

Heritage Interfaces

Presenting **Cultural Specificity** in Digital Collections

Workshop at the National University of Singapore

12-14 August 2016



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Schedule — 12 August (Day 1)



9:00

Bus leaves from Park Avenue Rochester to NUS Library

9:30 - 10:00 Theatrette 2	<p>Opening ceremony Welcoming addresses by John Richardson (Head of the English Language and Literature Department, NUS) and Lee Cheng Ean (University Chief Librarian, NUS) Opening remarks by Miguel Escobar Varela</p>
10:00 - 11:20 Theatrette 2	<p>Session 1: Dealing With Data Chair: Miguel Escobar Varela</p> <p>Integrating Cultural Specificities from the Beginning: Conceptual and Data Modeling Using SylvaDB.com Juan Luis Suárez (Western University, Canada) Data Creation for A S I A YONG Li Lan (NUS) and Eleine NG (Shakespeare Institute)</p>
11:20 - 11:40 Pantry	<p>Coffee Break</p>
11:40 – 13:00 Theatrette 2	<p>Session 2: Digital Theatre Collections Chair: YONG Li Lan</p> <p>Making Theatre Makers Asia (TMA) Alvin LIM (NUS) and Ken Takiguchi (NUS) “This is not a Theatre” Local Values, Global Connections, Relational Histories of Performing Arts in Digital Collections Nic Leonhardt (University of Cologne)</p>
13:00 – 14:30 Pantry	<p>Lunch Break</p>
14:30 – 16:30 Theatrette 1	<p>Public Session: Presenting Cultural Specificity in Digital Collections Chair: Miguel Escobar Varela</p> <p>Minimal Computing and Cultural Specificity Alex Gil (Columbia University) Reinventing Historiography, Redefining Contexts: Creating the Southeast Asian Art Archive Farah Wardani (National Galleries of Singapore and Indonesian Visual Arts Archive) Challenges for Presenting Cultural Specificity in Digital Collections in the South African Context Justus C. Roux (North-West University, South Africa)</p>
16:30 – 17:30 Pantry	<p>Afternoon tea break</p>



17:30

Bus leaves from NUS Library to Park Avenue Rochester

Schedule — 13 August (Day 2)



9:30

Bus leaves from Park Avenue Rochester to NUS Library

10:00 - 11:20 Theatrette 2	<p>Session 3: Visual Narratives Chair: Ken Takiguchi</p> <p>Enhancing Contextual Narratives with a Geo-Temporal Visualization Platform Chiung-min Tsai (National Taiwan University)</p> <p>User Experience (UX) for the Presentation of Cultural Specificity Miguel Escobar Varela (NUS)</p>
11:20 - 11:40 Pantry	<p>Coffee Break</p>
11:40 – 13:00 Theatrette 2	<p>Session 4: Heritage Sites Chair: Nic Leonhardt</p> <p>The theatre-finder Project: Lessons in Resources, Sustainability, and Preservation Franklin J. Hildy (University of Maryland)</p> <p>A Scholarly or Communal Digital Eco-system for 3D Heritage Erik Champion (Curtin University)</p>
13:00 – 14:00 Pantry	<p>Lunch Break</p>
14:00 – 16:00 Theatrette 1	<p>Session 5: Digital Scholarship Chair: Alex Gil</p> <p>Significance of Digital Humanities for Developing the Full Potentials of Arts and Humanities Studies in East Asia in the Digital Age Masahiro Shimoda (University of Tokyo)</p> <p>A Trend of Digital Humanities Research in Japan: From Literary and Linguistic Computing to Digital Scholarship Mitsuyuki Inaba (Ritsumeikan University)</p>
16:00 – 17:00 Pantry	<p>Afternoon tea break</p>



17:00

Bus leaves from NUS Library to Park Avenue Rochester

Schedule — 14 August (Day 3)



9:30

Bus leaves from Park Avenue Rochester to NUS Library

10:00 - 11:20 Theatrette 2	Session 6: Dance and Music Chair: Alvin LIM The Technologization of Dance Maaïke Bleeker (Utrecht University) Digital Archiving: The Case of Music Rajeev Patke (NUS)
11:20 - 11:40 Pantry	Coffee Break
11:40 - 13:00 Theatrette 2	Plenary Discussion Key Issues and Best Practices for the Presentation of Cultural Specificity in Digital Collections
13:00 - 14:30 Pantry	Lunch



