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University of the Philippines Open University / Space Ecologies Art and Design (SEADS)



Diego Maranan, PhD

Imagining (and Prototyping) the Future from the Margins

My name is Diego Maranan, and I'm an Associate Professor in Art, Media, and Design at the University of the Philippines. Deputy Director for Research the University of the Philippines Center for Intelligent Systems, where I will be managing research projects on data science, artificial intelligence, and complex systems. I am also the co-founder of SEADS, an international collective of artists, scientists, designers, and activists concerned with futures literacy. Today I'd like to share some of the work that I and my colleagues at UPOU, SEADS, and elsewhere have done on the intersection of the arts, sciences, and futures thinking.



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Call for Proposals: Death and dying in the age of AI and art

What roles can creative technologists, digital humanists, and new media artists play in designing for individual and collective decline? Might new technologies summon forth new forms of hauntology, nostalgic yearning, or mourning? In this track, we invite submissions of scientific and artistic research and practice, and hybrid versions thereof, that embrace such questions. We welcome contributions from (but not limited to) creative technologists, anthropologists, digital humanists, new media artists, speculative designers, biohackers, and transdisciplinary researchers who explore senescence, obsolescence, decay, degrowth, deterioration, disintegration, decomposition, forgetting, mortality, and finitude in the age of artificial life and programmable biology.



Deadline for submission: 18th of December 2023
<https://www.pomconference.org/pom-aachen-2024/#POMAachenTracks>

Before I begin, I wanted to just briefly share this call for proposals for a conference track that I'm co-chairing. The deadline for submission is coming up soon!

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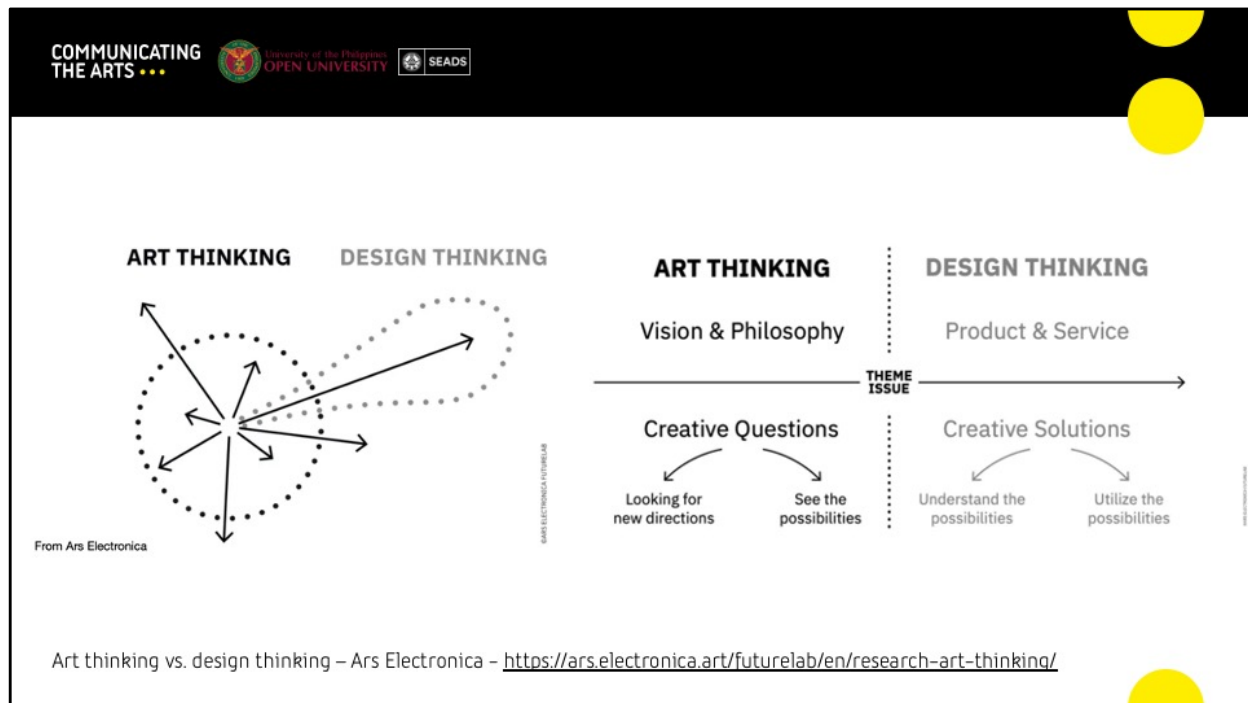
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Haplos (<https://doi.org/10.1145/3374920.3374984>)
Bisensorial (<https://doi.org/10.5281/zenodo.1172895>)
RE/ME (<https://re-me.cognovo.org>)

These days I'm very interested in developing stories how the artistic processes and arts thinking can contribute to scientific research, and that vibrating underwear device that I mentioned yesterday is part of that narrative. But this won't be what this talk is about.



The examples I'll be sharing range from art to design, and I'm not going to belabor the distinctions between them. Others, such as Ars Electronica, have come up with interesting ways of making sense of arts and design practices and their relationship with each other.

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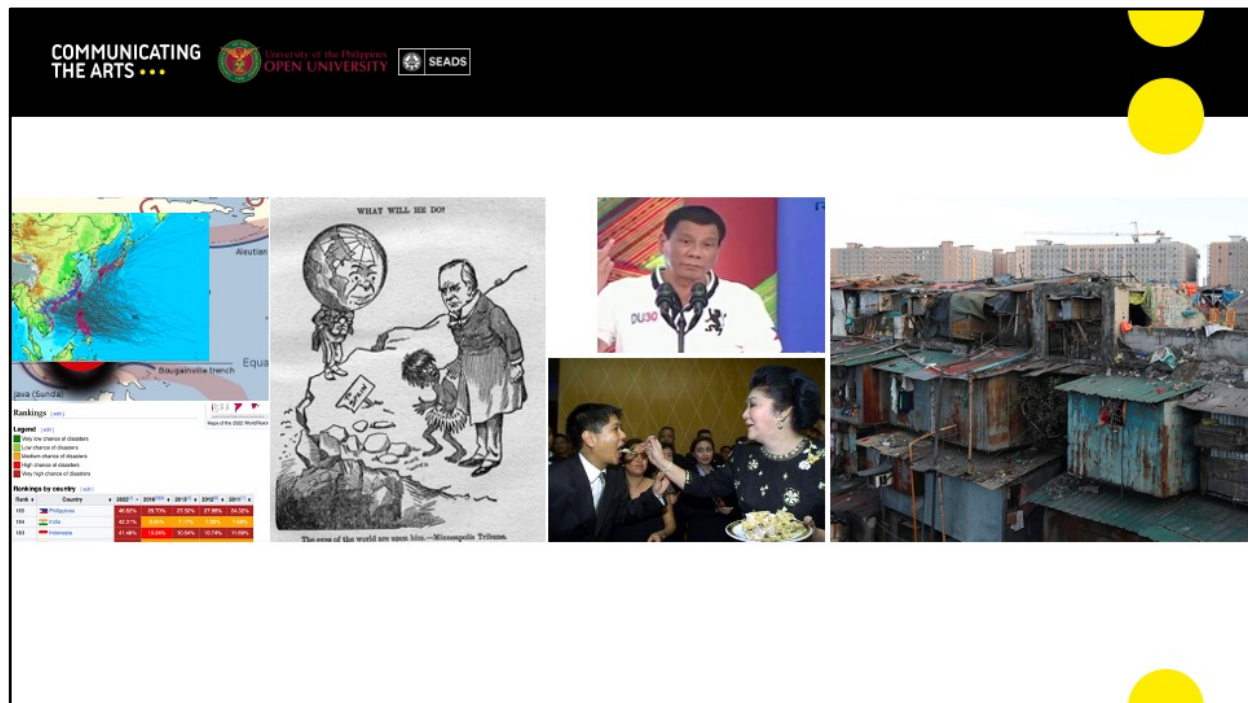


