

L. Lennie Irvin

Eng5365, New Media Rhetoric

Dr. Rich Rice and Dr. Miles Kimbell

Texas Tech University

5 July 2007

Course Reflection

I. Theoretical Positions in Relation to Course Readings

As I reviewed my readings and work for this class in New Media Rhetoric, I found one reading that seemed to connect the threads of the course for me as a writing teacher. David Blakesley in his 2000 review of Jay David Bolter and Richard Grusin's book *Remediation: Understanding New Media*, presents the final hyperlink-question, "Should remediation be of interest to teachers of writing?" In his response to the question, titled "Writing and Remediation," Blakesley says the book has relevance for writing teachers because of "its insistence on the logic of remediation as a figuration of writing's future development." He goes on to briefly sketch the "reanimations" of old techniques for teaching writing by the new digital environment, especially regarding the changed influence of audience in a wired writing classroom. I have been performing this remediation of writing instruction in the computer classroom where typical class activities have been shifted (dare I say "transcoded") into a digital environment—print text to web page, class discussion to class chat or bulletin board, face-to-face peer groups to electronic peer response, written feedback to electronic feedback, print syllabus and resources to web

versions. As I looked again at Rich's iRhetoric article for *Kairos*, I saw more clearly that a large part of what he meant by "placeshifting" was about "remediating" a class in Classical Rhetoric for an online setting (or place)—the differences and added possibilities. This realization about the meaning of "remediation" in terms of my own teaching practice helped me integrate some of my previous knowledge and experience with our course content.

Some of Blakesley's other comments about new directions for writing teachers pointed to the new challenges and learning I felt I experienced in this class:

In the next ten years, I see a convergence of the visual and verbal to such an extent that writing teachers will need to develop theoretical paradigms and protocols for addressing the rhetorical dimensions of not simply writing, but multimedia writing.

and

Students will need to learn the terminology and conceptual strategies for talking and writing about what they see, whatever media deliver it to them

I believe I have begun to formulate *theoretical paradigms and protocols for addressing the rhetorical dimensions of [new media] writing* and some of the *conceptual strategies for talking about [new media] writing*. I want to stress the word "begun" because I still feel a novice with many of these theoretical paradigms and concepts—it will take me time to assimilate and gain more control of these ideas. One area I did not gain a clear enough foothold in is visual rhetoric as well as theorizing the blending of image, text and sound. I also feel particularly weak in some of the deeper ethical issues about new media, including the true complexity and ramifications of copyright in the digital age. Despite my

weakness in these key areas, I believe I did gain a fair understanding of new media, the new media experience, and the new media writing activity.

My definition of new media is dominated by Manovich and Bolter. Manovich has the simple—but useful—definition of new media being anything that is produced by a computer; Bolter identifies the resulting characteristics of transferring old forms into a computer setting with his definitions of new media as remediation, immediacy (or transparent immediacy), and hypermediacy. While Bolter provides some language useful to describe digital representation, Manovich offers more detail into the computer "ontology" (sort of like its DNA) and then the affect it has on the human, cultural experience of new media. Richard Lanham in his book *The Economics of Attention* theorizes in complementary fashion this influence of new media on our communication and sense of reality. As I thought about these two authors, I decided that I could perceive new media through two lenses or perspectives that oscillate and interanimate each other: the material lens and the affective lens.

Manovich does an excellent job elaborating on what I am calling the "material" aspect of new media—that all new media ultimately reduces down to ones and zeroes. He breaks down new media into what he sometimes refers to as the "computer's ontology": numerical representation, modularity, automation, variability, transcoding. No other theorists of new media we read digs this deeply into the structure of computers and links this structure to our experience of new media creations and representation. As Manovich says, "Because new media is created on computers, distributed via computers, and stored and archived on computers, the logic of a computer can be expected to significantly influence the traditional cultural logic; that is, we may expect the computer layer will affect the cultural layer" (46). I am referring to this cultural layer also as the affective lens because this "logic of

a computer" influences our emotional, lived experience of new media. I'll list here some of the instances of this transcoding that I found most significant.

