Sandra K. Abell Institute for Doctoral Students
Humboldt State University, Arcata, California, USA
June 14-18, 2021

Overview

The recent history of the planet has thrown up multiple reminders that Modernist dualist logic has outlived its usefulness in making sense of life in the 21st century (Latour, 2012). This has made it increasingly difficult to ignore the presence of entities around us that resist being categorized under any dualist ontology. COVID-19 and the environmental crisis, among others, have been identified as "dualism-busting assemblage[s] of the Capitalocene" (Sharma 2020, p.7) and present wicked problems for humanity. Phronetic science is practical wisdom that manifests itself in "the kind of prudential judgment by which equivocal circumstances are negotiated and acted upon with a view for the common good" (Chia, 2016, p. xv), in other words, a morally guided and praxis-oriented form of knowledge. While Western Modern Science has maintained a hegemonic position in curriculum, teaching, and research, emergent science education scholars must consider issues of equity, representation, identity, and justice informed by critical, feminist, Indigenous, interpretive, linguistic, cultural, legitimation crisis, ethical, slow science, agential realist, poststructural, postcolonial, decolonial, post-humanist, anti-oppressive, standpoint epistemology, new ontologies, new materialism, race and ethnic turns and theories in science studies as alternative ways to conceptualize research in science teaching and learning.

Click on this link to meet the Directors & Mentors

Click on this link to meet the Fellows

Directors

Rouhollah Aghasaleh is an assistant professor of Education at Humboldt State University who has served as a mentor, researcher developer and speaker for doctoral students; **Kathryn Scantlebury** is a Professor of Chemistry and Biochemistry who has served as a mentor, supervisor, and collaborator for doctoral students at the University of Delaware and served on doctoral committees at Uppsala University, New York University, the University of Pennsylvania and Pennsylvania State University, and **Sara Tolbert** is an Associate Professor who has mentored doctoral students on NSF and Spencer grant projects and has supervised and co-supervised numerous dissertation projects at The University of Arizona and the University of Canterbury.

Mentors

- **Jennifer D. Adams** is a Tier 2 Canada Research Chair of Creativity and Science and Associate Professor at The University of Calgary where she holds a dual appointment in the Department of Chemistry and the Werklund School of Education. Her research focuses on the intersection between creativity and science teaching and learning in postsecondary contexts; more specifically she examines challenges to diversity in science in Canada and the US and how this impedes scientific creativity and innovation. Dr. Adams has scholarly expertise in science teaching and learning in informal science contexts including museums, National Parks and everyday setting. She was awarded a National Science Foundation Early CAREER award to study informal learning contexts and formal/informal collaborations for STEM teacher education. Her research portfolio also includes youth learning and identity in informal science contexts, with a focus on underrepresented youth and place/identity in transnational communities and environmental education. Her work emphasizes critical and sociocultural frameworks and participatory, qualitative, poststructural approaches. Prior to her appointment at the University of Calgary, Dr. Adams was at Brooklyn College and The Graduate Center, City University of New York. She has also worked as a teacher and researcher in NYC public schools and the American Museum of Natural History. Outside of the academy she is a runner and triathlete and has a background in dance and visual art.
- **Kathryn Scantlebury** is a Professor in the Department of Chemistry and Biochemistry at the University of Delaware. Her research interests focus on feminist/gender issues in various aspects of science education, including material feminism, preservice teacher education, academic career paths in academe. Dr. Scantlebury is a guest researcher at the Centre for Gender Research at Uppsala University, Co-editor in Chief for *Gender and Education*, Lead Editor for *Cultural Studies of Science Education,* and co-editor of two book series with Brill Publishers. She recently co-edited Material Practice and Materiality: Too Long Ignored in Science Education (2019) with Catherine Milne.
- **Catherine Milne** is a professor in science education and Chair of the Department of Teaching and Learning at New York University. Her research interests include material culture in the teaching and learning of science, socio-cultural elements of teaching and learning science, the role of the history of science in learning science, and models of teacher education. She is the author of The Invention of Science: Why History of Science Matters for the Classroom (2011). Among her (co-)edited volumes are Socio-cultural Studies and Implications for Science Education: The Experiential and the Virtual (2015)[with Kenneth Tobin and Donna DeGenero] and Material Practice and Materiality: Too Long Ignored in Science Education (2019) [with Kathryn Scantlebury]. She is co-Editor-in-Chief for the journal Cultural Studies of Science Education and co-editor of two book series, one for Springer Nature and the other, Brill Sense Publishers.
- **Bhaskar Upadhyay** is an associate professor of STEM Education at the University of Minnesota. His research focuses on issues of equity, diversity, and race in STEM education in the context of marginalized communities in the U.S. and Nepal. He has