A prediction:
Expressive movement
in popular culture will
co-evolve with
technology

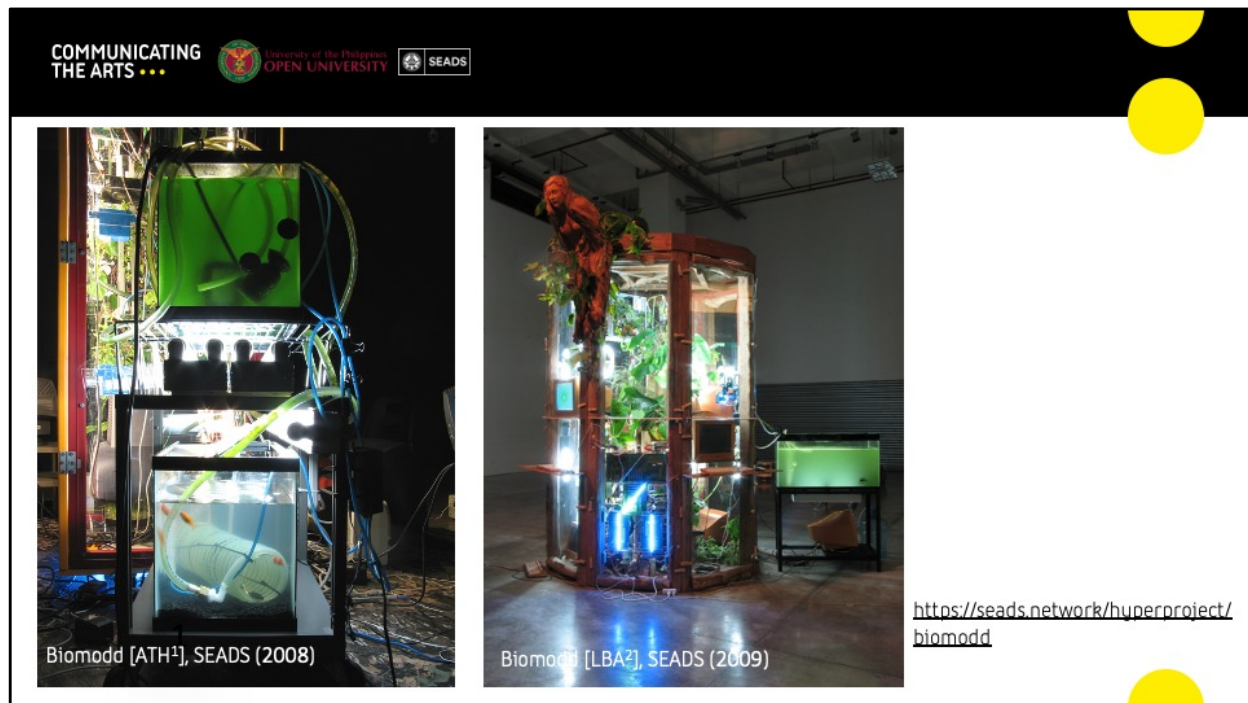
Dance illusioning the cyborg: technological themes in the movement practices and audience perception of three urban dance styles - <https://summit.sfu.ca/item/12>

My interest in futurism goes a long way back. As you know, technology influences of all sorts of aesthetics, but during my Masters research in dance, interactive arts, and technology in Canada, it dawned on me that technology was even influencing the way we dance. I came across these dance styles that come from underground, rave, and urban dance communities. And what I realized was that these dancers were taking technological ideas and concepts, and almost absorbing it into their bodies. Back then, I made a prediction: that we would see new styles of dance emerge that would be shaped by the technologies that become available.

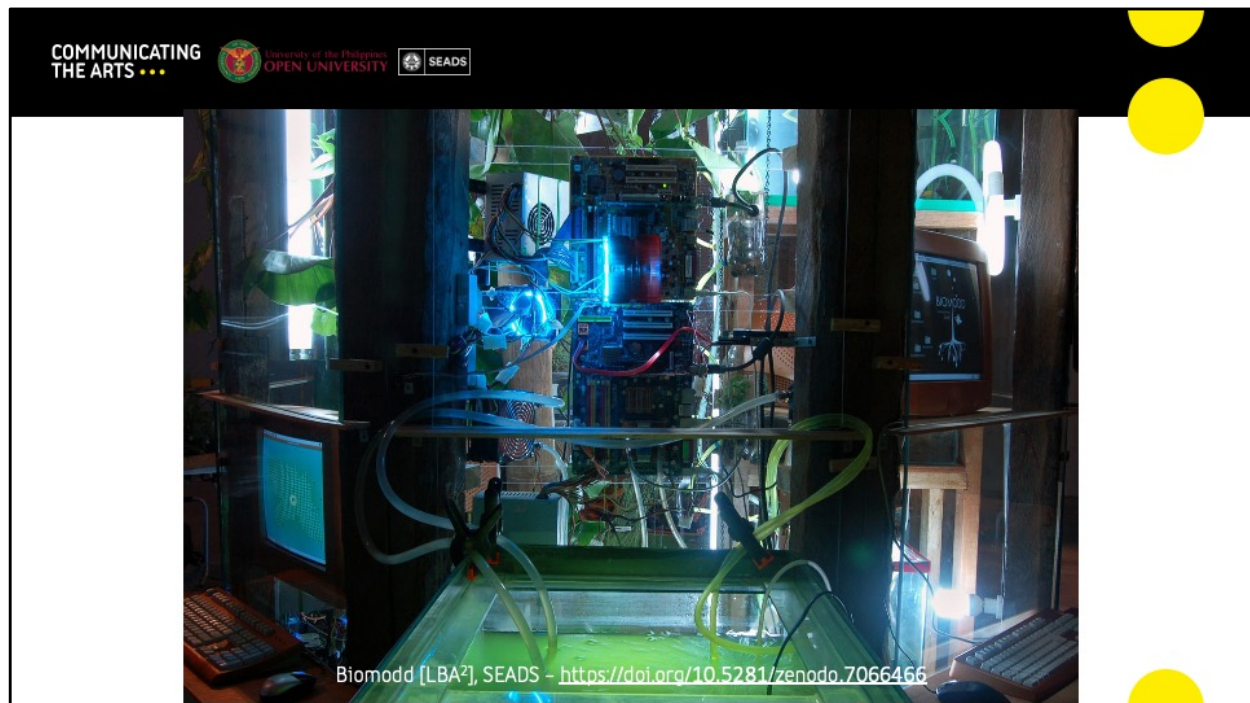
After my Masters, I moved back to the Philippines, and I began to explore what futures thinking, technology, and the arts might mean in a context like the Philippines.



