

HPSC0147 – Digital Media Skills for Science Communication

Course Syllabus

2023-24 session | Richard Fisher | richard.fisher@ucl.ac.uk

Course description

This module explores the practical realities and challenges of communicating science via digital media, and seeks to equip students with the understanding and context to thrive in a fast-moving working environment of social media, algorithms, SEO, AI, misinformation, multimedia storytelling, and more. It is taught by a practitioner (Richard Fisher, BBC.com) and consists of a combination of interactive seminar discussions, in-class practical exercises and talks from guest speakers.

Basic course information

Moodle Web site:	HPSC0147 – Digital Media Skills for Science Communication
Assessment:	Digital Media Coursework (100%)
Timetable:	www.ucl.ac.uk/sts/hpsc
Prerequisites:	No pre-requisites.
Course tutor(s):	Richard Fisher
Contact:	richard.fisher@ucl.ac.uk
Office location:	
Office hours (online):	

Schedule

UCL Week	Week beginning	Topic	Seminar leader	Activity
	12 Jan	<p>Introduction: The digital media landscape today</p>	RF	<p>Objective: <i>To gain a broad overview of the digital media landscape, the behaviours of digital audiences today, and the external forces that shape the work of a digital communicator or journalist</i></p> <p>An introduction and overview of the various external forces shaping digital communication, from social media trends to big tech to digital business models to analytics to disinformation. A tour of the taxonomy of media types we'll be covering across the course, and how that shapes digital communication: the differences between websites vs mobile, apps, social media, newsletters etc. What do we mean when we talk about 'digital audiences' and why they matter?</p> <p>Illustrative practical: Discuss what digital trends and changes you see influencing the work of the communicator. How do you see digital media changing over the next 5-10 years?</p>

	19 Jan	Social media	RF	<p>Objective: To understand the bigger picture of trends in social media, and how it shapes the work of the digital communicator</p> <p>Explore the characteristics and relative importance of the various platforms this year, from Twitter to Instagram to Tiktok. How do audiences use these platforms, and why might you need to change your approach, tone and style for each one? How is the relationship between publishers and Big Tech going: the benefits and the pitfalls. Where might social media go next?</p> <p>Illustrative practical</p> <p>Take a child's storybook that features events (eg Mr Men, or fairytales), read it, and then discuss how you'd optimise the telling of the story if tasked with presenting it on social media</p>
	26 Jan	Google	RF	<p>Objective: To understand how and why Google influences the work of a digital communicator or journalist, and how to hone everything from your pitches to headlines with this in mind.</p> <p>As social media has fragmented and some platforms (eg Facebook) have turned away from prioritising the dissemination of news, Google has become one of the most important sources of traffic for many publishers in English-speaking media. It matters more than ever that people can find your work through search. How do you optimise for SEO, and why does it matter? What is the EEAT framework? (Experience, Expertise, Authoritativeness, and Trustworthiness) How does Google Discover work? What features on a digital website does Google look for, in terms of headline and so on? And how can you tap into the hidden patterns of Google Trends to hone your pitching and commissioning?</p> <p>Illustrative practical</p> <p>Use Google Trends to find out what people are searching for this week, pick one trend, and propose a story pitch based on these insights</p>

