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Digital Culture

COURSE DESCRIPTION

This course on digital literacy and the challenges around digital environments has been designed to help you (1) explore, (2) code and (3) decode today's digital world and cultures. Along with the online material available on Moodle, these course sessions (detailed below) should allow you to decode some of the major issues of the digital world by bringing together knowledge in history, sociology, political science and the sociology of sciences and technology. In addition, this course will include some practical work involving the manipulation of data, as well as methods for writing in digital formats.

The main assignment of the course will involve using both of these skills (knowledge of digital cultures and practical skills involving digital technology) to carry out a digital exploration in groups of 3 to 4 students. More specifically, the aim of this work will be to conduct an investigation on a specific topic that you will define and to report on your investigation in a digital format (*e.g.* video, podcast, blog, etc.).

USEFUL LINKS AND INFORMATION

All material is accessible via the Sciences Po Moodle platform, on which you should be automatically registered for this course: https://moodle.sciences-po.fr.

All slides and complementary content for a lecture will be posted ahead of the lecture. In addition, public fora will be available to ask questions for each session of the course.

The individual note and digital exploration must be handed-in on Moodle.

All required homework is available on this syllabus. Apart from working on your individual notes and final digital exploration, typical coursework includes reading articles, watching videos, or thinking about questions. Some additional material will also be referenced.

CONTACT

For questions related to the course, or upon encountering a difficulty of any type, you can write me an email at the following address: benjamin.gilbert@sciencespo.fr.

In particular, feel free to seek advice about your digital exploration if in doubt.

If your question can benefit other students, please consider asking it on the public forum on Moodle in the dedicated sections. In this line, please do not hesitate to share content or your personal reflections on the topics seen in class with other students.

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ASSESSMENT CRITERIA AND VALIDATION

The grading of this course is based on two modules: an individual note and a digital exploration done in groups. On top of that, students are asked to be actively involved in the lectures and to contribute regularly to them by intervening or asking questions, so as to enrich collective discussions about the topics that will be presented.

To account for this, up to one extra point will be given to students who are proactive during the lectures. Students are also invited to participate digitally by sending articles, reflections, etc. to other students in the class in the course discussion fora on Moodle.

1. INDIVIDUAL NOTE — 30%

Deadline: 25/09/2022 (incl.)

For the 5th lecture, each student will be asked to write a one or two-page individual note about the digital exploration they are working on in groups. This note should include:

- a clear presentation of the subject of the exploration
- a well-defined problem
- some research hypotheses
- ideas for methods and research areas around the topic of the exploration
- the format intended for the output of the investigation
- difficulties that might be encountered in carrying out the investigation
- a short indicative bibliography

This homework will constitute the individual part of the grade. However, once the notes have been handed-in, students are highly encouraged to share their work with members of their group to extract ideas fruitful to structure the group exploration.

2. DIGITAL EXPLORATION — 70%

Deadline: 23/10/2022 (incl.)

In groups of 3 to 4 students, students are asked to conduct an investigation into a digital practice, phenomenon, service, company, etc. The restitution of the exploration will have to be presented in a digital format (*e.g.* a website, a video, a podcast, but also possibly a Facebook or Instagram account, blog entries, etc.).

This project must be based on bibliographic and web-based research and should include:

- a clear presentation of the question at stake
- your methods of investigation (*e.g.* interviews, online questionnaires, experimental protocols, online ethnography, etc.)
- your analyses and interpretations of the topic
- a synthetic account of the findings.

Students are encouraged to be creative and to give a personal tone to their exploration by connecting it to their daily life (artistic, associative, etc.) or their use of digital tools.

