

# WHEN NATIONS COMPETE OVER WI-FI AND BATTERY: IMPERATIVE TO SEARCH FOR THE GLOBAL COMMON DENOMINATOR

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## **Abstract**

People and governments were forced to turn digital during times like recent pandemic, a situation which was premeditated through the appearance of Wi-Fi and battery at the bottom of basic human needs hierarchy. Failure to follow these trends will impact not only individuals, but more on the economy, and geopolitics. Many do not realize that this arises by the dawn of the 4<sup>th</sup> Industrial Revolution. In the past, industrial revolutions have paved the way towards World Wars. Now, cyber-attacks are multiplying along with rapid growth of transnational problems, and major powers are embarking again on new weapons development. When it is the case, will we then head for prosperity or devastation? Answering this requires extreme stretch from individual humanistic up to global geopolitical perspectives, and interdisciplinary synthesis of common denominators between them that will act as a common ground to catalyze consensus for peace instead of battle.

**Keywords:** Common Denominator, Geopolitics, Maslow, Wi-Fi, Battery Internet

## Introduction: The New Wi-Fi and Battery Layers



Figure 1. Maslow's New Hierarchy of Needs (with Wi-Fi and Battery)

Graphic obtained from Getson [2015]

Thanks to “Maslow’s New Hierarchy of Needs”<sup>1</sup> (Picture 1), while the rest may find it funny and entertaining that it simply reflects much of our lives nowadays, many have started to remember once again what Maslow [1943] really meant, at least the two new layers at the bottom of the pyramid. The pyramid base has now contained two new layers i.e., battery at the very bottom, and Wi-Fi right on top of it. The appearance of Wi-Fi and battery there has in reality premeditated how human will satisfy their basic needs in the internet era. Moreover, the need to stay connected is obligatory clear and present when normal interaction is forcibly replaced as in recent pandemic (See WHO [2021] for further information) by, e.g., mobile payment, online meetings, virtual trekking, remote working, online foods and goods ordering, app-socializing with friends, up to e-sporting, and religious web-sermons.

On the fortune side, nearly half a trillion United States (US) Dollars have grown during the lockdowns on behalf of the largest and most tech-focused companies [Frank, 2020], with the top five US billionaires (Jeff Bezos, Bill Gates, Mark Zuckerberg, Warren Buffett, and Larry Ellison) making up to 20% (a total of \$75.5 billion) of the amount [Beer, 2020]. On the *alas* side, Hill

<sup>1</sup> Through a quick googling, among early appearances of this altered Maslow’s Pyramid was found to be dated back in 2013. Example can be seen on OneXuan App [2013].

[2020] nevertheless took note on how the (US) economy and work force struggle with the worst economic crisis in recent history, with low-income labors and predominantly those of color have been struck hardest. In Heisbourg's [2020: 14] observation, if such condition globally sustains, "*the geopolitical implications would presumably be as fearful and wrenching as those of the 1930s (US Great Depression)*".

Beyond what Marshal McLuhan<sup>2</sup> have warned long before Wi-Fi and battery were added to base the pyramid, "*We shape our tools and thereafter they shape us*" [Culkin, 1967: 54], pandemic is eventually shaping governments to turn digital to undertake socio-economic consequences in the mid-term, and re-formulate policies and tools in the long-term [UN-DESA, 2020]. Thus, with regard to Heisbourg's [2020] above, the appearance of Wi-Fi and battery under Maslow's pyramid could have also been regarded as premeditation of the geopolitical mode of how human will satisfy their basic needs in the internet era, which in this case should be read as; how governments and nations will satisfy their basic needs if such condition globally sustains.

Connecting Maslow's humanistic approach to geopolitical context, especially with the new hierarchy of needs, is nevertheless increasingly embedded into global discourse. For example, in 2021 Kaspersky wrote about Maslow's hierarchy of needs for hackers in today's geopolitical cyberspace [Kaspersky, 2021]. An earlier example can be taken from the 2019 Global Dialogue Security Summit (GDSS) in New Delhi where there were also talks on internet having become a major part of Maslow's triangle of needs<sup>3</sup>. This article shall afterwards analyze what may possibly take place when governments and nations are plotted into Maslow's pyramid as they seek to fulfill their basic needs, including Wi-Fi and battery, at the global level.

