



Defining Online Learning: A letter to Professor Tony from the “good old days”

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How many times have you been asked “What is online learning anyway?” Have you been asked to justify it? Have you been questioned about your plans for it? Have you encountered extreme skepticism?

Engaging in this discussion when the parties aren’t even talking about the same thing is very difficult if not impossible. Among other things, how can you:

- ◆ Describe such a vast topic to people who may be gatekeepers to your success or skeptical about efficacy, costs, or “reasons to change?”
- ◆ Justify your existing staff or request new staff?
- ◆ Talk to the general media in a way that helps them “get” what you do and not mischaracterize or marginalize it in a general press article?

I wrote this piece in the form of a letter to a professor friend. Please use it to help explain parts of what you do (or what you need to do... or what you will soon do...) to other people who aren’t aware of the depth of online learning concepts. It can help explain the relationships between what could be considered online learning and the complex scope of actually being able to do it all.

This piece doesn't talk about specific solutions or successful customer implementations. Our upcoming for-fee reports will take a unique approach to telling stories about the people, processes, and products that have succeeded. And today there are free MP3 audio reports on our web pages that tell interesting stories and opinions from organizations that are making things happen.

Use and share this free report as a tool to help frame the discussion so that the context of the “it” you are discussing when you are discussing “online learning” is clear to your audience and set in a broader context.

This piece comes to you courtesy of *6by7 Reports*. We’d love to hear from you about what works or doesn’t work for you. Please feel free to e-mail me or post comments in the online discussion group on our web page.

Best regards,

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Dear Tony,

When we spoke on the phone I was trying to explain this “online learning” stuff to you. It’s been a while since you taught and it’s been a while since I tried to explain and justify my career to someone, so I thought I would get it all down on paper for you so you can understand what is going on nowadays. In a lot of ways, all of this newfangled educational technology stuff is just a re-interpretation of what good teaching is all about. But in other ways it is more than that. It’s quite exciting actually to think how much the art of teaching could be improved by this stuff if we just get it even close to “right.”

There are so many angles to this technology and education space – and so many important reasons to be able to clearly articulate not only individual facets of it, but to be able to set a framework so you can target your discussions to each particular audience. For example, if you were trying to justify expenditures to a state senator, you might take a different approach than if you were talking to a principal of an elementary school or a research university professor.

Despite the vastness of the topic, it is actually pretty easy to conceptualize once you get past terminology-itis and technology-lust/loathe disease. At the end of the day, I think it’s about replicating and expanding the reach of the art and science of teaching.

I hope this letter gives you a broad overview and a good framework to research this stuff more – or at least talk about it in the right context at a dinner party!

Terminology soup

One thing pure educators and pure technologists have in common is how much they like fighting about terminology! Online learning is called a lot of things such as distance learning, blended learning, web-based learning, remote instruction, computer-based training, videoconferencing, web conferencing, webcasts, e-learning – and each of these terms does mean something slightly different, though they are all related to learning and instruction.

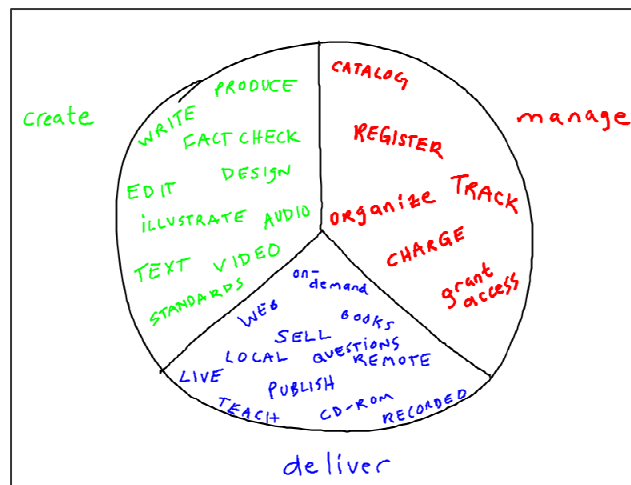
The literature is bursting with different perspectives on precisely what each term (and many others!) does and should mean. But arguing and explaining the semantic and practical differences between terms does no good when we’ve yet to set the stage for the discussions ESPECIALLY when you are trying to convince policymakers and skeptical instructors and parents that this is not the latest Internet boondoggle.

With that said, I’ll try and set the stage for you by taking a higher level look instead of trying to find the “correct” terminology.

