feature   *Antony Ebelle-Ebanda and Greg Newman, Trustsphere*

Organizational Network Analytics and the Future of Work

Introduction

In today's hyper-collaborative organizations, an often overlooked but significant source of insight are the myriad of relationship networks that employees foster to acquire knowledge, share information, innovate and create value at work. Also called an organization's social capital, these collaborative networks are central to how work actually gets done, businesses grow, and people succeed. This means that by applying a network dimension to different groups of employees within an organization, HR can contribute to corporate productivity, talent practices and organizational effectiveness in more relevant ways.

What is ONA?

Organizational Network Analysis (ONA) offers a scientific, data-driven approach for HR to analyze and understand value-creating networks that are important for individual and organizational performance. These networks that generally lie outside the formal business hierarchy are often unknown.

ONA uses a subset of methods developed for Social Network Analysis, a methodology for collecting information about connections among entities (usually people), developing visual representations of the relationships between those connections and applying mathematical analyses to understand network patterns and derive insights.

1) ONA methods are typically used to look at people within organizations and the relationships among them that are vital for knowledge sharing, collaboration, customer engagement, and innovation.

2) ONA can provide an "MRI" into the inner workings of an organization — a powerful means of making invisible patterns of information flow and collaboration visible in strategically important groups.

3) ONA provides insights into how communication, decisions, and information flows across these networks to provide a new lens to individual and group/team
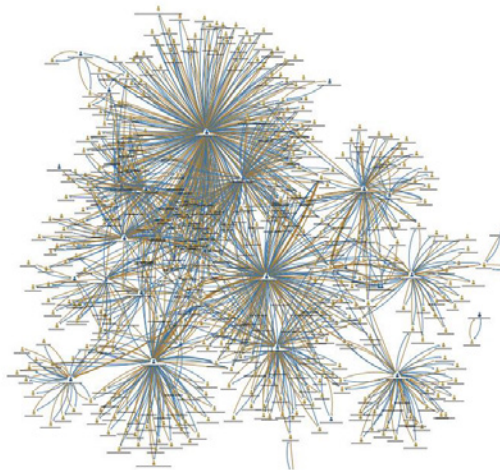

Figure 1. The Organization Through An Information Flow (Or Collaboration) lens.

behavior.

For organizations, and for particularly large organizations, one of the biggest issues for HR is understanding how the organization actually works. By enabling measurement of both individual and group behavior, ONA is becoming increasingly important in the field of People Analytics, especially around the concepts of understanding leadership development, diversity and inclusion, business innovation and agility, as well as employee engagement and wellness, to name but a few.

As a pioneer in passive ONA, TrustSphere generates meaningful insights into network behavior by observing digital interactions across corporate communication systems, in

real-time. Why is this important? Traditionally, business and HR make employee-related decisions based on experience, intuition, and perception. Historically, HR data has been incomplete and outdated, and hence decisions were also reliant on an incomplete view of the situation and subject to unconscious biases. Using ONA, HR decisions can now be supported by quantifiable insights based on objective, current data, automatically removing subjective biases.

How Passive ONA Measures Social Capital

Traditionally HR data has focused on human capital aspects such as employee demographics, qualifications, experience,
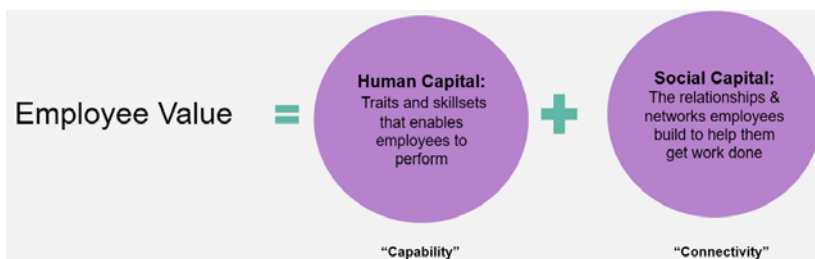

Figure 2. The Winning Combination.

and skills and was always measured at just an individual level. Social capital is made up of the informal relationships that employees develop within their team, across the organization and with external parties, during the course of their work activities. In fact, it is through these relationships and networks that much of their work actually gets done. In today's networked team organizations, social capital matters more than ever before. In addition to being measured at an individual level, it can also be measured for teams and departments.