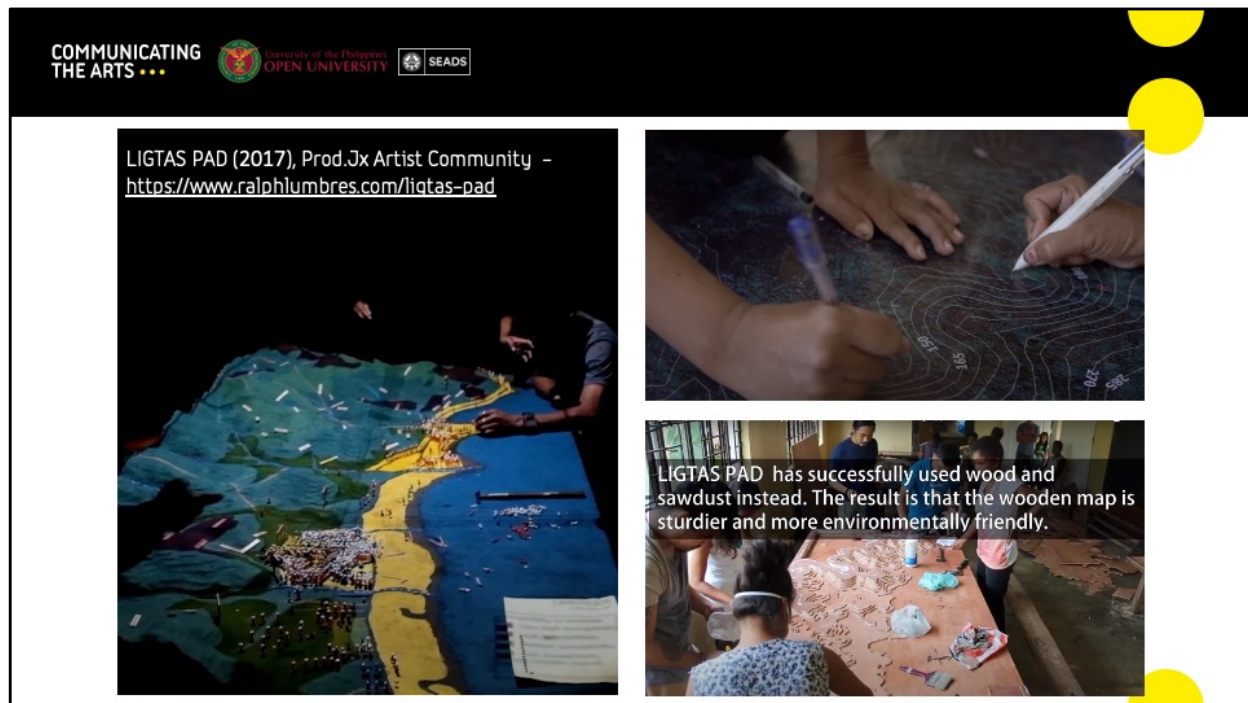
So there are a few things you should probably know about the Philippines for the rest of my talk to make sense. First: it's a nation of 7000+ islands prone to typhoons, earthquakes, and other natural disasters. It's one of the countries most affected by climate change and natural disasters. The second thing you should know is that we were a colony of Spain and then of the US. It's often said the Filipinos spent "300 years in a Spanish convent then 50 years in Hollywood". Finally, the Philippines has a habit electing strongmen, dictators, and their family members. In fact, I am the child of political prisoners. I was conceived when my parents were in political detainees in the 70s. I'm short, the Philippines is a postcolonial, archipelagic, lower middle-income, densely populated ruled by political elites. I am not stating these to elicit sympathy. I am offering reasons as to why I think futures thinking, long-term thinking, can be a challenge in a context such as the Philippines. When the present is so unstable, it can be difficult to have a long view of the future. When buildings that you erect today can be wiped out the next year, or when you don't know how you're going to find the money for your next meal, it's hard to plan for the future. When much of your indigenous culture was overwritten by colonial culture, your imaging of the future is shaped by their imaginaries and their agendas. And when your leaders promise security, stability, and unity, it's tempting to let them shape the future not with you, but on your behalf.



And this, I think, is the power that the arts and practices like counterfactual thinking and speculative design could have. Duncan Bass and I had a brief conversation last night about the topic of speculative design and how this has fallen out of fashion in the contemporary art world, but I want to argue that we shouldn't be so quick to dismiss it, especially in the context of the Global South. The speculative and counterfactual can help us participate in crafting images of the future, when so many of these images of the future are often handed to us from centers of power, influence, and culture. This is a series of project that my colleagues at SEADS and I have been working on, called Biomodd. Biomodd is a global series of community-buit art installations in which computer technology, human social systems, and plant ecology converge. Computer networks built from upcycled computer components are provided with living internal ecosystems. In a symbiotic exchange, plants and algae live alongside electronics and use the waste heat to thrive. Sensors and robotics provide additional interaction possibilities with the organisms.



Biomodd tries to imagine how radically different ecosystems might co-exist. How can artificial systems, living systems, and human social systems come together and support each other? Biomodd is about creative reimagination, but it also can be a tool for fostering skills for systems thinking and complexity thinking. Viewing problems in terms of interacting systems of actors, of looking at unintended consequences and exploring unusual synergies within complex ecosystems, is an essential part of trying to address wicked problems.