published in journals such as the JRST, Science Education, and International Journal of Science Education and chapters in edited books. Dr. Upadhyay has successfully advised Ph.D. students and co-authored with students. He was a member of the 2nd SK Abell Institute held in Colorado Springs,is currently serving the 3-year term as an Executive Board Member of NARST and leads the ISK RIG.

- **Ajay Sharma** is an associate professor in the Department of Educational Theory and Practice at the University of Georgia, Athens, United States of America. His current research centers on theoretical and ethnographic explorations of neoliberalism's impact on education. In his past research, Dr. Sharma has focused on representations of nature in science education and classroom discourse in K-12 science classrooms from the perspectives of individual agency and equity. Before becoming a university-based academic, Ajay Sharma worked in the Hoshangabad Science Teaching Program in Madhya Pradesh, India, on middle school science curriculum and professional development.
- **Diego Román** is an Assistant Professor in Bilingual/Bicultural Education at the Department of Curriculum and Instruction at the University of Wisconsin-Madison. Dr. Román holds a B.S. degree in Agronomy from Zamorano University in Honduras and a M.S. degree in Curriculum and Instruction from the University of Wisconsin-Whitewater. He also earned a M.S. degree in Biology, a M.A. in Linguistics, and a Ph.D. degree in Educational Linguistics, all from Stanford University. At the K-12 level, Dr. Román taught middle school science to English Learners and newcomer students for seven years, first in rural Wisconsin and then in San Francisco, California. Dr. Román's research interests are located at the intersection of linguistics, science education, and environmental studies. Specifically, he investigates the implicit and explicit ideologies reflected in the design and implementation of bilingual and science education programs, particularly about how environmental topics are discussed with multilingual students. He received the Spencer/National Academy of Education post-doctoral fellowship in 2020.
- **Sara Tolbert** is an Associate Professor in the School of Teacher Education at the Te Whare Wānanga o Waitaha University of Canterbury, Aotearoa, New Zealand. Her research focuses on justice, feminisms, and critical studies in science and environmental education. She is a lead editor for *Cultural Studies of Science Education*, former JRST editorial board member (2015-2018), and associate editor for *Journal of Environmental Studies and Sciences*. She is a former NAEd/Spencer post-doctoral fellowship recipient (2015), NARST Basu scholar, and was a graduate fellow at the first SKAIDS in 2009. Before earning her Ph.D. (U.C. Santa Cruz 2011), she taught science and environmental education in formal and informal learning environments in the South Bronx, NY, Atlanta, GA, Mexico, Guatemala, and Aotearoa New Zealand.
- **Alexandra Schindel** is an Associate Professor of Teacher Education at the University at Buffalo—SUNY. After teaching middle school science in rural New York and Arlington, Virginia for several years, Alexa earned a PhD in Curriculum Theory at the

University of Wisconsin-Madison. In her research, she examines curricular contexts that support empowerment, equity, and justice in school science. Her current project explores youth placemaking in science—specifically how historically underrepresented and transnational youth negotiate meanings of place that are intertwined with their scientific understandings.

