

N416/N516

Online Video Presentation

[Media Arts and Science Program](#)

[Indiana University School of Informatics and Computing, Indianapolis](#)

Credit Hours: **3**

Instructor: **Dr. Edgar Huang, Associate Professor**

Classroom: **IT357**

Class time: **12-2:40pm, Thursdays**

Office Address: **IT 471**

Office Phone: **(317) 278-4108**

Office Hours: **11am-12pm, Th, or via Skype by appointment**

Email: **via Canvas Mail**

Skype: **j21099**

Website: <http://soic.iupui.edu/people/edgar-huang/>

Go directly to [Class Schedule](#)

Edgar Huang's teaching philosophy:

Teaching is not feeding ducks.

Teaching is bringing the best out of a student.

The Mission of IUPUI is to provide for its constituents excellence in

- Teaching and Learning
- Research, Scholarship, and Creative Activity
- Civic Engagement

With each of these core activities characterized by

- Collaboration within and across disciplines and with the community
- A commitment to ensuring diversity, and
- Pursuit of best practices

IUPUI's mission is derived from and aligned with the principal components – Communities of Learning, Responsibilities of Excellence, Accountability and Best Practices – of Indiana University's Strategic Directions Charter.

Statement of Values [top](#)

IUPUI values the commitment of students to learning; of faculty to the highest standards of teaching, scholarship, and service; and of staff to the highest standards of service. IUPUI recognizes students as partners in learning. IUPUI values the opportunities afforded by its location in Indiana's capital city and is committed to serving the needs of its community. Thus, IUPUI students, faculty, and staff are involved in the community; both to provide educational programs and patient care and to apply learning to community needs through service. As a leader in fostering collaborative relationships, IUPUI values collegiality, cooperation, creativity, innovation, and entrepreneurship as well as honesty, integrity, and support for open inquiry and dissemination of findings. IUPUI is

committed to the personal and professional development of its students, faculty, and staff and to continuous improvement of its programs and services.

Course Description [top](#)

The Web 2.0 environment has provided rich opportunities for rich media content to be delivered on the Internet for easy access in many contexts, such as distance education, Web conferencing, online movie delivery, news reporting, patient education, marketing, and so on. For media producers, knowing how to deliver videos online the optimized way is important. Specialists who know how to develop an online video delivery system and customize video delivery to a context are very much needed today.

This course will explore multiple aspects of online video presentation. Students will learn how to encode, Web-author and deliver on-demand videos to computers and hand-held devices. We will address HTML5 video format only. In this syllabus, anything about online video relates to HTML5 video unless stated otherwise.

Topics to be covered include

1. Video delivery process
2. Video delivery theories
3. database support for video delivery
4. Video delivery technologies including streaming and progressive download
5. Technological development of video delivery
6. Video delivery business models

This class will be highly hands-on. No prior video production or editing knowledge is required though such knowledge and basic knowledge of HTML5 coding, CSS3, JavaScript will greatly help. For those of you who have hardly had any Web design experience, I need to warn you: **be very careful and patient** when learning Web-authoring because the Internet has little tolerance for coding mistakes. Changing uppercase to lowercase, creating a file name with a space or spaces, leaving out a semi-colon in CSS, sending files to a wrong server, etc. could all mess up your work. When something is not working after your third try, email me or Skype me immediately. Don't waste your valuable time on struggling.

