DRA3907HY Collisions and Common Ground: art - technology - performance

(Fall 2018-Winter 2019)

Instructors:

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Time: Wednesday 5 - 8pm every second week
Location: Rehearsal Hall, Centre for Drama, Theatre and Performance Studies
Koffler Building, 214 College St. (Entrance from St George St.), 3rd floor

Course Description:

This interdisciplinary graduate course explores the collision between the arts and technologies with all of its creative potential, unintentional collateral damage, compelling attraction, and complex social implications. It brings together scholars, artists, and students from Drama/Theatre, Visual Studies, Comparative Literature, Music, Engineering, and Computer Science who are already excited by and engaged in this intersection. For students coming from an arts background the course offers direct experience of emerging technologies and chance to explore their applications to their research. For students with a technology background, the course provides the opportunity to integrate their research into an art-based, publicly presented project. The course exposes all of the students to rigorous interdisciplinary practices and their conceptual, practical and theoretical challenges through group discussions, concept

generation, practical experimentation and research, and engagement with visiting artists. The course will culminate in two collaborative performance projects.

Objectives:

The goals of this course are to:

 *   Encourage creative applications of new digital technologies in the arts with applications for theatre, performance and installation using technologies including but not limited to real-time motion capture, robotics, artificial intelligence, and interactive sound and image technologies for dynamic staging;
 *   Encourage a balance between enthusiasm and criticality in these explorations;
 *   Develop effective cross-disciplinary practice and an understanding of the challenges it poses, and encourage the cultivation of mutual respect across the disciplines;
 *   Challenge students to venture outside their field of expertise to gain the experience and language necessary to communicate effectively across disciplinary boundaries;
 *   Stress-test emerging technological research outside the lab in an unpredictable and unbounded environment;
 *   Encourage consideration of the potentials, challenges, and theoretical and ethical implications of these technologies beyond the scope of the course and its projects;
 *   Develop a cohort of students experienced with the arts and the technologies and a comfort with working across disciplines for future collaborations.

Course Structure:
Classes in this course will include a mixture of seminar-based and group discussion of the required reading, practical experimentation with relevant technologies and discussions about their potential applications and pitfalls, review of documentation of historical and contemporary uses of technologies in theatre, and within this framing context, brainstorming and workshopping approaches to the presentation of specific scenes of selected plays.The intention is to provoke a productive dialogue between technological research, cultural history, and contemporary creative practise.

In each term we will use an existing play as the backbone for our research and consideration. In the first term we will address William Shakespeare's 'The Tempest' and in the second term we will address Bertolt Brecht's 'Flight Over the Ocean'. Over the course of the term we develop productions of a few scenes in the designated play which will be presented publicly at the end of the term. These productions are not intended to be finished productions, but rather to draw us through theoretical and practical explorations of the potential uses of new technologies in these scenes. The public presentation of these productions will followed by a public discussion of the key findings of the term's research and production process.

The course is designed with an understanding that courses involving students of multiple distinct disciplines will require flexibility in terms of course requirements, expectations and grading strategies. At the same time, a willingness to engage across traditional disciplinary boundaries is a key factor in student evaluation in this course.

Marking:

2 practical presentations (one per term)
15% (each) = 30%

2 Short papers (about 5 pages) (one per term) about the practical presentations which should incorporate ideas raised by the class discussions. Paper handed in one class AFTER the presentations:
10% (each) = 20%

Interdisciplinary collaboration (i.e. the degree to which the student has shown a willingness to engage across disciplinary boundaries in practical research and class discussions) = 20%

Research paper and/or Video
30%

Tentative Time Table:

FIRST TERM

Sept 12th, 2018: **Introduction to the course and William Shakespeare's**

The Tempest:

Introduction of the course.
Introduction of students and faculty
Introduction to the first term play: *The Tempest*
Discussion of areas of particular interest for production:

- The Storm (opening scene)
- The Island (focussing on the representation of the island in one of various scenes throughout the play)
- Ariel (focussing on the representation of Ariel and his 'magical' works on behalf of Prospero)

Discussion of collaborative groupings.