14:30

Bus leaves from NUS Library to Park Avenue Rochester

Abstracts and Biographical Notes

Session 1: Dealing With Data

Integrating Cultural Specificities from the Beginning: Conceptual and Data Modeling Using SylvaDB.com. In my presentation I will evaluate some projects developed my lab (cultureplex.ca) in which integrating cultural specificities was a requirement for the scientific validity of the projects. In order to do so, we created SylvaDB.com, a management system of graph databases that focuses on producing easy-to-use interfaces so that the domain expert can model their cultural phenomena at several levels of granularity and detail. The tool presents a work flow that starts with the description of the phenomena by the experts in terms of concepts and relations, and map those elements into that data model. The tools allows for infinite iterations of the process thanks to an interface that allows to interact with the data model and preserves the integrity of the data already stored in the database. Finally, the network-based structure of graph databases foster an intuitive and friendly interaction of the user with their objects at every step, from modelling to analysis and visualization.

Juan-Luis Suarez is the Director of the CulturePlex Lab at Western, a multidisciplinary research facility devoted to advancing Human Analytics. Prof. Suarez holds an E-MBA (IE Business School) and PhDs in Philosophy (Salamanca) and Literature (McGill). He has received the Polanyi Prize, the Premier's Early Research Award, the CFI Leaders Opportunity Fund Award, and the 2015-16 Faculty of Science Distinguished Interdisciplinary Research Award. Human Analytics combines Digital Anthropology, Culture Analytics and Big Data to model, track and predict the behaviour of both individuals and groups and propose effective nudging scenarios.

Archiving Shakespeare and Theatre in A|S|I|A. This paper documents and reflects upon the process of data creation in four parallel languages (English, Chinese Japanese and Korean) for 52 productions in the Asian Shakespeare Intercultural Archive (A|S|I|A, www.a-s-i-a-web.org). We first account for two unusual dimensions of the archive team's approach to data for the productions. First, the data on each production aims to archive knowledge about the performance as a live event in the context of its theatre cultures, rather than about the archival object (video-recording, script and other materials collected). Second, the parallel language policy of the archive entails an intercultural production of data where the frames of reference and terminology in each of the languages interact with one another. The resulting data entries were extremely detailed, descriptive and production-specific. The second section of the paper documents the recent data revision that the editors undertook to generate data categories based empirically on the existing data, that could be shared across productions in all four languages, and that could combine quantitative and qualitative methods to open up new approaches to the research and teaching of Asian Shakespeare performances.

YONG Li Lan is Associate Professor in Theatre Studies at the National University of Singapore. Her research focusses on intersections between Shakespeare and intercultural performativity in the theatre, cinema and internet. She is co-editor with Dennis Kennedy of *Shakespeare in Asia: Contemporary Performance* (Cambridge, 2010), and is director of the Asian Shakespeare Intercultural Archive (A|S|I|A), a collaborative project which archives East / Southeast Asian Shakespeare performances online in parallel interfaces in English, Chinese, Japanese and Korean.

Session 2: Digital Theatre Histories

Making Theatre Makers Asia (TMA). The Theatre Makers Asia (TMA) archive aims to provide a platform for collaborative research, as well as generative responses to contemporary theatre-making practices in East and Southeast Asia. Apart from archiving theatre productions as recordings, TMA is building a database of theatre makers in the region, providing information on their works, collaborations, and publications by and about them. The co-presenters will examine the archive's development, focussing on two key features of the web archive. First, they will elaborate on the process of building TMA's database, which required them to conduct an evaluation of various software programmes and their structural possibilities and limitations. They will introduce the database design

currently adopted in TMA by referring to the choice of the software which defines the ways to structure or group data. The database must present and draw useful connections between the creation of performance events, contextual information, and responses to the productions. Further, the content has to relate to a second database that contains information about the theatre makers. Second, they will also reflect on the user interface and an exhibition application, exploring possible designs that TMA can use to display or *exhibit* information and materials (production programmes, multimedia, photographs, and etc.). As building a new digital archive can be challenging, feedback and suggestions on other possible avenues to explore in the process of building TMA would be helpful.