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KEY DATES

The following timeline lists the key dates for the course:

DATE	EVENT
29/08/2022	Lecture 1 - General introduction and presentation of the course
05/09/2022	Lecture 2 - A brief history of the Internet and today's digital landscapes
12/09/2022	Lecture 3 - The web: a "common good"?
19/09/2022	Lecture 4 - Social networks, digital identity and digital public spaces
25/09/2022	Individual note due (upload on Moodle)
26/09/2022	Lecture 5 - Filter bubbles and the balkanisation of society
03/10/2022	Lecture 6 - Algorithms and artificial intelligence
10/10/2022	Lecture 7 - Internet governance and how to regulate AI
17/10/2022	Lecture 8 - Presentation of the digital explorations
23/10/2022	Final exploration due (upload on Moodle)

COURSE OVERVIEW

Each session of the course will include the following elements:

- a theoretical, empirical or historical overview of a specific topic related to digital culture
- a short discussion about how one can think of these topics in real life
- a brief introduction to some practical digital tool and/or method of investigation
- some time to work on your group investigations

COURSE SYLLABUS

The next pages list the content of the lectures as well as the material that will be presented during the class, that you are asked to work on before the sessions, and, also, the additional material that you are free to explore if interested in a particular topic.

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Lecture 1 - General introduction and presentation of the course

Lecture overview

This first session will act mostly as an opportunity to understand the course's content and expectations in terms of validation, to get familiar with the key topics of the course, as well as to start exploring what digital culture means and how it interacts with our use of the Internet and other digital tools. During the class, time will also be allocated for students to start thinking about digital explorations and constitute groups.

Lecture breakdown

The lecture will be divided as follows:

- introduction of the instructor and students
- general presentation of the course and its learning objectives
- discussion about digital technologies and the students' understanding and use of it
- definition of the key topics of the course
- presentation of the assessment criteria
- constitution of the groups for the digital exploration

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Lecture 2 - A brief history of the Internet and today's digital landscapes

Lecture overview

This session will cover the roots and history of the Internet and the digital world as we know it today. In the first half of the lecture, we will see the main principles underlying the structure of the web, as well as important trends in its uses. From the military to the hippie culture, and from hackers to the first online communities, you will learn about the main currents that have shaped the internet so far and what makes it a culture.

In the second half, you will be presented with various digital tools to explore the digital world, that you will be able to mobilise in your digital explorations, as well as examples of how these tools have been used to identify trends and document digital phenomena online.

Lecture breakdown

The lecture will be divided as follows:
- brief introduction to the history of the Internet
- definition of key concepts and their differences (web, Internet, etc.)
- presentation of useful tools to explore the digital world:
  - Gephi — https://gephi.org
  - Dive — https://www.media.mit.edu/projects/dive/overview/
  - Tableau — https://www.tableau.com
- discussion on first ideas for digital explorations

Homework

Before the class, students are expected to:
- read the syllabus
- think about 2/3 topics for the digital exploration to share with the rest of the class
- read John Perry Barlow's Declaration of the Independence of Cyberspace:
  - link: https://www.eff.org/cyberspace-independence

To go further

The following links and references allow you to go further into this particular topic:

- Walter, I. (2014). The Innovators: How a Group of Hackers, Geniuses, and Geeks Created the Digital Revolution. New York: Simon & Shuster.
- Turner, F. (2021). From counterculture to cyberculture. In From Counterculture to Cyberculture. University of Chicago Press.

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Lecture 3 - The web: a “common good”?

Lecture overview

In this session, we will keep on exploring how the internet works, this time by delving a little bit further into its technicalities and important achievements. During this class, you will learn how the internet is structured, as well as the main technical principles that support it. Where do hyperlinks come from? How is knowledge organised online? What do `http`, `https`, and `html` mean? How is content saved on the Internet? Further, we will analyse how the notion of “common good” structures some of the most important parts of the web, and discuss how this ideal of sharing knowledge openly is often conflicting with the increasing influence of commercial actors.

Finally, we will explore questions about the “digital divide”, access to the Internet, as well as about how users of the Internet and uses of the Internet are socially situated.

