POSITION STATEMENT ACADEMIC STAFF

UTS:HUMAN RESOURCES

POSITION: **Postdoctoral Research Fellow: Writing Analytics**

FACULTY: **Connected Intelligence Centre, Office of the DVC (Education & Students)**

ACADEMIC SUPERVISOR'S NAME: Professor Simon Buckingham Shum

ACADEMIC SUPERVISOR'S POSITION: Director, Connected Intelligence Centre

The UTS Connected Intelligence Centre (CIC: http://utscic.edu.au) is an innovation centre whose mission is to build the university's capacity to gain insights from analytics in learning, teaching, research and business operations. CIC is located in the heart of Sydney at the UTS City campus.

A key objective in the CIC strategy is to advance the *learning.futures* strategy using Learning Analytics that build graduate attributes, through personalised feedback at scale. The focus of this position is building the capacity to communicate analytically and reflectively in writing. This 4 year position provides the springboard for a highly motivated researcher to build on the Academic Writing Analytics (AWA) R&D program that CIC has developed over the last 3 years: https://utscic.edu.au/tools/awa. This has developed automated formative feedback to students for two kinds of writing:

Analytical, argumentative writing: This is the kind of writing that requires the student to demonstrate, for instance, their mastery of some literature, their ability to critique it, their capacity to construct an academic argument with suitable evidence, or at a higher level, competence in identifying a research problem. This is typically written in the third person, without expressions of personal experiences or emotion.

Reflective writing: As part of a university focus on more *authentic assessment,* reflective writing requires students to examine both themselves as learners, their curriculum, and their professional experiences (e.g. from internships). When done well, this helps students integrate academic and experiential knowledge, develop as reflective practitioners, and can be evidence of transformational moments such as shifts in worldview. This is typically written in the first person, incorporating personal experiences and emotion.

RESEARCH FELLOW POSITION. The postdoctoral research fellow will develop the AWA R&D program and software, bringing a distinctive combination of skills, at the intersection of programming, text analytics, educational theory and learning design. The successful candidate will bring excellent interpersonal skills to work with non-technical academics, as well as technical skills to design language technology services, and interact with colleagues who bring cloud, web application development and user interface design skills to the team.

UTS:CIC provides all the opportunities you would expect in an advanced learning analytics lab: a data-intensive mindset in the university's senior leadership; PhD student supervision opportunities; grant writing experience; authentic testbeds; national and international travel; advanced computing infrastructure; an informal, high energy, creative team culture.

DUTIES OF THE POSITION:

TEACHING AND LEARNING / EDUCATIONAL DEVELOPMENT
- Forging good working relationships to support UTS academics on the project.
- Preparation and delivery of internal and external training courses supporting the project.
- Opportunities to teach and mentor students on the Master of Data Science & Innovation.

RESEARCH AND SCHOLARSHIP
- In collaboration with the Director and colleagues, design, implement, evaluate and refine Academic Writing Analytics in different contexts
- In collaboration with the Director and colleagues, report research findings through archival journal and refereed conference proceedings
- Contribute to current research projects
- Contribute to/lead the writing of relevant grant proposals for internal and external funding

CONSULTING / EXTERNAL ACTIVITIES
- Consistent with relevant UTS Policies, and agreed workplans, there may be the opportunity to conduct external consulting.
- Participate with relevant industry and professional bodies.

ADMINISTRATION, MANAGEMENT AND LEADERSHIP
- Attend Centre meetings
- Consistent with University policies, develop and submit annual workplans that are aligned with the strategic goals of the Centre and University, and participate in annual performance reviews.
- Take leadership development opportunities, and undertake administrative activities, under the Director's supervision.