First, in his discussion about new media design, Manovich focuses on just two approaches: databases and virtual space. He says, "In migrating to a computer environment, collection and the navigable space were not left unchanged; on the contrary, they came to incorporate a computer's particular techniques of structuring and accessing data, such as modularity, as well as that of its fundamental logic—that of computer programming" (214). In a computer, the world is reduced to two software objects—data structures and algorithms (223). For example, within a MOO everything is an object and all objects are defined either by properties (data, information about the object) and verbs (programs that the object can run). Manovich points out how this computer logic influences the sense of narrative in digital environments where paradigm and syntagm are reversed giving the database (paradigm) material existence and the narrative (syntagm) is dematerialized (231). Likewise, computer "logic" influences the new media representation and experience of virtual space as more haptic than optic: "[the] ontology of virtual space, as defined by the software itself, is fundamentally aggregate, a set of object without a unifying point of view" (258). Most significantly for me, I experienced a different kind of writing as I engaged in creating our project for the class, and Manovich's five principles of new media helped me break down the new materiality and process of new media writing (See my attached "Theorizing New Media Composition" in Appendix A). The choices and possibilities available to me for writing and especially revising (cf Lanham 256) were vastly changed and expanded in this new form of writing. Although I am listing these instances of transcoding or remediation in abbreviated form, they represent some of the most significant features of new media that I have gained a better understanding of in this class.

While Manovich provided me with conceptual terms and strategies for talking about new media, Richard Lanham offered the theoretical paradigms and protocols for addressing the rhetorical dimensions of new media writing. Through his extended metaphor of the economy, he breaks down our perspective on new media following the ancient dynamic between style and substance and points out how in today's information economy our view of "substance" has shifted from "stuff" to "fluff." The new scarcity in this economy is "the human attention needed to make sense of information" (7). He believes the ancient practice of rhetoric will have a renewed significance because it is about training people to create and keep attention. Of particular importance for theorizing attention in new media is Lanham's Style-Substance Matrix of signal, perceiver, motive, and life. Revisionist thinking, as Lanham concludes, "is all about relating style and substance, trying to align them more perfectly" (262).

The last theoretical aspect of new media that struck me in particular was what we might call the psychology of new media. Manovich talks about "the modern desire to externalize the mind" and links Althusser's notion of "interpellation" to discuss what he calls a new identification: "The cultural technologies of an industrial society—cinema and fashion—asked us to identify with someone else's bodily image. Interactive media ask us to identify with someone else's mental structure... the mental trajectory of the new media designer" (61). In reviewing Manovich, I linked his new identification with his discussion of narcissism ("...most new media...can be said to activate the narcissistic condition because they represent to the user her actions and their results" (235)) and the "virtual flaneur" who "finds peace in the knowledge that she can slide over endless fields of data, locating any morsel of information with the click of a button" (274). Here (in deeper psychological terms) is Lanham's attention economy, but Lanham did not theorize the rhetorical practices for this attention economy enough. Manovich's new identification, I think, needs to be thought of in terms of Burke's notion of

identification and persuasion. Likewise, Manovich's observation about new media and narcissism may point out new mechanics for the enthymeme within virtual environments. These, I find, interesting topics to speculate about, but at this time I have not formulated any clear ideas on these connections.

B. Fulfilling the Course Outcomes

This has been a difficult course for me for two reasons. First, the course content was vast and difficult to gain a grasp of. Second, the time frame for the course was difficult for me given my other commitments because so much of the work coming before and after the May Workshop. Hence, there were sections of the course that I felt that I did not gain enough of a foothold in (especially Visual/Aural Rhetoric—Haraway, Mirzoeff, Barthes, Griffiths—and HCI—Johnson, Ulmer). I feel as though my thinking on new media is too dominated by Manovich and Lanham and to a degree Bolter. But it is a start.

If anything, I feel (using Burke's parlour as a metaphor) that I can sit and listen to the conversation with a good basis for understanding, but I am not yet ready to contribute to the conversation. I need to listen (i.e. read) more, look at more new media, and learn more. I believe I can now recognize, describe, and analyze new media "objects" with a solid foundation of interpretive insight and vocabulary. Probably the greatest gain for my understanding of new media came from the class project where I was called upon to produce a larger new media product than I had done before. In the writing of this project, I theorized characteristics of "new media writing" using Manovich's five principles of new media (see Appendix A). I don't imagine that my theorizing is anything new, but it was helpful for me to chart out the material and psychological ways in which this kind of "writing" is

different. Without this course, I would not have been able to formulate this understanding. A large part of my own quest for a "New Composition" is founded upon the notion of "Open Genre/New Literacy" where I advocate using different genre's with students, especially new media forms of "text." Whereas before my notions of the "new literacy of electronic communication" was founded upon Kathleen Welch's *Electric Rhetoric*, now I believe that I can talk about this "new literacy" with much stronger theoretical foundations. I almost feel ready to have my students create digital videos as class projects.