- **Shakhnoza Kayumova** is an Associate Professor in the Department of STEM Education & Teacher Development at the University of Massachusetts Dartmouth, and a Research Scientist at the Kaput Center for Research & Innovation in STEM Education. Dr. Kayumova's research closely examines the ways in which social constructs such class, gender, race, ethnicity, and language get implicated in the processes of STEM learning among diverse learners. Dr. Kayumova studies the design of expansive and equitable, formal and informal, learning ecologies for supporting cultural, racial, linguistically diverse young people in STEM education. Dr. Kayumova has experience working in multiple NSF-funded projects (Language-rich Inquiry Science with ELLs (LISELL) and LISELL Biotechnology (Buxton, Kayumova, & Allexsaht-Snider, 2013; Kayumova et al, 2015) developing and studying professional learning models for science teachers working with diverse learners in the context of Latinx Diasporas. Dr. Kayumova is a NSF CAREER Awardee. She is co-principal investigator on multiple NSF and NEH grants including recent NSF CS-for-all, STEM+C, and S‑STEM awards. Dr. Kayumova is the Director of UMass Dartmouth's Community Research and Partnership Institute (CoRPI) and the STEAM Language, Learning and Identity Research Laboratory. Her outreach projects include "STEAM Your Way to College," a summer program designed for culturally and linguistically diverse students from area schools. Her work appears in journals such as Anthropology & Education Quarterly, Educational Philosophy and Theory, Democracy and Education, and Journal of Research in Science Teaching (JARST).
- **Marc Higgins** is an Assistant Professor in the Department of Secondary Education at the University of Alberta, Canada, where he is affiliated with the Faculty of Education's Aboriginal Teacher Education Program (ATEP). His research labors the methodological space between Indigenous, post-structural, and post-humanist theories in order to respond to contested ways of knowing and being, such as Indigenous science.
- **Maria Wallace** is an Assistant Professor at the University of Southern Mississippi in the School of Education. Earning a Ph.D. in Curriculum and Instruction with specializations in Curriculum Theory, Science Education, and a graduate minor in Women's & Gender Studies from Louisiana State University, Dr. Wallace's research and teaching aim to deterritorialize beginning (science) teachers' subjectivities and practice. Leveraging the insight from multiple academic disciplines, she attempts to (re)imagine ways beginning science teachers (and their work) are known, named, and re/produced. In her research on science education, Dr. Wallace works to mobilize critical conversations about how 'ideas materialize' (e.g., power, equity, justice, science, research methodologies, etc.). Explored

in several of her publications and presentations, Dr. Wallace regularly examines the multifaceted role of ethics and politics as it pertains to science, science education, and teacher education. Examples of this intersection can be seen in two of her current projects: (a) *Rendering an/other capable: Posthuman possibilities for intersectional justice within science teacher preparation* (Funded by the Spencer Foundation); (b) *Reimagining Science Education in the Anthropocene* (Co-edited collection in press with Palgrave MacMillan). In addition to these projects, Dr. Wallace enjoys collaborating with budding researchers, non-profit organizations, and K-12 teachers to explore transdisciplinary questions about the educational experience.

