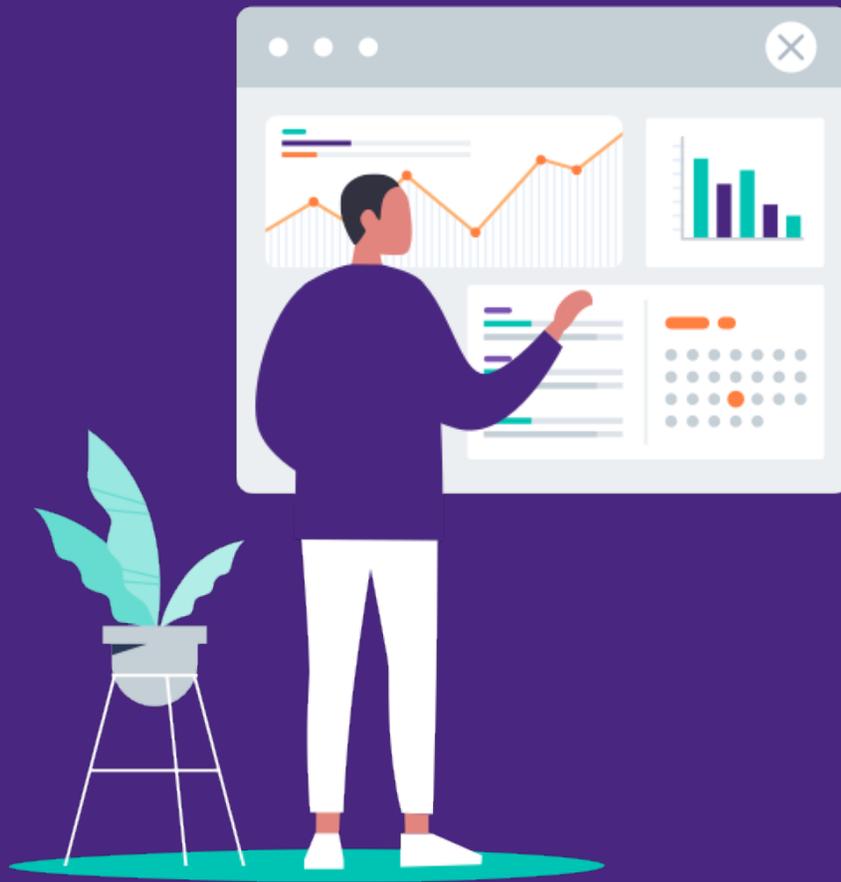


Beyond COVID-19: Organisational Network Analytics Playbook for HR Leaders



 TRUECUE

BE DELIGHTED WITH YOUR DATA



Contributors



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Data is in Darshan's DNA – both literally and figuratively. He obtained a DPhil. (Ph.D.) in “Molecular Cell Biology of Health and Disease” at the University of Oxford prior to joining TrueCue's Analytical Consulting Team. As People Analytics Lead, he has been delivering projects helping organisations leverage people data. He is a firm believer that harmonising people data unlocks organisational performance. More recently, he has been working with the TrueCue team to package the latest addition to TrueCue's People Analytics toolkit - ONA.



Mark O'Shea

Data Scientist, TrueCue

Mark's equal interest in business and technology, along with his belief that they are better together, is the result of an academic background in Business Studies, Computer Science and Data Science.

This belief, coupled with his proficiency in many programming languages and technologies including Python, R, SQL, PowerBI, and Tableau, allows him to solve business problems by pushing the correct tools to their limits. He has applied this mix of skills to his current area of expertise, Organisational Network Analytics.



Mingyang Tham

Data Scientist, TrueCue

Mingyang's background in economics and finance complements his expertise in delivering advanced analytics and data science solutions. His experience in both industries provides him with an astute business acumen that allows him to drive change and create value for organisations using data-driven methods.

Capitalising on this unique skill set, Mingyang has delivered automated end-to-end people analytics platforms encompassing data warehousing, diagnostic reporting, machine learning and network analytics.



