#### ARTICLE

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# A Futurist Revisit to the "Value Chain"

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#### Abstract

The discipline of Future Studies and the work of the futurist have been evolving since the beginning of the profession, as have the tools of the trade. Artificial intelligence and cognitive computing, as well as other technological advances, impact futures work unevenly by challenging the role of the human while bringing a vast array of technological toolsets to the profession. This article enlists Porter's Value Chain, Inayatullah's Six Pillars, Forecasting, and Disruption, in drawing upon the past, present, and future to inform the practitioner's role as well as to apply models and lessons from the futures discipline to organizational behavior and management.

Keywords: Disruption, Forecasting, Cognitive Computing, Artificial Intelligence, Value Chain, Strategy, Planning, Futures, Futurist, Scanning, Trends, Strategic Planning, Transformation, Organizational Behavior, Management

### Introduction

The futurist value proposition and the tools of the trade have been changing since the beginning of the profession, and technology likely has in store even more disruptions. Futures work has developed over the course of history metamorphosing through astrology, prophecy, physics, foresight, scenarios, alternative futures, aspirational futures, and transformation (Milojevic, 2002). There is a wide variety of opinion on where futurist work began, and archeologists and historians continue to uncover new findings. In 1853 British archeologists uncovered The Enunma Anu Enlil stone tablets, dating back to 3000 b. C, in what could be the oldest record of astrological predictions using detailed charting of the stars for weather forecasts, events, and developing better timing for agriculture yields (Heidelberg Fincke, 2003). Later, prophecy emerged as attributable to Hebrew culture in 1250 B.C. and in other cultures and religions (Haran, 1977).

Futurist demand has punctuated the landscape of history, becoming particularly acute when human "Maslow Hierarchy of Needs" types of challenges, like threats to food, water, safety, and wellbeing rear their ugly heads (Maslow, 1943). The more serious undertaking of future studies in the World War II era were, in many ways driven by social and government responses to those threats spawned by a wartime environment and the potential catastrophic effects of future wars. The call for futurists has often ranged from fortissimo to diminuendo. The 1948 funding of Rand Corporation by the U.S. Department of Defense reached for an octave not previously attained in the realm futures research. Later, with a more defined role and minted university programs in the 1970's, the futurist role had both depth and definition in articulating the objectives of future studies and reinforcing the concept that the future cannot be predicted (Dator, 1995).

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The Cold War, accompanied by tidal waves of social change, sent futurists running to find better foresight frameworks and developing better forecasting methods, many of which gave way to automation and both complementing and colliding with other disciplines like business. Futures work was expanded into the corporate realm by Royal Dutch Shell's use of scenario planning in the 1970's, which incorporated social and environmental stress factors and economic performance in evaluating plausible future scenarios (Jefferson, 2012). In the 1990's As the idea of multiple futures has taken root and flourished, alternative futures and gaming have been among the futurist tools available today (Bezold, 2009). However, in the age of cognitive computing and Big Data, the futurist and the data world are rapidly colliding. While the future itself may not be predictable, many events are, with the use of big data, becoming just that. The value proposition for futurists is likely to continue changing, forcing futurists to continue to question and improve their own value proposition. In this essay, I will: 1) point out that the futurists' profession, like many, is constantly evolving; 2) discuss the advantages and shortcomings of technologies that can be threats or companions to futurists; 3) point to examples where futurists can add value to organizations using Porter's value chain as a model.

#### The Futurist Role is changing: Watson Wants to be your futurist

In the age of "big data", IBM's Watson, and artificial intelligence, business consultants and futurists alike are questioning whether or not their value propositions are at risk. Whether or not they are at risk remains in question. However, it is certain that like most other fields, futurists are indeed being challenged by advances in computing that transfer human skillsets into a computational corollary. Health care partnerships with Watson are expanding, like New York's Memoral Sloan Kettering Cancer Center (MSK), who has developed a Watson for Oncology app for mobile devices that contains MSK's collective cancer expertise. With Watson's supercomputer brother, IBM's Big Blue, winning chess matches, artificial intelligence making sense of complex diagrams, and robots performing human tasks, it is reasonable to question the future of futurists and the profession's value proposition (Ferrucci, 2012).