A drop-dead simple online learning taxonomy

Almost any of the terms and tasks that swarm around online learning can actually be broken down very simply into three areas: Creation, Management, and Delivery.

A good discussion always features a whiteboard, huh Tony? If we were doing this discussion online or in person I would draw on a whiteboard and we’d work together to build illustrations!



But this diatribe is in written form (“asynchronous” delivery in the parlance of the field). So we’ll have to settle for some pictures from the whiteboard in my office. Let’s “walk up” to my whiteboard and draw!

Ever since the eighth grade, the “rule of three” has always been a good one when you want people to remember things, so let’s look at taxonomy with three high-level categories: Create, Manage, and Deliver.

Create, Manage, and Deliver

Pretty much all educators at all levels and their extended teams will be involved in one (or two or all) of these three activities. The educators or people on their teams will be:

1. Creating and preparing content for some mode of delivery
2. Managing and controlling the content (and student and instructor access to it)
3. Delivering the content in one or more ways

I don’t mean to oversimplify. Of course there is much detail beneath these three categories and multiple ways to define the problems they address. And there are even more ways to approach solving the problems posed in these categories. But I believe at the end of the day there are just three major high-level concerns for educators – just like there were before any sophisticated electronic and Internet technology mucked up the works.

(I can hear you arguing right now! Of course educators at all levels do A LOT of things that may or may not precisely fit – where exactly does testing go? But almost any task of any educator or administrator as it relates to student instruction can fit in one of these three categories, especially for the sake of trying to explain online learning concepts to someone not familiar with them or even familiar with education! If I am missing something please let me know.)

How does this simplistic view help explain online learning? It’s a good high-level breakdown to use to explain online learning to new audiences because:

1. Each slice of the pie maps to an understandable “anchor point” of traditional instructional *concepts*.
2. Each slice of the pie can be mapped to traditional *roles* in Education. These roles are clearly evolving and there are brand new roles, but this is a good starting point to discuss the future.

A look at the Delivery slice

The slice of the pie called Delivery is delicious in the variety of exciting ways that instruction and student/instructor interaction happens. It’s exciting because there is so much discussion on how instruction and learning best happens for different kinds of people in the real world - not to mention the added dynamics of introducing online technologies into the delivery mix. I think discussions of delivery are most exciting because this slice most closely shows how important the “art” of being a real teacher with skills to engage and excite relates to the quality and results of the whole online undertaking.

In other words, it’s not about the equipment, it’s still about the teacher.

I put together a short list of the ways online instruction can be delivered, loosely mapped to the “pre-technology” world.

Delivering Content and Interaction to Students			
Task	Good Old Days	With new technologies	Core characteristics
Disseminate prepared info widely	Telecourse on local TV. Or a VHS in the mail. Or materials sent by mail (or pony express)	One-way Internet “broadcast” or recorded streaming media	“One to many” dissemination of information. Feedback between student and teacher and student and student doesn’t exist or takes a long time.
Small group seminar	Small group seminar	Desktop or Room Video or Web conference	Highly interactive where the role of student and instructor overlap during the discussions. Tend to be fewer than 15 people.
Large group presentation (Lecture Hall)	Large group seminar with teacher assistants	Room-based video and audio conferencing	Tend to be one-way with the instructor on a podium. Even if questions are allowed, there is not a lot of interaction (except maybe for teacher-assistants after the lecture).
Office Hours	Office Hours	Instant Messaging, phone conferences, web, and desktop video	1:1 scheduled or ad-hoc interaction between instructors and students.
Traditional Classroom	Age 6 to 18 classroom (K-12) models	Adding electronic whiteboard for new local and remote “interactions.” “Event-based” learning bringing in remote speakers and content.	Keep essentially the same schedule and interaction model between students, teachers, and classroom aides. Enhanced with outside content and new kinds of interactions within and outside the classroom.
Evening Courses	Evening courses a.k.a. “Adult Ed”	Take them from work or from home.	Added flexibility for locations and time to “go to class.” New kinds of interactions. Wider choice of course topics because the pool of courses and instructors are deeper.
Students scattered but need to talk	Not really practical	Students use e-mail, video chat, and web conferencing to work on projects outside class and across distances	Interactions between students are still live and “warm” but available in more places at more times. And instructor advice can be brought in on an ad-hoc basis if needed.
Remote instructor	Not really practical, or if available only on special occasions (very expensive)	Instructor remote from all students is a model that now is prevented less by technology than by politics and policies (and cost)	Remote instruction can be “event based” (bring in a marine biologist for a single interaction regarding a learning unit) or “ongoing” (weekly sessions with your remote tutor or your AP calculus teacher whose home school is in another state)
Multiple instructors	Likely in classrooms that support a co-teaching model	Multiple instructors in multiple locations are available and are prevented less by technology than by politics and policies (and cost)	Specialist instructors can be brought in to supplement or take over core subjects or specialty subjects.

