Internal Periodic Review
14 week response report

Internal Periodic Review of: *Data Science, Technology & Innovation* (MSc, PGDip, PGCert, PPD)
Date of review: w/c 21 March 2022
Date of 14 week response: 16 September 2022
Date of year on response:

The School/Subject Area is responsible for reporting on progress with all recommendations, including those remitted to other areas of the University for action.
 If any recommendation has been fully addressed please record the action taken and date completed.   Any barriers to progress should be highlighted on this report.

Recommendation no	Recommendation	Timescale for completion	Comment on progress towards completion and/or identify barriers to completion	Completion date
1	**Business model** The review team **recommends** that the Bayes Executive Team look at ways resourcing can be related to capacity in considering appropriate business models. The Bayes Executive Team should consider how revenues can be related more clearly to costs and expenditure and capacity (academic and professional support staff).	2023-08?	A working group has been convened to address this recommendation, but the working group was subsequently paused pending feedback from a similar Academic Leadership working group. In the meantime, we'll be taking a short-term action to improve reporting, awareness of tuition fee income, collaboration agreements with Schools and the role descriptions (and remit) of contributing professional services posts. In the longer-term, work on the business model will be informed by the direction of the academic leadership working group.	
2.1	**Curriculum** … the review team heard from the students it met with that they find it challenging to navigate the appropriate pathways (hence course selection) to achieve their goals. This is partly a function of only having one compulsory option and a large number of options in 10 schools to select from. The review team considered that DSTI needs to continually review its course offerings to meet the needs of a growing student population. The review team **recommends** that the programme team considers providing more guidance and signposting through the curriculum to address this. This could also involve creating distinctive pathways by selection from specified bundling of options.	2022-09	We have compiled a list of six possible pathways through the programme and this was shared with students during a recent Course Choices online session which ran for the first time this year, and which we plan to run twice a year. The list was presented to the Programme Oversight Committee in August and the overall structure was approved. Some members indicated that they would like the opportunity to consider the pathways in more detail, so we are collecting final feedback and expect to publish this on the programme Learn page once finalised, in advance of the start of Semester 1. The document will be reviewed annually to ensure that it remains up-to-date. Further work is planned to use data on previous students' routes through the programme in order to inform future updates.	
2.2	The review team **recommends** the programme undertakes an ELDeR (Edinburgh Learning Design	2023-04?	We plan to make a request for the chance to run an ELDeR during this coming academic year. We are currently targeting	

	Roadmap) workshop to help in reviewing the curriculum and considering pathways through the curriculum.		Early 2023, but as there are only a limited number of available places, so this date is not yet fixed.	
2.3	The review team **recommends** that the programme team offer data science ethics education to all students.	2023-08	We have added a new course to the DPT "Data Ethics in Health and Social Care" which is available to all students, and which is also relevant to students in fields other than those working in Health and Social Care. We recognise that there are broader ethics considerations that are not necessarily all covered in this course. We also plan to incorporate some additional ethics material in the compulsory Practical Introduction to Data Science course (possibly taking material from the existing Data Ethics, AI and Responsible Innovation MOOC). In practice, this material will not be fully incorporated until the 2023/24 run of the course, so in the mean time we will signpost the existing MOOC to our students as an optional additional component to their programme. If, during the ELDeR, it is decided that a larger Ethics component is required, we will consider adding this to the programme. This topic will also be considered by an Academic Leadership working group that has been convened, and is due to meet for the first time on 28th Sepetember.	
2.4	The review team **recommends** that the programme consider new options for advanced data science courses for data scientists who want to enhance their existing skills.	Discussions with Participating Schools by 2022-12. Further consideration at ELDeR in 2023 with a view to possibly creating these courses in 2023 for possible delivery in S2 2023/24 or AY 2024/25.	We will consider this as part of the ELDeR process, but we will also, independently follow up with the School of Informatics to explore whether additional courses based on courses that are already offered to on-campus students could be delivered online. We've not had the time to take this forward so far. There are no barriers to considering new options, but there may be barriers to actually offering these courses in the short term, as we rely on contributing schools to deliver courses, and the delivery of new online courses may not be a strategic priority for the schools. The Programme Director will continue to participate in discussions about the wider Curriculum Transformation process and look for opportunities to promote the development of new courses (or adaptation of existing courses) to make them suitable for the DSTI programme. This topic will also be considered by an Academic Leadership working group that has been convened, and is due to meet for the first time on 28th September.	
3.1	The review team **recommends** that the programme find ways to analyse existing student data, (some of	A short report on possible KPIs will be	There has not been significant progress in this area to date. We intend to follow this recommendation, but we intend first to note areas in which such KPIs could give us actionable	

