Introduction to Digital Media

Kim O’Shea
kim.oshea@ul.ie
The module team:

**Kim O’Shea**
Lectures & Labs
PhD Student
kim.oshea@ul.ie
Office: CS2-034

**Gabriela Avram**
Occasional lectures
gabriela.avram@ul.ie

**Alan Ryan**
Occasional lectures
alan.t.ryan@ul.ie
Communication guidelines

All the details – available on the wiki (tinyurl.com/introductiondm2019) and lecture slides on Sulis; Sulis will be used for the final exam

Email kim.oshea@ul.ie with any issues / questions

To contact any of us, use email or Twitter (#ixdm19)

Kim’s contact hours: Monday 11:00 - 12:00 and Thursday 3:00 - 4:00
Syllabus

- The influence of technology on cognition and activity;
- An overview of conceptual development of computer media.
- The relationship of Technology to Practice, Form, Content and Remediation.
- Case studies will consider the influences, consequences and interrelationship of media and thought, including examples from the world of work, education, video games, social media, ubiquitous computing, personal fabrication and so forth.
Learning Outcomes

On successful completion of this module, students should be able to:

- Assess the influence of technology on human cognition and activity.
- Compare and contrast a number of case studies focused on particular technologies and media.
- Critically evaluate the relationship between technology and human development.
- Understand and critically assess the quality and reliability of various types of digital media resources.
Learning Outcomes

- Search for information on specific topics, integrate information and context and produce digital content using various media and correct citations.
- Select, research and summarize information on various digital media topics, collaborating with a group of colleagues in producing and publishing content online.
Welcome to all taking the course:
BSc in Creative Media and Interaction Design

**Week 7-8 – you will be opting for:**
- Digital Media Design **OR**
- Music, Media and Performance Technology**

Bachelor of Arts

Erasmus

Anybody else??
Venues & Timetable

Lectures:
Monday – 2pm-3pm in CSG-001
Thursday – 4pm-5pm in S205

Labs:
All in CS2-044 (PC Lab)
Monday – 9am-10am
Monday – 3pm-4pm
Assessment

Three assignments (30% + 15% + 15%) plus Exam (40%)

1. Video on a selected topic (group assignment)
   - Date due: Week 10 - Friday 15th November @ 5pm
   - 30% of final grade
   - Video to be emailed to Kim

2. Academic Article
   - Date due: Week 11 - Friday 22nd November @ 5pm
   - 15% of final grade

3. Own blog/portfolio with (at least) 3 posts
   - Dates due: Weeks 8 (1st Nov), 11 (22nd Nov) and 12 (29th Nov) @ 5pm
   - 15% of final grade (5% + 5% + 5%)
   - Submitted individually via your personal blog
   - Link to blog posted to SULIS by the end of week 8 (28th October)

Exam - in December 2019 - 40% of final grade.
Assessment

Criteria for grading (see the wiki page for full grading criteria):

1. Video on a selected topic -
   - 1:30-2:00 mins – penalties of -1% per second either side of this time constraint.
   - You must include at least one graphical element in the video. Failure to do so will incur a penalty of -5%.
   - The video file must be less than 25Mb

2. Academic Article
   - Grading criteria and percentages for this will be confirmed by 16th September

3. Own blog/portfolio with (at least) 3 posts
   - Post 1: (TBC) - 5% of your grade
   - Post 2: Abstract of Academic Article with PDF of article - 5% of your grade
   - Post 3: Your contribution to the group assignment - 5% of your grade
Assessment

Labs:

- **LABS START IN WEEK 2** - Monday 16th September
- Attendance will be taken at ALL labs
- 3% will be taken from your overall grade for EACH lab you miss
- There are two labs per week (Monday @ 9am and Monday @ 3pm), you must only attend one
- By the end of week 2 you will be assigned a lab; you must attend the lab you are assigned to
- I am happy to help anybody, but labs are the key to passing each assignment
Assessment

Exam (40%)

- This will be an online exam, in this building.

- You will type your answers into a single Word document, having full access to the Internet at all times.

