

Cultural Connections

Volume IX

2024

A Future-Ready Workforce – Thinking about Tomorrow's Jobs in Culture

About Culture Academy Singapore

The Culture Academy Singapore (CA) champions the development of the next generation of Singapore's cultural leaders in the public and private sectors. CA's work focuses on three inter-related areas: Leadership and Capability Development, Research and Scholarship, and International Partnerships, which cut across all of CA's strategic priorities.

Cultural Connections is a journal published annually by Culture Academy Singapore to nurture thought leadership in cultural work in the public sector. This journal encourages scholarship and the exchange of ideas in the sector. It thus provides a platform for our professionals and administrators in the sector to publish alongside other thought leaders from the region and beyond.

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Foreword

Each year, we adopt a theme for *Cultural Connections* and, for our 9th edition, it is “A Future-Ready Workforce—Thinking about Tomorrow’s Jobs in Culture”. As the cultural sector recovers strongly from the disruption of the COVID years, it will continue to grapple with fast-changing technologies, including generative AI, as well as the complex geopolitics and competing allegiances in a turbulent world. To grow jobs and sustain careers, our cultural workers need to be equipped with mindsets and competencies that position them well to succeed.

This year’s issue leads with insights from Permanent Secretary Tan Gee Keow, who spent five years at the helm at MCCY. Drawing on her experience, including during the pandemic, she speaks of how the arts and heritage uplift our spirits and help Singaporeans connect with one another. From the vantage point of her new role in the Public Service Division of the Prime Minister’s Office, she shares her thoughts on how culture and creativity connect to the strategic work on leadership and the transformation of the public service in Singapore.

This issue also features a lively discussion with four expert panellists representing institutions, arts practitioners and administrators. It reminds us of the dynamic energy and collaborative possibilities of those who work within the ecosystem.

There is a strong technological slant in this edition. We have essays that cover how technology impacts arts education and training at the pre-tertiary and university levels, with writers asking if we need to rethink existing approaches to teaching the arts. Other writers consider the impact technology might have on roles in the cultural sector: How will traditional roles evolve with the power of AI? How would the management of museum inventory or the documentation of national archives be affected? For this edition, I have also penned an essay on how different roles in culture can impact the liveability of our cities.

Providing a personal take, Angelita Teo—the National Museum of Singapore’s former director who now leads the Olympic Foundation for Heritage and Culture—underscores the importance of a growth mindset for a purposeful, sustainable career in culture. Lawyer Joy Tan, an arts-lover who has served on different boards of arts companies, reflects on the cultural landscape in Singapore and argues for a creative, right-brained leadership.

(Continued on next page)

So how might the nature of work change for our artists and other cultural workers? What kind of capacity building or resetting of mindsets may be required for the arts and heritage sector to continue to inspire humanity and reflect our diversity? I hope readers of this year's edition of *Cultural Connections* will get new insights and wisdom from this collection of essays.

Rosa Daniel (Mrs)

Dean, Culture Academy Singapore

Editor-in-Chief's Note

Why do parents still fret about their kids choosing a path in the culture sector in an age when we talk about multiple pathways and broadening the definition of success?

Certainly, among my contemporaries, I still hear worries about prospects when one of their children chooses to pursue training or a career in culture. I often respond by assuring them that those who work in arts and heritage find deep purpose and fulfilment, and that the material rewards, even as a freelancer, are not as dire as they imagine. It's good to talk to the children to understand their motivations, I add, and remind them that forcing a square peg into a round hole can have negative consequences.

Commissioning these essays this year, and working closely with the writers, has further strengthened my sense of optimism. The writers from this edition of *Cultural Connections* invite us to take a step back and evaluate what is important, and eloquently articulate why the arts and heritage will always be a vital, vibrant aspect of human society. Technology, especially AI, is not to be feared but embraced and understood for its possibilities and limitations.

Certainly, in Singapore, with strong, enlightened support from the relevant government agencies, commitment from individual and corporate patrons, as well as big-hearted foundations, there will be a plethora of opportunities.

The enabled, empowered individual starting their professional journey must play their part too. It helps if there is a core of positive values. From this year's essays, my takeaways include: adaptability and resilience, the courage to innovate and apply creativity across different sectors, and an openness to new knowledge and opportunities.

The future can be boundless.

Paul Tan (Mr)

Editor-in-Chief, *Cultural Connections*



Unpacking the Value of Culture

Tan Gee Keow

Permanent Secretary, Public Service Division
Prime Minister's Office

Permanent Secretary of the Public Service Division, Tan Gee Keow reflects on her eventful five-year tenure at the Ministry of Culture, Community and Youth (MCCY). She speaks with our editor-in-chief in a wide-ranging interview.

Editor-in-Chief (EIC): Thank you, Gee Keow, for agreeing to be part of this conversation. I remember that, while you were in MCCY, you had talked about the ministry being, in some ways, the custodian of the soul of the country. As you reflect, after over five years in MCCY, how do you think the arts and heritage contribute to that soul?

Gee Keow (GK): I'll list two examples of where I think arts and culture play an important role. The first was during COVID-19, when we had to get everyone to socially distance and essentially stop all activities. This hurt the arts and culture sector significantly because so much of what we do in the arts and culture is connecting people, bringing people together, and helping them reflect. This was certainly hampered. But, at the time, we had to prioritise keeping people safe. Then, when we opened up to smaller groups and in different formats, I thought the arts community really came through, finding different ways to collaborate and perform, whether it was online or in venues.

After COVID was behind us, I felt that the arts sector really came together in a period of helpful catharsis and reflection for the nation. During the entire cycle of COVID, observing how the arts sector responded, I thought it had the ability to uplift minds and hearts in a thoughtful, meaningful way. I also remember the National Gallery's post-COVID exhibition which featured several artists reflecting on the COVID period. I think the arts sector has the

ability to force us to take a look at what happened, how we felt. Its approach is so different from that of the typical Singaporean, especially the typical Singaporean public servant; we don't naturally respond in an emotional way. But when you emerge from a period like COVID, I think you have to draw those emotions out, reflect on what happened, and how it affected you as a person. The arts and culture domain provided a safe space for us to do that; it enabled a quiet uplifting; a realisation that "now I can let go and move on". The arts have a very deep way of connecting with people and asking people to connect with themselves.

The other example of how arts and heritage rally Singaporeans was when we got our hawker culture inscribed on UNESCO's list of Intangible Cultural Heritage. Singaporeans really rallied around this. Of course, everyone loves food here, but our inscription meant more than that. It was about our community and how, as a multicultural, multi-racial, multi-religious nation, we have been able to come together, enjoy our common spaces, and make our own distinctive culture out of our interactions. It was great how everyone recognised that, and how the hawkers themselves were excited to be seen as a distinctive part of our Singaporean culture. We keep saying diversity is strength. But when you talk about hawker food, diversity *is* strength.

EIC: That's an elegant way of framing it: cultural experiences helping people take stock and move on, but also bringing people together. Talking about taking stock and moving on leads us to think about the future. I'd like to connect this thought to the two arts and heritage strategic plans launched last year. How do the plans of the two statutory boards contribute to MCCY's three-C outcome: Caring people, Cohesive society, and Confident nation?

GK: There's a strong community mission undergirding both plans, even in their first iterations. This is still very important to us. The shift is having the community work together with us now for both plans. Certainly, a sense of joint ownership can only lead to a better outcome. So it's not just the government wanting to push, promote or subsidise culture; it's also about the arts community and the people. Hence the emphasis on partnerships and engagement.

Arts and culture are a wonderful way to bring people together and help build a cohesive society. I remember discussing local-foreigner integration at a MCCY meeting and saying how we can't simply run a programme called "Local-Foreigner Come Together". But a thoughtful arts or heritage programme can bring people of different and diverse backgrounds together in a setting that they find natural and comfortable. People can interact with each other authentically, and serendipitous and spontaneous moments will arise. Of course, there must be some design behind the programme to enable this.

Another interesting aspect of both arts and heritage plans represents the collective desire of the HQ and the agencies: to unlock the economic potential of the cultural sector. Our SG Arts Plan talks about employment opportunities and collaborating with adjacent industries, while our SG Heritage Plan seeks to improve the sustainability of heritage businesses and careers. This is a slight shift in our strategies for culture, but we should not be apologetic.

EIC: I believe the economic contribution of the sector is currently not very significant?

GK: Yes, but we want an arts and culture community which doesn't shy away from considering how it can contribute to the economy, how it can give Singapore

a creative cutting edge, and remind Singaporeans that our imagination can be boundless. We can try different things, for instance, in the spaces where we live in or work. How can the arts and culture sector contribute to developing the whole person, imbuing qualities that will benefit the Singaporean throughout his or her life stage?

We have arts and cultural programmes in our schools, and our teachers teach innovation and creativity. But when we come out of school, life becomes less structured. That's when these opportunities to engage with the arts and culture can keep us growing and learning. I'm old enough in public service to remember the Renaissance City strategy. We pushed really hard on the economic objectives in that strategy. Then, in 2012, when MCCY was formed, the emphasis was much more on community. As you said, we realised there wasn't so much that the sector could contribute to the nation's GDP. Now we're swinging back a little, trying to find a healthy balance.

EIC: I like this idea of the boundless imagination. I wonder how the arts, heritage, and culture can help stimulate or inform the current work that you're doing now. How might that help the public servant of the future?

GK: Definitely, we want a spirit of creativity and imagination in the public service core. Public Service Transformation is a critical mission in the Public Service Division. How do we do today's work differently? But, also, what's the different work that we need to do for the future?

Increasingly, we are going to need our public servants to, not just tread where people have trodden before, but be prepared to do something different, explore something different.



Figure 1. *ubin* by Drama Box, Singapore International Festival of Arts (SIFA), 2022. Image courtesy of Arts House Limited.

You can't just tell someone: think out of a box, be creative. But we can help by providing tools, some framework, some exposure, some inspiration. Here is where I think the arts and culture can play a role.

Just recently I had a chat with an NParks officer, and we were talking about the trade-offs between conserving natural heritage and development. We were talking about how to achieve balance, and he felt we should be more confident that Singaporeans can understand and make some of these trade-offs. He mentioned an epiphanic moment he experienced when attending a forum theatre performance by Drama Box, where a question was posed to the audience about whether a piece of land should be developed. The audience was divided into four corners, each with a decision to be made. The NParks officer realised that, compared to the start of the performance, the audience had become much more circumspect by the end of it, having realised that there were so many considerations beyond the ones they had first come with. To him, this was an epiphany because he realised he could use a tool like that. Secondly, he realised that if you give

Singaporeans the right environment, they can make good choices.

That's an example of how the arts and culture can actually be a tool, and provide a framework or pathway. It doesn't mean that the officer will go back and stage more forum theatre. But he gained more confidence and a larger toolbox. And he can work better with Singaporeans going forward whenever such major decisions need to be made.

EIC: I suppose that the format of forum theatre allows you to hear different perspectives. It must be useful for a public servant dealing with complicated issues.

GK: The other thing is that, over the years, we've had policy layered upon policy. Sometimes when I do my talks, I show this crazy picture of a New York underground piping, with things criss-crossing over and on top of each other. You would imagine that any time someone needs to touch a pipe, you would have to figure out the engineering around it. Similarly, our policies are so intricately linked.

When HDB wants to make a change, you've got to think about how it will affect CPF, and, if it affects CPF, how it will affect healthcare. Complexities like that. We need public officers to realise that it's not just that the future is complex. We ourselves have laid a complicated set of criss-crossing frameworks which we now need to be mindful of.

Complexity is not black and white, of course. And the arts and culture have the role of helping people experience that complexity and how it affects human lives. You may not solve a complex problem with the arts, but you may gain the confidence to deal with it and take the first steps to figuring things out. Surely this is better than saying: no, I give up, I don't care, I have put my blinkers on.

Arts and culture generally deal very well with ambiguity. Whether it's our public officers or Singaporeans at large, I believe exposure to arts and culture can help us become much more comfortable with uncertainty. We will need their skills and dispositions so that we can manage the future. Returning to the earlier point about MCCY outcomes, if we give up on dealing with ambiguity, I'd say this is not a confident nation. To me, that is a self-defeatist set of attitudes. I think it comes back to how can we help Singaporeans, help Singapore feel that it can manage. Confidence is also tied to identity and nation. When we think about Joseph Schooling, we feel a sense of national pride, that his achievement is also our achievement.

EIC: Any thoughts on how the sense of confidence works in the cultural space?

GK: I come back to the SG Arts Plan. One of its thrusts is internationalisation, which means getting our arts groups out there, showcasing what Singapore is about, and what it can achieve.

As with the Joseph Schooling, if we have arts groups doing very well on the international platform, we feel a sense of pride, and this contributes to our Singaporean sense of identity. The not-so-pleasant reality is that some in Singapore still feel there is a need for international endorsement first before we say something is very good.

EIC: Can I return to the theme for this edition: any thoughts about the roles that we see in culture, whether in the museums or the arts sector? There is also the well-known statistic that at least one third of the resident arts workers are Self-Employed Persons (SEP).

GK: My own sense is that the arts and culture sector is significantly different from other sectors. In the transport sector, there are private hire drivers, taxi drivers and so on. Traditionally, their profile is very different from the SEPs in the cultural sector who are graduates and professionals. Based on intuition and anecdotal evidence, the SEPs in our sector are voluntary SEPs. It's not that they cannot get jobs elsewhere. The nature of the sector requires professionals and higher order thinking, but the structure of the sector is that many of these roles are not full-time jobs. So if we can make them less precarious in the future—and by this I mean ensuring they have enough for retirement and understanding how they deal with low seasons—then the fact that they are SEPs shouldn't be an issue.

In fact, how do we turn that into a strength of the sector? After all, arts organisations have the ability to assemble different people with the different skills needed for a particular show or project. If you think about it, it's kind of like tech development, where you need to create an app, or an IT platform. It is very agile. Once you're done, you disassemble, and when another project comes up, a different team is put together. Having a strong SEP workforce without

the precarities will allow our arts organisations to create offerings with the best individual talents. For the SEPs themselves, this allows them to get involved in a range of projects which they feel moved to do, or which they feel they have the skills to contribute towards. So there's huge labour flexibility, something that we've experimented on and would love in other sectors.

EIC: But there's a point of tension there, isn't there? On one hand, an arts SEP chooses this path, with this dimension of precarity. Meanwhile, the government, or its agencies, are actively thinking about helping the segment or smoothening the kinks. Could I take a hard-nosed position and say, well, you chose this precarity?

GK: Even if the individual volunteered to be in these roles, the question I would ask is: is there still asymmetric information? Have they remembered that they have to take care of their retirement, and so on? I think that government can play a role, and make that information available. And if you still choose not to do it, then so be it.

This is the case for many government policies. Many of our financial assistance policies are created in the spirit of a social compact: I can give you the money, but you need to fulfil your end of the bargain as well. So in this instance, the government can provide information and full access to your CPF, reminding you to contribute, and ensuring employers are responsible. But then, once that's settled, the individual has to make the choice. It is ultimately incumbent on the individuals to have to take care of their lives.

I'd like to raise another area for discussion. As I was looking through your questions and thinking about the arts sector, it struck me that the sector should also not fall into silos. The question is: how can

the government and the arts fraternity create the conditions where people can come together across disciplines? Also, how, as a government or funding agency, can we be agnostic about what disciplines you engage in or how you pull together teams?

Because when you stage a production, you do bring in people with different sets of skills. In a musical, you've got the acting, singing, dancing, the props guys, the lighting designer, and so on. But we need to move beyond that. How can other disciplines become more enmeshed in the performance or the creative process part itself? Or, at the least, how can we avoid unnatural barriers to bringing people together for multidisciplinary work?

I think it applies to artistic expressions of our multiculturalism as well. So why must all our arts performances just be of one sort of cultural genre? Can we have more groups, more people interested in creating multicultural offerings?

EIC: Yes, in a way that is not tokenistic.

GK: When I was in Shanghai, I met a young Singaporean studying dance in Beijing on a scholarship and remember her recounting how there was an event where everybody had to put on a national costume, and she couldn't figure out what it was. She lamented: if only we had something that was very distinctively Singaporean, that represented a fusion of all our cultures, not just a baju kurong, or some Merlion image. So again, it's back to how we can capture the multi-disciplinary and multicultural without being contrived. But you need the fraternity to really believe in it, for this to happen.

EIC: This connects nicely to the idea of the creative economy. Certainly it's about getting out of the silos within culture, but, at a macro level, you can



Figure 2. Dancers from Singapore Chinese Dance Theatre being featured through holomesh projection at *Routes: A Multi-Perspective Exploration of Traditional Arts* in Singapore, an immersive exhibition about Singapore’s dance pioneers and practitioners presented at Stamford Arts Centre from 1 July to 12 September 2021. Image courtesy of The National Arts Council (Singapore).

dissolve the barriers across different parts of the economy as well.

GK: We’ve always said that our artists and designers can go into healthcare. You can use the same principles and think about how you design a process or an experience for a patient. There can be roles in every sector. You just have to be able and prepared to relate what you do to that particular sector, rather than to be confined in your own thinking, that you must be working in the arts and cultural sector.

EIC: That must also involve education and changing the mindsets of young people.

GK: Yes, we can move more upstream. Maybe, at the pre-tertiary level, we can identify and discuss the broader issues, but once you get to university, there should be more intentionality in introducing young people to the jobs they can have. Career fairs at universities should also feature consulting companies, healthcare companies, and banks. Our

undergraduates should be prepared to consider roles in different sectors, even if they are trained in the arts or humanities.

EIC: Can I take a step back here and talk about culture broadly? MCCY has the word “culture” in its name, and your current role also deals with the working culture in public service. Can you talk about this?

GK: In terms of the DNA of a public officer, what we definitely want in terms of values is integrity and a strong sense of mission. But in terms of the other dispositions, I think we need public officers who are able to deal with change. We had earlier talked about the ability to deal with ambiguity, and the confidence to overcome it. One of the shifts that we’ve made over the years in public service culture is to be more citizen-centric. What that really means is to deeply connect with Singaporeans and their way of life. That should inform how we think about policies, programmes, schemes. So for an individual public

officer to connect with a citizen and know how to do that, empathy becomes key. And, again, arts and culture helps build that up in a person.

Another shift is the emphasis on care: care not only for citizens, but also for our own public officers' well-being. Many of our public officers dive in 130%. Then the question is: who is helping to take care of our own public officers? Part of it has to be self-care and the recognition of its importance. But a big part of it also has to be what the individual organisation does.

One final shift in the culture of public service has got to do with One Public Service. It's about being able to identify with someone else who may not even be in your ministry, and be willing to collaborate and work across ministries. This connects to the multi-disciplinary approach that I mentioned earlier—being able to look beyond one's bounds.

EIC: It seems hard because everybody has different KPIs or agency outcomes. Some officers might say it's extra work without clear benefits...

GK: I agree. I don't think we've cracked it yet. But all public officers share the same mission, and that's serving Singapore and Singaporeans. So at least we have that higher order mission statement. The question is: how do we live it on a day-to-day basis? That's the part that is very uneven right now. Some of that tension has got to do with resourcing. If I lean forward and do, is anyone going to fight me? Another part of it is recognition and reward at the individual level. If I am willing to do this, what do I get? Will somebody turn around and bite me?

As hard as it is, it's something that we need to keep working at. When it comes to arts and culture, it really is that issue of empathy, deeply connecting, and the disposition to embrace change. We talked about how arts and culture can provide the tools

and frameworks. Over time, it can give us in public service the disposition and inspiration to deal with the most difficult and uncertain things.

EIC: What about the idea of aesthetics that is associated with the arts? Does that play any part at all in this conversation?

GK: I suppose it makes it easier to connect. In a sense, it's instrumental... Perhaps a means to an end. If something is aesthetically pleasing, you will gravitate towards it. You'll be more curious about it. Of course, curiosity is important and culture can help us learn to be curious and keep an open mind. If something is aesthetically pleasing, it naturally draws you in and you want to know a bit more. But I'm cognizant that the term aesthetically pleasing is subjective. What may be pleasing to you is not pleasing to me. I remember some of the more provocative, less aesthetically pleasing art I encountered overseas. It made me think about why I felt so uncomfortable and why I wanted to walk away from the exhibit quickly. Such art challenges your own perceptions of what is good or bad, what's tolerable, what's not, and makes us reflect further.

EIC: Back to the theme of this edition, do you have any thoughts about the future of jobs, especially in the cultural sector? We're all going to be disrupted, aren't we?

GK: I think we should be both worried and not worried. We should be worried from the point of view that all these new unknowns are entering our lives. But it will only stay worrisome if our response is to put on the blinkers, right? A better response would be: how do we work with the unknown? How do we make sense of it? How do we create new offerings? For instance, how can you use ChatGPT to make a different art form, a different product, a different

artwork? It's the same with digitalisation, everyone using different tools to create a more immersive environment, for example.

I believe it's possible to work with some of these new technologies and make something different. It may not be better, but it will be different. At the systems level, that diversity of offerings can induce, invite, make people think, reflect, as well as inspire. I always think that it's the response that matters, not so much whether the technology is coming to kill us, kill our jobs. We have to be prepared and open-minded. And we have to deploy technology responsibly. For instance, we now have a version of ChatGPT for use within the public sector, and it works well, cutting down a lot of manual work, like summarising notes of interviews with people.

Some of this technology, I think, can benefit from the folks in our creative sector. They can help to improve AI. People who are accustomed to dealing with other people empathetically can easily snuff out the biases that may be inherent in machine learning, identifying what doesn't seem ethical, and helping to work out the kinks in the algorithm.

EIC: It's good to learn that the public service is actively optimising these tools in the public sector. My last question is more personal: if your child says, mum, I want to pursue a degree in archaeology. Or maybe the child wants to go to a dance school. How would you respond?

GK: I think my first question would be: why? I would be supportive as long as he or she can articulate why. My MCCY stint really made me appreciate arts and culture jobs. And while I'm not looking for a specific right answer, I think if someone is able to explain why, that person ought to be given the opportunity. But for everything we want to plunge headlong into,

I also ask for an exit strategy. For example, "Why don't you try it for three years? And then we will review". And if it's not working out for you, then do something else. I'm aware not everyone has the luxury of having that sort of conversation or exit strategy. And the opportunity cost could be very high. If you are someone who has very constrained resources, you may not be able to afford it.

Here's where I think Singaporean society can do better. We have certain stereotypes and we value certain things in a particular way. But if our society is open to what success means and to people pursuing dreams, we'd have many more opportunities and choices. An individual passionate about the arts can still take a role in a bank, and then do arts and culture on the side. For them, the arts is core and their bank job is really just helping to support that passion. With a good variation of opportunities, there will also be others who go into arts and culture knowing that the remuneration isn't going to be the same as their peers.

If you measure your life not in dollars and cents, but in terms of meaning and impact, you can be richer for it; you can end up more fulfilled than your friend who became an investment banker. What we do need is a Singaporean society which values different strengths, and does not make one feel second-class.

EIC: Is there anything we can do to help broaden the meaning of "success"? What can the government do? What can we do as individuals?

GK: Actually, what the government has done is to mainstream some of this. Look at how SOTA, has made mainstream the value of arts and culture. What the fraternity can do is make sure that they're relevant. They should work hard at getting recognised, and demonstrate their value. Then I

think all these other things will naturally fall into place. It cannot be a sector that beats its chest and says, I need the suffering to become a better artist. I don't think the sector can afford to do that. Certainly not in Singapore, because it's irresponsible as well.

It's not going to be overnight. It will take time. Given the fact that I see parents willing to have their kids pursue arts and culture, similar to what I see with our Sports School, I think we are evolving in a good way. More parents today are willing to invest in their children and help them grow. We just need society to come along, to support our own talents.

EIC: That's an optimistic note to end on. Do you have any final thoughts?

GK: I would like to appeal to the arts community not to see the word “economy” as a dirty word. I've talked about how artists need to be relevant, and how they can make a contribution. It's not an “either or” binary. Every time someone uses the word “trade-off”, I stop, pause, and try and change that to an “and”.

So it's never about one extreme or another. It's more about how we can strive to move forward. Hopefully, the arts fraternity embraces that as well. It's not just art for art's sake; it's also about what one can do for society, as well as how one can embrace the economic side of things in order to support their journey towards their overall goals. If we do this well, I believe, over time, society will naturally rally and be prepared to support the arts community.

Some issues we'll have to grapple with are intellectual property rights and how to create good jobs, issues which are related to the economy. So we've got to be quite intentional in how we want to shape that to the advantage of our arts and cultural sector as well.

