

Institution: University of Exeter		
Unit of Assessment: UoA 33 Music, Drama, Dance, Performing Arts, Film and Screen Studies		
Title of case study: Developing new approaches to accessibility and knowledge of Indian music in the UK through innovations in playing, notating, and composing for the Indian tabla drums		
Period when the underpinning research was undertaken: 2004 - 2019		
Details of staff conducting the underpinning research from the submitting unit:		
Name: Jerri Daboo	Role (e.g. job title): Professor of Performance	Period employed by submitting HEI: 2004 - present
Period when the claimed impact occurred: 2015-2020		
Is this case study continued from a case study submitted in 2014? No		
1. Summary of the impact <p>Professor Jerri Daboo has created a programme of work based on her research into British South Asian culture and performance. Collaborating with renowned British South Asian musician Kuljit Bhamra and digital industrial designers Rogue Product, she has helped establish a new electronic form of the Indian tabla drum, a digital notation system to allow for composing and learning the tabla and other Indian drums, and a series of new teaching books for the tabla aimed at schools, music colleges, and professional musicians. Together, these innovations have addressed limitations in the teaching of tabla in educational settings in the UK, with the following impacts:</p> <ul style="list-style-type: none"> transforming access to the tabla and pioneering cultural change and economic benefit through innovation, new economic products and the formation of a start-up company, Keda Music Ltd. enabling new compositions and creating new performance opportunities for professional musicians and composers on the national stage (e.g. new compositions by 750 young composers using the new tabla notation system) increasing learning opportunities and enhancing cultural understanding in schools, colleges, and online 		
2. Underpinning research <p>Daboo's research aims to examine and make visible the performance and cultural practices of British South Asian communities [3.1, 3.2]. The tabla drums, and Indian music more generally, are usually taught orally as part of the <i>guru-shishya parampara</i>, where a student affiliates with a <i>guru</i> or teacher, establishing a long-term bond with them, often spiritual in nature. Daboo has been researching changes to this system in Britain as a result of the increasing South Asian diaspora communities and the desire of younger generations, as well as non-Asians, to learn the forms. They tend to find the older system of learning with a <i>guru</i> hard to access or incompatible with their lifestyle. The resulting changes have also led to tensions within those communities between preservation of the original tradition and creating new approaches. This has led to a decline in the number of younger South Asians learning the tabla and Indian music, leading to a loss of their cultural heritage [3.3, 3.4]. Daboo herself is a practitioner of forms of Indian classical dance and music, and so has had personal experience of these issues for many years, enriching her knowledge and research.</p>		

Daboo's research began as part of Exeter's AHRC-funded British South Asian Theatre project (2004-2008), through which she met renowned British South Asian musician Kuljit Bhamra, which led to a collaboration on the AHRC-funded Southall Story project (2011-2014), for which Daboo was PI. Building on Daboo's research and Bhamra's professional experience, along with Graham England and Phil Eddershaw of industrial designers Rogue Product, they created a new project (led by Daboo and funded by AHRC/REACT) on the tabla drums [3.5]. This resulted in the development of a new digital notation system, a series of teaching books, and a unique electronic version of the instrument utilising new technology, the Tabla Touch.

Daboo's research and practice has enabled the facilitation and development of this programme as a practice-based, engaged and collaborative research project focused on innovative approaches to playing, learning and notating for the tabla drums [3.3, 3.4]. Her research into issues of traditional approaches to performance [3.1, 3.2], along with her experience of learning and performing Indian music and dance, resulted in her decision to lead focus groups with both Indian musicians and Western orchestral percussionists. These addressed the cultural and ethical aspects of the project, which is not designed to replace nor challenge the *guru-shishya* system, but rather to enable greater accessibility and new potential for the instrument and music. The research outcomes from the focus groups fed into the co-creation of the notation system and teaching books [5.1], supported by Daboo through workshops and discussion sessions with musicians and teachers in London and Birmingham, as well as a testing of the books with the music hub services in Birmingham and Portsmouth.