Takiguchi Ken is a research fellow at the Theatre Studies Programme, Department of English Language and Literature, National University of Singapore. He is also the Deputy Director and Translation Editor of an online multilingual performance archive, Asian Shakespeare Intercultural Archive (A|S|I|A, a-s-i-a-web.org) which has been developed by the Programme. His research interests are in Japanese and Southeast Asian contemporary theatre, theatre translation and cultural policy. His recent publications include; “Translating Erased History: Examining Inter-Asian Translation of the National Changgeuk Company of Korea’s Romeo and Juliet,” *Journal of World Languages* (forthcoming), “A Collective Invention: Locating Five Arts Centre in the Region,” in *Staging History: Selected Plays from Five Arts Centre 1984–2014*, ed. Kathy Roland (Kuala Lumpur: Five Arts Centre, 2015), and “Translating Canons: Shakespeare on the Noh stage,” *Shakespeare 9* (2013). Takiguchi has also participated in a number of intercultural productions as a dramaturg/translator/producer, and was named Cross-Cultural Champion of the Arts at the 2002’s BOH Cameronian Arts Awards (Malaysia).

Alvin Eng Hui Lim is Postdoctoral Fellow on the Theatre Studies Programme at NUS. He has recently completed his PhD dissertation on popular religious practices and spirit mediums in Singapore. His key research interests are religious practices, spirit mediums and rituals, with emphasis on new media and digital technology. He is the Deputy Director and Technology and Online Editor (Mandarin) of the Asian Shakespeare Intercultural Archive (A|S|I|A, <http://a-s-i-a-web.org/>), and Editor of Theatre Makers Asia archive (<http://tma-web.org/>). They are part of the Asian Intercultural Digital Archives (AIDA) project that aims to make some of the most important contemporary theatre practices in Asia available and accessible online to a wide audience. He has also published on Singapore theatre, religious practices, and digital archiving. He is also a member of the “After Performance” working group, which explores experimental modes of writing on performance and co-authorship.

‘This is not a Theatre’, Local Values, Global Connections, Relational Histories of Performing Arts in Digital Collections. It has been a few years now that Digital Humanities and digital tools have entered the stage also of Theatre and Performance. Digital Projects and collections related to the performing arts have inspired academics, theatre practitioners and interested laymen to reconsider the respective local value and global impact of our tangible and intangible culture(s). DH, their methods and tools turn out to be assets for theatre practitioners, scholars, and the audience alike: not only serve DH (ideally) the scholarly operations of creating knowledge on theatre and performance worldwide; they also emerge as an (allegedly) suitable way of sharing memories and expertise on an art form that can be considered a commons. “Ideally” – “allegedly”, in an ideal world, digital tools could simply assist us in gathering and preserving tangible traces of theatre histories, globally. In a real world though, we seem to face uncountable challenges. We are aware of the most obvious challenges: digitization itself, data mining, copyright issues, etc. Yet of all things in a networked world and culture of open access, cultural specificity seems to be the biggest challenge. Based on my experiences in creating and conceptualizing a ‘transcultural’ theatre database, in developing DH projects in the context of my DH project *Theatrescapes*, and on the basis of interviews with theatre scholars and archivist, I am going to discuss the question of cultural specificity in digital projects and collections as a circle of questions of: selection, dramaturgy (conceptualization and adaptation), mise-en-scène (presentation), proximity (accessibility, context), distribution (popularizing) reception, and shall discuss possible ways of communicating cultural diversity and specificity by curating, making use of digital tools as well as the modus operandi of the social web.

Nic Leonhardt is a theatre and media historian as well as a writer based in Munich and Cologne. Her scholarly activities are characterized by a strong interdisciplinary approach and focus on global theatre, media and popular cultures at the turn of the 20th century as well on contemporary visual and urban cultures and Digital Humanities. She studied art history, theatre and audiovisual media, German philology and musicology and received a Dr. phil. in Performance and Media Studies from the University of Mainz (2006). From 2010 to 2015 Nic was the associate director of the international research project *Global Theatre Histories* (LMU Munich); since 2013 she is Principal Investigator of the DH project *Theatrescapes*, (<http://www.theatrescapes.theaterwissenschaft.uni-muenchen.de/index.html> & <http://theatrescapes.gwi.uni-muenchen.de/>) Since 2015 she has been visiting professor for Inter Artes at the University of Cologne.