Social capital in an organization manifests itself in six different types of relationship networks:

1. **Work Network:** With whom employees exchange information as part of their daily work routines.

2. **Innovation Network:** With whom employees collaborate or kick around new ideas.

3. **Social Network:** With whom employees "check-in," inside and outside the office, to find out what is

going on.

4. **Learning Network:** With whom employees work to improve existing processes or methods.

5. **Expertise Network:** To whom employees turn for expertise or advice on work-related problems.

6. **The Strategic Network:** To whom employees go for advice about the future.

The resources of social capital are available in and through personal and business networks. The effectiveness of social capital is determined by the size, quality, and diversity of these personal and business networks as depicted above in the six identified components. But beyond that, social capital also depends on who you don't know, if you are indirectly connected to them via your networks. Evidence has shown that in a business context, social capital significantly boosts productivity, effectiveness, and performance. Individuals who build and use social capital get better jobs, better pay, faster promotions, and are more influential and effective, compared with peers who are unable or unwilling to unlock the power of social capital. This is also true of organizations. The case studies below are examples of how social capital adds value.

1. How is it applied?
a. Identifying HiPo Employees

The benefits of effective high potential (HiPo) development programs are well known and it is clear that identifying HiPos are critical to an organizations' continued success. The evidence is compelling:

HiPos contribute 21% more effort than regular employees, produce 91% more value than core employees, and are three times more likely to succeed as future leaders.

Nevertheless, the difficulty in identifying and retaining HiPos is also complex:

- Only 29% of employees in the top quartile of performance are HiPo employees.

- 25% of HiPos are planning to leave

their company within the next year, while the other 75% are 10% more likely to leave than other employees.

HiPo employees have a rare mix of aspiration, ability, and engagement. These concepts are intangible and difficult to visualize. Hence they cannot be identified and quantified during traditional performance reviews:

1. **Collaboration:** They know where information resides and can work with others to access it.

2. **Energy:** HiPos are constantly motivated to improve themselves, and others feed off their energy.

3. **Courage:** Taking risks is a natural part of their rhythms, and they're not afraid of facing difficult challenges.

4. **Productivity:** They produce more work in shorter time.

5. **Influence:** HiPos can talk to other people in a way that makes people like them, leading to better networking skills.

Many of these HiPo characteristics reside in an employee's social capital, and by measuring and analyzing network behavior, passive ONA enables organizations to surface these characteristics and identify HiPo employees.

It must be noted that this measurement is only through the social capital lens. To get a complete picture of an employee, both the traditional human capital measures and the social capital measures should be taken into account.

Passive ONA enables the following HiPo characteristics to be empirically measured:

Network immersion and strength: How strong are the relationships that the employee has with colleagues? The stronger these relationships, the better the value created.

Network Reach: How wide is the employee's network reach, how are their relationships with peers, senior and junior employees, across different teams, departments and different physical locations?

Ability to influence: HiPos are critical to the flow of information within the
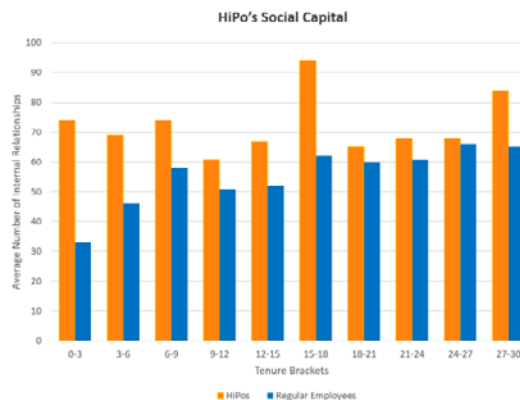

Figure 3. HiPos Build 40 percent More Relationships Than Regular Employees.

organization and are often key connectors that hold networks together. This identifies key employees who can drive and support organizational change, innovation, and the sharing of expertise.

Collaboration: The relationships and networks that an employee has are evidence of their ability to exert influence, within their team and across other teams and departments.

Once measured this HiPo data can be used in two ways:

1. Measuring the quality of current HiPo pool

The social capital of existing HiPo pool employees can be used to validate the strength of their social capital, and when the quality of the pool is validated, to establish benchmarks and targets for future HiPo pool members.

