

# Gaming, Ways of Knowing, and Futures

Sohail Inayatullah  
UNESCO Chair in Futures Studies  
Australia

## Personal Context

My own context of using gaming in futures studies is through the social technology of the futures workshop. In the futures workshop, I design the process so methods use traditional cognitive processes as well as games. As developed in research with Paul Wildman on ways of knowing decades ago, this is to move the debate from only focused on scientific knowledge to other ways of knowing (Wildman & Inayatullah, 1996). This is so as to enhance participants' preparedness for the real world, but as well to move from privileging the intellect to other ways of experiencing reality.

My workshops use the Six pillars conceptual framework. The pillars are: Mapping, Anticipating, Timing, Deepening, Creating Alternatives, and Transforming (Inayatullah, 2008). More often than not, this is done via using:

1. Role playing to present the findings from the futures triangle. After participants have mapped the future - the pull of the future, the push of the present, and the weight of history - they present back to each other. However, I suggest they do this via role playing, skits, television/radio interviews, a Ministerial meeting, or other non-formal methods – i.e. games.
2. As well, in the Timing part of the futures workshop, I use the Sarkar game - a role playing archetype based-game where participants are either workers, warriors, intellectuals or capitalists (Inayatullah, 2017). They engage with each other to discover how they act in tense situations and if they are able to go beyond their assigned archetype and create a systemic solution to world problems.
3. In the deepening process, I use the Polak and CLA game (Heinonen, Minkkinen, Karjalainen & Inayatullah, 2017; Inayatullah, 2017a) to understand how worldview and metaphor - the stories we tell ourselves - shape the future. These role playing games illustrate how robust the future imagined in the futures triangle are.
4. Finally, in the scenario process, we encourage participants to not just use analytic scenarios, but to also use video and games to present what a day in the life of a stakeholder might look like. And
5. Last but not least, we access other ways of knowing through visioning, through participants using intuition to create the futures they want.

Table 1. *Overview of gaming within Six Pillars*

PILLAR	METHOD	PURPOSE	RESULT
Mapping	The futures triangle	Presentation by groups using skits, games, role-playing, eg “who wants to me a futurist.”	Groups focus on more than cognition. Play is acknowledged. Break from the intellect.
Timing	The Sarkar game	Archetypes and role-playing.	Focus is on understanding and embodying change. Insight on patterns of history and the future and personal power/leadership.
Deepening	The Polak game	Visions of agency/structure and is the future bright/bleak.	Embodied understanding of self-referential worldviews.
Deepening	The CLA game	Real time interaction to understand causation and the possibility of transformation.	Insight as to the real issues, the move from litany to different levels of reality.

These methods are games in that fun, playfulness, role playing and other lighter modes of doing and experiencing futures are demonstrated. While other colleagues use card games in the Anticipating part of futures studies, I do not, preferring participants to create their own emerging issues instead of the facilitator handing out pre-packaged futures. I remember well during a public keynote at Geelong, Australia (Fowles, 2017) where when I mentioned gaming and the future, someone from the audience stood up and said that a pokemon character, Rattata was actually hovering next to me. He was referring to the augmented reality game Pokemon Go. This, I believed, not only demonstrated my argument but instantly the audience understood that the future was not out there but with us in the here and now.

## Historical Context

While gaming - role playing, virtual games, other ways of knowing and learning, immersive games - are to some extent novel, the future has always been entangled with gaming. Indeed, gaming the futures begins thousand of years ago. In India, there were records - in the Harappan period - from the 26th century (BCE) (Ghosh, 1990) and in Greece, from the 13th century (BCE), which suggest that knuckle bones were used to divine the future. Eventually, these bones become dice, with the same purpose - predict the future by using technologies to better understand and gain insight. Thus, gaming while certainly novel, as we use it in foresight workshops or immersion experiences, is not without historical context.

And indeed, the division we see today between “real” foresight - quantitative, for large multinationals or states - and gaming, as fun, as trivial, is as well not novel. If we go back to the life of Krishna (Anandamurti, 1980) this gets played out in his time at Vrindavan, where he was known for play - singing, dancing, playing, experiencing the world through non-productive experiences or from the view of gaming, experiencing what is, through playfulness. In the next phase of Krishna’s life, he becomes the ruler, engaging in the formality of statecraft. It is not play in terms of the joy, but the gravity of making decisions that impact who gets what - how power and wealth are distributed. This division in the Western world we see through the core archetypes of Apollo and Dionysus. One is the formal; the second is pleasure seeking, informal.

However, this division is transgressed repeatedly. For example, for the those with gravity, chess becomes the serious game of statecraft - the game of kings. The game serves to illustrate and

develop the skill sets to rule, to outwit, to succeed. Thus, we see the foresight work today. Certainly with my clients, be they secondary school children or a national ministry or CEOs, we introduce games not for fun *per se* - though it is important to give the intellect a break from engaging in the challenging task of understanding methods such as the futures triangle or CLA - but for enhancing their productivity, their ability to better deal with a real world experiences from having gamed them earlier. Gaming thus can be about enhancing productivity and efficacy afterwards - after leaving the futures workshop - and during, by providing an intellectual break, where other ways of knowing can enter foresight.