Public Session: Presenting Cultural Specificity in Digital Collections

Minimal Computing and Cultural Specificity. How is humanistic knowledge in digital environments produced in the second decade of the 21st century? Under what conditions? Who owns it? Who benefits from it? Can a "local" practice be isolated within specific geographic coordinates? I will propose some possible responses to our current dispensation based on our experiences with plain text and minimal computing investigations around the world: the why (a performance of transnationality and minimality) and the how (static site generation and github). Through a reading of Ernesto Oroza's "Architecture of Necessity," I will further argue that minimal computing presents us with the ideal meeting point between form and use in a border-crossing humanities at the moment where we fight for the very conditions of our digital knowledge production.

Alex Gil is the Digital Scholarship Coordinator for the Humanities and History at Columbia University. He is vice chair of the [Global Outlook::Digital Humanities](#) initiative focusing on minimal computing and translation, is one of the founders and directors of [Columbia's Group for Experimental Methods in the Humanities](#) and the [Studio@Butler](#), and is actively engaged in several digital humanities projects at Columbia and around the world.

Reinventing Historiography, Redefining Contexts: Creating the Southeast Asian Art Archive. The work of the National Gallery Singapore Resource Centre is to build its facilities of reference and archival collection management, adhering to NGS curatorial and research framework, which mainly focuses on Southeast Asian modern art history. The Resource Centre is designated to function as a library and online portal fulfilling roles in research, documentation, digital archiving, public services, promoting issues of art history preservation, distributing resources and reproducing documents while working with artists, artists' estates and art institutions to preserve Southeast Asian art. Currently, NGS Resource Centre is now collecting memorabilia, ephemeras, documents of Singapore and Southeast Asian pioneer artists of the 1990s contemporary. The challenge, is to find something to start with. Southeast Asian art historiography is still a field remaining to be established, full of discontinuities and missing links. As archiving is also about collecting evidence, the task of the archive is to collect and discover as many sources that can give evidence of various dimensions of SEA art history. The questions of defining SEA contexts and identities certainly become recurring subjects of discussion along the way. The archive is not particularly meant to present a canonization as in 20th century Western art history model, but to explore and re-explore the materials collected and remaining to be found. At the same time, it is also in conjunction with the development of the curatorial programming to reinvent Southeast Asian historiography.

Farah Wardani completed her MA in Art History (20th Century) from the Department of Historical & Cultural Studies, Goldsmiths College, London, UK, in 2001. She has been active as a teacher, researcher, writer, curator and art organizer since 2001 in her home country, Indonesia. She is the co-author of a book titled 'Indonesian Women Artists: The Curtain Opens' (Indonesian Fine Arts Foundation, 2007. From 2007 until 2015 was the executive director of Indonesian Visual Art Archive (IVAA) in Yogyakarta, Indonesia, with works include the IVAA Digital

Archive <http://archive.iva-online.org/>, the first digital archive of contemporary art in the country. Since March 2015 she joined the National Gallery Singapore as the Assistant Director for the Gallery's Resource Centre.

Challenges for Presenting Cultural Specificity in Digital Collections in the South African Context. Given the multi-cultural society of South Africa with eleven official languages representing a wide variety of cultures, and given constitutional imperatives for equal treatment of these languages, it is to be expected that there are obvious challenges for presenting cultural specificity in digital collections in this specific context. This contribution will firstly provide an overview of a relatively late migration as far as language based resources are concerned from an analogue to digital environment in the South African context. It will be shown how a number of research and development projects, mainly in the domain of Human Language Technologies, have given rise to large scale development of digital text and speech data collections. This in turn, required a coordinated initiative to manage large digital data sets as reusable resources for a vast array of potential applications in the field of interactive communication systems (with speech recognition and speech synthesis components), multi-lingual automatic translation systems etc. A language *Resource Management Agency* was established at the North-West University (<http://www.rma.nwu.ac.za>), supported by the National Department of Arts and Culture (DAC) in 2012. However, it has become abundantly clear that a more comprehensive national facility with an undefined lifespan is required to meet the challenges of creating and managing multi-modal digital language resources. The National Department of Science and Technology (DST) has, as part of the introduction of a new Research Infrastructure Roadmap for South Africa, in principle approved the establishment of a *South African Centre for Digital Language Resources* (SADiLaR) within this financial year. As a number of cultural specific challenges await this entity in its creation of digital resources, this talk will secondly address some crucial issues that will need to be addressed conceptually and technically. Aspects of oral artistic traditions within African cultural groups will be discussed, specifically linking on to renditions of so-called praise poems, where it is not only the nature and content of the texts that need to be adequately represented, but also the physical presentation as an artistic occurrence. It will be argued that conceptually there are at least three points of departure that could play a role in creating these types of digital resources, i.e. from an insider, "mid-sider", or outsider perspective. Some suggestions will follow regarding the technical strategies that could support the different conceptual approaches.