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2 Marshall McLuhan (1911-1980), a Canadian communications theorist and philosopher who studied in Manitoba University and later in Cambridge. An article by ASocialOne [2017] called Marshall McLuhan the Prophet of the Internet. Despite the debate on whether it was true or not (See McLuhan [2017]), McLuhan wrote in 1967, "The next medium, whatever it is -it may be the extension of consciousness- will include television as its content, not as its environment, and will transform television into an art form." [McLuhan, 1967: 164]. He also coined the term "global village", which refers to the idea that mass communication allows a village-like mindset to apply to the entire world [McLuhan, 1962], and this term was later written into a book on media transformations in the 21st century [McLuhan and Powers, 1989].

3 This article is developed out of Haryo B. Rahmadi's presentation at the 2019 Global Dialogue Security Summit in New Delhi on "internet having become a major part of Maslow's triangle of needs" (See ADUmedia [2019], and Elbracht and Sinha [2019] for further information). Special thanks shall be conveyed to editorial team from the Center for National Security Studies of the Universitas Bhayangkara Jakarta Raya for their kind help and support in reviewing this article.

## **Theoretical Review: Maslow's Mode of Thinking**

Mathes [1981] described that each level in Maslow's Hierarchy of Needs is prepotent to the next higher level. Thus, physiological needs must receive sufficient satisfaction before security needs emerge, security needs must receive sufficient satisfaction before belongingness needs emerge, and so forth. In Maslow's [1943: 381] words, each time a higher level of need is satisfied, "*the whole cycle already described will repeat itself with this new center*".

Starting from the bottom of the pyramid, when these needs are deprived, anyone are less likely to consider security matters even for themselves. It is not hard, up to nowadays, to witness how poverty in some parts of our region are deserting people into not only unhealthy and underpaid works, but even worse, dangerous and illegal businesses just to survive. *For the man who is extremely and dangerously hungry, no other interests exist but food. Freedom, love, community feeling, respect, philosophy, may all be waved aside since they fail to fill the stomach* [Maslow, 1943: 374].

Deprivation of food and security will in turn tend to make people see all parts of their lives as survival battle ground. When people are hungry and insecure, all others are perceived as adversaries and enemies. Maslow [1943: 379] illustrated this as "*like the unsafe child in their desire for safety*" may be said to behave 'as if' he was actually afraid of having his food taken away from him. For a wider society context, Maslow [1943: 378-379] took *peaceful, smoothly running, 'good' society ordinarily which makes its members feel safe enough from wild animals, extremes of temperature, criminals, assault and murder, tyranny,* etc. as example for these security needs.

Only when hunger and security problems are solved, we may expect to see a meaningful demand for love / belongings or in brief, socialization. Through fulfillment of socialization needs, another higher demand called self-esteem emerges. Many simply put self-esteem as the demand for respect from others, but in reality, this always translates to making one's self more respected than others, which simply means: competition. Those who have managed to satisfy their staple needs, security, and socialization needs, will once again put their selves in

another battle ground, not for survival, but as earlier mentioned, for competing over recognition in anything they can be towards high self-evaluation from others. As a matter of fact, only through recognition from others, self-actualization needs can be satisfied.

Once a person has won this recognition for self-actualization, as already mentioned earlier, the whole cycle already described will repeat itself with this new center. He/she will dive down again to elevate the qualities of all the need levels fulfillment in the pyramid. As an example of quality elevation, for food; from street hawkers to curry restaurant, for security; from padlock to CCTV, for socialization; from just a friend to a TV celebrity, for competition; from gadget race to automobile race, and for recognition; from the best student in school to becoming national scholarship awardee. These all revolves up and down, over and over the pyramid. Just make sure these things are not overlooked: Wi-Fi and battery, or electricity sockets.

### **Methodology: Maslow-based Scenario Analysis**

As indicated earlier, this paper will try to analyze what may possibly take place when governments and nations are plotted into Maslow's pyramid as they seek to fulfill their basic needs, including Wi-Fi and battery, at the global level. Analysis on what may possibly take place is a form of scenario analysis. According to Aaker [2001], it is a process of analyzing future events by considering alternative possible outcomes without trying to show one exact picture of the future. In contrast to prognoses, the scenario analysis is not based on extrapolation or extension of past trends. It does not rely on historical data and does not expect past observations to remain valid in the future.

Further on, Maslow's new pyramid will be employed as the base of this paper's scenario analysis. Wherein, the analysis shall show how governments and nations would possibly behave as they hike over the pyramid layer by layer. Starting from survival layer, moving up to safety needs, then proceed to the need for socialization, self-esteem, and eventually, self-actualization.

