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HUMANS & A.I.

A Conversation for the Caribbean

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Introduction

How will Artificial Intelligence (AI) shape Caribbean societies?

Hear from our teaching staff at The UWI St. Augustine, Faculty of Humanities and Education, as they reflect on the growing relationship between humans and AI. Read viewpoints from a range of knowledge areas: the arts, education, history, and linguistics. Rather than definitive answers, each concise contribution in this e-book is a prompt for necessary conversations in the Caribbean about a rapidly advancing field, and its transformative potential for how we interact, learn, work, and create.

What is Artificial Intelligence?

The use or study of computer systems or machines that have some of the qualities that the human brain has, such as the ability to interpret and produce language in a way that seems human, recognise or create images, solve problems, and learn from data supplied to them.

– Cambridge Dictionary

A Caribbean Cultural *AI*sthetic?

Marsha Pearce, PhD

Studies of the Caribbean observe a defining feature of cross-fertilisation or mixture that characterises cultural processes and productions. Jamaican intellectual, Rex Nettleford, refers to this hybridity as a "culture of texture and diversity held together by a dynamic creativity" (2003: p.xi). I am interested in the shifting of this texture in an age of Artificial Intelligence (AI) such that we might speak of a Caribbean h*AI*bridity,[1] that is, our creative merger with AI to generate new practices, objects, and ways of being. What would these new forms and existential methods look like?

As I write here, Trinidadian visual artist Rodell Warner is developing his *Artificial Archive* series, an expanding suite of images generated using the Stable Diffusion text-to-image computer technology. Warner asks the AI several "What if?" questions: What would the Caribbean look like if cultures brought from the East were not suppressed? What would the Caribbean look like if Africans, Asians, and their descendants became the beneficiaries of their centuries of labour? The artist's inquiry is less about creating intentional misstatements about the past –a revisionist history– and more about opening up future trajectories and unlocking Caribbean potential. In an Instagram post, dated September 14, 2023, Warner shares: "I am leaning into imagination with these [images], thinking of them as visions from an alternative or speculative version of the Caribbean so that they function as notes on possibility…." He plays with both human curiosity and the limitations of the data sets fed to the AI in a practice of visual note making/taking. Each image is a reference point, something we might take note of, in thinking about our present circumstances – in shaping Caribbean selves and realities for tomorrow.

Much of the potential in Artificial Intelligence lies in how its power is wielded. Will we be subjected to it? Or will we position ourselves as critical subject matter? In other words, will it be a dominating force of Empire or a tool of resistance for Caribbean people? How might we leverage Artificial Intelligence (do we/will we have leveraging power?) so that we unsettle assumptions and diversify ideas about what constitutes Caribbeanness? Can AI be used in our creative outputs to further trouble and complicate discourses on a tropical aesthetic? Might we sketch the contours of a Caribbean *AI*sthetic, such that it is discerned in our paintings, designs, songs, performances, and literature? I am thinking about the possibilities of im*AI*ge, rh*AI*thm, narr*AI*tive and rhetor*AI*c emerging from Caribbean spaces.

Nettleford tells us that our textured Caribbean culture spells, at worst, "confusion, uncertainty and insecurity" and at best, it suggests a richness born of a dynamic process in which various elements "battle to forge new synthesis" (2003: pp. 144-45). Where AI fits in this process, for better or worse, is yet to be seen.

NOTE
1. Given the quick pace of developments in such Artificial Intelligence (AI) subfields as machine learning, neural networks, expert systems, and robotics, I am applying a visual treatment to the letters "A" and "I" through the deliberate use of italicization to reflect the dynamism and motion of this technological space. In doing so, I am also amplifying the fluidity connoted by such words as "hybridity," among others I include in this brief written reflection.

Dr. Marsha Pearce is a Cultural Studies scholar. She lectures in Visual Arts at The UWI, Department of Creative and Festival Arts.

Rodell Warner
Artificial Archive 2023–Musicians
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Rodell Warner
Artificial Archive 2023–Fashions
Reproduced with permission.