Required Text [top](#)

- TBD

Course Outcomes [top](#)

Upon completion of this course, students will

- get hands-on experience of on-demand video delivery,
- understand the mechanism of video and audio delivery,
- learn the historical, social and economic contexts of video delivery technology development,
- take a critical look at the video delivery business, and
- develop research interest in video delivery technologies.
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Core Competencies [top](#)

- Delivering on-demand videos with appropriate settings
- Building a video delivery architecture including a video list, cue points, captioning, and customized player, and database support
- Having a preliminary understanding of the video delivery business
- Understanding how videos and audios have been delivered in the industry

Server Access [top](#)

The course materials will be accessible from the store3 Server. To access the store3 server from a PC at school, go Start > Run > **\\in-info-store3.ads.iu.edu\classroom**. To access it from home, you need to connect to IUPUI VPN, and then go through the same steps. You can connect to [IUPUI VPN](#). To access the server on a Mac at school, while in Finder, go to Go > Connect to Server > type **smb://in-info-store3.ads.iu.edu/classroom** > Use your school login ID and password to access the server. To access the Server on a Mac at home, you need to connect to [IUPUI VPN](#) first also, and then go through the rest of the steps. You can only read but not write to this server.

Equipment/Supplies [top](#)

The school equipment pool has several camcorders, lights, microphones, and audio recording devices for checkout. Please go [online](#) to make a reservation. Members in a group should share media routinely so that everyone can have the same media to work on.

Software To Be Used [top](#)

- Adobe Media Encoder
- Dreamweaver
- Adobe Edge Animate
- Photoshop
- FileZilla
- Firefogg

University course policies [top](#)

There are a number of [campus-wide policies](#) governing the conduct of courses at IUPUI.

Classroom Civility [top](#)

To maintain an effective and inclusive learning environment, it is important to be an attentive and respectful participant in lectures, discussions, group work, and other classroom exercises. Thus, unnecessary disruptions should be avoided, such as ringing cell phones engagement in private conversations and other unrelated activities. Cell phones, media players, or any noisy devices should be turned off during a class. Texting, surfing the Internet, and posting to Facebook or Twitter during class are generally not permitted. Laptop use may be permitted if it is used for taking notes or conducting class activities. Students should check with the instructor about permissible devices in class. IUPUI nurtures and promotes "a campus climate that seeks, values, and cultivates diversity in all of its forms and that provides conditions necessary for all campus community members to feel welcomed, supported, included, and valued" (IUPUI Strategic Initiative 9). IUPUI prohibits "discrimination against anyone for reasons of race, color, religion, national origin, sex, sexual orientation, marital status, age, disability, or [veteran] status" (Office of Equal Opportunity). Profanity or derogatory comments about the instructor, fellow students, invited speakers or other classroom visitors, or any members of the campus community shall not be tolerated. A violation of this rule shall result in a warning and, if the offense continues, possible disciplinary action.

Bringing children to class [top](#)

To ensure an effective learning environment, children are not permitted to attend class with their parents, guardians, or childcare providers.

Course Evaluation Policy [top](#)

Course evaluations provide vital information for improving the quality of courses and programs. Students are required to complete one course and instructor evaluation for each section in which they are enrolled at the School of Informatics and Computing. This requirement has three exceptions: (a) The student has withdrawn from the course; (b) fewer than five students are enrolled in the section (in which case anonymity is impossible); and (c) the section is a laboratory that must be taken with a course having a different section number. Course evaluations are completed at <https://soic.iupui.edu/app/course-eval/>. Course evaluations are open from the

eleventh week. Course evaluations are anonymous, which means that no one can view the name of the student completing the evaluation. In addition, no one can view the evaluation itself until after the instructor has submitted the final grades for the course. In small sections, demographic information should be left blank, if it could be used to identify the student.

Communication [top](#)

The instructor should respond to emails within 48 hours, excluding weekends and holidays, and announce periods of extended absence in advance. The instructor should provide weekly office hours or accept appointments for face-to-face, telephone, or teleconferenced meetings.

Email [top](#)

Indiana University uses your IU email account as an official means of communication, and students should check it daily for pertinent information. Although you may have your IU email forwarded to an outside email account, please email faculty and staff from your IU email account.