I understand there is some discomfort with the use of “cultural workforce”. We have to be mindful, but, again, how can the government connect with the arts community such that we can understand their language and they can understand where we're coming from? In reality, the cultural workforce *is* a cultural asset. So how do we help uplift those who work in the sector?

Furthermore, we're not done with the project of nation-building in Singapore. And I believe the cultural sector has a very critical role in nation-building and everything we talked about: identity, building empathy, having a spirit of boundlessness, being able to overcome issues, and dealing with ambiguity. The arts and heritage communities contribute to all of that and play a role in nation-building. Culture helps us understand where we come from and anchors us, even as we make necessary changes for the future.

EIC: Indeed, good reminders for all of us who work in the sector. Thank you, Gee Keow, for the candid and insightful discussion today. We wish you all the best in your new role. □

About the Author



Tan Gee Keow is the Permanent Secretary of the Public Service Division, Prime Minister's Office. Prior to this, she was the Permanent Secretary of the Ministry of Culture, Community and Youth, and had also served in various appointments across the Civil Service. Tan graduated from the London School of Economics and Political Science with a Bachelor of Science in Economics. She obtained her Master of Philosophy in Economics from the University of Cambridge in the United Kingdom, and a Master of Science in Management from the Stanford University Graduate School of Business. During Tan's time at the Ministry, she had the privilege of working with practitioners, patrons and colleagues from the arts and heritage fraternity who were not only professionals in their fields, but were also passionate about how they could make an impact on building a resilient, cohesive, and confident Singaporean society together.

Create for _____?

A Think Piece on the Priorities of Arts Education

Mary Seah

Principal, School of the Arts (SOTA)

In a complex, tech-pervasive and polarised world, how do we help our young minds navigate the future? The Principal of Singapore's only pre-tertiary arts school reflects on their mission, and ponders how creativity will unlock new potential, helping students grow into engaged citizens with fresh perspectives.

At School of the Arts (SOTA), we often ask “What would you create for?”

As Singapore's pre-tertiary arts school, we believe that artistic learners are intentional in their creative acts, and that learning and creating are intimately intertwined. Our students experience learning in diverse ways. They can create origami and other 3D structures to model and test scientific and mathematical solutions. Working in an ensemble, others create a devised play, or find new ways of advancing a tchoukball game. Yet others create to explore, for example, the concept of “monstrosity”, in literary and visual forms, so that they might find a way to unravel the complexities of human behavior.

This spirit of creativity seems more critical now than ever. American anthropologist, historian and futurist Jamais Cascio coined the term BANI—Brittle, Anxious, Non-linear and Incomprehensible—in 2018, partly as a counterpoint to Mark Twain's famous saying that “history doesn't repeat itself, it often rhymes”. When the world seems to “rhyme” less and less these days, BANI offers a way to help us to make sense of the future. Closer to home in Singapore, the Centre for Strategic Futures (CSF) in 2021 developed a set of 17 driving forces for 2040 to spark conversations and build foresight capabilities. What seems clear is that the world is facing an era

of uncertainty and Singapore as a small country will have to figure out how to navigate and adapt to changes.

In such a future, what would we create for? Singaporean artist Tang Da Wu once shared that “artists will be artists, whether or not they went to arts school.” What he probably meant was that the creative spirit of artists would not be doused, whether they are taught, supported or opposed. Their spirit of self-expression and original thinking seems innate. I would like to put forth three compelling, but certainly non-exhaustive, reasons for creative education. It is what we, the educators in SOTA, have been considering deeply in our work with students.

Create to Bring New Value

First, artists create to bring new value to the table. They do this through particular ways of perceiving the world, working through complexity, and expression. With these, there is immense potential for artists to bring value to many other fields and invite others into their own.

The *Future of Jobs Report 2023* by the World Economic Forum highlights the significant shift in skills development. The report points out that, against a backdrop of many jobs being displaced and new ones created, creative thinking was rated the most valued skill by 803 companies surveyed across 45 economies. Back home, while the *Skills Demand for the Future Economy Report 2023/2024*, published by SkillsFuture Singapore, consistently outlines the digital, green and care economies as key growth areas, creative thinking features importantly in all of these



Figure 1. A showcase of the works of graduating Literary Arts students and their teachers which seeks to challenge the boundaries of the written word and explores its potential to redefine writing. 2024. Image courtesy of School of the Arts Singapore (SOTA).

fields. Furthermore, the government's Our SG Arts Plan 2023-2027 has indicated a clear commitment to growing the creative economy, powered by excellence, innovation and internationalisation.

While we acknowledge the importance of creative thinking, what concrete steps are we taking to nurture it in our young?

At SOTA, the ground-up initiatives for arts-academic integration in its early years have now evolved into a model for integrative learning. Here, integrative learning refers to "the creative act of drawing on two or more disciplines in order to better engage with and respond to complexity"¹. This definition rides on the creative character of SOTA learners and their propensity to draw on the arts in concert with other disciplines to navigate complexity. This complexity may take the form of ill-structured problems, multi-faceted questions, paradoxes, tensions and conundrums typical of our times.

Integrative learning in SOTA is broad, traversing multi-, inter- and trans-disciplinary learning, but this traversing needs to be grounded in disciplinary knowledge and skills. The Organisation for Economic Co-operation and Development (OECD) *Future of Education and Skills 2030* report suggests that epistemic knowledge, such as the ability to think like a mathematician or a scientist, are just as invaluable as procedural knowledge.

Similarly, the arts possesses its own epistemology. In arts education, emphasis has been placed, perhaps too narrowly, on honing technical competence. We can do more to help students see the act of creating as a conscious and flexible manipulation of disciplinary elements, methods, processes and forms. Only then can these be fit for use, and applied creatively in new and novel contexts. In 2023, Singapore's Ministry of Education updated its Framework for 21st Century Competencies and Student Outcomes to include adaptive thinking. In this light, it is helpful and illuminating for student



Figure 2. A showcase of original works inspired by the life and works of Zubir Said, the composer of our national anthem. The Artistic Director Sean Tobin, the student and alumni cast, dancers and musicians are pictured here against the backdrop of an audience of primary school students after a post-show talk. 2023. Image courtesy of School of the Arts (SOTA).

artists to seek out the methods, processes and forms of other disciplines, adapting them to their creative process, and thereby enriching and deepening ways of perceiving and inquiring into our non-linear and sometimes incomprehensible world. Anthropological methods, historical investigations, geographical stimuli, mathematical statistics and modelling, and scientific inquiry methods all bear great potential to be borrowed, adapted, and synthesised with artistic and creative processes.

In return, artistic seeing and design thinking offer the STEM and other disciplines much potential for responding to complexity. Singapore’s exhibit at the Venice Architecture Biennale 2023—*When is enough, enough?*—shone a spotlight on measurement in building a loveable city. It explored questions like “Does measuring help make better unmeasurables?”, “How can we tell if our cities feel well?”, “Can we keep half of earth, for earth?”, “Can we like caterpillars as much as we like butterflies?”, “Can we engineer connection?”. This was a thoughtful

experiment in codifying our multidisciplinary responses to defining a loveable city, drawing on the arts, design, engineering, mathematics, ecology, sociology and more.

Singapore’s tertiary institutions have modelled a strong interest in integrative learning. For instance, the Singapore University of Technology and Design (SUTD) has, since its inception, adopted such an approach to structure its curriculum. The Singapore Management University (SMU) boldly started a College of Integrative Studies in 2022, allowing students to design their own majors, defying traditional disciplinary boundaries, while the new University of the Arts (UAS) Singapore has developed a core IN-depth module to broaden interdisciplinary perspectives and nurture a deeper understanding of today’s complex world.

If education is done right, the rest of the world may be persuaded to see that artistic ways of value-adding are invaluable.

Create to Remind Us that We are Human

Artists can find inspiration for their creative endeavours in so many things. Some of these could well stem from an existential crisis! In recent times, some artists create to remind us we are human.

The intersection between art and innovative technology has been a crucible for human progress for centuries. But amid its potential and ability to excite our imagination, there is also controversy. For instance, in 2018, the *Portrait of Edmond de Belamy* made history by being the first work of art generated by artificial intelligence (AI) ever to be auctioned. Created by Generative Adversarial Network (GAN), the work was sold at Christie's for a whopping \$432,500! Developed by Obvious, a Paris-based AI collective, this artwork certainly challenged the legitimacy of artists, and artmaking.

Singapore's CSE, in 2021, pointed to “shifting knowledge infrastructures” and prompted us to think more deeply about the “who”, “what” and “how” of knowledge creation and utilisation. A year later, ChatGPT-4 made its world debut and, in 2024, ChatGPT-4o was rolled out with the capacity to seem even more human. This has created further disquiet in the creative community and among humanists.

Yet, Sougwen Chung's 2023 performance *Realm of Silk* at the Singapore International Festival of the Arts is a fine example of a collaboration between humans and AI, a collaboration that yields full control to neither. A review in *The Straits Times* described it as

“a perspective that defends the human artist without being defensive about human genius”.

Generative AI (GAI) will indeed democratise artmaking, making it accessible to many. However, to tap into GAI for high quality creative work, one must not only have a compelling vision of artistic excellence, but also be open to challenging and disrupting it. While the AI-powered robotic arms in *Realms of Silk* were an extension of Chung's augmented self, she had to master computational thinking, train the arms, and respond to them in real time as co-creators for her performance. The human genius continues to triumph, but not without yielding ground to GAI. It will be interesting to study the effects of technological augmentation on an artist's identity, voice, legitimacy and reach. This, to date, is understandably still an under-researched area.

The elephant in the room is undoubtedly the issue of ethics. David Tan, in his *Cultural Connections* essay last year, touched on three important questions—whether AI may be recognised as an author; whether using copyright-protected works for machine learning (“input”) and the works created from natural language command (“output”) infringe copyright; and whether a fair use defence applies to the above in the context of Singapore's copyright law.

To add to the above, who might step up to develop the frameworks and do the gatekeeping? And who can we trust? Singapore's Infocomm Media Development Authority has published a Model of AI Governance Framework but these are nascent efforts. As we wait for legislation and a model of best practices to emerge, I would like to suggest four things educators could do to prepare students for this technologically transformed future:

1. Modelling ethical considerations

Educators need to embrace GAI in learning and creating, while heightening the need for intellectual honesty. Schools could model an ethically thoughtful stance towards GAI, prioritising respect for the creative work of others, and building credibility through one's honest artistic practice.

2. Developing the concept of artistic excellence

Arts educators could do more to distill the qualities of excellence with their students. They should do this across historical periods and cultures, considering the technologies available in contexts. Student artists need to develop a vision of artistic excellence for themselves in order not to succumb to the convenient standards normalised by GAI.

3. Expanding disciplinary foundations; developing technological literacies

Artists' toolboxes can potentially be expanded by GAI if artists master computational thinking and machine learning sufficiently for these to be added to their disciplinary foundations. Schools may not be fully equipped to teach these now, but they should encourage exposure to and collaborations with industry experts.

4. Cultivating a unique voice

Lastly, in consideration of the three priorities above, we should encourage our students to cultivate a unique artistic voice for themselves, knowing what GAI can help them with, while guarding what it should never replace.

Create to Inspire Deeper Insight and Greater Empathy

At its 10th year anniversary in 2018, SOTA presented a refreshed vision—"Creative Citizens for the Future". In striving toward this vision, the school has attempted to define the concept of cultural leadership for its young students.

Cultural leadership is the act of inspiring others to think, feel, and encounter the world with deeper insight and greater empathy. It is practised not just by leaders; it can be demonstrated in and outside of organisations, by people with and without appointment, rank, position or title.

We have also defined cultural leadership as distinct from traditional notions of leadership in other fields; it holds the capacity to engage with dissonance and uncertainty, and to express and hold on to ambivalence longer, so that a wider range of solutions might be explored.

CSF's compilation of driving forces foresees more tribalisation enabled by technology as weapons of mass disorientation. The government's Forward Singapore conversations (2022-2023) underscore the importance of a new social compact for Singapore amid this turbulence. How do we teach our young to have a view, but to also hold space for dissonance and be patient in engaging with complexities typical of these times? How might we encourage them to draw on the arts to characterise the ambivalent and



Figure 3. Drawing inspiration from the question "What lies beyond?", this piece is a graduation piece choreographed by SOTA Dance teacher Ms Nah Jieying for the 2024 dance cohort. 2024. Photo by Bernie Ng. Image courtesy of School of the Arts Singapore (SOTA).

define the ambiguous? And how can we guide them to be provocative in their artmaking, yet gentle in drawing people out of their echo chambers?

Thinking about the larger cultural sector, we can be thankful that Singapore's Our SG Arts Plan has outlined a connected society as one of its three strategic thrusts with clear aspirations for what the arts can do for our new social compact. Meanwhile, the Our SG Heritage Plan has also elaborated on how heritage could be a powerful unifying tool.

We will need to instill in our young the responsibility of stewarding Singapore's multicultural and multiracial society towards greater resilience. A singular narrative often makes for a brittle society, while a pluralistic tapestry creates enduring strength. If we are able to inculcate in our young a sound disposition toward cultural leadership, we can be confident that the next generation will be able to continue weaving multiple narratives into a rich tapestry.

Conclusion

There is a place for the multi-hyphenated artists of tomorrow, and they are in our schools today. They could be artists, community builders, heritage stewards, creatives and much more. What might they create for? What vision of community, nation and world do we want them to contribute to and shape?

While not all artists may go to arts schools, I firmly believe that they will be more adaptable, more ethically thoughtful, and more likely to make a positive contribution to humanity if they did. Meanwhile, schools like SOTA will continue to create conditions for our students in the arts to flourish as creative citizens.

As for us-policy makers, educators, and arts and cultural leaders, it is useful to take an occasional step back and reflect on the bigger picture: what might we be creating for? □

About the Author



Mary Seah is an educational leader and a passionate advocate for the arts. Trained in music, and having taught it in the early part of her career, she is particularly interested in the potential for the arts in shaping learning and leading in the 21st century. As a curricular leader, Seah has led numerous inquiry teams, most notably in defining the concepts of integrative learning and cultural leadership for her students at School of the Arts, Singapore (SOTA).

Notes

1. This is SOTA's definition of integrative learning. Integrative learning at SOTA is undergirded by three principles. It a) is grounded in deep disciplinarity; b) traverses multi, inter-, and trans-disciplinarity; c) cultivates learner dispositions. Developed in 2023, this model comprises three frames- the conceptual, teaching, and learning frames.

Bibliography

Cascio, Jamais. 2022. "Human Responses to a BANI World." *Medium*, October 22, 2022. <https://medium.com/@cascio/human-responses-to-a-bani-world-fb3a296e9cac>.

Centre for Strategic Futures. 2022. "Driving Forces 2040." Published April 4, 2022. <https://www.csf.gov.sg/media-centre/publications/csf-df-cards/>.

Hoo, Shawn. 2023. "Realm of Silk Is Elegant Proof That AI and Human Artistry Go Hand in Hand." *The Straits Times*, May 22, 2023. <https://www.straitstimes.com/life/arts/theatre-review-realm-of-silk-is-elegant-proof-that-ai-and-human-artistry-go-hand-in-hand>.

Hoyle, Sue. 2016. "21st Century Arts Leadership: Imagining the Future of Cultural Institutions." Video. Accessed October 6, 2020. <https://www.youtube.com/watch?v=Hak9tAWwdPY>. Ministry of Education, Singapore. 2023. "21st Century Competencies." Last updated September 20, 2023. <https://www.moe.gov.sg/education-in-sg/21st-century-competencies>.

National Arts Council. 2023. "Our SG Arts Plan 2023-2027." Accessed May 2024. <https://www.nac.gov.sg/about-us/oursgartsplan>.

National Heritage Board. 2023. "Our SG Heritage Plan 2.0." Accessed May 2024. <https://www.nhb.gov.sg/heritage-plan/about-our-sg-heritage-plan-2>.

Organisation for Economic Co-operation and Development. 2018. "The Future of Education and Skills: Education 2030." Accessed May, 2024. <https://www.oecd.org/en/about/projects/future-of-education-and-skills-2030.html>.

Price, Jonathan. 2017. "The Construction of Cultural Leadership." *ENCATC Journal of Cultural Management & Policy* 7(1): 5-16.

SkillsFuture Singapore. 2023. "Skills Demand for the Future Economy 2023/2024." <https://www.skillsfuture.gov.sg/docs/default-source/skills-report-2023/sdfe-2023.pdf>.

Tan, David. 2023. "Artificial Intelligence as Artist: Copyright and the Rise of Creativity." *Cultural Connections* Vol.8. <https://www.mccy.gov.sg/cultureacademy/researchandpublications/journals/Cultural-Connections-Vol-8>.

World Economic Forum. 2023. *The Future of Jobs Report 2023*. Cologny: World Economic Forum. <https://www.weforum.org/publications/the-future-of-jobs-report-2023/>.

Collective Prosperity: Artificial Intelligence and Arts Education in an Age of Global Transformation

Dr Venka Purushothaman

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A complex transformation of culture around the world is well on the way as humanity confronts artificial intelligence, demographic changes and a need for a new social contract. Educator and university administrator Venka Purushothaman argues for lifelong learning and why higher education needs to focus on soft skills and break down the undergraduate-postgraduate binary.

Culture, as a core concept of humanity, represents people's collective prosperity. Expressed through the arts and heritage, and organised through language, religion, education and politics, culture facilitates the articulation of kinship or shared origins and experiences, and the expression of time-tested resilience against adversities. It demonstrates the riches of a community, enabling its passage over time.

However, Culture (with a capital C) today is knotted in complexities, pushed and pulled in all directions—celebrated yet obscured, freed yet datafied, safeguarded yet ignored, nurtured yet devoured. These multi-directional perspectives of culture are not informed by time-tested collective prosperity but by the desire to capture the essence of living in the moment, what novelist James Joyce might deem "twitterlitter". Be it a sense of self, community, economy or nation, the push/pull levers are in full force at all levels of society, in both advanced and emerging economies, setting the stage for the contestation over information, technology and the environment.

Humanity stands at a new threshold. In attempting to appreciate and yet manage culture as both a creative

enterprise and a policy imperative, cultural and state actors face two key shifts.

Firstly, the entry of artificial intelligence (AI) into the global village heralds the need for a new social contract, one that includes the state, people and technology to collectively articulate their desires for a nation-state, a community.

Secondly, this social contract must acknowledge the dynamic demographic changes stretching two ends of a continuum. High youth populations and their desires clamour for attention for jobs, a better quality of life and the freedom to develop one's sense of identity—an identity which, for the first time in history, is embodied digitally and powered by digital transformation as an extension of being a human. Screentime—the new stimuli for human focus and attention—is driving significant changes in education (online learning), economy (streaming and social media), finance (digital currency and banking), society (new values and interests), and well-being (changing behaviours and addictions).

This is stonewalled by an ageing population base and expectations for better care, enhanced quality of life, and the freedom to protect one's heritage. As advancements in science and health enable life expectancies beyond a hundred years of age, governments and societies have to reckon with redefining concepts such as retirement, pensions, and replaceability at the workplace. A new society is beginning.

While state actors globally are intent on setting an agenda and yielding power over the new, the potential and the effusive, there is an opportunity for collective prospering built around AI and education.

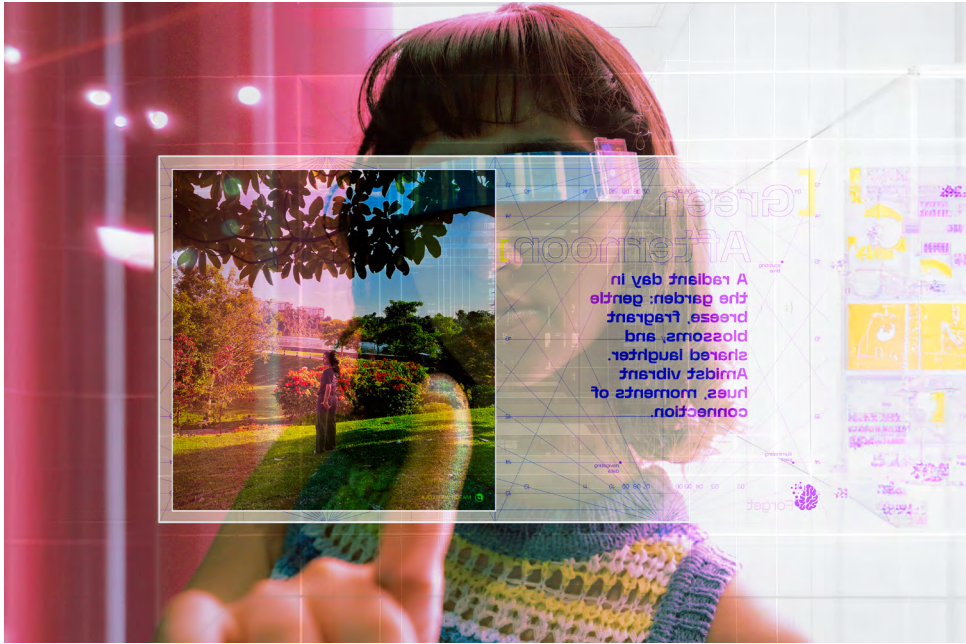


Figure 1. Kashmira Hira Ryat, Diploma in Design for Communication and Experiences, Class of 2024. The project *[Archive]* reflects on the digital era's impact on human identity and urges a thoughtful approach to memory, speculating on AI's ability to preserve, revisit, and even delete memories via digital footprints. Image courtesy of LASALLE College of the Arts.

AI and Cultural Convergence

AI has arrested the imagination of the world, fostering elation and trepidation. AI models, innovates and plays. While humanity's propensity for change is enormous, the speed of change, for that matter, the lightning speed of digital transformation, is alarming yet fascinating. According to a recent International Monetary Fund (IMF) report, 40% of global employment is exposed to some form of AI, and this increases to 60% in advanced economies. This is only the beginning.

AI's herculean potential is in its application to everyday life—converging and transforming policy, processes, ideation, learning, and the anthropology of everyday life. This has a real economic impact on communities. Stanford University's *Artificial Intelligence Index 2024 Report* reveals that "AI makes workers more productive and leads to higher quality work" and "bridges the skill gap between low- and high-skilled workers"¹.

However, I register the view that the obsession with AI will remain limited as long as it remains the exclusive purview of computational work and design, thereby creating inequalities arising out of limited access, inclusivity and literacy around the world, as observed by the United Nations' 2023 interim *Governing AI for Humanity* report. While AI presents tremendous economic opportunities, it places existential stress on stewards of lived and



Figure 2. Design Workshop at LASALLE Open House 2024. Image courtesy of LASALLE College of the Arts.

living practices who plan, maintain and harmonise different aspects of everyday life. People and their erstwhile sectors are guarded, as evidenced by the multilateral governance and security frameworks for AI that have emerged in recent years.

There is an opportunity for the arts and its associated creative industries to engage with AI collectively. The arts' focus on research, experimentation and interdisciplinary mapping aligns with how AI functions. Long before AI became fashionable, artists as researchers were inspired by the computational wizardry of Alan Turing (1924–1954), the interactivity of musician/video artist Nam June Paik (1932–2002) who is known as the founder of video art, and cultural theorist Donna Haraway's *A Cyborg Manifesto* (1985), which provided a social space for technology in the humanities. They, among others, informed contemporary artistic practices to engage

with real-time live experiences, attuning artists to the vagaries of AI.

The AI Index 2024 acknowledges that AI can surpass "human performance on several benchmarks, including some in image classification, visual reasoning, and English understanding" but falters in areas such as visualisation, common sense reasoning and planning. This demonstrates that, as we wrestle with AI-generated work and whatever else it entails besides improving systems and processes, we are pressed to rethink our definition of creativity.

Such reflection can only be beneficial. Here, I postulate the opportunity for the arts and humanities to converge with the emerging AI discourse. We can see both AI and arts professionals as occupants of spaces that require diverse skills, gig economies, interdisciplinary practices and geographical and

digital mobilities. This model lends itself well to the skilled workforce in the creative sector and provides an opportunity to support the emerging invisible economies in the creative industries.

Future of Education: Wherefore, the classroom?

"We are building a new school. The school is an experiment on the sustainability of (both material and immaterial) economies of organization. We want to test the idea of school as a garden of ideas, a laboratory of affects, and a space where new ideas clash and coalesce. We are not yet sure about what can be learned in this school. But we are absolutely sure about not starting from the premises that specify what needs to be learned and not learned. We want to study together, while interrogating the meaning of togetherness."

—*Letters: The classroom is burning* by KUNCI
Study Forum and Collective (2020).

Are classroom walls formidable in the face of digital transformation?