- **Rouhollah Aghasaleh** is an assistant professor in the School of Education. His scholarship lays on an intersection of critical middle grades education, cultural studies of curriculum, and new materialist feminism that addresses the issues of equity and its impact on the education system. Rouhollah has contributed research that directly supports efforts for teachers to meet the needs of a more diverse array of students. He is the editor of the Brill volume, Children and Mother Nature: Storytelling for a Glocalized Environmental Pedagogy. He also edited a special issue on Curriculum Theorizing in Post-truth Era. Rouhollah's scholarly work has been featured in journals of African American Studies, Curriculum Theorizing, Curriculum and Teaching Dialogues, Research in Science Teaching, Activist Science and Technology Education, Reconceptualizing Educational Research Methodology, etc.
- **Katie Kirchgasler** is an Assistant Professor of Science Education in the Curriculum & Instruction Department at the University of Wisconsin–Madison. Her research concerns how underexamined histories of coloniality and racialization in STEM education impact teachers and students today. At stake is how equity reforms for emergent bilingual students may inherit cultural norms and raciolinguistic distinctions that normalize and exclude. Dr. Kirchgasler has given a keynote for the International Organization for Science and Technology Education (2018) and received a Spencer/NAEd Research Development Award (2020). Previously, she taught science in East Boston and as a Fulbright Teaching Assistant in Spain.
- **Christina Siry** is a professor of learning and instruction at the University of Luxembourg, and her research examines how young children develop and transform their science understandings through multilingual, multi-modal interactions in schools. She has several lines of research that focus on the intertwined areas of science learning and learning to teach science, particularly at the primary and early childhood levels. Together with her research team, she investigates the ways in which plurilingual young children interact with peers, teachers and materials as they engage in science lessons.
- **Sara E. D. Wilmes** is a researcher at the University of Luxembourg in the Institute for Teaching and Learning. She currently works with the SciTeach Center Project to support collaborative teacher education and professional learning for sustained changes in primary science teaching and learning in Luxembourg. Her research explores science

education in multilingual contexts and the use of postmodern research methodologies to explore intersections between science learning and diverse communicative resource use.

Keynote Speakers

- **Myra J. Hird** is Professor, Queen's National Scholar, and Fellow of the Royal Society of Canada in the School of Environmental Studies, Queen's University, Canada (www.myrahird.com). Professor Hird is the Director of *Waste Flow*, an interdisciplinary research project focused on waste as a global scientific-technical and socio-ethical issue (www.wasteflow.ca). Hird has published nine books and over seventy articles and book chapters on a diversity of topics relating to science studies. Hird's forthcoming book is entitled *Canada's Waste Flows* and will be published by McGill-Queen's University Press.
- **Fikile Nxumalo** is an Assistant Professor in the Department of Curriculum, Teaching & Learning at the Ontario Institute for Studies in Education, University of Toronto. Her work is centered on environmental and place-attuned early childhood education that is situated within and responsive to children's inheritances of settler colonialism, anti-Blackness, and environmental precarity. Her book, Decolonizing Place in Early Childhood Education (Routledge, 2019) examines the entanglements of place, environmental education, childhood, race, and settler colonialism in early learning contexts on unceded Coast Salish territories.

- **Sylvia Tapuke** is an uri of Tūhoe, Ngāti Hineuru, Tūwharetoa, Ngāti Raukawa ki te Tonga and Samoa. She is married to Kelvin Tapuke of Te Ati Awa, Ngāti Tama, Ngāi Tai, Te Whakatōhea, and Ngāti Porou. Sylvia is a kaupapa Māori researcher who traverses biophysical and social sciences, with a cultural lens on values, practice and philosophies. She has spent over 20 years in education from pre-school to tertiary level, in kaupapa Māori, mainstream and alternative teaching spaces in roles such as teacher, co-ordinator, lecturer, tutor, and facilitator. She is currently a partnerships advisor and Kairangahau Māori for Scion, an Aotearoa New Zealand Crown forestry research institute. Prior to her role at Scion, she worked as a Māori partnerships advisor for the Crown geology research institute GNS science on projects related to natural hazards education and management in the Tāupo region. Her graduate research focused on mapping waiata (traditional song) of the Tarawera eruption and its relevance to current disaster preparedness and response. Sylvia Tapuke is working on a wide range of projects including a Vision Mātauranga Māori funded partnership project between Scion, Te Arawa Lakes Trust and Te Urunga o Kea: Te Arawa Climate Change Working Group developing an iwi driven climate change strategy. She and Kelvin have two children Te Rangimarie and Kotuku. Sylvia and her whānau enjoy learning about science and

mātauranga Māori of their tribal areas. They along with the wider whānau embrace the value of learning.

