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| Data Journalism | Code |
| 20 credits | Level 7 |
| Module Overview | |
| Within the context of the increasing use of data within media organisations, Data Journalism aims to facilitate a flexible and adaptable skillset, including the use of ‘computational thinking’ and communities of practice, that provides a basis for students to critically adapt to both new and existing data journalism techniques. The module provides practical skills within a range of conceptual frameworks applicable to the production practice routes of the award. It also provides a basis for the successful completion of the Master’s route project, and introduces potential avenues of practice-based inquiry for routes into PhD progression beyond.  The module begins by building applied understanding of data journalism techniques and issues, before exploring more specific practices around design, analysis and interactivity. These are closely aligned to the core assignment tasks. A range of newsgathering and storytelling techniques are explored, giving the student the basis for initiating and developing contemporary data journalism projects within a professional context.  These techniques include core media production skills required for developing the basis for a masters level dissertation/ practical project. A mixed methods pedagogical approach is adopted, with lectures combined with hands-on workshops where students are supported in developing and reflecting on their own work within a contemporary context.  Work in this module links to the different core semester two modules and Work Placement module. | |

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| Module Learning outcomes:There can only be a **maximum of 4 learning outcomes**, each of which must be assessed summatively **once only**. All outcomes are weighted equally. |
| 1. Identify, gather and communicate stories based on structured information using data journalism techniques and technologies for an identified audience |
| 1. Critically evaluate the professional, legal and ethical contexts surrounding data journalism and apply that to a specific project |

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| Library & Learning Resources – available through REBUS (Reviewed Annually) |
| **Purchase** |
| Bradshaw P. and Rohumaa L. (2016) *Online Journalism Handbook*, Routledge |
| **Essential (Books/Journals/Specific chapters/Journal Articles)** |
| Bazzell, M, (2013) *Open Source Intelligence Techniques*, CreateSpace  Blaine, M. (2013) *The Digital Reporter’s Notebook*  Bogost et al (2010) *Newsgames: Journalism at Play*  Bradshaw, P (2015) *The Data Journalism Heist,* Leanpub  Craig, David A. (2011) *Excellence in Online Journalism*. Ch 3: Speed and Accuracy with Depth in Breaking News  Knight, M and Cook, C (2015) *Social Media for Journalists*, Sage  Millington, R. (2012) *Buzzing Communities*, Feverbee  Zion & Craig, eds, (2015) *Ethics for Digital Journalists*, Routledge  Kitchin, Rob, Perkins, Chris and Dodge, Martin [Thinking about Maps](http://personalpages.manchester.ac.uk/staff/m.dodge/rethinking_maps_introduction_pageproof.pdf), from Rethinking Maps (2009) Taylor and Francis |
| **Recommended** |
| Anderson, CW (2012) Towards a sociology of computational and algorithmic journalism, New Media & Society, <http://journals.sagepub.com/doi/abs/10.1177/1461444812465137>  Bradshaw, P. (2016) *Finding Stories in Spreadsheets*, Leanpub  Coursera. What is Algorithmic Thinking? <https://www.coursera.org/learn/algorithmic-thinking-1/lecture/X7Wpl/what-is-algorithmic-thinking>  Daly, Liza.Chatbot Fundamentals: an interactive guide to writing bots in Python, World Writable, March 18 2016, <https://apps.worldwritable.com/tutorials/chatbot/>  Keith, Jeremy (2016) *Resilient Web Design*, <https://resilientwebdesign.com/>  Paradis, Emmanuel (2005) R for Beginners, <https://cran.r-project.org/doc/contrib/Paradis-rdebuts_en.pdf>  Salovaara, Inka. Participatory Maps, Digital Journalism Vol 4 2016, Issue 7, pp827-837 FOI: <http://dx.doi.org/10.1080/21670811.2016.1173519>  Shaw, Zed A. (2013) Learn Python the Hard Way, <https://learnpythonthehardway.org/>  Shaw, Zed A. (2013) Learn SQL the Hard Way, <https://learncodethehardway.org/sql/>  Shaw, Zed A. (2010) *The Command Line Crash Course* <https://learnpythonthehardway.org/book/appendixa.html>  Stefanov, Stoyan (2017) Book of Speed, <http://www.bookofspeed.com/>  Stray, Jonathan (2016) The Curious Journalist's Guide to Data, Tow Center, <https://www.gitbook.com/book/towcenter/curious-journalist-s-guide-to-data/>  Takada, Mikito (2015) [Learn CSS Layout the pedantic way](http://book.mixu.net/css/), <http://book.mixu.net/css/>  Takada, Mikito (2013) [Single page apps in depth](http://singlepageappbook.com/) <http://singlepageappbook.com/>  Wong, D (2010) *The Wall Street Journal Guide to Information Graphics*  Woolley et al. How to Think About Bots, Motherboard, February 23 2016, <https://motherboard.vice.com/read/how-to-think-about-bots> |
| **Background** |
| Online Journalism Blog: <https://onlinejournalismblog.com/> |

## Learning Schedule (Reviewed Annually)

Please note that this schedule is indicative and is subject to change for operational and/or educational reasons. Academic staff constantly monitor and review student progress during the teaching period and will make changes to the schedule as appropriate. Any changes will be notified fully to students.

