The Impact of Time Separation on Coordination in Global Software Teams: A Conceptual Foundation

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Abstract

While there has been much research on the study of global virtual teams and global software teams, there has been practically no research on the nuances of time separation. We present three converging perspectives on this topic: (1) a view from practices and tactics of global teams; (2) a theoretical view from coordination theories; and (3) a view from our prior research in which we modeled coordination costs for time-separated dyads. Practice suggests that time separation arises not only from time-zone differences, but also from factors such as non-overlapping weekend days and holidays, shifts, and different working schedules. It also suggests that teams employ various coping tactics when faced with time separation – synchronous, asynchronous and education. Theory suggests that communication is necessary to coordinate and that effectiveness of communication is hampered, both in quality and timeliness, when teams are separated by time. Our model, based on coordination theory, suggests that coordination costs contain four main components – communication, clarification, delay, and rework – and that the various aspects of time separated work have different effects on each of these components. Our convergent view from these three perspectives shows: that distance separation is symmetric – i.e., distance (A,B) = distance (B,A) – while time separation is asymmetric, which affects the planning of team interactions; that the timing of activities matters in time separated contexts, but not in contexts with only distance separation; and that vulnerability costs (i.e., resolving misunderstandings and re-work) increase with time separation.

Note: If you want to get the full paper, please contact Professor J. Alberto Espinosa (alberto@american.edu).