This table raises questions

When you look at this partial list of tasks there are a series of general questions that need to be asked of the people who will be paying for, planning, designing, and executing the delivery portion of the online learning plan. The first step in defining the scope of the solutions to the *delivery* problems is to define the problems clearly. This may involve repeated re-engineering the problem statement until it really states the problem for all involved. This is a really hard task that’s not directly related to technology.

Questions like these need to be asked by those planning an online learning strategy:

- ◆ Where are the instructors located in relation to the students?
- ◆ Are materials prepared and in what format?
- ◆ What kind of learners are the students?
- ◆ What kind of style does the instructor have?
- ◆ Will students be encouraged to interact with one another during and outside “class hours?”
- ◆ Are there set class hours?
- ◆ What is the infrastructure (network, computers, buildings, and people) available to, or able to be added or reassigned to solve these problems?
- ◆ Is the definition of the problem shared and agreed to by most of the parties in such a way that the “return on investment” for associated costs is justified?

How is the “delivery” slice of the pie different than the “good old days”

Despite the newfangled technology, there is very little difference in the highest level delivery tasks today than 50 years ago. And that’s a great way to introduce online learning to new people or to discuss it with a naysayer.

I hear you arguing with me again Tony. OK, OK... That statement is not literally 100% true. But it is a good statement to illustrate to traditionalists that this online thing isn’t so radical. Here’s a discussion topic for the next time we speak: Is this really the same soup in another can, or is it a new kind of meal altogether, or is it a little bit of both?

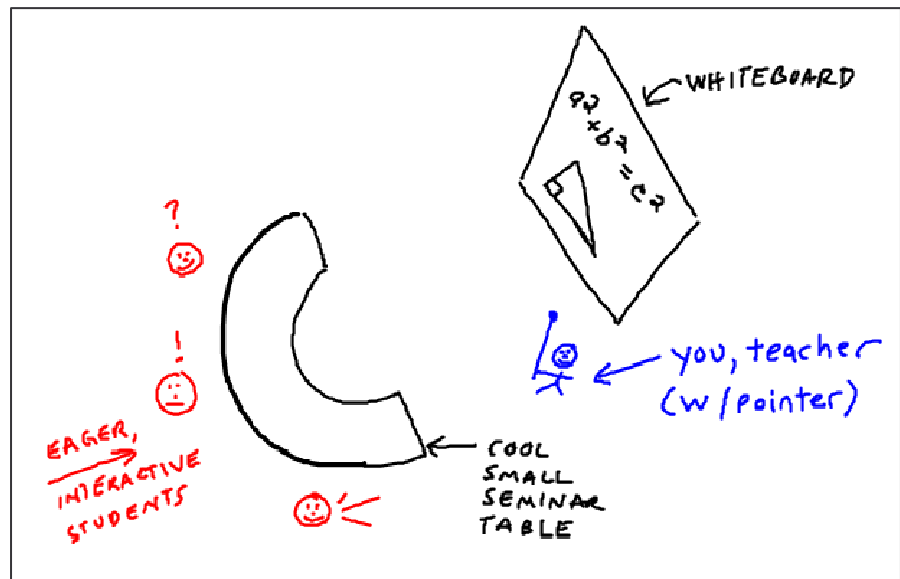
A few “delivery modes” in depth

Let’s get into some specifics of the delivery slice of the pie to start building an understanding of how to look at the “good old days” and compare them to what’s here and what’s coming. We can do this by walking through an example of “delivery then” versus “delivery now” using a specific mode of interaction, the small group seminar. I know that you know of the small group seminar, because I was in classes you taught that used that format!

We’ll then look at two other modes of delivery with an eye toward generalizing trends we’ll see in each of the three slices of the pie – good things that many online learning methods make possible for the first time.