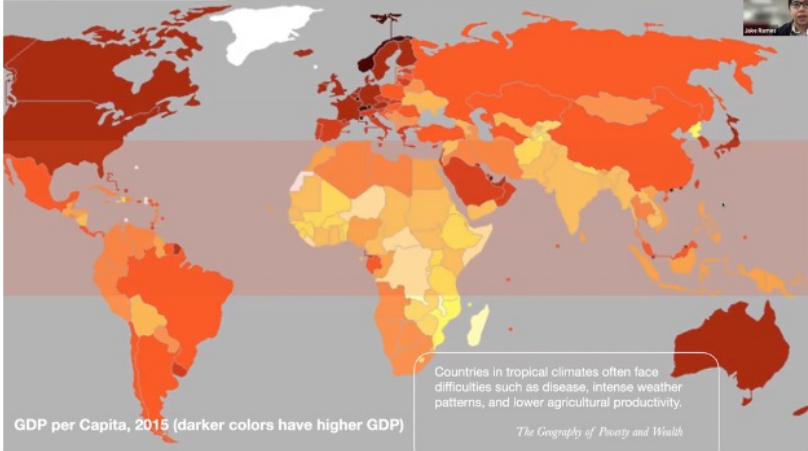


Yesterday, Honor Harger brought up the example of the 100 Years Sea that is currently being exhibited at the Artscience Museum in Singapore. Here's a related project by Filipino Ralph Lumbres and the artist collective Prodjx. Together with a local community, they built a relief map of the community of Dingalan in Aurora, Philippines, using low-cost materials. They then used projection mapping to display how rising sea levels was going to affect their community. Can this more tangible and visceral way of representing climate change create shifts in attitudes and perspectives, shifts that are critical to dealing with the tropical archipelagic geography of places like the Philippines?

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GDP per Capita, 2015 (darker colors have higher GDP)

Countries in tropical climates often face difficulties such as disease, intense weather patterns, and lower agricultural productivity.

The Geography of Poverty and Wealth

“Islandness and identity”

- Scale is a determining factor
- Lifestyle of living on an island

“Boundedness”

- Sense of insularity; isolation
- Prevalence of the sea

“Connectedness”

- Necessitates the use of technology to bridge itself to the rest of the world.

Jake Ramos: IslandPunk as a genre (2022)
<https://vimeo.com/757979512>

The archipelagic and tropical nature of the Philippines has led Filipino speculative and science fiction writer Jake Ramos to wonder how this might lead to new creative ways of imagining the possible and parallel futures. He talks about how concepts like islandness, boundedness, and connectedness to create a new genre he calls islandpunk.

Maranan, D. S. (2023, November 22). Imagining the Future from the Margins [Conference keynote talk]. Communicating the Arts 2023, Singapore. <https://doi.org/10.5281/zenodo.10251478>

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Steampunk Dieselpunk Cyberpunk Biopunk

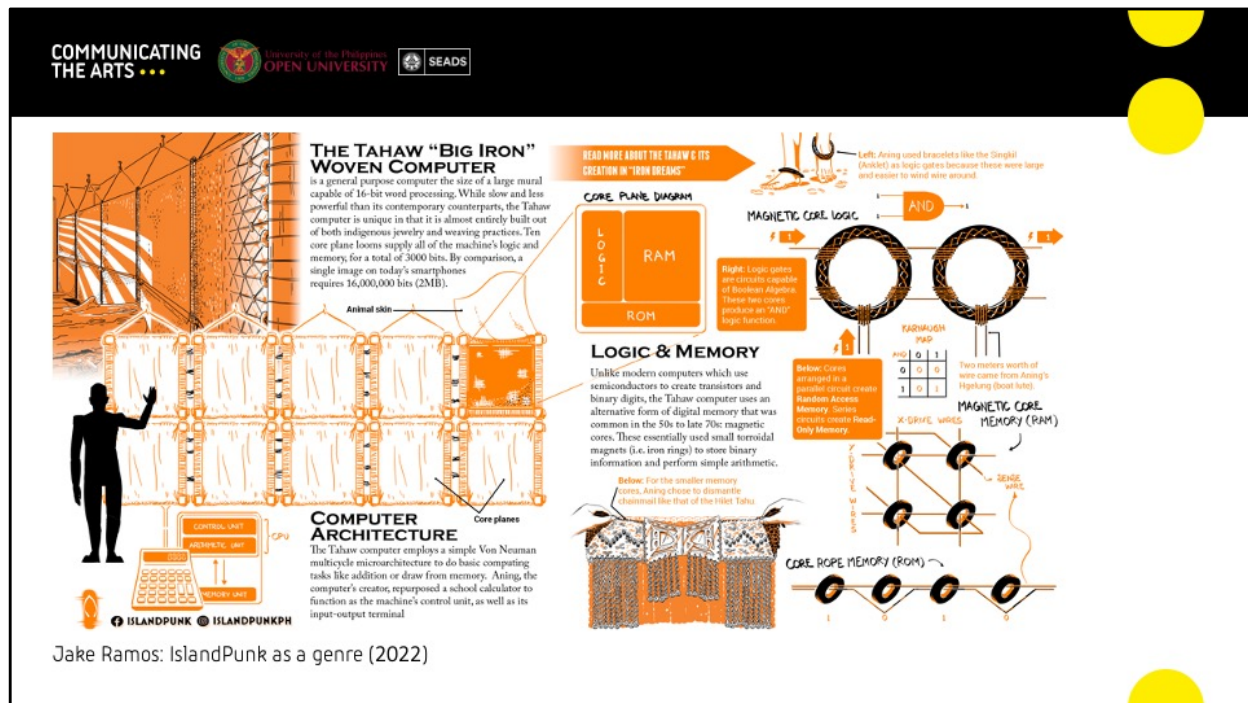
Solarpunk Afrofuturism Cassette Futurism Atompunk