Rodell Warner
Artificial Archive 2023–Textile Artists
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Lights, Camera, AI: Reinventing Caribbean Cinema

Yao Ramesar, PhD

The first post-human generation is already in our midst, communicating largely via hand-held devices, including the now ancient iPhone 6, with a clock speed 32,600 times faster than NASA's Apollo computer that enabled space travel and required whole rooms of storage. This generation is quickly arriving at a turning point, a rendezvous of psychic and physical struggle, with no guarantees of minds surviving AI, or bodies outlasting climate change.

With filmmaking residing at the upper reaches of Maslow's Hierarchy, that is, filmmaking understood as a practice that aims to meet the human need for meaning, creativity and self-actualisation, do the alignment with and management of AI "amount to a hill of beans in this crazy world"? Beyond the radical automation and broad-spectrum underemployment across the sector? Of course, story editors may go the way of digital replacements for background actors and stunt performers, but what about content, the imaginative human input, the *singular Caribbean visions* versus the collective revisions of AI?

The irony of film and television is that they were precursors to AI (some would argue AI in earlier incarnations), blurring the lines between the real and the imaginary, and setting up this post-human epoch. A Caribbean cineaste can't simply or reasonably affix a "100% human-made" stamp to their work, as it's already a human/machine hybrid; filmmaking being an art that requires machines and technology for expression.

In the parallel universe of music recording, Trinidadian calypsonian David Rudder, sings: "You spin your fate on a reel of hate in a sterile studio, hoping your natural vibe will cut through all this technology." What Caribbean cinema shares with AI, that neither shares with our music, is nascence. Both Caribbean cinema and AI are budding fields with potential. For us in the Caribbean, this comes wrapped in both the promise and peril of unexplored terrain and the flexibility to leapfrog over newly obsolete technologies and methods that we invested little in. This could be our second New World experience.

For Caribbean filmmakers, this means initiating and locating fresh narrative streams, and protecting this newly mined intellectual property throughout the creative process. The alternative would be to supply grist for the AI mill, in the form of story ideas (primary research), and subsist on an underpaid, offshore, neo-plantation model.

As AI improves itself exponentially, the gap is rapidly narrowing between human and artificially generated cinema content. Without AI, could the multiple Oscar-winning film *Everything Everywhere All at Once*, have achieved its surreal heights while sustaining montage through each highly populated mise-en-scène? Probably not without hiring a larger human cohort and exceeding an already substantial budget.

The promise of AI for Caribbean film practice perhaps lies in its potential to democratise a sector that has already opened up via the DSLR and cell phone camera revolutions, ideal for a region already steeped in an ultra-low budget production model.

Low-cost AI interventions into the creative process could yield higher quality production values at a fraction of the cost of the mega budget productions of Hollywood and Bollywood. This technology can also be finessed in the Caribbean *for the Caribbean–* a region not without its own scientific agency.

Armed with new narratives that reach beyond formula, sequel and franchise, regional filmmakers can deliver products that articulate our particular visions on-screen and compete with other creators in the multibillion-dollar marketplace for stories.

Dr. Yao Ramesar is an award-winning filmmaker and Coordinator of The UWI Film Programme.

A still image from the film *Fortune for All* (2023) written and directed by Yao Ramesar. Reproduced with permission.

A still image from the film *Her Second Coming* (2009) written and directed by Yao Ramesar. Reproduced with permission.

A Teachable Moment: AI in Education

Freddy James, PhD

Artificial Intelligence (AI) is reconfiguring the landscape of education and the role of educators. Since the launch of ChatGPT in November 2022, educators have been asking whether its use should be allowed in education, whether it will replace educators and how ethical is it to use AI. My argument is that educators should not be asking if we should embrace AI. We are past that. AI is our current and future reality and presents a teachable moment or opportunity to learn more about ourselves. The real question we should ask is: "Now what?" How are we going to use AI safely and inclusively in culturally and contextually relevant ways, while maintaining the integrity of the role of educators and the teaching and learning space?