## Scenario Analysis Result: United Federation of Planets or Star Wars Battlefront?

To represent the ongoing global trends, let us get Indo-Pacific, the megaregion<sup>4</sup> at the very heart of global economic and geopolitical competition [Laudicina, Peterson, and McCaffrey, 2018]. When the Wi-Fi and battery equipped hierarchy of needs is applied within this megaregion context, we shall see at the survival layer, around 3,020 million<sup>5</sup> internet users will keep themselves connected and prevent their battery from flattening. A survey in UK revealed that majority of the population admit to feeling anxious<sup>6</sup> when parted from their smartphones, and 57% of which were parted due to having flat battery [Williams, 2013]. This means, along with clean water and food to sustain them while connected to the internet, the governments will be busy to at least maintain their power plants charging, and electricity subsidies under control. All these will put countries more in the form of resource and political-economic system map than mere conventional borders of countries. The resources mentioned here can take many forms beyond food, definitely energy, then polymers, precious metal, up to frequency bands, submarine cable lanes, and geo-stationary slots for satellites.

Moving up to safety needs -beyond flat battery issues- cyber-attacks are multiplying, both in volume and in terms of effectiveness, and even waged by nation states of industrialized countries [Cobb, 2012], We have learned that in the past centuries, it did not take long for military to start harnessing earlier industrial revolutions where mass productions churned out not only standardized guns and bullets, but also boots, uniforms, and tents, which all paved the way towards World Wars [White, 2011]. How many of us realized that Wi-Fi and Battery

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- 4 This region is actually an intercrossing of two huge regions i.e. Indo-Pacific and its “cousin”, the Eurasia (See for example in Mohan [2019] and Gabuev [2019]). Laudicina, Peterson, and McCaffrey [2018], elaborated further that three catalysts are bringing this megaregion to the fore. 1) the rise of China, 2) bowing out of US from some of its economic and security engagements in the region, 3) moving in of Asian middle powers and some European countries with territories in the region to fill the void. As a result, geopolitical pattern and economic flows in the region is altered into uncertainties which impact the entire globe.
  - 5 Clement [2019] shows that seven out of ten top regions by internet users in the world are located in Indo-Pacific with total number of users reach 3,020 million.
  - 6 A number of researches have implied that excessive dependence on smartphones and the internet is akin to an addiction [Parker-Pope, 2010], and even worse is seen as “probably the biggest non-drug addiction of the 21st century” [Hussung, 2015].

appeared under Maslow's pyramid by the dawn of the "4<sup>th</sup> industrial revolution"?<sup>7</sup>

Apart from the previous, threats in many forms are hanging around the region. To name a few: communicable disease, food contaminants, commodity and or fuel price hike, crops pests, natural disasters, transport and infrastructure failures, forced migrations, global warming and rising sea level, ocean pollutants, extremist ideologies, terrorism, drugs, people and arms trafficking, up to predictions on extra-terrestrial object impacts<sup>8</sup>, and evolving modes of conflict; from unconventional to asymmetric to unrestricted warfare. The earlier few named threats have moved security affairs to multi-sectoral cross-border inter-agency complexities which have long been growing concerns for governments (See for example in DPMC [2016]). Indeed, as Held and McGrew [2002] have warned, the rapid growth of transnational issues and problems has spawned layers of governance both within and across political boundaries.

Prime Ministers and Presidents then regularly meet, partly global politics, partly in satisfying state's need for socialization or diplomacy. Yet self-esteem nuance is also prevalent, like foes they criticize each other usually on borders and trade and tariffs, although like friends they exchange hopes and fears as well. Eventually they shake each other's hands and pose together, striving for a firmer law-like frameworks that can solve shared troubles supra-nationally.

On the other side of formalities, not much space left for any competition idea that can bring nearly the entire globe together in hype except the quadrennial FIFA World Cup. However, six years ago, China managed to join super exclusive tournament -which made it a contest of only three countries so far: Russia, US, and China- after Jade Rabbit rover landed on the Bay of Rainbows at 9:12 p.m. local time [Kelley, 2013]. In the meantime, trade and tariff disputes upsurge like the tip of iceberg and once again drive major powers to embark on a very cold-war race: development of weapons which, this time, dash at more than 15 Mach with terrifying target precision [Smith, 2019]. Last but not least, on top of all contests in our life, there left the longest lasting and the most defining one, where

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7 The term Industrial Revolution 4.0 has emerged as early as 2011 as found among other in Wolf-Dieter Lukas [2011].