Host Institution and Facilities

Humboldt State University (HSU), located on the land of the Wiyot tribe and surrounded by 13 Native American tribes, has a rich history of serving Native, Hispanic, and first-generation students. Together, 67% of HSU entering students choosing STEM disciplines are from an underrepresented minority ethnicity, and/or from a low-income family, and/or the first in their family to attend college (first-generation college students). Likewise, 61% of incoming transfer students correspond to one or more of these groups. These students are the new majority and reflect the future workforce and graduate students in STEM disciplines. Since 2010, enrollment of students from groups traditionally underrepresented in STEM majors has increased by over 75%, with a 98% increase in Hispanic students. These students have plenty of opportunities for hands-on learning with professors engaged in research and community service. Besides hosting one of the oldest teacher preparation programs in Northern California, the University is recognized for its robust research and teaching in Environmental and Native American Studies.
As a California State University campus, the HSU is in the process of applying to become the third Polytechnic campus in 2021.
The HSU Center for Teaching and Learning (CTL) creates opportunities that support learning-centered, culturally relevant experiences through the collective impact of partnerships that inspire and innovate teaching excellence in support of student learning. The CTL Media Production team is committed to supporting the production of quality educational content for the 2021 SKAID.

Theme and Structure

The 2021 Abell Institute connects mentors to Fellows working on projects related to the theme of 'Phronetic Science.' We encourage productive conversations between NARST, the emerging science education scholars, and (post) critical thinkers to improve our understanding about how to conceptualize and analyze science and science teaching and learning beyond conventional Western and modernist tradition, such as: critical, feminist, Indigenous, interpretive, linguistic, cultural, legitimation crisis, ethical, slow science, agential realist, poststructural, postcolonial, decolonial, post-humanist, anti-oppressive, standpoint epistemology, new ontologies, new materialism, race, and ethnic turns and theories. Much of our motivation came from the space-time-mattering of our time as the planet's natural and social lives face systemic injustice, oppression, and crisis on the individual, local, and global levels.
The SKAIDS 2021 aims to introduce several conceptual and analytical tools to emerging scholars by eminent experts through various modalities.

The following table lists the topics and the assigned mentor(s):

	Title	Presenter
1	Linguistic Funds of Scientific Knowledge	Chris Siry Sara Wilmes
2	Raciolinguistic and Historicizing Perspectives	Diego Román Katie Kirchgasler
3	Neoliberalism, Globalization, and Wicked Problems	Ajay Sharma
4	Identity and Standpoint of Scientific Knowledge	Shakhnoza Kayumova
5	Indigenous and Traditional Scientific Knowledge	Bhaskar Upadhyay
6	Decolonial Scientific Knowledge	Jennifer D. Adams
7	Pedagogies of Place	Alexa Schindel
8	Ontology, Epistemology, Methodology	Rouhollah Aghasaleh
9	Post-method Scientific Knowledge	Marc Higgins, Maria Wallace
10	Staying with the Trouble in Science Education	Sara Tolbert
11	Slow Science/Slow Education	Kate Scantlebury & Cath Milne

For each module, there is:

A. a 45-60 min videocast to introduce the subject;
B. a reading assignment and a bibliography for further learning;
C. examples of Science Ed Research that are informed by the subject;

D. a writing prompt;
E. a synchronous discussion session.

Modality

SKAIDS 2021 is offered online, using Canvas, HSU's learning management system. This allows you to access the course materials from a computer with any standard web browser already installed. The institute has synchronous components through Zoom as well. That is, we have 17 virtual sessions (60 minutes each). Zoom invitation and link will be sent to your emails.

Note: Working from home is not merely a matter of modality but it is rather entangled with every other aspect of life. Living through a public-health crisis, which is also an economic, social, political, and ethical one makes it unethical to pretend that we are living a new "normal life." Job losses, school closures, and household isolation are moving (more of) the work of caring from the paid economy to the unpaid one which has fallen more heavily on women, not only because of the social norms of women performing care roles, but also because of the existing structure of the workforce. Acknowledging "the personal is political" obligates us to address this as a problematic and encourage women to share their stories ***unapologetically*** to raise awareness and to make a difference in both women's and men's lives.