It seems that the future is further being eroded by the onslaught of the "information now age" characterized by shorter term thinking and eroding technology life cycles. As product life cycles become shorter, links from the value chain continue to be removed as consumers eliminate the middleman and become closer to the producer, resulting in commensurately shorter strategic planning cycles (Huang, 2006). Few industries or consumers seem to have time for an introspective moment, but instead are too busy trying to outrun the massive business impacts of advanced automation that are creating more intimate connections with the consumer. These implications foreshadow a more frenzied environment for futures thinking as corporate strategists sacrifice long term thinking at the altar of quarterly earnings.

Information dissemination has shortened the circuit between knowledge acquisition and decision response. In an era where small sensors will become part of the Internet of Things, the "Three V's" of data growth are growing exponentially. These include velocity, variety of data, and volume (Hendler, 2013). As the internet grows and the Internet of Things (IoT) expands to transmit data from every possible radio frequency-emitting object, creating trillions of data points, growth becomes exponential. Cloud computing, big data, and increasingly higher processing speeds have shortened the distance between looking for answers about the future and finding them in real-time.

#### But, what is the question?

With a world filled with analytics and answers, the new job for futurists may be defining the question. The concept of value derived from futures expertise may be extracting the best source

models to more appropriately frame the series of questions. What could Big Data and modern day toolsets do for the great futurists of the previous generations? In Douglas Adam's story, "The Hitchhiker's Guide to the Galaxy", super computer Deep Thought reveals that the answer to the "Ultimate Question in the universe: "42". However, when Deep Thought is asked to state exactly what the Ultimate Question in the Universe is, Deep Thought responds by laying plans to build, yet, another super computer to find the answer to what the Ultimate Question in the Universe actually is. Technology often offers a superficial and immediate answer but lacks the human reasoning to develop a comprehensive response. Deep Thought portrays our obsession with delegating our analysis and decisions to technology rather than seeking out deeper meaning and delving into core transition points of change where the deepest metamorphosis may take place. Technological solutions tend to be quick fixes rather than the quest for deeper diagnostic approaches.

Artificial intelligence becomes a compilation of what it is fed. As today's super computers digest zettabytes of data, libraries and book shelves give way to online repositories creating a future of near real-time analytics due to enabling mechanisms of the semantic web which is an organizational scheme of ontologies for navigating the web (Barnaghi, 2013). Artificial intelligence holds the promise of human reasoning and creativity but, at least for now, has fallen short. Perhaps, with no known sense of longing, compassion, and "human emotion", the knowledge of digested libraries may not result in an inner metaphor or a narrative. (Inayatullah, 2014; Zalman, 2009).

#### **Artificial Intelligence has Limitations**

In Margaret Boden's article, "Creativity and Artificial Intelligence", plots the basic challenges in computational creativity in artificial intelligence results from expanding upon masses of algorithms and copying human behavior. Boden notes that creativity is essentially a "human" trait and consists of complex problem solving that humans take for granted, such as a basic task of putting on a t-shirt (Boden, 1998, 2006). Recent advances in artificial intelligence show that cognitive computing is largely limited to reorganizing mapped data and "creating" by restructuring accessible information (Boden, 2015). Humans still have the job of being sensitive and creative. In Daniel Goleman's book, "Primal Leadership", Goleman argues that emotional intelligence is central to leadership success and hence the success of the organization (Goleman, 2013; Schutte, 1998). Given these limitations, the futurist can likely add value, however, it may also be incumbent upon futurists to commensurately understand the value drivers behind the organization to apply their guidance appropriately.

# Porter's Value Chain Can help us Understand where Futurists can Provide an Advantage

Tides of macro-environmental change pose serious challenges to governments, non-profits, and for-profit organizations alike. Many of these organizations look toward futurists and strategists to reveal possibilities and render frameworks that bring structure to uncertainty. The value chain has been selected to more closely examine relevance to common organizational components and processes. The "value chain", owing its lineage to Dr. Michael Porter portrays a series of business links and their representation of value in each step of the process (Porter, 1985). The value chain has been traditionally used by corporations and organizations for strategic planning in understanding how each activity contributes value to the overall process.

