



Technology, Teamwork and Collaboration: Now and the Future

Tom Pietkiewicz | Melinda Chin

Traditionally, teamwork is “a group of people with either mixed or complementary skills working together for an agreed purpose” (Rabey, (2003). With developing technologies, this definition can span nationally and internationally. Further complexities are added when considering a cross-cultural international team (transnational team). According to Gupta and Gonvindarajan (2001) the transnational team is a cross-border organisational unit composed of individuals of different nationalities, working in different cultures, business units, and functions, thereby possessing specialised knowledge for solving a common global task in the organisation.

In essence, teams no longer work together in a traditional or physical sense, but rather collaborate to achieve objectives. The implications for the work of psychologists are massive as we need to understand how these changes impact on our

models and techniques, many of which have been developed well before the reality of the current technological advances and their impact on teamwork were ever known.

Technology and Collaboration

Dimension Data (DD), a leading IT infrastructure solutions provider, supplied a comprehensive white paper for this article titled “Collaboration in a Converged Communications Environment”. It outlines in great detail how IT infra-

structure companies are preparing for the ongoing and often exponential development of new technologies and their applications on work and team work. In the excitement and planning, it is often the person, or ‘end user’ as IT call us, that are less of a known quantity. As psychologists, it will be increasingly prudent for us to arm ourselves with the knowledge to help people and the way they function as organisations evolve.

We should not fear the concept of collaboration. DD’s white paper explains that:

The implications for the work of psychologists are massive as we need to understand how these changes impact on our models and techniques, many of which have been developed well before the reality of the current technological advances and their impact on teamwork were ever known.

Workplace collaboration is not a new business concept or practice - people have been working together and collaborating to improve the success of their commercial endeavors for literally thousands of years.

The basic intent of workplace collaboration has not changed over time – its sole purpose is still to bring people, ideas and information together to help accomplish a specific business objective. Although the fundamental business reasons for collaboration have essentially remained constant, the same can not be said of the underlying communications technology.

all business leaders who want to harness the full financial and competitive power of collaboration.

Collaboration tools include traditional phones and email, video and web conferencing tools and instant messaging. An additional development, Presence Management, is a rapidly evolving capability that allows individual to alert others of their willingness to communicate, and preference for mode of communication.

DD explains that the area of Instant Messaging is particularly interesting. The technology allows users to lo-

countries and areas. As multinational corporations (MNC) expand to compete globally, many are benefiting from the use of transnational teams. Working either within the firm's formal structure or as a complement to it, a transnational team can connect the best ideas and innovations from each part of the company and use them in ways that add value throughout the organisation. According to Snell, Snow, Davison and Hambrick, (1998) local responsiveness, global efficiency and organisational learning are three major strategic drivers of transnational teams in leading companies.

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Prior to the 19th century, collaboration took place primarily in face-to-face meetings and through written correspondence that bridged the geographic differences between collaborators. Whenever an enterprise required collaboration between distant parties, the time required to physically transport messages acted to restrict the speed of business operations and decision making.

With the technological breakthroughs of telegraph, and then telephone service, the physical distance between collaborators became increasingly irrelevant. This new immediacy of communications ignited sweeping economic changes in terms of faster business cycle times and new opportunities for global competition.

The evolution of technology and the resulting impact on business speed, innovation and market opportunity is not just an interesting topic for the history books. As we speak, the technology of collaboration continues to rapidly change and evolve. These changes present genuine opportunities - and challenges - to

cate themselves and establish direct and instant communication across any regional divides. While it was originally used for simple text exchanges, the advances in technology, video channeling and data transfer speeds is starting to allow teams to set up virtual board rooms where members can literally interact face to face and work on documents and projects together as though they were sitting next to each other.

DD's paper further explains that while these tools have been available for some time, they have often not been compatible with each other, or lacked interconnect standards to work across systems and software packages. This is rapidly changing and the ability to utilize these tools effectively is quickly improving.

What does this all mean for Team-work?

Teams can now work and collaborate effectively across a multitude of

Essentially, the MNC must be able to develop networks of people with diverse capabilities throughout the organization and be able to quickly mobilize them into well functioning teams to solve problems and respond to challenges. This leads to an examination of the staffing and structure of the team. "Although organizations often look to hire new people with new capabilities and attempt to develop existing people, the process of cataloguing and matching needed capabilities (i.e. knowledge management) with current and future problems and opportunities is often an inexact science" (Atamer, Calori & Schweiger, 2003).

The fundamental task in forming a transnational team is assembling the right combination of individuals who can work together to accomplish the team's goal: the team members function as bearers of the global knowledge and must understand what adaptations are required in order to make the global knowledge usable at their units (Subramaniam & Venkatraman, 2001).

IBM, for example, has an on-demand HR business strategy where they are trying to build a worldwide competency model. Especially in the consulting parts of their business – which is 70 percent of their revenue now – they are able to source talent on a global basis built around a common competency model. IBM could figure

out if they needed someone who spoke French and was willing to go to South Africa for six weeks in the Spring of 2006 (Huselid, 2006, p39).

multiple roles, which vary over the team's life span. The key personal capabilities of a Team Leader for a transnational team derived by Schweiger, Attamer and

and teamwork is either encouraged or not.