2. Identifying hidden stars through the organization

By using social capital data to start the identification process, candidates can be selected in an unbiased and standardized way, empirically identifying employees with high levels of social capital from anywhere in the organization and reducing the issues with bias and weak processes that mean that many HiPo pools are not that high in potential.

b. Measuring Leadership Behaviors

A typical weakness of leadership development programs is that evaluating the program's impact is difficult because the changes in participants' behavior are often subtle, invisible, and hard to quantify.
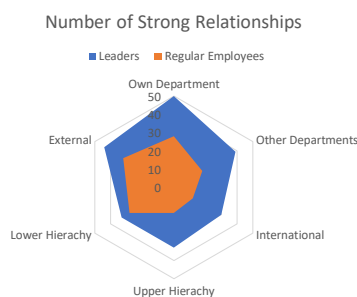
Number of Strong Relationships

Figure 4. Which Networks Do Our Best Leaders Build?

Passive ONA can measure changes in network behaviors relating to leadership. For example, the number of strong relationships, network spread, levels of influence etc., are evaluated periodically throughout the program, so that both the participant and the coach can see their behaviors changing.

By looking at the network activity of the participant as well as the people whom they lead, changes in behavior can be observed and measured. Some of the key indicators that can be measured include:

1. Strength and breadth of network

Passive ONA enables data to be collected regarding relationships relating to work, innovation, and expertise, all of which are critical indicators of an effective leader.

Having a set of strong relationships beyond their own level in the formal hierarchy is also very important to an effective leader, as this enables them to navigate internal politics, get work done quickly and effectively disseminate information.

2. Manager and team interactions

By analyzing relationships and communications between a leader and their own manager, and a leader and their direct reports, the level of authority a leader has over his team, how much his/her team communicate internally between themselves and his/her leadership style can be analyzed.

3. Work patterns and work/life balance

One of the key things that can be measured is the amount of non-email time a leader has. Research shows that the less time an employee spends sending email, the better their work outcomes. So by looking at how often a leader sends an email, the amount of "focus" time they get in a day can be quantified. This allows them to recognize patterns of behavior and measure changes to such behavior.

4. Team Behaviors

In addition to looking at changes in the leader's own behaviors, the resulting changes in behaviors of those they lead can also be evaluated. Some of the signals that can be collected include: increasing rates of internal collaboration, reducing silo based relationships, increasing inter-hierarchy communications, etc.

Passive ONA enables participants to baseline behavior at the commencement of a program and then have their changes in behavior periodically evaluated as the program progresses, enabling the impact of the development training to be shown before the program has completed.

c. Improving Employee Wellness

Employee burnout is a significant business issue. The employer health cost associated with employee burnout is estimated to be a staggering $190 billion per year. Passive ONA provides a new source of data to identify employees who are at risk of burnout. This is because many of the attributes are visible in an employee's email activity (a typical source of passive ONA data). The constant stream of digital interactions means these changes can be quickly seen and interventions actioned.

This means that the ever-changing signals can be quickly interpreted, change instigated and their impact measured to ensure the risk of burnout can be reduced.

The three burnout signals that are picked up by passive ONA are:

1. Sending email outside of working hours

By establishing a set of "normal" working hours for a team of people, organizations can identify any outliers who are creating and replying to emails outside those hours that their colleagues are active. By looking at the team's aggregate behavior as normal, rather than just traditional 9-5 working hours, customers can again empirically identify outlier behaviors.

2. "Flow" being interrupted by email interactions

The concept of "flow[1]" is used to assess how "in command" a person is of their situation. The theory being that the more continuous periods of work without interruption, the higher the quality of thinking and the more time an employee is dedicating to fully-absorbed focus. Email interruptions disrupt flow and are another indicator of potential burnout.

3. Spending too much time collaborating

A growing topic in the HR space is understanding the impact of "over-collaboration." By comparing the number of simultaneous active relationships that an employee is sustaining and comparing to the rest of the team's behavior, outliers can be quickly identified as can those who risk being overly collaborative.
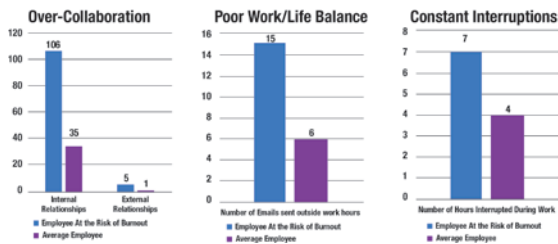

Figure 5. A Real Time Assessment of Burnout Indicators.