Porter's value chain has managed to survive decades but has recently suffered an onslaught of attack by the forces of a globally connected consumer moving to an electronic marketplace. In a Harvard Business Review article Nilofer Merchant hypothesizes that Porter's model is depreciating

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in its own value because the value chain, as we know it is breaking down (Merchant, 2012). The inverse model between the collapsing value chain and the futurist appears to open the gate for the futurist to add rather than dismiss it. The democratization that Christensen refers to when mentioning value chain is that the links continue to disintegrate and succumb to the ravages of traditional value propositions while empowering the consumer. The "flattening of the world" or as Christensen says, the "democratization of information" frays traditional barriers between suppliers and organizations as well as employees and organizations. In a recent survey by PWC, "Millennials at Work", 54% of global Millennials expect to have two to eight employers in their lifetime resulting in a generation with much higher turnover ratios (PWC, 2011).

In the era of Amazon.com, the acquisition value chain is also shortening as customers meet and exchange good in online stores with electronic currencies with fulfillment occurring through warehouses staffed by robots. Even customer service becomes flat with online pop up chats, and new demands for immediacy of fulfillment. The world of customer service is now driven by a crowd-sourced empowered consumer where a hotel guest takes an image of an unkempt guestroom, posts it on Trip Advisor, and has hotel management scurrying to put out the fire.

#### The Futurist Becomes the Sherpa

The futurist's role as a practitioner is ever more important in guiding organizations through methodologies that free them from the present and release them to the promise of the possible. In essence, the futurist is leading with questions (Marquardt, 2014). It is likely, however, that the role for futurists may be changing as clients require increasing and specific value and return on investment for those services. In a 2013 Harvard Business Review article, Clayton Christensen, Dina Wang, and Derek van Bever made the case that disruption is occurring in management consulting because of the democratization of knowledge where "Consultancies are shifting from integrated solution shops to modular providers, which specialize in supplying one specific link in the value chain." (Christensen, 2013). This is true across a range of consulting, including human resources, finance, accounting, and related advisory services, such as financial planning and investment. Should futurists be asking the same regarding where they can add value to the value chain? By examining futurist toolsets and understanding where they can add value to clients, it is more readily possible to pair older frameworks with new techniques and new technologies in forging new value propositions.

#### Molitor Provides a Framework for Scanning and Thinking About Value

While Molitor's models could be automated today, futurists can still utilize these methodologies in application to clients and for baselining change detection. Futurist Graham Molitor, known for his trends research, spent more than 40 years developing models for change detection. Charting policy changes for decision-makers in government and the private sector often requires anticipation of the future and impact on the lives of future generations. Molitor's model of the External Environment connotes his creation of distinct categories for detecting patterns of change (Molitor, 2003). The External Environment model is one of many Molitor models for forecasting and detecting patterns that might be foretelling of leading indicators of change. In Molitor's model "Nine Eras of Economic Sector Dominance", he included Agriculture, Industrial, Services, Information, Leisure, Life Sciences, Mega-Materials, New Atomic, and the New Space Age, all of which correspond to eras of man's technological progress from the years 1880 to 3000 (Molitor, 1999). Molitor's work has been successful in laying the foundational building blocks for studying the future. His methodologically has delivered a step by step process for horizon scanning and categorization of the elements of change. Molitor's frameworks produced a stair-stepped approach for anticipating and framing inflection points for change. In James Dator's "What Future Studies is and is Not",

he notes that "to be useful future studies needs to precede, then be linked to strategic planning and thence, administration" (Dator, 1995).

#### Adding Disruptions to Linearity can add Depth and Value

Disruptions help us uncover what we may have missed. Many approaches to trends analysis and forecasting today involve linear analytic methodologies. Disruptive analysis approaches forecasting from an alternative vantage point in asking a different question, "What could prevent the course of events from unfolding in a manner that we expect?" Few secondary, tertiary, and longer term impacts may be as great as disruptions that branch off of the future of employment where cognitive computing may consume swaths of the work force (Frey, 2013). Further, manual tasks requiring human sensory inputs and outputs may cause rewiring of the brain's synapses impacting ordinary functions.