Daboo's research enabled a cultural and practice-based dialogue between different community groups to allow for a range of approaches to be present at the same time in the outputs [3.4], leading to impact for a wider range of students and audiences across generations and cultures. Daboo continues to conduct research and evaluation of the project, holding discussions and feedback sessions with musicians, performers and teachers, which feed into the continuing development and refinement of the electronic tabla, the notation system, and the teaching books. Bhamra states in the acknowledgement of the teaching books that without Daboo's research and work, the books "would not exist" [5.3].

3. References to the research

- 3.1 Daboo, J. (2018) *Staging British South Asian Culture: Bollywood and Bhangra in British Theatre*. London: Routledge. [Submitted to REF2021]
- 3.2 Daboo, J. and J. Sinthuphan (2018) *Mapping Migration: Culture and Identity in the Indian Diasporas of Southeast Asia and the UK*. Newcastle: Cambridge Scholars Publishing. Includes two chapters on South Asian performance and culture in the UK by Daboo and Bhamra. Bhamra's chapter discusses the tabla project, the teaching books, and notation system. Daboo's Introduction and chapter discuss preservation and adaptation of performance traditions in the British South Asian communities. PDF available.
- 3.3 Daboo, J. (2018) 'Demystifying or Destroying? Cultural heritage and tradition in playing the tabla, and developing the electronic tabla and digital notation system', in Whatley S., Cisneros R., and Sabiescu A. (eds) *Digital Echoes: Spaces for Intangible and Performance-based Cultural Heritage*. Basingstoke: Palgrave, pp 169-190. PDF available.
- 3.4 Daboo, J. (2019) 'Teaching Tabla in the Classroom: the process of transadaptation in creating a new teaching and notation system', September 2019, peer reviewed, available open access <https://ore.exeter.ac.uk/repository/handle/10871/124143>
- 3.5 **Research Grants:** 'Developing a Prototype for the Electronic Tabla' (2014), funded by AHRC/REACT, PI: Jerri Daboo, collaborators: Kuljit Bhamra MBE, and Rogue Product; further supported by a HEIF grant. 'E-Tabla' (2015), funded by AHRC/REACT as Alumni Award grant, PI: Jerri Daboo, collaborators: Keda Music; further supported by a HEIF grant.

4. Details of the impact

Impact from Daboo's research has led to changes in accessibility and knowledge of the tabla and Indian music more widely in education and professional contexts, as well as to new musical compositions, new employment opportunities for professional musicians and teachers, and new commercial products and economic benefit. The project was shortlisted for a *Times Higher Education* Award in 2017 for excellence and innovation in the arts, confirming the strength of this collaboration between academic research and public engagement and impact.

Transforming access to the tabla and pioneering cultural change through innovation

The initial research project funded by AHRC/REACT resulted in the development of the prototype of the electronic tabla. This in turn led to the formation of a new commercial enterprise, Keda Music, to further develop the instrument and produce and market the teaching books and notation system [5.1, 5.2]. Formed by Bhamra, along with design consultancy Rogue Product, Keda brought Daboo onboard as academic consultant. Not only has there been **economic benefit** for Keda through the creation of the **new commercial products**, but Keda confirmed they gained and benefitted from "*new knowledge and expertise*" resulting from the "*complex operation*" involving new technologies in the making of the tabla, and from expanding their work into the fields of music and education [5.3].

The electronic tabla, named the Tabla Touch, was developed from the initial prototype created as part of the AHRC/REACT project and launched for sale in December 2020. It mimics the original instrument in a way not possible before with highly precise use of sensors placed on the drum-pad heads and with extra functions such as automatic tuning and a sound bank of other percussion instruments. Keda was invited to present this innovative technology at the international conference *New Interfaces for Musical Expression (NIME)* in London in July 2020. Reviewers praised the **innovation** in opening up access to the instrument: "*In the same way that electronic keyboards have allowed many people to learn piano who would not otherwise have had access to an acoustic instrument, the electronic tabla has the potential to introduce students to the tabla in situations where access to acoustic ones is impractical*" [5.3]. Keda received UK and international orders for the Tabla Touch within the first week of sale.