Generative AI (which is what is generally used in education) refers to any AI model that generates text, images or media using generative models, for example, ChatGPT, Grammarly, Jasper, and Midjourney. Undoubtedly AI has the capability to make education more personalized, efficient, and accessible:

- AI-driven adaptive learning systems can adjust the difficulty of content and provide additional support when needed
- AI tools can assist in assessment and feedback, by grading assignments, tests, and essays
- AI powered Chatbots and virtual assistants can provide feedback in real time
- AI can automate administrative tasks such as scheduling, record-keeping, and data analysis, reducing the workload of educators and allowing them to spend more time on teaching and mentoring
- AI can help educational institutions optimise resource allocation, including faculty workload, classroom usage, and budget allocation, leading to more efficient operations
- AI can assist in curriculum development by analysing large datasets to identify trends and gaps in educational content. In this way, educators can design curricula that are current, responsive, and aligned with real-world demands
- AI-driven translation tools can break down language barriers, making educational content more accessible to a global audience
- AI can also assist students with disabilities through speech recognition, text-to-speech, and other accessibility features
- Using predictive analytics, AI can predict student outcomes and identify at-risk students
- AI-driven professional development resources can offer personalized training, recommendations for improvement, and access to up-to-date teaching methods.

Notwithstanding the many benefits of AI, its adoption should be approached with care to address ethical concerns and ensure that the human element of teaching remains central to the learning experience.

AI systems sometimes lack data and judgement to appropriately include context as they detect patterns and automate decisions. Thus, while AI can enhance education, it cannot replace the important human aspect of the teacher-student relationship. Further, not all educational institutions and students have equal access to AI technologies, which can exacerbate educational inequities. On the one hand, AI has presented educators with the opportunity to make learning easier, more solution-based, and it is challenging educators to innovate teaching and learning spaces. On the other, AI challenges educators to demonstrate greater integrity and values to navigate its usage ethically.

Now what? Strategies for Educators

1. Consider moving assessments offline and reducing take-home examinations. Thus, examinations are face-to-face in real time.
2. Focus on the process and not the product. For example, consider assessing students' progress over the course of an assignment.
3. Use AI content detection tools as you would Turnitin.com, for essays, to determine whether they were generated by an AI source.
4. Rely on document histories. Verify whether your students are producing their own work by checking document histories for suspiciously improved writing.
5. Let students use AI to write an argument, then have students critique its answer.
6. Allow students to use AI to generate an outline for a paper, then write it with their own words.
7. Have students construct an argument, then input it into an AI model for critique.

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Dr. Freddy James is a Senior Lecturer in Educational Leadership at The UWI, School of Education. She also serves as Deputy Dean for Graduate Studies and Research.

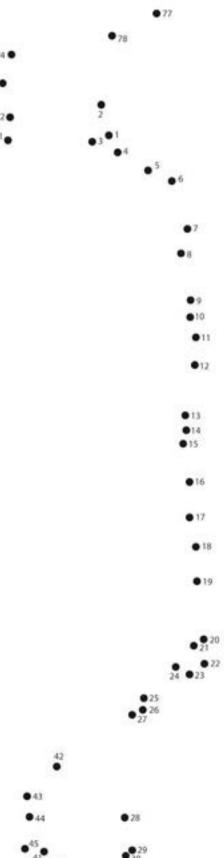Should we connect the dots in education in prescribed ways? How might we give new, relevant shape to our graduates?

Alex Kelly
Untitled (2016)
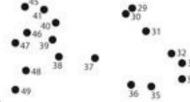Reproduced with permission.

How do we go beyond comfort zones, formulas, and old patterns in teaching,
to embrace new methods and possibilities for learning?

Alex Kelly
Untitled (2015-onging)
Reproduced with permission.
Kelly is a graduate of The UWI Visual Arts Degree programme
and an adjunct lecturer at the Department of Creative and Festival Arts.

AI and Linguistics: A Powerful Tool for Language Preservation and Development

Jo-Anne S. Ferreira, PhD

The Caribbean is a region rich in linguistic diversity, with over 70 languages spoken in 29 territories. However, many of these languages are marginalised and under-resourced. These include autochthonous Amerindian languages, Creole languages, European vernaculars, sign languages, religious languages, and cryptolects.

