PROMOTION RECOMMENDATION The University of Michigan School of Music, Theatre & Dance

Maire S. O'Modhrain, associate professor of music, with tenure, School of Music, Theatre & Dance, and associate professor of information, without tenure, School of Information, is recommended for promotion to professor of music, with tenure, School of Music, Theatre & Dance, and professor of information, without tenure, School of Information.

Academic Degrees:

Ph.D.	2000	Stanford University, Stanford, CA, Computer-Based Music Theory
M.S.	1989	University of York, York, England, Music Technology
Lic.	1989	Trinity College, London, England, Piano Teaching
B.A.	1988	Trinity College, Dublin, Ireland, Music

Professional Record:

2018 - present	Cofounder and Chief Information Officer, NewHaptics Corporation, Ann Arbor,
0014	MI
2014 - present	Associate Professor, School of Information, University of Michigan
2011 - present	Associate Professor, with tenure, Department of Performing Arts Technology,
	School of Music, Theatre & Dance, University of Michigan
2005 - 2011	Senior Lecturer and Director of Research, Queen's University Belfast, Sonic
	Arts Research Centre, Belfast, Northern Ireland
2001 - 2005	Principal Research Scientist, Director Palpable Machines Group, Media Lab
	Europe, Dublin, Ireland
2000 - 2001	Postdoctoral Researcher, Program in Media Arts and Sciences, MIT Media Lab,
	Cambridge, MA
1998 - 2000	Consultant, Immersion Corporation, San Jose, CA
1994 - 1998	Research Assistant, Center for the Study of Language and Information, Stanford
	University, Stanford, CA
1996	Research Internship, Interval Research Corporation, Palo Alto, CA
1990 - 1993	Studio Manager and Producer, British Broadcasting Corporation Radio, London,
	England

Summary of Evaluation:

<u>Teaching</u>: Professor O'Modhrain regularly teaches four courses in the Department of Performing Arts Technology (PAT), two of which are cross-listed with the School of Information (SI). One is an introductory course introducing acoustics and psychoacoustics that she revamped upon her arrival. The other three are advanced undergraduate and graduate courses that she developed and are seen as unique and valuable curricular contributions. She has supervised and co-supervised four Ph.D. students (outside the department, since the PAT Ph.D. program only began Fall 2023), and served on twelve dissertation, eight M.A. thesis, and three undergraduate thesis committees at UM.

In both her introductory course, crucial for establishing fundamentals, and in her more advanced courses, Professor O'Modhrain leads students to an understanding of the nature of embodied knowledge. She brings her own research into the classroom, allowing students to explore new theories and learn about the integration of research and the professional world. Previous students and mentees recalled how the classes they took with Professor O'Modhrain were life-changing, and some decided

to pursue or continue pursuing graduate work because of her teaching and the guidance and support that she offered them. She shows herself to be responsive to student needs, inviting and addressing their feedback to continuously improve her courses.

<u>Professional Activities</u>: Professor O'Modhrain's research on embodied knowledge and accessibility within the research domains of HCI (human-computer interaction) and Interactive Design, especially with regard to haptics, is considered pioneering. Her practical work on refreshable braille displays is poised to change the ways in which the blind/visually impaired (BVI) community interacts with technology, especially electronic interfaces.

Professor O'Modhrain has established herself an expert in her field, as she regularly presents at conferences and has a strong publication record. Since 2014, she has published 13 peer-reviewed articles, presented 16 peer-reviewed conference papers, and authored five book chapters, and her publications are frequently cited. She also has been invited to give eight keynote talks, one of which is a TEDx Talk hosted by the London Business School (2017), viewed more than 2.5K times. Professor O'Modhrain has completed a manuscript of her monograph, A Dialogue of the Senses, which is under contract through MIT Press and undergoing final review. Professor O'Modhrain has secured significant support for her research, and has received over three million dollars in grants, including several from the National Science Foundation and National Institutes of Health, and has six patents with her collaborators. She has been recognized with external and internal awards, including for best paper, best demonstration, and DEI.

Service: Professor O'Modhrain is currently the chair of Performing Arts Technology and has been instrumental in the department's efforts to recruit a more diverse cohort of students. She regularly serves on key committees in SMTD, including both the undergraduate and graduate curriculum committees, and the Scholarship Committee. She has served on a number of search committees, and been a mentor for two junior faculty persons in PAT and in SI. At the university level, she has been an invited contributor to the Kellogg Eye Center strategic planning process, and served on the Student IDEA Board, which aims "to address the needs of students with disabilities from their point of admission to the UM to their graduation." She regularly serves as a reviewer for conferences, journals, and grants and is often called on to consult for industry and non-profit organizations on accessibility. She has been a regular panelist for the National Science Foundation, and an ad-hoc reviewer for the National Institutes of Health. Professor O'Modhrain has a strong record of service.

