Call document

Summary

The Turing's vision to support skills and capacity building in data science education on a national level has paved the way for our new Data Science and AI Educators' Programme led under the Tools, Practices and Systems Programme and the Skills Programme. This programme takes a 'Train the Trainer' approach to equipping educators and domain experts with pedagogical knowledge.

This document provides guidance for applicants and details of how to apply.

The Data Science and AI Educators' Programme - Aims and objectives: what's in it for you?

The aims and objectives of the Data Science and AI Educators' Programme are as follows:

1. **Develop your professional skills**
    a. Receive customised, example-based and pedagogy-specific training in a supportive, mentor and expert-led environment.
    b. Develop skills in one, or all, of the following key areas:
    - Curriculum development, drawing from existing resources at the Turing and beyond.
    - Adopting and championing existing open-source curricula.
    - Pedagogical approaches to technical training in data science and AI.
    c. Apply skills learned to a wide range of learner groups, including their teams and communities.
    d. Receive peer-based mentoring and expert consultation over several weeks to allow time to reflect and develop skills.
    e. Become a mentor in later rounds of the programme, should you choose to.
    f. Acquire useful and transferable skills: even non-teaching fields demand skills that can be learned through teaching, especially as part of a team and broader community of practice.
2. **Build your confidence as a Data Science and AI educator**
    a. Develop confidence to bring training and resources to communities, including colleagues, team members or students.
    b. Receive feedback in a safe and supportive environment.

3. **Be a part of a nation-wide network of AI educators**
    a. Become part of an inclusive and extensive national network of data science and AI educators, where there is opportunity to foster knowledge, share best practices, make connections and partake in collaborations.

4. **Co-develop this programme by sharing your feedback**

Curriculum outline

The programme supports the uptake of evidence-based practices for teaching data skills into many disciplines through a combination of systematic cohort-based training, cohort calls, and longitudinal mentoring.

This is a 12-week programme, consisting of two half days of intensive study, followed by weekly peer-mentoring calls, cohort calls and optional drop-in surgeries with the cohort call presenter of that week.

Cohort calls will take place in weeks 2 through to 11 and they will last 50 minutes. A list of cohort call topics can be found below:

No	Cohort call topic	Detail
1	Collaborative development and delivery of a new course	- To know what effective collaboration is - To apply effective collaboration skills to develop a new course - To apply effective collaboration skills to delivery of a new course
2	Developing, launching and hosting your training project	- To know how to develop a project - To be able to test/incubate the project
3	Designing training for live delivery vs self-paced learning	- To know how to design training for both synchronous and asynchronous delivery, using effective teaching techniques to suit each method of delivery
4	Ethics in the context of training	- To understand ethics in the context of training and delivery - To be able to consider case studies or data provided (ethics context)
5	EDI / widening participation in teaching (panel)	- To understand how to account for accessibility - To understand the barriers to inclusive teaching and how to increase diversity - [Lesson design considerations from an EDI perspective]
6	Challenges with teaching DS and AI (panel)	- Current challenges and strategies to overcome these
7	Continuous evaluation and implementation of user / learner feedback	- To be able to evaluate your training successfully

		- To know how to create assessment cycles/learner feedback loops for continuous improvement
8	Gamify learning	- Making learning immersive - Varied learning
9	Collaboration between industry and academia in training (panel)	- To know how to develop applied and translational skills - Sandpits objective?
10	Product management, sustainability, legacy and entrepreneurship	- To understand societal impact on your work/training project - To understand how to make training materials sustainable

The initial two half-day pedagogy sessions will cover the following topics:

Day one	Intro and overview; memory and cognitive load; building skill with feedback; motivation and building positive learning environments; homework task
Day two	Expertise and instruction; working with your team; live coding is a skill

Course structure

Peer-mentoring calls will precede each cohort call. These will be an opportunity for applicants to discuss and reflect on previous learning and any assignments. Peer-mentoring calls will last 30 minutes and will be followed by a short, 10-minute break before the cohort call starts.

Drop-in surgeries will be optional, though applicants will be encouraged to attend these as they will provide an opportunity to discuss the cohort call content with an expert.

The programme is, therefore, structured as follows:

Week 1	2 half-days of intensive study
Week 2 – 11	Day 1: 30 minute peer mentor call 10 minute break 50 minute cohort call Day 4: 30 minute optional drop in surgery
Week 12	Graduation: 1.5 hours

Eligibility and Assessment Criteria

Eligibility Criteria

Applicants must be able to meet all of the following eligibility criteria to be considered for this programme.