Although our class projects were not professional quality, I believe we did a good job in terms of the course goals. The hands-on project was meant to further our experience of iterative project development (valued in Technical Communication) and stimulate experiential learning of our subject. By developing repeated low-fi prototypes and gaining feedback upon them from our peers/audience, we gained concrete practice with this pain-staking process. Likewise, the act of actually writing new media—from object capture and manipulation to integration, editing and publishing—led to my own extended theorizing about new media writing following Manovich's five principles of new media. This insight was a significant breakthrough for me, and I think argues for my successful completion of the experiential goals for the course.

C. Contributions to the Group Project

Becky and I worked well together. She has industry experience in product development, while my experience in various development projects was more academic (both concrete and abstract). Despite our disparate backgrounds, we planned and negotiated the planning for our project smoothly.

We followed Dr. Kimbell's outline of iterative development and mostly problem-solved collaboratively how we were going to do the project.

Typically, we would come together to do big-picture planning, and then divide the tasks that needed to be done and which we were better suited for. For instance, she is excellent at html and java and quickly volunteered to work on our html shell (or index page) for the project. I, with my knowledge of enCore v5, volunteered to write the help text for the different tasks in our guide. We then brought the drafts of our separate work back to each other for feedback. We likewise collaborated well on making the videos. I assembled Camtasia videos and screen shots from which to compile our video, and she would work on assembling them and editing them in iMovie. We even divided up the narration of the videos (in fact, we stayed late in the MULL on alternate nights to do our set of videos). In finalizing the print versions of the help text, I saved them in pdf, and she created links to these pdf files for our html shell. In working on the Final Report, we also divided up the tasks—I wrote the first part on Invention and Development, and she wrote the final part assessing our Final Project. Our modular way of working seemed to match the modular nature of new media, but always we would bring our separate parts back to each other for comment and revision.

Working with Becky was a treat. We each have solid backgrounds with computers and we each have a streak of responsibility that helped us each pull our own weight and come through for the other.

Works Cited

- Blakesley, David. "A Review of Remediation: Understanding New Media, by Jay David Bolter and Richard Grusin." *Kairos: A Journal of Rhetoric, Technology, and Pedagogy*. 6(2): <http://english.ttu.edu/Kairos/6.1/reviews/blakesley/remediator.html>.
- Irvin, Lennie. "Open Spaces: A Heuristic Toward a New Composition." 4 Dec. 2006. 2 July 2007 <<http://www.accd.edu/sac/english/lirvin/TTech/F06-5364--LLI.pdf>>.
- Manovich, Lev. *The Language of New Media*. Cambridge: MIT Press, 2001.
- Lanham, Richard A. *The Economics of Attention: Style and Substance in the Age of Information*. Chicago: U Chicago P, 2006.
- Rice, Rich. "iRhetoric Placeshifting: A New Media Approach to Teaching Classical Rhetoric." *Kairos: A Journal of Rhetoric, Technology, and Pedagogy*. 11(3): Summer 2007. 2 July 2007 <<http://kairos.technorhetoric.net/11.3/binder.html?topoi/rice/index.htm>>.
- Welch, Kathleen E. . *Electric Rhetoric: Classical Rhetoric, Oralism, and a New Literacy*. Cambridge, Massachusetts: The MIT Press, 1999.

Appendix A

Theorizing New Media Composing

It was in the "composing" of these videos that Becky and I gained first hand experience in "new media" composing, and it is worth theorizing this composing activity based upon Lev Manovich's Principles of New Media. Although our final product does not represent the best example of "new media," I believe we experienced new media composition in a significant way. Rather than a writing process that involved ideas and text--whose materiality was predominantly printed words--our new media composing process involved images, movies, voice and music, as well as text. In addition to this vast expansion of the "materiality" of what we handled as we composed, we also engaged in using different tools and different ways to manipulate these different "objects" of our composition: photoshop to manipulate images, iMovie to manipulate video and sound, Camtasia to capture screen images and videos, Garage Band to manipulate sound. Rather than using one tool to manipulate text--Microsoft Word--our new media composition called on us to use multiple tools and eventually bring them all together into a different kind of "text."