## Gaming and the Disowned

Games have an additional role as well - they help us to access what we disown. The disowning process assumes that reality is dialectical, that what-is contains its opposite. For example, in a workshop for an Australian city council, the official vision of the future was creating inclusive ageing. In the gaming part of the process, participants role playing ageing with the main take-aways that individuals did not like the aged. Indeed, songs and skits all portrayed the aged as burdensome. The gaming brought about the opposite, what the rational mind did not wish to say and see. This disowning can be uncomfortable as individuals wish to believe the future they express publicly is the future they actually believe internally. Thus, in the Sarkar game, we find previously peaceful individuals, eliminating other classes of people when they are given toy guns. When asked why they “killed” the other participants, they often claim the script or the facilitator told them to. In reality, the script is neutral. Thus, gaming helps access disowned aspects of strategy. In the chess set model of gaming, there is no disowned since the game is confined to one task - capturing the king. It is indeed designed to utterly disown complexity. However, with the games I use, our intention is not just enhanced productivity and fun, but accessing that what we hide from others. This is crucial as the disowned can later emerge to sabotage the plan or the policy. Robustness is lost as the self who implements is different from the self that creates.

Gaming also leads to emergence. In a CLA game (Milojevic & Inayatullah, 2015) that was focused on the number of Indigenous/Aboriginal medical personnel - nurses and doctors - needed in the future, as the game progressed, the frame changed from forecasting labour needs - workforce planning - to power. An alternative worldview entered the game, that of imagining the future where the Prime Minister was Aboriginal. In that future, the number of nurses and doctors was merely litany since the frame of reference had changed. With Aboriginal leadership, hospitals could become safe cultural spaces for indigenous peoples and thus more nurses and doctors would become the norm. This became surprising for health officials since they saw the issue as a workforce planning one, not a ways of knowing issue (safe cultural spaces) or a power issue (an Aboriginal prime minister).

In the Sarkar game, as well, participants - for a rural health ecology project - commented that the game helped them understand that their visions would not succeed, since they did not trust each other. In the game, they were unable to create a society where all participants would be happy. Thus, team based action learning projects that created trust by doing became the most important next step. The attending health director ensured that these projects were funded.

The Polak game, invented by Peter Hayward and Joe Voros from Swinburne University, (Polak, 1973) helps, I find, individuals to open up to alternative futures by understanding others. Once they stand in one of the four quadrants (the future is bleak versus the future is bright as one variable, and I can change the future versus the future is created by larger forces as the other variable) they come to understand that their view of the future is self-referential and other perspectives are needed. Of course, from time to time, a CEO is horrified that others see the world differently from them, but generally this can managed in the CLA process.

## Types of Clients and Gaming

For the workshop facilitator, knowing which game to use is somewhat intuitive. However, thirty plus years of experience provides these types.

1. The rule maker - for him or her, the future is used to mitigate risk and reduce uncertainty. Gaming is anxiety producing and when used, must be framed as increasing productivity or early identification of risks. In that frame, they will play. As fun, or as other activities that appear to be trivial, this is to be avoided.
2. The idealist - for him or her, the future is a values based vision, of a greener and more peaceful world. Gaming is embraced as they recognize the value of going beyond the intellect. Gaming can also help access their disowned – strategy.
3. The pragmatist - gaming is a side show, as it takes away from creating the product or the new strategy. However, if a case can be made that enhances utility, it can work.
4. The creative - for this person, they are tired of the same old, same old. Gaming as it leads to emergence is truly embraced. They wish for the novel. At the same time, it is important to ensure some action learning projects result, so they are grounded.
5. The philosopher - for this person, gaming is worthwhile if it leads to insights. Gaming as fun would be seen as trivial, since “I think, therefore I am”. They are fatigued from being in a world of lower IQ individuals and wish to understand how the world can be changed. Most believe it is too late to do so, thus gaming, needs to provide deeper insight into what is possible.
6. The collector - for this person, every game, every method is required. They are fearful they will miss out on a category and be seen as less worthy. Gaming is one more tool. While this perspective ensures they are open to gaming, however, in their need to collect tools, they may forget that gaming is there to change them, the workshop process, and the future. They need to be pushed from collector to doer.