External Reviewers:

Reviewer A: "Sile is an outstanding researcher who does high-quality work that is unique in its scope. She has demonstrated sustained productivity while at Michigan. Her research is grounded in scholarship of the highest order. She is an expert in perceptual processing from the perspectives of psychological science, application, and aesthetics. A principal focus of her work has been on expanding access to experience for people with sensory loss. 'Experience' here is broadly conceived, as she has developed projects on music perception and performance, psychoacoustics, data visualization, navigation aids, and more."

Reviewer B: "Sile has been a valued program committee member and journal reviewer for the primary conferences and journals in her field – the same ones she publishes at, all of high quality. The disciplinary range of these is indicative of her research, in spanning human computer interaction (ACM conferences such as CHI, CSCW, TEI and journals TAccess, ToCHI) to perception (Transactions on Applied Perception), and haptics, probably at the more application focused end (IEEE Haptics Symposium, WorldHaptics, andTransactions on Haptics). In addition, she has evidently been sought

out by the important primary funding agencies for her input (NSF, NIH, European Commission), both as panelist and for ad hoc reviews. Beyond this, Sile has found creative means of serving the user group that her research focuses on, through her work with Blind Academics, Smith-Kettlewell and MatLab. In my experience, few researchers make the time to do this."

Reviewer C: "Within our joint field of New Interfaces for Musical Expression, Prof. O'Modhrain has a sterling reputation and has made many highly influential contributions. (I wish to emphasise that her research contributions are much broader than NIME, extending to haptics and auditory/tactile display, but that NIME and digital musical instruments are the places that I can comment with the most confidence on her standing.) Her overall publication track record is both strong and sustained, covering many high-impact conferences. In our field, conference publications are an important vehicle for research alongside journal articles, and Prof. O'Modhrain has published in a number of leading conferences including CHI, NIME, DIS and Eurohaptics."

Reviewer D: "...Sile's service to the community has been extraordinary. After co-chairing NIME...in 2002, she has become a main wheel in many other important conferences, from TEI to EuroHaptics – Sile is a strong presence in all of these venues. Her classes look both strongly informative and fun – I'd enjoy taking some of them myself! Finally, it seems she's done her share of service at UofM, now being Chair of the Performing Arts Technology Department (having just become department chair at [my institution] Media Lab, I understand well how demanding these roles are). Sile handles all of this load with grace – when I would describe her to colleagues who weren't familiar with her, they were always surprised to discover that she's completely blind upon meeting her. I can't think of a better example of human excellence in the face of what others would deem to be steep obstacles. You folks have a real world resource at UofM in Sile, and I'm extremely confident in recommending promotion to full professor with no reservations."

Reviewer E: "Sile O'Modhrain's scholarly impact is not just in terms of citations. She has been a direct positive influence upon my own work. This is not just in terms of papers I have read, but also in terms of discussions about research and the key issues we face in creating eyes-free interfaces for creative practice. In fact, her long-term focus on themes related to this has resulted in a body of work that has positively impacted and influenced an entire generation of HCI researchers working in the area of eyes-free interfaces and interactions. Her work has been highly influential across tasks areas including artistic creation (e.g. music making), alternatives to data visualization for science discovery and data understanding, and software development...Sile O'Modhrain would definitely be promoted to full professor at [my institution]. Honestly, now that this thought is in my head, don't be surprised if we reach out to her to explore her interest in making a move to an institute in [my institution's] region. My suggestion to you: make her a full professor..."

Reviewer F: "Prof. O'Modhrain is an internationally recognized expert on the philosophy, art, design, science, and technology of interactive systems between humans and the world around us. She is a leading authority on the interplay between sound and touch. Prof. O'Modhrain brings creativity to the scientific investigation of audiohaptic interaction, and imposes rigor on the assessment of new displays and novel interaction paradigms. She brings deep insight to nonvisual modes of interacting with digital contents, which challenges the way accessibility is often approached today – from visual and/or auditory perspectives. Throughout Prof. O'Modhrain's career, she has established a sustained and distinguished record of creative activities and rigorous scientific research. She is well known among her peers for her extraordinary contributions in the form of artifacts, publications, and community service."

Reviewer G: "By all relevant numbers and evident impact I view Dr. O'Modhrain's published research as easily meriting promotion to Full Professor at any institution. Her prolific keynote presentations and patent impacts further distinguish her standing. In my view, these accomplishments are further laudable given her formal and in-practice interdisciplinary stance. Especially through the Technology component of her Performing Arts co-appointment, I feel Dr. O'Modhrain stands among the very top faculty globally in both of her disciplinary appointments."

<u>Summary of Recommendation</u>: Professor O'Modhrain is an influential and inspiring teacher, a well-recognized difference-maker in her field, and a valued colleague across the university. With the unanimous support of the School of Music, Theatre & Dance's Executive Committee, and the Promotion and Tenure Committee in the School of Information, we enthusiastically recommend Maire S. O'Modhrain for promotion to the rank of professor of music, with tenure, School of Music, Theatre & Dance, and professor of information, without tenure, School of Information.

David Gier

Paul Boylan Collegiate Professor of Music and Dean, School of Music, Theatre & Dance

Andrea Forte

and Dean, School of Information

May 2024