learning Audit
- Performance Acceleration
- Product Design Guidance
- CLO Staff Development
- Customer Meta-Learning

For more information, visit us online at www.meta-learninglab.com.