Numerical Representation

Manovich's first principle of new media is numerical representation. As objects composed of digital code, Manovich highlights these objects as numerical representations with these features:

1. All new media objects can be described formally (mathematically). ...
2. A new media object is subject to algorithmic manipulation. ...In short, *media becomes programmable.* (27)

New media composing comprised the selection, processing, and putting together of many discrete parts (discussed more in the next section on modularity), and our handling of each of these parts involved a keen awareness of each object's numerical representation. What size should our video be--640 x 480 or 480 x 320? How low should the background music be set--.4 or .7? How long should the opening credit be--five seconds or seven seconds? Should the Ken Burns' effect last for ten seconds or three? In addition, our selection of objects and the eventual publishing of the finished text was influenced by sampling and quantization (28). When we snagged a screen shot--what format should we save the image in? What size should we save the image in? What should our settings be as we record video for picture quality as well as sound levels? When we publish the final video, what should our "quality" be? iMovie automates much of the movie quality selection, but MovieMaker offers extensive choices for movie quality and exemplifies the numerical choices the composer needs to make when publishing the final product. These choices influence the size box the movie will play within as well as the download speed and image resolution.

At each stage of the new media composing process, the new media writer uses numerical representations to manipulate the "performance" of the object within the composition. The new media

writer is constantly tweaking and testing different settings to see which looks or sounds better. What if I extend this section of video for five seconds? What happens when I shift the video settings to 480 x 320--can we still see what is going on ok? Can I hear the voice-over discussion better if I raise the volume on that sound track by 30%? by 40%? Is 40% too loud? What if I try 35%? The different tools of new media composition--most significantly iMovie or MovieMaker for video--allows for this constant adjusting, testing, and readjusting.

What I find most interesting in this numerical manipulation is the ease with which it can be done and promptly played and tested. After each change, the movie (text) can be replayed to see and hear the effect of the change. The writer can insert a transition and then quickly play how it will look. If that transition doesn't look right, the writer quickly can grab and insert another to see how it will play. This constantly manipulation of the new media "text" represents a significant feature of the new media composing process and experience. Although text-only writing also involves manipulation--change one word for another, cross out this section, move this sentence up, add a word or sentence--new media composition appears to involve a greater amount of this manipulation. Whereas a common challenge print-text writing teachers face is teaching students how to edit in significant ways beyond simple proof reading, new media and its composition tools seems to have constant editing hardwired into the process. Conceivably, the editing element implicit within new media composition could be used by teachers to "remediate" the editing of print-text writing by grounding students in an experience and metaphoric language of editing that otherwise might be foreign or unintelligible to them. As Manovich mentions, the logic of new media is that of "individual customization, rather than mass standardization" (30). The numerical representation of each element of new media composition and the ease of manipulating those elements by changing the number values foregrounds the individual composers ability to customize his or her "texts," and might lead against the "mass standardization" of traditionally formatted texts.

Modularity

The second principle of new media Manovich identifies is modularity, "the 'fractal structure of new media'" (30). While Manovich defines modularity in multiple ways, he provides this overarching definition: "a new media object consists of independent parts, each of which consists of smaller independent parts, and so on, down to the level of the smallest 'atoms'--pixels, 3-D points, or text characters" (31). Any writing experience involves assembling parts, but new media composition is based upon handling modularity to a much larger degree than traditional print-composition. For print-text, separate parts involves assembling and manipulating characters of type and perhaps the inclusion of graphics. New media writing, in contrast, has potentially much more objects to assemble and manipulate--text, graphics, sound, and movie. In addition, new media compositions typically are "published" on the web, so all objects must be "mediated" to work within the web context:

- for text, it means not just finding the right font and size but finding ones that will look good on the web
- text isn't just typed onto the page; it must be inputted into an HTML format whether via coding in HTML or through a web editor like Dreamweaver
- for graphics, it means not just what size they will be but also resaving them into a format (jpeg or gif) that will work well on the web

- the inclusion of sound elements also involves issues of format (.wav or .mp3, 8 bit or 16 bit) and how sounds might mix together if a background music track is used with voice over audio
- video is where all the elements can be assembled and manipulated

As Manovich points out, the modularity—the small independent parts—of each of the objects can go down to more discrete levels. For instance, I might be able to adjust the size of a photo in my web editor by simply dragging the corner of a picture smaller. That is one level of adjusting that object. However, I can open the same object in Photoshop and reset the image size. But I can also adjust the pixilation by adjusting the ".dpi" or dots per inch. If I want the image to show well on the web and not be too large, I set the .dpi to 72. For print, I would want the .dpi much larger. The new media writer has much more choices and levels at which elements of their composition can be adjusted than print-text writers.

