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The Global Brain: Threat or Friend?

Humanity is now more connected than ever before. According to the United Nations, it is estimated that 62.5% of humans on Earth had access to the internet in 2021, and this percentage is expected to continue to grow in the coming decades. Since the invention of communication technologies such as the internet and cellphones, there is growing evidence that we have already begun to think cognitively on a global scale. Just like billions of cells interact in our internal environment to form our own brain, the "Global Brain" (GB) is a metaphor that views the emerging network of all humans and technologies as a holistic intelligent entity.

Is the concept of the global brain a threat to our cognitive diversity and individuality? In order to formulate an adequate and nuanced response to this question, we must first acknowledge its varying interpretations: Firstly, as an unit of analysis, could the concept of the global brain cause us to overly focus on global cognition and downplay the role that individual cognition plays? And secondly, as a paradigm shift, could the concept of the global brain cause us to evaluate ourselves in terms of how much we benefit the global brain, thus reducing the cognitive diversity in our societies? In this paper, we will relay the arguments for and against the prompt through these two interconnected interpretations, offer our own stance on the matter, and conclude with a summary.

For Argument

Why might one believe that the global brain is a threat to cognitive diversity and individuality? As mentioned before, the global brain can be thought of as a "self-organizing system" composed of all humans connected with communication technologies as well as the

emergent properties arising from those connections. (Kyriazis, 2015) In this system, cognition is distributed not only throughout humans and select sociotechnical systems, but instead distributed throughout the globe. Following this line of reasoning, we can understand the global brain as a unit of distributed cognitive analysis. However, attempting to analyze cognition on a global scale may prove to be too ambitious and impractical. Studies on the global brain would require large scale ethnographic studies, unbiased metrics, and numerous translators and cross-cultural experts.

Unfortunately, good science is expensive, and the field of cognitive science is still relatively new. We may not be able to afford the resource sink required to study and understand the global brain. Such a large endeavor would take away funding and resources that we could otherwise use to better understand individual cognitions. Studying the global brain isn't just a threat to individuality; it's also a threat to cognitive diversity. According to the American Psychological Association, 80% of study participants come from western educated, industrialized, rich, and democratic (WEIRD) societies, which is not indicative of the world population (Henrich et al, 2010). Studies on the global brain will almost always be subjected to localized bias.

The concept of the global brain isn't simply a unit of analysis, however. It also represents a new philosophical framework for how we view humanity. Given that there is a collective intelligence of networked humans, it logically follows that we should program the behavior of noemes ("the networked presence of an individual within the GB") for the health of the global brain. (Kyriazis, 2015) In his paper "Systems neuroscience in focus", Kyriazis recommends that noemes should stay consistently and visibly online in order to strengthen their integration within the global brain. Such recommendations are a threat to one's individuality and freedom of

choice. When you begin to think of the global brain as a holistic entity, one's decision to limit their usage of the internet and other communication technologies stops becoming a personal choice but a moral failure.

Proponents in favor of programming the global brain argue that we should do so quickly in order to address urgent existential threats and advance in social and scientific progress. (Bernstein et al, 2012) But perhaps the global brain should not be socially engineered in the first place. According to Heylighen, "No individual, organization or computer is in control of this system: its knowledge and intelligence are distributed over all its components." (Heylighen, 2011) While it may be true that no individual or organization is fully in control of the GB, some organizations hold more power than others. Broad portions of the internet are centralized across a few large tech corporations. As such, multinational technology conglomerates such as Meta and Alphabet hold more power over the GB than others. Programming the global brain now becomes less about increasing the efficiency of neuronal communications within the system and more about manipulating the GB to behave in their preferred ways. This is a threat to individuality and cognitive diversity, because the will of the individual noemes within the GB can be censored and/or reshaped to suit corporate interests.

