Chapter 1
Cross–Cultural Aspects of Collective Intelligence Online

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ABSTRACT

Today's wisdom society depends on intellectual capital, that is, collective knowledge and informational assets. Increasingly, the global scene reflects a more interactive mode relative to information, particularly because of social media. As heterogeneous groups bring different expertise and perspectives, their gathered and organized knowledge can lead to more informed decisions and resultant actions. This collective intelligence has been transformed with the advent of easily accessible interactive technologies. Adding to the complexity, cross-cultural aspects impact the processes leading to collective intelligence as culture impacts individual and group interaction. This chapter explores the intersection of collective intelligence, online technology, and cross-cultural aspects. The chapter also shares research-based conditions to optimize that intersection.

INTRODUCTION

Intellectual capital now drives much of the knowledge society, and collective intelligence invests the best minds together to improve that society. As heterogeneous groups bring different expertise and perspectives, their gathered and organized knowledge can lead to more informed decisions and resultant actions. Increasingly, that collective effort plays out globally, reflecting a more interactive mode relative to information, particularly because of social media. In that process, cross-cultural aspects impact the interactions leading to collective intelligence. This chapter explores the intersection of collective intelligence, online technology, and cross-cultural aspects. The chapter also shares research-based conditions to optimize that intersection.

BACKGROUND

Each of the factors – collective intelligence, technology, and culture, need to be unpacked initially in order to understand their interdependence.

Defining Collective Intelligence

Collective intelligence may be loosely defined as the capacity of a group to think, learn, and create collectively. Aulinger and Miller (2014) stated that "Collective intelligence is the degree of ability of two or more living things to overcome challenges through the aggregation of individually processed information, whereby all actors follow identical rules of how to participate in the collective" (p. 3). The adage of "the whole is greater than its parts" intuits the power of collective intelligence. Unlike "group think," collective intelligence leverages the varying knowledge and experience of participants. Collective intelligence is also distinguished from collaboration in that a specific goal is identified, processes of interaction are aligned with that goal, and decisions are made as a unified group. Collective intelligence has greatest impact when managing knowledge, conducting sophisticated research, and solving complex problems. Educator John Dewey (1937) variously discussed the importance of social and collective intelligence as means of the communities having the opportunity to draw upon experiences and individual minds to achieve economic and cultural advancement together, transcending the limitations of any one person. "While what we call intelligence be distributed in unequal amounts, it is the democratic faith that it is sufficiently general so that each individual has something to contribute, whose value can be assessed only as it enters into the final pooled intelligence constituted by the contributions of all" (p. 276).

Several elements need to be in place for effective collective intelligence to occur. Tapscott and Williams (2010) identified four underlying principles: openness, lateral collaboration, sharing, and global action. Surowiecki (2004) asserted that collective intelligence combines cognition, cooperation, and coordination. Albors, Romas, and Hervas (2008) listed six variables that need to be considered when facilitating collective intelligence: information, intellectual property, knowledge access, communication, social interaction, and values. Gregg (2010) proposed seven principles for collective intelligence application: task-specific representations, user-added value, data centrality, facilitated data aggregation, facilitated data access, facilitated access for all devices, mentality of continuous change and improvement.

Impact of Technology on Collective Intelligence

Before the advent of digital technology, collective intelligence was limited by the number of participants and by space. As the number of people grows, the complexity of group dynamics grows, often splintering into factions. When distances become large, regular interaction becomes problematic. However, digital technology has lowered that barrier; time and space have become largely immaterial both literally and figuratively. Advances such as cheaper hardware and Internet connectivity, open source resources and freeware, and web-based platform interoperability have greatly expanded access. Social media has facilitated cross communication and generation of knowledge. Remoreras (2010) asserted that social media by itself leads to more active participation, but that the relational aspects of web 3.0 enable information to be compared and filtered. Then groups of experts can validate and organize the results to offer new knowledge: collective intelligence.

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