READINGS: Read the entire text of the play **OR**
Read summaries of all acts (Act I - Epilogue):
http://www.sparknotes.com/shakespeare/tempest/

Sept 20th: **Visit to Karan Singh's Computer Science Class**

Topics in Interactive Computing: Graphics, Interaction and Perception in Augmented and Virtual Reality AR/VR

Our course and this course will have a loose parallel relationship. Students in this course will be offered the option of developing projects that contribute to our scenes from *The Tempest*.

Prof. Kleber and David Rokeby will introduce our course to this class to give context for these potential collaborations. Our course's students are encouraged to attend.

Sept 26th: *The Tempest*: Historical Productions and Class Brainstorming

We will be reviewing documentation of various historical and contemporary productions of *The Tempest* and then discussing ways of reimagining these scenes using new technologies.

Hands on demo: interactive gestural sound (weather sounds)

READINGS:
"Transforming Mirrors" by David Rokeby
(http://www.davidrokeby.com/mirrorsintro.html)
"Constructing Experience" by David Rokeby
(http://www.davidrokeby.com/experience.html)
"Theatrical Continuities in Giorgio Strehler's *The Tempest*" by Pia Kleber in *Foreign Shakespeare*, ed Dennis Kennedy (page 140 – 157)

Oct 10th: Presentation of Initial Ideas for *The Tempest*

Student groups will present their initial ideas for the production of the selected scenes, to be refined technically and conceptually through group discussion.

Hands on demo: projection mapping

READINGS:
"How should we evaluate progress in AI?" David Chapman
(https://meaningness.com/metablog/artificial-intelligence-progress)

Coniglio, Mark. 2006. "Materials vs Content in Digitally Mediated Performance." In *Performance and Technology: Practices of Virtual Embodiment and Interactivity*, edited by Susan Broadhurst and Josephine Machon, 78–84. UK: Palgrave Macmillan.

Chapple, Freda, and Chiel Kattenbelt, 2007. "Key Issues in Intermediality in Theatre and Performance." In *Intermediality in Theatre and Performance*, edited by Freda Chapple and Chiel Kattenbelt, 11–26. Amsterdam - New York: Rodopi.

"Multimedia theatre, 1911 – 1959" and "Performance and Technology since 1960" in Dixon, Steve. 2007. *Digital Performance: A History of New Media in Theatre, Dance, Performance Art, and Installation*. Cambridge, MA: Massachusetts Institute of Technology Press. Pages 73 – 85 and 86 to 111.

Oct 24th: Evolving Production Ideas

Students will present their evolving ideas for *The Tempest* scenes followed by group discussion, critique and further brainstorming

Hands on demo: body tracking / avatar technologies / digital puppetry

READINGS:
Weschler, Robert. 2006. "Artistic Considerations in the Use of Motion Tracking with Live Performers: A Practical Guide." In *Performance and Technology: Practices of Virtual Embodiment and Interactivity*, edited by Susan Broadhurst and Josephine Machon, 60–77. UK: Palgrave Macmillan.

Birringer, Johannes. 2015. "Gestural Materialities and the Worn Dispositif." In *Digital Movement: Essays in Motion Technology and Performance*, edited by Nicolas Salazar Sutil and Sita Popat, 162–188. UK: Palgrave Macmillan.

Norman, Sally Jane. 2015. "Oskar Schlemmer's Programmatic Gesture Research." In *Digital Movement: Essays in Motion Technology and Performance*, edited by Nicolas Salazar Sutil and Sita Popat, 21–34. UK: Palgrave Macmillan.

Nov 7th: Reading Week

Since our biweekly classes falls within Reading Week, students are encouraged to continue developing their productions in their groups during this extended break.

Nov 21st: Preparing for Performance

We will be evaluating the scenes that have been developed and work to ready them for public performance and discussion.

Hands on demo: Artificial Intelligence and Machine Learning

READINGS:
Broadhurst, Susan. 2006. "Intelligence, Interaction, Reaction, and Performance." In *Performance and Technology: Practices of Virtual Embodiment and Interactivity*, edited by Susan Broadhurst and Josephine Machon, 141–52. UK: Palgrave Macmillan.