The AI paradigm continues to have a significant impact on higher education. Universities have to, on the one hand, meet the economic pipeline of traditional sectors, while, on the other hand, incorporating disciplinary learning, technology experiences and situated knowledge practices in their curriculum to excite students to become captains of their new economy. Moreover, AI significantly impacts impressionable young learners who may be lured to abdicate their ability to analyse, synthesise

and opine. As digital and kinetic systems enter the classrooms, educators— as custodians of pedagogic and curricular paradigms—flail, grasping the remnants of the 20th century educational systems which transacted education to the marketplace. At the core of the matter are two issues: what kinds of values should a good education espouse in the 21st century, and what are the coordinates of a "new" classroom?

Indonesian artist collective KUNCI provides a possible entry point into the "new" classroom as "a garden of ideas, a laboratory of affects, and a space where new ideas clash and coalesce". An arts school environment is indeed a "garden of ideas and a laboratory of affects" furthering disciplinary enquiries and charting new spaces for the economy.

In this vein, LASALLE College of the Arts has been a beacon of innovation in creative education for over four decades. Recognising early on an under-developed creative sector, in 1993, it launched Singapore's first fine arts degree in Singapore in partnership with Australia's world-ranked RMIT University. Subsequently customising and offering its unique brand of fine arts undergraduate and postgraduate programmes from 2003, it has produced world-leading artists such as Amanda Heng, Zai Kuning, Vincent Leow, Suzanne Victor and Shubigi Rao, several of whom have gone on to complete PhD studies in art. Through deep research as a pillar of an arts education, the college has fostered a pioneering spirit to launch Singapore's and Southeast Asia's first MA in Asian Art Histories, producing unparalleled exploration of the rich and diverse artistic traditions of Asia, and an MA in Art Therapy to address the growing need for therapeutic practices in mental health care. The graduates from both programmes form the backbone of their respective sectors today.

Integral to today's interconnected world, creative education must transcend traditional boundaries, embracing interdisciplinarity and global engagement by providing students with opportunities to work across disciplines, cultures, and continents. The well-established discipline of arts management has undergone a significant change at LASALLE. The undergraduate programme has integrated digital technology as a vector of professional training, applicable to studying digital museums, digital performances, and even digital diplomacy and business.

Similarly, designing the future cannot be left purely to time-tested institutions. The future requires participatory citizenry flexing its creative muscle to engage with change that is afoot. A new undergraduate programme, BA (Hons) Design for Social Futures, aims to do just that in converging the past and enabling today's youth to envision a design contract for their shared social space.

Generative AI—its opportunities, uses, and considerations—is now incorporated into the learning and teaching of these programmes at LASALLE, demonstrating how cutting-edge technology can be leveraged to enhance artistic expression and innovation. But this is balanced with critical thinking skills and contextual studies to enable students to go deeper beyond digital screentime to synthesise information, develop informed decision-making, and sensibly navigate and apply new technologies. In a manner, the future of education is one of balance—ensuring graduates are well-prepared to shape their futures.

Transforming Education and Training

In the last decade, the emphasis on lifelong learning (also known as continuous educational training or professional development) has enraptured governments and economies worldwide.

Lifelong learning was originally seen as an opportunity to “skill” fresh graduates, reskill the plateaued worker, and re-train the retrenched. However, McKinsey’s 2019 research shows that “people who will thrive in the 21st century will be those who embrace lifelong learning and continually increase their knowledge, skills, and competencies”. A paradigm shift in educational policies is emerging. The front-loading of skills for the economy, together with human development in the classroom, is no longer viable. As job and technological transformation occur alongside changes to the cultural makeup of a workforce, the “lifelong work” must be paralleled by lifelong learning so that new skills are acquired, new contexts appreciated, and new ways of thinking introduced.

Artists have always been lifelong learners. Searching, experimenting and discovering, they have an iron-clad mettle of curiosity and adventure that allows them to remain current and plugged into the matters of the day. This form of continuous learning and adaptation informs the essence of the creative industries. A life of learning involves both upgrading hard skills and technical know-how coupled with an openness to new global perspectives. Young creatives are well-positioned to embrace this to the fullest.

The key is to not look at lifelong learning as merely a tool to fill the gap in the economy or align it with prevailing economic or social policies. Often, these function within institutions and are tailor-made for sector requirements. Instead, we must take this opportunity to bridge industry needs, social needs and future enterprise, developing highly motivated people with multiple intelligences and skills to journey through the changing winds of the world. Lifelong learning must be a key tenet of our social contract.

In this regard, higher education must undertake two key changes. First, it must muster the courage to redesign its programme offer to not merely be locked into undergraduate and postgraduate studies. The field of education can be expanded to include durationally-truncated learning opportunities—shorter programmes which will enable localised experimentation, acquisition of highly nuanced skills, and confidence in researching nascent fields. It is vital that lifelong learning shifts away from the individual's desire—which is valid and should be honoured—to acquire skills to fit into a sector towards igniting an individual's creative potential to journey with industry.

The second change is in the area of soft skills. As a response to sectorial gaps, many continuous educational offers in the marketplace divide soft skills (behavioural-communication, creativity, empathy, adaptability) and hard skills (technical skills-knowledge synthesis, analysis, and application) to meet immediate needs. This compartmentalised approach has generated an acquisitive culture of collecting abilities rather than building cognitive attributes through these skills. I stress that soft skills are much more than interpersonal skills. They provide the space to ignite the emotional intelligence residing in all of us, bringing purpose and cognizance to the work that we do.

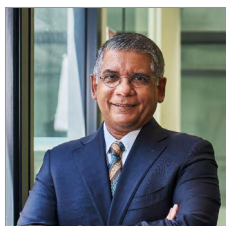
Soft and hard skills contiguously inform and shape every discipline, and this is integral to the future of work. Today, it is vital that higher education integrates them organically into curriculum to enable students to shape their discipline and become stewards of sustainable practices.

In many ways, lifelong learning unlocks that which is within all of us: the ability to multiply our intelligence to survive an ever-complex and exciting world and seek one of the basic tenets of being human, which is to be happy.

As an educator and university administrator, I work in a dynamic environment that exemplifies contemporary creative education; it is innovative, interdisciplinary, technologically-adept, and deeply interconnected with broader societal issues. At LASALLE, our commitment to excellence and innovation ensures that graduates are prepared to succeed and make meaningful contributions to the world around them.

The complex transformations that dictate the 21st century require new learning methods through innovative programmes, fostering global collaborations, and integrating technology into the arts. As we embark on a new social contract, we are at an opportune moment to redefine our collective prosperity through the creative leaders we produce. □

About the Author



Venka Purushothaman, PhD, is Deputy President & Provost at LASALLE | University of the Arts Singapore. He is an art writer, educator and university administrator with a distinguished career in Singapore's arts higher education and cultural industries. His research and writing span international cultural relations and policy, arts education, festival cultures and contemporary art. He founded the Asia-Pacific Network for Culture, Education and Research (ANCER), co-founded the Tokyo-initiated Global Design Initiative, and chairs the Zurich-based Shared Campus. He sits on several expert panels in Singapore, and is a member of the International Cultural Relations Research Alliance at Institut für Auslandsbeziehungen (Germany) and a Fellow of the Royal Society of the Arts (UK).

Notes

1. According to the Stanford University *AI Index 2024 Annual Report*, in 2023, 61 AI models emerged from the US, surpassing China's 15 and the European Union's 21. In tandem, US private investments in AI surged to an astounding US\$67.2 billion while investments in China and the EU declined.

Bibliography

Brassey, Jacqueline, Nick van Dam, and Katie Coates. 2019. "Seven Essential Elements of a Lifelong-Learning Mind-Set." *McKinsey & Company*, February 19, 2019. <https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/seven-essential-elements-of-a-lifelong-learning-mind-set>.

KUNCI Study Forum & Collective. 2020. *Letters: The Classroom Is Burning, Let's Dream About a School of Improper Education*. London: Impress Books.

Maslej, Nestor, Loredana Fattorini, Raymond Perrault, Vanessa Parli, Anka Reuel, Erik Brynjolfsson, John Etchemendy, et al. 2024. *The AI Index 2024 Annual Report*. California: AI Index Steering Committee, Institute for Human-Centered AI, Stanford University. https://aiindex.stanford.edu/wp-content/uploads/2024/05/HAI_AI-Index-Report-2024.pdf.

McCrindle, Mark and Ashley Fell. 2021. *Alpha Generation*. London: Headline.

United Nations. 2023. *Interim Report: Governing AI for Humanity*. New York: Advisory Body for Artificial Intelligence, United Nations. <https://www.un.org/en/ai-advisory-body>.

Education and Training for the Creative Economy: The Need for New Intermediaries

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In an interdependent creative economy, where the traditional arts and cultural fields interact and amalgamate with the creative industries, what strategies will help the landscape thrive? Andy Pratt examines the issues involved and makes a case for new skill sets of translation and intermediation.

Backstory

In the last 25 years we have become aware of the existence, and growth, of the creative industries. These creative industries are different to the traditional arts and cultural fields (which are usually not-for-profit, informal, and/or state-funded). Specifically, they are defined as activities that primarily generate economic value via trading in intellectual property rights, what we would recognise as commercial culture.

The creative industries represent the blending of popular culture and technology that first emerged in the 1930s with film and took off in the 1960s with music and television. In the 2000s, a new technological revolution occurred with respect to the economics as well as craft of cultural production (and, critically, distribution and consumption) which was remade courtesy of the internet and digitisation.

There are many different dimensions of this growth and change, not least that they are particularly sensitive to demographic changes, especially in countries that are dominated by growing youth cohorts (the biggest producers and consumers of

the creative industries) such as those of Southeast Asia, China and India. This growth also has a consequence for education and training, the focus of this paper. Naively, one might expect that the employment prospects and demand for artists (of various kinds) would be the answer. However, I want to argue that, on closer reflection, it is not just more but quite different arts and cultural worker skill sets that will be required, specifically, those of translation and intermediation.

Convergence and Growth

While the contemporary debate about the creative industries began in Europe, it has quickly evolved into a global discourse. This international debate has explored the subtlety and apparent contradictions of the growth of what has become known as the creative economy by United Nations (UN) agencies. The creative economy is a field that bridges the old one of arts and culture, and that of the new creative industries. It is a complex amalgam of commercial and state, as well as formal and informal activities woven together in, by what is best termed, a “creative ecosystem”. UN agencies have refined definitions and, critically, developed monitoring and measures of employment and trade that have surprised many in terms of the scale of importance of the creative economy to wider economies, and to global trade. In an about-turn, politicians and policy makers have latterly come to recognise that the creative economy is about jobs and growth, as well as about identity, branding and soft power. The question is how to support the creative economy?



Figure 1. A cameraman films the crowd at a pop concert.
Photo by Max Ravier from Pexels.

While they were initially conceived of as separate, the creative industries are, in practice, closely related to the traditional fields of arts and culture. The relationship is better characterised as, on one hand, a co-dependency of the for- and not-for-profit activities, state, formal and informal activities. Indeed, some have argued that the fine arts act as the R and D lab of the creative industries. On the other hand, we can note the development and profusion of art forms, disciplines or industries, their lively interaction, and the convergence between them. These two dimensions underpin a dynamic and fast changing field.

The creative economy is growing, and it plays an increasingly important role in both economy and society that politicians, industry, and the general population are fast becoming aware of. However, the logical question is: are we feeding the “pipeline” with sufficiently-trained creatives to achieve and sustain this potential? This is a challenge: does it require simply “more” creatives, or, as I will argue here, a different type of expertise from the traditional one

based on craft skills and excellence? And, what does that mean for education systems?

The Creative Ecosystem

Our traditional notion of artistic and creative training has been focused on particular art forms, training, skills and excellence reflected in the old division of commercial and non-commercial creative and arts activities, as well as the implicit economic value and cultural quality judgements that follow. This sort of formation was suited to the autonomous field of culture that we were familiar with in the early and mid-20th century. In the early 21st century, the role of technology generated low-cost distribution and reproduction, and hence huge makers/audiences were supercharged by the growth, demographics, and in disposable income that the youth represent.



Figure 2. Visitors at S.E.A. Focus 2024. Image courtesy of S.E.A. Focus.

Here, new needs have been created for multimedia and cross-disciplinary arts production, as well as commercial creative disciplines, working in parallel with state-funded activities.

This fast evolving “cultural soup” of activities can be best understood as a vibrant and interdependent ecosystem. As noted above, the different art forms are overlapping, and the traditional boundaries between the commercial and non-commercial are being eroded. This does not mean that everything is becoming the same; rather, that a new organisational form is emerging. Critical to understanding this is the production cycle.

Academics and policy makers have defined this production cycle as progressing through five phases: creating, making, distributing, exchanging and archiving. No matter the art form, this cycle needs to be followed though. Critically, if the cycle is broken or unbalanced, development stalls. Too many artists, not enough venues, lots of performances but too small audiences because they were not educated to appreciate the art forms, not enough skilled artists

to generate output, etc. The challenge then is not only to produce artists and creatives, but all the allied and related enabling activities that mobilise the production system. We’re all familiar with the list of credits that we view at the end of a film; we are often surprised at the job names and length of this list, but we recognise that, without their support, the “stars” would not be able to do their job: they are co-dependent.

This explains why art schools and others involved in creative education have expanded their scope of late, adding the craft skills of writing, scenery, costume, filming and lighting, as well as those of digital effects. However, it has not stopped there. The expertise of management, finance and legal is critical, on the one hand, if artist rights are to be protected and, on the other hand, if intellectual property is to be exploited as a revenue stream. Early experiments in adding a “Business 101” to arts courses have given way to developing new hybrids that appreciate the unique challenges of the creative economy and its unique risk profile, as well as the need for “new intermediaries” to activate this.

Intermediation is key to understanding the “magic” of managing risk innovation/creativity. The received idea of knowledge transfer (akin to passing on a “parcel of knowledge”) ignores the power and processes of networking and collaboration. Instead, we should understand this as an active and intelligent creation of new knowledge in a creative translation and mediation process. Put simply a process where $1+1=3$, a generative process.

The challenge is that, on the one hand, the typical success rate is 20% for a new product or service in the creative sector and, on the other hand, there are potential monopoly profits from the “winner takes all” nature of many cultural fields. Constantly changing products and services requires reinvention, and this necessitates agile processes and personal commitment to learn how to work in and across such project-based enterprises. Let alone to thrive and survive is a hall mark of the contemporary cultural worker. Flexibility is brought for the corporate at the costs of risk and precarity for the individual. Like in a game of musical chairs while the music plays, all seems to go well; however, when the music stops, there is a problem with insufficient chairs. The music stopped with COVID-19.

Learning from COVID-19

One of the lessons that was already known in the creative economy but reinforced by COVID-19 was the challenge of interdependence and resilience. When things stopped, we began to appreciate the precarious state that creative production existed in. The constant pace of activity had obscured the

delicate interdependencies that mediated between different forms and processes. Moreover, we had failed to fully appreciate how often the “added” value was the very ways in which the different components were intermediated and assembled. Quite literally the creative economy is more than the sum of its parts, the overlooked “oil that lubricates the system” the intermediary who possesses not only specific artistic, craft and technical skills, but also deploys the ability to translate ideas and mediate between various agents. It is these translation and intermediation activities that enable the creative economy to thrive. Accordingly, if we want to grow and sustain the creative economy, it is not simply more artists that we need, but more intermediaries.

Two new areas of expertise are required: first, managing in, with and between the commercial and state sectors; and second, managing with the process of cultural production. The former is more obviously understood, the latter needs some elaboration. Both are difficult. Managing within cultural production refers to the challenge of aligning the cycle of cultural production. An artist on their own does not communicate to anybody. However, given an informed audience, a venue, and opportunity to meet other audiences, then there is the potential to grow and develop.

It is striking that this transversal—relational—horizontal networking that is characterised by the creative sector has been slow to be appreciated. Once recognised, it remains difficult to map and monitor (as it is, by definition, “in-between” organisations, measurement, and accounting systems), let alone to support and sustain. These challenges are not only for creative practitioners across the ecosystem, but for policy makers who are also constrained by their own “silos” of organisation and remit. Policy-making has often been seen as a task of balancing inputs and outputs (artists and cultural experiences).

However, perhaps it is time to focus on governing and sustaining the ecosystem rather than legislating on the value of potential outputs.

The task is to recognise organisational challenges, as well as those of individual workers who need to be able to reach across organisational boundaries (commercial/not-for-profit, state/civil society, etc.) to make things happen. Organisational flux is possible when there are skilled individuals that not only have particular skills in a narrow field, but also have the translation skills to work across boundaries. This is a lesson that is being learned in the cultural sector, and that is percolating to the wider economy as well.

The creative economy is not a unicorn; rather, to mix metaphors, it is more “a canary in the coal mine”. On reflection, we will also need to rethink the relevance of the traditional science and maths (STEM) toolkit. In short, it’s not simply a question of adding some arts/creativity to this model (referred to as STEAM) as seems to be implied by revisions to the 2021 OECD Programme for International Student Assessment (PISA) test; rather we need to go further in developing new connective skills and institutions that can translate and mediate what traditionally have been seen as separate knowledge domains of the arts and sciences: only this will deliver real added value (commercial and cultural). □

About the Author



Andy C Pratt is UNESCO Chair of Global Creative Economy, and Professor of Cultural Economy, City, University of London. He established the first Department of Culture and the Creative Industries in the world at King's College London. He previously taught at LSE, and UCL, and had held visiting professor positions at many institutions including Singapore Management University (SMU) in Singapore, Zurich University of the Arts (ZHdK) and Eidgenössische Technische Hochschule Zürich (ETH) in Zurich. He specialises in the analysis of the cultural industries globally, and his current research projects include trans-local cultural production chains and diversity in the creative economy. He has worked with UNESCO, UNCTAD, WIPO, and many national and city government on these topics. Until 2023, he was Editor-in-Chief of the international interdisciplinary journal *City, Culture and Society*.

Bibliography

Gill, Rosalind, Tarik E Virani, and Andy C. Pratt. 2019. *Creative Hubs in Question: Place, Space and Work in the Creative Economy*. London: Palgrave Macmillan.

Pratt, A. C. 2017. "Innovation and the Cultural Economy." In *The Elgar Companion to Innovation and Knowledge Creation*, edited by H. Bathelt, P. Cohendet, H. S. and L. H. Simon, 230-243. London: Edward Elgar.

Pratt, A. C. 2018. "Beyond Resilience: Learning from the Cultural Economy." In *The Role of Art and Culture for Regional and Urban Resilience*, edited by P. Cooke and L. Lazzeretti, 127-139. London: Routledge.

Pratt, A.C. 2021. "Creative Hubs: A Critical Analysis." *City, Culture and Society*: 24(1).

Pratt, A. C. 2023. "Film Making as a Creative Ecosystem: The Case of Soho in London." In *Global Creative Ecosystems: A Critical Understanding of Sustainable Creative and Cultural Production*, edited by T. E. Virani, 21-38. Berlin: Springer.

Virani, T.E., ed. 2023. *Global Creative Ecosystems: A Critical Understanding of Sustainable Creative and Cultural Production*. Berlin: Springer.

AI and Quantum Computing— The Next Revolution in the Arts?

Wahab Yusoff

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Technopreneur and veteran in the IT industry, Wahab Yusoff examines the dynamic intersection of culture and technology, weighing the limitless opportunities against the risks and challenges.

The intersection of artificial intelligence (AI) and quantum computing is poised to revolutionise various sectors. The arts and culture sector will not be spared its impact. These technologies promise to bring about significant transformations in creative processes, job landscapes, and the very nature of artistic production.

In this article, we examine the short-term, mid-term, and long-term impact of AI and quantum computing on the arts, highlighting the latest insights and projections from a scan of authoritative sources. We also consider what Singapore's cultural sector can do in response, and how technology can attract new audiences and foster innovation.

Short-Term Impact

We can already see the impact of AI in many aspects of our daily lives.

In the creative sector, AI is already enhancing artistic workflows by automating repetitive tasks such as colour correction, animation, and basic music composition. For instance, tools like Amper Music and AIVA (Artificial Intelligence Virtual

Artist) enable users to compose original music by using AI algorithms that generate music based on input parameters set by the user. Similarly, Adobe Premiere Pro leverages AI through its Adobe Sensei technology to offer intelligent video editing features, such as auto-reframing and scene detection, which significantly speed up the editing process. These tools not only increase efficiency but also expand the creative potential for artists by offering advanced capabilities.

However, this automation has a dual impact on the job market. While some technical roles may face displacement, new job categories such as AI operators and data curators are emerging, necessitating a shift in skillsets.

Quantum computing, on the other hand, is still in its nascent stages, and its immediate impact on the arts is limited. Currently, quantum computing is being explored in experimental applications and theoretical models that could eventually transform creative processes. However, its widespread practical application in the arts is yet to be realised.

Mid-Term Impact

As AI technology continues to evolve, it will become more deeply integrated into creative processes. This integration will enable the creation of hybrid art forms and personalised art experiences tailored to individual preferences. The mid-term impact will see a significant shift in the job market, with increased demand for tech-savvy artists and professionals skilled in AI ethics, programming, and creative AI

development. The role of artists will increasingly involve collaborating with AI to produce innovative works, thus blending traditional artistry with cutting-edge technology.

In the performing arts, AI can enhance live performances through real-time audience engagement analytics, enabling performers to adjust their acts based on audience reactions. This technological integration can create roles for performance analysts and AI-driven directors who interpret data and make on-the-fly adjustments to enhance audience experience.

Quantum computing will start to make its presence felt more significantly in the mid-term. Its enhanced processing power will be utilised for complex rendering tasks, simulations, and real-time data processing, enabling more intricate and interactive art projects. This period will also see the creation of new job roles in quantum programming and algorithm development tailored for artistic applications.

Long-Term Impact

In the long term, AI may reach a stage where it can create original artworks independently, raising profound questions about authorship, intellectual property, and the nature of creativity. AI-driven platforms will facilitate global collaboration among artists, breaking down geographical barriers and fostering a new era of interconnected creativity. The job landscape will undergo a significant transformation, with a focus on interdisciplinary roles that combine expertise in art, technology, and

ethics. Continuous learning and adaptation to new tools and methodologies will be essential for artists to thrive in this evolving environment.

Quantum computing will revolutionise the arts by introducing entirely new artistic mediums and experiences. The development of immersive quantum-generated virtual realities and interactive installations will redefine the boundaries of artistic expression. Advanced real-time simulations will allow for unprecedented levels of interactivity and realism in digital art. The demand for quantum computing expertise in the arts will rise, leading to specialised educational programs and training initiatives. Artists will need to understand quantum principles to fully leverage this technology in their creative processes.

What Does this Mean for Jobs in the Cultural Sector?

There is no doubt that some traditional roles in the sector will be affected. Jobs such as traditional animators, session musicians, and manual video editors may see a decline as AI takes over repetitive tasks. Other roles will require new skills and undergo dramatic transformation; for instance, a composer might need to understand AI tools for music composition.

While some jobs may disappear, there will be opportunities as well, including these new roles:

- ◇ **AI Operators:** Professionals who manage and operate AI tools.

- ◇ **Data Curators:** Specialists who prepare and manage data for AI systems.
- ◇ **Performance Analysts:** Experts who use real-time data to enhance live performances.
- ◇ **AI-Assisted Choreographers:** Choreographers who design dance routines using AI.
- ◇ **Digital Stage Managers:** Managers who use AI to control stage lighting and effects dynamically.
- ◇ **Quantum Effects Artists:** Artists who use quantum computing for visual effects and animation.
- ◇ **Interactive Installation Designers:** Designers who create interactive art installations leveraging quantum computing and AI.

who cannot. At the same time, we need to leverage the opportunities that technology will present.

Legislation and government policy will also need to keep pace to ensure that technology enhances rather than diminishes the human element in culture. As digital platforms become more integral to the arts, issues of digital security and intellectual property protection will need to be addressed to safeguard artists' rights and works. This will demand a new level of technical understanding among policy makers, even as it prepares the populace for the integration of groundbreaking technology in our day-to-day lives.

More immediately, technology adoption must include the issue of digital security and privacy. As artists increasingly adopt digital tools and platforms, there will be a pressing need to address cybersecurity concerns. The digitisation of art and the proliferation of online platforms expose artists to risks such as unauthorised reproductions, intellectual property theft, and other forms of digital exploitation. An insidious example of this is the proliferation of deepfakes. Deepfakes, which use AI to create highly realistic but fabricated images, audio, and videos, blur the line between authenticity and manipulation. This technology can be misused to create counterfeit works, misattribute creations to famous artists, or produce unauthorised reproductions that undermine the value of original works.

