Well, and I'm going to be talking a little bit about some of my experiences, teaching online, and how that is relevant to EvoS. I am actually not a full time professor. I'm an adjunct professor. My full time job is actually as an archaeologist. Online teaching is something I do on the side. The basic outline of my talk here is, I wanted to talk a little bit about the history of distance and online education. I think I'm going to cut that down a bit. As well as what the effect of online education is on traditional higher learning, some of the challenges in the development of any online programs, EvoS or not, and as well as the potential for online education and how that can improve EvoS. Then I'm going to turn it over to Hadassah. Think I'm just going to just gloss over this very quickly. Distance learning is actually nothing new. It dates at least to the 18th century. With mail correspondence courses, R. Buckminster Fuller in the 20th century, who was a inventor and futurist, proposed using every technological means we have to improve education.
The Open University in the United Kingdom was a pioneer in using video and audio technology to expand teaching into previously unreachable populations.

Of course, the development of the World Wide Web.

Synchronous and asynchronous courses.

Some quick terms, synchronous courses are essentially courses you take in sync with the professor actually teaching them.

Asynchronous courses are things you prepare ahead of time.

Hybrid courses are actual traditional courses which have a web component added to them, and of course recently there's been a lot of excitement over massive open online courses, taught by the Khan Academy and taught by Coursera and others.

I was going to get past this.

This is my reading of the current state of online education in general. It's becoming a substantial subset of any course offerings at any institution of higher learning, and also K-12 education. Universities, interestingly enough, I have found to be highly variable
and often resistant to using online education. Mainly because it's viewed as competition to traditional courses, and often when they do use online education, there isn't as much collaboration in terms of networks. Our continuing education person said that they do not participate in the SUNY Learning Network, which is a network of SUNY online colleges, because they think Binghamton University can actually do it all by themselves. This is less of a case with four year colleges, and community colleges who are more willing, I've found to operate within networks of linked course offerings. I don't know if New Paltz participates in these SUNY Learning Network, but several four year colleges and virtually all community colleges, in the SUNY System participate in them, and of course, for profit colleges for better or for worse in many ways, online education often defines what they teach. Online courses are often very attractive to college administrators because while obviously there's more potential reach, the World Wide Web, and there is no spatial requirements other than of course, bandwidth.
What is the overall effect of this?

Talking about interdisciplinary education as an anthropologists and archaeologists, I never thought that I would ever be referring to a Professor of Business Administration. But that's what I'm going to do here. Clayton Christensen, who was at least the head of the Harvard Business School. He came up with the concept of disruptive innovation. What does that mean? Well, disruptive innovation is an innovation that essentially changes a business market, and innovations arrive initially, beyond the reach of most consumers. They are rare, high quality, and expensive. They truly become disruptive to traditional models when they become cheaper and more widely available. This is my smartphone here. It is a computer that would fill an entire building 30 years ago, and it's still the way, it was so cheap. It's still has dirt on it from my excavation than I was on yesterday. Contrast this with sustaining innovations, which are basically just innovations that are incorporating into an existing system. Think of a fuel injection system in a car.
There are two aspects that are required for an innovation to become truly disruptive. First of all, you have to have the right technology. It's obviously the case with online education. We have the World Wide Web and it is expanding in many different directions.

The second is structural. There has to be a new structure for dealing with this innovation, for actually either incorporating it, or for, if not incorporating it into an existing model, which would be a sustaining innovation, it would have to replace that model.

I'm just going to skip over that. How does this cash out for EvoS? Are we talking about a sustaining or disruptive innovation? Well, in order for it to be a sustaining innovation, the mass adoption of online courses would more or less just be have to be integrated directly into whatever program they are being offered at.

In other words, yeah, there will be online courses. They will be taught at New Paltz or at Oswego or at Binghamton or at Broome Community College.