IslandPunk

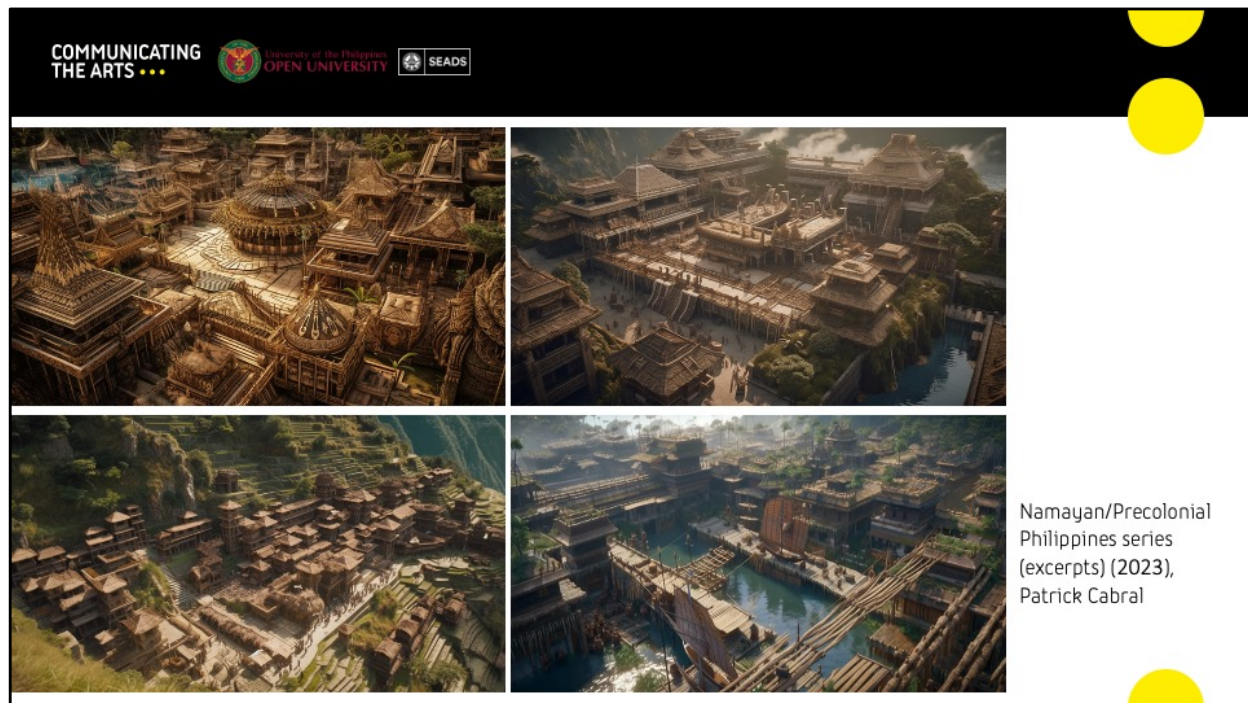
Jake Ramos: IslandPunk as a genre (2022)
<https://vimeo.com/757979512>

Matthew Jacob F. Ramos - August 2, 2022

Jake Ramos' idea of islandpunk could be seen as the tropical, southeast asian response to other science fiction genres and aesthetics like steampunk, cyberpunk, and Afrofuturism.

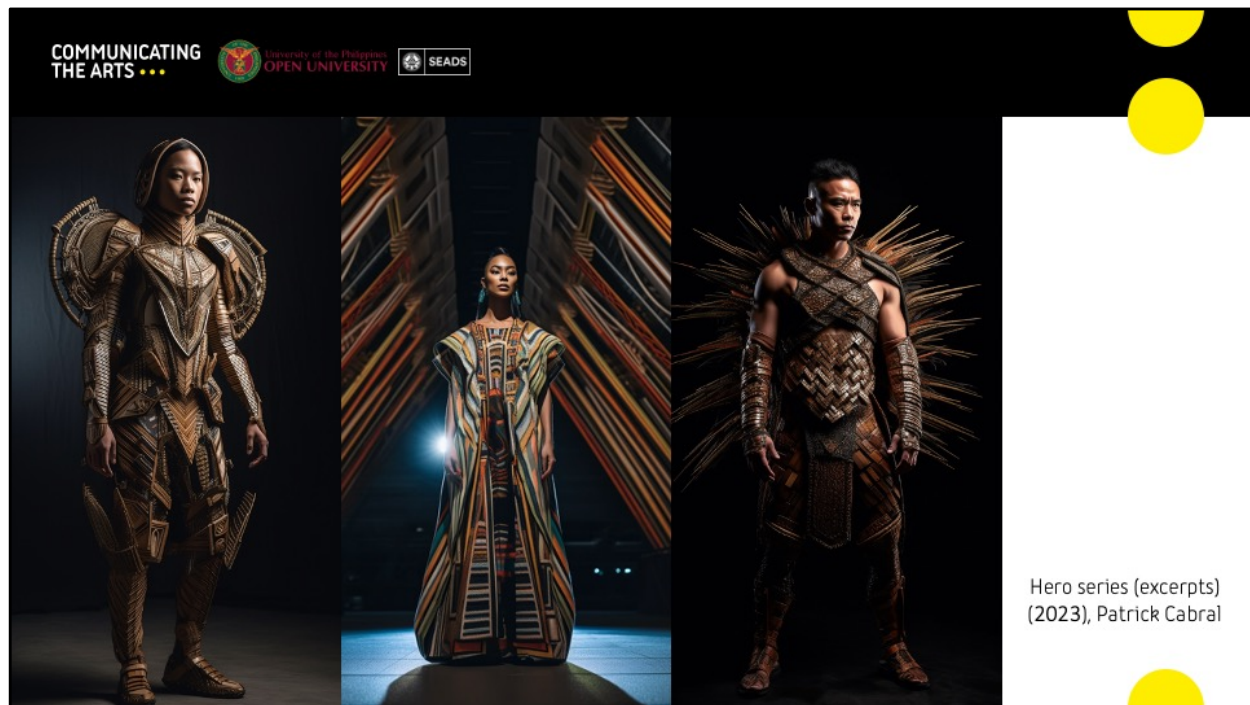


So for example, Jake wrote a speculative fiction story that takes as its starting the point the fact that traditional woven textiles of the T'boli dreamweavers in the South of the Philippines actually has a lot of the features required to construct a modern microcircuit. In his short story, "Iron Dreams", he offers a detailed account of how this traditional woven textiles might conceivably have been used to construct a woven computer, which functionally would act like a Von Neuman computer but using different technological and material techniques.