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| Pre-session Activities/Learning | Session Topic/s (incl. delivery style and indicative formative learning activities) | Post-session Activity |
| Anderson, CW (2012) Towards a sociology of computational and algorithmic journalism, New Media & Society  What is algorithmic thinking? Coursera: Algorithmic Thinking 1 | How to think like a data journalist: data literacy and algorithmic thinking. | Fork and edit an FOI request using GitHub. Data journalism critique. |
| Bradshaw, Paul (2015) Finding Stories in Spreadsheets, Leanpub | Finding stories with spreadsheets: Let me count the ways… | 10 data stories |
| Keith, Jeremy (2016) *Resilient Web Design*, <https://resilientwebdesign.com/>  Takada, Mikito (2015) [Learn CSS Layout the pedantic way](http://book.mixu.net/css/), <http://book.mixu.net/css/>  Stefanov, Stoyan (2017) Book of Speed, <http://www.bookofspeed.com/> | Mobile first: responsive and mobile UX | Making your story responsive |
| Shaw, Zed A. (2010) *The Command Line Crash Course* | Coding for finding and telling stories | Adding interactivity to the interview. Creating a sortable, searchable table |
| Stray, Jonathan (2016) The Curious Journalist's Guide to Data, Tow Center, <https://www.gitbook.com/book/towcenter/curious-journalist-s-guide-to-data/>  Paradis, Emmanuel (2005) R for Beginners, <https://cran.r-project.org/doc/contrib/Paradis-rdebuts_en.pdf> | Bad data: data problems and solutions. Introduction to R | Cleaning data |
| Wong, D (2010) *The Wall Street Journal Guide to Information Graphics* | Visualisation | Creating visualisation |
| [Thinking about Maps](http://personalpages.manchester.ac.uk/staff/m.dodge/rethinking_maps_introduction_pageproof.pdf) (Rob Kitchin, Chris Perkins and Martin Dodge) from Rethinking Maps (2009) | Mapping and SQL | Designing a map |
| Bogost et al (2010) *Newsgames: Journalism at Play* | APIs: intro to Python | Creating an API-driven interactive |
| Shaw, Zed A. (2013) Learn Python the Hard Way, <https://learnpythonthehardway.org/> | Lecture: handling big datasets: Python, R and SQL. Workshop: Reporting transport using SQL | Project work |
| Woolley et al. How to Think About Bots, Motherboard, February 23 2016  Daly, Liza.Chatbot Fundamentals: an interactive guide to writing bots in Python, World Writable, March 18 2016 | Bots, AI and machine learning | Project work |

**Section Two – Assessment (Reviewed Annually)**

### Marking Criteria

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| **Assessment method** | Data journalism project and evaluation |
| **Rationale for method**  Explanation of why this assessment method has been chosen and how it supports achievement of the learning outcomes and alignment with the programme LT&A strategy | A project allows students to present evidence of production practices that aid future intellectual and industry development (*practice-led, knowledge-applied*), initiating and developing contemporary approaches to identifying, telling and distributing stories using data journalism techniques. An accompanying report provides the opportunity to outline the critical and professional context within which the project sites, and to demonstrate research skills necessary for the development of M-level major project work (*pursuing excellence*). |
| **Assessment outline**  Guidance on what the assessment should include, level of criticality, articulation, expectations of referencing, the impact of formative activity, etc. | The project (1500 words or equivalent) should demonstrate data journalism techniques taught throughout the module and developed through additional independent learning, alongside supporting documentation (examples include analytics, original code, logbooks of sources used, correspondence, etc) in clearly labelled appendices.  The critical evaluation (1500 words) should situate the project within a relevant professional and critical context, drawing on primary and secondary research to identify relevant issues (examples might include verification, statistical validity, accessibility, legal and ethical issues, etc) and explore them in relation to the project. References should be supported by a bibliography and appendices.  The combined output should reflect 200 hours of work including time in class. |
| **Assessment Scope**  Explanation of the scope and range of the assessment. | 3000 words plus appendices. |
| **Feedback Scope**  Expectations of feedback in terms of timing, format, feedforward, etc. | Feedback will be provided on the standard university feedback sheet, with overall comments in the main comment box and feedforward comments in the feedforward box. It will be uploaded to Moodle within 20 working days. |
| **Plagiarism** | You are reminded of the University’s Disciplinary Procedures that refer to plagiarism. A copy of the Disciplinary Procedure is available from [iCity](https://icity.bcu.ac.uk/Student-Services/Complaints-and-Appeals/Student-Disciplinary-Procedure).  Except where the assessment of an assignment is group based, the final piece of work that is submitted must be your own work. Close similarity between assignments is likely to lead to an investigation for cheating.  You must also ensure that you acknowledge all sources you have used.  Submissions that are considered to be the result of collusion or plagiarism will be dealt with under the University’s Disciplinary Procedures, and the penalty may involve the loss of academic credits.  If you have any doubts about the extent to which you are allowed to collaborate with your colleagues, or the conventions for acknowledging the sources you have used, you should first of all consult module documentation and, if still unclear, your tutor. |