How Can the Sector Rise to the Challenges and Opportunities?

Clearly, significant investment will be required in digital infrastructure and training to help artists and institutions stay abreast of technological advancements and potential job disruptions. Funders need to understand the real risk that the rapid pace of technological change could outstrip the ability of some artists to adapt, potentially widening the gap between those who can leverage these tools and those

Additionally, deepfakes can manipulate performances and create misleading or harmful content, tarnishing the reputations of artists and performers. Thus we need robust ethical guidelines and advanced detection methods to protect the integrity of artistic expression and prevent the erosion of trust. Addressing these challenges for the cultural sector requires a concerted effort from artists, institutions,



Figure 1. A member from Tusitala wearing the Microsoft HoloLens 2 to demonstrate projection mapping and immersive audio functions of *The Colonel and the Hantu*, a project supported under the Arts x Tech Lab 2021/22. The screen on the laptop shows the view from the HoloLens 2, which presented scenes from Singapore's history in a panoramic format. Image courtesy of The National Arts Council (Singapore).

and technology providers to ensure that the benefits of digital innovation do not come at the cost of authenticity and ethical standards.

The impact of technology on traditional arts is another area of concern. These are older forms of artistic expression, tied to our ethnic identities and less likely to be taught in modern art schools. Traditional artists might find it challenging to compete with digital mediums, which can offer more immediate and immersive experiences. However, technology can also become a means of preserving and revitalising traditional arts. For example, digital archives and virtual reality can bring these older art forms to a global audience, ensuring their continued relevance.

The Critical Role of the Government

Agencies like the National Arts Council (NAC) in Singapore play an expanded role as an aggregator, platform provider, and broker for self-employed artists, and arts companies, facilitating their integration into the digital age. As a sector lead for the arts, the NAC provides essential support and resources, bridging gaps between artists and technological advancements. Self-employed artists, often operating without the institutional backing that larger organisations enjoy, face significant challenges in adopting technology. The high cost of digital tools and software can be prohibitive, especially for those already managing tight budgets. Additionally, the steep learning curve associated with mastering new technologies poses a barrier, requiring time and effort that could otherwise be spent on creative endeavours.

To address these challenges, the NAC offers grants, workshops, access to cutting-edge technology, and a comprehensive digital platform for collaboration and exposure. By doing so, the NAC empowers these interested artists to overcome financial and educational constraints, ensuring they remain



Figure 2. Dancers from Bhaskar's Arts Academy being featured through holomesh projection at *Routes: A Multi-Perspective Exploration of Traditional Arts* in Singapore, an immersive exhibition about Singapore's dance pioneers and practitioners presented at Stamford Arts Centre from 1 July to 12 September 2021. Image courtesy of The National Arts Council (Singapore).

competitive and innovative in a rapidly evolving digital landscape. The rapid pace of technological change and the constant influx of new information make this a highly dynamic and challenging environment. Providing continuous support and updated training programs will be crucial for artists to keep pace with technological advancements.

NAC's current strategic roadmap *Our SG Arts Plan* (2023-2027) emphasises digitalisation as a key strategy. This plan outlines initiatives and funding opportunities designed to help artists and arts organisations leverage digital technology for artistic creation, audience engagement, and operational efficiency. Additionally, the NAC's offers capability development funding which can support the upskilling of artists and arts professionals in digital competencies.

The NAC also collaborates with other agencies such as the Cyber Security Agency of Singapore (CSA) to play a vital role in mitigating cyber risks by providing cybersecurity guidelines, resources, and support to help artists safeguard their work and maintain the

integrity of their digital creations. By prioritising cybersecurity, the NAC ensures that artists feel confident in using digital tools and platforms, fostering trust and innovation in the arts community.

In addition to the NAC, other government agencies and institutions contribute to the digital transformation of the cultural landscape in Singapore. For instance, the Infocomm Media Development Authority (IMDA) provides digital literacy programs and technological resources that artists can leverage. Collaborations between the IMDA and cultural organisations can lead to the development of innovative projects that integrate technology and the arts, further enriching the way Singaporeans live, work and play.

Educational institutions, too, have a significant role to play in equipping the next generation of artists and cultural workers with the necessary skills to navigate the digital world. By incorporating technology-focused curricula and providing access to state-of-the-art facilities, schools and universities prepare students for the demands of a digitally-integrated

cultural industry. There can be more partnerships between educational institutions and tech companies facilitating internships and mentorship programs, while offering students practical experience and exposure to the latest technological trends.

The role of government and relevant agencies in technology adoption and digitalisation in the arts is multifaceted. By providing financial support, educational resources, cybersecurity measures, and fostering collaborations, they can help artists overcome the barriers to digital integration. This concerted effort ensures that Singapore's cultural scene remains vibrant, innovative, and globally competitive in the digital age.

planning for the long-term, Singapore can fully embrace the transformative power of technology in the arts, and aspire to become a global benchmark for innovation, creativity, and cultural enrichment in the digital age. □

Looking to the Future

Without doubt, the advent of AI and quantum computing heralds a new era for the arts, characterised by enhanced creativity, efficiency, and innovation. These technologies will transform artistic practices and the job market. Artists and professionals must navigate these changes by embracing continuous learning and interdisciplinary collaboration.

The future of the arts lies at the confluence of traditional creativity and cutting-edge technology, promising a rich tapestry of new possibilities and experiences. This fusion of technology and the arts in Singapore is poised to elevate the nation's cultural landscape to new heights, but we all have the collective responsibility to be cognizant of its inherent issues and risks. By addressing the challenges of digital infrastructure, skill development, artistic authenticity, and intellectual property, and

About the Author



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Bibliography

Georgieva, Kristalina. 2024. "AI Will Transform the Global Economy. Let's Make Sure It Benefits Humanity." *International Monetary Fund Blog*, January 14, 2024, www.imf.org/en/Blogs/Articles/2024/01/14/ai-will-transform-the-global-economy-lets-make-sure-it-benefits-humanity.

Hazan, Eric., Anu Madgavkar, Michael Chui, Sven Smit, Dana Maor, Gurneet Singh Dandona, and Roland Huyghues-Despointes. 2024. "A New Future of Work: The Race to Deploy AI and Raise Skills in Europe and Beyond." *McKinsey Global Institute*, May 21, 2024. www.mckinsey.com/mgi/our-research/a-new-future-of-work-the-race-to-deploy-ai-and-raise-skills-in-europe-and-beyond.

World Economic Forum. 2023. *Jobs of Tomorrow: Large Language Models and Jobs: White Paper September 2023*. Cologne: World Economic Forum. https://www3.weforum.org/docs/WEF_Jobs_of_Tomorrow_Generative_AI_2023.pdf.

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

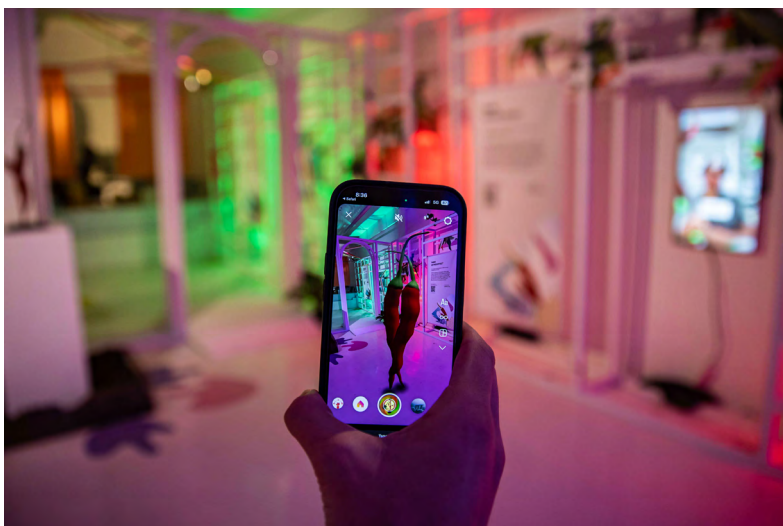


Figure 2. Tango—AR in action (Kumari Nahappan and SERIAL CO.) at Art Reimagined Singapore 2022. Image courtesy of The MeshMinds Foundation.

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.

Bibliography

Dawson, Aimee. 2020. "Augmented Reality: The Artists and Museums Pushing the Limits of Technology Through Instagram." *The Art Newspaper*, March 11, 2020. <https://www.theartnewspaper.com/2020/03/11/augmented-reality-the-artists-and-museums-pushing-the-limits-of-technology-through-instagram>.

Govan, Michael. 2013. "David Hockney." *Interview Magazine*, November 5, 2013. <https://www.interviewmagazine.com/art/david-hockney>.

International Council of Museums. 2021. *A Year to Recover and Reimagine: ICOM Annual Report 2021*. Paris: International Council of Museums. <https://icom.museum/en/news/2021-icom-annual-report-a-year-to-recover-and-reimagine/>.

Schwartz, Alexis. 2022. "Hans Ulrich Obrist and Daniel Birnbaum on the New Digital Art Space." *L'OFFICIEL*, December 2, 2022. <https://www.lofficielusa.com/art/hans-ulrich-obrist-daniel-birnbaum-vr-ar-digital-art>.

UNESCO. 2020. "Cutting Edge: Protecting and Preserving Cultural Diversity in the Digital Era." Last updated April 20, 2023. <https://www.unesco.org/en/articles/cutting-edge-protecting-and-preserving-cultural-diversity-digital-era>.

World Economic Forum. 2020. *The Future of Jobs Report 2020*. Cologny: World Economic Forum. <https://www.weforum.org/publications/the-future-of-jobs-report-2020/in-full/>.

The Four- Letter Problem: Thoughts on Cultural Leadership and Cultural Work in a VUCA/BANI World

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In the brave new world after the global pandemic, how has cultural work shifted, and what does leadership mean for this dynamic sector? Joy Tan, who has served on the boards of cultural organisations, offers a perspective.

It is two years post-COVID-19. Holographic avatars of 1960s-era ABBA are playing to sell-out crowds at the Queen Elizabeth Olympic Park in London. Liu Cixin's cerebral science fiction novel 三体 (*The Three-Body Problem*) has been turned into an eight-episode Netflix series in English for an international audience. Legislation has just been passed requiring Singaporean employers to make flexible work arrangements available, though this may be futile if Elon Musk is right about the future and jobs for humans disappear.

That future has never been brighter—or more uncertain. On one hand, advances in medicine, public health, and living standards mean that overall life expectancy has more than doubled since 1900, while the proportion of the global population living in extreme poverty has fallen from 50% in 1950 to less than 10% in 2019. Conversely, wars, climate change, and, yes, the digital revolution, are not just disruptive forces, but pose existential challenges for the world and Singapore.

The global uncertainty is indisputably more of a problem for the cultural sector. Its workers and practitioners, particularly those in the performing arts, enjoy less job resilience and career security than workers in more traditional industries. They suffer disproportionately from precarity, largely because of the pervasiveness of freelance, short-

term, casual, undocumented, and underpaid work in the sector. This was amply illustrated by the impact of COVID-19. The Organisation for Economic Co-operation and Development's (OECD) 2022 report indicates that 30% of cultural workers are self-employed compared with the OECD average of 15%. In Singapore, the latest statistics show that one in three workers in the cultural sector is self-employed.

The decades-old business school parlance VUCA—describing the volatile, uncertain, complex and ambiguous global environment—has evolved. The post-pandemic world appears to now be encapsulated by a new set of four letters, BANI, reflecting a world that is no longer only volatile but brittle, not just uncertain but now anxious, no longer merely changing but nonlinear, and not simply ambiguous but incomprehensible. How can our sector's leaders and workers better ready ourselves for this VUCA/BANI future?

Four Leadership Solutions: Agility, Transparency, Community, Purpose

What an uncertain and disrupted environment most requires, according to Harvard Business School, is agile leadership and organisational flexibility. Leaders should recognise the most detailed budgets and scenarios can be superseded overnight. Rather than stick to rigid annual plans, they need to foster a climate of experimentation, learning, and enthusiasm for the unknown.



Figure 1. Adrian Pang (left), Gaurav Kripalani (centre), and Ivan Heng (right) in *The Commission*, a co-production by Pandemonium, Singapore Repertory Theatre and Wild Rice, 2021. Photo by Crispian Chan. Image courtesy of the Singapore Repertory Theatre.

Corporate leaders can learn much about agility from the cultural sector, and the artistic process. Take for example the inherently fluid, dynamic and improvisational nature of jazz. During a performance, the orchestra plays itself, riffing off of each other, in an echo of the US War College's adage, "Plans are worthless, but (the planning process) is everything". Performing artists learn to deal with the unexpected by practising their craft and experimenting on-the-job.

Another key leadership quality is transparency. Keeping stakeholders in the dark and hoarding information within a small group of power brokers is no longer an advisable boardroom tactic. Given the challenges to comprehend, let alone plan for, a brittle and nonlinear future, surely the best way to address an anxious workforce and business partners is via a culture of openness and accountability? Leaders should surface problems as they arise, clearly communicate what isn't working, and take responsibility for solutions.

Cultural leaders and workers intuitively know the transformative power of the arts on the human spirit, but also believe that arts organisations are essential to a flourishing community and world. Leaders should see their organisations first and foremost as part of an ecosystem, and, as Kenneth Foster argues in the 2nd edition of *Creating Sustainable Arts Organisations*, our missions should encompass engaging with our wider community.

A critical part of that ecosystem approach is collaboration. The boards I have been involved in have striven to galvanise willing partners and participants. For example, in its mission to promote Singaporean Chinese culture, the Singapore Chinese Cultural Centre (SCCC) has commissioned projects that bring together different cultures and languages as well as different arts disciplines. During the pandemic, the Singapore Repertory Theatre (SRT) partnered other English-language theatre companies—Pandemonium and Wild Rice—to create original works, *The Pitch* and then *The*

Commission. Creativity is multiplied in a shared open-source environment, and this inclusivity enriches art-making as well as the larger ecosystem.

While for-profit leaders today speak of looking beyond shareholders to stakeholders, of putting purpose before profits, non-profits have always had purpose as their *raison d'être*. This will certainly not be new for cultural leaders; nonetheless, it is a reminder that they should regard themselves as stewards of public interest.

Clarity of purpose came to forefront when, earlier this year, SRT's planned rebrand intended to reflect our 30-year journey as a Singaporean theatre company met with unexpected criticism from peers in the community. Reflecting on our deeper purpose, we listened to our stakeholders and took the decision to revisit the rebrand. I'd like to believe this was a modest demonstration of agility and transparency; more importantly, it showed us putting our community first, and centring our purpose to promote Singapore theatre.

How do we build better cultural boards for this VUCA/BANI era? Conventional business strategy correctly puts diversity at the forefront. Directors with different skillsets (finance, legal, donor stewardship) and different life experiences will maximise the insights, perspectives and abilities needed to helm cultural organisations. Of course, such directors must embrace the leadership qualities discussed earlier, and be united in the organisation's purpose.

Resilience in the Cultural Sector: Will There be No Jobs in Future?

While cultural jobs can be precarious and vulnerable to disruption, the sector also has tremendous potential for growth. UN Trade and Development (UNCTAD) estimates the global market value of the world's creative industries at USD1.3 trillion, and pre-COVID sector growth rates in OECD countries outstripped other business (18% vs 12%). According to the OECD, the UK's cultural and creative sector engages in more product, process and organisational innovation than the rest of the economy. In Singapore, the nominal value-add from the creative economy, which includes the arts and culture sector, increased by almost 50% over the past five years to SGD11.7bn in 2022.

Other studies suggest that, despite being among the sectors worst hit by the pandemic, cultural organisations might be more resilient than others, and cultural workers might weather disruption better than other types of workers. Henley Business School's Benjamin Laker argues artists are inherently entrepreneurial and nonconforming, embracing moving targets and constantly learning. Examining the industry's inclusiveness and flexible organisation structures, its use of technology and employment of creative and technical talents, Laker argues that these resilience strategies apply across all sectors.

Certainly, the industry has a head start on what has emerged as a general post-pandemic demand for flexible working and self-employment. In the 2023 International Labour Organisation (ILO) report,



Figure 2. The cast of the *Goldilocks and the Three Bears*, a production by the Singapore Repertory Theatre 2023. Photo by Crispan Chan.
Image courtesy of Singapore Repertory Theatre.

the key future trends in the arts sector identified are technological advancements and the change in consumer and market dynamics. Even pre-pandemic, digitalisation had already been transforming the ways people engaged with culture, spurring new business models and new skills needs. The sector responded by adopting virtual performances that expand audience reach, and developed new models of production and consumption which have been mainstreamed across other adjacent sectors. We should thus regard Netflix and ABBA Voyage—and other creative-economy innovations which compete with more traditional arts audiences—as opportunities and potential for collaboration.

According to Goldman Sachs, generative artificial intelligence systems will disrupt around 300 million full-time jobs globally and substitute up to a quarter of current work. This includes creative jobs. Already AI image generators like Midjourney are being used to create concept art for marketing campaigns and the gaming industry, while GPT3-based Jasper can produce social media posts, sales emails and first

drafts. The cultural industry is right to be concerned, and to push for greater AI guardrails, as seen by the US Screen Actors' Guild recent AI deal and various intellectual property infringement lawsuits over the unauthorised scraping of creative work to train AI models.

Furthermore, Goldman's report suggests that generative AI could lead to significant labour cost savings, automating up to 26% of work tasks in the arts and entertainment sectors, and could not only augment existing jobs but create others in entirely new fields; it could even eventually increase annual global GDP by 7%. McKinsey Global Institute's 2023 report indicates that AI will have a net positive impact on arts and creative jobs in the US of up to 11% by 2030. As YouTube CEO's Neal Mohan said at this February's World Economic Forum (WEF) at Davos, AI should not be a replacement for human creativity, but a tool to enhance and "democratise" the creative process.

Recent examples of how creatives are harnessing technology, to inclusive and democratising effect: Canadian singer Grimes recently launched AI software Elf.Tech that allows others to sing with her voice, offering to split the royalties generated. At home, Inch Chua's *Myles: The Perfect Soulmate*, commissioned by SRT for this year's Singapore International Festival of Arts (SIFA), is an anti-musical that uses immersive AI technology to explore the human-AI relationship. The central idea is to get AI sufficiently "trained" to create a seamless performance in real time on each night of the show.

The Case for Creativity: "The Ultimate Fate of All Intelligent Beings"

What skills are needed by cultural workers of the future? To capitalise on the digital transformation, the International Labour Organization (ILO) suggests cultural workers develop digital literacy, which it estimates more than half of the jobs in 2030 would require. There will also be anticipated demand for technical skills related to digital performance and production processes (including sound engineering, digital video production, and familiarity with virtual and augmented reality technologies). The need for such hybrid, cross-disciplinary skills have also been reflected in the National Arts Council's 2024 Skills Framework for Arts.

Like other Singaporean arts groups, the SRT has seen an increased need for such digital and technical skills in both the production and operational/front-

of-house ends of the business. The company has also launched a digital initiative to make not only our shows but also our learning and engagement resources remotely accessible. Thus, young theatre professionals currently emplaced in our residency programme (many of whom continue to work full time in the industry) can be expected to utilise hybrid skills that combine artistic and technical expertise, as well as culture-adjacent skills like UX design and social media platform management.

Similarly, the SCCC promulgates the use of technology and digital skills by making digital outreach one of the key metrics in their programming commissions. Its performance venues are already digitally capable. And this year, the centre will launch an online repository of historical and archival cultural material.

To help transform the skills in the sector, educational institutions and training programs have stepped up by offering interdisciplinary courses that bridge the gap between traditional arts education and the demands of the digital ecosystem. I know of the Nanyang Academy of Fine Arts' (NAFA) *Metaverse: Introduction to Augmented Reality Design* and LASALLE College of the Arts' interdisciplinary project modules, but I'm sure there are many others out there.

Still, I would consider the most important skill to be creativity. Elon Musk's views notwithstanding, creativity seems the most important difference between our human intelligence and a generative artificial one that is (at least for now) merely a high-functioning predictive model. Creativity, I believe, will be the skill least likely to be replaced by AI; it is critical for future-readiness and it's one that cultural workers inherently possess. Indeed, in *A Whole New Mind: Why Right-Brainers Will Rule the Future*, Daniel Pink argues that the future belongs

not to left-brained lawyers and accountants, but to creative and holistic right-brain thinkers whose creativity and emotional intelligence will better equip them to succeed in a disrupted, unscripted world. In his BANI-originating *Facing the Age of Chaos*, Jamais Cascio makes the same case for right-brained intuitive, empathic and mindful leadership to helm humanity's journey through a chaotic future.

Around the world, policymakers now recognise arts and culture as drivers of innovation and economic benefit, and the creative economy is more a buzzword than ever. Cultural leaders, arts practitioners and cultural workers should recognise our importance in this ecosystem, while reminding ourselves that what we do best is also what makes us human. Liu Cixin's fictional protagonists may not have managed to safeguard their future via left-brained science; it's up to us to co-create a better tomorrow through culture and the arts. □

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Joy Tan serves on WongPartnership LLP's Executive Committee, and co-heads the Firm's Commercial & Corporate Disputes and Corporate Governance & Compliance Practices. A cross-disciplinary practitioner with over 20 years of experience in dispute resolution, corporate governance and contentious investigations, she advises corporates and financial institutions on a broad spectrum of business disputes and corporate governance/ compliance challenges. Tan serves an independent director on various for-profit as well as non-profit boards, including as Income Insurance Ltd, Singapore Health Services Ltd, and the Singapore Chinese Cultural Centre. She chairs the Singapore Repertory Theatre.

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Bibliography

- Cascio, Jamais. 2020. "Facing the Age of Chaos." *Medium*, April 30, 2020. <https://medium.com/@cascio/facing-the-age-of-chaos-b00687b1f51d>.
- Ellingrud, Kweilin, Saurabh Sanghvi, Gurneet Singh Dandona, Anu Madgavkar, Michael Chui, Olivia White, and Paige Hasebe. 2023. "Generative AI and the Future of Work in America." *McKinsey Global Institute*, July 26, 2023. <https://www.mckinsey.com/mgi/our-research/generative-ai-and-the-future-of-work-in-america>.
- Fancourt, Daisy, and Saoirse Finn. 2019. *Health Evidence Network Synthesis Report 67: What Is the Evidence on the Role of the Arts in Improving Health and Well-Being? A Scoping Review*. Copenhagen: WHO Regional Office for Europe. <https://iris.who.int/handle/10665/329834>.
- Fletcher, Angus, Thomas L. Gaines, and Brittany Loney. 2023. "How to Be a Better Leader Amid Volatility, Uncertainty, Complexity, and Ambiguity." *Harvard Business Review*, September 28, 2023. <https://hbr.org/2023/09/how-to-be-a-better-leader-amid-volatility-uncertainty-complexity-and-ambiguity>.
- Foster, Kenneth. 2023. *Arts and Cultural Leadership: Creating Sustainable Arts Organizations*. UK: Routledge Taylor & Francis Group.
- Goldman Sachs. 2023. "Generative AI Could Raise Global GDP by 7%." Published April 5, 2023. <https://www.goldmansachs.com/intelligence/pages/generative-ai-could-raise-global-gdp-by-7-percent.html>.
- International Labour Organization. 2023. *The Future of Work in the Arts and Entertainment Sector — Report for the Technical Meeting on the Future of Work in the Arts and Entertainment sector (Geneva 13-17 February 2023)*. Geneva: International Labour Organization, Sectoral Policies Department. <https://www.ilo.org/publications/future-work-arts-and-entertainment-sector>.
- Khlystova, Olena, Yelena Kalyuzhnova, and Maksim Belitski. 2022. "The Impact of the COVID-19 Pandemic on the Creative Industries: A Literature Review and Future Research Agenda." *Journal of Business Research*, vol. 139 (February), 1192–210. <https://doi.org/10.1016/j.jbusres.2021.09.062>.
- Laker, Benjamin. 2023. "Leaders Can Learn Much From The Creative Industries, Says New Research." *Forbes*, April 12, 2022. <https://www.forbes.com/sites/benjaminlaker/2022/04/12/leaders-can-learn-much-from-the-creative-industries-says-new-research/>.
- Ministry of Culture, Community, and Youth, Singapore. 2024. "Growth of the Creative Economy in Singapore: Response to parliamentary question on the growth of the creative economy in Singapore." Published February 5, 2024. <https://www.mccy.gov.sg/about-us/news-and-resources/parliamentary-matters/2024/Feb/Growth-of-the-Creative-Economy-in-Singapore>.
- Naylor, Richard, Jonathan Todd, Marta Moretto, and Rossella Traverso. 2021. *Cultural and Creative Industries in the Face of COVID-19: An Economic Impact Outlook*. Paris: UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000377863>.
- Pink, Daniel H. 2006. *A Whole New Mind: Why Right-Brainers Will Rule the Future*. New York: Riverhead Books.
- SkillsFuture SG and National Arts Council Singapore. 2024. "Skills Framework for Arts: Technical Theatre and Production—A Guide to Occupation and Skills." Published April 2024. [https://www.nac.gov.sg/docs/default-source/skills-framework-documents/skills-framework-for-arts-\(technical-theatre-production\).pdf?sfvrsn=f6235b42_4](https://www.nac.gov.sg/docs/default-source/skills-framework-documents/skills-framework-for-arts-(technical-theatre-production).pdf?sfvrsn=f6235b42_4).