Justus C. Roux was professor and former Chair of the Department of African Languages at the University of Stellenbosch. He was project leader of the first major human language technology (HLT) project in South Africa entitled *African Speech Technology* (2000-2004) which, *inter alia*, created awareness of the important role of technology in the development and use of African languages. He has served on various governmental committees and ministerial panels advising on strategic planning for HLT development in a country with eleven official languages. He has played an important role in the establishment of a language Resource Management Agency at the North-West University in Potchefstroom in his capacity as Director of Research Unit: Languages and Literature in the South African Context. After retirement he spent a year (2015) teaching and doing research on invitation as a Mercator Fellow at the Institute for Natural language processing at the University of Stuttgart in Germany. Currently he is a senior research associate at the previously mentioned Research Unit at the North-West University focusing on digital approaches to research in the Humanities and Social Sciences. He was invited by the national Department of Science and Technology to champion the establishment of a national centre for digital language resources as one of a number of new research infrastructures in South Africa. Activities of this new entity, the *South African Centre for Digital Language Resources*, are bound to commence in the last quarter of this year.

Session 3: Visual Narratives

Enhancing Contextual Narratives with a Geo-Temporal Visualization Platform. The approach of digital humanities does not occur in just engaging a team of research in building a collection on a large scale, but also envisioning new ways of doing research. More often, the new knowledge inquiry arises naturally from the pursuit the follows: (1) how scholars are able to aggregate all possible data for analysis; (2) how information is encoded and represented for knowledge discovery; (3) how computational methods are applied to assist interpreting context, narratives, or other relevant contents. To start the presentation, I will exemplify our attempt to answer the above questions, based on the recent projects which National Taiwan University has been working on. I then propose a conceptual

framework to representing and ordering events in space and time as well as functional abilities to construct meaningful narratives. In a case study, I will show how an artist's life journey can be tracked and linked to the existed datasets such as paintings, exhibitions, historical timelines, and geospatial data. Therefore, the narratives are context-dependent, i.e. actions or expressions can be only understood in context. Each event in a narrative relates sequential or consequential occurrence in space and time. In the presentation, I aim to demonstrate the story-telling and geo-visualization platform as a proof of concept. The presentation is concluded with exploring the potential of importing aggregated metadata from different cultural heritage institutes into the linked data cloud to improve its reusability and integration.

Chiung-min Tsai is a Research Fellow of Research Center for Digital Humanities, National Taiwan University. His research interests are: digital projects that enable studying, learning and connecting collections, collection-related rich media for digital interpretation, seamless integration across devices, and cross collaboration for data sharing.

User Experience (UX) for the Presentation of Cultural Specificity. Many digital archives aim not only to preserve records but also to attract new users to their collections. As such, they must cater to both specialist and general audiences. In the case of arts collections, archivists often need to design the archives in ways that introduce the audience to material that is culturally specific: it has been produced in specific contexts and it has been recorded and archived according to local intellectual traditions. The challenge of contextualizing this material means that archive designers need to think in terms of the attention flow and the series of decisions users will make along an interactive path in an online interface. Should the interface be invisible and intuitive? Or should the interface be purposefully intrusive, in order to invite users to reconsider their relationship to the archival material? This presentation argues that these questions can be best answered by using *experience maps*, a conceptual tool from UX Design (User Experience Design) that helps design teams understand how users will interact with an online portal. Examples will be drawn from the Contemporary Wayang Archive (CWA) and the Asian Shakespeare Intercultural Archive (A|S|I|A).

Miguel Escobar Varela is assistant professor of Theatre Studies at the National University of Singapore. He has worked as a software programmer, translator and theater researcher in Mexico, The Netherlands and Indonesia. His research interests are the digital humanities and Indonesian theatre. His articles have appeared or are forthcoming in *Digital Humanities Quarterly*, *Digital Scholarship in the Humanities* (formerly *Literary and Linguistic Computing*), *Performance Research*, *Contemporary Theatre Review*, *The Drama Review*, *New Theatre Quarterly*, *Theatre Research International* and *Asian Theatre Journal*. Website: miguelescobar.com.