8 From Times of Israel [2019], by the end of July 2019, an Asteroid dubbed 2019 OK or "city-killer" passed at 54,000 mph within 45,000 miles of earth, spitting distance in astronomical terms. The hunk of space debris, ca. 57-130 m wide, was only detected hours before it streaked past Earth. Astronomer Michael Brown said that the asteroid had come "out of nowhere" and is probably the largest asteroid to pass this close to earth in quite a number of years, if it had hit, it would have gone off like a very large nuclear weapon".

even the European Union altogether cannot beat the US, the game of least Foreign Reserve<sup>9</sup>, a true self-actualization for the ever-championing state, the US.

Ultimately, the whole cycle already described will repeat itself and countries will dive down again to elevate the qualities of all the need levels fulfillment in the pyramid. The question hence, “to what direction are countries going to elevate the whole cycle already described?” Will we head for a prospering business space instead of devastating battle space? United Federation of Planets<sup>10</sup> or Star Wars Battlefront<sup>11</sup>?

## Discussions

### Basic Human Needs and Geopolitical Interplay

Prior to pondering over United Federation of Planets or Star Wars Battlefront, let us take a look at the silver lining behind all these digitalization force. First, it should have given a clue that what Friedmann [2000: 112] warned about no governance against “*electronic herd*” in the internet age was not materialized. Secondly, new technologies such as Open Government Data (OGD)<sup>12</sup>, big data analytics, and the opportunities created by social media, has even facilitated openness to the wider society, and offer more than mere rich access to information, but more ways for information exchanges, fabricating more fluid, mutual governments-society relationship [Daglio, Gerson, and Kitchen, 2014]. Lastly, these two have further opened more opportunities worth considering from both business and battle space points of view.

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9 The most common reserve used in global transactions are US Dollar and Euro, that is why the US need not to keep as many reserves [Desjardins, 2018].

10 A fictional organization in TV Series Star Trek, described as an interstellar alliance of more than 150 planetary governments, spread out over 8,000 light-years, united in various endeavors involving trade, exploration, science and defense. Founded in 2161, the federation is overseen by a council of representatives from member planets. The Council meets in San Francisco on earth and is led by the federation president, based in Paris [CBS Entertainment, 2019].

11 A series of video games based on the Star Wars films [Electronic Arts Inc., 2019].

12 OGD refers to information in government databases and private servers that can be freely accessed, used, and republished by people and businesses [Economist Intelligence Unit, 2017]. While Open Government Initiative is more related to e-democracy and e-government through incorporation of emerging technology within administrative agencies [Harrison, et.al., 2011]. “Open Government” itself constitutes a change in the viewpoint of the Government that puts the citizen at center stage and acknowledges the government’s key role of serving the public [Government of Israel, 2016]. This conforms to Benington [2007] that the challenges facing governments therefore include how to develop more “joined up” strategies and “people-centered” approaches.

*From the battle space point of view*, we have witnessed the rapid pace of development in communications technologies is outpacing much in the defense and security field, indicating that hopefully some lessons have been learned about the importance of technologies in helping people to understand and trust one another [Parkinson, 2016]. We know that “*objects indispensable for the survival of the civilian population*” like water and or energy supply system are protected objects under the International Humanitarian Law [Zyberi, 2012: 9], and some studies have suggested that cyber-attack can constitute an act of war in international law [Sanders, 2018], and “*the same rights that people have offline must also be protected online*” has been declared as the resolution of the United Nations Human Rights Council [Boyle, 2016: Para. 2].

*From the business space point of view*, there are indeed opportunities. However, without putting people, their culture and their idiosyncrasies into main consideration, a business’ attempt at digital transformation may not be successful [Devadass, 2019]. For example, Groom [2019] notes how latest technologies question traditional concepts of manufacturing, e.g., people have started to buy mobility rather than cars, and at the moment, most countries that are good at manufacturing cars are not so good at capturing this trend as opportunity.