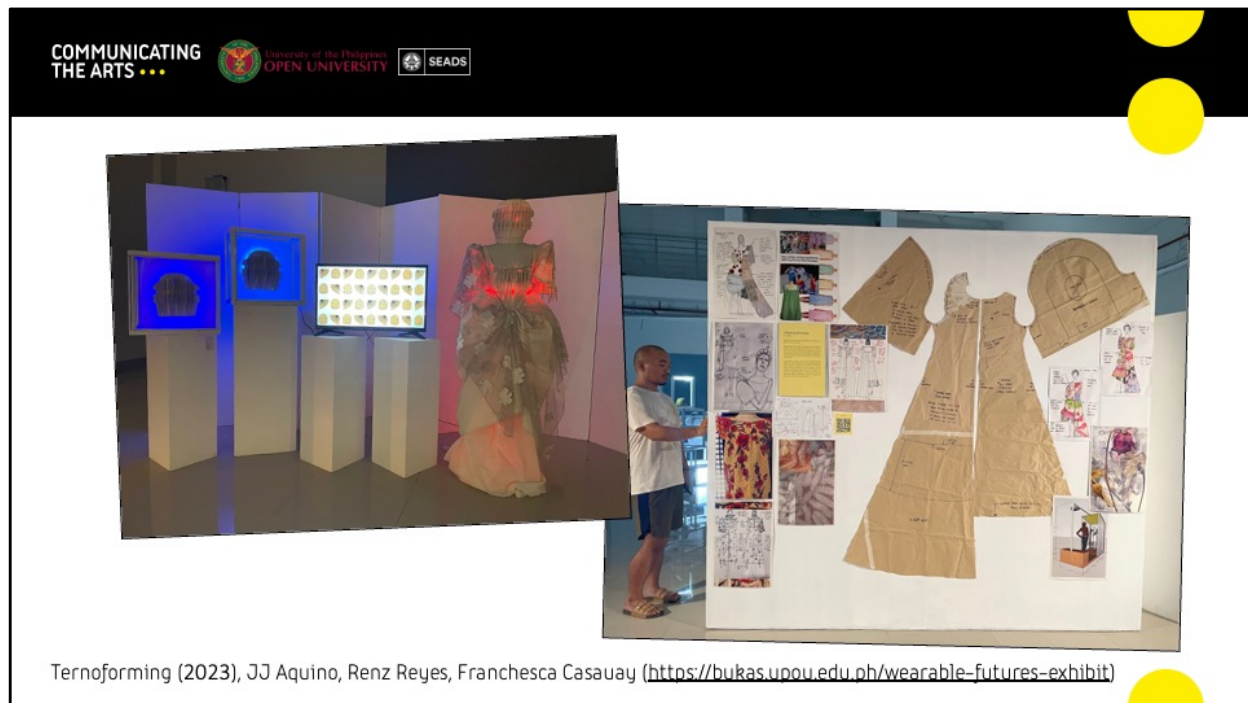


What the future looks like depends on where you're looking at it from. Mainstream media, particularly Hollywood, often hands us meticulously crafted visions of the future. Rarely does the wider public get a chance to participate, and much less so when you live on the margins of power, influence, or wealth. Patrick Cabral's work offers an example of how access to frontier technologies like generative AI can open access to generating images of the future by recovering, reconstructing, or interrogating the past. In addressing the postcolonial reality of places like the Philippines, artist Patrick Cabral has taken to using AI to ask the question, "If the Philippines had not been colonized by either Spain or the US, what it might look like now?".

Maranan, D. S. (2023, November 22). Imagining the Future from the Margins [Conference keynote talk]. Communicating the Arts 2023, Singapore. <https://doi.org/10.5281/zenodo.10251478>



Patrick Cabral has also used generative AI to imagine what a Filipino superhero or mythical hero look like. (You might notice certain similarities with the Afrofuturist movie, Black Panther. Patrick Cabral points out that these similarities have to do with the underlying algorithms used in generating such images, which reminds us that the tools we use to express our imaginings constrain and shape our imagination.)



Indeed, the past matters in our imaginaries of the future. To this end, the 2022 Fellows of UP Open University’s Emerging Futurist Residency program (fashion designer-architect JJ Aquino, researcher-creative producer Franchesca Casauay, and fashion designer-illustrator Renz Reyes) turned a critical eye on the Terno—arguably the Philippines’ most iconic national dress—and experimented on how it might look, move, and come to be in the near future. Through their work, the three residents envisioned the Terno of the future gracing not only runways and storefronts but transformed into an artistic tool for education and activism.

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FUTURES WEARABLE FUTURES WEARABLE

Introduction and welcome

1461: DAVIS students, welcome to the Wearable Futures course, and thanks for joining me on this experiment. My name is Diego Maranan and I'll be facilitating this course. (Because I'm also going to be the one putting together the course materials, I will often speak directly to you in the course materials.)

Course objectives

By the end of this course, I hope that you will be able to do the following:

- Discusses different issues that may or prevent a probable, possible, and plausible future.
- Create your personal experiences and concerns within the context of futures thinking and speculative design practices.
- Propose different creative solutions that respond to potential issues in future scenarios.
- Prototype an engaging wearable technologies that respond to these conceptions of future scenarios and issues.

Requirements



In this course, you will be learning how to program the BBC micro:bit controller. You will need to purchase the microcontroller and other materials to assemble your MC. See [this](#). Preparation before the course starts to get started.

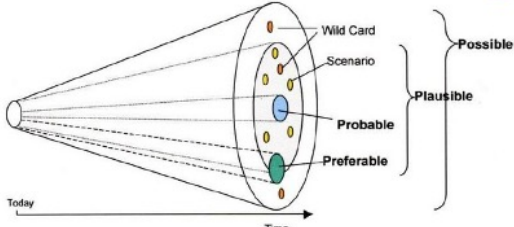




This class will be heavily "tool-loaded." Most of the course activities will be conducted on our digital the

FutureLearn (platform)
Tell us about yourself
The Tempo Project 2022
Treasure hunt 1: Wearables and embedded interaction
Imagining different futures
Name (tag) project (hackathon)
Process, later, further out
Speculative design and wearable tech workshop with AnuFutures
Treasure hunt 2: Hackmaking an existing project
The right to interface, embodied interaction, and wearable computing
Deep practice for feedback
Treasure hunt 2: Good practices in prototyping and communicating ideas
Class rights (video) (future)
Introduction to credit activity
Introducing Speculative Design
MetaFutures Lab workshop (1 of 2)
MetaFutures Lab workshop (2 of 2)



Wearable Futures Hackathon: Undergraduate course on futures thinking, wearable tech, and speculative design (2023)

In 2022, in collaboration with Lucky Vengua, Jerome Suplemento, and members of SEADS and the MetaFuturism Lab, I developed this undergraduate course on wearable technology, speculative design, and futures thinking. The course asked students to consider the complex and interconnected relationship between technology, politics, and clothing. I chose to use wearables as the technical foundation of this creative course because wearable technology design education is widely accessible to a Global South context like the Philippines, not only because it requires materials and tools that cost less than many other forms of engineering innovation, but also because it generates outputs and ideas that can be embodied and, thus, appreciated.