Disabilities Policy [top](#)

In compliance with the Americans with Disabilities Act (ADA), all qualified students enrolled in this course are entitled to reasonable accommodations. Please notify the instructor during the first week of class of accommodations needed for the course. Students requiring accommodations because of a disability must register with Adaptive Educational Services (AES) and complete the appropriate AES-issued before receiving accommodations. The AES office is located at UC 100, Taylor Hall (Email: aes@iupui.edu, Tel. 317 274-3241). Visit <http://aes.iupui.edu> for more information.

Administrative Withdrawal [top](#)

A basic requirement of this course is that students participate in all class discussions and conscientiously complete all required course activities and/or assignments. If a student is unable to attend, participate in, or complete an assignment on time, it is the student's responsibility to inform the instructor. If a student misses more than half of the required activities within the first 25% of the course without contacting the instructor, the student may be administratively withdrawn from this course. Administrative withdrawal may have academic, financial, and financial aid implications. Administrative withdrawal will take place after the full refund period, and a student who has been administratively withdrawn from a course is ineligible for a tuition refund. Contact the instructor with questions concerning administrative withdrawal.

Emergency Preparedness [top](#)

Safety on campus is everyone's responsibility. Know what to do in an emergency so that you can protect yourself and others. For specific information, visit the emergency management website. <http://protect.iu.edu/emergency>

Student Advocate [top](#)

The Student Advocate provides assistance to students with personal, financial, and academic issues. The Student Advocate Office is located in the Campus Center, Suite 350. The Student Advocate may also be contacted by phone at 317 274-4431 or by email at studvoc@iupui.edu. For more information visit <http://studentaffairs.iupui.edu/advocate>.

Counseling and Psychological Services (CAPS) [top](#)

Students seeking counseling or other psychological services should contact the CAPS office by phone at 274-2548 or email at capsindy@iupui.edu. For more information visit <http://life.iupui.edu/caps/>.

Code of Conduct [to](#)

All students should aspire to the highest standards of academic integrity. Using another student's work on an assignment, cheating on a production, or any other form of dishonesty or plagiarism shall result in a grade of zero on the item and possibly an F in the course. Incidences of academic misconduct shall be referred to the Department Chair and repeated violations shall result in dismissal from the program. All students are responsible for reading, understanding, and applying the [Code of Student Rights, Responsibilities and Conduct](#) and in particular the section on academic misconduct.

Attendance and Participation [top](#)

Attendance is vital to your success in this class. You are required to be present in class to learn new knowledge and skills, to participate in discussions, and to present your ideas and your assignments. University regulations state: "Students are expected to be present for every meeting of the classes which they are enrolled." **There are reasons for missing classes: illness, accidents, or death/serious illness in the family, etc. For whatever reason, you are allowed to be absent for up to two times. If you are absent three or more times, you have the choices of either withdrawing from the class when withdrawing is still possible or getting an "F" for your course grade. Every undocumented absence will cost you 2 points of your course grade.** An absence due to sickness or other excusable reasons will be excused in the sense that 2 points will not be marked off your course grade, but it is still counted as an absence. So save your absences for the absolutely mandatory moments. If you miss a class, you should get notes from a classmate. You are expected to be at class for the entire duration of the class period unless you are dismissed early. If you miss half of the class, you will be counted as being half absent.

Teamwork [top](#)

During the semester, you will be allowed to work as a team on some of the assignments though you can always choose to work by yourself. Each team can contain at most two students. Students who work in a team or individually are subject to the same grading criteria. You will create the team as you wish. Team members will learn how to manage time, have a clear communication, share comparatively equal amount of responsibility, and learn from each other. If a team member is in charge of certain aspects of an assignment, s/he should be responsible for making the other team member understand how, why and what should be done. The purpose of teamwork is learning together, not skipping learning. **If a student skips an assignment, that student will not earn credit for that assignment.**

All creative and personal differences must be worked out amicably outside of class. Problems and conflict between team partners should be solved through effective communication in a timely manner with or without the instructor's involvement. Your ability to deal positively with problems is a measure of your maturity and professionalism. You are allowed to regroup during the semester.

