Educator’s multimedia studio

Matthew X. Curinga

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**Educational Technology 0850-620, Spring 2021**

**Keywords:** studio pedagogy, interaction design, multimedia learning, digital studio, ed tech capstone, instructional design, school segregation, urban education, urban technology

**Description:** How can digital media best support learning? Working on semester-long projects, students learn about interaction and instructional design. In this hands-on studio, develop and extend skills in multimedia authoring: digital images/audio/video, and interactive web development. Apply these skills to create a original educational resources.

**Class meetings:**

On the schedule, live video call meetings will be held via Zoom, 4:30pm to 6:30pm. As the health situation evolves, we may hold some hybrid flex sessions on these days, where I will be in-person in the Manhattan campus and invite anyone to join in person. If you cannot make it in person, we will all join via Zoom.

Asynchronous sessions will have no set Zoom meeting or other time. Activities for those weeks will be coordinated through the Moodle class site.

**Instructor:** [Matthew X. Curinga](https://matt.curinga.com), [mcuringa@adelphi.edu](mailto:mcuringa@adelphi.edu)

**Office hours: (online)**

* Monday 1-3pm
* Thursday 3:30-5:30pm, online
* *office hours by appointment*

## Spring 2021 Studio: School Segregation in the 21st Century

Each semester the multimedia studio features a different challenge, dealing with an important, global topic. Students will be asked to work on a semester long multimedia project that teaches some aspect of this challenge.

The Spring 2021 Studio theme is **school segregation**, with an initial focus on the New York City public schools. Racially segregated schools may initially appear to be a thing of the (recent) past, but issue stands as a recalcitrant, multifaceted problem in our contemporary society – both as an impediment to educational equity and excellent and an obstacle to social equality and justice.

## Goals

This course is designed to challenge students to develop their abilities as instructional designers and as authors and producers of digital media for learning. Specifically, they should learn to:

* design an effective digital learning environment that is intuitive to use and follows principles of Universal Design for Learning
* develop in-depth skill in one area of digital production: video editing, graphic design, game design, computer programming, web design, etc.
* understand key concepts of instructional design, including meeting the needs of the target audience, assessing learning outcomes, and following sound and ethical pedagogical principles
* think creatively about far-reaching challenges in teaching and learning

At the end of the studio, every student will have a high quality, published multimedia artifact that will be part of their portfolio.

## Required texts

Clark, R. C., & Mayer, R. E. (2016). *E-Learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning*. John Wiley & Sons, Incorporated. [adelphi library](https://ebookcentral.proquest.com/lib/adelphi/detail.action?docID=4418752)

Plass, J. L., Moreno, R., & Brünken, R. (2010). *Cognitive Load Theory*. Cambridge University Press. [adelphi library](https://ebookcentral.proquest.com/lib/adelphi/reader.action?docID=802938&ppg=1)

## Optional text

Delgado, R., & Stefancic, J. (2001). *Critical race theory: An introduction*. New York University Press. [pdf](https://uniteyouthdublin.files.wordpress.com/2015/01/richard_delgado_jean_stefancic_critical_race_thbookfi-org-1.pdf)