Artificial intelligence (AI) has the potential to transform the field of linguistics in the Caribbean by providing new tools and methods for studying, preserving, and developing Caribbean languages in a range of areas such as Computational Linguistics and Ontological Engineering, Voice Recognition, Speech Recognition, Sign Language Recognition (SLR), Natural Language Processing (NLP), Linguistic Corpora, Machine Translation, Language Modelling, Sentiment Analysis, Information Retrieval, Language Teaching and Learning, Phonetics and Phonology, Language Preservation and Documentation, Sociolinguistic Variation, Language Mapping and Dialectology, Lexicography, Psycholinguistics, Multimodal Communication, Language Documentation, Constructed Languages (Conlangs) for Historical, Cultural, Folklore and Literary Studies, Speech-Language Pathology (SLP), and more.

One of the most important applications of AI in Caribbean linguistics is in the area of language documentation. AI-driven technologies, such as automatic language recognition and NLP, can facilitate the recording, transcription, and translation of spoken and signed languages. This is essential for preserving Caribbean vernacular languages, which are often at risk of disappearing. AI can also be used to develop new language learning resources and tools, such as interactive language learning apps, personalised learning programmes, and tools for translating educational materials. This could help to promote the use of Caribbean languages in education and other contexts. In addition, AI can be used to develop new methods for language policy and planning (including status, acquisition and corpus planning). AI could be used to analyse large corpora of text and speech to identify trends in language usage. This information could then be used to develop strategies for promoting the use of Caribbean languages in the public sphere and in education.

Researchers at The University of the West Indies, St. Augustine, are using AI to develop an ontological representation of the trilingual *Dictionary of the English/Creole of Trinidad and Tobago* (DE/CTT) by automating the extraction of vocabulary, and analysing word usage patterns and categories. This project will help to make the DE/CTT
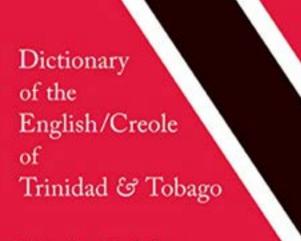
more accessible to machine-learning algorithms, which will be used to develop new applications for Trinidad & Tobago English (TTE), Trinidadian English Creole (TrinEC), and Tobagonian English Creole (TobEC) such as machine translation, text summarisation and spell checkers.

AI is also being used to develop sentiment analysis tools for Caribbean languages. These tools can be used to analyse social media posts, news articles, and other online content to identify the sentiment (e.g., positive, negative, or neutral) of the text. This information can be used to better understand public opinion on a variety of issues. AI is also starting to be used to analyse texts and speech, in order to better understand their grammar (phonology and morphosyntax), phonetics, and lexicon. This research is helping to promote the equality of vernacular Caribbean languages.

Overall, AI has the potential to be a powerful tool for language preservation and development in the Caribbean. By leveraging AI-powered tools and methods, linguists and language activists can make significant progress in addressing the challenges facing Caribbean languages and in ensuring their vitality and sustainability for future generations.
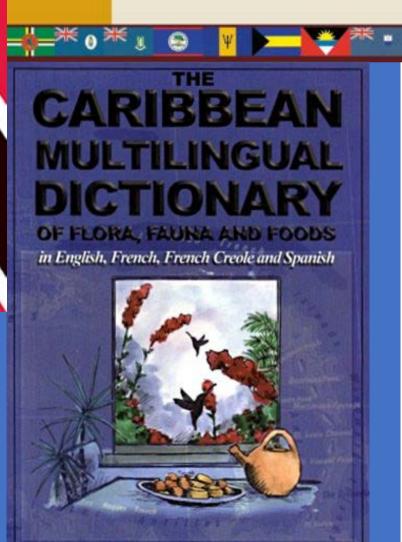
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Dr. Jo-Anne S. Ferreira is a Senior Lecturer in Linguistics at The UWI, Department of Modern Languages and Linguistics.

