

Collective Intelligence: Proposed Categorization of Approach

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Introduction

The term ‘collective intelligence’ is commonly understood to be a reference to intelligence that is developed, discovered, or derived by a group. Wikipedia describes collective intelligence, not as a product, but as a theory describing intelligence that emerges from the contribution of many people. An example the author of the Wikipedia description provides for collective intelligence is a political party. In the United States, people elected to office are usually affiliated a specific political party. The members of the party develop ideology reflecting the party’s belief system. Once in office, the ideologies of the party are used as a basis to govern.

Many people contribute to the ideology, platform, and political treatises developed for governing a population. The elected government then uses those forms of intelligence to develop informed opinions and more intelligence. Using this context, we can identify some recognizable collective intelligence products created by a group such as the United States Constitution, laws passed by Congress, and opinions expressed by Supreme Court justices.

In this paper, three possible categories of collective intelligence will be proposed: Evolved Intelligence, Autonomous Collective Intelligence, and Collaborative Intelligence.

Evolved Intelligence

There is a case for claiming that most of our known intelligence falls is Evolved Intelligence. It’s difficult to negate that intelligence originally developed by a single person but built upon, evolved, and modified by others is collective. If the requirement stating that a group needs to engage concurrently with one another in order to create collective intelligence is omitted, then its viable that most known intelligence, developed as ‘Evolved Intelligence’ is collective intelligence.

For example, Albert Einstein developed the Theory of Relativity. This theory opened the gateway for the discovery and development of other theories, especially those related to Quantum Physics. An example in psychology is the work of Sigmund Freud. Although, some of what he hypothesized and stated was erroneous, much of what he put forth became the basis for theories and studies by other psychoanalysts and psychologists.

If we consider Evolved Intelligence a form of collective intelligence, then the premise that most of our developed intelligence is collective holds true. It acknowledges that much of what we learn is discovered or developed by someone and built upon by others in a layered type of approach. There is a discovery that the earth is round which leads to explorers sailing the oceans and discovering new continents. Upon exploration of the new continents, life is found. For each discovery, a layer of new intelligence awaits.

Autonomous Collective Intelligence

What's the significance of distinguishing intelligence between formed by a group differently from intelligence that evolves over time through the modifications and additions of others? Perhaps, the draw to associating the concept of collective intelligence with creation by a group or people is not grounded in the outcome of intelligence produced. Perhaps, its significance lies in the diversity of people contributing to the effort. Autonomous Collective Intelligence refers to the simple form of collective intelligence based in the concept of people coming together to discover, share, and generate new knowledge.

The potential for surprise and outcomes within a group is expansive. A diverse group of people can generate an outcome greater than most individuals or pairs of individuals. Additionally, shared and sparked thinking enables the group to generate an outcome larger than originally perceived. One idea or direction often sparks another. An intensive argument might spawn a new philosophy or perspective. Published studies, documents, and books from each group member form a collective bibliography and treatise that may have been overlooked. The reach of a group is further and deeper than a single person.

One other important factor in regards to collective intelligence is the environment in which it is spawned. In this case, environment refers to both the physical and energetic qualities of the meeting site. Considerations of the physical environment include qualities such as spaciousness, layout, lighting, and seating, resources for writing and viewing, and airflow. United States military agencies have developed standards for these elements to ensure that maximum intellect and focus is probable. In studies conducted in the 1990s and forward, it was noted that variations in airflow, lighting, and visibility levels either enhanced or impeded the capacity of individuals to focus, think, and proficiently fulfill the requirements of their job function. The energetic environment is impacted mostly by the mood and expectations of the participants as well as each person's capacity to contribute value. Positive moods imbue energy while negative ones deplete energy. The energy of the group is also influenced by the quantity of people in its membership. It's advised to balance the quality of the group with the quantity. Too few people may limit the breadth of the intelligence while too many people may overwhelm it.

Additionally, defining expectations is critical. Clarifying possible agendas, setting guidelines for exchange, and identifying possible time restrictions will shape the scope of what is being created and the likelihood of success.

However, most significant elements are the intelligence, knowledge, and wisdom each person brings to the group. The sought after background, honed expertise, and ability to apply their personal knowledge in relation to the subject matter are imperative qualities for the participating individuals to possess. Identifying the type of knowledge, resources, and capabilities desired in the individuals forming the group and their willingness to share them determines the likelihood that the intended outcome will be generated.

The development of intelligence from the assembled collective group, as its source, is founded upon the collective intelligence already familiar to the members of the group. From within, a body of thought representative of multiple perspectives, a wide breadth of experience and expertise, and various thinking styles and levels of conscious awareness is unlocked for transformation into the next generation of intelligence.

It might be sufficient to leave the exploration of collective intelligence there. However, by doing so the methodology and process of synthesizing the many individual threads that contribute to the nature of collective intelligence is lost. Methodology and process are key factors in mining the collective wisdom of a group and should not be overlooked.

Collaborative Intelligence

Within the process of creating collective intelligence there is a birthing of thinking that leads to unexpected awareness and surprising results. The brilliance lies in the interaction that exposes a new body of thought and initiates formulation of new intelligence: the opportunity for collaborative thinking, brainstorming, and conversations from which new information, knowledge, and intelligence emerges. It's simply not a circumstance of bringing people together. There is focused purposeful action, methodology, and planning required.

When the focus is on the interaction, including the methodology and the process of synthesizing data, ideas, and wisdom, the term 'collective intelligence' may not be sufficient. Collective refers to more than one source of intelligence, however, if the interaction of creating the intelligence is what is most important then, perhaps, the term 'collaborative intelligence' is more accurate. Collaborative intelligence is intelligence derived from focused, possibly facilitated, interaction between a multiple people whose purpose is to engage in a process or methodology aimed to specifically produce new knowledge and/or awareness.

The formation of Collaborative Intelligence requires the same elements as discussed in the section on Autonomous Collective Intelligence. It also requires methodology for intentional interaction.

Intelligence produced by the group is derived from an intentional process or methodology that guides how the individuals in the group create with one another. The process or methodology may be one that has been applied previously in other efforts or it might be one the group develops together.

Furthermore, collaborative efforts are often facilitated. The facilitator's role is to ensure that the agreed upon process is followed and that all of the participants have the opportunity to contribute. The

facilitator can be a member of the group or a person who facilitates professionally and has no stake in the outcome.

By collaborating actively, there are resources available to enhance the interaction between the members of the group that were not necessary for the creation of the two other forms of collective intelligence. Some of these include: exercises for brainstorming, techniques for clarifying ideas, activities for re-focusing, and new facilitation processes.

When people collaborate, the expectation is already set to work together, to share openly, to gain common understanding, and to communicate ideas that may be out of the comfort zone of the group. The results can be unexpected and shift the thinking in a new direction.

Summary

The term 'Collective Intelligence' is used broadly to describe intelligence that is created by a group. By distinguishing between the manner in which the group creates the intelligence, expectations can be managed, processes change, and intentionality is applied. Three categorical approaches to collective intelligence are proposed: Evolved Intelligence, Autonomous Collective Intelligence, and Collaborative Intelligence. Each of them has distinct properties and focus on different elements of collective intelligence. Evolved Intelligence focuses on the intelligence itself. Autonomous Collective Intelligence focuses on being created by a group. And, Collaborative Intelligence focuses on the interaction of the group in creating the intelligence.