- Applicants must be able to commit to an initial 2 half-day intensive workshop, followed by a further period of 11 weeks attending the cohort and peer-mentoring calls. Cohort calls will be 50 minutes and mentor calls will be 30 minutes, with a break of 10 minutes between the two. In total, this will be 1.5 hours each week. We understand that there may be instances where applicants cannot attend a session and this must be communicated to the Skills team, skills@turing.ac.uk, beforehand. Applicants will have the opportunity to catch up on missed cohort calls, where appropriate. Where applicants miss several sessions, or do not have the capacity to catch up on missed learning, they will be unable to graduate from the programme.

- Applicants must be able to demonstrate a desire to educate. We consider an 'educator' to encompass many forms, ranging from instructors or trainers to teaching staff. Applicants may include, though not be limited to, the following:

- Teaching staff (lecturers, readers, professors etc.) and researchers at universities (e.g. postdocs, ECRs) or national labs from diverse disciplines.
- Industry practitioners who have a formal or informal training responsibility within their team or broader organisation. This can include small-group training, development of training materials within the organisation, or one-to-one support of colleagues.
- Applicants with an educational background e.g. schools, colleges or universities.

- Applicants must have some experience in, a basic knowledge of, or an interest in teaching and pedagogy.

- Applicants must have a basic understanding in Data Science and AI. Please refer to our FAQ for further details.

Assessment Criteria

When assessing applicants for this programme, we look at the following areas:

Intention setting: what the applicant hopes to gain from attending this programme**.**
Motivation: why this course interests the applicant.
Route to learners: how the applicant intends to disseminate their learning to other communities.
Open source: evidence of motivation and practice of open science and teaching.
Reflection: where the applicant feels they are now vs. where they want to be

Application Process

Timeline

Application Stage	Key Dates
Applications open	4 Apr 2022
Applications close	24 Apr 2022
Application review period	25 – 29 Apr 2022
Outcomes communicated	3 May 2022

How to apply

Applicants should apply directly to the Turing through our application page. The application form will ask you a series of questions in line with our assessment criteria, above.

The deadline for applications is **24 April 2022**.

Assessment Process

All applicants are assessed on their application form only. Applications will first be checked for eligibility. All eligible applications will then be reviewed by the Skills Team. The Turing reserves the right to reject applicants who do not meet the criteria at any stage.

Equality, Diversity and Inclusion

The Alan Turing Institute has a mission to make great leaps in data science and artificial intelligence to change the world for the better and recognises that, to make such great advancements and help solve the world's problems and challenges, we need to accurately reflect the world's diverse composition and build an inclusive community. The Alan Turing Institute is committed to creating an environment where diversity is valued and everyone is treated fairly.

Promoting and embedding equality, diversity and inclusion (EDI) is integral to achieving our mission. The Institute has defined a set of values and behaviours that it expects the Turing community to demonstrate and lead on: trust, inclusivity, respect, leadership, transparency, and integrity.

We are taking seriously questions of diversity, equity and inclusion as impact and importance to success and excellence in our field, community and mission. We are committed to actively working to embed and ensure our functions and research schemes are accessible, inclusive, and diverse.

The Institute encourages applications from all applicants and welcomes non-standard career paths and breaks spent outside academia.

Reasonable adjustments

We recognise that there may be individual circumstances that we need to be aware of and will make reasonable adjustments required to support individuals during the assessment process or during the programme. You may already know what adjustments you require or may like to have a confidential discussion around your options.

To discuss an adjustment to the application process, please contact the skills and training team directly at skills@turing.ac.uk.

There is also a section on the application form where applicants may make us aware of individual circumstances. If there is information relevant to your application that we may need to consider when facilitating the review of your application, please contact us to discuss. Where possible, this should be done early in the process or updated when circumstances change. We will treat any information you disclose to us as sensitive and will handle it in line with the Data Protection Act 2018. You can find out more information about how we handle your personal data in our Transparency notice. Information will only be used to arrange reasonable adjustments and will not be used to assess your application.

Additional funding

As part of our commitment to inclusion, we recognise that some groups face additional barriers to participating in this programme. For this reason, we offer a fund to support applicants to participate who otherwise would not be able to due to a disability, a caring responsibility or financial hardship. The fund provides expenses awards of up to £500 and applications will be assessed separately to the main call.

For more details, please see our FAQs. If you would like to discuss your application, please contact the Skills team directly at skills@turing.ac.uk.

Further info

For more information, please see our programme FAQs. Questions can be emailed to the Skills team directly at skills@turing.ac.uk.