Assignments [top](#)

All your completed assignments should be posted on the Web server. Before you submit an assignment, check a design across multiple Web browsers, including latest Firefox, Chrome, Safari, Opera and IE9. Your assignment will be graded as it is.

All assignments should be submitted to the [submission page](#).

Simply meeting the requirements of an assignment or simply working hard does not earn you an A or 100%. Meeting minimum requirements will earn you a passing grade, which is a C. Additional effort coupled with outstanding performance earns a high grade. The grading criteria are listed in the assignment sheets.

This is an online video presentation course, not a video production course. You are not expected to shoot and edit any videos unless a green-screen video of your own is needed for an assignment. You can download videos free from many Web sites for practice purpose.

You have one chance to revise and improve each assignment that has not fulfilled the requirements so that you can improve a grade.

Grading [top](#)

Distribution of grades:

Assignment 1	5
Assignment 2	5
Assignment 3	10
Assignment 4	10
Assignment 5	10
Assignment 6	10
Assignment 7	10
Assignment 8	10
Course Project	30
Total	100

Grading scale is as follows:

96.5-100	A+
92.5-96.49	A
89.5-92.49	A-
86.5-89.49	B+
82.5-86.49	B
79.5-82.49	B-
76.5-79.49	C+
72.5-76.49	C
69.5-72.49	C-
66.5-69.49	D+
62.5-66.49	D
59.5-62.49	D-
59.49-down	F

Late Work [top](#)

All assignments are due on the date and time specified. Occasional delays (at most two times) will be excused. Habitual delays (three times or more) will earn you a complete letter grade below the course grade you deserve. For instance, if you have earned an A, your actual grade will be B. Any assignment that is submitted seven or more natural days late won't be accepted for grading.

Incomplete [top](#)

A grade of Incomplete (I) will only be given if you have extenuating circumstances that prevent you from completing the class. This includes severe illness/hospitalization. That's about it. If you simply

"get behind" in the class, you will not be given an "I." If you get behind, you should drop the class if it is still possible for you to drop. If, for example, you get busy with work and don't have time to devote to the class, you should drop. That is not an extenuating circumstance.

Flexibility [top](#)

I believe the semester plan is realistic and the objectives are attainable. Nonetheless, I reserve the right to adjust the course content, assignments, etc., based on the class's needs or ability to maintain pace.

Special needs [top](#)

If you have a learning disability, a physical disadvantage, or other special needs, please talk to me about it during the first or second week of the semester. I want to work with you to accommodate your situation and help you succeed in this course.

Students needing accommodations because of a disability will need to register with Adaptive Educational Services (AES) and complete the appropriate forms issued by AES before accommodations will be given. The AES office is located in Taylor Hall, UC 100. You can also reach the office by calling 274-3241.

Visit <http://aes.iupui.edu/> for more information.

Principles of Undergraduate Learning (PUL)

Each class should be able to assess learning outcomes in the following areas:

- Core communication: written, oral and visual skills
- Core communication: quantitative skills
- Core communication: information resources skills
- Critical thinking
- Integration and application of knowledge
- Intellectual depth, breadth, and adaptiveness
- Understanding society and culture
- Values and ethics

About Your Instructor [top](#)

Edgar Huang received his Ph.D. degree in Mass Communication from Indiana University in 1999; M.F.A. degree in Visual Arts from University of California, San Diego, in 1995.

Dr. Huang has taught media convergence, video production and editing, photojournalism, photography, online video presentation, Web publishing, graphic and layout design, research methods, computer-assisted reporting and news writing courses at IUPUI, University of South Florida St. Petersburg, Northern Illinois University, Indiana University, University of California, San Diego, and the University of International Relations. Huang started his college teaching career in 1984.