Still from Groom [2019], Diane Coyle, professor of public policy at the University of Cambridge, observed that geopolitics will decide the winner of the 4<sup>th</sup> industrial revolution wherein those who make best use of technology, not necessarily those who invent it, shall win. Nowadays fact shows that cyberspace is indeed increasingly political, with companies being caught in the cross-fire of internal and geopolitical activities, and nation states are leveraging various cyber capabilities to achieve geopolitical aims [Coburn, *et al.*, 2018]. Technology issues have then moved beyond mere dependence or self-reliance matters (See Stewart [1979]), but more into government action on policy and infrastructure, as well as adoption by people and companies which allow technologies to be used.

With more specific focus on business context, OECD [2018] noted that Emerging Asian economies have been active participants in this new wave of digital economy through rapid adoption of technologies. This way, asymmetry in technological dependence which resulted in heavy reliance towards developed countries [UNCTAD, 1977] is gradually being offset by another asymmetry carried rapidly by developing countries in the form of political and social adjustments to put technologies into action and profit. In turn, an opportunity for a new global division of labor which is based on mutual reliance is hopefully wide opened.

Up to this point of discussion, the appearance of Wi-Fi and battery on the bottom of the pyramid, has shown the need for more serious considerations due to previously discussed arguments as follows. *First*, it premeditated how human will satisfy their basic needs since the dawn of the 4<sup>th</sup> industrial revolution. *Second*, it alters as well the modes of geopolitical competition. *At the individual end*, a sound comprehension of people is the mantra towards successful digital transformation. This is also evident not only in the case of private sector, but also for public sector and governments (See Government of Israel [2016], and Benington [2007] in Note No. 12). *While at the global end*, geopolitics of political and social adjustments will decide the winner of the 4<sup>th</sup> industrial revolution.

### **Stretching over the Extremes to Find Global Public Value**

Earlier discussions hint a clear call to spread our span of attention from individual humanistic up to, again, global geopolitical perspectives. From international relations point of view, this span from individual to global geopolitical perspectives stretches over the extremes of the levels of analysis (See for example in Soltani and Amri [2014]). Conceptually, any interest equal to or larger than individual up to smaller than or equal to global will fall between this individual and geopolitical continuum, and the equilibrium of values between the two may hence act as a common ground for states throughout the 4<sup>th</sup> industrial revolution era, and hopefully beyond.

Referring again to international relations, all this are particularly needed in coping with problems that transcend the borders, given the lack of a world government [Bovaird and Löffler, 2009], or as termed by Bryson, Crosby, and Bloomberg [2015]; in a no-one-wholly-in-charge world. Inclusive of the Sustainable Development Goals (SDGs)<sup>13</sup>, not many massive programs at the global level can be considered as successful in addressing such issue, wherein United Nations [2014] endorsed for identification and operationalization of local and global public value in combination with mass participatory evaluation in SDGs governance.

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13 In 2000, the UN General Assembly called for a global partnership to reduce extreme poverty with a deadline of 2015 which was called the Millennium Development Goals (MDGs). In 2015, UN member states convened a summit on the post 2015 development agenda which is known as the Sustainable Development Goals (SDGs). Differing from the MDGs which focus specifically on poverty reduction, the SDGs approaches the environment, economy and society as embedded systems [Woodbridge, 2015].

Amidst the 4<sup>th</sup> Industrial Revolution setting, a connected world open for public collaboration paints a future hope where private and government entities collaborate both locally and globally to optimize global public value creation [Cave, 2009]. Emerging networks of individual, civil society, private sector, up to government are molding new forms of collaboration, social change, and even heading towards production of global public value which will fundamentally change the way global problems are solved [Tapscott, 2009].

*Civil society organization* can act as a catalyst of a global public value rather than of a self-serving narrow interest of a national or regional interest group [The Trilateral Commission, 2001]. *From the private sector*, the scope and capacity of transnational private sector can be utilized to help create global public value [Ruggie, 2004]. And eventually, *from the academia*, long term and global public value is also needed to generate intellectual diversity which can answer questions better, and pose better questions [Kennedy, 2004].

The chance for value creation at the global level, as observed by Obser [2007], nevertheless lies with *multilateral organizations* which have a more positive role in creating such value, impossibly made by bilateral agencies. An even clearer clue can be found extensively and explicitly in relation to the UN vision in the future as collected from Annan [2000: 74]:

*In future, the UN must increasingly serve as a catalyst for collective action, and continue to be the place where new standards of international conduct are hammered out, and broad consensus on them is established. Only by these means can we become a global public trust for all the world's peoples.*

### **The Value Problem and the Switch to Common Denominators**

The problem with the “global public value” idea is however pointed to “value”, as among ambiguous container terms with hugely promising insight, but hardly have widespread consensus [Meynhardt, 2009]. Consequently, the need for clarification, specification, and consensus is eminent [Morrell, 2009] despite a lot of calls for global consensus, as elaborated in the previous part, have actually been made. Yang [2016] added how existing approaches to values are quite often limited and it is unclear how they can be integrated, moreover in the face of competing values [Selden, Brewer, and Brudney, 1999].