Session 4: Heritage Sites

The theatre-finder Project: Lessons in Resources, Sustainability, and Preservation. The theatre-finder.org project grew out of my experience as an undergraduate theatre student traveling in Europe. When I returned home I discovered I had been within blocks of influential theatres from theatre history but did not see them because I was unaware of their location or how to access them. This set me on a 35 year project to document all the theatres that still exist in the world that are over 100 years old. After visiting hundreds of theatres in nearly 30 countries, this project took on new importance as the money and public support that could be generated by the tourist my project could send to these theatres became vital to their future sustainability. This project also had the potential of helping the theatres themselves network in ways that would allow them to share expertise and resources. Six years ago my research project became a web site. My work on theatre-finder.org has lead me to a fuller understanding of issues that have nothing to do with historic theatres and everything to do with digital humanities. The same issues of that face many of the historic theatres I am trying to document face digital projects in the humanities in general. Using theatre-finder.org as my example, this paper will examine issues of sharing resources, sustainability and preservation.

Franklin J. Hildy (PhD Northwestern Univ.) is Professor of Theatre History in the School of Theatre, Dance, and Performance Studies, at the University of Maryland where he serves as Director of Graduate Studies and Head of the PhD program. He was elected to the College of Fellows of the American Theatre in 2010 and elected Senior Research Fellow of Shakespeare's Globe, London, in 2015. He is co-author, with the late Oscar G. Brockett, of five

editions of *History of the Theatre*; which has been translated into Chinese, Czech, Fārsī, Greek, Korean, and Ukrainian; author of *Shakespeare at the Maddermarket*, editor of *New Issues in the Reconstruction of Shakespeare's Theatre*, and General Editor for *theatre-finder.org* an on-line index of all existing theatres over 100 years old. He has done field research on historic theatres in thirty countries. Professor Hildy has published over 65 articles on historic theatre architecture, theatre archaeology, Shakespearean staging techniques, and the history of Shakespeare in performance and regularly lectures on these topics nationally and internationally. He has done two lecture tours of Taiwan sponsored by their National Science Foundation and a lecture tour of Ukraine sponsored by the US State Department. He is a member of the Architecture Research Group for the Trusties of Shakespeare's Globe for whom he also serves as a member of the Globe Council of Advisors. Since 1984 he has been Director of The Shakespeare Globe Center (USA)-Research Archive.

A Scholarly or Communal Digital Eco-system for 3D Heritage. In April 2014, I proposed to UNESCO to run a four-year project to survey, collate and develop tools for heritage sites and related built environments, focusing initially on Australia. Our aim is to consolidate and disseminate 3D models and virtual environments of world heritage sites, host virtual heritage examples, tutorials, tools and technologies (so heritage groups and classrooms could learn to develop and maintain 3D models and virtual environments) and act as adviser on policy formulation for the use, evaluation and application of these 3D digital environments and digital models both in the classroom and for general visualisation projects. UNESCO has accepted the proposal as a UNESCO Chair in Cultural Heritage and Visualisation and the formal signature process is underway at the time of writing. While there are specific 3D-related issues to the above project, there are also fundamental challenges that relate to digital heritage collections in general. These include how we relate the archive to external sources, how we track the usefulness and effectiveness of the data, how we provide ways of distributing different levels of quality of content (in order to satisfy owners of the intellectual content), and how to communicate the level of accuracy (authenticity, instrumental level of detail or academic rigor) of the data. But a central question is: how can we ensure the data is used in a meaningful and significant way by communities of shareholders and that their feedback is incorporated into the on-going curation and maintenance of the data? This paper will discuss these issues with a focus on how the collection (as part of a larger life-cycle of information and community participation) would be better viewed and developed as a digital heritage ecosystem, scholarly or otherwise.