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| **Assessment submission deadline(s)** | **Submission method**  **(e.g. electronic/Moodle/other)** | **Return of work**  **(Date not 20 days)** |
| Week 14 | Moodle |  |
| Exceptional Circumstances [explanation](https://icity.bcu.ac.uk/Student-Services/Complaints-and-Appeals/Extenuating-Circumstances-Procedure) | | |
| **Assessment resubmission deadline(s)** | **Submission method**  **(e.g. electronic/Moodle/other)** | **Return of work** |
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| \***Resubmission deadline(s)** *are only relevant if you are unsuccessful in your first attempt – please see* [*University Regulations*](https://icity.bcu.ac.uk/academic-registry/information-for-students/Assessment/Assessment-Regulations) *on resubmission policy and procedure.* | | |

### Marking Criteria

Postgraduate bands

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|  | **0 – 39%**  **Fail** | **40 – 49%**  **Fail** | **50 – 59%**  **Pass** | **60 – 69%**  **Strong Pass**  **(merit)** | **70 – 79%**  **Very Strong Pass**  **(distinction)** | **80 – 100%**  **Exceptionally Strong Pass**  **(distinction)** |
|  | LO1: Identify, gather and communicate stories based on structured information using data journalism techniques and technologies for an identified audience | | | | | |
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| Criterion 1  Mark: | Little or no evidence of appropriate production work being undertaken in the completion of the assignment. | Work is poorly researched or executed, and does not demonstrate an application of contemporary practice in either production or distribution. | Work demonstrates an application of contemporary practice in production or research but suffers from some flaws. | Work is strongly identified and demonstrates a strong application of contemporary practice in production or research with minor flaws. | The work is of professional standard within contemporary practice and/or demonstrates a distinctive command of production and research techniques. | The submission is marked by qualities of innovation or contribution to the development of the field which exceed normal professional standards. |
| Criterion 2  Mark: | LO 2: Critically evaluate the professional, legal and ethical contexts surrounding data journalism and apply that to a specific project | | | | | |
| Little or no evidence of appropriate evaluation being undertaken in the completion of the assignment. | Superficial and largely descriptive evaluation being undertaken in the completion of the assignment. | The student has demonstrated a good understanding of professional, legal and ethical contexts surrounding data journalism but this is narrow and/or limited in its application. | The student has demonstrated a strong professional understanding of critical, legal and ethical contexts surrounding data journalism, but needs to apply it with more rigour or depth. | The student has demonstrated a strong critical understanding of professional, legal and ethical contexts surrounding data journalism. | The student has demonstrated a critical and professional understanding of contemporary, legal and ethical contexts surrounding data journalism. In addition the submission is marked by qualities of innovation or contribution to the development of the field. |

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| **Overview**  **Group Sizes/Rooming/Staffing** | **Session details**  **Please include:**  **Term 1, 2 or 3**  **Week number of term** | **Space Requirements (Per Week)** | | **Number of students per session** |
| Number of rooms & groups   (please state if required together i.e. same day / time) | **Hours required per room** |
| **Session type/event  (e.g. lecture, seminar, tutorial, workshop, practical, online activity, etc.)** | Term 1  Weeks 1-11 |  |  |  |
| **Session type/event  (e.g. lecture, seminar, tutorial, workshop, practical, online activity, etc.)**  ***\*add more rows as necessary*** | Lecture/workshop |  |  |  |
| **Sessions requiring specialist space**  **(please state event type below)** | All sessions will require open designed mixed use facilities that support group activity and laptop use. |  |  |  |

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| **Please state the kind of specialist space required (use room numbers where known).**  **Where facilities are not currently available please state requirements.** | **P132 is an example of the specialist space required.** |