	which is currently hard to interrogate) and develop key performance indicators (KPIs).	compiled by 2023-03	data that we can use to improve the programme. Initial ideas have been to look for links between data related to admissions and subsequent progression through the programme. One of the topics that was discussed at the Review was the idea of looking at "completion" rates of students, but we want to be careful how we would interpret such data as one of the aims of the DSTI programme is to allow students to have the flexibility to change their planned exit route in response to their needs. We don't *necessarily* consider it a negative when someone who was originally registered for an MSc chooses to exit instead with a PGDip, for example. We consider the more pressing areas in which to make better use of data to be related to recommendations 3.2 and 3.3 below.	
3.2	The review team **recommends** that the programme team analyses available course data to help in understanding the student experience.	2022-12	Work has begun on this. Initial data has been extracted from student systems and has been prepared for exploratory data analysis. Work on this has paused, and will resume once end of year and start of year activities are complete.	
3.3	The review team **recommends** that the programme set KPIs on Equality Diversity and Inclusion and establish means to analyse data.	KPIs to be set and tracking to begin in time for 2023/24 intake.	Initial work has begun in this area with members of the Bayes team looking at how this is done in other programmes at the University. We will aim to put processes in place that match good practice from elsewhere in the University in terms of tracking such KPIs.	
4	**Student Support** The review team **recommends** that the programme considers developing the DSTI portal to be more integrated.	Students to be consulted to better understand priority areas by 2022-09. Improvements to be made where possible/appropriate by 2023-03.	1. Programme Level Information Nearly all programme level information is already available on the programme Learn page. We will follow up with students to check whether there is any key information missing from this resource. 2. Course Level Information This will remain challenging due to the heterogenous nature of the DSTI and its delivery by multiple schools. We continue to promote the use of Learn in all DSTI courses, and most courses use this same platform. There may be some information where it could be useful to collate at programme level, but we would want to ensure that any resource we put in place could be kept up to-date and in-sync with any school/course-level information. We will survey students (after the first few weeks of the programme are out of the way) to identify priority information that students would like to see captured at programme level.	
5	**Dissertation** The review team **recommends** that the programme	Review by 2022-12	No progress on this to date, but we plan to follow this recommendation. This topic will also be considered by an	

	team consider how more (dissertation) support can be provided. There may be potential for a series of pathways to help identify which courses are relevant to the dissertation.		Academic Leadership working group that has been convened, and is due to meet for the first time on 28th September, and may be discussed further in 2023 in the context of the ELDeR.
6	**Lifelong learning** There was appetite from the programme for a University level strategy in relation to lifelong learning. The programme team felt this would support getting buy-in from Schools to build capacity. The review team commends the programme for identifying this as a gap and **recommends** the programme team and Bayes Centre advocate for this through the Data Driven Innovation hubs and the College of Science and Engineering.		We intend to follow this recommendation, but we have no concrete progress to report to date. There are no specific barriers other than the time to undertake such activities. We continue to engage in discussions around Curriculum Transformation and will continue to track developments in EFI (where there is a similar appetite for more consideration of support for lifelong learning).
	Please report on steps taken to feedback to students on the outcomes of the review	We have not yet fed back the outcomes of the review to students on the programme. Once the start of Semester 1 is out of the way, a time when students can easily suffer from information overload, we will send an email to all students with an update on the review, and this will be subsequently be a discussion topic for our planned monthly cohort lead online workshops.	
For Year on response only	Any examples of a positive change as a result of the review	n/a	