Dr. Huang is an established researcher. He pioneered the [healthcare new media marketing research](#) area in 2009 and has published heavily ever since. His journal articles about

- interactive e-health tools,
- healthcare videos,
- teaching new media,
- youth news consumption behaviors,
- media convergence,
- streaming technology,
- documentary photography,
- postmodern photography,
- digital imaging, and

- the Internet and national development

are seen in

- *International Journal of Healthcare Management*
- *Journal of Communication in Healthcare,*
- *Journal of Medical Marketing,*
- *Health Marketing Quarterly,*
- *International Journal of Pharmaceutical and Healthcare Marketing,*
- *e-Service,*
- *Convergence,*
- *Journalism and Communication Monographs,*
- *Newspaper Research Journal,*
- *Visual Communication Quarterly,*
- *Information Technology for Development,* etc.

Huang's freelance experience includes writings for trade magazines and newspapers, still photography, book design, Web publishing, news design and video production and editing. In 2014, his online photo exhibition [Tiananmen Square, 1989](#), was made public. A documentary video on organ donation that three seniors in his Fall 2005 A451 Advanced Video class and he worked on won the 2007 AACN (American Association of Critical-Care Nurses) Media Award among close to 1,000 entries. A research project "Searching for an Ideal Streaming Technology," which he worked on with an undergraduate student in an independent study, won Judges' Choice Award at the 2006 New Media Consortium Summer Conference and was published online at <http://www.iupui.edu/~nmstream>. In 2004, the Department of Journalism and Media Studies, University of South Florida St. Petersburg, Web site, designed by Huang, won the first place in the Department and School sites category in the annual "Best of the Web" Design Competition run by the Association for Education in Journalism and Mass Communication. The same site and the USFSP College of Arts and Sciences Web site (designed by Edgar Huang and one of his students) won top awards in the USFSP Web Design competition in 2004. Several public service announcement videos, documentary videos, training videos and promotional videos that Huang and his students produced have been adopted by Riley Hospital, Indiana Organ Procurement Organization, U.S. Courthouse, IUPUI Student Employment Service, Marion County Health Department, Noble of Indiana and so on.

Class Schedule [top](#)

Date	>Class contents	>Homework
Week 1		
08/22	What is this course about? <ul style="list-style-type: none"> ▪ Introduction to the class ▪ Online video technology overview ▪ Observing video hosting Web sites ▪ A brief history of online video technologies ▪ Flash is out (almost) ▪ Major online media players (pun intended) in the market ▪ Setting up a Web server account ▪ Setting up the in-info-store3 account 	<ul style="list-style-type: none"> ▪ Assignment 1: How online video is delivered today
Week 2		
08/29	Online video business <ul style="list-style-type: none"> ▪ Monetizing online videos ▪ Streaming business models ▪ Video streaming career opportunities 	<ul style="list-style-type: none"> ▪ Assignment 1 is due. ▪ Assignment 2: How online videos have helped businesses achieve success ▪ Resources:

1. [Google Analytics](#)
2. [Google AdSense](#)
3. [How to monetize YouTube videos](#)
4. [101 ways to make money with YouTube & Web videos](#)
5. [Jenna Marbles answers questions from the New York Times](#)
6. [Michelle Phan](#), the first woman who has reached 1 billion views on YouTube
6. [The 25 highest earning YouTube stars](#)
7. [Thoughts on hosting and monetizing video streaming](#)
8. [Introduction to monetizing online videos](#)
9. [The future of video monetization is unlike anything we've seen yet](#)

Week 3

09/05 **Researching online video delivery**

- Online video streaming research
- Healthcare video usage studies
- Data-driven online video delivery

- Assignment 2 is due.
- Resources:
 1. [Searching for an ideal video streaming technology](#)
 2. [Videos on U.S. hospital Web sites](#)

Week 4

09/12 **HTML5 video**

- Basics of HTML5 video
- MP4 and WEBM formats
- Video preloading
- Autoplay
- Loop
- Poster image
- Video size control
- MPEG Dynamic Adaptive Streaming over HTTP(DASH)
- Video analytics