We also need to account for key people who are primarily responsible for the functioning of the project team and are needed to form a tight network. These individuals must be able to work together, agree on the charter and goals of the team, trust each other and coordinate other resources as needed to complete the project. "Because mutual exchange and shared information are vitally important for team learning, transnational teams must find ways to foster an ongoing dialogue among their members" (Snell, Snow, Davison, Hambrick, 1998). The greatest impact reported in a study by Oertig and Buergi (2006) was two-fold; the time difference and the lack of face-to-face contact. Different time zones meant that teams could use more of the day, for example, working on a document round the clock. Lack of face-to-face contact was more problematic and many missed what they called the "office atmosphere" and the opportunities presented by striking up a conversation in the cafeteria or hallway. However, the key members of the team should not have to co-locate, but must 'meet' frequently enough to be able to effectively manage the project. The round the clock working can also have implications for employees in vastly different time zones. If they need to frequently work at night to collaborate with team members on the other side of the globe, their work-life balance can be affected and they might be impacted by a number of factors that are commonly experienced by shift-workers.

When dealing with any international assignment it is essential to understand the social and cultural aspects of the countries involved. These aspects are more concentrated and prevalent in a transnational team environment. "A multicultural team, in contrast to teams from a single culture, entails differences among members in language, interpersonal styles, and a host of other factors." (Snow, Snell, Davison, Hambrick, 1996).

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A member of the APS College of Organisational Psychologists, Sandra Sudano, has been involved with Shell's HR for a number of years. She explains how Shell has embraced the idea of global team working to connect their people together. Shell's IT system and software platforms are completely standardised. One needs to simply carry a swipe card to connect to their computer desktop anywhere in the world and work as they would in any geographic zone. The ability to work on a project continually by assigning teams from a number of time zones and accessing the most suitable individuals has allowed Shell to speed up delivery and improve quality in key areas.

What are the Implications for the work of Organisational Psychologists?

Building global competency models, coordinating this with recruitment and Learning & Development are just examples of massive projects that psychologists can contribute in. Another huge area of work is in understanding and managing the way Leaders need to be selected and equipped to succeed.

To maintain the link between a transnational team's mission and the company's business strategy, the team leader must perform mul-

Calori (2003) are: having the ability to understand functional skills needed for the team, has built strong networks and relationships with subsidiary operations within the Company, can negotiate and motivate, is multilingual, has project management skills, has a high need for achievement, demonstrates open-mindedness for learning, and exhibits humility. It was noted in a study by Oertig and Buergi (2006) that there was a high level of importance for the team leaders to have one-on-one contact with "key players", for relationship building and maintenance, "bringing in" people over whom the leader had no authority, and then "making them stay". Therefore, Team Leaders need to lead by influence rather than authority, managing personality issues as well as the functional and cultural mindsets of team members. At the same time they need to keep finding new ways to communicate across time zones and work round geographical barriers. Hence, particular attention in selecting creative leaders with a collaborative leadership style and excellent communication skills should be given.

In addition to having the support and direct supervision of a Team Leader for transnational teams, a key ingredient in the effective functioning of transnational teams is the role of Senior Managers.

Schweiger, Attamer and Calori (2003) found that Senior Managers can create an instrumental environment where horizontal cooperation

Advancing technology can make the notion of physical meeting less frequent or in many cases obsolete. What are the psychological implications of meeting and socializing virtually for team building purposes, such as through an online game? A research paper anyone?

The Future

Increasing competitiveness and a global skill shortage is likely to accelerate the use of technology to achieve gains in competitiveness. As businesses become more dispersed across broader regions, they have an opportunity to engage remote workers and attract and utilise the best possible talent, no matter what their location or background is. DD's white paper explains that this thrust toward greater "people optimization" has brought a change in focus around the role of knowledge workers. While the term was first coined by business theorist Peter Drucker more than 40 years ago, the current view is that increasing control and empowering of information-intensive workers - such as providing them with technology and business tools that make them more effective - can bring significant improvements in competitive positioning and financial performance for the organisation.

"The importance of creating and increasing the conditions for effective teamwork in the organisations of today is self-evident" (Conti & Kleiner, 1997). Taking into consideration all the different aspects which co-exist with international teamwork, the role of HR and organisational psychologists is extremely important in terms of nurturing and empowering the teams and networks. We must be seen to support the international teamwork through staffing, training and development, team design and member role definitions, and reward and appraisal systems. Essentially, organisations need to be in a good position to support transnational team development. They need to have both the expertise and influence to help teams make a larger contribution to company success.

DD summarises that properly engineered collaboration tools will address the physical aspects of distance communications, but they also must address the realities of how people work together.

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Tom Pietkiewicz is the manager of Conduit Outcomes, a consultancy specialising in assisting organisations with strategic people management. tomp@conduitoutcomes.com

Melinda Chin contributes part time to Conduit Outcomes as a senior associate. melindac@conduitoutcomes.com

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