Building Resilient Cultural Organisations: Insights from the Business World

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With transformation as the buzzword for economic and social sectors around the world, what does it mean for culture, particularly in Singapore? Tarun Pardal looks at the shared challenges faced by enterprises everywhere, and points to lessons that arts and heritage organisations can draw from the business world.

In our rapidly evolving cultural landscape, one notable trend is how organisations and their leaders are taking more active roles in supporting social innovation, inclusion and diversity. The World Economic Forum (WEF) has also published research on how expressions of human creativity can serve as a force for social change.

At the same time, technology is forcing the physical world into a virtual one. New content development platforms are evolving, with creative boundaries being pushed. Younger artists are looking closer to home for inspiration, exploring the local and traditional, and moving away from predominantly western ideas and expressions. Simultaneously, our measurement of value has evolved, with attention as the new currency. With ever-depleting attention spans, “bite-sized” content on digital platforms like TikTok and Blinkit seems the order of the day. Given society’s wide array of competing forms of entertainment from television and gaming to social media, there is a need for serious retrospection and creative reinvention.

Supporting the Sector in its Transformation Journey

Without doubt, the global pandemic COVID-19 dealt a colossal blow to the arts and cultural sector. One statistic from the National Arts Council starkly illustrates this: there was more than a 50% decline in the number of ticketed and non-ticketed performances in 2020 compared to 2019. The number of art and cultural entities also shrank by 20% from pre-COVID levels.

But as Minister of Culture, Community and Youth Edwin Tong reminded us at 2021’s Patron of the Arts award, the arts and culture in Singapore have come a long way over the past few decades, and have demonstrated extreme resilience. He highlighted the role played by the arts as an anchor for our distinctive Singaporean identity, and spoke of how it fosters cross-generational linkages to our heritage. He underscored the need to do more for arts and culture entities to thrive in the future economy, and how this will only happen once the economics behind the initiatives are viable.

To this end, the National Arts Council (NAC) and National Heritage Board (NHB) have been playing the role of sector champions, helping their respective sectors level up their capabilities through the provision of grants and other support to smaller organisations and keeping an eye on the wider ecosystem. But I believe we will also need sophisticated value chains, such as those in other global cultural hubs. While the ecosystem is amply supported by funding from the government as well as from organisations such as Tote Board and Temasek Trust, there is also the need for philanthropic

Front Office Capabilities	Middle Office Capabilities	Back Office Capabilities
Outreach Management	Product Management	Human Resources
Ticketing/Booking	Operations/Logistics Planning	Finance Including Taxation
Mobile/Web Content Management	Customer Analytics	Procurement
Feedback Management	Ecosystem Partnership Management, Funding Management	Legal

Figure 1. Key capabilities in arts organisations across the front office, middle office and back office.

support from individual patrons. We also need audiences and arts lovers who are willing to pay for arts consumption. This is all part of a thriving, competitive landscape.

Even with the wide variety of support available, the critical question is whether these organisations possess the relevant capabilities to successfully execute the requisite transformation. I recognise the unique diversity of the arts landscape which includes small- and medium-sized enterprises (SMEs), charities including Institutions of a Public Character (IPCs), and many freelancers. But, as with business entities in a range of sectors, arts SMEs and charities need to think about new ways of augmenting digital and/or business capabilities within their organisation. An easy way to think about this is to look at these capabilities in arts organisations across the front office, middle office and back office. Some of the key capabilities are provided in the framework here. (Fig. 1)

For each of these capabilities, it is useful to apply the 4Bs framework. The 4Bs stand for **Build**, **Buy**, **Borrow** or **Bot**. Organisations need to consider the significance of each of these capabilities. They can take a strategic decision to either invest in building their own capability when it is more critical to their

business success, or borrow/outsourcing the ones that are considered less critical or when the organisations may not have the right resources/skills to enable this capability.

For example, a number of organisations are borrowing some back office capabilities by centralising their operations in a Shared Service Centre such as for payroll management, procurement, legal services etc. There is also an option to bot, that is, to automate some of these capabilities. In the case of feedback collection, there can be an automated step wherein a third-party tool can be used to collect and analyse customer feedback in an automated manner on a periodic basis.

In addition, it is sensible for organisations to also take note of some new trends observed globally. Here, I have outlined some significant trends which I believe will impact the arts and culture ecosystem.

1. Innovation in enhanced pervasiveness of arts and culture

The art and cultural sector is moving away from traditional spaces of arts consumption such as art galleries, museums, concert halls and theatres. Many arts organisations

have been reflecting on how to innovate to make the arts and culture more accessible to audiences. A great example of this is National Gallery Singapore's 2022 launch of a Non Fungible Token (NFT)-redeemable machine outside its premises. The Gallery has also increased the accessibility of art to the public by placing QR codes at HDB void decks, an initiative that brings art to communities in the heartlands.

Even in public transit, SMRT trains have become a mode of staging art for the general public. A new initiative to promote local artists by playing their music on trains and platforms for commuters has been welcomed by artists and music lovers. Working with SMRT has also allowed the National Arts Council to expand the platform on which buskers with disabilities showcase their talents.

At a global level, digital music streaming services such as Spotify, Apple Music and Amazon Music offer new platforms for upcoming musicians to launch their music for a wider audience. These allow users to provide feedback on, like and share music, as well as subscribe to artists in order to have access to their future releases, thus enabling artists to build long-term fan bases. At the same time, music artists will need to learn how to leverage the data provided by these services, and understand both revenue distribution and algorithmic influence in the streaming economy.

2. Generative AI

The advent of Generative AI will no doubt bring a new set of both challenges and

opportunities. Gen-AI, as it is referred to in shorthand, can produce increasingly sophisticated art, video, and music based on prompts. The output produced will become more indistinguishable from human work as technological capabilities evolve. Artists will need to continue to demonstrate skill and value that is clearly distinguishable from digital art, while simultaneously warding off the threats posed by deep fakes and other potential scams.

There is, however, also tremendous opportunity. Gen AI can be used to augment human capability where necessary, while also reducing operating costs for arts organisations. For example, compared to sourcing marketing artwork and copywriting from a commercial agency, Gen AI can produce this at a fraction of the cost with the same level of impact. The challenges faced by the arts and cultural sector related to talent shortages are pervasive across other sectors as well. Hence, the need to look at AI for workforce augmentation is critical. As an example, AI can be used to support many human resource functions such as the screening and shortlisting of curriculum vitae and the scheduling of interviews. Similar examples exist with many other back office and front office functions, with more use cases coming up almost every other day. Specific to the cultural sector, could AI be adapted for audition calls or the more efficient documentation of heritage artefacts and art pieces?

3. New Monetisation Models

The number of digital platforms available to showcase art and culture is growing every day. Audience reach for any art form is no

longer limited by proximity and physical accessibility. The number of followers, views and hits on digital platforms has turned out to be more than just lead generation for physical performances and paid downloads, they have become monetisable in themselves, generating revenue through linked advertisements and royalties.

Other monetisation models available to artists include the sale of NFTs that allows the transfer of the ownership of the digital product with the use of Blockchain Technology. Another form of monetisation is the creation of digital workshops or learning courses which can be hosted on paid learning platforms. There are also subscription platforms such as Patreon and Substack that reward loyalty with exclusive content and other tiered membership benefits.

Conclusion

Singapore's art and cultural growth story is on the right path. However, the headwinds coming out of COVID-19 pandemic still need to be navigated. Singapore's two national plans Our SG Arts Plan and Our SG Heritage Plan remind us that the success of a sustainable cultural ecosystem is determined not just by the quality of artists and their works or the viability of the heritage business, but also by how the cultural content succeeds in connecting with and growing their audiences at home and abroad.

To ensure the long-term vibrancy of the arts and heritage sectors in Singapore, lessons from the

broader SME landscape can be adapted. I have developed the acronym **ACT** to suggest some areas of focus moving forward:

Accessible

To build new audiences, could artists and arts groups blend arts and culture into other pervasive forms whether print, television, internet or the metaverse? There are new opportunities to collaborate with established digital and physical platforms and ecosystem partners, and arts organisations can leverage their customer bases to increase outreach and patronship. Could there be further reflection on what makes us unique and where the arts can add value in strengthening social cohesion and family ties? There is potential to create greater social impact through art and culture which may be under-tapped.

Condensed

Could we refine how art and culture are consumed? How do we make art/music more "bite-sized" to appeal to a younger generation that has a limited "attention" span? Perhaps artists and organisations should consider how an Instagram reel or Tik-Tok video suffice can deliver attractive artistic content? Do we also need to explore new forms of loyalty and subscription models for audiences to be engaged in a more sustained manner?

Transformative

Having a digital backbone levels the playing field between those with financial means and those without, and the Singapore government has introduced multiple initiatives and grants to help SMEs transform their front office, back office and middle office. How can art organisations leverage the host of digital capabilities available? How can

they better tap on the wider ecosystem to enable new ways of showcasing artists' talent and expanding their outreach?

Buttressed by the continued resilience demonstrated in the recovery from COVID-19, the long-term prospects of the sector look promising. With a focus on digital innovation as well as support from the larger business and social ecosystem, I am confident that Singapore's vibrant arts and culture can become an integral part of everyone's lives, and will be welcomed resoundingly on the global stage. □

About the Author



Tarun Pardal is a Managing Director at Accenture Singapore. He has more than 20 years of work experience, of which more than 14 years have been with Singapore's public service agencies in social services, community development, learning and education. As a consulting practitioner, he has successfully led and delivered key transformational work for his clients across multiple projects. He is also responsible for bringing the latest innovations to his clients in areas such as Web 3.0 and Generative AI. He is most passionate about defining citizen experiences in the digital era and the future of work for public service. He has also been actively involved in advising several social service agencies and philanthropic organisations on their digital transformation initiatives.

Bibliography

Hanea, Dr. Robert C., Honor Harger, Annette Mees, Tateo Nakajima, and Scott Smith. 2022. *Future of Arts & Culture: Drivers and Impacts for the Next Decade*. UK: Arup, Germany: Therme Group, and The Netherlands: Changeist. Accessed May, 2024. <https://futureofartsandculture.org/>.

Sim, Arthur. 2022. "Redeem Free NFT Artwork From a Vending Machine at National Gallery Singapore". *The Straits Times*, October 2, 2022. <https://www.straitstimes.com/life/arts/redeem-free-nft-artwork-from-a-vending-machine-at-national-gallery-singapore>.

Singapore Cultural Statistics. 2022. Ministry for Culture, Community and Youth. Accessed May, 2024. <https://www.mccy.gov.sg/cultureacademy/researchandpublications/Research-Papers/Data-and-Statistics/Singapore-Cultural-Statistics>.

Tong, Edwin. 2021. "The Arts in Singapore: Entering the Next Decade Speech by Mr Edwin Tong, Minister for Culture, Community and Youth & Second Minister for Law, at the 38th Patron of the Arts Award". Press release by Ministry of Culture, Community & Youth (MCCY). September 17, 2021. <https://www.mccy.gov.sg/about-us/news-and-resources/speeches/2021/sep/arts-in-singapore>.

Wong Man Shun. 2023. "Music From 53 Home-Grown Artistes to Be Played at SMRT Trains-Operated Stations, Bus Interchanges". *The Straits Times*, August 31, 2023. <https://www.straitstimes.com/life/music-from-53-home-grown-artistes-to-be-played-at-smrt-operated-train-stations-bus-interchanges>.

World Economic Forum. 2020. "How Arts and Culture Can Serve as a Force for Social Change." Accessed May, 2024. <https://www.weforum.org/agenda/2020/10/how-arts-and-culture-can-serve-as-a-force-for-social-change/>.

Navigating the Archiving Landscape— Current and Future Concerns

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With the obsolescence of magnetic media and exciting developments in digitisation and AI, the archiving landscape is at the cusp of a new world. Dr Phang Lai Tee from the National Archives of Singapore offers a glimpse into the future, and raises important questions for those in the cultural sector to ponder.

The national archives of every independent country serves as the custodian of government archives, and often holds the documentary heritage of the nation, playing a pivotal role in preserving and providing long-term access to a diverse range of content.

The National Archives of Singapore (NAS), established in 1968 following Singapore's independence in 1965, fulfils this crucial role by safeguarding records of national and historical significance to Singapore. Its extensive archival collections, from both public agencies and private sources¹, serve as the corporate memory of the Singapore government and the social memory of its people. This repository of primary sources and memories also enables present and future generations of Singaporeans to delve into the nation's cultural and arts policies, discover the rich content and experiences related to its diverse cultures, and gain a deeper appreciation of our shared heritage and the journey towards nationhood.

Cultural Heritage at Risk?

UNESCO has long recognised the importance of audiovisual archives in telling stories about people's lives and cultures worldwide. Since 2007, it has celebrated the World Day for Audiovisual Heritage on the 27th of October each year, aiming to raise awareness about the need for preservation and to acknowledge the value of audiovisual documents.

A substantial portion of our knowledge of the linguistic and cultural diversity of humanity is rooted in audiovisual content recorded on magnetic tapes over the past six decades. The Magnetic Tape Alert Project², an initiative of UNESCO's Information for All Programme and International Association of Sound and Audiovisual Archives, seeks to alert stakeholders, including memory institutions, to the imminent threat of losing access to their cultural and linguistic heritage trapped in obsolete magnetic media, and to the urgency to digitise them, preferably by 2025. A 2020 survey revealed that, while many professional memory institutions, such as archives, libraries and museums, have either digitised or planned to digitise their audiovisual holdings in time, a significant portion of audio and video recordings kept in small academic or cultural institutions, as well as in private hands, remain in their original state. The survey finding serves as a cautionary signal for arts and cultural groups in Singapore to consider the documentary legacies they will leave for the future.

Government agencies working together can help close the gap. Since 2020, the National Library Board (NLB) has been collaborating with the National Arts Council (NAC) to enhance the national collection of Singapore arts content, and to make the materials

available via the Singapore Online Arts Repository (SOAR)³. The collaboration provides an avenue for Singapore's performing, visual and literary arts heritage to be preserved for posterity and research.

Impact of New and Evolving Technologies

Preservation of Lost Stories

As technology continues to advance, virtual reality (VR) and augmented reality (AR) have been used to improve accessibility to intangible cultural heritage and inaccessible physical historic sites in recent years. For example, Missions Connect, an award-winning VR project by Curtin University, shares Western Australia's Stolen Generations history from the perspective of the survivors in an immersive and interactive way. It transforms former mission sites into healing spaces for Stolen Generations survivors. Floor plans of lost buildings were digitally reconstructed based on recollections from survivors and photographic documentation of the 1950s and 60s.

The innovative use of VR in this project offers an alternative and unique platform to substitute physical historic sites where access is limited due to administrative and political challenges, rapid deterioration and loss of significant buildings on the former sites, geographical isolation, or ill health restricting travel by survivors. When heritage conservation of the sites is not feasible, the preservation of the VR-modelled content and stories collected from the survivors becomes ever more important. Given the complexities in

preserving VR metadata and elements, how will such projects preserve such VR content and experiences sustainably? Will the stories of the Stolen Generations be preserved with another archival organisation beyond the lifetime of the project?

Digital Music and Art Creation

Since 2023, generative Artificial Intelligence (Gen AI) writing tools and AI image generators have gained prominence in the mainstream. The availability of AI music generators is on the rise too. Locally, researchers from the Singapore University of Technology (SUTD) have developed a music-domain-knowledge-inspired AI model that generates music from text prompts. Globally, YouTube has released for testing "Dream Track", an AI tool that lets users input a brief prompt, select a participating artist, and create a track of up to 30 seconds for use. Meanwhile, MIT (Massachusetts Institute of Technology) Media Lab's Cognitive Audio project is developing a system that will allow the generation of constantly evolving compositions, based on the soundscapes surrounding us that we may not even notice.

The proliferation of creative AI tools is poised to revolutionise the creation of music and art, similar to the way AI is revolutionising creative writing. While artists, musicians and content creators worldwide grapple with the impact of AI and ponder how to navigate a creative future with AI, archivists have to keep pace with changing culture and technologies to capture and preserve significant works for the nation.

Opportunities and Challenges of AI for Archives

AI is also an important topic for professionals managing the preservation and long-term access

to archives and documentary heritage. Various professional bodies and archival associations have dedicated conferences and publications to this topic. For instance, the Association of Moving Image Archivists, International Federation of Television Archives and Oral History Association, devoted an entire conference or session to AI in 2023/2024. UNESCO's Memory of the World Sub-Committee on Education and Research, in collaboration with the InterPARES (International Research on the Preservation of Authentic Records in Electronic Systems) Trust AI, also recently published a special issue on "Artificial Intelligence and Documentary Heritage".

Evolving AI capabilities bring exciting possibilities to the field of documentary and cultural heritage, but also raise disconcerting concerns about their impact and unintended consequences. AI technologies, such as speech-to-text transcription, face and object recognition, and text extraction, offer enormous opportunities for enhancing access, search and metadata enrichment in archival materials. Use of AI in repetitive and time-consuming basic archival tasks, such as automating checksum validation of digital files before preservation, generating file lists, and renaming files, has also been explored, and potentially increases productivity in digital preservation processes. The discussion in the field now focuses on how the archives can integrate human cataloguing and AI metadata generation to facilitate the search and discovery of archival content.

However, the pervasive use of AI raises concerns about record trustworthiness, data privacy, potential misappropriation of intellectual property and the potential misuse of AI-generated content. There are various studies investigating the current and potential use of AI in records and archival work, with some focusing their attention on the challenges to trustworthiness of records, archives and

documentary heritage arising from rapid adoption of AI. There is a growing concern about AI, particularly large language models (LLM), disclosing personal information extracted from a wide range of sources, including online public archives released by archival institutions. Online accessible oral histories, for example, are a rich source of personal information that could be exploited by ill-intentioned persons to circumvent security questions. How do oral history and archives professionals mitigate such potential misuse? How do we find a balance in our role to both serve users and protect collections?

A new paradigm propelled by AI presents archivists with new considerations about their evolving roles. Will the role of archivists be expanded to include the stewardship of documents, records and data that must be retained as evidence of responsible and accountable AI? Do archivists have the responsibility of supporting archives users in the responsible and ethical use of AI and algorithms? Do archivists have an obligation to support the authentication of archival content, and how could this be done sustainably?

The rapid adoption of AI applications across various sectors has also underscored a knowledge gap in archives professionals—the lack of understanding about AI's uses and its capabilities. Hence, attaining AI literacy becomes crucial to demystifying AI and harnessing its potential responsibly. Archivists need to be equipped with a basic knowledge of AI to ensure that they can effectively collaborate in AI projects, communicate with technical teams, and make informed decisions about the use of AI in their work.

While AI poses significant challenges to the preservation of archives and documentary heritage, similar to the digital preservation of authentic records, there is optimism that these challenges

can be addressed with the same grounding in foundational archival knowledge, combined with collaborative thinking and interdisciplinary effort.

Moving Ahead—What it Means for Singapore

In 2014, the NAS started the mass digitisation of its at-risk audiovisual collection on magnetic media, and has to date saved over 170,000 broadcast archives, government audiovisual archives and private donations from content loss due to obsolescence. Where rights permit, these digitised files are accessible via the NAS Archive Reading Room or the Archives Online portal. Specific to Singapore's rich arts and cultural heritage, over 60 artists and 20 arts organisations have been reached by NAC and NLB, and over 10,000 items have been collected since 2020. Work is ongoing to progressively process them for public access. These include interesting material from the artists' personal archives, not usually seen during exhibitions or performances.

The use of Gen AI is part of NLB's ongoing experiments with new technologies to push the frontiers of learning and discovery under LAB25 (Library and Archives Blueprint 2025). Examples of prototypes developed include StoryGen, which presents young readers with an immersive storytelling experience, and ChatBook, which offers patrons an interactive, multi-modal experience to discover and deepen their understanding of Singapore history and the contributions of one of Singapore's founding leaders.⁴ These innovations and experiments will help to reshape the future of libraries and archives. □

About the Author



Dr Phang Lai Tee is the Senior Principal Archivist and Senior Deputy Director of the National Archives of Singapore, an institution of the National Library Board. She chairs the Preservation Sub-Committee of the UNESCO Memory of the World International Advisory Committee, which is responsible for providing advice on matters relating to the selection, preservation and accessibility of documentary heritage in all its forms and its supporting technologies. She plays a key role in the optimal preservation and digitisation of Singapore's 20th century audiovisual heritage to facilitate current and future accessibility.

Notes

1. The NAS collects and preserves over 60 years of TV and radio archives produced by Singapore's national broadcaster Mediacorp Pte Ltd and its predecessors. Its Oral History Centre also collects first-hand accounts of Singapore artists and performers under thematic projects such as Performing Arts in Singapore, Singapore Film Industry and Visual Arts.
2. The urgency to digitise documentary heritage stored on obsolete magnetic media was highlighted in the Magnetic Tape Alert Project. See <https://www.iasa-web.org/magnetic-tape-alert-project> for information on the project and its latest survey report.
3. See: <https://www.nlb.gov.sg/main/partner-us/Donate-to-our-Collections/highlights/The-Singapore-Online-Arts-Repository-SOAR> for more information on SOAR.
4. In July 2024, as part of the launch of "The Lion's Roar: The Authorised Biography of S. Rajaratnam, Volume Two" by Ms Irene Ng, NLB created a ChatBook featuring the late Mr S. Rajaratnam.

Bibliography

Boyd, Doug. 2023. "Doug Boyd on Artificial Intelligence and Oral History: The Good, the Bad & the Ugly". Presented November 21, 2023, for LaTrobe University 2023 Bernard Bailyn Lecture in North American History. Video, 1:23:48. <https://youtu.be/DOg0iCefZJw?si=kZiZO1UoEte5JYS4>.

Curtin University. n.d. "Missions Connect: XXX". Accessed June 2, 2024. <https://missionsconnect.net/>.

Duranti, Luciana, and Corinne Rogers, eds. 2024. *SCEaR Newsletter 2024, Special Issue 2024: Artificial Intelligence and Documentary Heritage*. UNESCO Memory of the World Sub-Committee on Education and Research (SCEaR) and InterPARES Trust AI. <https://unesdoc.unesco.org/ark:/48223/pf0000389844>.

FIAT/IFTA World Conference. 2023. "Locarno 2023: Blame it on the Algorithm!" Locarno. Accessed May 27, 2024. <https://fiatifta.org/world-conference-2023-locarno/>.

Machover, Tod, and Charles Holbrow. 2019. "Towards New Musics: What the Future Holds for Sound Creativity". *NPR*, July 26, 2019. <https://www.npr.org/2019/07/26/745315045/towards-new-musics-what-the-future-holds-for-sound-creativity>.

Pace, Andrew. 2020. *Magnetic Tape Alert Project Report Version 1.1*. International Association of Sound and Audiovisual Archives and UNESCO Information for All Programme. <https://www.iasa-web.org/magnetic-tape-alert-project>.

Could What Happened to the British Museum Happen to our Museums?

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The museum world was shocked by the British Museum's announcement in 2023 that a member of staff had stolen and sold an estimated 2,000 objects from their collection for over a decade. In this essay, Alvin Tan and John Teo examine the impact of this incident, review the safeguards that the National Heritage Board and its collecting institutions have in place for the National Collection, and suggest ways to mitigate future risks.

In August 2023, the museum world was rocked by news from the British Museum that it had dismissed an unnamed employee and that the police were investigating “missing, stolen or damaged” items, mainly from its research collection. Subsequent reports identified the employee as senior curator Peter Higgs, and, over the next few months, the bad press for the museum continued with revelations on how some of the items had been sold on eBay for a fraction of their value, with fingers pointing at the museum's poor and incomplete record-keeping and lack of proper security. The stolen objects were mainly small gems and items of gold jewellery from the ancient Mediterranean world, but there were standout pieces too, including two Roman glass gems: an intaglio with a profile of Minerva and a cameo decorated with Cupid, dating from the late 1st century BC to early 1st century AD.