While we have structured the week to parallel the prior face-to-face sessions of the SKAIDS institute in which participants and mentors worked closely together for 5 days, 8-10 hours a day, we recognize that maintaining this level of commitment at home can present considerable challenges. Keep in mind that the requirements below represent the "ideal," and we recognize that you will do your best to meet these as much as you are able, and in the forms in which you are able.

Requirements: You will need to plan time each day to engage in the following synchronous and asynchronous activities, outlined below.

Synchronous Components

- **Participation in Discussions Meetings:** Learning is a social process. You are entitled to share your opinion about readings and topics of discussion. All of our synchronous meetings include small group and whole group discussion. The discussions are meant to demonstrate your thoughtful, informed analysis and exploration of the direct sources for our work in this course, NOT your ability to summarize other people's descriptions or arguments. Our sources include discussion prompts, readings, and current issues related to the discussion. While we expect everyone to demonstrate respectful and professional behavior, we encourage authentic and critical responses as you interact with one another.

  Note: Sharing our thoughts can feel very risky; we all have felt the fear that we will ask some stupid question (there are no stupid questions!) or put forward some naïve interpretation or unpopular idea. But we expect you to take those risks anyway. You are

not expected to necessarily agree with all authors' readings, instructor, and/or your classmates. If you find yourself disagreeing (and we disagree with some of the ideas we will be discussing), you should disagree with respect for others' ideas and do your best to explain why you disagree—that is how you will help the rest of us learn.

- **Community-Building Experiences**: We would like to foster relationships among the participants through the discussion time with mentors and we have included an informal social hour time. Fellows are also encouraged to use the Chat feature on Canvas to connect with one another and the Mentors. You can also schedule informal meetings with Mentors or other Fellows to exchange ideas, write collaboratively, and get advice.

- **Guest Speakers:** Three scholars from both science education and non-science education disciplines will give 30-minute presentations followed by another 30 minutes of questions from participants.

Asynchronous Components

- **Mentor Video-recorded Seminars:** Each mentor has prepared a pre-recorded seminar (45 min to an hour) which you will need to view on Canvas ***before participating*** in the discussion with the mentors. Keep in mind that some of the mentors will be assigning short activities for you to complete so try to allow yourself time for this as well. There will be 2-3 mentor seminars to view per day.

- **Writing:** Fellows are expected to have at least 2 hours of independent (or collaborative, with other Fellows) writing time every day.

- **Reading:** Each module includes required and additional readings which you should complete before the synchronous discussion session with the mentor, and ideally, before watching the seminar. Read Hard Text.

Schedule (all times are PDT [GMT -07:00])

Date	Topic
Monday 06/14/2021	**Watch (A):** Linguistic Funds of Scientific Knowledge (Chris and Sara W.) Raciolinguistic and Historicizing Perspectives (Diego and Katie) **Read (A):** Rosa and Flores (2017)

	Wilmes Siry Gómez Fernández Gorges (2018) Wilmes and Siry (2021) **Upload language profile image here before meeting:** https://padlet.com/sarawilmes1/nq8dvs6u7hadt15j **Optional Readings (A):** Hwang Roth and Kim (2009) Kirchgasler (2018) Román et al. (2019) Siry (2011) **Meet (S):** 10-11 AM ZOOM INTRODUCTORY SESSION 11 AM- 12 PM & 12:30-1:30 PM ZOOM DISCUSSION ● **11 AM:** Chris and Sara W. ● **12:30 PM:** Diego and Katie **Optional Social Hour**: 4:00 p.m. via ZOOM
Tuesday 06/15/2021	**Watch (A):** Slow Science/Slow Education (Kate and Cath) Identity and Standpoint of Scientific Knowledge (Shakhnoza) **Read (A):** Godwin, A., Cribbs, J., & Kayumova, S. (2020) Kayumova et al (2015) Kayumova et al (2019) Stengers (2018) Latour (2004) **Optional** Puig de la Bellacasa (2011) Wynne (1996) **Meet (S):** 12-2 PM ZOOM DISCUSSION ● **Noon:** Kate and Cath

