Collective Intelligence in the era of the Internet

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Editorial

Among the initiatives that promote continuing education for health professionals with a view to professional qualification, interactive tele-education can be an important resource for providing high-quality educational materials and units. Although much of educational development is focused on courses, integration with professional practice is fundamental to professionals' motivation. Thus, the use of specialized formative second-opinion methods can be important, because it allows an educational strategy to be developed with a focus on learning based on real problems.

Among the most notable behavioral changes of recent decades is Internet-based communication, which has brought greater social interaction without borders. Communication has always played a large part in learning because, according to Vygotsky,[1] it is in the relationship between people that knowledge is built, enabling the individual's mental development

The pursuit of knowledge passes through each person's lived experience and generates wisdom, which is refined by what we learn throughout life. By interacting with other people who have had other experiences related to the same subject, we can assimilate and develop new, collectively acquired knowledge about that subject. In this way, a group of learners can jointly develop new points of view and knowledge that were previously unknown. This is the concept of Collective Intelligence, in which every human being has some knowledge, though not in its totality, but rather considering the experiences lived throughout life, which can be shared.

In the context of health, this concept takes on extreme importance. One example is the collective groups for solving medical clinical cases on social media, where interaction enables the acquisition, storage, transmission, manipulation and use of information for decision-making and judgment, helping both physicians in prompt decision-making and, consequently, patients who depend on excellent medicine.[2]

A weak relationship has been observed between individual intelligence and collective intelligence, showing that groups do not need to be made up only of intelligent people; what matters more is the way participants relate to one another within the group. Wrong answers are therefore part of the process of improving knowledge, because collective intelligence is influenced by the diversity of the individuals

involved. In a collaborative process there cannot be only agreement and consensual tendencies, at the risk of obtaining poorer results. Surowiecki[3] states that diversity and independence are important because the best collective decisions are the product of disagreement and contest, not of consensus or compromise. Four necessary conditions are considered that must be taken into account when attributing wisdom to collectives: diversity of opinion, in which each individual must have a personal intellectual experience, even if only an individual interpretation; independence, so as not to let the various opinions determine one's own; decentralization; and aggregation, in an attempt to bring the personal contributions together to reach a collective decision.

Collective intelligence is a way for human beings to think and to share their knowledge better with other people.[4] This practice is used in written form in books, but with the use of mechanical resources, such as the Internet, connectivity can be increased and knowledge transmitted more quickly.

Unlike artificial intelligence, which seeks to create intelligent machines to replace people, collective intelligence seeks to make people more intelligent.

References

1. Vygotsky LS. A formação social da mente. 3. ed. São Paulo: Martins Fontes; 1989.
2. Erzinger FL, Araujo WJB, Ordinola AAM, Gasparini AF, Luz AVT, Kamada DM, et al. Fórum vascular: inteligência coletiva na resolução de casos clínicos vasculares. J Vasc Br. 2018;17(3):193-200. doi: 10.1590/1677-5449.005018
3. Surowiecki J. A sabedoria das multidões. Porto: Lua de Papel; 2007.
4. Bembem AHC, Santos PLVAC. Inteligência coletiva: um olhar sobre a produção de Pierre Lévy. Perspect Cienc Inf. 2013;18(4):139-51. doi: 10.1590/S1413-99362013000400010

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