While disruptions can certainly be asymmetrical types of events, they can also occur as secondary impacts triggered by primary events. For example, in the case of self-driving cars, the secondary and tertiary impacts on roads, insurance, legal responsibility, and real estate alone are staggering. Will small communities that depended on roadside gas stations and hotel stops become ghost towns? Will courts consider the machine to be less accident prone than the human? What was the event that you expected NOT to happen? These questions begin to carve away at the causal elements of disruption. One does not have to venture far to grasp images of energy consumption upticks or higher demand for more luxurious self-contained vehicles like, the Mercedes camping van that has grown in popularity with urban commuters in China. In the course of horizon scanning, complementing linear trends with disruptions may add useful human dimensions to an increasingly automated process.

#### Inayatullah's Six Pillars can help us Understand Unique Value

Applying Sohail Inayatullah's Six Pillars, outlined below, can enrich the value chain through adding futures thinking throughout the links (Inayatullah, 2008). Inayatullah's Six Pillars lay out a baseline methodology for framing the future. The futurist role is a truly human role that embraces imagining, envisioning, deepening, and enhancing beliefs about the future and striking at the heart of technological and social change (Figure 1). By adding a futures dimension to the Value Chain, we can also look around the corner to gain better understanding about the pace of change.

Mapping: It is difficult to envision the future without looking at the past. Millennials are poised to be the most significant segment of the workforce, and it is more important than ever to understand how to adapt personnel recruitment, employee retention, and policies to develop and retain the brightest and best employees. Mapping can help management understand where the organization has been and develop possible future paths, milestones, and progress. It can also be a useful tool to understand other value chain segments, such as product adoption, and customer expectations. .....

# **Futurist Revisit to Porter's Value Chain**



Figure 1. Futurist Revision to Porter's Value Chain

Anticipation: Organizations need to look deeper into future trends, emerging issues, and secondary orders of impact in order to plan for the future and avoid missteps. Anticipation can be applied across the organization and its business activities and also be a useful tool for "seeing around the corner". For example, how will rural communities change with the potential of driverless cars? Would rural hotels simply disappear if drivers no longer needed to stop?

Timing: Structural analysis as applied to timing the future and events is integral to the value chain. Using disruptive trends, anticipation, futures wheels, and projecting scenarios can provide precision to value chain elements, such as hiring personnel, making investments, introducing new products, making product or company acquisitions, or improving the planning cycle. Despite better methodologies for prediction, big data analytics, and more precise measurement brought on through the decision sciences, timing of future events is often a function of human behavior. Organizational planners do not have the luxury of long term guessing but must make decisions based upon the best information available under current constraints. However, we can create our best forecasts, and develop organizations that are more agile and more resilient to change. Organizations can develop more agile structures that make acquisition, personnel, and technology development strategies conducive to "internal climate change" based on the evolutionary cycle of the industry. Amazon Prime, for example, has disrupted how we buy groceries by simply moving to under 24 hour product delivery and remodeling relationships with suppliers. If Hertz had known how quickly consumer adoption patterns would take hold in GPS mobile phone apps, would they have installed GPS in so many of their cars?

Deepening the Future: Applying techniques like Inayatullah's Causal Layered Analysis (CLA) and forms of analysis that allow us to gain depth of human insight are increasingly more important as business cycles and technology cycles get shorter. It becomes far more relevant that we understand the human mechanics behind value chain collapse by looking to the past and going deeper into the future. In the areas of Logistics, Stakeholder Support and Service, a savvy consumer, teamed with technology, emerge to reduce the walls of commerce. With the rise of

virtual stores, micro-banking, and now, Fintech, remote merchants in emerging nations can now sell online. The rise of direct payments, such as TransferWise, that remove the bank as the middleman, the emergence of alternative currencies, and pervasiveness of the internet have transformed the marketplace between buyer and seller. By analyzing the deeper human drivers, such as litany, systemic causes, worldview/myth, and metaphor, we can approach the Value Chain's Logistics, Operations, Stakeholder Support, and Customer Service at a level of motivation and intention rather than superficial actions alone. These additional layers can help us delve into rapidly changing relationships and motivations.

Alternative Futures: Many organizations focus on "strategic planning" to lead them across the goal line. However, scenario planning and developing alternative futures can give organizations an opportunity to test assumptions and venture down a path of proceeding assumptions. Applying Alternative futures and scenario planning can be helpful ubiquitously across primary and support levels of the Value Chain. For example, would a Millennial based workforce develop better with "bring your pet to work" or job sharing policies? How would corporate culture change with a protracted policy of free roaming pets in the office?