	• **1 PM:** Shakhnoza **Guest Speaker (S):** Myra Hird: *Garbage, Fire, and the Indeterminate Material Politics of Waste* 10-11 AM ZOOM
Wednesday 06/16/2021	**Watch (A):** Indigenous and Traditional Scientific Knowledge (Bhaskar) Pedagogies of Place (Alexa) Decolonial Scientific Knowledge (Jennifer) **Read (A):** Strong et al. (2016) de Sousa Santos (2017) Mignolo (2009) Kimmerer (2013, pp 223-240) Schindel Dimick (2016) Schindel, Rish and Ormerod (Under Review) Rifkin, Martin (2017) (pp.1-47) Chinn (2007) **Optional:** Adams et al. (2020) Adams & Weinstein (2020) Gandolfi (2021) Wynter (2003) Hofstra et al. (2020) Mott and Cockayne (2017) Drawson, Toombs, Mushquash and Christopher (2017) Dudley (2017) Upadhyay, Atwood and Tharu (2020) **Guest Speaker (S):** Fikile Nxumalo: *Anti-colonial place pedagogies for anthropogenic times* 11 AM to 12 PM ZOOM **Meet (S):** 12-1 & 1:30-3:30 PM ZOOM DISCUSSION • **Noon:** Jennifer • **1:30 PM:** Alexa • **2:30 PM:** Bhaskar

Thursday 06/17/2021	**Watch (A):** Ontology, Epistemology, Methodology (Rouhollah) Post-method Scientific Knowledge (Marc and Maria) **Read (A):** Bordo (1986) Haraway (1988) Harding (1987) Harding (1992) Wallace, M., Higgins, M., & Bazzul, J. (2018) **Optional** Higgins, M. (2021) Byers & Wallace (in press) Barad (2014) Jones and Woglom (2016) Aghasaleh & St. Pierre (2014) **Meet (S):** 7-9 AM ZOOM DISCUSSION ● **7 AM:** Rouhollah ● **8 AM:** Marc and Maria **Social Hour:** 10-11 AM ZOOM
Friday 06/18/2021	**Watch (A):** Staying with the Trouble in Science Education (Sara T.) Neoliberalism, Globalization, and Wicked Problems (Ajay) **Read (A):** Haraway (2016) Introduction, Ch. 1, Ch. 2, Ch. 3 Tolbert & Bazzul (2020) **Watch the first 5 minutes of This Changes Everything** Balint et al (2011) Chapters 1 to 3 Nederveen Pieterse, J. (2009) Zajda, J. (2015) Miller, et al. (2008) Sharma, A. (2020) **Optional** Ahmed (2006)

	Bazzul (2020) Nxumalo, F., & Pacini-Ketchabaw, V. (2017) Puig de la Bellacasa (2012) Tolbert (2019) **Meet (S):** 2:30-3:30 & 4-5 PM ZOOM DISCUSSION ● **2:30 PM:** Sara T. ● **4 PM:** Ajay **Guest Speaker (S):** Sylvia Tapuke (*Kaupapa Māori in the Science Sector - Implications for Education*) 1-2 PM and ZOOM

	Synchronous Discussion Meeting
	Synchronous Keynote Speaker's Talk
	Other Synchronous Meeting
	Office Hours (Optional)
*	**+30 minutes**

PDT		Monday	Tuesday	Wednesday	Thursday	Friday
AM	midnight					
	1					
	2					
	3					
	4					
	5		Bhaskar			
	6		Bhaskar			