KEY SELECTION CRITERIA ACADEMIC STAFF

UTS:HUMAN RESOURCES

POSITION: **Postdoctoral Research Fellow: Writing Analytics**
FACULTY: **Connected Intelligence Centre, Office of the DVC (Education & Students)**

Skills and Attributes

- Hands-on with text analytics infrastructure, able to balance innovation with the need for robust services
- Strong personal and interpersonal skills, enabling you to design analytics with strong engagement from diverse stakeholders (e.g. students; educators; technologists)
- Strong sense of initiative and self-motivation, leadership, and readiness to take responsibility for initiating and delivering projects
- Strong presentation skills in English: you will be engaging diverse audiences, from small internal groups, to external audiences of hundreds
- Strong written communication in English: from general briefings to specialist technical reports
- A team player, ready to give and receive encouragement and constructive critique
- High personal integrity, professionalism and ethical standards
- Effective time and resource management without close supervision
- Knowledge of equity principles and commitment to their application.

Knowledge

- Text analytics technologies: expertise in the design of text analytics that can be applied to student writing. For details of the current Text Analytics Platform see https://github.com/heta-io/tap
- Academic writing: knowledge of the characteristics of analytical and/or reflective academic writing, or related forms. For details of the AWA layer on TAP and its applications in UTS, see research papers at https://utscic.edu.au/tools/awa.
- Research methodology: experience in designing and executing research to validate text analytics tools, or other types of learning technology

Advantageous:

- Knowledge of, and contributions to, research into the teaching and assessment of academic writing
- Experience in user-centred design

Qualifications

- A PhD or comparable experience demonstrating the ability to design and evaluate text analytics with end users, ideally for the analysis of some form of academic writing or discourse. Relevant fields include intelligent tutoring systems for writing, and natural language processing of student texts, scientific discourse or online writing/discourse.
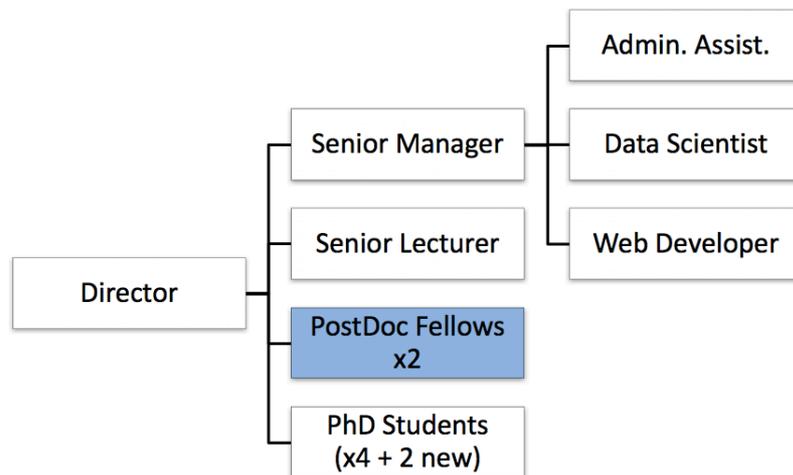
Experience required

- Evidence of working in a team to deliver and evaluate an interactive system; ideally, writing technology with real learners.
- A strong research track record commensurate with your experience (e.g. peer reviewed papers in strong publications, small/medium grants, chairing of workshops, invited talks,

open source software development, engagement with non-academic audiences, digital scholarship via blogs/social media).

Organisational Structure

This position will report to the Director, and will join an existing Postdoctoral Research Fellow.

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                                          │  Admin. Assist. │
                                          └─────────────────┘
                    ┌─────────────────┐   ┌─────────────────┐
                    │ Senior Manager  ├───┤  Data Scientist │
                    └─────────────────┘   └─────────────────┘
                    ┌─────────────────┐   ┌─────────────────┐
                    │ Senior Lecturer ├───┤  Web Developer  │
┌────────────┐      └─────────────────┘   └─────────────────┘
│  Director  ├──────┌─────────────────┐
└────────────┘      │ PostDoc Fellows │
                    │       x2        │
                    └─────────────────┘
                    ┌─────────────────┐
                    │  PhD Students   │
                    │  (x4 + 2 new)   │
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CIC works closely with other researchers across UTS, and with collaborating institutions in Australia and internationally, so this position brings with it the chance to work with leading academics in the field.