	2 Feb	AI	RF	<p>Objective: <i>To tour the cutting-edge of generative AI technology, and explore the practical and ethical consequences for the work of the science communicator</i></p> <p>It's now clear that AI is going to be the most disruptive force in digital communication for decades. So, how will AI shape science communication? In this class, we explore the practical possibilities and the ethical questions. Publishers are still wrestling with how to respond to this technology, and various newsrooms are seeking to draft guidelines for usage. We'll explore these challenges and trends, and through class discussion seek greater clarity over where it may go next, and the consequences for our careers.</p> <p>Illustrative practical You're a newsroom manager and you've been asked to draw up an ethical code for using AI. What's OK, what's not OK, what's up for debate?</p>
	9 Feb	Audio	RF & Guest speaker : Rowan Hooper	<p>Objective: <i>To understand how telling and delivering stories through audio changes how you report and present them.</i></p> <p>In this class, we'll hear practical insight about how audio storytelling and the growth of the podcast industry has changed the work of the digital communicator. We'll hear from guest speaker Rowan Hooper, podcast editor at New Scientist, about how he approaches his job.</p> <p>As a senior editor at New Scientist, Rowan has worked in various roles in science and digital media over the years. He has a PhD in evolutionary biology and worked in a conservation biology lab in Japan for five years, before joining the Japan Times in Tokyo, and later taking up a fellowship in a physics lab at Trinity College Dublin. His work has also appeared in The Economist, The Guardian, Wired, The Wall Street Journal and The Washington Post. His latest books are <i>Superhuman - Life at the Extremes of Mental and Physical Ability</i> and <i>How to Spend a Trillion Dollars – The 10 Global Problems We Can Actually Fix</i>.</p>

	16 Feb			Reading week
	23 Feb	Visuals	RF	<p>Objective: To understand why digital visuals matter, and how to source them when you're not a specialist photo editor</p> <p>Explore the basics of good composition, the horrors of stock imagery, how pictures can turn off audiences eg vaccine jabs, climate change, and the importance of audience representation.</p> <p>Illustrative practical: Read a text-only story and source a selection of pictures from Getty or Unsplash. Discuss choices. In pairs, analyse case studies and find an image to illustrate a story using the following sources:</p> <ul style="list-style-type: none"> - Climate Visuals - Getty's Disability Collection and #showus

	1 Mar	Multimedia	<p>Objective: <i>To gain an awareness of how innovations in digital design open up new multimedia-rich visual storytelling.</i></p> <p>What is 'scrollytelling' and how does it change how we think about story presentation? In this class, we explore new formats and experiments that draw on visuals, video, audio and design, building practical examples that encourage you to think about the best form of media to tell your story...text, photography, video and so on</p> <p>Illustrative practical: Sign up for the tool Shorthand, and practise designing a multimedia story.</p>
	8 Mar	Data	<p>Objective: <i>To understand how practitioners tell stories through data, using charts, maps etc</i></p> <p>In this class we'll hear from Nigel Hawtin, a graphic designer with decades of experience telling scientific stories through data. The former graphics editor at New Scientist, Hawtin talks us through the dos and don'ts of infographic storytelling.</p> <p>RF & Guest speaker : Nigel Hawtin Nigel is an information designer and visual communicator based in London, with over 30 years experience. Specialising in science, business and editorial information graphics and visualisations. He trained as a botanical and scientific illustrator and since then have been producing information graphics and visualisations. He was Graphics Editor at New Scientist for 20 years. He now runs his own information design, training, and consultancy company</p> <p>Illustrative practical Search for a piece of data that supports a piece of written journalism and explore ways to visualise it.</p>

	15 Mar	Navigating disinformation, trolls and bad actors	RF	<p>Objective: To understand how disinformation works – and how to avoid making things worse</p> <p>The differences between disinformation and misinformation. Fake news, conspiracy theories, and the perils of amplification. The meaning of ‘due impartiality’. The role of ‘clicktivism’: from hashtag activism to ‘trading up the chain’. Dealing with trolls and bad actors. Also, how do we ensure that our wellbeing and safety as a communicator are preserved when exposed to these nastier elements of the internet?</p> <p>Illustrative practical: Play the University of Cambridge’s <i>Go Viral/Bad News</i> games. Explore examples of fake news/photography. Discussion of how newsrooms should deal with conspiracy theories.</p>
	22 Mar	The Future	RF	<p>Objective: How might digital communication change in the next 10 years – and beyond? And what's next for you in your career?</p> <p>We've covered AI, but what other technologies could shape your work? In this class, explore how tech coming down the track will influence your careers, as well as your own practical questions about how to get started in the industry. We'll also answer your questions about the assignment.</p> <p>Illustrative practical: Explore various examples of VR, digital innovation and discuss what it means for your career.</p>

