CARDIFF UNIVERSITY External Examiner Annual Report Form

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Guidance notes are available to support the completion of this Report via the Cardiff University Intranet here and from ExternalExaminers@cardiff.ac.uk.

	For completion by External Examiner:		
Name of External Examiner:	Martin Stabe		
Home Institution / Employer of External Examiner:	Financial Times		
Programme and / or Modules Covered by this Report	MSc Computational & Data Journalism		
Academic Year / Period Covered by this Report:	2018-2019	Date of Report:	19 March 2020

Please complete all information in the spaces provided and submit within **six weeks** of the Examining Board (the dissertation stage Examining Board in the case of postgraduate Master's programmes).

Please note this form will be published online and should not make any reference to any individual students or members of staff in accordance with the General Data Protection Regulation (2018).

Please extend spaces where necessary.

1. **Programme Structure** (curriculum design, programme structure and level, methods of teaching and learning)

The MSc in Computational & Data Journalism teaches many of the wide range of journalism and technical skills required for work in the data analysis and editorial web development roles that now exist in modern news organisations.

The programme requires students to complete tasks similar to those they would need to complete in a professional setting, while appearing to give them ample freedom to specialise in aspects of data journalism practice that most interest them.

I continue to find the group project in the Digital Investigation module particularly useful, as it simulates the challenges of project management in cross-disciplinary teams that are common in professional data journalism practice.

None of the (hopefully constructive!) criticisms I make below should detract from the fact that this is one of only a small number of courses in the UK that is teaching this material at a high level, and whose graduates are now a noticeable presence in this space.

2. Academic Standards (comparability with other UK HEIs, achievement of students, any PSRB requirements)

Teaching the enormous, cross-disciplinary range of technical, analytical and presentation skills now used by data journalists in a single year is extremely challenging, but the course does this very effectively.

The strongest students were producing technical work that indicates they could work very effectively within professional data journalism teams. However, the general standard of visual and written work was considerably weaker, indicating that perhaps more emphasis could be placed on the more traditional journalism skills that the students would also need to work in newsrooms.

On the data journalism module (MCT559), the feedback could be more blunt and the marking more stringent, as this early module is where expectations about core skills like data visualisation and writing about data should be set.

In previous years, I'd expressed concern about the quality of the work students produced to meet the **visualisation** component of the data journalism module. There has been some clear improvement this year, with a minority of students producing very strong, even professionally publishable, work. I was also pleased to see some students using off-the-shelf tools like Flourish for their graphics. This allowed them to focus on the substantive content of the graphics rather than only the technical aspects of their production. Given that this option was available, I was surprised by the students' relatively low ambition in attempting to tell stories with data visualisation at all stages of the course. Some students failed at the very basics of visual journalism: missing axis labelling, inappropriate units, lack of focus and editing. None made the narrative intent of their charts clear with extensive annotation.

There are also some recurring problems in the students' **writing about data.** Many stories were written with intros that suggested that the data itself — its production by some official agency, or its scheduled public release — is what is newsworthy. In fact, it is the findings made by analysing the data, or some fact about the relationship in the data, that is the newsworthy information. The aim should be to make the data less "visible", leading instead with its meaning and significance. Similarly, few students appeared to use data to lead them to other sources for their stories, for example by identifying characteristics of people to interview as case studies or colour. It would be good to include these behaviours in the marking criteria to encourage students to think more about how they describe their use of data in a more engaging manner.

3. The Assessment Process (enabling achievement of aims and learning outcomes; stretch of assessment; comparability of standards between modules of the same level)

The assessment criteria appeared to be clearly set out the course materials and applied fairly.

However, I have some comments about the criteria used to assess two specific aspects of students' output: graphics in the data journalism module and site design in the dissertation projects.

For **graphics**, it is unclear what the criterion "demonstrates impact" means in assessing the use of graphics within students' stories. What constitutes strong achievement in the visual presentation of data would be clearer to students if marking were framed around specific criteria of theoretical and technical mastery. For example, graphics could be assessed on

whether the student had demonstrated that they could correctly: (1) identify the data relationship that is core to the narrative intent, (2) select optimal visual symbology for the data and intent, (3) appropriately use textual annotation, and (4) had considered and justified their selection of other design attributes such as colour, animation and interactivity. (These suggestions reflect the essential aspects of the chart design process we teach journalists at the FT using the Visual Vocabulary poster that I understand has been used on the course.)

The issue of site **design** in the dissertations is discussed in the following section.