The small group seminar

What did the world

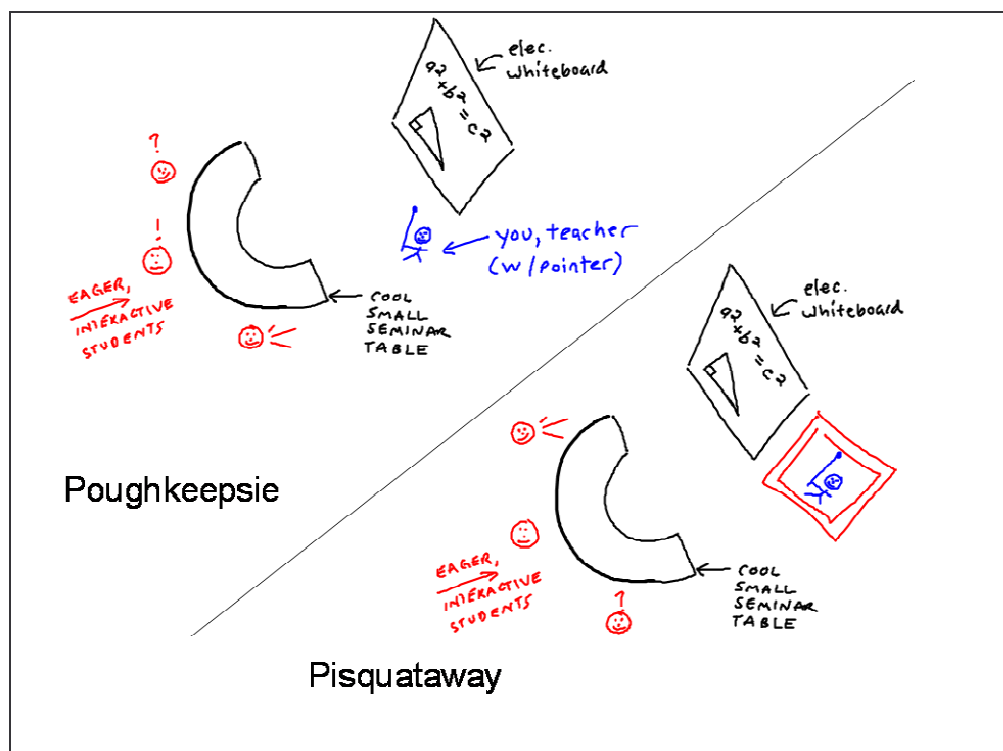


look like prior to the Internet in a small group seminar? And how could it look with technology?

An instructor like you enthralled (and lesser instructors bored) small groups of students with a lecture or discussion topic. Sometimes it was highly interactive between students and instructor and among students. Other times it was not. Materials were either prepared ahead of time or written on-the-fly on the board. Students were encouraged to interrupt or maintain silence at particular times or it was a completely open forum depending on the style of the instructor. Students often switched roles on the fly and became the instructor for a while. Sometimes the students or the instructors would record the session through written or recorded notes. Homework was handed out and possibly even peer reviewed during the seminar. Small-group break outs may have happened in real-time or after class. You get the idea (and there is a lot more that went on in your seminars).

Ignoring for the moment questions of technology vendor, interaction quality, ease of use, and cost (all highly relevant discussions that deserve detailed inspection on their own) – what is the substantial delivery difference between a small group seminar before and after new technologies?

Pretty much only one: the instructor and the students may not be in the same classroom or even the same city or time zone.

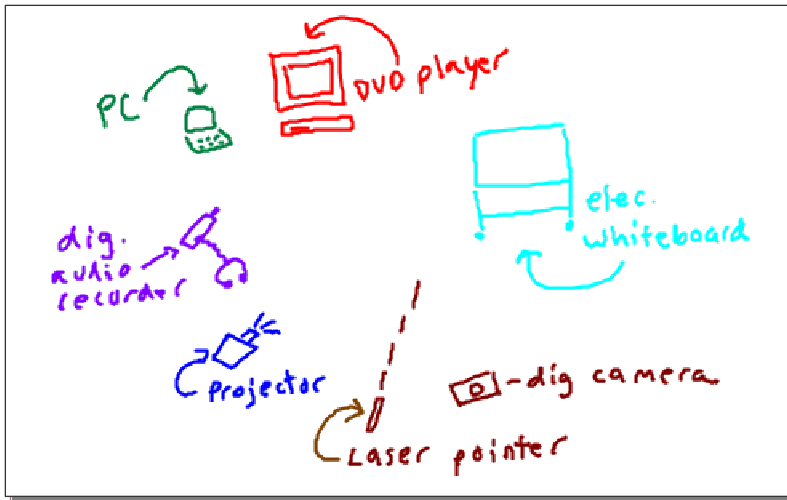


You are teaching in Poughkeepsie, but some of your students are in Pisquataway

OK, OK, there really is another difference. After technology came along, there are probably a lot more gadgets in use in the room or on the desktop and the content may dance around on different kinds of screens and devices. But for the purposes of this part of the discussion, the major difference between before and after in the *possibilities* of the small group seminar is the issue of physical proximity between instructors and students.