	7				Module# 8	
	8			Sara W. Chris	Module# 9	
	9		Sara W. Chris	Rouhollah		Rouhollah
	10	Intro. Session	Speaker# 1	Rouhollah	Social Hour# 2	
	11	Module# 1		Speaker# 2		
PM	**noon**	Module# 2*	Module# 11	Module# 6		
	1		Module# 4	Module# 7*		Speaker# 3
	2	Rouhollah Katie		Module# 5*	Bhaskar	Module# 10*
	3	Rouhollah Katie		Rouhollah Diego R.	Bhaskar	
	4	Social Hour# 1		Bhaskar Diego R.	Sara T.	Module# 3
	5			Bhaskar		
	6			Sara T.		
	7	Sara T.				
	8					
	9					
	10	Rouhollah		Rouhollah		Rouhollah
	11	Rouhollah		Rouhollah		Rouhollah

Please, feel free to use this ZOOM call for office hours or set one with the person you would like to meet.

Expectations of the Fellows

1. Communication: All Institute communication will be through email and/or Canvas. You are expected to read and respond promptly, if needed, to your emails/ messages on a regular basis. We usually respond to emails as soon as we can. Your first point of contact should be the Institute Directors (unless you have a specific question for a mentor). Please CC the three directors to ensure a most timely response.

2. Engagement: This Institute requires active engagement of all students. To this end, we would ask that you make every human effort to attend all meetings prepared for the discussion (i.e., having done the readings and being prepared to discuss them in a civilized and knowledgeable manner.) That said, occasionally, life gets in the way.

3. Participation: Participation is a key part of this Institute. However, this does not mean that you must speak a certain number of times. Rather, we expect you to be seriously engaged in the work of the course, whether it is through active listening, sharing your ideas, or reflecting quietly. In addition, we expect that you come to interactives sessions with notes related to the major themes of the topic (according to you), explicit connections to and disconnections from past readings, experiences, etc., sections of the reading that need clarifying, questions, critiques, and perhaps most important, quotes from the text that may inform our academic writing.

4. Professionalism: We would ask that you let us and any affected group members know about any absence, tardiness, and lack of preparation as soon as you are able. It should go without saying – but just to be entirely clear – we expect you to treat all class members with respect at all times.

5. Academic Honesty: Take the opportunity to learn how to write your own thoughts; do not plagiarize. Be sure to give credit where credit is due and cite your sources or use footnotes or endnotes. Learning through collaboration (defined as working with or learning from another) is an effective tool used in this class and in your future employment.

6. Writing/ reflection: All fellows are expected to respond to the modules following the writing/ reflection prompts. You are welcome to respond to as many prompts as you wish. We expect you to submit one reflection per day (total of 5). The writings are meant to demonstrate your thoughtful, informed analysis and exploration of the direct sources for our work, NOT your ability to summarize other people's descriptions or arguments. Our sources include discussion videos, readings, and current issues related to the discussion. While we expect everyone to demonstrate respectful and professional behavior, we would also like to see authentic and critical responses when you interact with the material.

Need Help?

If you have questions about the course, such as concepts covered in the course, your assignments, or scores contact one of the Directors or meet during Office Hour.

For technical questions, such as the suitability of your home computer for the content, installing plug-ins, problems with your password, etc., contact the HSU Help Desk (help@humboldt.edu or +1-707-826-4357).

For Canvas support, please use the Help button located on the bottom left of your course. Please see the Canvas Student Guides to learn more about specific Canvas functions.

Cloud Recordings:

Note: Module's recordings are grouped together on the cloud based on Day of recording. There is a controller next to the *Play* button that looks like >| which takes you to the next recording. Since we were in the same room and only did *Stop/ Start* as opposed to leaving the room the recordings are together as tracks.

Day 1:

Module# 1 & 2

Day 2:

Keynote# 1
Module 11 & 4

Day3:

Module# 6 - chat
Keynote# 2
Module# 5 & 7

Day4:

Module# 8 & 9

Day5:

Module# 3 & 10 (the third track in this link is kemençe playing by Şule)
Keynote# 3

Bibliography

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