A continuous experience of the new media composer is adjusting these separate objects that comprise the whole of the new media text. Also, significantly, each separate item often needs a separate tool: Dreamweaver for text, Photoshop for pictures, Illustrator for graphics, Audacity or Garage Band for sound, iMovie or MovieMaker for video. The result is that the composition process and the quality of the final product is influenced to a great degree by the "writer's" skills with these tools. It is this modularity—this assemblage of multiple objects—that gives new media composition what has been called its "materialistic" character. With print-composition, the writer develops a level of transparency with assembling characters to form words, words to form sentences, sentences to communicate meaning. The objects (or material) of new media composition, in contrast, constantly draw attention to themselves, particularly for writers with poor proficiency with the tools needed to manipulate each object. Yet, as we have seen in the previous discussion about numerical representation, these tools allow for greater manipulation and faster feedback on the effect of that manipulation. What a new media writer experiences is a totally new way of communicating meaning. The writer, for instance, might take great pains to have a specific image show with a line of text (put in a special color and font) at precisely the moment when the sound track in the background (adjusted carefully to the right level) hits a high point. Crafting the "moment" or better the "performance" of new media text represents making meaning in a radically different way than print-text composition.

Automation

Manovich also highlights "automation" as a key component of new media, pointing out that numerical representation and modularity "allow for the automation of many operations involved in media creation, manipulation, and access" (32). When I think of automation, I think of scripts or batch files or macros (in Word). Common operations are coded and automated so that the whole operation can be invoked with a single command. As Manovich points out, automation occurs implicitly with any new media composition tool: "Word processing, page layout, presentation, and Web creation programs come with 'agents' that can automatically create the layout of a document" (32). New media composition, in fact, depends extensively on this automation. For instance, Photoshop automatically adjusts the "levels" of a picture with a single command and "saves for the web" with a single command. The program allows for manual manipulation of an image, but for most users the automated command works sufficiently and much more quickly. MovieMaker and iMovie are full of automated functions from creating opening titles to inserting pre-made transitions between slides. The new media writer

often has the ability to adjust these automated functions such as setting the quality of the web image (low to high) or customizing the text and effect in the opening title. Part of the skill or fluency of a new media writer is controlling and manipulating the automated features of a particular new media application.

One example will illustrate the difference this new form of "literacy" can make. Microsoft Word contains extensive ways to format a document automatically. One of these is an automatic table of contents feature. As the writer composes, each heading is tagged according to levels (level 1 heading, level 2 heading). Then, with one command, the writer is able to create a Table of Contents page with all the headings listed in order with their given page numbers. If more text is added within the document, the table of contents page will automatically adjust the page numbers. A writer who knows how to use this automatic feature of Word, obviously, can compose in faster more powerful ways.

Variability

Variability is another feature of new media Manovich believes comes from the numerical and modular nature of new media objects. Manovich uses the synonyms "*mutable* and *liquid*" to describe how "instead of identical copies, a new media object typically gives rise to many different versions" (36). He also mentions how the modular nature of new media objects lets composers grab a separate object from a whole and reuse it within a new context. An example of that would be taking a graphic from a web page and reusing it within another site or the way Becky took some javascript code from another website and used it for the dynamic pull down menu in an earlier versions of our final product. One specific composition tool in which we experienced variability was our movie editing software application--iMovie. Manovich identifies six particular cases for the variability principle on pages 37-38. The first is what I will call access to building blocks: "Media elements are stored in a *media database*; a variety of end-user objects, which vary in resolution and in form and content, can be generated, either beforehand or on demand, from this database" (37). Microsoft Word's Clip Art gallery is an excellent example. In iMovie, our experience composing the movies was deeply influenced by this "gallery" of objects and effects we could implement in our movies. We hunted for the right background music from iMovies selections of clips. We chose the kind of transition we wanted between slides from iMovies selections of transitions. We selected effects for our opening and closing of each movie (such as the grainy old movie effect).