What was perhaps more troubling was the revelation that early warning signs had been ignored by the museum's senior management. The thefts had first been brought to the British Museum's attention back in February 2021, when Danish art dealer Dr Ittal Gradel had contacted the museum with a dossier of evidence of what appeared to be items from their collection for sale on eBay. Gradel had not been the

sole informant. Other individuals had come forth with similar claims but these had allegedly been disregarded by the British Museum. It was only more than two years later that Higgs was sacked following investigations by the Metropolitan Police, and the British Museum then issued a statement admitting it “did not respond as comprehensively as it should have.”

The investigation culminated in the resignation of Director Hartwig Fischer, but the reputational damage to the august institution was already considerable. It also resulted in renewed calls for artefact repatriation from countries such as China, Greece and India, with critics arguing that “if the museum can't safeguard its treasures, perhaps they should be returned to their places of origin.”

Too Little, Too Late?

Since then, attempts have been made to recover the missing objects and restore public trust in the national institution. In September 2023, the museum launched a webpage¹ to gather information from the public on the stolen objects, and enlisted the help of Art Loss Register, Interpol, and the Metropolitan Police to try to locate and retrieve the estimated 2,000 missing objects. To date, 626 objects have been recovered, and a further 100 objects identified. However, some critics have questioned the usefulness of the webpage, which provides neither a detailed list of the missing objects nor their actual images, but merely states the types of missing objects, coupled with images of similar, but not actual, items.

The British Museum also embarked on an independent review to tighten its record-keeping



Figure 1. Intaglio with profile bust of Minerva or Athena in black glass with white band, Roman 1st century BC-1st century AD. Image courtesy of the Trustees of the British Museum. Shared under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0) licence.

and security, and issued a press statement in December 2023 declaring that over a third of the published recommendations from the review were already underway or completed. One of the recommendations outlined an ambitious plan to complete the documentation and digitisation of the museum's entire collection² within the next five years. Separately in February 2024, the British Museum launched its "Rediscovering Gems" special exhibition which featured dozens of small artefacts known as cameos and intaglios. Perhaps as a gesture towards transparency and addressing public curiosity, 10 of the artefacts on display were recovered items.

Could This Happen to Singapore?

In the wake of the thefts at the British Museum, it would be remiss for museums worldwide not to ask themselves: "Could what happened to the British Museum happen to us?" and "What could we learn from the British Museum's systemic failings?"

At this juncture, we can offer an overview of the security and collections management measures that have been put in place by the institutions managed by the National Heritage Board³ (NHB) and the Visual Arts Cluster (VAC)⁴, and reflect on the complex issues involving museum collections and their storage, records and safekeeping. Objects displayed in permanent galleries are part of the National Collection and subjected to stringent security measures, with guards, gallery sitters, intrusion detection systems, 24/7 CCTV surveillance, and centralised alarm monitoring systems in place, alongside restricted access and authentication readers. Objects not on display are stored in museum stores or at the Heritage Conservation Centre (HCC).

At both the museums and HCC, there are CCTV cameras installed at main ingress/egress points. In some of the major institutions, these CCTVs are equipped with analytical capabilities to expedite criminal investigations if required via forensic analysis of facial recognition and physical features/accessories. NHB is also looking into upgrading all the CCTVs in the remaining institutions with such analytics capabilities.

Furthermore, access to the abovementioned storage facilities is restricted to authorised staff, while all external guests and vendors are accompanied by staff at all times. Additional security features like facial recognition readers and restricted access methods such as access cards, biometric readers, and physical keys have been implemented for heightened protection.

More importantly, every object in the National Collection is individually catalogued, Radio Frequency Identification (RFID) tagged, and documented. As part of NHB's National Collection policies, 100% stock-takes for all objects in the collection are conducted every one to two years. These stock-takes utilise the Automated Collections Tagging System (ACTS) which captures all movement of objects within HCC (e.g. from the stores to the conservation labs), and between the museums and HCC, and ensures thorough oversight of the National Collection.⁵

The saga of missing items at the British Museum also highlighted the importance of documentation and digitalisation, given the apt reminders that “items they have no record of are as good as gone” (Wilding 2024). Fortunately, NHB has catalogued all the objects in the National Collection in the Singapore Collections Museum System (SCMS). This system captures images of and critical information about each object from acquisition to accessioning, as well

as the conservation treatment it received etc. SCMS has a strict access rights management system, with only a select few staff members authorised to delete object records.

Having said that, it should be noted that museums' research and/or handling collections, whether donated or purchased, are not subjected to the same level of security scrutiny, and are also not individually catalogued in SCMS. These objects are used for museum programmes, but are not part of the National Collection. Rather, they are maintained by museums primarily for outreach and education purposes. As such, they are expected to be handled by members of the public and/or researchers, and eventually disposed of when they wear out and/or are damaged.

The Importance of Documentation

Since the news broke about the British Museum, there have been reports on several other museums in the UK where hundreds of items from their collections have likewise been lost, stolen or destroyed over the past five years. These include the Imperial War Museum, National Museum of Scotland and Natural History Museum. This problem had seemed largely unknown to the public since the vast majority of their collections are kept in storage. In an ideal world, all the objects in these collections should be documented, catalogued, and made publicly accessible, but that is most often not the case.



Figure 2. HCC officer scanning a RFID tag attached to an object from the National Collection, 2024. Image courtesy of Heritage Conservation Centre.

When we compare the British Museum's collection to Singapore's National Collection, it is worth noting that there are crucial differences, especially in terms of the size and value of the collections. Our National Collection comprises just over 250,000 objects while the British Museum's collection amounts to an estimated eight million objects, of which 80,000 (about 1%) are on display at the museum in Bloomsbury. In addition, while the handling collections in our institutions often comprise objects of relatively low monetary value, the British Museum's research collection may comprise objects which, in a modest museum, might constitute star pieces.

Nonetheless, there are useful insights to be gleaned from the case study of the British Museum in the four areas of **deterrence, detection, documentation and digitalisation**. The first two Ds of deterrence and detection refer to the security measures that museums have or should put in place to deter thefts both in the galleries and in the stores, as well as to detect acts of theft and their perpetrators.

The third and fourth Ds of documentation and digitalisation are focused on the twin issues of proper cataloguing of collections and the establishment of an up-to-date database. They deal with the real and often overlooked task of caring for museum collections which can amount to millions of objects accrued over several centuries. Many of us in the sector hope that advancements in artificial intelligence (AI) technology have the potential to revolutionise cataloguing and collections management, given the onerous and time-consuming nature of reviewing and digitalising inventory and factual information.

The Human Factor

Thus far, reports have predominantly focused on the institution's weak security measures and poor



Figure 3. “ACM Adventures—Topsy Turvy Tea Party” featuring objects from its handling collection of Peranakan porcelain, 2022. Image courtesy of Asian Civilisations Museum/The Peranakan Museum.

inventory management as major contributing factors to the thefts at the British Museum. But late last year, the institution also acknowledged the importance of effective human resource policies and practices. It recognised the need to enhance its HR department and seek external guidance, especially where the museum did not have the relevant expertise (for example, legal advice or the handling of complaints). It further emphasised the importance of greater board committee oversight of staff matters, including access to exit interview notes.

The thefts at the British Museum also underscored the fundamental responsibility of curators and museum staff to act with integrity. Museums should refine their recruitment and induction processes to prioritise character assessments and core competencies centered on ethical behaviour. New hires should also be acquainted with the International Council Of Museums’ ethical code, emphasising adherence to professional standards and laws, and an understanding of illegal or unethical professional conduct. However, no recruitment process can

ever be foolproof, and, as such, museums should conduct regular training to ingrain in employees the museum’s code of conduct.

Museums should also put in place whistleblower policies to encourage staff to report suspicious activities without fear of reprisal. If confronted with potential theft cases, museums should have in place a well-thought-through suspension policy which will allow them to conduct a fair investigation. This is particularly important in instances where the presence of the employee might be a hindrance.

Besides robust human resource policies and practices, museums could also look into improving their core digital infrastructure, and preparing staff for the adoption and deployment of AI technology. Training in data management, rights and compliance, and AI systems and risks appears increasingly critical. Museums should also pay close attention to learning how to integrate AI into museum operations, as well as weigh AI’s impact on existing and future jobs.

Conclusion: Food For Further Thought

do well with a re-thinking or re-balancing of the strategic priorities of museums. A return to basics seems timely, focussing on the proper stewardship of the collections, and providing the necessary manpower and funding support for the care of these collections which museums hold for the benefit of our current and future generations. □

The case of the British Museum serves as timely reminder that museums worldwide must put in place the necessary policies, practices, controls and reviews. For Singapore's institutions specifically, the case also underscores the importance of proper collections management, robust internal security measures, ethical conduct amongst staff, clear whistleblower policies, forward-looking workforce planning and development, and a well-defined crisis response plan.

Yet, despite all that has been said and done, two fundamental issues are harder to resolve. Firstly, at the institutional level, there is the perennial issue pertaining to the “funnelling of energy and expertise into blockbuster exhibitions at the expense of drearier custodial duties” (Lawson-Tancred 2023). In Singapore, we will need to ensure we keep the momentum on documentation and strengthening internal processes, even as we think about increasing museum visitorship and public outreach.

Secondly, some countries are facing declining museum funding⁶ which has resulted in redundancies, a loss of expertise, and fewer checks and balances within the organisation. Singapore's public museums are fortunately well-funded by the government and our patrons, but, in a time of fiscal tightness, this should not be taken for granted.

In the final analysis, operating in a world of finite and shrinking resources, the museum world could

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Notes

1. <https://www.britishmuseum.org/our-work/departments/recovery-missing-items>.
2. In the case of the British Museum, it has been reported that, out of its collection of eight million objects, an estimated 2.4 million objects are “uncatalogued or partially catalogued” (Razall 2024).
3. The institutions managed by NHB include National Museum of Singapore, Asian Civilisations Museum, The Peranakan Museum, Sun Yat Sen Nanyang Memorial Hall, Malay Heritage Centre, Indian Heritage Centre, Reflections at Bukit Chandu, Changi Chapel Museum, Children’s Museum Singapore and Heritage Conservation Centre.
4. The institutions under VAC include National Gallery Singapore, Singapore Art Museum and Singapore Tyler Print Institute.
5. HCC also conducts regular workshops on collections care and management for the Museum Roundtable as well as for NHB’s ASEAN counterparts, as part of efforts to strengthen the museum and heritage ecosystem.
6. The study commissioned by the Arts Council England on levels of public funding in museums in the UK over the past 15 years revealed a significant decline of approximately 23% in real terms with an inflation-adjusted decrease of 42% (DC Research 2024).

Bibliography

- British Museum. 2019. "British Museum Collection." Last modified October, 2019. https://www.britishmuseum.org/sites/default/files/2019-10/fact_sheet_bm_collection.pdf.
- British Museum. 2023. "Announcement Regarding Missing, Stolen and Damaged Items." Last modified August 16, 2023. https://www.britishmuseum.org/sites/default/files/2023-08/Announcement_regarding_missing_stolen_and_damaged_items.pdf.
- British Museum. 2023. "Announcement from Hartwig Fischer." Last modified August 25, 2023. <https://www.britishmuseum.org/sites/default/files/2023-08/Announcement-from-Hartwig-Fischer.pdf>.
- British Museum. 2023. "British Museum Announces Completion of Independent Review." Last modified December 12, 2023. https://www.britishmuseum.org/sites/default/files/2023-12/British_Museum_announces_completion_Independent_Review.pdf.
- DC Research and Wavehill. 2024. "Research to Understand the Levels of Public Investment in Museums. Final Report." *Arts Council England*, January 2024. <https://www.artscouncil.org.uk/research-and-data/research-understand-levels-public-investment-museums>.
- International Council of Museums. 2017. "ICOM Code of Ethics for Museums." Accessed May, 2024. <https://icom.museum/wp-content/uploads/2018/07/ICOM-code-En-web.pdf>.
- Lawson-Tancred, Jo. 2023. "A Weak Cataloguing System Made It Easy to Steal From the British Museum. Institutions Around the Globe Are Reckoning With the Same Vulnerabilities." *Artnet*, September 7, 2023. <https://news.artnet.com/art-world/british-museum-cataloguing-debacle-2356464/amp-page>.
- Razall, Katie, and Darin Graham. 2024. "British Museum Gems for Sale on eBay – How a Theft Was Exposed." *BBC News*, May 27, 2024. <https://www.bbc.com/news/articles/cpegg27g74do>.
- Wilding, Mark. 2024. "The Big Steal: How Do Ancient Treasures From Museums End Up For Sale on the Internet?" *The Guardian*, April 14, 2024. <https://amp.theguardian.com/culture/2024/apr/14/the-big-steal-how-do-ancient-treasures-from-museums-end-up-for-sale-on-the-internet>.

Call Me Jack!— Embracing the Growth Mindset

Angelita Teo

Director of the Olympic Foundation for Culture and Heritage,
International Olympic Committee

Angelita Teo has had a fascinating career: from curator and festival programmer to heading Singapore's National Museum and now the Olympic Foundation for Culture and Heritage, where she manages the Olympic Museum in Lausanne, and Olympic culture and education programmes and projects globally. She reflects on her unusual personal journey, and suggests the skills and mindsets cultural workers will need if we want the sector to continue to inspire humanity and reflect our diversity.

Introduction

I grew up in Singapore during the 1980s and 90s with the constant reminder in school that the country had no natural resources, and that our most valuable asset was our people. Then, as it is now, education was held to be of utmost importance.

However, times have changed. Singapore has since transitioned into a developed nation, and the world has evolved significantly.

During my formative years, being labelled as a "Jack-of-all-trades, master of none" was often seen as derogatory. Specialisation in a profession and having a deep understanding of it were highly valued. But, today, having broad contextual knowledge, embracing diversity, and seeking understanding across various domains seem to have become more relevant.

Interestingly, I recently learned that the full quote is "a jack of all trades is a master of none, but oftentimes better than a master of one". Whether this is the complete idiom or not, it certainly reflects the current times, and suggests how we should approach education, training, and work in the culture and heritage sector.

In the dynamic landscape of the cultural industry, characterised by rapid technological advancements, evolving consumer preferences, and shifting market dynamics, embracing a growth mindset has become imperative for individuals and organisations to thrive. Rooted in the pioneering work of psychologist Carol Dweck¹, this concept of a growth mindset emphasises the belief that abilities and intelligence can be developed through dedication and effort.

Nothing Happens by Accident

My journey into the culture and heritage sector began unexpectedly. At 18, I departed Singapore to pursue studies in Mass Communication, a popular course in the 90s, at the University of British Columbia in Vancouver, Canada. However, a serendipitous encounter with Archaeology during an elective class prompted a significant shift. I decided to change my major to Anthropology without much consideration for my future career or informing my parents. When my mother eventually discovered my decision, her initial reaction was, "What are you going to do back in Singapore? Dig Sentosa?!"

Upon my return to Singapore in 1995, fortune smiled upon me as I secured a job as an assistant curator at the soon-to-be-opened Asian Civilisations Museum (ACM). My timing proved fortuitous; Singapore was making substantial investments in the culture and heritage sector following a 1989 report by the Advisory Council on Culture and the Arts (ACCA). This report emphasised the importance of culture and the arts, citing their ability to broaden minds, enhance quality of life, strengthen social bonds, and contribute to the tourism and entertainment sectors.

Although I had been unaware of such plans, I had followed my curiosity, pursuing an avenue I found compelling but believed I couldn't explore in Singapore. This unexpected leap into the unknown ultimately proved the right choice.

Fostering Innovation and Embracing Diversity

In an era marked by continuous disruption and change, fostering agility is paramount, and the cultural industry must prioritise learning and adaptation. A growth mindset at both individual and organisational levels means a culture where failures are viewed as opportunities for growth rather than catastrophes. As Dweck asserts, individuals with a growth mindset are more likely to persist in the face of setbacks, embrace challenges, and actively seek feedback to improve their craft. In the context of the cultural industry, where experimentation and creativity are central, this mindset is indispensable for cultivating innovation and pushing boundaries.

Looking at technology today, it's impossible to overlook the excitement surrounding artificial intelligence (AI) and how companies have pivoted to leverage it, some quicker off the mark than others. An example is Nvidia under the leadership of CEO Jensen Huang. According to an article in *The New Yorker*, "At the beginning of the twenty-tens, A.I. was a neglected discipline... [but] Huang's ten-year crusade to democratize supercomputing had succeeded," leading to an overnight transformation of Nvidia's business. Greg Estes, a vice-president at Nvidia, said of Huang: "He sent out an e-mail on Friday evening saying everything is going to deep learning, and that we were no longer a graphics company, [and] by Monday morning, we were an A.I. company. Literally, it was that fast." This is characteristic of possessing a growth mindset as well as great agility and resilience.

Rooting, Growing, and Innovating

My tenure at the National Heritage Board (NHB) was diverse compared to those of most of my colleagues who focused on specific fields. They were becoming "masters" while I transitioned from curatorial roles to project management, museum operations, and programming festivals, engaging with various communities and agencies. I eventually became the Director of the National Museum of Singapore, but this diverse exposure helped me understand the strength and beauty of diversity, of having a light touch, and allowing things to creatively happen. It was about creating opportunities for things and

people to flourish, and being pleasantly surprised by the outcomes.

This is not to say that all outcomes were good, but there were enough outstanding ones that I was convinced to keep at it. Along the way, I learned how to better manage such an approach. Giving people enough rein to develop was important; things that were well controlled by experienced and knowledgeable managers would often yield good but somehow not exceptional results. That is why I advocate the importance of a growth mindset and Dweck's philosophy that "individuals who believe their talents can be developed (through hard work, good strategies, and input from others) have a growth mindset". She also added that such individuals "tend to achieve more than those with a more fixed mindset (those who believe their talents are innate gifts)... because they worry less about looking smart and put more energy into learning".

Along this journey, I had the chance to further my studies when I was awarded a scholarship. Deciding that I would do something relevant but completely different from my undergraduate degree, I undertook a Masters in Art Curatorship at The University of Melbourne, Australia. There was a lot of emphasis on contemporary art in the course work, something that, at that stage, I did not fully understand. (Well, until now, I still don't understand some contemporary art, but perhaps that is the magic of art.)

Among the many things I learned was that all art, whether valued as good art or not, was contemporary at one point. Taste and appreciation is dynamic as well, so everyone is free to feel and interpret art. However, the understanding of artistic practice, the use of art as an expression, and the facilitating of constructive discussions about art should always be encouraged. I've always said, you have the right to decide not to like something, but don't diss it until

you have tried to understand it. This is an important attitude to possess in our world today because we have to embrace diversity.

The fact is, things change, and fads come and go, and return in seemingly quicker time than before. This accelerated speed of things will not stop, and with the developments in technology like AI, we need to keep ourselves informed and have a broad understanding of things. We need to harness the "Jack-of-all-trades" spirit so that we can discern the connections that link the disparate parts of complex systems, and thus capitalise on the opportunities that present themselves.

Welcoming Change

In 2019, I left a very comfortable and rewarding career in NHB to join the International Olympic Committee (IOC) and relocate to a foreign city, which I had initially had to google to locate in Switzerland. Originally, when contacted, I mistakenly believed that the IOC was headquartered in Lucerne, Switzerland. "What a beautiful city," I thought to myself! However, it turned out to be Lausanne, Switzerland (the Olympic Capital of the world), which, fortunately, is equally stunning. Its beauty helped because there were many days when I wondered what I had done!

The initial learning curve was incredibly steep and intimidating. The role as the Director of the Olympic Foundation for Culture and Heritage (OFCH) includes the management of the Olympic Museum and Olympic Studies Centre in Lausanne, their vast



Figure 1. Ms Angelita Teo at the entrance of the Olympic Museum in Lausanne with the Paris 2024 Olympic and Paralympic Games’ Mascots. Image courtesy of the International Olympic Committee.

collection and archives, as well as international cultural and education initiatives. The challenge was not the nature of the work but, rather, understanding the complexities and intricacies of the sport ecosystem, involving various sport federations and associations, the Olympic Movement, and its 206 National Olympic Committees (which is more than the 193 countries recognised by the United Nations), with whom we collaborate closely.

I was thrust into an entirely new world, operating on a global stage. In addition, we often work on multiple projects with people from different parts of the world at the same time. The constant challenge of language and cultural differences, negotiating the different working styles and expectations, was nothing short of overwhelming at times. Hence, there were many moments in the first few years when I sought solace in the beautiful view of Lake Geneva.

What was my primary motivation for accepting this new role? I had grown too comfortable in my previous job. I possessed extensive networks and a

deep understanding of the system and processes, but this familiarity also underscored the need for a change—to venture into new realms, challenge myself, widen my worldview, and transition from working at a national level to an international arena. As Marissa Mayer² aptly said, “I always did something I felt a little unready to do”. I identify very much with this sentiment.

Valuing Solidarity and Commonalities

The process of finding ways to blend sport, art, culture and heritage, and making them relevant is exhilarating. The work extends far beyond managing a museum to include international projects involving athletes, scholars, curators, educators, foundations,

and governments. At first look, one may not immediately notice the relevance of culture, art and heritage in sport. However, this is the main differentiator of the Olympic Games, compared to other international sporting competitions; we call it “Olympism”. We define this as “a philosophy of life, exalting and combining in a balanced whole the qualities of body, will and mind. Blending sport with culture and education, Olympism seeks to create a way of life based on the joy found in effort, the educational value of good example and respect for universal fundamental ethical principles”.

Therefore, whether it's an artistic performance by an Olympian with an audience, an Olympic values educational programme incorporated into school curriculum, or a sporting event with spectators, they converge in the act of public attendance. For me, it underscores how sports and the arts have the capacity to entertain, to inspire, and to push human limits.

It is worth highlighting here that one of the most significant changes at the IOC or in the Olympics in recent years is the revision of our motto from “Faster, Higher, Stronger” to “Faster, Higher, Stronger – Together”³. The addition of the word “together” holds profound significance, emphasising the importance of solidarity, and the belief that progress is achieved only when the world moves forward collectively. In the same way, the cultural and heritage industry must embrace diversity and find ways for more collaboration to do things beyond today's norms. This will not only foster unexpected partnerships, but also positively transform society, promoting unity by recognising our similarities rather than focusing on the differences that divide us.

In essence, we at the OFCH are the custodians of Olympic culture and heritage. We champion the synergy of sport, culture, and Olympism to inspire

curiosity, generosity, and ambition across all generations. This is because culture is the cornerstone of human society, spanning the past, present, and future. In this spirit, we invite everyone to partake in the continuous evolution of the Olympics through our exhibitions, educational and research programmes, artistic commissions, social initiatives, and preservation of collections.

Conclusion

In the cultural industry, collaboration and diversity of perspectives catalyse innovation and artistic excellence. A growth mindset premised on no one individual holding all the answers or solutions promotes a collaborative ethos where diverse viewpoints are valued and there is recognition that talents can be developed over time. This approach not only enhances creativity and innovation, but also fosters a sense of belonging and empowerment among artists and creators.

As the cultural industry continues to evolve, I believe that embracing a growth mindset will become a cornerstone for excellence and achievement. This is because the “growth mindset is based on the belief that your basic qualities are things you can cultivate through your efforts, your strategies, and help from others”.

I finish writing this on the cusp of the upcoming Olympic Games Paris 2024, while excitement and anticipation of the Games are palpable everywhere. Ahead of the opening ceremony on 26th July 2024, IOC has launched “Sport. And More than Sport”, a new Olympic Brand platform. The long-term campaign “expresses the multi-dimensionality of

the Olympic experience and everything sport and the Olympic Games bring to people both on and off the field of play. It embraces the magic of sport, but also sport's meaning beyond performance—belonging and human connection, personal empowerment and growth, and opportunities and dreams”.

This wonderfully encapsulates what I firmly believe as well, and provides the motivation for many of us to continue to do the work we do in culture, heritage and the arts. □

About the Author



Angelita Teo has been the Director of the Olympic Foundation for Culture and Heritage at the International Olympic Committee since October 2019. Formerly Senior Director at the National Heritage Board of Singapore, she held dual roles as Director of the National Museum of Singapore and Festival Director for two signature festivals, collectively drawing over two million attendees annually. Teo passionately believes in integrating sports, art, culture, and Olympic Heritage on the world stage while advocating Olympic Values through non-formal educational programmes. Her innovative initiatives resonate globally and, by infusing the Olympic spirit with a delightful blend of athleticism and artistic expression, she hopes to inspire unity and camaraderie across borders—all while placing importance on her family and parenthood journey.