## Class meetings

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| week | date | topic | workshop | format |
| 1 | Jan 27 | Multimedia Studio | - | zoom [[meeting](https://adelphiuniversity.zoom.us/j/97908769008)] |
| 2 | Feb 03 | 21st Century School Segregation | screencast | asynchronous |
| 3 | Feb 10 | Past & Present of Discrimination | audio | zoom [[meeting](https://adelphiuniversity.zoom.us/j/97908769008)] |
| 4 | Feb 17 | NYC Schools Today | video | asynchronous |
| 5 | Feb 24 | Topic Briefings | data viz | zoom [[meeting](https://adelphiuniversity.zoom.us/j/97908769008)] |
| 6 | Mar 03 | Pitches | photo editing | zoom [[meeting](https://adelphiuniversity.zoom.us/j/97908769008)] |
| - | Mar 10 | *no class (mini break)* |  | - |
| 7 | Mar 17 | Cognitive Load Theory | vector graphics | zoom [[meeting](https://adelphiuniversity.zoom.us/j/97908769008)] |
| 8 | Mar 24 | Multimedia Principle & Contiguity | web dev | asynchronous |
| 9 | Mar 31 | Modality & Redundancy | open topics | zoom [[meeting](https://adelphiuniversity.zoom.us/j/97908769008)] |
| 10 | Apr 07 | Coherence, Personalization, Segmenting | - | asynchronous |
| 11 | Apr 14 | Prototype Critique | - | zoom [[meeting](https://adelphiuniversity.zoom.us/j/97908769008)] |
| 12 | Apr 21 | Studio Session | - | asynchronous |
| 13 | Apr 28 | User Testing | - | zoom [[meeting](https://adelphiuniversity.zoom.us/j/97908769008)] |
| 14 | May 05 | Studio Session | - | asynchronous |
| - | May 12 | *no class (makeup day)* | - | - |
| 15 | May 19 | zoom (final presentations) | - | - |

## Assignments

### Grading

|  |  |
| --- | --- |
| Assignment | % of final grade |
| participation | 10% |
| topic briefing | 10% |
| workshop | 10% |
| multimedia learning | 10% |
| pitch | 10% |
| critique | 20% |
| final project | 30% |

### Participation

Everyone is expected to participate fully in class. This means meeting deadlines for online posts and, coming to class sessions prepared by having read the readings. During “studio” work sessions, you will be expected to post an update of your progress with screenshots. Each student will receive written feedback on their participation at the end of week 7.

### Topic briefing

The “briefing” session will help us develop our domain knowledge of school segregation. You will choose a specific topic of your choice related to segregation and then create a 3-minute briefing report – a narrated slide show on your topic. We will watch your presentation in class and then have time for some follow up questions regarding your topic. In addition to your slideshow, you will also post the bibliography used to create your briefing. You should have at least 3 sources, one of them being an academic source. The specific topic of your briefing will probably relate to the aspect of school segregation that you will highlight in your multimedia project.

### Multimedia on multimedia

Working with a partner (or group of 3), you will create a multimedia slideshow that demonstrates the key multimedia cognition concepts covered in 2 chapters of *Cognitive Load Theory* (Plass et al., 2010) or *E-Learning and the Science of Instruction* (Clark & Mayer, 2016). The books are available online from the Adelphi Library. The total presentation must be between 10-15 minutes long. You are only required to read the chapter for the week you are presenting, but everyone is encouraged to read the chapters. You should supplement your presentation with outside readings and examples as necessary. You should actively work to implement the multimedia principles you are discussing in the design of your presentation. If you are presenting during a synchronous zoom meeting, you should prepare some questions and prompts to facilitate a discussion. If your team is working with an asynchronous class, you will post your questions and prompts in a moddle forum, and you will be responsible for moderating the discussion. Discussion moderation includes reading all posts promptly, responding with feedback and follow up questions, and pointing posters to similar (or conflicting) ideas in other threads.

* **Cognitive Load Theory:** Plass, chapters [1](https://ebookcentral.proquest.com/lib/adelphi/reader.action?docID=802938&ppg=21) and [2](https://ebookcentral.proquest.com/lib/adelphi/reader.action?docID=802938&ppg=41)
* **Multimedia Principle & Contiguity:** Clark, chapters [4](https://ebookcentral.proquest.com/lib/adelphi/reader.action?docID=4418752&ppg=82) & [5](https://ebookcentral.proquest.com/lib/adelphi/reader.action?docID=4418752&ppg=82)
* **Modality & Redundancy:** Clark, chapters 6 & 7
* **Coherence, Personalization, Segmenting:** Clark, chapters 8, 9, & 10 (3 people)

### Workshops: multimedia tutorial

You will be working alone for your multimedia workshop. For this project you will create a “how to” or series of “how to” videos that feature a specific multimedia authoring technique and tool. Choose a multimedia authoring tool that you know well or want to become expert in. Design a 10-15 minute tutorial that describes how (and why/when) to use it. Your video should be in the format of a “quickstart” that isn’t comprehensive, but demonstrates the key skills that you think the rest of us should know to get started. Some of the tools have room for than one workshop, in this case, one presenter will work on the quickstart video and the other will feature more advanced topics.Every workshop must also include a curated list of documentation and other high quality tutorials.