Transformation: After testing scenario planning, and analysis, transformation puts futures planning into practice to achieve operational goals and objectives. Transformation can happen at individual operational levels or is most desirably led by the leadership of the organization where the entire organizational ecosystem adapts toward a united goal in bending toward the desired future. The transformative process might result in an entirely new corporate vision, changes in personnel recruitment, retention, and work policies, and new service delivery models that impact product development, operations, logistics, stakeholder support, and service.

#### Automating the future: Watson as a Partner

By applying computational toolsets, gaming, and visualization, futurists may be "complemented by" rather than "replaced" with technology and can enhance the value chain. A futurist partnership with technology can add even further value as futurists navigate organizations through the unknown. From games to more high tech scenario planning tools, the futurist, with technology as a partner, has ever more implements to guide clients through futures optimization. Only recently has it been possible to leverage technology's democratization abilities to tap into crowd sourced creativity or provide expanded visioning toolsets. Virtual reality programs, teamed with sensors and cloud computing can now virtualize objects, information, and scenarios in order to "test drive" potential future outcomes. These technologies could apply to everything from multi-cultural user adoption of new technologies to take a broader look at value in their own field of human computer interaction (HCI) and engaged in Dephi and other futures approaches to examine the future of research in their own field (Mankoff, 2013).

#### Why the Human Futurist Still Matters – framing future questions with passion

Futurist works like those of Molitor, Dator, Inayatullah, Bell, Bezolt, Toffler, and others, will continue to matter as they are exemplars of the inquisitive nature of humans and will continue to serve as a framework for anticipating. There is an unspoken but common bond among futurists. They want to make the world a better place. They hail from disparately diverse backgrounds, cultures, religions, and family upbringings but somehow had a "trigger moment" that inspired them to think about the future and how they might change it. Let us take Graham Molitor as an example. As one of the famed, founding futurists, Graham Molitor, has had a flourishing career as a futurist, lawyer, author, inventor, and advisor to Presidents and policymakers. Given his work serving on the Board and as General Counsel to the World Future Society, and as head of lobbying for Nabisco

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and General Mills, he has had unique vantage points to think about social and technological change. The fast paced world of consumer products, produced by the likes of General Mills, requires a steady hand on the pulse of consumers --particularly those who have yet to be born. Molitor was influenced, at a very young age, by libraries, books, and a family member who served in the Washington State Senate. Like Molitor, many budding futurists chose to think about future problem sets others were too timid to take on in hopes that future generations might have choices rather than be mired in mistakes of the past. Questioning and framing the future, mixed with a strong dose of human passion and wonder, has yet to be replaced by cognitive computation.

### Conclusion

Futurists can add intrinsic value through deepening and framing the right questions. It is likely the Futurist toolkit will require expansion to meet organizational needs and contain more engaging technological approaches that automate frameworks and captivate users. The futurist has at his or her disposal more accessible tools than ever before. Not only can Watson be a partner for a modest fee, but the power of the crowd has never been more accessible and employable to test ideas methodologies and a kaleidoscope of futures from multi-cultural, multi-lingual, and crowed sourced reference points. The futurist world is rapidly colliding with data science and cognitive computing. As rapid technological permeation continues in every profession, it may be incumbent upon futurists to master additional toolsets and develop a more intimate understanding of where they add value to organizations and where they can partner with technology.

## Correspondence

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## References

- Adams, Douglas. (1989). The More Than Complete Hitchhiker's Guide: Complete & Unabridged. Bonanza Books. Prineville, Oregon, USA.
- Barnaghi, Payam, et al. (2012). Semantics for the Internet of Things: early progress and back to the future. *International Journal on Semantic Web and Information Systems (IJSWIS)*, 8(1), 1-21.
- Bezold, Clem. (2010). Lessons from using scenarios for strategic foresight. *Technological Forecasting and Social Change*, 77(9), 1513-1518.
- Boden, Margaret A. (1998). Creativity and artificial intelligence. *Artificial Intelligence*, 103(1), 347-356.
- Boden, Margaret Ann. (2006). *Mind as machine: A history of cognitive science*. Clarendon Press. Gloucestershire, U.K.
- Boden, Margaret A. (2015). Why Computers Aren't Close to being ready to supplant human artists, MIT Technology Review. October 20, 2015.
- Christensen, Clayton M., Dina Wang, and Derek van Bever. (2013). Consulting on the Cusp of Disruption. *Harvard Business Review*, 91(10), 106-114.
- Dator, Jim. (1995). "What futures studies is, and is not". University of Hawaii Research Center for Futures. Retrieved November 25, 2016, from: http://futures.hawaii.edu/publications/futuresstudies/WhatFSis1995.pdf
- Ferrucci, David A. (2012). Introduction to this is Watson. IBM Journal of Research and Develop-

..... A Futurist Revisit to the "Value Chain"

ment, 56(3.4), 1-1.