But other than just being incorporated into a degree program,
they would essentially be
within the curriculum of those college.
If it were to become a disruptive innovation, that is,
you would have to develop
a new educational structure that would actually
branch into new areas, new audiences.
That is actually something that we have been
discussing in terms of expanding the reach
of our courses into previously unreachable,
or just not cared about audiences.
I'm still going over,
some of the challenges to online education.
Probably the worst is perception.
It is perceived almost universally
amongst the traditional faculty,
at least with many colleges as lower quality.
Even if they don't actually say it,
you can definitely sense that they think that there is
something less useful with online education.
Part of this has to do
with where it is traditionally been used,
for example, for profit education.
People say online education automatically,
they think University of Phoenix,
which I don't know if you've followed recently,
has it was originally
touted as the flagship
of how the for profit model can work.

Well they're seeing extremely reduced enrollments, and they're cutting faculty.
It seems like judgment day has come at last, and of course, diploma mills.
But I would actually argue that the diploma mill project, the problem is less of a problem in the areas of Google.
You see a suspicious looking school.
You can just type that in, and, often you'll type, I'm trying to think of Ashford.
There was an Ashland or Ashford University, and almost immediately the word scam comes up behind it, but there are more accessible means of actually vetting proper online educational systems.

Another problem is, there is no standard for delivery.
I don't know what system new pulse uses.
SUNY Binghamton where I teach in the summer, uses Blackboard,
SUNY Broome Community College now to be called SUNY Broome uses Angel.
I think Empire State College previously used Angel.
Now they're switching over to Moodle.
There are several other course delivery systems, and this will hinder any either cross institutional system for online learning.
I believe the SUNY Learning Network uses Angel.
Finally, something that I've encountered a lot is
competition or the perceived competition with traditional classroom delivery.

Whereas courses, the traditional faculty, A, don't want to teach online courses, and B, are afraid of someone else teaching online courses at least during the fall or spring traditional semesters because they think it's going to cut into their student enrollments.