Selection from "New Dark Age: Technology and the End of the Future" by James Bridle

"Human-Robot Interactions as Theatre" David V. Lu and William D. Smart

Dec 5th: Two possibilities: Performance or Prep for Performance

Depending on the state of readiness of the scenes, this class will either be for the public presentation of the scenes form the Tempest or as extra prep time for a public presentation on Dec 6th.

SECOND TERM

Jan 9, 2019: Introduction to Bertolt Brecht's *Flight over the Ocean*

We will analyze and discuss this play, and see documentation of Robert Wilson's production of it. Then we will follow with a general discussion of possible production directions.

Hands on demo: drones and action cameras

READING:
Bertolt Brecht's play *Flight over the Ocean*

Jan 23rd: General Discussion of *Flight over the Ocean*

In-depth discussion of technical means to produce various scenes from *Flight over the Ocean.*

Hands on demo: robotics

READINGS: TBA

Feb 6th: Presentation of initial ideals for the *Flight over the Ocean*

Students' initial presentations of their ideas for their respective scenes form the play.

Hands on demo: Performance / Rehearsal augmentation

READINGS: TBA

Feb 20th: Reading Week

Since our biweekly classes falls within Reading Week, students are encouraged to continue developing their productions in their groups during this extended break.

March 6th: Evolving Production Ideas

Evaluation of students' scenes

Hands on demo: Advanced Approaches to Audio

READINGS: TBA

March 20th: Gearing up for Performance

Continuation and critique of Students' scenes

Group discussion reflecting on the challenges and possibilities raised by the technologies explored and used over the course of the two terms.

READINGS: TBA

April 3rd: Public presentation of *Flight over the Ocean*

Selected Bibliography:

Auslander, Philip. Liveness : Performance in a Mediatized Culture. 2nd ed. ed. New York: Routledge, 2008.

BAUGH, C. (2005). *Theatre, Performance and Technology: The Development of Technology in the Twentieth Century.* Houndsmill, UK: Palgrave MacMillan.

Birringer, Johannes H. (2008). *Performance, Technology, & Science.* New York: PAJ Publications.

Bostrom, N. (2014). *Superintelligence: Paths, dangers, strategies.* London, UK: Oxford University Press.

Broadhurst, Susan. Digital Practices: Aesthetic and Neuroesthetic Approaches to Performance and Technology. New York: Palgrave Macmillan, 2007.

Davis, N. (2013). *Human-computer co-creativity: Blending human and computational creativity.*
https://pdfs.semanticscholar.org/565b/4abb93a932a400c6263dc0e805b6e9e620b0.pdf

Dixon, Steve. Digital Performance: A History of New Media in Theater, Dance, Performance Art, and Installation. Cambridge, Mass.: MIT Press, 2007.

Hildebrandt, M. (2015). *Smart technologies and the end(s) of law*. Edward Elgar Publishing.

Interfaces of Performance. Eds. Chatzichristodoulou, Maria, Janis Jefferies, and Rachel Zerihan, eds. Burlington, VT: Ashgate, 2009.

Klich, Rosemary, and Edward Scheer. Multimedia Performance. Ed. Edward Scheer. New York, NY: Palgrave Macmillan, 2012.

Mapping Intermediality in Performance. Eds. Sarah Bay-Cheng, et al. Amsterdam: Amsterdam University Press, 2010. Print.

Morris, D. & Fiebrink, R. (2013). Using machine learning to support pedagogy in the arts. *Pers Ubiquit Comput, 17*, 1631–1635. DOI 10.1007/s00779-012-0526-1.

Parker-Starbuck, Jennifer. Cyborg theatre : corporeal/technological intersections in multimedia performance. Basingstoke, Hampshire ; New York : Palgrave Macmillan, 2011

Richardson, J. (2015). Live theatre in the age of digital technology: 'Digital habitus' and the youth live theatre audience. *Participations: Journal of Audience and Reception Studies, 12* (1), 206-221.

Salter, Chris. Entangled : Technology and the Transformation of Performance. Cambridge, MA: MIT Press, 2010. Print.