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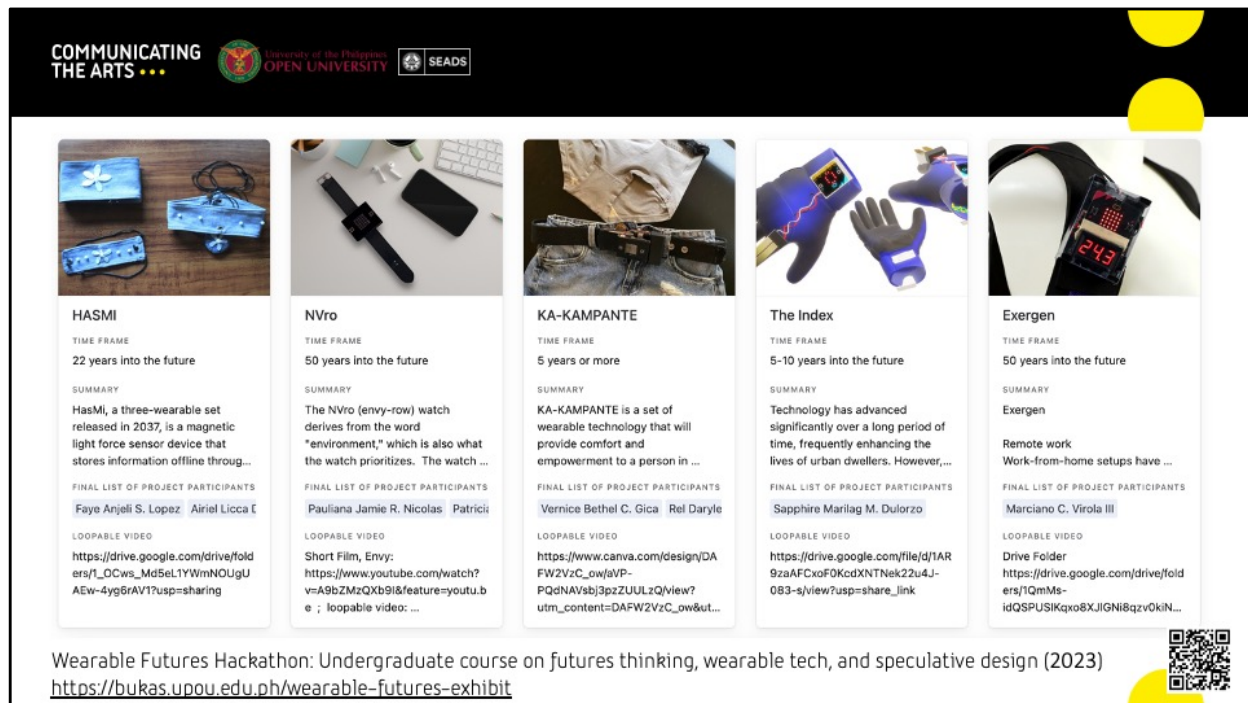


The Cone of Futures. From <http://dx.doi.org/10.13135/2384-8677/2770>



Wearable Futures Hackathon: Undergraduate course on futures thinking, wearable tech, and speculative design (2023)


Structured as a hybrid learning experience, the course focused on wearable technology, e-textiles, speculative design, and futures literacy, and was collaboratively created with and for undergraduate students. We explored the concept of the Cone of Futures and used the BBC micro:bit microcontroller for prototyping ideas.



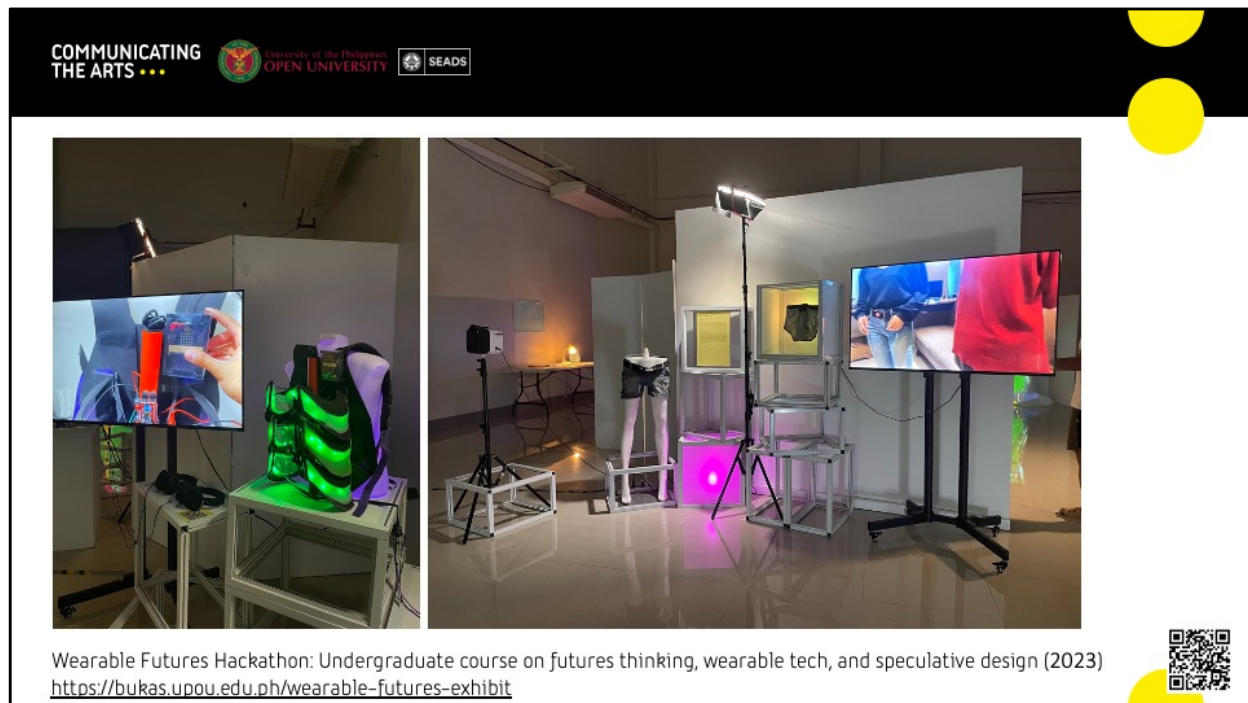
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Project Name	Time Frame	Summary	Participants
HASMI	22 years into the future	HasMi, a three-wearable set released in 2037, is a magnetic light force sensor device that stores information offline through...	Faye Anjeli S. Lopez, Airlid Licca
NVro	50 years into the future	The NVro (envy-row) watch derives from the word "environment," which is also what the watch prioritizes. The watch ...	Pauliana Jamie R. Nicolas, Patricia
KA-KAMPANTE	5 years or more	KA-KAMPANTE is a set of wearable technology that will provide comfort and empowerment to a person in ...	Vernice Bethel C. Gica, Rel Daryle
The Index	5-10 years into the future	Technology has advanced significantly over a long period of time, frequently enhancing the lives of urban dwellers. However,...	Sapphire Marilag M. Dolorzo
Exergen	50 years into the future	Remote work Work-from-home setups have ...	Marciano C. Virola III

Wearable Futures Hackathon: Undergraduate course on futures thinking, wearable tech, and speculative design (2023)
<https://bukas.upou.edu.ph/wearable-futures-exhibit>



The students produced five wearable prototypes exploring themes of information security (HASMI), physical safety (KA-KAMPANTE), human movement (Exergen), farming (The Index), and climate change (NVro).

