

Lessons from Veteran Artists in Singapore's Digital Renaissance

Kay Poh Gek Vasey

Founder, The MeshMinds Foundation

Singapore's vibrant art scene is at a pivotal moment. As we boldly stride into a digital renaissance, one challenge becomes clear: How do we ensure that our mid-career artists and curators, the custodians of our cultural legacy, are not only surviving but thriving in this new era?

"I'm convinced that technology and art go together—and always have, for centuries", David Hockney, British artist and global cultural icon, declared in a 2013 interview.

Today, his observation about the integration of technology and art feels more pertinent than ever, and Hockney would likely approve of programmes that enable cross-disciplinary experimentation and foster relationships between seasoned and emerging professionals from both the art and technology worlds. Such interactions, many cultural leaders believe, could revolutionise the creative economy and landscape. This approach is supported by a global trend, as highlighted in the World Economic Forum's *The Future of Jobs Report 2020*, which stresses the importance of interdisciplinary skills and lifelong learning for future job markets.

I want to share a story about how The MeshMinds Foundation developed an idea into a life-changing initiative. From 2018, we had been honing our reputation for bridging the art and technology worlds via our innovative accelerator programmes focused on educating, enabling and empowering Asian artists with digital skills. Globally, the integration of technology in the arts has been recognised as a crucial element for engaging modern audiences and preserving cultural heritage. According to a report

by UNESCO, "Digital technologies have a significant role to play in safeguarding cultural heritage".

Capitalising on this trend, we were commissioned by Meta to bring together traditional artists and creative technologists in South Korea, Taiwan and Singapore. The aim was for them to connect, collaborate and create new physical and digital experiences using Meta products and platforms, reaching new digital youth audiences in the process. "Art Reimagined" blended traditional artistic expression with cutting-edge augmented and virtual reality technology. The Singapore edition offered a fresh perspective on the rich heritage and superstitions that have shaped the cultural landscape of the Little Red Dot.

The MeshMinds Foundation started from a blank canvas to design the art and technology collaborative process, and then selected and managed the programme participants from concept to creation. The programme was inspired by art critic and curator Hans Ulrich Obrist's views on the future of art through augmented and virtual reality: "These mediums can reach people outside of the traditional forum and formats of institutions. There is a kind of democratising potential there. Not everyone lives in cities where there are great museums. We can find ways to go beyond exhibition spaces". Across the three showcases featuring 18 creators, two artist-technologist pairings stood out for me.

The first was Cultural Medallion recipient, Mr Goh Beng Kwan, and his collaboration with one of Singapore's leading creative tech studios, GOWAAA. Together, they created three different augmented reality effects, based on an updated version of a painting Goh had created in the 1970s.

Born in 1937, Goh is still actively creating art, and had already transformed his practice over the years from being a painter in the realist tradition



Figure 1. Senior Minister of State Tan Kiat How (fourth from left) on a tour of Art Reimagined Singapore 2022 with artist Goh Beng Kwan (second from left) and Kay Poh Gek Vasey (Founder of MeshMinds). Image courtesy of The MeshMinds Foundation.

to focusing on abstract collage works using found materials from his surroundings. Despite being in his 80s at the time of this art-tech collaboration, Goh was not new to digital art. Thanks to his daughter, Hazeleen, and a strong willingness to keep up with the times, he had already been dabbling with creating works on an iPad with Apple Pencil. He had his own accounts on Instagram and TikTok, even though he was yet to make videos entirely on his own.

Goh had even tried his hand at NFT artworks, which were minted as tokens of appreciation for guests of National Gallery Singapore's fundraiser, 'Gallery Benefit'. He had never, however, had the chance to bring his artworks to life using augmented reality, and so when offered the opportunity to take part in "Art Reimagined Singapore", the "digitally-curious" father-daughter duo dived straight in.

"In my generation, everything seemed so easy. Today, everyone is so immersed in technology. Everybody looks at their computers, tablets and smartphone

everyday—this is daily life. So, for artists, we have to keep up with the times if we want our work to reach new audiences, especially the younger generation," Goh explained.

First, we selected *River Boat* (1978), his painting of the Singapore River, with its depiction of tongkangs (wooden cargo boats) for a digital makeover. Goh started by transforming a copy of the physical work, using fresh paint and even glitter to depict the changing scene of the Singapore River, from historic waterway to today's incarnation adorned with bustling nightlife. He added coloured strings and paper which introduced further texture and depth to the original.