Notes

1. Carol Dweck (born October 17, 1946) is an American psychologist acclaimed for her work on motivation and mindsets. She is currently the Lewis and Virginia Eaton Professorship of Psychology at Stanford University. Dweck's research has garnered widespread recognition, including prestigious awards like the E. L. Thorndike Award.
2. Marissa Mayer, renowned for her tenure as CEO of Yahoo, made her mark as Google's 20th employee and its first female engineer. Today, Mayer leads an AI startup named Sunshine, which secured \$20 million in 2020 for its mission to streamline digital address books, and serves on the boards of Walmart, AT&T, and Nextdoor Holdings.
3. “The original Olympic motto comprises three Latin words: Citius — Altius — Fortius, meaning “Faster — Higher — Stronger”. In 2021, the Session of the International Olympic Committee approved a change in the motto to recognise the unifying power of sport and the importance of solidarity. The new Olympic motto now reads “Citius, Altius, Fortius — Communiter” in Latin, or “Faster, Higher, Stronger – Together” in English.

Bibliography

- Dweck, Carol S.. 2016. "What Having a "Growth Mindset" Actually Means." *Harvard Business Review*, January 13, 2016. <https://hbr.org/2016/01/what-having-a-growth-mindset-actually-means>.
- Dweck, Carol S.. 2017. *Mindset: Changing the Way You Think to Fulfil Your Potential (Updated Edition)*. London: Robinson.
- Dweck, Carol S.. 2006. *Mindset: The New Psychology of Success*. New York: Random House.
- International Olympic Committee. 2024. "IOC Launches 'Sport. And More Than Sport.' With Bespoke Film in People's Republic of China Ahead of Paris 2024." Accessed July 11, 2024. <https://olympics.com/ioc/news/ioc-launches-sport-and-more-than-sport-with-bespoke-film-in-people-s-republic-of-china-ahead-of-paris-2024>.
- International Olympic Committee 2024. "Olympic Values - Excellence, Respect and Friendship." Accessed July 10, 2024. <https://olympics.com/ioc/olympic-values>.
- International Olympic Committee. 2021. "Olympic Motto – 'Citius, Altius, Fortius – Communiter.'" Accessed May 6, 2024. <https://olympics.com/ioc/olympic-motto>.
- National Arts Council Singapore. n.d. "Renaissance City Reports." Accessed April 29, 2024. [https://www.nac.gov.sg/resources/arts-masterplans/renaissance-city-reports-\(2000-2004-2008\)](https://www.nac.gov.sg/resources/arts-masterplans/renaissance-city-reports-(2000-2004-2008)).
- Quiroz-Gutierrez, Marco. 2024. "Former Yahoo CEO Marissa Mayer Was Google's First Female Engineer—Only Because She Tried to Delete a Recruiter Email and Accidentally Opened It Instead." *Fortune*, May 8, 2024. <https://fortune.com/2024/05/07/marissa-mayer-google-first-female-engineer-email-accident-yahoo/>.
- Roach, Jacob. 2023. "Microsoft Explains How Thousands of Nvidia GPUs Built ChatGPT." *Digital Trends*, March 13, 2023. <https://www.digitaltrends.com/computing/microsoft-explains-thousands-nvidia-gpus-built-chatgpt/>.
- Witt, Stephen. 2023. "How Jensen Huang's Nvidia Is Powering The A.I. Revolution." *The New Yorker*, November 27, 2023. <https://www.newyorker.com/magazine/2023/12/04/how-jensen-huang-s-nvidia-is-powering-the-ai-revolution>.

Culture's Contribution Towards a Liveable and Distinctive City

Rosa Daniel

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Rosa Daniel, Dean of the Culture Academy at Singapore's Ministry of Culture, Community and Youth, reflects on how culture shapes distinctive cityscapes which are unique and endearing to residents and visitors. What are the opportunities to expand career pathways for our cultural workers through inter-disciplinary work in related domains of design, architecture, and infrastructure planning?

Last May, I had the privilege of launching, at the Venice Architecture Biennale, the Singapore Pavilion intriguingly titled “When is Enough, Enough? The Performance of Measurement”. This May, the Pavilion was part of Singapore Archifest 2024, and it was a pleasure to revisit the exhibition back home.

The Singapore pavilion was commissioned by the Urban Redevelopment Authority (URA) and DesignSingapore Council (DSg), and curated by three architects—Melvin Tan, Adrian Lai and Wong Ker How—from the Singapore Institute of Architects. It drew inspiration from the “Loveable Singapore” project launched by DSg in 2021 where six essential qualities for a city—agency, attachment, attraction, connection, freedom and inclusion—were identified. Close to 100,000 international and local respondents had reflected on what people want from their cities and how “measuring the unmeasurable” could contribute to its loveability. The responses revealed that culture, history, identity and memory are the intangible factors that contribute to what makes a city special.

More recently, I was also invited to speak on a panel at the World Cities Summit (WCS) 2024 in Singapore which was co-organised by the Centre for Liveable Cities (CLC) and the Urban Redevelopment

Authority (URA). The sessions at this year's edition drew participation from around 3,500 delegates, including mayors and city leaders from close to 100 cities, as well as policy makers, industry leaders and academics. There was lively discussion on the notion of liveability and how it has evolved to include social capital, as well as acknowledgement of the challenges of measuring impact within and across cities. This followed the WCS Mayors Forum 2023 in Seoul which had also affirmed the need to view culture and heritage as being integral to the soul of a liveable—and loveable—city.

These insights on the international stage point to an increasing convergence of thinking that a city is liveable and loveable when it evokes the intangibles—memory, identity, history and culture. Beyond the traditional physical measures of infrastructural and city planning, these intangible dimensions relate to the lived experiences of how people connect emotionally to places and spaces as home—to live and work in, to raise families, or to age well in.

This is what many citizens feel at a personal level. Many a time, while walking through the neighbourhoods of Singapore, we feel and know we are home because of the familiar scenes that evoke memories that go as far back as childhood. They make this place unique for us even as other glittering cities of the world beckon with their attractions.

As we reflect upon what the future holds, I am optimistic that new pathways will open up in the creative sector. We already owe much to the specialised professionals who build our city through excellence in architecture, engineering and design. But our artists and heritage experts will also be valued for building a more liveable and loveable city that reflects our rich multicultural heritage with vibrancy and character through diverse, engaging artforms.

Those of us who have worked in the sector know that access to arts and culture—across all age groups, income and education levels—plays a part in enlivening the city. Engaging in activities that make our civic spaces culturally vibrant and distinctive is one way every citizen and resident can contribute in building a unique and loveable home for themselves, their families and their friends.

In the National Arts Council's (NAC) Population Survey on the Arts 2023, 77% of Singaporeans indicated that the arts and culture gave them a greater sense of belonging to Singapore, while 75% felt that the arts and culture improved the quality of life. In the National Heritage Board's (NHB) Heritage Awareness Survey 2022, 90% of Singaporeans surveyed recognised how engaging with heritage experiences increased their own awareness of Singapore's history and heritage. These datapoints reinforce how the arts and heritage are embraced by the broad populace.

Over the last 12 years, significant investments have been made in arts education under the Arts and Culture Strategic Review (2012 to 2025) with successively larger annual budgets for the cultural sector. Singaporeans now enjoy rich and diverse arts and culture on a year-round basis, attesting to artistic energies and talents that grow and engage audiences. In the years ahead, our cultural workers should be supported as they attain professional skillsets and take innovative approaches to deepen citizen engagement. This will create a virtuous reinforcing loop for citizen contribution anchored on a strong sense of identity and belonging through the arts and culture.

Today, Singapore is a UNESCO Creative City of Design, the Singapore Botanic Gardens is a world heritage site, and we have 75 gazetted monuments and more than 7,000 conserved buildings. There

are vibrant and distinctive cultural precincts like Kampong Gelam and Little India which reflect the multicultural soul of Singapore, and capture both the memories and the aspirations of our different ethnic communities. Most of our MRT stations and public parks feature artworks and aesthetics in their architectural designs that evoke our heritage and identity. These help make Singapore distinct from other international cities. We would do well to involve more extensively our artistic talents in designing and activating our city and precincts.

The five-year masterplans from NAC and NHB also articulate the government's continued commitment to enhancing our living environment through arts and culture initiatives. Evoking the intangible qualities of identity and memory, such initiatives will inject vibrancy and creativity in communities and precincts. For example, NAC's Our SG Arts Plan (2023-2027) identifies A Distinctive City as one of three strategic thrusts, emphasising how spaces can be invigorated by the arts, contributing to making Singapore an endearing home and attractive destination. Similarly, NHB's Our SG Heritage Plan 2.0 highlights how heritage can weave a strong social fabric by uniting communities and creating a sense of belonging. Through these two strategic plans, arts and culture play an increasing role in enlivening Singapore for both residents as well as visitors.

A recent, seminal exhibition by the National Library Board (NLB) and URA, "Dare to Design: Singapore Architecture 1960s–2000s", captured well the distinctiveness and identity of our built heritage over the decades. Likewise, NHB's Preservation of Sites and Monuments division's "PSM50: Celebrating the Golden Jubilee of Singapore's Preservation Journey (PSM50)" exhibition at the National Museum of Singapore in 2021 tapped innovative ways, such as 3D printing and virtual reality, to provide different perspectives of Singapore's national monuments.

These have helped Singaporeans deepen their appreciation of what has gone into the island's built environment.

Our public housing has become integral to the Singaporean identity and won international admiration. We could draw from excellent examples of living museums such as the Netherlands Open Air Museum and the Beamish Museum in County Durham in the United Kingdom which leverage technology and thoughtful curation for immersive experiences to highlight the uniqueness and remarkable progress of Singapore's public housing infrastructure. Executed sensitively, such projects can balance adaptive reuse and city rejuvenation, objectives necessary for the evolving needs and social memories of our future generations.

These developments point to the greater need for interdisciplinary and integrative mindsets for our cultural workers. More than ever before, the domains of architecture, design, arts, heritage, education and outreach need to come together to make meaning and foster identity in a collaborative building of city and home. This calls for new ways of training in our schools and tertiary institutions that build in our younger generations the attitudes and capabilities that will enable them to work across domains, think collaboratively, and innovate with the new frontiers offered by technology.

Another critical skillset is the ability to be data-driven and evidence-based. Our cultural workers must be equipped with the knowledge and interest to be informed by qualitative and quantitative measures of success, to be confident in benchmarking with international good practice, and honest in evaluating outcomes in a resource-scarce world. Data provides quantifiable measurements of progress towards liveability, and, ultimately, the quality of life in Singapore. Tracking and measurement via digital

capture will be necessary at the community and precinct level to complement big data at the national level. There would be a need for commitment by public agencies to invest in data capacity-building through technology or human resources to better track and evaluate both quantitative and qualitative data. There can also be creative channels to gather citizen data and feedback that help government agencies shape their strategies.

Ultimately, a city that is liveable for its residents must foster a sense of belonging and affiliation to its places and communities. It could track this by tapping on a variety of data collection methods such as pulse trackers and sentiment gauges. Buildings and precincts that preserve cultural heritage or community identity are also measurable and relatable indicators. These quantitative measures of built and intangible heritage are based on standards of excellence by international bodies such as UNESCO and the International Council on Monuments and Sites (ICOMOS).

The increasing role that the arts and culture play in enlivening a city underscores the need for global urban indices to measure liveability more comprehensively and holistically. Cultural metrics currently feature in some indices such as Mercer's Quality of Living and EIU's Global Liveability Index. There is still room to include a wider range of indicators or to review the weightings. Possible metrics could include: the level of civic participation and engagement in cultural events; the utilisation and activation of public spaces for cultural activities such as performances; and the number of efforts to conserve and promote the city's cultural heritage, traditions and practices. These metrics reflect the degree to which people have agency and ownership in enhancing the liveability and distinctiveness of their city.

Cultural administrators and researchers will need the skillsets to work with their counterparts, first across domains within Singapore, and then with like-minded cities to identify and harmonise data requirements, set up the local data architecture and access comparative data for benchmarking in the international context. The biennial World Cities Summit convened by CLC is a valuable platform to curate and advance such conversations across cities on liveability and sustainability.

As we navigate the increasing complexity of our operating environment, three big drivers of change will impact Singapore's liveability and distinctiveness. The first is resource sustainability with which this land-scarce city-state may host our growing population's "live, work and play" needs; these resources have to be provided affordably and optimally for current and future generations. The second is technology which, with its disruptive risks and opportunities, will require forward thinking to harness the opportunities while mitigating the risks. The third driver, demographic change, particularly with regard to an ageing society, requires us to design solutions with a view to active ageing and mental wellbeing.

These drivers, in fact, highlight the central challenge: the need to draw on the stable anchor of emotive familiarity and connectedness with heritage, memories and identity, while preparing for the future through enabling facilities and creative design. Confronting this challenge opens up exciting and compelling possibilities for the arts and culture to create and sustain Singapore as a liveable and distinctive city. □

About the Author



Rosa Daniel is Dean of MCCY's Culture Academy where she drives leadership development, cross-cutting research projects and international partnerships for the culture sector. Daniel also serves on the boards of the Institute of South Asian Studies and Lien Council of Trustees. She chairs the Advisory Board for the College of Humanities, Arts and Social Sciences at Nanyang Technological University. In September 2022, she was appointed Singapore's Ambassador to UNESCO, representing Singapore's interests in preserving its culture and heritage, as well as profiling achievements in education and science. Daniel has held various leadership roles in public administration. Most recently, she served as Deputy Secretary (Culture) from 2012 to 2021 in the Ministry of Culture, Community and Youth, and was concurrently Chief Executive of the National Heritage Board from 2013 to 2017. From 2017 to Feb 2023, she was the Chief Executive of the National Arts Council.

Note:

1. An earlier version of this essay was first published in *The Business Times* in Singapore on August, 23, 2024.

What Will Work in Culture Look Like Tomorrow?

A Special Cultural Connections Panel Discussion

Cheryl Chung

Founder and CEO, Tent Futures

Gene Tan

Chief Librarian, Chief Innovation Officer, National Library Board (NLB)

Kok Heng Leun

Theatre director, playwright, dramaturg and educator

Suenne Megan Tan

Senior Director of Museum Planning and Audience Engagement, National Gallery Singapore.

Yeo Whee Jim

Founder, Light My Path Consulting

Leading minds in Singapore's arts and cultural scene sit down for a lively and broad-ranging forum on the future of work, and ponder the direction that the sector should be heading in an increasingly fragmented world and a complex society at home.

Cheryl Chung (CC): Good afternoon everyone. Thank you for making time today. I'm Cheryl. I specialise in strategic foresight, and have done work in futures thinking, scenario planning for different sectors, mostly with government. My job today as a moderator is to gently nudge, push back, explore different perspectives, and keep people talking. I'd like to keep the discussion organic and conversational, if we can. First, let's start with introductions?

Suenne Megan Tan (SMT): I'm Suenne. I oversee museum planning and audience engagement, and I've been with the museum sector for more than 20 years, both with the Singapore Art Museum and also with the National Gallery Singapore. I started with the Gallery before it opened to the public in 2015. I think the museums have seen dramatic shifts in recent years. So we're excited to see where the future lies. I look forward to exchanging views.

Kok Heng Leun (KHL): I'm Heng Leun. I'm a theatre practitioner. I used to run a theatre company called Drama Box. I've since stepped down but am still with the company as a full-time art-maker.

Yeo Whee Jim (YWJ): I'm Whee Jim. I was with the Ministry of Culture, Community and Youth (MCCY) from 2012 to 2017. Until recently, I ran my own consultancy firm which offered corporate, learning and workshop facilitation.

Gene Tan (GT): My name is Gene, I'm the Chief Librarian and Chief Innovation Officer at the National Library Board. I don't know how many past lives I've had, but I led "The Future of Us" exhibition as part of SG50 in 2015 and the "Singapore Bicentennial Experience" in 2019.

CC: Given that we are talking about the future of jobs in the arts and culture sector, I would like to ask you to articulate your dreams and hopes for the sector, especially in the context of jobs. Take us through what that vision looks like.

SMT: This is something that we've been contemplating within the museum: what role do we play? How can we best serve society? From my perspective, I believe that cultural workers should also be leaders of change. That's the vision I hold. We know that the needs of society are constantly evolving, and we see transformations unfolding alongside broader challenges in the social, cultural, political landscape. We're aware that global challenges are multifaceted, from climate change, and disruptions caused by emerging technologies, to the complexities of ageing populations, and so on. We also know that failure to address these challenges could exacerbate tensions and create deeper divisions.

In considering what the important mindsets are for a cultural worker in the future, I've landed on three qualities. Firstly, we need to be reflexive. Reflexivity is really the ability to critically examine and understand the role of cultural institutions within the broader socio-cultural landscape, especially when museums and cultural institutions are part of the larger ecosystem.

Secondly, the willingness to adapt to changing social needs—recognising the needs of society, and



Figure 1. Panel discussion with Suenne Megan Tan (left), moderator Cheryl Chung (second from left), Gene Tan (centre), Kok Heng Leun (second from right), Yeo Whee Jim (right) at the National Gallery Singapore.

being open to reimagining ways in which cultural institutions can contribute to positive social value.

Thirdly, adopting a collaborative mindset. Cultural workers will need to possess strong collaborative skills because their ability to solve problems increasingly no longer rests on just specialists or experts within the specialised field. To solve more complex problems, we need to work across disciplines. We also need to work across sectors.

On partnering, we already see partnerships happening between museums and the healthcare sector, museums and the education sector, as well as with the technology sector. I think that probably will bring future value to both the respective field and society.

YWJ: I love what Suenne mentioned. It's something that I used to grapple with when I was with the ministry. Is culture part of the larger conversation? Are we even relevant?

I think that cultural workers have to embrace AI and technological advancements rather than say they belong to another sector. So what Suenne said resonates. Despite the narrow definition of culture which we practise in Singapore, arts and heritage, to me, is clearly part of a larger social policy.

Social policy and economic policy are inextricably linked and have a bearing on national security policy. Our own sovereignty, our existence as a nation, and whether there is a stable condition for things to happen. It scares me to think that if culture is not part of the conversation about the future, either with the future of Singapore or the future of the world, we run the risk of being irrelevant.

It always struck me when I had to go and negotiate budgets with the Finance Ministry that we needed to recognise culture as being part of a larger ecosystem. It doesn't exist on its own. Sure, cultural excellence important, but it doesn't stop there. It is very much part of a larger ecosystem, locally and internationally.

KHL: In the first place, when we say “cultural sector”, we seem to view it as being separate from the other sectors. But, culture itself, broadly defined, examines a way of working, a way of living, and includes values. This means, from a larger perspective, that culture would embrace even economics.

We have to acknowledge, which I don't think we have, that our economic sector is populated by people who create the culture that happens within us. So, the sector must see themselves as cultural producers, and the cultural sector should not just include the culture-makers, the people who create all those artefacts, artworks, exhibitions, or heritage, but also include the people who are part of the economic sector, because, currently, they are often the ones who determine the way we live and work. So, in the world of culture, artists as well as economists, makers of iPhones, AI programmers, and so on, are all collectively producers of culture. And if they're part of the sector, do they actually have the skills to be reflexive?

The second role is that of the people I call the cultural documenters. These are the people who put the data and archives together. The third role is that of the cultural critics; these are the people who look at the things that are happening, and give meaning to them.

I mean, let's look at the movie, *Oppenheimer*. In the end, the main protagonist was really reflecting on the choice he made. That was a moral choice, one which posed an ethical question. Sometimes, I wonder how many people in our economic sector think about the ethical choices they make. In fact, rather than think about culture in terms of creative innovation, as a way to imagine our future, a thinking that is reflective of the industrial revolution, should we move to see culture as a way of thinking and living?

We should be working with economists to critique the kind of work that happens here. I think about Alvin Toffler's *Future Shock*. It is relevant to us even though it was written in the 70s. My question is: how come cultural workers are never being asked to be part of the conversation? In fact, speaking as an artist, I feel we are always being put at the back end.

YWJ: “Non-essential”?

KHL: Non-essential. We're never part of that conversation. It's always an afterthought.

YWJ: I like what Heng Leun said. When I was working in Ministry HQ, the way I framed it many times was: how can you use culture to fulfil your KPIs (key performance indicators)? How can culture be useful in enhancing education, economics, diplomacy and so on? Underlying that is an assumption that, of course, there must be cultural excellence. Because if you don't have cultural excellence, how do you offer your art? I know we hate to say we are instrumentalising the arts, but I think what seems like a common theme pointed out by Suenne, Heng Leun and, perhaps to a lesser extent, me, is that culture needs to be part of that conversation.

Culture, since time immemorial, has always needed patronage. Royalty, rich people, philanthropists, companies, and, I suppose in Singapore's context, government too. I think the cultural workers in the sector need to know that they have to be part of the conversation. Otherwise you'll be left behind, become irrelevant.

CC: What I'm hearing from this conversation is that a lot of the framing of culture and jobs in the sector invites reflection about the skills

that cultural workers possess, skills which can contribute to the creation and sense-making of a future. I think there is a kind of beautiful, creative, generative energy there that, to me, feels untapped. I'm curious to unpack that. During COVID, I moderated a similar kind of panel, and one significant theme was how arts and culture contribute to creating the future. You know, in the current conversation, AI is going to descend upon us. Will everything become AI art? How can culture and artistic expression explore identity or teach us to be more human in the AI world? That's another way of framing the question. I'm curious about your perspectives.

GT: I'm not a tech person at all. I'm an English grad and did Humanities subjects at A levels, but I like to think I bring a different perspective as a non-tech person.

CC: So, what do you bring from your English literature background to a transformation, innovation role that's typically very technology defined?

GT: In the library world, such a role is usually run by a tech person or someone with design thinking skills. But, we are transforming the library experience with storytelling, heritage and generative AI. We're launching nine different generators to look at almost every aspect of the library business in order to change the nature of that service to our customers. It has been quite frightening navigating so many difficult challenges because there's so much that's unknown. But we're taking a careful, curated approach to generative AI.

SMT: I'll build on what Whee Jim said earlier, about the perception of a dichotomy between "art for art's sake" and "art as instrument". Traditionally, museums have been viewed primarily as repositories of art

and heritage objects. However, this has changed. Today, there is a global recognition that museums also play a social role, opening up resources and spaces to provide areas for reflection, inspiration and well-being.

As recent as 2022, the global understanding and definition of museums went through a transformation. ICOM (the International Community of Museums) implemented a new museum definition after many rounds of debates. This was perhaps the most significant update in the last 15 years. This new definition introduced four key terms: inclusivity, accessibility, sustainability and ethics.

This revision signified an acknowledgement that museums must evolve to meet the changing needs of society, and effectively serve our communities. However, this journey has not been straightforward. There are diverse perspectives on what arts and culture should be, whom they should benefit, and the roles museums should play. Yet, I believe that if we aspire to be part of this broader dialogue, there needs to be greater alignment in mindsets. This entails embracing a more collaborative and inclusive approach to understanding our potential impact.

KHL: I've also been thinking about Whee Jim's points on cultural excellence. What is cultural excellence? I think we need to examine what art and culture are. For me, an artwork, a performance or a material artefact is excellent if it shifts the way you feel and think about things. A work that does this facilitates critical thinking, and has excellence. The most interesting art has always been art with that kind of critical excellence.

Excellence, for me, is defined by that kind of critical thinking. Art can be useful if it shares that skill of critical thinking with every sector.

A play, for example, may tell the story of an individual. But, what it also does is create a complex web of relationships, politics and power so that we may understand the world in a particular way. It is the same with a complex painting or installation. A work can embody so many different elements. Beyond being beautiful, it can challenge the way I look at my environment, at my relationships with friends, at society. And I think that has always been what artists have been doing. In fact, some of the most interesting artists have always been at the forefront as futurists. They tell stories about what can happen if humans continue on a particular track and warn us.

CC: Thanks, Heng Leun, for sharing what cultural excellence might be. I love the phrase “an artist is a futurist”! Now may be a good point to think about the trends we observe, what we see in the cultural sector, what innovation looks like beyond AI, including business model type innovations.

GT: I'll share from the library perspective and I'm sorry if it sounds a bit parochial! I've been to libraries around the world. China and the Nordic countries are the two most progressive systems in the global field. The Nordic libraries are very focused on building community, which is great even though they may not embrace as much emerging technology in transforming themselves. Then, there are the Chinese libraries which invest in technology, especially in transforming their operations, but still focus on printed books. Have they or any of us transcended the current age of libraries?