Imagine the implications of your “reach” as a teacher – of who could sign up. Imagine who you could invite in as a “guest” or that students who can’t make it into the classroom can participate at home or at their place of work? This new model isn’t just about the technology Tony; it’s about helping re-author the possibilities of the art of teaching.

Is there a lot to discuss and investigate regarding efficacy? Social interactions? Political issues? Costs issues? Quality of teaching and curricula? Absolutely! They must be explored in detail and solved by many different people over time. But is it possible for the model in these whiteboard sketches above to work? Yes, it can and it does today in many places.



A key point I want to make to audiences you are talking to is that this is no longer a dream. It is going on today in classrooms from K-12 to university to adult learning. And there are standards-based curricula being delivered with measurable results – and cost savings and wider participation can be achieved when this stuff is done right!

Next time we chat, ask me about the Potter’s School, a

private online high school that has over 1,200 students. Or an organization in Connecticut called ACES that uses these kinds of delivery tools to successfully deliver standards-based reading and writing units between students in multiple school districts. Or the CILC in Indiana that acts as a clearinghouse for information about hundreds of standards-based content modules that get delivered with interactive video – not to mention supporting instructors with professional development to show them how to work with these new media and leverage their existing teaching magic.

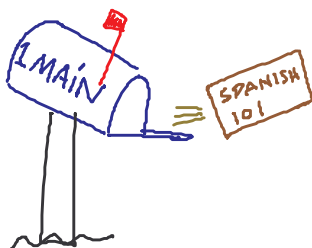
A few other slices of delivery pie

We’ve started to examine the “Delivery” slice of the online learning pie by looking at one modality of instruction and interactivity. Let’s sample a few other slices of delivery pie. There are other modalities of delivering materials beyond the small group seminar – and again, adding technology to make them “online” didn’t really fundamentally change the mode of instruction.

Are these other modes of instruction also similar before and after the advent of advanced technologies? I believe that they are.

Correspondence Courses – From Books to Web and a lot in-between

Another way to deliver instruction is what is most closely analogous to the “correspondence course” of old. In this model, the materials are made available to the student at any time the student wants. It is a “self study” model that may have differing levels of instructor availability.



The differences between this model then versus now is that now, the materials may be a lot more than books. They may be printed, archives of instructor created media like slides or video clips, or external resources like materials provided by museums and other 3rd party content creators. They can even be interactive explorations in a gaming or other technology format.

Generally speaking, in 2005 this is the model that *for the most part* people mean when they say their courses are “online” – they have put some materials and some “feedback mechanism” into some web based delivery from instructor to student.

This is a great first step, and a necessary one, and in some contexts the best delivery mechanism. Today, a traditional classroom model with regular physical meeting times and instructor office hours can be supplemented by online delivery of materials and discussions. There may even be online assignment delivery and testing mechanisms, and even a way to submit homework to the instructor.

This is a great step forward, this “blending” of learning modes between the traditional classroom and supporting materials online. (This term “blended learning” can mean many things to many people – in this context it refers to the blend between the traditional in-class delivery and the online materials, tests, and grades.)

But there are good and bad points to this model that have to be weighed as a complete online learning plan is designed and implemented. For example, how much interaction with the instructor and other students is possible? It depends on what is designed into the mix. Today, the usual mechanism is e-mail between students and instructors and students and students. Perhaps there is a web-based discussion forum where people can discuss topics at length. But today, this model rarely includes real-time online feedback in audio or video format.