GOWAAA then took over, and, riffing on Goh's creative process, created an image tracker that operated like a digital lenticular postcard. This allowed the viewer to enjoy the 1970s view of the Singapore River before tilting it to reveal Goh's more abstract transformation.

Furthermore, they enabled anyone with an Instagram account to spawn a larger-than-life, 3D immersive version of the abstract painting that, when viewed through a smartphone, allowed viewers to step through, passing by the tongkangs of old. Finally, Goh and GOWAA created a fun face effect enabling any viewer to become one of the people standing on the river boats and feel part of the original painting.

For each iteration, Goh shared interesting insights, such as the reason tongkangs have eyes painted on their fronts is to allow them to “see” danger ahead. Combined with sound effects evocative of the Singapore River, the original painting was brought into the realm of multimedia immersion.

I’ve always been fascinated by why artists create their work and the sources of their inspiration. Through Augmented Reality (AR), artists can deploy an extra digital layer to bring their stories to life and draw viewers into their creative process.

Reflecting on the collaboration, Aw Boon Jun, lead creative technologist at GOWAAA, noted Goh’s skilful use of diverse materials, such as paper, to enhance texture and dimensionality in his artwork, and observed how this resonated well with their expertise in creating 3D environments for augmented reality. Aw explained that the AR effects also highlighted Goh’s artistic transition from representational to abstract expressionism, and showcased the depth and complexity of his creative journey.

Then, to celebrate his 85th birthday, Goh launched a retrospective featuring 85 of his works. In a nod to his collaboration with GOWAAA, Goh worked on no less than 11 augmented reality works. Visitors could view the works through a mobile application developed by art platform ArtAF (artaf.sg), founded by his daughter, featuring a digital inventory system

of his artworks, alongside other archival materials such as newspaper clippings and videos.

The second artist-technologist pairing built on the theme of artistic evolution and creative convergence. The collaboration between celebrated visual artist Kumari Nahappan and the innovative team at Serial Co. will always stay in my memory as a beacon of the transformative potential in Singapore’s arts and technology landscape.

Award-winning artist Kumari Nahappan is renowned for her interdisciplinary work and for developing a visual language informed by her cultural roots. Particularly celebrated are her public sculptures of local seeds and fruit, with her interpretations of natural subjects such as tropical nutmeg and chillies found in Changi Airport and downtown Singapore.

The MeshMinds Foundation orchestrated the opportunity to partner with Serial Co., a creative technology firm known for its cutting-edge approach to interactive digital environments. Jake Tan, founder of Serial Co., was able to work his digital magic to realise Nahappan’s long-standing dream of seeing her chillies dancing.

The resulting smartphone experience was not only fun and engaging, but also highly accessible. The team developed a world effect that allowed anyone using Instagram to dance alongside a 3D digitally-animated twin of Nahappan’s dancing chillies sculpture (named “Tango”) in real time. This interactive experience added a layer of dynamic interaction that allowed the audience to engage with the sculpture in a fresh and amusing way.

To Nahappan, the chilli embodies symbolic and personal value. She shared that during her last gallery opening, she had followed the traditional practice of placing chillies and onions outdoors to ward off

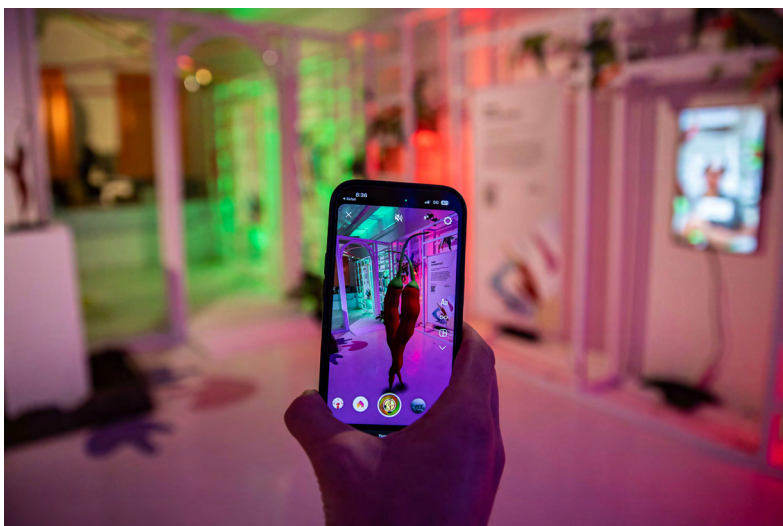


Figure 2. Tango—AR in action (Kumari Nahappan and SERIAL CO.) at Art Reimagined Singapore 2022. Image courtesy of The MeshMinds Foundation.

impending rain. Inspired by this urban myth and the artist’s personal anecdote, Serial Co. created an interactive AR postcard that told this urban legend in 3D, with rain clouds clearing when tilted by hand.