The digital notation system has similarly led to **greater accessibility and new possibilities** for composing for and playing the tabla. Launched in London in 2017, it is part of Steinberg's notation software, Dorico (created by Daniel Spreadbury, developer of best-selling music notation software, Sibelius). Spreadbury endorses the new tabla notation system as making it "*as easy as possible to create whatever kind of music you want to make. [...] We're very proud to be working in partnership with [Keda].*" [5.4]

By enabling the creation of pieces and ensemble performance not possible before, the notation system has resulted in a significant cultural change for both the instrument and Indian music. Renowned British composer Howard Goodall, who used it to compose for the tabla as part of an orchestra, described it as "pioneering" and "a game-changer" [5.5]. He particularly praised the design of the new clef, which can be used for any Indian percussion instrument, and has predicted it to become as recognisable as treble and bass clefs. [5.5].

Enabling new compositions and creating new opportunities for performers

Composers had told Bhamra they wanted to write for the tabla, but that the lack of written notation in the Indian system made it difficult. The notation system, which is also a fundamental part of the new teaching books, now **enables composers and performers to learn how to play and write** for the instrument. Its development was supported by Sound and Music, a national organisation promoting new music, which runs a summer school at the Purcell School of Music for young composers, at which Bhamra teaches the notation system. As a result, **750 young composers** have written new pieces using the notation, as testified by Susanna Eastburn MBE, Chief Executive of Sound and Music [5.4], who also commissioned three emerging composers to write new pieces for the tabla and a Western ensemble for the London launch, giving those young composers **increased visibility as well as economic benefit**. One

of these composers, Laura Reid, received a further commission due to having tabla work on her CV. Commissioned by the Devon Philharmonic Orchestra and performed at the RAMM in Exeter in February 2020, Reid's piece for tabla and string quartet demonstrates the new opportunities the notation has provided: *"I'm excited now to think that with all that work for me personally I've got some real building steps. [...] This project will enable [the next] one to happen, and then the next. The notation is good because it enables people to play together."* [5.6]

This new ability to write for tabla as part of an ensemble has also enabled new compositions that include tabla for major theatre pieces, including *Bend It Like Beckham: The Musical* (Howard Goodall, at the Phoenix Theatre, London, 2015); *A Passage to India* (Kuljit Bhamra, at the Park Theatre, London, 2018); and *Twelfth Night* (Magnus Mehta, at the Globe Theatre, London, 2017).

Professional musicians have also benefited from the project. Western orchestral percussionists who wanted to learn the tabla, but had no direct access before, have learned to play via the notation and teaching systems, creating **new career opportunities**. An example is Joley Cragg, who was a percussion student at the Royal Academy of Music (RAM) when she attended the focus groups run by Daboo. She began to learn the tabla and notation system with Bhamra, which led to her composing and performing a piece for tabla for her final recital performance at the academy, the first time this had happened at the RAM. She was subsequently booked to play tabla in other orchestral contexts, giving her **increased career potential and economic benefit**. This included taking over the reins from Magnus Mehta in *Twelfth Night* at the Globe, a process transformed thanks to the new notation: *"It would have taken me hours to video Magnus playing, and sit and work out what he was doing. [...] That's probably one of the biggest examples of how useful it's been."* [5.7]

With new music being written for tabla as a result of the project, Indian musicians also now have **increased opportunities** through learning the notation to perform in new contexts, for example, Indian tabla and dholak player Bindi Sagoo, who performed in the ensemble of *Bend It Like Beckham: The Musical*. Indian musician Hazel Correa explains that the notation means *"people [can learn to] play it with a very basic understanding of Western notation. It's more accessible to everybody, which is really exciting."* [5.7]

Increasing learning opportunities and enhancing cultural understanding

Bhamra has conducted tabla workshops in schools for 20 years, where teachers have often told him they have sets of the instrument but do not know how to teach them, or do not feel confident in approaching the 'cultural aspects'. The teaching books and notation system are designed to address this by creating an accessible and clear approach to teaching and learning tabla and **enhancing knowledge** of Indian music more generally. This does not intend to replace the *guru-shishya* system, but rather to offer an alternative approach that is accessible in new contexts. Daboo worked with Bhamra to develop the books through researching other systems of teaching drums, as well as how to integrate the cultural aspects in an engaging and sensitive way [5.2]. Launched at the Music and Drama Expo in London in 2017, the book series had sold 581 copies by 31st December 2020 in the UK, Europe, North America, and South Asia [5.3]. The books were trialled in the school music service hubs in Birmingham and Portsmouth. Bhamra held workshops with primary and secondary school teachers, creating long-term resilience for the teaching method. Feedback from teachers, both South Asian and Western, shows the **educational benefit and cultural change** this has created: *"Coming at it with some facility as percussionists but not in any knowledge of that oral tradition, that immediately is a key for us to unlock."* [Western music teacher in Birmingham, 5.8]; *"it can be a scary instrument, but that can all be broken down as you've done. [...] I used to teach tabla in schools just for tabla, but now we've got wider opportunities."* [South Asian teacher in Birmingham, 5.8]