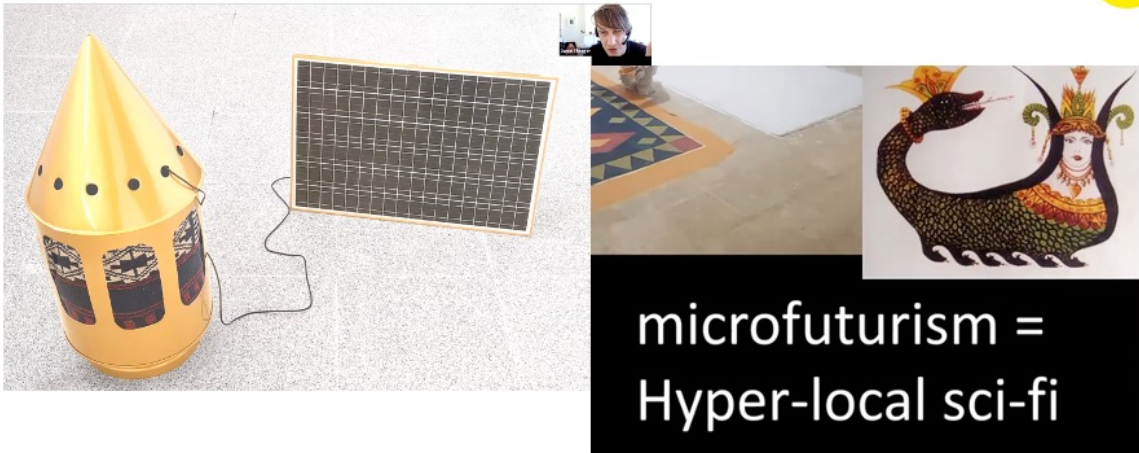



We then mounted two full-on exhibits of the students' works. Here is how two of the projects were displayed during one exhibit. On the left is Exergen, by Marciano Virola III, an exercise device that generates electricity from human movement. On the right is KA-KAMPANTE, a set of wearable technologies that protect inhabitants of the near future from sexual assault, by Vernice Bethel C. Gica, Rel Daryle Dane R. Valle, Laryze Lozano, and Michelle Lado.

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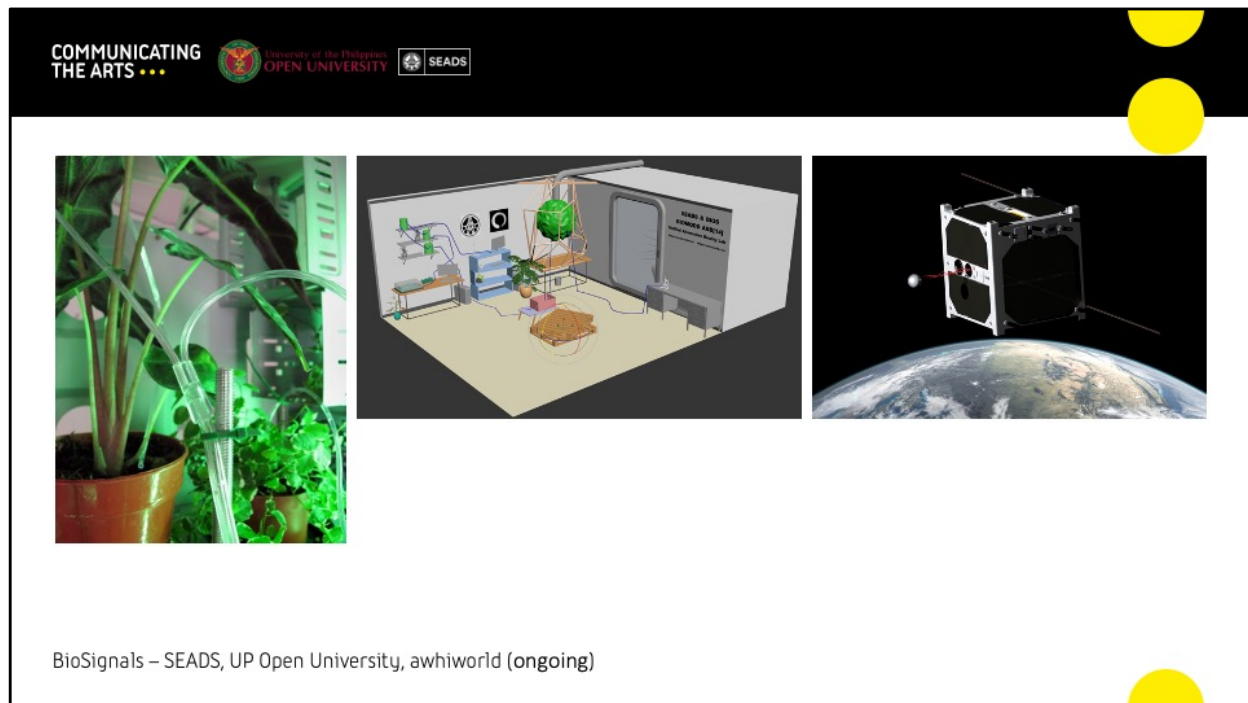
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microfuturism =
Hyper-local sci-fi

Dani Ploeger – Rojava Centre for Democratic Technologies (2023)
www.linkedin.com/in/dani-ploeger-19841083

There are many ways in which futures thinking, arts thinking, and design thinking might manifest themselves in the context of the less developed countries. Dani Ploeger from the Rojava Centre for Democratic Technologies in Syria has developed this concept of microfuturism and “hyperlocal sci-fi” in his work with local communities.





A somewhat diametric approach might be to attempt to involve the margins in large-scale futures thinking and design. BioSignals is a collaborative project between the UP Open University, SEADS members from the UK, and awhiworld in New Zealand, that unites diverse perspectives and expertise towards creating a planet-wide new media artwork that bridges the three countries through plants. BioSignals will collect, process, and transmit signals generated from local plant life growing at each of our sites, embodying a shared vision of connecting isolated entities, fostering resilience, and addressing challenges posed by climate change and biodiversity loss. Through this project we hope to highlight the fact that the planet we live on is one giant interconnected ecosystem.

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How can the arts, design, and digital humanities help us chart the future by interrogating and recovering the past? What would happen if imaginaries of the future from the margins made its way to the centers of power and influence?



I'd like to end this talk with a couple of questions from the audience. How can the arts, design, and digital humanities help us chart the future by interrogating and recovering the past? What would happen if imaginaries of the future from the margins made its way to the centers of power and influence? Thank you.