DON'T BLAME THE DISTANCE; BLAME THE TIME ZONES

Professor Erran Carmel and Associate Professor J. Alberto Espinosa are constantly pushing the limits of boundaries.

ARTICLE BY
JACKIE SAUTER

Carmel and Espinosa have accumulated knowledge over 15 years about time separation's effect on global working teams and are considered the leading scholars in the field. The pair's research on the topic has involved a wide variety of research methods and extensive fieldwork.

In an increasingly global world, they assert that the biggest challenge is still simply getting the work done. "There's no other way these days," Espinosa said. "Either your clients are global, or your employees are global, or your service providers are global."

The researchers have discovered that, although many professionals successfully use technology to overcome the physical distance from their colleagues, working in different time zones is a harder obstacle to overcome.

In other words, the Internet hasn't solved circadian rhythms. "Time zones do still matter," said Carmel. "Today, we see knowledge workers doing a lot of time-shifting to accommodate another person's schedule and interact synchronously. These people work in what I call 'scatter time,' spreading their work in clumps throughout the day and night."

In one of their lab experiments, the researchers simulated time zone differences and gave study participants a simple task to complete: describe a map to the other person and ask him to draw it. Some pairs' work times overlapped completely; some partially; and some did not overlap at all.

Carmel and Espinosa measured production speed and accuracy to determine performance; they found that as workers overlapped less and less, the accuracy of the maps decreased. But the relationship of speed to time separation was intriguing: speed declined when teams overlapped slightly, but picked up again when there was very little or no overlap.

In essence, global teams whose work schedules do not overlap at all are more likely to finish projects quickly, but not as accurately. Some amount of overlap results in slower but more accurate work. Put another way, the lab results find a clear trade-off between speed and accuracy.

"We speculate that the reason speed goes up [with no overlap] is because there are no interruptions," Espinosa explains.

NEW, PRELIMINARY RESULTS FROM FOLLOW-UP STUDIES SHOW THAT THIS GENERAL THEME—THAT **WITH MORE TIME ZONE SEPARATION, SPEED INCREASES AS QUALITY DECREASES**—HOLDS TRUE ACROSS A VARIETY OF TASKS.

New, preliminary results from follow-up studies show that this general theme—that with more time zone separation, speed increases as quality decreases—holds true across a variety of tasks.

With their colleagues in Kogod's Information Technology department, the pair has begun to study the effects of other types of boundaries on working teams, such as corporate cultural differences, language barriers, and national cultural variations. "Generally speaking, as you have more boundaries, you have more problems," Espinosa said, but time zone differences and cultural differences are generally what their studies show cause more severe coordination and communication problems.

They hope to determine how firms can maximize effectiveness in terms of geographical setup and exercise the optimal amounts of managerial rigor or flexibility.

An early suggestion for a highly interdependent, complex project: bring diverse, far-flung teams together in one place early on. Allowing the team members to get acquainted results in more productive work.

"Once they get to know each other, everything improves," Espinosa said. **KN**

Interested in learning more? Erran Carmel's 1999 book *Global Software Teams* was the first on the topic and is considered a landmark in the field; his second book, *Offshoring Information Technology*, was published in 2005 and is popular in graduate business courses on outsourcing.

Carmel and Espinosa are currently finishing their book on the special problems of working across time zones, with the working title *I'm Working While They're Sleeping: Coordination Across Time Zones.*