- The exam will test your ability to reason & present arguments about concepts, not your ability to regurgitate facts.
FAQs

● **What do we expect from you?**
  ○ Attendance
  ○ Note-taking
  ○ Participation (!!!)
  ○ Course Work and Timely Submissions
  ○ support available - contact hours weekly and email

● **What do I need to do in order to increase my chances of performing really well in this module?**
  ○ Attend labs and lectures - 10 labs x 3% penalty = 30%

● **How can I start preparing for the assessments that are part of this module?**
  ○ Practice with the software demonstrated in labs
  ○ Stay on top of your assignments - not just for this module!
And finally...

Faculty of Science & Engineering
Meet your Advisor Event
Week 1

Wednesday, 11th September, 2019

Venue: UL Concert Hall Foyer (Foundation Building)

Time: 4pm to 5.15pm

LOOK FOR EMAIL TO UL STUDENT ACCOUNT MONDAY – Week 1
Introduction to Digital Media

Kim O’Shea
kim.oshea@ul.ie
What are these?
Representations

Analog signal

Digital signal
Each "sample" is a 16-bit number, ranging from -32,768 to 32,767. This number indicates the amplitude of the wave at the instant of sampling. A wave changing from -32,768 to 32,767 would be the loudest wave, a wave changing from -1 to 1 would be the quietest, and a bunch of zeroes in a row would indicate complete silence.
Analog signal

- An analog signal is any variable signal continuous in both time and amplitude.

- It differs from a digital signal in that small fluctuations in the signal are meaningful. Analog is usually thought of in an electrical context, however mechanical, pneumatic, hydraulic, and other systems may also convey analog signals.

- An analog signal uses some property of the medium to convey the signal's information.

- Any information may be conveyed by an analog signal, often such a signal is a measured response to changes in physical phenomena, such as sound, light, temperature, position, or pressure, and is achieved using a transducer.

- For example, in an analog sound recording, the variation in pressure of a sound striking a microphone creates a corresponding variation in the voltage amplitude of a current passing through it.
...and Digital

- A digital system is one that uses discrete numbers, especially binary numbers, or non-numeric symbols such as letters or icons, for input, processing, transmission, storage, or display, rather than a continuous spectrum of values (an analog system).

- The distinction of "digital" versus "analog" can refer to method of input, data storage and transfer, the internal working of an instrument, and the kind of display.

- The word *digital* is most commonly used in computing and electronics, especially where real-world information is converted to binary numeric form as in digital audio and digital photography.

- Such data-carrying signals carry either one of two electronic or optical pulses, logic 1 (pulse present) or 0 (pulse absent).
Digital Media

- Digital media is usually defined as electronic media that work on digital codes. Today, computing is primarily based on the binary numeral system. (In this case digital refers to the discrete states of "0" and "1" for representing arbitrary data.)

- Computers are machines that (usually) interpret binary digital data as information and thus represent the predominating class of digital information processing machines.

- Digital media (like digital audio, digital video and other digital "content") can be created, referred to and distributed via digital information processing machines.
21st century media literacies

An interview with Howard Rheingold:

Among the essential literacies he cites are:

- Attention
- Participation
- Collaboration
- Critical Consumption
Media (the plural of medium)

Refer to technologies used to communicate messages and include:
- mass media (newspapers, TV, radio),
- popular media (film, books) and
- digital media (computer games, the World Wide Web, virtual reality) and others.

'New' in this context means:
- the relative novelty of digital computing;
- the unprecedented speed of evolution and mutation of devices and technologies;
- undeveloped, imperfect and experimental environments;
- subjective novelty, most of the artists and theoreticians currently studying digital culture have migrated from different disciplines.
Examples of Digital Media projects

parallel
Examples of (interactive) Digital Media projects

iPad Live Drawing Performance

Lighthouse Elemental

Escapism
To browse for Thursday...

- Douglas Adams - *How to Stop Worrying and Learn to Love the Internet*

- *Storymap*
Please fill out this *quick* survey:

https://tinyurl.com/introdmsurvey2019
Thank you!

My email: kim.oshea@ul.ie
My office: CS2-034
My contact hours: Mondays 11am-12pm
   Thursdays 3pm-4pm

Gabriela’s email: gabriela.avram@ul.ie
   Alan’s email: alan.t.ryan@ul.ie

REMINDER: LABS START ON MONDAY!!