



Physical vs. Virtual Colocation, and the Effects of Interruptions

Officially, “colocation” is the proper spelling, but “co-location” and “collocation” are also recognized spellings. Regardless of how you spell it, it boils down to the science of communication probabilities and qualities between individuals.

Tom Allen, at MIT in the late 1970s, put the first benchmark on the table. He found that the probability of communication depended on whether any two people had any common organizational bonds, such as working in the same department or on the same team. He called this “intra-group” communication; otherwise it was “inter-group.” And if people sat more than 10 meters from one another, there was only a 5% chance of inter-group communication and a 10% chance of intra-group. Unless people sit close to each other, they rarely communicated.

About 10 years later, companies began to actively manage these distances. Office-furniture companies such as Steelcase were naturally interested in the subject as modular furniture was becoming the corporate norm. Steelcase’s analyses found that 50 feet was the maximum distance that any two individuals on the same project should be separated. This was close to Allen’s 10 meters.

By the early 1990s, while videoconferencing, the Internet, and email were emerging, a study conducted by GGI found 300 companies examining roughly 50 distinct approaches to simulating colocation. A new industry was developing to facilitate effective colocation regardless of physical distance. Since then, a myriad of “solutions” have entered the marketplace.

Alas, the enabling technology has advanced more quickly than its target audience’s behavior. If one examines the relationship of individuals to their work assignments and places, individuals have not changed significantly since 1930 studies driven by unionization efforts. Individuals without systemized and policed corporate policies still largely behave as they did 80 years ago with regard to the task in front of them.

Interruptions are becoming an increasingly important aspect of individual productivity. In January 2007, there was a newsbyte on the ABC Evening News: “People are interrupted

once every 10.5 minutes. It takes 23 minutes to restore one’s train of thought. People lose 2.1 hours every day due to multitasking.”

Without knowing for sure, my guess is that this ABC newsbyte came from a paper published in 2005 entitled, “No Task Left Behind? Examining the Nature of Fragmented Work” by Mark, Gloria, et al. They defined a person’s responsibilities as “work spheres.” They found that a typical person stays in one sphere for 11 minutes before switching, and that the typical person has 11.7 working spheres. Fifty-seven percent of work spheres are interrupted. The majority of interruptions come from one’s personal life. And, notably, only 77% of work is resumed on the same day.

In 2010, Microsoft and Carnegie-Mellon collaborated on a “watercooler” project to explore behaviors and potential solutions that would improve effective colocation between physical and virtual workers. To paraphrase, “today’s solutions are adhesive solutions. They insert distributed workers into a system optimized for co-located work. Co-located workers won’t buy in because it is easier to stay in a culture that favors them. Create a system specifically to meet the needs of the distributed worker.” Serendipitous Communication and Distributed Workers, a 100-page report, suggests that productivity can be enhanced by: enticing people to meet new people; creating a space that levels the playing field; and encouraging organizational exploration.

In today’s global and virtual workplace, if one is not physically collocated, it really doesn’t matter if you are relatively nearby or working from Timbuktu. The active management of both colocation and interruptions is important to maximize individual and corporate productivity. [mcl](#)

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