Please post your tutorial(s)on YouTube and post the link in our “multimedia tutorial” discussion forum (with its own title). Also post the links to docs and other tutorials here. Monitor the forum for feedback and questions regarding your tool.

## Multimedia project

The culminating work for this class is your *multimedia project*. Everyone will work on their own individual project. They will produce a multimedia work that demonstrates their skills as a designer and producer of multimedia, their knowledge of the studio topic, and their understanding of the learning sciences of multimedia.

You should begin thinking about your project during the first week of class. Consider:

* what types of multimedia do you find the most interesting and engaging?
* what are your strengths?
* what would you like to learn more about?
* what skills and demos would you like to highlight as a professional educational technologist?

Past Studio projects include:

* instructional videos
* documentary videos
* animations
* data visualizations
* infographics
* (analog) learning games / card games
* video games
* e-learning courses (captivate, edx)
* self-paced online courses
* simulations
* interactive websites
* mobile/location based learning systems
* interactive stories (Twine)
* multimedia textbooks
* map/spatial multimedia

### Pitch

You will formally pitch your idea for your your final project. The purpose of the pitch is to propose your project in a way that makes it sound exciting, worthwhile, and feasible. You want to tell a good story about what you plan to develop. You should also have some sketches, mockups, sample art, etc. that may be required to make your point.

Plan for a 5 minute presentation.

### Critique

You will formally present a working prototype of your project to get feedback from the instructor and your peers. You should have a solid plan for completing the project. For the critique, you will be assigned a peer evaluator who will “chair” your critique. The chair will gather feedback for you in each of the evaluation areas below and share it with you after the session.

**Critique and Final Evaluation Criteria** *Refer to these criteria for the evaluation of your multimedia project.*

#### Originality & innovation

Does the project take a novel approach to teaching with digital media? Does it combine existing practices in new ways, for a new effect? Does it address an important topic, or hard to teach concept that is relevant to the topic of the studio? In other words, how *important* is the learning goal for the project?

Students will lose points in originality for verbatim translating of existing learning solutions to the new problem space.

#### Design

The design of the project encompasses the information, interaction, and visual design. Points to consider when evaluating the design:

* is the navigation consistent, logical, and easily understood?
* does the graphic design engage users?
* does the look and feel support the learning goals of the project?
* does the user interface take advantage of existing conventions, UI widgets, and user patterns?
* are there clear paths through the system to accomplish user goals?
* are system messages and instructions consistent and clear?
* does the overall design exhibit a level of professionalism and polish that supports trust by the user?
* is the design accessible?
  + does it support the widest possible range of computer systems (including OS, web browser, screen size/mobile, processor speed, internet connection quality)
  + can it be accessed by users with disabilities, where appropriate?

#### Technique

The project’s technique reflects the proficiency of the producer with the tools of the digital studio. All aspects of the project should be well tested for smooth operation. Users should not easily “break” the system. The specifics of development depend on the media. So, each of the various skills required for the course will be evaluated based on the practice of expert practitioners.

* is video composed and edited like an expert video?
* does software meet the speed and reliability that an expert would expect?
* etc.

#### Learning science

At the end, this studio challenge is about learning. Points in this category are awarded for exhibiting a thorough understanding of how people learn with digital artifacts. Successful projects will account for the cognitive, social, pragmatic, ethical, and aesthetic implications of their design, as it impacts learning.