Harjit Singh, head of World Music and Percussion at Birmingham Music Services, explains that as well as opening up the instrument to Western practitioners, it also encourages young South

Asians who do not want to do so under the *guru-shishya* system to learn the tabla, thereby **reconnecting them with their cultural roots**: “We’ve tried the method that’s always been there [the guru system] and it doesn’t work. [This new system is] an excellent foundation for the youngsters, because [...] with the old tradition some can’t relate to it, but this way everyone gets involved.” [5.9]

In 2017, to enhance the educational benefit of the project, Daboo assisted Bhamra in creating two video series. *Demystifying Indian Music* and *Tabla Explorer* are available on the Keda website and YouTube and have together received over 17,000 views [5.10]. Commenters praise the “valuable and informative” insight they deliver. A series of free downloadable music to play in ensembles in schools (related to the teaching books) is available on the Keda website [5.1]. The Keda YouTube channel has 1,260 subscribers, with 400 daily visits [5.3] (as of 31st December 2020).

As a direct result of the publication of the books, Bhamra was asked by music teachers to create a similar series using the notation system for the Indian dhol drum, which is very popular among Punjabi communities in Britain. The first of these was launched at the Music and Drama Expo in London in 2019, and Keda is currently developing an electronic form of the dhol based on their experience of the Tabla Touch, leading to **further accessibility and knowledge** of Indian drums, as well as to expanding Keda’s income streams.

Bhamra has demonstrated the Tabla Touch, as well as the new notation system and approach to learning and playing, with media appearances, including BBC Radio 3, BBC Asian Network, BBC One, ITV, and Channel 4, bringing the research, the tabla and Indian music in general to a **wider public audience**.

5. Sources to corroborate the impact

- 5.1 Website:** Keda Music <http://keda.co.uk/> Public and commercial website of the project, containing information, videos, products, etc. Demonstration on YouTube of Tabla Touch: [tinyurl.com/yfrhdk7r](https://www.youtube.com/watch?v=yfrhdk7r).
- 5.2 Teaching books:** K. Bhamra, *Read and Play the Indian Tabla Drums*, modules 1, 2, 3 (2017); and K. Bhamra, *Read and Play the Dhol Drum*, module 1 (2019), published by Keda Music.
- 5.3 Testimonial Letter:** letter from Keda Music - Kuljit Bhamra, Graham England and Phil Eddershaw. Details the impact of the project and the importance of Daboo’s research and partnership.
- 5.4 Speeches:** Daniel Spreadbury, creator of Dorico; and Susanna Eastburn MBE, Chief Executive of Sound and Music. Speeches at the London launch of the notation system and teaching books, 2017. [Available on request – audio recordings]
- 5.5 Speech and video:** Howard Goodall, composer. Comments on Twitter and in his speech at the project’s London launch [available on request – audio recording]; and video testimonial on the Keda website in support of the project and its impact.
- 5.6 Interview:** with composer Laura Reid. [Available on request – audio recording]
- 5.7 Interviews:** with musicians Joley Cragg and Hazel Correa.
- 5.8 Feedback:** from music teachers; feedback forms and interviews from workshops using the books and notation system.
- 5.9 Interview and speech:** Harjit Singh, Head of World Music and Percussion at Services for Education, Birmingham. Interview and speech from launch in Birmingham.
- 5.10 Educational videos:** ‘Demystifying Indian Music’ and ‘Tabla Explorer’, <https://www.youtube.com/channel/UCP01mH3oTBRX8TWml1u5hCQ/videos>