Against Argument

But must the concept of a global brain conflict with individuality and cognitive diversity? It is important to point out that "a flock of birds is not a big bird" (Resnick, 1996). As an emergent system arising from the complex interactions of humans and communication networks, the GB is a self-organizing entity on a completely new level. With this in mind, we will notice that the GB isn't a challenge to individuality, but instead works in tandem with it.

In cognitive research, the GB offers a new dimension of analysis that perfectly coexists with the traditional framework of individual cognition. GB to individual cognition is as psychology to neuroscience, or software engineering to electronic engineering. Who would believe that psychology suppresses neuroscience, or that software engineering threatens electronic engineering? Similarly, there is no reason to be worried that the GB would monopolize resources or dominate researchers' attention from the study of individual humans. Furthermore, the study of the GB would also encompass the study of noemes, since the latter is the foundation of the former. Ignoring the cognitive diversity within the noemes would likely lead to oversimplification and inaccuracy in our understanding of the GB. Galvanism in the 18th century oversimplified the nervous system, and concluded that life could be restored through electrical stimulation. So just imagine how far off track the fantasy of the GB can drift, if we fail to take individual diversity and errors into account.

From a practical perspective, individuality and diversity is also necessary for maintaining a healthy and efficient global brain. *The Global Brain FAQ* explains, "[In a] a 'hive mind' … the members all think and behave the same, lacking any autonomy or personal identity. … The GB, on the contrary, derives its intelligence precisely from the diversity of the people that take part in it. … It is because different people have different points of view and different experiences that together they can tackle more complex problems." Contrary to fears that the GB would suppress individuality, the GB instead encourages diversity of thought. As modern intercommunication technologies expose us to a wider variety of opinions and allow for instantaneous connections, individuals can find a sense of belonging more easily, and we are gradually realizing a more inclusive world where all types of identities can feel proud of themselves. If one day the era

arrives when programming the GB becomes possible, tyranny and brainwashing are unlikely to be the programming language of choice. According to *Bernstein et al*, the proper and effective GB programming will focus on facilitating interaction and collaboration among diverse individuals and groups.

Our Opinion

Our opinions on whether the concept of a global brain is a threat to cognitive diversity and individuality is multifaceted and nuanced. We believe that the GB is necessary as a unit of analysis and does not threaten one's individuality. There is already evidence to suggest that the GB exists (Bernstein et al, 2012); thus, it naturally follows that there is merit to analyzing cognition on a distributed, global scale. The world and all its complexities - its societies, cultures, and shared knowledge - can be viewed as a sociotechnical system. Although studies on the GB may run the risk of localized bias, that doesn't mean we shouldn't research the phenomenon at all.

However, the global brain is not only seen as a unit of cognitive analysis. It is also a philosophical framework that recommends social engineering and programming to bring upon desired results from the GB. We believe that the GB here is indeed a threat to cognitive diversity. Despite the Global Brain FAQ claiming it is not a hivemind, the global brain tolerates cognitive diversity to the extent that it is benefited from it. When it impedes progress, cognitive diversity becomes a hindrance rather than a benefit.

Conclusion

To sum up, the concept of the GB is both a new unit of analysis in cognitive research, and a paradigm shift that is happening around the globe. It is controversial whether the GB is a threat

to diversity and individuality. Proponents believe that the GB will take away resources from the study of individual cognition. They also believe that the programming of the GB would likely end up being misused for political corporate interests. Contrastly, opponents of that belief argue that although there may be a competition for resources within traditional cognitive fields, that doesn't invalidate the fact that studies on the GB and individual cognition can coexist together. The rising field of GB shouldn't cause us to downplay the importance of individual cognition. On the other hand, as a paradigm shift, high individual diversity is the foundation of a healthy GB.

Our personal stance is that the GB can be viewed as a necessary and useful unit of analysis which will not threaten individuality if it remains in the research field. However, it could be dangerous to apply the GB in practice, because it can be too easily misused in a way that reduces diversity.

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