Opportunely, there does exist another term which is worth considering for this research to switch to, that is the “common denominator”. Mathematically speaking, common denominator is a quantity into which all the denominators of a set of fractions may be divided without a remainder, yet this research’s “common denominator” is where interests between nations directly converge [Messner, Guarin, and Haun, 2013].

For an easy answer, any numbers can be divided by 1(one), and that is why schools teach students to find the highest common denominator. In our case as well, Elliot [2013] noticed how global compromise in finding consensus tend to descend to the level of the lowest common denominator. As stated by Constantinescu [2013: 2]:

*If we want to achieve a true peace and understanding between people, we should focus not on the lowest common denominator, but to relate to the highest common denominator.*

Rolland [2020] believes that the greatest common denominator shared by all can be the base of the common values of mankind, yet it may take as many forms beyond values as observed by Adler [2005] which may consist of shared identity or ‘we-feeling,’ interactions, norms, discourse, practice, moral conviction, or some combination thereof.

## **Conclusion and Recommendations**

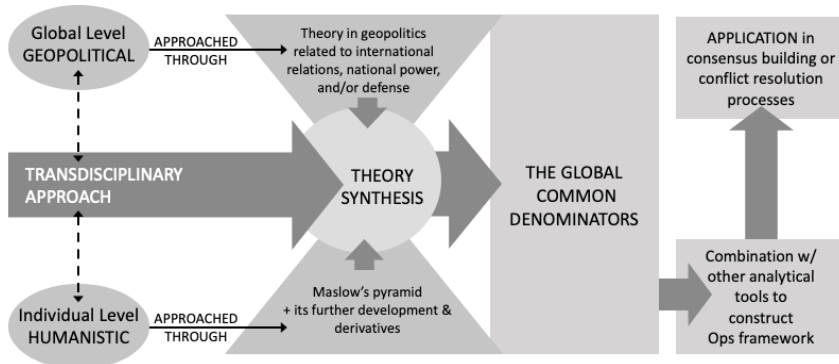
The appearance of Wi-Fi and battery under Maslow’s pyramid has actually premeditated not only how human will satisfy their basic needs since the dawn of the 4<sup>th</sup> industrial revolution, it alters as well the modes of geopolitical competition. Scenario analysis shows that plotting governments and nations to hike over Maslow’s new pyramid will eventually led the entire globe into the question; “Will we head for a prospering business space instead of devastating battle space? United Federation of Planets or Star Wars Battlefront?”

This question hints a clear call to spread our span of attention from individual humanistic up to global geopolitical perspectives, which from international relations point of view, spans over the extremes of the levels of analysis. Conceptually, the equilibrium of values between the two may act as a

common ground for states, or as termed by many as the “global public value”. The problem, however, is pointed to “value”, as among ambiguous container terms with hugely promising insight, but hardly have widespread consensus.

This research shall then switch to approach the equilibrium through the concept of “common denominator”, where interests between nations directly converge. Beyond values, common denominator may take many possible forms beyond values e.g., shared identity or ‘we-feeling,’ interactions, norms, discourse, practice, moral conviction, or some combination thereof.

Future research departing from this paper may well focus on finding the common denominators of global competition through the internet era and beyond. Transdisciplinary analysis shall be employed then to map out all possible elements in individual and geopolitical polars, to synthesize in due course the common denominators that abridge these two perspectives. Further developments of Maslow’s Hierarchy of Needs can be applied to approach the individual humanistic end. While for the geopolitical end, international conventions or law can also be used along with theories on geopolitics.



**Picture 1. Synthesizing the global common denominators**

Akin to normative basis or ideal bench-mark, synthesized common denominators between such extremes should then be able to synergize any interest, even those of competing natures. When combined further with other analytical tools, these common denominators can be put into multi-dimensional strategic framework for any consensus building or conflict resolution processes, and of course to catalyze consensus towards globally prospering business space instead of devastating battle space.

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