- Frey, Carl Benedikt, & Michael A. Osborne. (2017). "The future of employment: how susceptible are jobs to computerisation?." *Technological Forecasting and Social Change*, 114, 254-280.
- Goleman, Daniel, Richard Boyatzis, and Annie McKee. (2013). *Primal leadership: Unleashing the power of emotional intelligence*. Harvard Business Press.
- Haran, Menahem. (1977). From Early to Classical Prophecy: Continuity and Change. . Vetus Testamentum 27. Fasc. 4, 385-397.
- Heidelberg, Jeannette Fincke. (2003). The Babylonian Texts of Nineveh. Oxford University. Archiv für Orientforschung. Bd. 50, pp. 111-149.
- Hendler, Jim. (2013). Broad data: Exploring the emerging web of data. *Big Data*, *1*(1), 18-20.
- Huang, Ming-Hui. (2006). Eliminate the middleman. Harvard Business Review, 84(3), 33-37.
- Jarmon, Leslie, et al. (2009). Virtual world teaching, experiential learning, and assessment: An interdisciplinary communication course in Second Life. *Computers & Education*, 53(1), 169-182.
- Inayatullah, Sohail. (2008). Six pillars: futures thinking for transforming. Foresight, 10(1), 4-21.
- Inayatullah, Sohail. (2008). Causal layered analysis defined. The Futurist, 48(1), 26.
- Jefferson, Michael. (2012). Shell scenarios: What really happened in the 1970s and what may be learned for current world prospects. *Technological Forecasting and Social Change*, 79(1), 186-197.
- Lorenzetti, Lauren. (2016). Here's How IBM Watson Health Is Transforming the Health Care Industry *Fortune*, (04.05.16). Retrieved November 25, 2016. from http://fortune.com/ibm-watson-health-business-strategy/
- Mankoff, Jennifer, Jennifer A. Rode, & Haakon Faste. (2013). Looking past yesterday's tomorrow: using futures studies methods to extend the research horizon. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. ACM.
- Marquardt, Michael. (2014). Leading with Questions: How Leaders Find the Right Solutions by Knowing What to Ask. Vol. 180. Josey Bass Publishing. John Wiley & Sons, San Francisco, CA.
- Maslow, Abraham. (1943). A Theory of Human Motivation. Psychological Review, 50, 370-396.
- Milojevic, Ivana. (2002). Futures of Education: Feminist and Post Western Critiques and Visions. University of Queensland. Retrieved November 25, 2016, from https://espace.library.uq.edu. au/view/UQ:105991
- Molitor, Graham TT. (1999). The next 1,000 years: The Big Five engines of economic growth. *The Futurist*, 33(10), 13.
- Molitor, Graham TT. (2003). Molitor forecasting model: Key dimensions for plotting the 'patterns of change'. *Journal of Future Studies*, 8(1), 61-72.
- Porter, Michael. (2001). The value chain. Aaker, David A. Developing Business Strategies.-Sixth Edition. New York, NY: John Wiley & Sons, Inc, p. 65.
- Samuel Kinsley. (2013). Me++: The Cyborg Self and the Networked City .
- Information, Communication & Society, 16(9), 1520-1524.
- Schutte, Nicola S. (1998). Development and validation of a measure of emotional intelligence. *Personality and individual differences*, 25(2), 167-177.
- Turturtean, C. (2011). Why foresight? the impact of resource consumption and technology on the ability to foresee the future. *Anuarul Institutului De Cercetari Economice Gheorghe Zane Iasi*, 20(1), 79-85.
- Zalman, Amy, and Jonathan Clarke. (2009). The global war on terror: A narrative in need of a rewrite. *Ethics & International Affairs*, 23(2), 101-113.

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