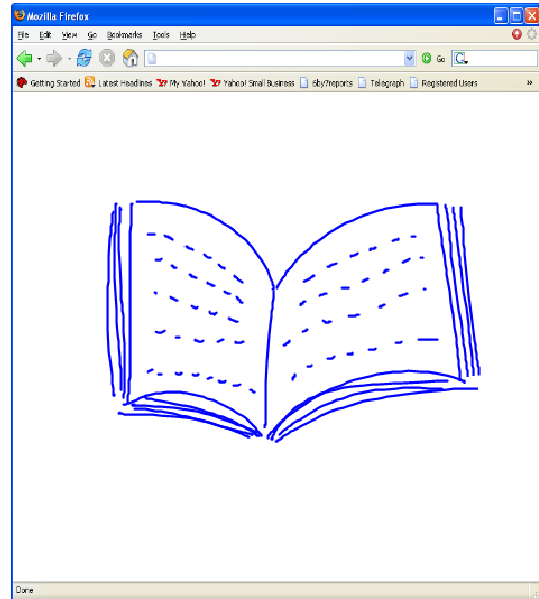
A number of leading edge organizations talk about student retention rates for “online classes.” For example, both Janna Gilbert of the Potter’s School and Marvin Bailey of the CILC talk about retention rates going dramatically higher when there is some “real-time” interaction between student and instructor during an online class. In other words, a model that includes a real-time session in a classroom, and online audio or video session, or even a phone call dramatically increases the chance that an “online student” will successfully complete the course when compared to a completely offline delivery.

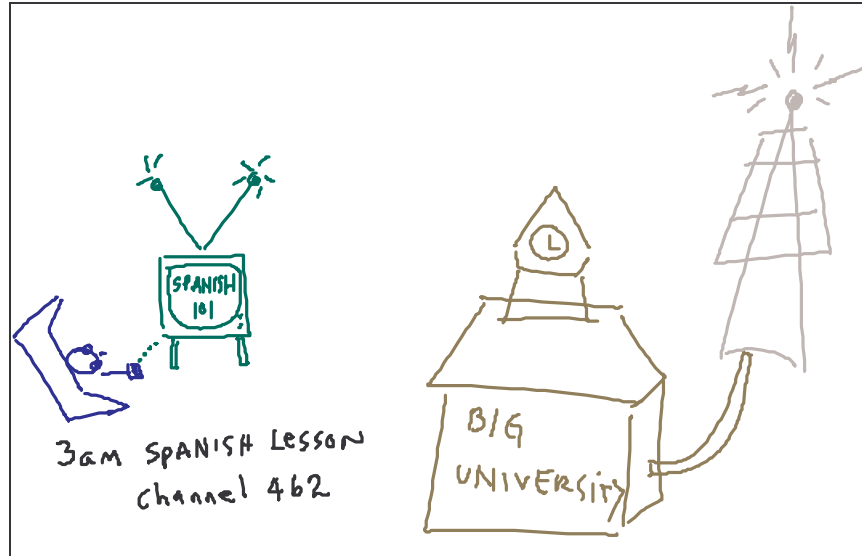
In the cases where a course is “asynchronous” – where all you do is sit in front of a computer and “drink at the well of content” people are more likely to drop out. And you know, I can really understand that. One of the Potter’s School students told me that she really felt that the connection and responsibility to the instructor and to the other students made her more motivated to excel. I can understand that. In my case, my desire to interact with people is really a fundamental part of classes. I would go nuts if all I had was a web browser and content and submitted one project at the end to be graded by someone I never interacted with.

The Broadcast model – Not just for TV anymore

So what about all of those “telecourses” that you see on public television and in other venues like videocassette and DVD? Are they a delivery mechanism? Of course they are.

The new technologies can extend and enhance the reach and interactivity of these “broadcasts.” But, just as in the correspondence course model (in fact, a broadcast module may very well be a component of a “correspondence course”), one key point in the design is how much, when, and how interaction can take place with the instructor and other students.





I don't believe that a broadcast alone cuts it. Yes, there are cases where it is absolutely necessary, such as when:

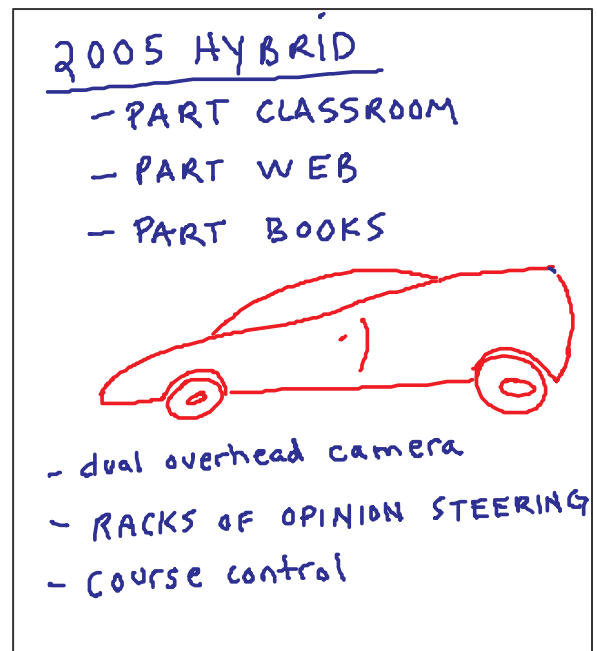
- ◆ Great content exists and has been recorded and available for years.
- ◆ Students “missed” a lecture and want to watch a recording of it (or want to re-watch a lecture to enhance their notes)
- ◆ The economics of other models are cost-prohibitive because of a lack of staff or other resource.