Manovich also mentions how "a number of different interfaces can be created from the same data." Although our final project does not produce this kind of variability (since it isn't generating itself from a database), we did experience this aspect of variability in our composing process using iMovie's database. For instance, our opening slide had the same text content ("Talking in enCore"), but by selecting different options within iMovie I could have the background in black or blue, the text in Arial or New Times Roman, 36 pt size or 12, or I could change the transition effect as the text shows. Manovich discusses "branching-type interactivity" and "hypermedia" to describe the variable paths a user accesses the data from within a database, and it was via these kinds of branching and hypertext paths within iMovie that we were able to access the different new media objects and controls to create our new media composition.

Manovich spends some time on the notion of open and closed interactivity and the principle of variability in hypermedia. He makes the insightful comment that "if the logic of old media corresponds to the logic of industrial mass society, the logic of new media fits the logic of the postindustrial society, which values individuality over conformity" (41). Although iMovie is not a good example of what Manovich means by "open interactivity" (Gmail or Amazon is perhaps a better example), it does relate to his notions of individuality in new media. iMovie presents a broad collection of objects from which a composer can create very individualized products. Yet iMovie is closed, that is it "uses fixed elements arranged in a fixed branching structure" (40). The iMovie composer has only 16 transition options to select from, only 24 audio clips offered, only 6 text effects (I am making up these numbers). The range that the individual composer has for what objects or effects he or she can use is a finite universe in many cases determined by the program. Although a new media composer can import many objects into the program, in many cases he or she can not. Working with this paradox of open and closed options that offer a high but finite range of variability is one of the experiences of the new media composer. Manovich seems to say this experience of the new media composer mirrors postmodern experience in our society: "In postindustrial society, every citizen can construct her own custom lifestyle and 'select' her ideology from a large (but not infinite) number of choices" (42).

Transcoding

Manovich refers to "transcoding" as the "most substantial consequence of the computerization of media" (45). He suggests that new media be thought of as having two layers--the "cultural layer" and the "computer layer"--and these layers impact each other: "Because new media is created on computers, distributed via computers, and stored and archived on computers, the logic of a computer can be expected to significantly influence the traditional cultural logic; that is, we may expect the computer layer will affect the cultural layer" (46).

Since we were not producing a "text" with a lot of cultural content, our transcoding may not be as interesting as other new media objects. However, we were translating the face-to-face experience of "going to class" to the online experience of class in TTU MOO. The MOO, in fact, contains these transcoded features like using the terms talking, whispering, emoting, slide projector, to signify virtual equivalents of physical actions (telepresence and teleaction). Bolter might refer to these aspects of the MOO experience as a form of remediation, but we can see them in Manovich's terms as a form of transcoding. As new media composers, we attempted to make this virtual cultural layer of going to class more accessible and easier to negotiate for our audience.

For the new media composer, transcoding has two layers that intertwine to various degrees. Manovich provides the broad and simple definition that "to 'transcode' something is to translate it into another format. Our project illustrates the various degrees and levels of transcoding. The translation of our html version of text instructions into pdf versions seems a low level of translation. Not much culture seems to be involved. However, the new media composer is thinking of the end-user's experience. How will this text look and be used or experienced online? For what purposes, then, might they want a print copy? By offering a video of the help item, do we offer an expanded and perhaps more accessible way of

communicating. In this way, the new media composer must think of the experience their audience will have and the effect various translations of their content will have.

The second layer of transcoding is more cultural and involves remediating what is familiar in a face-to-face situation into a digital environment. The new media writer, in order to highlight this connection between the real and the digital, needs to provide the familiar in this new context. For instance, our creations continually use the graphic of Brian Still talking before his Usability Class. This graphic of a real class is meant to represent what the online user will be doing by going to class online (though they won't be in a real class with Dr. Still talking before them). Also, the selection of our titles for help items attempted to connect as much as we could with real tasks that might be done in a real class (talking, directing speech, whispering, slide presentations). In a powerful way, our guides were intended to facilitate the "cultural reconceptualization" of online education that is happening in our online program.