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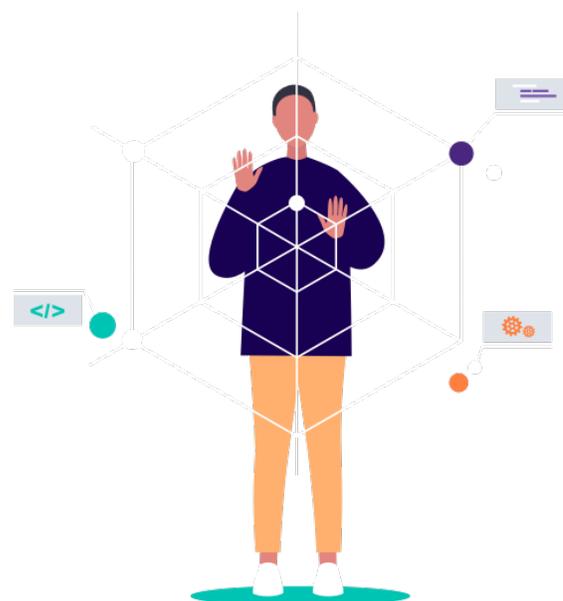
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**A word from our
Managing Director -
James Don-Carolis**

Organisation Network Analytics (ONA) has the potential to transform our understanding of the organisation.

It moves us beyond the static organisation chart, enabling us to understand the real network of relationships, communication and knowledge exchange that exist within a business. In so doing, it creates a new lens onto the organisation.

The benefits of understanding this network are real. Identifying the influencers in your network can help you to accelerate change and innovation. New recruits can be on-boarded faster if you connect them to knowledge hubs. Your talent retention strategy can be focused on areas of highest risk. You can analyse and understand the behaviours of your highest performing people and teams.

Crucially, ONA helps get us a step closer to the Employee Value equation by adding a quantification of an individual's Social Capital (their relationships and networks) onto our traditional understanding of their Human Capital (i.e. characteristics and capabilities).

ONA is an exciting development in People Analytics. Whilst the concept has been around for some time, its usage is beginning to accelerate, undoubtedly enabled by technology. It is now easier than ever to survey people efficiently, to capture and analyse the resulting data, and to present it in a compelling way that provides genuine insight.

This playbook contains everything you need to get started on your journey with ONA, with practical tips, examples and learnings from the field. The result? Helping you to make the most of your organisation's most valuable asset: your people.



Introduction

Since the onset of COVID-19, maintaining momentum and the art of decision-making has become vital for organisations across the globe.

With the commercial landscape experiencing its biggest transformation in a century, business leaders are expected to make critical decisions on a daily basis, many of which carry pivotal consequences for their stakeholders.

Access to instantaneous, trustworthy data and management information is essential, so these decisions can be made both quickly and with minimal risk.

Meanwhile, all of this is overshadowed by the knowledge that the legacy from these decisions will be felt by both the business, and its stakeholders, for many years to come. This couldn't ring truer than it does for the protagonists responsible for an organisation's most valuable asset; their people.

Indeed, just a couple of months ago, a quote in The Economist read "In a pandemic, a Chief People Officer can make or break a company - they must keep employees healthy; maintain morale; oversee a historic remote-working experiment; and consider whether, when and how to lay workers off. Their in-trays are bulging."

That being said, there really is no disputing that COVID-19 has severely disrupted the working environment and workforce for even the most robust organisations. It has dramatically increased the number of fully remote organisations (FROGs).

"Most organizations have focused on scenario planning and necessary operational responses to ensure business continuity. However, these plans often do not address, nor impact, employees' ability to focus on their work."

**Brian Kropp -
Chief of HR
Practice,
Gartner**



However, this trend of growth in FROGs is not new. In-fact, pre-COVID-19 it was estimated 16% of organisations were already fully remote organisations and this would grow to 33% of the workforce within the decade ¹. Nevertheless, the world has been caught off-guard and getting the best out of people has become that much more difficult.