Make no mistake, the concept of recorded broadcasts is integral to many models of online learning, but recordings alone (be they complex multimedia recordings or straight audio recording), without considering the topic of interaction and feedback mechanisms and the “magic” of the excellent instructor/facilitator in the mix – well, it becomes the difference between watching a play on videotape and participating in an acting class. Both are about acting, but well, you see the difference.

Hybrid delivery – Where a generalized “answer” lies

The reality of choices between delivery mechanisms isn't as dire as choosing between a videotape and a classroom. The fact is that instructors and course developers, school budgets, student learning models, and local and national politics of education all drive a combination of delivery method choices. And this combination of delivery mechanisms, a “hybridization,” is a result that is often for the good.

“Hybrid” delivery models and “blended learning” are sort of geeky terms, but they are probably where the future is. Marvin Bailey of the CILC told me that he thinks that the “hybrid” model of delivery is where this space will ultimately shake out. Hybrid models are, quite frankly, where most of today's online learning efforts are.



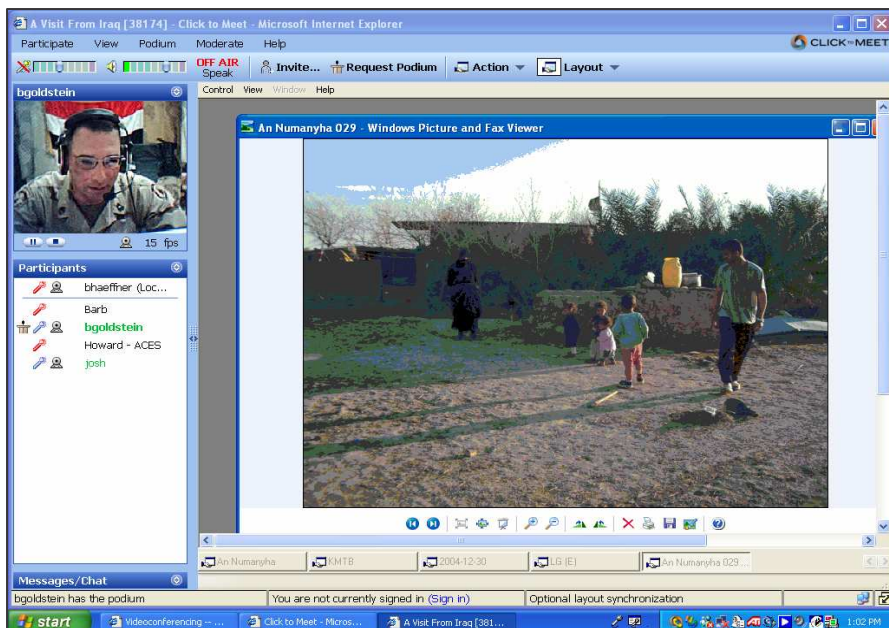
The definition of hybrid depends on who you ask and in what context. Some examples (of many) of what hybrid could mean are:

- ◆ Online materials and tests posted on the web, but you need to come to class each week
- ◆ Video and audio conferencing twice a week, but the rest of the week interaction is e-mail and web discussion boards
- ◆ Taking part of the semester or weekends in person and the remainder of the semester's interaction and content is delivered on the phone, over streaming video, and in print.

Challenges of the delivery slice

Lest you think this delivery slice doesn't contain any number of challenges, let me list just a few of them for you. Maybe we can talk more about some of them in the near future!

- ◆ There are a host of technology barriers, including access to PC's, networks, peripheral equipment, and the setup, maintenance, and training of how to use this equipment properly in an educational setting.
- ◆ There are real-estate problems, like where to put the equipment (is it embedded within existing classrooms and delivery locations or is there a "separate" technology area?).
- ◆ The reality of the "real-time" vs. "asynchronous" online learning debate and lack of understanding about what is appropriate.
- ◆ The incredible politics of instructor value and payment – as one example, what happens when a school district has a great Japanese teacher and she wants to start teaching real-time tutoring sessions online? If the school is all of a sudden "billed out" to other districts at handsome hourly rates, won't that teacher want to be paid more? How can schools begin to share resources amongst each other and between districts (or even between states) with the scheduling, time zones, unions, and curriculum issues as possible barriers?