- Assignment 3: HTML5 video and audio delivery
- Resources:
 1. [Dive into HTML5—Video on the Web](#)
 2. [Video for everybody](#)
 3. [Everything you need to know about HTML5 video and audio](#)
 4. [Apple.com HTML5 Showcase—Video](#)
 5. [JW Player](#)

Week 5

09/19 **The basic process of delivering video online**

- The mechanism of online video and audio delivery
- Streaming vs progressive download
- Bandwidth and data rate
- Compression and video quality
- VBR or CBR?
- Video encoding in-depth
- Bitrate vs video dimension
- Audio encoding in-depth
- HTML5 video and intellectual property protection

- Assignment 3 is due.

Week 609/26 **Building a customized video player**

- DIY video player
- video player components
- full screen button
- Customizing a commercial media player
- Assignment 4: Building a customized video player
- Resources:
 1. Lynda.com > HTML5: Video and Audio in Depth > 5. Building Your Own Controls with JavaScript
 2. [How to build an HTML5 video player](#)
 3. [Working with HTML5 multimedia components – Part 3: Custom controls](#)
 4. [20 Excellent HTML5 Video Players](#)

Week 710/03 **Building a customized video library**

- Why are video libraries needed?
- How have video libraries been used in industries?
- How can we build one ourselves?
- Assignment 4 is due.
- Assignment 5: Building a customized video library
- Resources:
 1. Lynda.com > Create an HTML5 Video Gallery with jQuery and Dreamweaver

Week 810/10 **HTML5 video's core accessories**

- Cue points
- Captioning
- Video bumpers for commercials
- Assignment 5 is due.
- Assignment 6: Using cue points, caption and video bumper
- Resources:
 1. Lynda.com > Controlling HTML5 video with actions
 2. Lynda.com > HTML5 Projects: Video Bumpers
 3. [Adding captions and subtitles to HTML5 video](#)

Week 910/17 **Combining HTML5, CSS3 and JavaScript**

- CSS3 basics
- CSS3 perspective
- CSS3 masking
- CSS3 animation
- Canvas basics
- Video in Adobe Edge Animate
- Assignment 6 is due.
- Resources:
 1. Lynda.com > Edge Animate Essential Training
 2. [CSS3 Introduction](#)

Week 1010/24 **HTML5 video's unique presentations**

- Perspective
- Masking
- Animated poster
- Animated video button
- Assignment 7: Video presentation with an attitude
- Resources:
 1. [Animate a video player](#)
 2. [video + canvas =magic](#)

- Animated video players
- video in canvas

Week 11

10/31

Database for presenting a host of videos (1)

- Installing XAMPP
 - Creating a database for videos
 - PHP basics
 - PHP functions
 - Sending data to the server
- Assignment 7 is due.
 - Assignment 8: Building a database for videos

Week 12

11/07

Database for presenting a host of videos (2)

- Working with arrays and strings
 - Introduction to Relational databases and MySQL
- Assignment 8 is due.
 - Course Project: Building a new YouTube

Week 13

11/14

Database for presenting a host of videos (3)

- CRUD operations in PHP

Week 14

11/21

Database for presenting a host of videos (4)

- Maintaining application state

Week 15

11/28

- Happy Thanksgiving. No class

Week 16

12/05

- Course evaluation
- Help session for Course Project

Week 17

12/12

Presenting your Course Projects

- Course Project is due.

Policy Regarding Children Attending [top](#)

“Children are not permitted to attend class with parents, guardians, or childcare providers. This conduct has the effect of unreasonably interfering with an individual’s work or academic performance creating an offensive learning environment.”

“A student must not violate course rules as contained in a course syllabus, which are rationally related to the content of the course or to the enhancement of the learning process in the course.”
[Code of Student Rights, Responsibilities, and Conduct, page 29]