Erik Champion is Professor of Cultural Visualisation at Curtin University and the theme leader for Visualisation at the Curtin Institute of Computation (<http://computation.curtin.edu.au>). He researches issues in the area of virtual heritage as well as game design, interactive media, and architectural computing. Prior to joining Curtin University he was Project leader of DIGHUMLAB in Denmark, a consortium of four Danish universities, hosted at Aarhus University. Here he also worked with EU research infrastructures and projects, acting as the "Research and Public Engagement" co-leader for <http://dariah.eu/>. He wrote *Critical Gaming: Interactive History and Virtual Heritage* (Routledge, 2015), *Playing with the Past* (Springer, 2011), and he edited *Game Mods: Design, Theory and Criticism* (ETC Press, 2012). His next book project (in press) is *Cultural Heritage Digital Tools and Infrastructures*, (Routledge, 2017), with co-editors Agiati Benardou, Costis Dallas and Lorna Hughes.

Session 5: Digital Scholarship

Significance of Digital Humanities for Developing the Full Potentials of Arts and Humanities Studies in East Asia in the Digital Age. It is increasingly apparent that the environments of digital scholarship in the field of arts and humanities, with the decisive influence of rapid innovations in digitizing technologies and cyber infrastructures, are radically transforming the ways of preserving and transmitting the knowledge of these fields. This newly emerging mode of operation has begun to liberate the knowledge heretofore confined within the terrain of each individual, community, university, library, museum and so forth into one vast worldwide horizon beyond national, institutional and linguistic boundaries. In order to hand down in a most effective way the heritage of a given field of study to the next generation in these environments, an endeavor to create the best possible platform designed for creatively producing new forms of knowledge in international alliance is in urgent need. For the purpose of achieving this enterprise, necessary is for specialists in each field of study, first to analyze the nature and structure of traditionally-transmitted forms of knowledge, and then to get proficient in the new media in terms of their functions for archiving, documenting, cataloguing, disseminating and so forth for these operations to be effectively applied to the studies.

In this presentation, I would like to demonstrate as a model for an ideal implementation of the abovementioned topics the SAT project (http://21dzk.l.u-tokyo.ac.jp/SAT/index_en.html), a multi-nodal project comprised of such major projects of self-financed agencies (Indo-Tibetan Lexical Resources at University of Hamburg; Digital Dictionary of Buddhism in Tokyo; the Buddhist Canons Research Database at Columbia University; READ project at University of Munich, U of Washington, U of Lausanne, and U of Sydney; etc.). This platform is now providing a variety of research resources for Buddhist studies such as the primary sources, secondary resources, catalogues, dictionaries, lexicons and translations, all databases interlinked to each other at a deep structural level. It would be worthy of special mention that the images being provided in this platform is conforming the cutting edge international format of IIF (<https://github.com/iif>).

Masahiro Shimoda is Professor in Indian Philosophy and Buddhist Studies with a cross appointment of the director in the Digital Humanities Initiative at the Graduate School of Humanities and Sociology, the University of Tokyo. He has been Visiting Professor at the School of Oriental and African Studies, University College London (2006), Visiting Professor at Stanford University (2010), and Visiting Research Fellow at University of Virginia (2012). He is the president of Japanese Association for Digital Humanities since its establishment in 2011) and the chair of the trans-school program of Digital Humanities at the University of Tokyo, which has started on the 1st April 2012 in the collaborative program among the Graduate School of Interdisciplinary Information Studies, the Graduate School of Humanities and Sociology, and the Center for Structuring Knowledge.

A Trend of Digital Humanities Research in Japan: From Literary and Linguistic Computing to Digital Scholarship.

Over the last decades, growing research trends in digital humanities (DH) have been of great interest to scholars who are working on the intersection of humanities and computing. After Father Busa's work of electronic indexing for literatures of Thomas Aquinas, various digital technologies have been invented and applied to the field of textual scholarship. Later, Association for Literary and Linguistic Computing (ALLC), now known as the European Association for Digital Humanities (EADH), was founded in 1973 to promote use of computational methods in research and teaching in humanities. The association is one of founding members of the Alliance of Digital Humanities Organizations (ADHO) that was started in 2005 for providing a world-wide umbrella to regional DH associations. In recent years, DH activities in Europe and U. S. seems to be expanded its focuses on broader interests on digital scholarship for analyzing a variety of contents that are not limited to textual resources. However, the application of computer technology to textual scholarship is still a core part in the global DH. In contrast, DH trends in Japan tracks a somewhat different trajectory with the one in the West. As a matter of course, first DH-related research in Japan has paid strong attention to literary and linguistic computing, textual processing, and Japanese text-encoding. However, there were also many research and practices that have focused on preserving, analyzing, and presenting a variety of cultural resources from the dawn of the application of digital technology to humanities. In accord with such a background, this presentation illustrates DH trends of Japan with a focus on its characteristic features. First, it gives the history and overview of DH movements in Japan. Second, it introduces DH activities that are conducted at Digital Humanities Center for Japanese Arts and Cultures (DH-JAC) at Ritsumeikan University. Finally, it will discuss the potential of Japanese DH toward an "issues-oriented" digital scholarship for contributing to the society.