Master Sergeant Brett M. Goldstein of the 14th Battalion 98th Regiment 6th Brigade 98th Division (IT) of the United States Army sharing photos and videoconferencing live from Iraq over the Internet with his students at Thomas Edison Middle School in Connecticut (photo courtesy of Area Cooperative Educational Services, ACES, in Connecticut USA)

But that was just about delivery. Online learning delivery techniques are one third of the pie, and we just touched on a whole bunch of issues that really deserve their own discussion. We should talk about these soon if you are interested.

The other two slices

Don't forget Tony, we've only tangentially spoken of the **Creation** and **Management** slices within the context of delivery so far in this little letter. Yet each of these other slices has an equal amount of depth to the delivery slice – and we've just barely begun to talk about the delivery slice!

Just to whet your appetite, here are a few questions that we could talk about that would no doubt generate a lot of discussion topics for those exploring online learning and who need to come up with a plan for these two slices.

Creation Slice Questions

- ◆ *Who creates content for online delivery and approves it as meeting the state or national standards?*

The Area Cooperative Educational Services (ACES) school district in Connecticut has an interesting model that they are using in a few grant sponsored videoconferencing programs for lower elementary grades. I think it is interesting that there is a partnership between teachers as content creators and the state as “approvers” of the content modules that map to particular state standards. I can get more into this really interesting organization in a future letter.

- ◆ *Who trains instructors or instructional designers on how to best develop learning units that are both standards-based and appropriate for the delivery mechanism that is chosen?*

And can these learning units be repurposed for multiple delivery mechanisms with or without change? For example, can someone develop a unit for a classroom that is also appropriate for an interactive whiteboard connected to the Internet and shared across multiple sites? Doesn't most training seem to be on equipment and tools and not on how to adjust building content for new delivery vessels?

- ◆ *Are the learning units themselves “standards” based from a technology point of view?*
- ◆ *How does assessment fit into the creation piece?*
- ◆ *How are content units managed, stored, and updated?*
- ◆ *Is the content within the bounds of fair use copyright rules and are proper permissions obtained?*
- ◆ *When does buying prepared units make more sense? And what are the metrics to decide?*

Management Slice Questions

- ◆ *How do students register and gain access to new content and resources? Instructors?*
- ◆ *Are there new models of private and public partnership that are appropriate for public schools and universities? Or is it just the same thing in a different way?*
- ◆ *Are instructors (and course designers) to be paid in the same way as they always have? Should there be worry about losing the best instructors to private organizations whose online reach may allow instructors greater personal career flexibility and higher pay? Or is this a fallacy?*

- ◆ *What should a “learning management system” or “course management system” do? How can we get past the idea that a Learning Management System for content, assignments, and tests is the online learning method for college and adult learning? Or is it?*
- ◆ *How should classes be priced and marketed to expand their audience beyond degree seeking individuals?*

It will happen no matter what

Tony, there is so much more to talk about and so many people and groups to look to for great examples of a how to approach each of these problem and solution spaces. It is so interesting because so many smart people are looking at and doing these things. It is no longer a question of if these things are happening and will they change the education world at all levels. It is happening today.

It is so important that when decision makers and strategic planners look at these examples they understand the context of “online learning” they are discussing and base their solution spaces on the problems that their particular organization is challenged with – not finding a solution and then trying to match it to a problem.

When you look at the most progressive groups and their successes (and failures) you see so much possibility. The possibility is exciting yes, but the actual things being done – not planned or tested, but actually being done today – it boggles my mind that we aren’t delivering these things on a wider scale as a society. I’m not saying I or anyone else has a single “right” answer – but we should all be exploring successful models and forging ahead.

I also think it is incumbent on all of us to learn more about these issues as part of a possible solution to the shortages of subject matter experts, like science and math teachers, who are entering teaching. As Marv Bailey put it to me – technology can provide us with a great opportunity to meet these challenges. And we aren’t going to solve them if everyone involved doesn’t understand the depth, breadth, and possibilities of “online learning” as our discussions move forward.

I hope my letter at least began to shed some light on the size of the topic.

Best regards from your student,



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