Now, I just thought I'd take a few minutes and depress any adjuncts or recent graduates around here. There was a recent article by adjunct in anthropology who was attending the American Association of anthropologists. This is the most prestigious institution in anthropology. Talking with other adjuncts about how they essentially spent their entire adjunct salary Just going to the conference. Adjunct instructors are increasingly being used by institutions as a cost saving measure, and this is even more pronounced where I teach at Broome Community College, where in my own division, liberal arts, about 60 percent of the faculty are actually adjuncts. Adjunct positions are often temporary usually with no guarantee of future work, and adjunct instructors are often required to hold some other employment while teaching, right right.
But if there is going to be
a system of online courses
that's going to be offered by EvoS,
it's going to have to be very likely
adjuncts are going to have to play a large role.
As was mentioned by Gordon Gallup,
when a species is faced with a threat,
they can either move, die or adapt,
and that's what we see.
Sounds like a Joss Whedon fan,
but you had a Star Wars,
I had to get a serenity in there [LAUGHTER].
There is a growing online culture of
what has been called mercenary
adjuncts or academic mercenaries,
or just online adjuncts.
These are people who
are essentially full-time part timers.
They teach at multiple institutions,
they develop new means of offering
large amounts of courses to several institutions.
We can argue about whether or not
this is an issue of quality,
I'm sure some of the other speakers can speak to that,
in order to make a living wage.
In many cases, these adjuncts are
not all professional adjuncts,
but they're professionals in other disciplines.
For example, well, I'm an archaeologist and
I work as an archeologist and yet I teach in college.
You have lawyers who teach online,
you have professionals who work in labs
who also teach as online adjunct professors.
If they're able to integrate this into their schedule,
this can actually be a benefit.
How does this cash out for EvoS in general?
Well, I think that online education,
however we structure it,
can enable the mission of EvoS by,
first of all, increasing the diversity of
instructors engaged in the evolutionary sciences.
I talked about the adjunct crisis,
in many ways it's almost a PhD crisis.
Still go off topic slightly here,
I work in a cultural resource management firm,
and at the level that I work at,
Project Director, you need
a minimum of a master's degrees.
Well, amongst our project directors,
about 50 percent have PhDs and they're not teaching.
There are no permanent positions for them to teach.
But if there were an avenue for them to teach,
and I'm not saying it would be them,
they would be able to engage with their discipline,
utilize their PhD, and also make money.
Increasing online courses in EvoS
would also increase the reach
of evolutionary studies to a much larger audience.
I'm going to talk about some of the audiences
that we might be talking about.
Also, as I'm sure,
it's less the case for me as an anthropologist,
but especially for psychologists,
it also increases the potential
for EvoS student tests pools.
I mentioned the larger audience.
It's also less weird audience.
Does anyone know what I mean when I say weird?
No? See see a few nods.
[LAUGHTER] Western, Educated, Industrialized, Rich,
Democratic, and related to
that is what I call an embedded student body.
Embeddedness is a concept that's been
kicking around in anthropology and various forms.
I could refer to Habitus by Pierre Bourdieu.
It's essentially
the social ecological niche of an individual,
where as a student embedded in.
Just to give an example of the diversity that
I had in my own online courses,
this summer I had one student
who was taking the course from Tokyo,
one student who was taking the course from Taipei.
One student who was a camp counselor somewhere downstate,
New York, one student who was in Maryland,
one student who was taking a cross-country trip,
and one student who was in Vegas paying for the course at
the blackjack table [LAUGHTER], presumably successfully.
What are some of the things that we have
been talking about as far
as online education within the context of SUNY.
First of all, we have been talking about
a SUNY-wide EvoS network.
We already have a shadow of that in
the SUNY Learning Network that I mentioned before.
Like I said, this is an online network
of institutions that offer
online classes to anyone
within this network, within the system.
But as I mentioned, some institutions
don't engage with that.
This would be a SUNY-wide network of institutions
participating in the EvoS network
that would be offering online courses.
It is, of course,
a matter of bureaucracy as
to what the structure of that will be,
what the delivery system will be.
In addition to that, I would like to suggest that an EvoS-wide network beyond the SUNY system would be in our best interest. As has been mentioned, EvoS is now an institution or is a network that includes I think 40 institutions the world over, and this wouldn't have to be only universities. For example, the National Center for Science Education is a member of EvoS. I can already think of a course being taught or at least influenced by Eugenie Scott on evolution in education or the Evolution Institute. These are potential resources for online education. Finally, we've also been talking about adult and continuing education programs. These would be targeted first towards non-credit certificate programs. Thinking of people who are engaged, who are in clinical psychology, or who are science teachers or history, even social studies teachers, or in some profession that is not traditionally associated with evolution or evolutionary studies or Darwinism that would benefit from this because in many cases,
they have to renew their certification
for teachers, for clinical psychologists,
psychiatrists, and this would be a benefit to them.
Finally, just as simply as
continuing education for people who are interested
in the theory of evolution and how it applies to them,
one of the things David started in Binghamton
was a series of talks at the Lyceum.
It's an intellectual organization for retired persons
who accumulate to just
gather to hear lectures on various topics.
Actually, the archaeological firm that I work for,
Public Archaeology Facility has also given talks there.
That's just a quick overview.
Some of the courses we were talking about,
the easiest is of course
traditional models or traditional courses
that are incorporated into some form
of asynchronous online module.
This can be text-based,
this can be PowerPoint based.
PowerPoint has failed many times as an online,
so I wouldn't suggest that.
Synchronous lectures are another option,
although occasionally more prone to technical breakdown.
But synchronous lectures would just be in
sync with whatever event is being offered.
Video seminars, I think it's already been mentioned here at one point as part of a course requirement to have recorded video seminars of various speakers.

Online enhanced internships.

This is something that Hadassah and I had been kicking around a bit.