4. **Examination of Master's Dissertations (if applicable)** (sample of dissertations received, appropriateness of marking schemes, standard of internal marking, classification of awards)

The marking seemed fair, and certainly the relative scores across the sample I was provided seemed correct and consistent.

There was a wide range of projects and in general, technical ambition and accomplishment appeared to count for a lot. It was notable that the highest marks appeared to go to the most technically ambitious projects.

As in previous years, there was one standout high first that was a highly technical project conceived and executed to a professional standard. I would have been pleased to have that tool produced in my team at the Financial Times. One low first among the sample dissertations consisted of a competent web scraper, accompanied by weaker stories and graphics that seemed to be an afterthought. The other projects I saw (at marks of 55 and 60) had serious problems both technically and journalistically.

The students' range of outputs highlights that computational and data journalism incorporates a wide array of skills: (1) data acquisition, eg via scraping (2) writing about data (3) critically assessing data (4) visualising data, including visualisation theory, visualisation practice (both in terms of tool use and tool creation), (5) site design and build. Students appear to have wide latitude to combine the skills taught on the course as they see fit.

The ultimate success of projects appeared to hinge on how successfully the student had at the outset identified the correct combination of approaches needed to solve the task they had set themselves. One student had obtained and analysed more than enough data to produce excellent static graphics, but ultimately struggled because they incorrectly opted to attempt an unnecessary interactive feature. Those who relied on written or graphical storytelling output for the bulk of their work found themselves assessed largely on the writing and subbing of their stories — which was unfortunately universally weak in the examples I saw.

Perhaps the students should be asked to declare in advance what aspects of their skills they expect to attempt, allowing for feedback about how appropriate this is, much as members of a professional data journalism team might need to pitch a proposed course of action to an editor before committing resources and proceeding beyond a point of no return.

One area of assessment that could be strengthened is **"legal issues".** Several projects had legal issues, especially surrounding copyright and the ethics of web scraping. One student reused product images from a corporate website. Another scraped data from a website

which explicitly prohibits this in its terms of use, and which they could have obtained more directly via an API provided by that site. Neither provided a justification in their reflective pieces, and I was surprised to see that both received full marks for their projects being “free of legal issues”. It would be good if a discussion of the legal and ethical issues arising from the project were a requirement, even if it merely forces the student to assert that there are none or to show an understanding of the possible legal risks or potential ethical objections to their approach.

The role of site design in the assessment was unclear. One student had comments on “poor design” which I could not find in the assessment criteria. It isn’t clear that Design and UX are covered in the course, so I question how appropriate this is. Several students appeared to devote enormous effort to securing suitable hosting for their applications. There was also a lot of effort in basic page design, including some techniques that are not in widespread use in modern newsroom web development. This disadvantaged students whose strengths are in data analysis, writing and graphics production rather than web development.

As I’ve highlighted in last year’s report with regard to the “Digital Investigation” projects, the assessment would be clearer if site design were explicitly controlled for in some way. Students could, for example, be provided with a default story template, much as new members of a professional data journalism team would likely be expected to work within an existing content management system or web development framework.

This way, students whose outputs are focused on text and graphics would have a functioning platform for publishing this sort of work in a common format, while those who want to create custom front ends for more interactive features would not be prevented from doing so. New assessment criteria could then specifically reward effective adaptation of the default format for projects where this is appropriate. This would also more accurately reflect professional practice, where it is now extremely rare for journalists to build web pages from scratch.

5. Year-on-Year Comments

[Previous External Examiner Reports are available from the Cardiff University Website here.]

As previously mentioned, I have been happy to see some improvement in the production of graphics in the data journalism module, but still think there is room for improvement.

In the past, I’ve been concerned about the degree to which the group projects undertaken as part of the Digital Investigation module appear to descend into rancour and disagreement, and that students reflected this in their work. Thankfully, this was much improved this year, with only one student using the reflective paper to “vent” against the perceived shortcomings of their colleagues. Generally, there was far less unconstructive complaining in this year’s papers. One student who was in a group that split because of conflicts nevertheless analysed the situation in a non-judgmental way. I was particularly impressed by another student’s observation that “we didn’t look at each other as competitors, like one might in a traditional news setting; rather, we were collaborators who set and achieved our initial goal: informing the public about an important topic”. This highlights a strong awareness that an effective data journalism team requires a more collaborative culture than often largely solitary work of other types of reporters.

Because of the wide range of skills it requires, data journalism work is almost always undertaken in cross-disciplinary teams. Disagreements and even open conflict are inevitable

when such teams work under deadline pressures, so empathy for colleagues and the ability to resolve disagreements professionally is a vital soft skill for data journalists.