There are four ages to the library. The first is the Acquisition Age: this is when you accumulate as much as possible. Think of the library at Alexandria and monks running early European libraries. The second age is the Access Age: it means people get access to content. For example, how Carnegie

started all the great libraries in America. The third age, where almost everyone is at now, is the Maker Age. I help users create something at the library, for example, with 3D printing in a 3D lab. The fourth age is one I think we need to approach very carefully. It is the age of the Generative Library, where it is not just technology with users taking stuff, but an age of working with a range of people to create new knowledge and experiences with generative AI. The goal for me is that librarians play this role so that the libraries evolve. Every action of every visitor incrementally changes the nature of the library.

CC: It's a much more emergent kind of organisation.

GT: Yes, dynamic and organic. So that's something we're experimenting with. I think I'm letting the cat out of the bag now, but we're going to experiment with something towards the end of the year, where all our generators come together to create that kind of library. I hope to work with artists and writers on this journey, to figure out how we can write this together, create an engine, and generate more things. But as partners, not suppliers. Large language models now take all this content to generate new things. I don't believe that should be the way. In fact, I believe the anonymity of large language models might kill the cultural sector. How do I put a name to what's created, acknowledge the creative process, even if it's enabled by our apps? I'm keen to figure out how to do that.

CC: Suenne, this brings us back to the conversation we had earlier about the changing definition of museums. This must resonate with you.

SMT: Yes, it does. Gene's generative library brings to mind the concept of the participatory museum. By participatory, I mean having artists also function as educators. In fact, there are artists whose

practices involve participatory ways of working and engagement with different communities in society. So I believe this could be a promising approach to innovation, involving creative individuals who conceive of new methods of working. Another aspect I'd like to revisit is the concept of innovation itself. I prefer to view innovation as rooted in human creativity rather than solely in technology.

I've come across reports of growing interest in the humanities as technology progresses. For instance, more technology CEOs are hiring graduates with backgrounds in liberal arts and humanities. They recognise that technical skills alone have limitations and are seeking individuals with a broader literacy. What truly fosters innovation is the capacity to infuse creativity into the process, to pose questions, and to examine solutions from diverse perspectives.

CC: Any other responses? I'm intrigued by this idea of the generative library, the participatory museum.

KHL: I would like to elaborate a bit more about critical thinking. Often, when we refer to it, we're just thinking about what's better, what's good, what's right, what's wrong. There are other aspects though; it's also about trying to understand how things operate within a complex world. Actually, the next step to critical thinking is generative thinking, which is connected to this discussion. Through critical thinking and a dialectical interrogation of the idea, you generate possibilities. I think a lot of the time that's how art-making happens.

In socially-engaged arts practice, the participatory work is not just about a person taking part and sharing his or her story, but an engagement in the pedagogical process which helps the participants generate other possibilities for their lives. I'm not keen to talk about whether art becomes instrumentalised or not. What I'm saying is that

art has this pedagogical aspect where people learn something, sometimes in a structured way, and sometimes in an intuitive way. For instance, when you read a novel and become affected by the story or a sentence, which you hold onto for life and find useful in decision-making.

What kind of space do we create to allow that? For me, art-making requires three things: space, time, and what happens after. The space could be the library or the museum. The time could be the amount of time you need to engage with the people with whom you're working. What happens after is the artistic and creative process that can be critical, generative, or imaginative.

But we don't think enough about spaces, or design them in a way that allows people to feel that they can participate. Sometimes in Singapore, our institutions are very rigid about the way we can behave in a space. As for time, I'm afraid we now work in a kind of "industrialised" timeframe; we have work hours and rest hours. Our rest hours are strictly for entertainment, while work hours are about making a living. But if we want to be more, make meaning of our life, it cannot be just this or that, right? So where do we find the extra time when we make sense of who we are, how we work, how we relax, what makes me me, or what makes me part of this community? These are the two things that, as cultural workers, we need to constantly challenge. The kind of space that we make, the kind of time that we create for our audience.

I like to say that artists are time stealers. We steal time from the audience. We use that time to make you go through a meaningful, deep, enriching experience, so much so that you think: damn it, I just gave you 20 minutes of my time, spending it on your art, but the experience went deep and its impact will last. I sometimes think the economic sector needs to

think this way too. They are responsible for a lot of the time that we spend, the way we are consuming.

CC: They're also time stealers.

GT: So you buy more shoes! That's their objective as well.

KHL: Yes, but I was just sharing that they're also culture-makers, because society is now organised around consumption and production. The economic sector is responsible; they cannot take themselves away and say, look, we're not in charge. We have to bring them into the conversation and say, you're in charge as well. You also create culture. And what kind of culture do you want to create? This sounds idealistic, but I think it is necessary as we move forward as humankind.

SMT: That's interesting. It prompts me to think how perceptions are shaped and what role education plays in shaping our cultural experiences throughout life. Interestingly, compared to adults, children often exhibit greater comfort in engaging with abstract artwork. They explore endless possibilities free from preconceptions. I wonder: does our progression through the education system and into adulthood result in a detachment from the art experience, ultimately influencing our perception?

As we progress into the fourth industrial revolution, liberal arts education and humanities training remain differentiators. They help us understand and generate value within an evolving landscape, so there is a pressing need to reevaluate the role of art education within this broader ecosystem. Collaboration between museums, schools, and the wider education sector becomes imperative. Hopefully, such partnerships can foster a more holistic and innovative educational approach,

incorporating the arts to equip future generations with the skills needed to navigate and thrive in an ever-changing world.

GT: Do you think art education needs to be recognised? Or does recognition stay within art education? I always wonder about that. Is it so careful that it ends up defining its own boundaries?

SMT: I think there is a lack of time in the curriculum. There are a lot of competing agendas.

GT: To sort of undo your point, apologies for this, is there an economic objective? And the economic objective of the arts may not be... this is very reductive... to sell more art. It could be to sell more shoes. I'm just saying, what if it is for employment, but not as cultural workers? When I talk to all the tech giants and say I'm bringing in art and the cultural perspective, even if I'm not an artist, I wonder if we are creating products that may not be in the market yet. Could this be a way to think about arts and culture? Do we create our own boundaries for art, and limit its application?

CC: Yes, I think that's also part of the conversation. However, the way it seems to be framed in the cultural sector... its application seems much broader.

YWJ: This discussion reminds me how Singaporean we are... [laughter]... talking about what value art education brings to the table, about resource utilisation and optimisation of outcomes. I feel that, sometimes, less is more. At least in the Singapore context. Does everyone need to be involved in art? I remember when we set up SOTA. I really like its mission of nurturing creative citizens. We were clear it was not about producing artists. You can be a chemist, a civil servant, or a surgeon

with an appreciation for aesthetics. This is really important, isn't it? That arts and culture is infused in whatever we do. This gave me hope: as long as we are human, there will always be a space for the cultural professional.

One thought that I had as I was coming here was that actually the future is already here. My daughter and I share a Spotify account, so when she listens to Taylor Swift, I get recommended artistes like Maroon 5 and Christina Aguilera whom apparently other Swift fans enjoy as well. I think cultural professionals need to understand how the algorithm works. Let's say I was in Gene's shoes and in charge of libraries. I go into a NLB app. Do I know how the algorithm works? If I read a certain book, it pushes certain books to me afterwards, right? But in the context of Singapore, I don't think we should work like that. If you read a Chinese novel, should you be reading more and more Chinese novels? If you like Indian classical dance and are ethnically Indian, does that mean you should be served only Indian cultural offerings? Surely this is not what we stand for here in Singapore. What about intercultural dialogue and multiculturalism? When you oversee that kind of monster, it's very difficult, very complex. You would need to deeply understand the technological advancements and how they shape consumption behaviour. How do we navigate that kind of space?

KHL: I'm reminded of two things. One is American educator and psychologist, Jerome Bruner, who talks about cognitive learning pedagogy. In one of his later works, he talks about education as a kind of cultural learning, and how students' minds can reach their full potential through an understanding of what culture means. His definition of culture is probably closer to what I was talking about. It is a broader vision which folds everything into the idea of culture, rather than culture as the lowest priority. I'm sure

all Singaporeans need to understand culture. We need to understand the complexities of how humans operate, work, make decisions and come together, how laws are made, how laws affect each of us, how social policies affect the way we relate to one another.

The second is something I read yesterday which asked: can we make AI more ethical and more moral than a human being? And I ask that question because now we create the algorithm according to how humans behave. But, what if AI could be taught to think in another way, rather than in the way humans typically think? We just think about what we need at this moment, without much foresight. Can AI be created in a way that allows us to think differently? Like what Whee Jim gave as an example. So if you like Taylor Swift, would you even consider listening to, I don't know...

YWJ: Teresa Teng?

GT: Metallica!

KHL: Maybe the algorithm should recommend country music when you listen to Taylor Swift because she has roots there and changed her genre. This way, you broaden your palate. If the algorithm allows us to understand culture, its evolution, its history, how people relate to each other, then it works.

The other thing I was thinking about is relational aesthetics, something I'm keen on, something I realise we have been missing. Honestly, we are all consumed by AI technology, and I find myself everyday struggling to deal with it, learn it, and try to use it. But how much time do we actually spend with another person, having this kind of communication? And, of course, I think this part of our conversation is still an Anthropocene mode of thinking. Can we

think beyond the Anthropocene? Some philosophers have called for a symbioscene, where humans and nature, all living, sentient beings and the non-living can co-exist.

I realise a lot of art-makers nowadays work largely on ideas, but may not be so good with materials. We seem to have lost our aptitude with materials. I've seen older visual artists, who know how to differentiate between different materials and understand which is better with which to express a thought or feeling. When we lose that ability, we get locked into the sort of world depicted in that Pixar movie...

CC: WALL-E!

KHL: Yes *WALL-E*. In it, after having been in a space shuttle for so long, the humans have evolved to have very short arms. That's how we'll end up. We're just not that tactile anymore. So, how would our library, our museums become a different kind of space with materials we can touch and work with?

SMT: I recently visited the Rijksmuseum in Amsterdam. They have a multi-disciplinary education centre located beside the main museum, where the focus is very much on learning to look by doing. It's an exploratory process guided by individual curiosity. They go back to the basics of understanding how art is made, and what artists use to make art.

And the belief is that when you understand the process of creation, you also begin to appreciate art more deeply. For example, learning how different colour pigments were traditionally made rather than assuming that everything comes from a paint tube enhances our understanding of the intricate processes behind artistic creation. In this regard,

foundational practices like drawing, painting, sculpting and the studio practice remain important.

CC: One of the themes I am hearing from all of you is this idea of going back to the first principles. Part of the creative process generates from that, I think. If we live in a world that's derivative, there's a lot of value that cultural practice brings to the creation of the future. Without it, it's very difficult to expand into the future's possibilities. So we need to do something new, right?

GT: The current algorithms are mostly about growth analytics, getting people to buy more shoes, therefore narrowing that group. When you like one genre or product, the algorithm keeps offering a similar genre or product. National projects are a lot more complex. So, something that I want to bring to the table is to have a different sort of algorithm, and we're in the midst of building what we call the "T-shape algorithm". This algorithm runs counter to confirmation bias, equity, and demographic goals. Besides helping users go deeper, every time a user searches for something or consumes something, this algorithm will also nudge you a little to the left and to the right. I think it's possible to apply that to culture too.

YWJ: Precisely. As cultural leaders, we need a deeper appreciation and understanding of the technology. It's not something that can be outsourced. The intercultural dialogue, for instance, connecting across different communities... If you're Chinese speaking, it doesn't mean you should be happy just being in the Chinese speaking community... that's not what we subscribe to. I'm sure you do a lot of outreach...

KHL: I really enjoy working with the Malay community.

YWJ: Which is what we're talking about, right? We don't subscribe to the world's algorithm. How do cultural professionals in our system rise to that level? Unpack what we've internalised, and then do what we do. T-shape algorithm, right? Nudge, nudge, nudge. It requires a deeper understanding, not just cut-and-paste, outsourcing the algorithm. It's not simplistic, but very deep. There is a lot of work to be done.

KHL: I do see the library as a cultural institution, where you're riding the beast of this technology. Conversely, what jobs can cultural workers do now? Maybe all companies in the private sector should employ a cultural worker. All these industries need some kind of HR (human resource) role and perhaps cultural work can lead from there. After all, HR is about the way the company is run, what the company means, the kind of people they are. and the kind of work they generate. And I think culture is formed through HR, which should be seen as a cultural crucible that allows things to happen.

YWJ: There's more drama in HR than there is in the performing arts. [laughter]

CC: **I hope that line makes it into the journal! I feel like we've moved naturally towards the last segment of questions which basically touch on the idea of the weight of history. What are some of these legacies, in both the positive and negative sense, that inhibit the future we're trying to create? For instance, we've talked about the tendency to compartmentalise.**

KHL: I return to Alvin Toffler. While we always say "change is a constant", we're not taught how to adapt and deal with change. Our response is to either accept or reject change, and acceptance can sometimes be passive. So, we just take change and don't think about how we may adapt it such that it

becomes useful and meaningful. I don't think we have that skill. So how do we adapt? How do we take change and make it meaningful for us? And if we need to resist change, we can resist the parts we don't like or don't find meaningful or useful. That requires a number of skills. Firstly, you must be able to discern, and that means thinking critically. Secondly, if you want to adapt, you will need to make adjustment and change; you need to be able to play at the imaginative level.

GT: I'm curious, how do you teach a person change management? Does it work?

KHL: The work I do is highly interactive, and I have come to realise that when we allow participants to improvise within a structure, they become more creative. There are no stakes in the rehearsal; we all try different things and we don't get judged. It's very liberating. Being able to tell your own story is also very liberating.

I've worked in school for many years, and I've realised that one of the things our students can't do well is tell their own stories. They find it very hard to tell stories, not even "once upon a time" tales. They meander, and can't seem to structure their experience.

It's not about wanting them to be artists, but the process of making art means one very simple thing—sense-making. Do I use red or blue to draw an image of myself? And I think if only you can tell your own story, articulate your values and your system, then you're able to discern and be critical, and you're able to say, I think this crossed my boundary, right?

CC: **Am I right to say that what I'm hearing from you is that the cultural sector offers processes and spaces to rehearse the future?**

KHL: I think another function of culture which we have not thought about is how culture heals, repairs, and cares. This will be needed in the future. We need this kind of healing process. For example, reading poetry can be healing. Sometimes, when reading about the Palestine-Israeli conflict leaves me frustrated, reading a nice poem helps me to feel that there's hope. Art and culture heal and repair us, even if just a bit. And I think cultural workers do that work.

One of the things about culture is understanding that there are fallacies in the way humans think and act. Culture embraces these fallacies. Most of the time, we put the human at the forefront. We try to get the best of everything, but we forget to acknowledge the fallacies of humans.

I always tell my actors: every day, there will be at least one problem. We learn to accept that imperfection. If we don't accept imperfection in ourselves, we don't grow; if we are too tough on ourselves, we end up living a fraught existence.

GT: I also think the idea of culture has an inherent uncertainty. There's always questioning. Cultural understanding is not merely about making something pretty, it's much more than making something aesthetically pleasing so that you'll buy more shoes.

CC: I also like the point made earlier, about the role for culture in healing and care.

SMT: We already see this convergence of art and well-being in museums like the Gallery, which we refer to as creative health. While museums may not be the centres of gravity in the healthcare space, they can play a part in enabling a sense of wellbeing. I think an openness to cross-sector collaborations is key.

Let me share a programme where we were delighted to witness the transformation in participants. While there is an increasing number of people affected by dementia as Singapore's population ages, we recognise we are not experts in this field, so we partnered with Dementia Singapore to establish a programme called "Art With You". This initiative was not solely for individuals living with dementia, but also for their caregivers. Caregivers' days revolve around practical matters like daily care and routines. However, when they spent time together at the Gallery on a few artworks, engaged in discussions, participating in art-making, it enriched their conversation. This investment in time pays off, deepening the bond between two people. Research also indicates an enhancement in the well-being of participants. Such programmes underscore the potential of art and culture to address social issues in our community.

KHL: A lot of cultural artefacts are, in a way, a documentation of human grief and loss. It's a process of seeing what we have, as well as a process of grieving. After doing 10 years of *Both Sides, Now* (Editor's note: this is a socially-engaged arts project in the community, presented by Drama Box and ArtsWok Collaborative), the greatest thing I've learned is that we are not taught how to deal with loss. We're never taught how to grieve.

Heritage is part of that process of helping us heal from grief and loss. And sometimes it helps with repair and healing. Art-making does that. Preserving culture means more than just making an artefact. It's the belief systems, emotions and experiences of a generation of people that we are looking at. To some extent, we lose them almost every day. The cultural way of thinking is to appreciate all these things that are happening and constantly changing, and how we deal with them as human beings.

SMT: I agree. We all possess the capacity to bring our lived experiences to art. We can engage with the art without feeling pressured to find the "correct" interpretation. Research indicates that people typically spend only 20 seconds observing a painting. This is insufficient time for meaningful engagement.

In response, we deliberately invited students in one programme to spend a good hour on a single piece of artwork. We encouraged them to share their insights in a group setting. This approach prioritises introspection over formal technical knowledge, helping individuals delve deeper into their own thoughts and feelings. It prompts reflection: are we sometimes too preoccupied to truly contemplate?

So, with a programme like "Slow Art", we endeavour to slow down, to be present, to be mindful of oneself. That's where we observe people starting to open up, and to engage. Despite often doubting our capabilities, we discovered that we do possess the capacity to connect with artworks on a meaningful level. That's one of the valuable insights gleaned from the programme.

YWJ: I like what you're saying.

SMT: Yes, and in the process of sharing, you discover a common humanity. Everybody may come to a programme experiencing different issues and challenges, but when you come together and share connections, art can serve as a catalyst for exploring different possibilities.

YWJ: I hear you, Suenne. Returning at a personal level to the last point about art that heals, after my wife passed on, I was very privileged to have, as part of SIFA (Singapore International Festival of the Arts), a programme called *Open Homes* which transformed private homes into performing spaces for intimate audiences. I shared how my entire neighbourhood

rallied together to help my wife and me, and called my story "Vertical Kampung". Now, as I undergo my own critical illness, whether I'm writing poetry or sending letters to my daughter about future milestones like marriage, having kids, even her 21st birthday which I may not live to see, I've found it therapeutic. This is my very personal response to hearing Heng Leun and Suenne.

KHL: Maybe, in a way, culture does slow time down. [To Gene] I think you would love people to take more time in the library, right? Being there with the book, going through every word. I think we have become the antithesis to that: everything happening out there is constantly fast, too quick. That need for instant gratification is scary. The T-algorithm, for me, opens up the palettes and allows one to wander. The idea of wanderlust is so important.

CC: Without that exploration, the future is very difficult to create, right? So, I think that's a good thing.

SMT: We were discussing the importance of stories being told. The question we've begun to ask ourselves in the museum is: whose stories are being told? As societies become more diverse and interconnected, it is increasingly important for museums and cultural institutions to actively engage with diverse perspectives, histories, and voices, and to become more reflective of the communities we serve.

In fact, decolonisation offers museums a framework for addressing historical injustices and building a more equitable future, as it prompts us to consider: how might we decolonise and dismantle the various narrative hierarchies we have inherited? In practice, museums can use this framework to critically examine their collections, addressing biases by actively seeking out underrepresented voices and perspectives, tackling systemic barriers to access

and participation, and sharing authority over cultural heritage.

CC: As we draw today's discussion to a close, may we have a couple of lines from each speaker to wrap up your thoughts about the future of work in the cultural sector?

GT: I'm very excited. Sorry, I keep talking about ages. We're in an age of expansion. There are so many ways that we can go, and I am very excited for every sector in this age of expansion, an age of blurred lines.

KHL: In this conversation, I hear a lot of institutions trying to reimagine their positions. Because I work from the ground, I think that's really positive. But I'd like to end on a question: if culture needs to be everywhere, then can those in leadership roles see that it is important that, as soon as they can, they should change the way they talk? Instead of talking about efficiencies and efficacies, maybe they need to think and use different ways of engaging in policies?

YWJ: I'll go next. Because culture is fundamentally about what is human, there will always be a place for culture to exist in the future, unless we go the way of the Dodo bird. Secondly, as humans, we love communities, and culture will always play a role in bridging communities—communities not only in the sense of brown people versus non-brown people, but communities with different interests, different genres, people who are different from, and yet, similar to us. So, I think there will always be a role for culture.

SMT: I'll conclude with the points I began with. I feel very optimistic hearing this conversation. I still feel that, at the end of the day, it's important that we remain reflexive, understand the role that we play in

the larger ecosystem, and are willing to collaborate to bring about positive change. It's by adopting a collaborative mindset that we can create a stronger ecosystem which brings value to the communities we serve and to society at large.

CC: Thank you everyone for a rich discussion which covered much ground and took interesting detours. There's much food for thought for us and, hopefully, the readers. □

This panel discussion took place on March 18, 2024. The editorial team would like to express its gratitude to the National Gallery Singapore which hosted the discussion. The above transcript has been edited for length and clarity.

About the Panellists



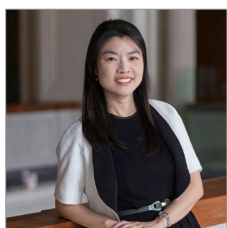
Cheryl Chung is the Founder and CEO of Tent Futures, a strategic foresight research, advisory, and training practice focused on building long-term public good. A seasoned public sector futurist, Chung has over two decades of experience working with senior decision makers in Singapore and the region to identify trends, understand policy implications, create alternative scenarios and develop strategies to prepare for the future. She is an experienced and sought-after practitioner, educator, coach and speaker across the public, private, people and academic sectors.



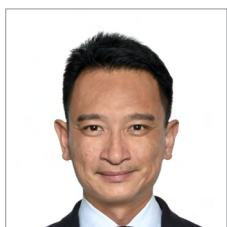
Gene Tan is the Chief Librarian of the National Library Board (NLB), responsible for the professional development of all NLB librarians. As the Chief Innovation Officer, he spearheads the development of LAB25 (Libraries and Archives Blueprint 2025), a new transformative vision for the National Library, National Archives, and the public libraries in Singapore. Previously, he was the Executive Director of the Singapore Bicentennial Office at the Prime Minister's Office, and helmed the Singapore Bicentennial which commemorated the 200th anniversary of Raffles' arrival in Singapore in 1819. He was also the Creative Director of the SG50 capstone event, "The Future of Us" exhibition that captured the hopes and dreams of Singaporeans. Tan also developed the Singapore Memory Project and served as the former President of the Library Association of Singapore.



Kok Heng Leun is a theatre director, playwright, dramaturg and educator. He is known for engaging the community on various issues through the arts, championing civic discourse across different segments of society. Having begun his work in the theatre more than 30 years ago, some notable directorial works include *Drift*, *Trick or Threat*, *Manifesto* and *Underclass*. His explorations with multi-disciplinary, community-engaged arts have produced site-specific works like *ubin*, a three-installation theatre experience, *Project Mending Sky* (2008, 2009 and 2012), a series on environmental issues, *Both Sides, Now* (2013, 2014 and 2017-2019), a community-immersion project that seeks to normalise end-of-life conversations, and *It Won't Be Too Long*, which examines the dynamics of space in Singapore.



Suenne Megan Tan is Senior Director of Museum Planning and Audience Engagement at National Gallery Singapore. She spearheads the Gallery's strategic planning, and drives organisational synergies and transformation, in support of the Gallery's vision of inspiring a thoughtful, creative, and inclusive society. With a keen interest in museums as dynamic sites for content creation and well-being in cities, she advocates an inclusive approach to programming and engagement, prioritising accessibility, and fostering art appreciation across all life stages. With over 25 years of experience in the arts, heritage and culture sector, Tan actively contributes to the broader arts ecosystem through her involvement in various committees.



Yeo Whee Jim has been formally facilitating workshops, programmes and conversations for more than a decade. He was a public officer for more than two decades, of which more than a decade was in senior management positions at various public sector agencies. Issues that he has worked on include sectoral development, strategic planning, corporate governance, stakeholder engagement, cultural philanthropy, and capacity building. Living with incurable Amyotrophic Lateral Sclerosis (ALS) since 2023, Yeo published his first collection of poetry called *Itinerary* this year and continues to write and speak on his life journey.

Bibliography

Toffler, Alvin. 1970. *Future Shock*. New York: Random House.

Bruner, Jerome. 1996. *The Culture of Education*. Cambridge, Massachusetts: Harvard University Press.