This would be an online hybrid component to an internship which a student would choose. They would be able to pick an internship site. Almost like evolution for everyone, but in a more condensed format, they would be given a basic outline of evolutionary theory and how it applies to their own area of interest. Within that, there would be tailored exercises geared towards whatever internship they would be attending.

For example, they may be attending the Museum of the Earth in Ithaca, or the State Museum at New York, or perhaps maybe the Bronx Zoo, whatever.

Also, there's been talk of half and quarter semester short courses on very specific topics.

Actually for two winters, I taught a very short course during the winter semester on how to
use archival methods for
studying genetics in biological anthropology.

That's all for me. At this point,
I will turn it over to my co-presenter.

It's my [inaudible 00:18:35] few seconds here.

My name is Hadassah, and I'm
the evolutionary studies coordinator
at Binghamton University.

I'm also involved with evolution, This View of Life,
online magazine, which
hopefully some of you have heard of.

But if you haven't, a quick intro here.

This is a homepage to the magazine.

This was also the site net that was talked about before.

This was a project that was developed by Robert Kader,
who was Davidson Wilson’s graduate student.

It was also inspired by
the EvoS Program and an offshoe to
market and bring to
the masses evolution across all topics.

Up here you see we have biology,
paleontology, culture, health, arts,
technology, religion,
politics, mind, economy, environment,
and this is a little scroll bar which would
also get you to education,
and soon we're going to be starting a morality section.
This is what an inside page looks like.

Each of these sections has

a primary editor from

all around the world and many different universities.

For instance, this is Michael Bloom,

he lives in Germany.

That editor is responsible for original content.

Popularly, people like to do interviews.

David does a large number of these.

These are talking heads or blogging heads interviews.

This is something that ties in well with and as

something that can be utilized in

all sorts of evolution education,

not just online, but it works well with distance as well.

If a professor or group of students is

particularly interested in one person's work,

and maybe it wouldn't be easy for them to contact

that person for an interview, you can e-mail me,

which I'll put my e-mail up at the end,

and I can contact

the responsible editor for that section that is

related to the person that you would

want to be interviewed.

We can do that outreach for you,

and then you can integrate

that video into your class and share it around.

We're interested even to see your questions.
We're happy for you to not only say, "Hey, we'd like to cover this guy or this woman's work, but also, hear some questions that our students actually could really have.

So that's one way to integrate.

Here is a slide of our Twitter page in case you didn't notice.

We have a lot of followers, we have a lot of fans on Facebook, a lot of YouTube views, and a lot of website views.

This is also a great place to market the distance programs that we're talking about in this presentation.

We have a lot of people out there that are not in this room, that are already interested in evolution across all these different disciplines, that might be interested in taking more formalized distance learning as opposed to just the YouTube video type education.

Here's my contact info.

[APPLAUSE].

This was brought together by the Binghamton University, we're using their creative services department.

Their time has been,
I guess volunteered to us by the university, the Evolution Institute, which is a non-profit, we're officially under their guys, I guess. In terms of donations, it goes through there. EvoS obviously, David is the editor in chief of the magazine. I'm the EvoS coordinator and Robert was involved with EvoS and that is it. [APPLAUSE] Questions for either of us? [inaudible 00:23:18] Think it's on. One of the other things we didn't talk about at the business meeting earlier, but the EvoS studies.orgsite, which was created with the NSF grant is big and does a lot of things for EvoS. EvoS mag obviously does too. I don't know exactly how, but I think in the next year or so if we can integrate these so that they're one entity or at least with the same platform and strongly interconnected. I think that would benefit both entities and the broader goals. David mentioned that the business meaning that we're interested in continuing to
work with creative services that Binghamton
in terms of grants and the like.
That would facilitate something like that.
I think so. I just like we just
need to keep that high on the radar.
I think it's great work.
Anybody else? Well, you can come talk to me after.
Obviously, you can submit work to us as well,
targeted at a popular audience
as opposed to like a journal audience.
I can pass it along to our editors to see
if they're interested in having it posted.