In professional newsrooms, intractable disagreements within teams can be resolved by falling back on the editorial hierarchy and formal processes that are not available to student groups. Still, overreliance on top-down decision-making by a busy editor would be regarded by newsroom managers as a failure by that team to self-organise, and would reflect poorly on its members.

It would therefore be useful if the assessment criteria for the reflective pieces could be used to reward students who make an effort to create processes to allow for smoother consensus-building within their groups. The group work discussions suggested that there was relatively little of this going on: Even the strongest group's members stated that they achieved their strong results by working largely in isolation.

There is currently little incentive for students to gain understanding of best practice in working together, eg by studying case studies of effective teams in journalism or technology, or relevant aspects of formal processes such as Agile. This is because purely subjective, impressionistic reflection was sufficient to gain a distinction on the reflective paper. None of the students, even those receiving the highest marks, cited any evidence or authorities when reflecting on their team dynamics.

6. **Preparation for the role of External Examiner (for new External Examiners only)** (appropriateness of briefing provided by the programme team and supporting information, visits to School, ability to meet with students, arrangements for accessing work to review)

N/A.

7. **Noteworthy Practice and Enhancement** (good and innovative practice in learning, teaching and assessment; opportunities for enhancement of learning opportunities)

As I mentioned in last year's report, graduates of the MSc in Computational and Data Journalism are extremely employable as entry-level generalists within newsroom data teams and equivalents in other industries. But as many such data teams are now well established, they will increasingly be looking for recruits with deep knowledge of certain specialist skills that they are lacking and that are often in short supply among graduates of journalism departments — particularly **project management, UI/UX design** and **statistical analysis and methodology**.

Numerate and media-savvy graduates of social and natural science disciplines, and particularly new computationally-intensive master's-level courses in graphic design and digital humanities are increasingly strong competitors for data journalism graduates on the job market. It might therefore be worth considering developing additional optional modules (perhaps provided by other departments of the university) that allow students to go into greater depth in one of these areas.

8. **Appointment Overview (for retiring External Examiners only)** (significant changes in standards, programme/discipline developments, implementation of recommendations, further areas of work)

N/A.

9. Annual Report Checklist

Please include appropriate comments within Sections 1-7 above for any answer of 'No'.

		Yes (Y)	No (N)	N/A (N/A)
Programme/Course information				
9.1	Did you receive sufficient information about the Programme and its contents, learning outcomes and assessments?	✔		
9.2	Were you asked to comment on any changes to the assessment of the Programme?		✔	
Commenting on draft examination question papers				
9.3	Were you asked to approve all examination papers contributing to the final award?		✔	
9.4	Were the nature, spread and level of the questions appropriate?			✔
9.5	Were suitable arrangements made to consider your comments?			✔
Examination scripts				
9.6	Did you receive a sufficient number of scripts to be able to assess whether the internal marking and classifications were appropriate and consistent?	✔		
9.7	Was the general standard and consistency of marking appropriate?	✔		
9.8	Were the scripts marked in such a way as to enable you to see the reasons for the award of given marks?	✔		
9.9	Were you satisfied with the standard and consistency of marking applied by the internal examiners?	✔		
9.10	In your judgement, did you have the opportunity to examine a sufficient cross-section of candidates' work contributing to the final assessment?	✔		
Coursework and practical assessments				
9.11	Was the choice of subjects for coursework and / or practical assessments appropriate?	✔		
9.12	Were you afforded access to an appropriate sample of coursework and / or practical assessments?	✔		
9.13	Was the method and general standard of assessment appropriate?	✔		
9.14	Is sufficient feedback provided to students on their assessed work?	✔		
Clinical examinations (if applicable)				
9.15	Were satisfactory arrangements made for the conduct of clinical assessments?			✔
Sampling of work				
9.16	Were you afforded sufficient time to consider samples of assessed work?	✔		
Examining board meeting				
9.17	Were you able to attend the Examining Board meeting?	✔		
9.18	Was the Examining Board conducted properly, in accordance with established procedures and to your satisfaction?	✔		

9.19	Cardiff University recognises the productive contribution of External Examiners to the assessment process and, in particular, to the work of the Examining Board. Have you had adequate opportunities to discuss the Programme and any outstanding concerns with the Examining Board or its officers?	✔		
Joint examining board meeting (if applicable)				
9.20	Did you attend a Composite Examining Board, i.e. one convened to consider the award of Joint Honours degrees?			✔
9.21	If so, were you made aware of the procedures and conventions for the award of Joint Honours degrees?			✔
9.22	Was the Composite Examining Board conducted according to its rules?			✔

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