Lecture breakdown

The lecture will be divided as follows:
- brief review of how the Internet protocols work
- definition of the concept of “common good” and discussion on how it applied to the web
- discussion around access to the Internet and the “digital divide”

Homework

Before the class, students are expected to:
- watch code.org's video on how the Internet works:
  - link: https://www.youtube.com/watch?v=kBXQZMmiA4s
- watch Yochai Benkler’s video on the Shared Economy:
  - link: https://www.youtube.com/watch?v=mBF-GFDaCpE
- think about how users with different social backgrounds may use the Internet differently

To go further

The following links and references allow you to go further into this particular topic:
- Rus Schuler’s more advanced guide to How the Internet works:
  - link: https://web.stanford.edu/class/msande91si/www-spr04/readings/week1/InternetWhitepaper.htm
- Ethan Zuckerman’s op-ed on the Internet:
  - link: https://www.theatlantic.com/technology/archive/2014/08/advertising-is-the-internets-original-sin/376041/
- Mozilla’s Foundation guide to Net Neutrality:
  - link: https://foundation.mozilla.org/fr/campaigns/net-neutrality-timeline/

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Lecture 4 - Social networks, digital identity and digital public spaces

Lecture overview

From Occupy Wall Street to #MeToo, and from Friendster to TikTok, technology keeps on transforming the way we connect, organise, inform and express ourselves. From the participatory culture of the web 2.0, which challenged long-established gatekeepers of authoritative information, to social networks' algorithms, the internet is full of obstacles and affordances to personal and public communication. While some claim there is no longer a separation between online and the real world, the blurring of boundaries of our digital selves opens up avenues for reflection on who we are online and what communities we belong to.

In the first part, this session will explore these topics, and discuss our digital identity online and how we mobilise digital public spaces to express and document ourselves.

Then, you will have some time to work on your digital exploration and ask for feedback.

Lecture breakdown

The lecture will be divided as follows:
- introduction to social networks and their impact on society and democracy
- introduction to the study of self-presentation in digital identities
- short sociological case study of online dating sites
- group work on digital exploration projects

Homework

Before the class, students are expected to:
- read Danah Boyd and Nicole Ellison's article on the definition of a social network:
  - link: https://academic.oup.com/jcmc/article/13/1/210/4583062
- read about the findings of the SelfieCity project:
  - link: https://selfiecity.net/#findings
- prepare questions for guidance on your digital exploration project

To go further

The following links and references allow you to go further into this particular topic:

- Rainie, H., & Wellman, B. (2012). Networked: The new social operating system (Vol. 10). Cambridge, MA: MIT Press.
- Turkle, S. (2017). Alone together: Why we expect more from technology and less from each other. Hachette UK.

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Lecture 5 - Filter bubbles and the balkanisation of society: myth and reality

Lecture overview

Often listed as some of the Internet's main issues, disinformation and the creation of filter bubbles have been at the heart of many controversies in the last decade. Yet, many empirical works challenge the notion of filter bubble, and while disinformation attempts are relatively easy to document and analyse, their effect on democracy remains difficult to understand in full.

In the first part of this session, we will briefly cover these themes by presenting the concepts of disinformation, filter bubble and balkanisation of society. Then, we will discuss how empirical and theoretical works challenge these notions.

In the second part, you will be presented with some tools you can use to document your online explorations and discuss their advantages and drawbacks given the topic at stake.

Lecture breakdown

The lecture will be divided as follows:

- presentation of the concepts of disinformation, filter bubble and balkanisation of society
- brief overview of the theoretical and empirical research on the subject
- discussion about these topics and our real-life experience
- overview of tools that can inspire you for your digital exploration:
  - Fonio: https://fonio.medialab.sciences-po.fr/falleen
  - Bootstrap: https://getbootstrap.com
  - Twine: https://twinery.org
  - etc.

Homework

Before the class, students are expected to:

- if you have access to it — watch The Social Dilemma:
  - link: https://www.thesocialdilemma.com
- read First Draft's guide to fake news:
  - https://firstdraftnews.org/articles/fake-news-complicated/
- think about what type of information you see rarely on social media

To go further

The following links and references allow you to go further into this particular topic:

- Pariser, E. (2011). The filter bubble: What the Internet is hiding from you. penguin UK.
- Sunstein, C. R. (2018). # Republic. In # Republic. Princeton university press.