Finally, in a playful take on a face effect, Serial Co. went one step further to create a fun, educational game which taught people about the different chilli varieties and the Scoville scale (which measures the degree of “heat” or spiciness). By an ingenious use of the mouth tracker, audiences could put a lively blush on their cheeks or earn points as they tried to virtually catch the Bird’s Eye Chilli, also locally in Singapore as “chilli padi”, in their mouths, rather than the other digital chillies such as the ghost pepper or capsicum.

The impact of this suite of augmented reality experiences demonstrated how digital tools could extend the storytelling layers of Nahappan’s work, and make it appealing to digitally-native audiences around the world.

In a four-day exhibition at Hatch Art Project, a gallery in the Tiong Bahru precinct, over a thousand visitors experienced Goh’s and Nahappan’s interactive and immersive works, with over 10,000 accessing them internationally. More than 80% of visitors recorded that they felt immersed in the augmented reality effects, and would recommend them to others to enhance the gallery experience.

This research data, compiled by a team at Nanyang Technological University (NTU), demonstrated the significant power of using the latest technologies to translate traditional artworks into the digital realm. In addition, the access data showed how online interactive tools could enable new audiences to engage with and be inspired by Singaporean artforms wherever they lived in the world. The innovative approach to storytelling also had the effect of reaching out to diverse audiences, from art connoisseurs to tech enthusiasts.

Interestingly, the International Council of Museums’ (ICOM) 2021 annual report established that digital engagement has become essential for museums

to connect with broader audiences. The report specifically highlighted the opportunities to create compelling forms of engagement in light of the developing digital economy and changing modes of cultural consumption. This shift is not just about using technology for technology's sake, but about enhancing the storytelling and educational potential of art.

The digital age doesn't discriminate; it evolves relentlessly, transforming the tools and techniques available to artists. To keep pace, mid-career creatives must embrace a mindset of lifelong learning supported by a collaborative spirit. This isn't about stopping at sporadic SkillsFuture workshops, but embracing a sustained, engaging educational journey that, of course, respects time constraints and financial realities.

Mentorship programmes pairing seasoned artists with emerging tech experts can demystify digital tools through one-on-one sessions and group workshops, fostering an environment of mutual learning and respect. The internet also makes available—even to the most technologically unsavvy artist—a plethora of self-guided, free educational videos. In the same breath, mid-career artists must never underestimate the power of their expertise in visual storytelling, honed over decades, and how they can add value to a skilled technologist.

One common thread that unites both artists and creative technologists is a willingness to experiment. Indeed, the intersection of art and technology is not just a fusion of disciplines, but could be considered a new language that allows us to explore and understand one another and our world in ways never previously imagined. I am a strong believer in the creation of more programmes that enable cross-disciplinary experimentation. These would foster relationships between seasoned and emerging

professionals from both the art and technology worlds which could revolutionise the creative economy and landscape in Singapore.

The stories of Goh Beng Kwan and Kumari Nahappan's artistic journeys here not only highlight individual adaptability, but also underscore the need for systemic support structures that facilitate lifelong learning and digital literacy. The artists' open attitudes and their creative responses to technology exemplify the exciting possibilities ahead. As Singapore continues to forge its path in the digital renaissance, such collaborations will be crucial in shaping a culturally rich, technologically empowered future. As *The Art Newspaper* boldly states, "Forget reality and the virtual—the future is augmented". □

About the Author



Kay Poh Gek Vasey is a half-Singaporean, half-English tech-lawyer-turned-entrepreneur. She focuses on creating immersive experiences that promote climate and cultural literacy among millions of youth around the world. Her Singapore-based non-profit organisation, The MeshMinds Foundation, has educated, enabled and empowered thousands of digital creators across Asia-Pacific through its curriculums and incubation programmes focused on augmented and virtual reality technology. Furthermore, her creative tech studio, MeshMinds, has been at the forefront of creating groundbreaking digital experiences for the UN Environment Programme, UNESCO, Meta and Apple that have reached millions through a seamless blend of art and technology for good.

Notes

1. SkillsFuture is a national movement in Singapore which promotes lifelong learning through the pursuit of skills mastery, and strengthens the ecosystem of education and training.

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