Dictionary of
Caribbean
English
Usage

Edited by
Richard Allsopp

Dictionary
of the
English/Creole
of
Trinidad & Tobago

Edited by Lise Winer

THE
CARIBBEAN
MULTILINGUAL
DICTIONARY
OF FLORA, FAUNA AND FOODS
in English, French, French Creole and Spanish

Jeannette Allsopp

Adele Todd
Marajin (2018), dimensional embroidery
Reproduced with permission from the artist and Soft Box Studios.
Todd is an adjunct lecturer at the Department of Creative and Festival Arts.
Her art practice includes an exploration of Caribbean words. She plays with thread,
wrapping it around wire and wadding to add dimension to language and meaning.

A New Way Ahead?
AI and Caribbean History

Debbie McCollin, PhD

The emergence of advanced Artificial Intelligence (AI) technology in the recent past has brought to the fore the question of its applicability to academia. Caribbean historians have been enthusiastic but cautious about its incorporation into the discipline as concerns over the accessibility and reliability of AI tools abound. However, as AI becomes increasingly accessible and regulated, should Caribbean historians fully embrace these new approaches despite these apprehensions?

One of the major advantages of AI technology is that it can be used to streamline historical research by making it easier and faster to collate, categorise and interpret vast amounts of data- both statistical and narrative. Caribbean historians, examining for instance colonial documents and records of enslavement or indentureship, will find it useful to employ AI that can rapidly sort and bring cohesion to such extensive sources. Furthermore, new AI tools such as handwritten technology (HRT) that facilitate searchable transcriptions of handwritten documents, used, for example, in the digital project *Unlocking the Colonial Archive*, make "archaic penmanship, obscure writing conventions, and unfamiliar Indigenous imagery"[1] readable and accessible.

Generative AI, such as ChatGPT, with predictive text abilities and writing, translation and problem-solving capabilities[2] also provide opportunities for advancing critical thinking and discursive historical writing.[3] However, for a discipline grounded on source reliability and accurate and objective interpretation, the generation of hallucinations (the creation of false information by generative AI) is of significant concern. According to Ivan Sysoev, AI advisor to the Digital Humanities project *Historica*, "the proclivity of generative AI models to produce 'hallucinations' seems at odds with the exacting standards upheld in disciplines such as history, geography, and cartography."[4] Can the Caribbean historian, therefore, rely on information that emerges from multiple sources that have not been and, in fact, cannot be fully validated by the researcher and may generate 'hallucinations'?

The blossoming of photo enhancing software has also advanced historical research and enlivened the presentation of history to the public. The "restor[ation] of old photos through a deep learning approach"[5] can illuminate Caribbean history in critical ways and bring to life Caribbean historical figures such as the great Jamaican revolutionary, Nanny of the Maroons. But often, scholars face the risk of photographic enhancements

misrepresenting ethnically diverse environments such as the Caribbean. For example, according to historian John Campbell, photo enhancement of a group of persons of colour of various hues, if done incorrectly, may misrepresent the demographic composition of the group.[6] AI dictation tools as well, that can be valuable for transcribing oral histories, are predominantly modelled on the languages of the Global North and exhibit difficulty in translating Caribbean languages and accents.[7]

Undoubtedly, AI can open spaces for Caribbean historians to be dynamic, insightful, probing and provocative in their exploration and presentation of history. But serious questions surround its application. How closely do we embrace new technology that may be periodically unreliable, devoid of serious regulatory oversight and may exhibit colonial and racial biases? But the more important question may be, can we, as twenty-first century historians, afford *not to*?

NOTES
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3. Lindsey Passenger Wieck, "Revising Historical Writing Using Generative AI: An Editorial Experiment*", Perspectives on History*, American Historical Association Publication, 15 August 2023, Accessed 3 November, 2023, https://www.historians.org/research-and-publications/perspectives-on-history/summer-2023/revising-historical-writing-using-generative-ai-an-editorial-experiment.
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Dr. Debbie McCollin lectures at The UWI, Department of History. She is also the Regional Coordinator of the course Caribbean Civilisation.

"Where are your monuments, your battles, martyrs? Where is your tribal memory?
…The sea has locked them up. The sea is History." – Derek Walcott

Kevin Adonis Browne
Las Cuevas (2022)
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