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Lecture 6 - Algorithms, big data and artificial intelligence

Lecture overview

Big data, algorithms, and artificial intelligence (AI) are keywords of our times, fostering as much fascination as fear. But what do these terms really mean? How do they work? With the rise of the internet, and the possibility to track most of our moves online, one may think of as many dangers as potential uses to our data. Yet behind this promise lay some challenges: data deluge, overvaluation, algorithmic discrimination and biases, surveillance, etc.

In this session, we will delve into what is hiding behind the words "big data" and "artificial intelligence", and question the obsession of companies and institutions to collect data. We will also argue about the possibilities and the risks associated with artificial intelligence.

Lecture breakdown

The lecture will be divided as follows:
- definition of the concepts of "big data" and "artificial intelligence"
- discussion about the concept of digital surveillance
- examples of today's use of AI
- discussion about the positive, and nefarious consequences of AI
- short group work session on digital explorations

Homework

Before the class, students are expected to:
- read Gideon Lewis-Kraus's article on the changes of AI on translation:
  - link: https://www.nytimes.com/2016/12/14/magazine/the-great-ai-awakening.html
- read Dylan Gurran's article on the data collected by Google and Facebook:
  - link: https://www.theguardian.com/commentisfree/2018/mar/28/all-the-data-facebook-google-has-on-you-privacy

To go further

The following links and references allow you to go further into this particular topic:
- Schneier, B. (2015). Data and Goliath: The hidden battles to collect your data and control your world. WW Norton & Company.
- Andrejevic, M. (2014). Big data, big questions| the big data divide. International Journal of Communication, 8, 17.

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Lecture 7 - Internet governance and how to regulate AI

Lecture overview

This penultimate session will briefly address some major issues about Internet and AI governance, and offer discussions about these questions. After having seen some of the uses, and consequences of the web, one question that remains is to understand who, or what governs the internet.

Reviewing some legal cases from U.S. Case Law, we will look into existing frameworks to regulate online environments, as well as discuss their use in practice, and ethical components, with a focus on data management. In the second part of the lecture, we will focus on the regulation of AI, taking again as examples cases from U.S. Case Law.

Lecture breakdown

The lecture will be divided as follows:

- discussion about the ethics of regulating the web
- brief overview of some major frameworks for regulation
- discussion about a case:
  - *Carpenter v. The United States — 2018*
- overview of regulation of AI
- discussion about cases:
  - *University of California v. Bakke — 1978*
  - *Grutter v. Bollinger — 2003*
  - *Fisher v. University of Texas — 2013*
  - *Students for Fair Admissions v. Harvard University — 2020*

Homework

Before the class, students are expected to:

- read about GDPR:
  - https://gdpr.eu/what-is-gdpr/
- read about the UK University admissions algorithm during the COVID-19 pandemic:
  - https://www.washingtonpost.com/world/europe/the-uk-used-an-algorithm-to-estimate-exam-results-the-calculations-favored-elites/2020/08/17/2b116d48-e091-11ea-82d8-5e55d47e90ca_story.html
- start preparing a ~10min presentation on your final exploration

To go further

The following links and references allow you to go further into this particular topic:

- overview of the Cambridge Analytica scandal:
  - link: https://www.theguardian.com/news/series/cambridge-analytica-files

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Lecture 8 - Presentation of the digital explorations

Lecture overview

During this final session, we will wrap up and summarise the main topics addressed in the course. Each group will then briefly present their digital explorations, followed by some feedback from the instructor or from other students.

These presentations will not serve as an evaluation exercise and will not be used for grading. Their aim is rather to help all groups get some final feedback on their exploration as well as present the topics of study of each group to the rest of the class.

Lecture breakdown

The lecture will be divided as follows:

- short wrap-up of the course
- presentation of each group's work
- comments and questions by classmates and instructor

Homework

Before the class, students are expected to:

- finish the ~10min presentation on your final exploration