Assessments

Type	Description	Deadline	Word limit
Coursework	Digital Media Coursework	17.00 on 15 April 2023	See assessment

Assignment

NB. Check Moodle for the most recent assignment details before you begin

Take the feature story you wrote for Helen Pearson's class in Term 1 and add digital elements

Submission format: 1. using your original article in Word/Docs, write headlines above the article, paste in photos or screenshots at appropriate points, make in-text annotations by writing in bold directly inline between paragraphs (eg descriptions of the multimedia you'd include). 2. Write a 1-2 page social media campaign plan in Word/Docs.

(nb. RF will demonstrate an example in-class)

1. Describe digital elements for your article

- at the top of your article, add at least 5 possible web headlines – with at least one optimised for social and at least one optimised for SEO

- research and source a grabby 'hero' picture, as well as a selection of 'inline' images. Write original captions. (I would suggest using Unsplash or Wikimedia Commons as they do rights-cleared, but Getty & other sources are fine – you don't need to pay/acquire rights, just use screenshots of images to serve as an illustration of your choices.)

- where possible/appropriate, propose embedded multimedia within the article eg youtube videos, social embeds, ideas for possible charts/graphs (ideally screenshots you can find on the web, but text descriptions also fine)

2. Produce a 1-2 page written **social media campaign plan** in Word/Docs – write a few paragraphs explaining how you'd promote the piece on a selection of social media channels, then create actual examples of what that could look like eg include the actual wording of, for instance, tweets or Instagram posts (or your chosen social media platforms). Where possible, suggest ideas for deeper audience engagement on social, eg audience engagement.

Assessment Criteria:

Your work will be assessed against the following criteria:

Awareness and evidence of best digital practice

Visual appeal

Effectiveness/appropriate use of multimedia

Variety of content

SEO and headline best practice
Awareness of language/presentation on social media
Creativity

Criteria for assessment

The departmental marking guidelines for individual items of assessment can be found in the STS Student Handbook.

Aims & objectives

Aims:

The aim of the module is to support students to develop advanced digital media skills, to communicate science to different audiences and through different channels, using different formats.

Objectives:

By the end of the module, the students will:

- Be confident that they can undertake any kind of digital media assignment in relation to science communication;
- Have knowledge of a range of digital media forms and cultural practices, and the ability to produce close and informed analysis of these;
- Possess an understanding of production processes and professional practices within media, cultural and communicative industries;
- Have the ability to work across a variety of group and independent modes of study, and within these to demonstrate flexibility, creativity and the capacity for critical self-reflection

Readings & Online resources

1 - Introduction

BACKGROUND

- Reuters Digital News report 2023
<https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2023>
- Journalism, media, and technology trends and predictions 2023
<https://reutersinstitute.politics.ox.ac.uk/journalism-media-and-technology-trends-and-predictions-2023>
- Journalism that stands apart – New York Times 2020 group report
<https://www.nytimes.com/projects/2020-report/index.html>

2 - Social media

- **BACKGROUND**

Simge Andi (2021) How and why do people access news on social media? *Reuters Digital News Report 2021*

<https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2021/how-and-why-do-consumers-access-news-social-media>

Attitudes towards algorithms and their impact on news

<https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2023/attitudes-towards-algorithms-impact-news>

- Emily Bell (2020) As publishers rethink editorial norms, social media policies must follow
https://www.cjr.org/tow_center/platform-reckoning-the-tow-center-covid-19-newsletter-3.php
- Emily Bell on journalism in the age of social media
<https://www.cigionline.org/big-tech/emily-bell-journalism-age-social-media/>
- New York Times, Social Media Guidelines for the Newsroom
<https://www.nytimes.com/editorial-standards/social-media-guidelines.html>