By combining the data on these variables, passive ONA enables organizations to identify those employees who may be at risk of burning out.

d. Increasing Diversity and Inclusion.

A weakness of diversity initiatives is that apart from the traditional measurement of diversity, there is very little data available to help increase diversity and inclusion and to measure the impact of programs aimed at these areas. Because passive ONA can measure the networks and relationships of an entire organization without having to conduct a survey or physically observe behaviors, it provides at least four fresh sets of data-points to help organizations increase their diversity and levels of inclusion.

The three areas where ONA is going to have the most impact on D&I are:

1. Understanding gender differences in networking behavior:

By mapping the networks and relationships of each employee, organizations can understand where differences exist in specific groups of employees' networks at different levels of the formal hierarchy. This data enables organizations to see if target group employees have the right relationships and networks to create the visibility needed to gain promotion opportunities.
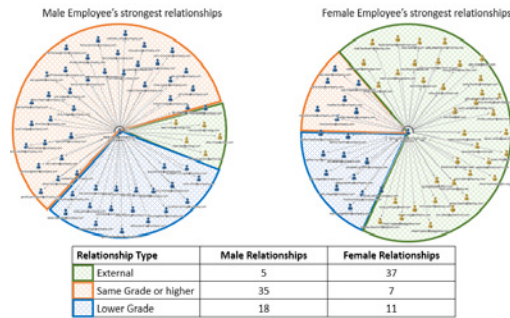

Relationship Type	Male Relationships	Female Relationships
External	5	37
Same Grade or higher	35	7
Lower Grade	18	11

Figure 6. Significant Gender Differences In Networking Behavior.

2. Improving the immersion and retention of focus groups:

By looking at the networks that these employees are building and measuring their organizational immersion, organizations can empirically see how employees are building networks to keep them immersed and engaged within the organization. They can then implement specific initiatives and provide appropriate coaching to help achieve the organization's D&I objectives.

3. Hold a mirror to the organization:

To help managers understand how their own unconscious biases and their work networks may be influencing how they make hiring and promotions decisions, ONA data provides a quantified view of every manager's network for them to see. By combining diversity data with network data, managers can see the diversity and variety in their own work networks.

Conclusion

As the future of work becomes more collaborative and organizations move towards a network of agile teams, the ability to understand how individuals and groups work and build relationships is becoming increasingly critical to business success.

ONA augments the traditional set of human capital data with real-time social capital insights, enabling forward-looking organizations to support data-driven decision making, reducing unconscious biases, strengthening a wide range of HR processes and providing the business with evidence-based observations to augment instinct and achieve a higher performing, more inclusive and more productive organization.

About the Author
Antony Ebelle-Ebanda is the vice president, People Analytics at Trustsphere, spearheading their efforts to provide clients with insights and results based on Organizational Network Analysis. Previously, he was the global director of HR Insights, Analytics and Planning at S&P Global. In this role he led the development of a best-in-class human capital insights function though data and analytics decisions. Prior to joining S&P Global, Mr. Ebelle-Ebanda served as the global head of Human Resources Reporting and Analytics at McLagan Consulting (an AON Company), where he supported compensation metrics production and reporting for its client population. Mr. Ebelle-Ebanda began his career as a relationship manager and compensation business analyst at Deutsche Bank. In each of these roles spanning more than 15 years, he brings a focused and disciplined approach to ensure continued leadership in the human capital function, and consistently proves to be a strong business partner – capable of applying deep analytical thinking to connect human capital to the business agenda, supporting business growth through people-centric metrics.
Antony.ebelle@trustsphere.com

Greg Newman, people analytics product manager at Trustsphere, has 18 years' experience in global HR technology (primarily focused on developing and implementing SAP HR technology for clients across APAC, Europe and LATAM). His is a speaker, editor, and author of a book on SAP HR published by SAP. He is currently responsible for all aspects of the development of Trustsphere's People Analytics offering, involving customer engagement, requirements, and use case identification and software development.
Greg.newman@trustsphere.com