Table 2: *Types of clients and frames for gaming*

TYPE OF CLIENT	FOCUS	FRAMING THE GAME
The rule maker	Wishes to reduce uncertainty. Strict in the box	Games as a way to increase productivity
The idealist	Focused on the desired vision outside of today	Gaming to understand the disowned reality of real-politik
The pragmatist	Gaming as a side show	Gaming to enhance strategy, get stuff done
The creative	Gaming for fun	Gaming should lead to emergence. Also important to get results to ground creativity.
The philosopher	Gaming can be seen as trivial	Gaming can lead to insight about society and self
The collector	Gaming as one more tool	Gaming can help push them from the mere tool to demonstrable change

Understanding these different orientations to gaming have helped me to conceive of and adapt games and processes in a way that addresses the needs of diverse people and groups. At the same time, this list may also be of benefit to people designing futures games, as it allows the game designer to understand the mix of multiple needs that can be designed into a game, and to choose more intentionally what a game is all about.

## The Utility of Gaming

Thus, using gaming in futures ensures that the approach we take:

- Makes the possibility of understanding futures more likely,
- Leads to greater insight,
- Allows for whole of brain-body-spirit learning, i.e. all ways of learning are included,
- Allows cognitive faculties to be suspended while “body” catches up with futures information,
- Enhances the possibility of a more robust future.

With the CLA framework, gaming works at four levels. At the litany level, a new product or strategy results. At the system level, successful gaming can lead to creating organizational infrastructure that supports novelty and innovation, i.e. At the worldview level, gaming can succeed by creating a deeper culture or capability so that actors are more successful. They have access to differing archetypes, Krishna as playful and Krishna as administrator; Apollo and Dionysius.

Table 3: *CLA analysis of futures gaming*

CLA ON GAMING	
Litany	New product, strategy, or process.
System	New system wherein the systems supports novelty and innovation. Gaming is innovated as a way of learning.
Worldview	Deeper culture or capability so actors can create and play in the new system.
Myth-metaphor	A new narrative is created via contextualized metaphors where multiple ways of knowing are normalized.

## Intelligibility

Gaming is intelligible as a discourse today in that the nature of the futurist has changed. He has gone from the predictor, to the expert - the professor or quantitative modeller - to the inclusive expert (one that works with others) to what we see increasingly - the content facilitator. This latter person, creates value by creating processes that lead to desired products (a vision, a product, a process, a scenario). To do this, content information is important, but equally is the capacity to be empty and guide participants in the room to the futures they desire. The community or experts are included in this process. In earlier incarnations, the community is controlled for, they merely get the results of the forecast, or they are consumers as students listening to the expert talk about the future.

In this latter model of futures studies, futures + gaming: reality is blurred with the real and imagined and serious and fun all seen as legitimate domains. Gaming is used to challenge realist descriptions of reality by creating alternatives. Other ways of knowing are included in the process.

Futures studies is thus not just cognitive. Given that the future is yet to emerge, multiple ways of knowing and concomitant methods and tools are required. Gaming in whatever form - cards, role-playing, movement, AI, dance, songs - can help in making particular futures more real and alternative futures more legitimate.

## Correspondence

Sohail Inayatullah  
Professor, Tamkang University  
UNESCO Chair in Futures Studies  
Email: sinayatullah@gmail.com

## References

- Anandamurti, S. S. (1980). *Namami Krsnasundaram*. Kolkata: Ananda Marga Publications.
- Fowles, S. (2017). *Geelong's internet, walking routes, green spaces, public transport are among its priorities*. Retrieved from <http://www.geelongadvertiser.com.au/news/geelong/geelong-internet-walking-routes-green-spaces-public-transport-are-among-its-priorities/newsstory/53a6debfe6326173fd4906ac8267fed9>. (13 February). Accessed 30 October 2017.
- Ghosh, A. (1990). *An Encyclopedia of Indian Archaeology*. Leiden: Brill.
- Good, A. (2010). *Knucklebones*. Retrieved from <http://archaeologicalmuseum.jhu.edu/the-collection/object-stories/archaeology-of-daily-life/childhood/knucklebones/>. Accessed 30 October 2017.
- Sirkka H., Matti M., & Joni K. (2017). Testing Transformative Energy Scenarios through CLA gaming. *Journal of Technological Forecasting and Social Change*, 124, 101-113.
- Inayatullah, S. (2008). Six Pillars: futures thinking for transforming. *Foresight*, 10(1), 4-28.
- Inayatullah, S. (2017). Macrohistory and timing as practice. *World Future Review*. January, pp. 1-8.
- Inayatullah, S. (2017a). "Causal Layered Analysis", in Roels, Corrine, *Prospective and Strategic Foresight Toolbox*, Paris: Futuribles International.
- Milojevic, I., & Inayatullah, S. (2015). Narrative Foresight," *Futures*, 73, 151-162
- Polak, F. (1973). *The Image of the Future*. Translated by Elise Boulding. San Francisco: Jossey-Bass.
- Wildman, P., & Inayatullah, S. (1996). Ways of Knowing, Civilization, Communication and the Pedagogies of the Future. *Futures*, 28(8), 723-740.
- Vera, O. (1984). *Sports and Games in the Ancient World*. London: Orbis.