3 - Google

BACKGROUND

- Creating helpful, reliable, people-first content (Google)
<https://developers.google.com/search/docs/fundamentals/creating-helpful-content>

4 - AI

BACKGROUND:

- Towards Guidelines for Guidelines on the Use of Generative AI in Newsrooms
<https://generative-ai-newsroom.com/towards-guidelines-for-guidelines-on-the-use-of-generative-ai-in-newsrooms-55b0c2c1d960>

5 - Podcasts

REQUIRED

- Listen to episodes of the New Scientist podcast(s)
<https://www.newscientist.com/podcasts/>

- **BACKGROUND**

News podcasts: who is listening and what formats are working?

<https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2023/news-podcasts-who-is-listening-what-formats-are-working>

6 - Visuals

BACKGROUND:

- Amanda Ruggeri (2019) How media outlets can make their pictures more diverse
<https://medium.com/bbc-future/how-media-outlets-can-make-our-pictures-more-div>

[erse-8e90be02bffe](#) / PDF:

https://drive.google.com/file/d/1PI_ECrcJU_TvNwmRiuNVDGpL3uELMBfj/view?usp=sharing

- Diego Arguedos Ortiz (2018) Why climate change photography needs a new look, *BBC Future*
<https://www.bbc.com/future/article/20181115-why-climate-change-photography-needs-a-new-look>
- Climate Visuals <https://climatevisuals.org/>
- Getty's Disability Collection
<https://www.gettyimages.co.uk/collections/thedisabilitycollection>
- Getty's #ShowUs <https://www.gettyimages.co.uk/showus>

7 - Delightful data

REQUIRED

- Browse graphic designer Nigel Hawtin's website
<https://nigelhawtin.com>

BACKGROUND

8 examples of powerful data storytelling

<https://shorthand.com/the-craft/examples-of-powerful-data-storytelling/index.html>

8 - Multimedia storytelling

- **REQUIRED:** Pedro Monteiro (2011) Story, interrupted: why we need new approaches to digital narrative, *Nieman Storyboard*
<https://niemanstoryboard.org/stories/story-interrupted-why-we-need-new-approaches-to-digital-narrative/>

BACKGROUND:

- Beyond 800 words — part 1: new digital story formats for news
<https://medium.com/bbc-news-labs/beyond-800-words-new-digital-story-formats-for-news-ab9b2a2d0e0d/>
<https://drive.google.com/file/d/1LwU7yQalQobLCwaApJqtqRMI2t3IBx3v/view?usp=sharing>
- Shorthand scrollytelling examples <https://shorthand.com/featured/stories/>
- Nine types of visual storytelling on mobile <http://mobvis.gtc.ox.ac.uk/storytypes/>

9 - The bad guys

REQUIRED:

Whitney Phillips (2018) *Executive summary: The Oxygen of Amplification*
<https://datasociety.net/library/oxygen-of-amplification/>

BACKGROUND:

- Freelon, D., Marwick, A., & Kreiss, D. (2020). False equivalencies: Online activism from left to right. *Science* <https://science.sciencemag.org/content/369/6508/1197>
- Emily Bell, It's Time to Reframe How Journalists Report on Truth, Misinformation <https://niemanreports.org/articles/emily-bell-says-its-time-to-reframe-how-journalists-report-on-truth-misinformation/>
- Go Viral <https://www.goviralgame.com/en/>
- Bad News <https://www.getbadnews.com/#intro>

10 - The Future

BACKGROUND

- Journalism, media, and technology trends and predictions 2023 <https://reutersinstitute.politics.ox.ac.uk/journalism-media-and-technology-trends-and-predictions-2023>

Course expectations

Be on time; bring laptops; lean in and ask questions

Important policy information

Details of college and departmental policies relating to modules and assessments can be found in the STS Student Handbook www.ucl.ac.uk/sts/handbook

All students taking modules in the STS department are expected to read these policies.