Mitsuyuki Inaba is a professor at the College of Policy Science, Ritsumeikan University, Kyoto, Japan. He is also a board member of Digital Humanities Center for Japanese Arts and Cultures (DH-JAC) and Research Center for Game Studies (RCGS) at Ritsumeikan University. Prof. Inaba is co-author of "New Directions in Digital Humanities for Japanese Arts and Cultures" (Kyoto: Nakanishiya, 2009) and "Research Methods in Communication Studies" (Kyoto: Nakanishiya, 2011). He is the editor of "Digital Humanities Research and Web Technology" (Kyoto: Nakanishiya, 2012). He has published many article and research papers on Digital Humanities, Computer-Assisted Collaborative Learning (CSCL), and Computer Mediated Communication (CMC). Prof. Inaba is an executive board member of ADHO (Alliance of Digital Humanities Organizations) centerNet international committee, ADHO Multi-Lingual and Multi-Cultural committee, and Japanese Association of Digital Humanities (JADH). He is a member of the Association for Computing Machinery (ACM), Japanese Society of Artificial Intelligence (JSAI), Japanese Cognitive Science Society (JCSS), and other academic associations.

Session 6: Dance and Music

The Technologization of Dance. My contribution to our workshop will be based on conclusions drawn from a volume I recently finished editing about digitalization projects initiated from the field of dance (*Transmission in Motion. The Technologization of Dance*, forthcoming with Routledge). Recurring motive in the reflections about these projects are observations about the difficulty of translating knowledge and experience as it is shared within the very specific culture, or biotope, of a dance company with an audience that is not part of this culture. Each of the projects explored different ways of engaging with this complexity. One of these projects (Forsythe's *Improvisation Technologies*) is particularly interesting for how it was recognized as a model that could potentially be used in very different cultural contexts and then faced the fact that this would actually require rethinking of some of its basic structural principles.

Maaïke Bleeker is professor of Theatre Studies at Utrecht University and President of Performance Studies international (PSi). Her research focuses on processes of perception and meaning making in theatre, performance, dance and the arts, as well as in science and in public life. In her work she combines approaches from the arts and performance with insights from philosophy, media theory and cognitive science. Her monograph *Visuality in the Theatre* was published by Palgrave (2008). She (co) edited several volumes including *Anatomy Live. Performance and the Operating Theatre* (2008) *Performance & Phenomenology*. (Routledge 2015) and *Transmission in Motion. The Technologizing of Dance* (forthcoming with Routledge, 2016).

Digital Archiving: The case of Music. The paper presents a case for the value of digitization to music as cultural capital. This value, it is argued, extends from the use of digitization in archiving, to its role as a referent for musical practices in pedagogy of two kinds: that which educates the common or general listener to musical forms and traditions; and to students of music, for whom the temporally transitory nature of music performance as model and template can be preserved as citation and exempla, so that the orality of the music tradition can be supplemented – especially in musical traditions such as those of India, which largely abjure the use of musical notation as a device for preserving music – by the evidence of digitized music recordings. The second part of the paper develops an argument for how digitization extends beyond archiving and pedagogy to a more direct intervention in shaping musical practices and traditions through the sheer fact of its existence as musical data. The third part of the paper comments on some technical aspects of the digitization of music: these are drawn from the specific example of my personal research in archiving, digitizing, editing and disseminating the classical music of North India over a period of more than two decades.

Rajeev Patke was educated at the University of Pune and Oxford, and has been associated with NUS since 1988, and with Yale-NUS since 2012, where is currently Director of the Division of Humanities. He is the author of 4 books of literary criticism and history, one of them co-authored with Philip Holden. His teaching interests include Literature and the Arts, poetry, and postcolonial studies. He has been collecting and editing music for the last three decades.