People Analytics is arguably the most important tool to ensure that performance can be both maintained and improved over time.

This is not a new concept – pre COVID-19, over 73% of senior talent professionals surveyed for the LinkedIn Global Talent Trends said that people analytics will be a major priority for their company over the next five years ².

This was all about harmonising people related data from core corporate human resource information systems and tertiary people related data sources. The objective was to bring all this data together in an automated fashion to empower the organisation to holistically evaluate the current and historic organisational effectiveness along with answering questions about talent acquisition, L&D and ongoing talent management.

¹ Owl Labs – State of Remote Work Reports

² LinkedIn Global Talent Trends, 2020



However, the “new normal” which has resulted due to COVID-19 requires a paradigm shift in People Analytics. In the short term, this is emergency planning and analysis (EP&A) by the HR function.

First and foremost, organisations have a duty of care to protect the health and well-being of their workforce. A series of well-being or pulse surveys are being deployed by organisations to collect and analyse data for monitoring the workforce health over time.

Next, the organisation needs to maintain the productivity and continued provision of critical products and services and plan to accelerate the post-crisis business recovery. This can be achieved by robust organisation design analysis and organisational scenario modelling. Both require robust organisational data about employees, positions, roles and activities and a fit-for purpose organisation modelling tool.

Thinking long-term, remote working is now a reality that is here to stay. While technology has helped a number of organisations transition to remote working relatively smoothly – one of the critical things to consider is how efficient knowledge flows will be maintained and enhanced over time.

Arguably, knowledge sharing, and collaboration is what drives business performance. Without them, businesses and employees won't grow.

Collaboration minimises organisational silos, narrows skills gaps, and can be a catalyst for generating new ideas. The overnight transition to remote working introduces challenges to knowledge sharing.

More often than not, employees at home will rely more heavily on their current connections, while feeling unable to organically expand their network as easily. For new joiners, integration will be especially difficult, and they will most likely find themselves unsure of who to approach for different knowledge needs.

“If we build trust and use people data ethically, then we can unlock significant value for both the organisation and the people who work for it.”

**David Green -
Executive Director,
Insight222**



Additionally, an epidemic exacerbates the consequences of weak knowledge areas.

With staff sickness looking increasingly likely in a pandemic, businesses could find themselves caught off-guard with whatever in-house knowledge is available.

For example, if only two members of staff are proficient in a certain technology, the absence of one will be a heavy burden on the other as they become more critical. Should multiple members of staff become unable to work, companies may also be confronted with knowledge gaps that no one's expertise can fill.

So, what is the answer?

This is where Organisational Network Analytics (ONA) comes to the rescue.

Rob Cross, one of the leaders in the ONA space, describes it as a method to “provide an x-ray into the inner workings of an organisation — a powerful means of making invisible patterns of information flow and collaboration in strategically important groups visible”.

ONA can uncover invisible knowledge flows, identify areas of knowledge risk and help visualise opportunities to create new network structures to drive business performance.

This playbook will help you understand more about ONA as a concept, a methodology and a process, shed light on its benefits and caveats before finally recommending an approach to implementing it in your organisation.

Most importantly, we demonstrate how taking a different perspective on ONA will allow you to leverage it for active knowledge management, creating an easily accessible knowledge directory and help employees progress their professional careers.





What Is Organisational Network Analytics?

ONA is a growing trend in the field of People Analytics. It is a method for studying communication and socio-technical networks within a formal organisation. Collaboration is seen as a key contributor to organisational success.

And now, more than ever, an appreciation is being built that understanding informal relationships that drive collaboration can help organisations harness the real potential its people can provide ³.

Indeed, according to the 2020 LinkedIn Global Talent Trend Report, around 41% of talent professionals surveyed showed an active interest in ONA. Of these, only a third were currently using ONA in their organisations, with two-thirds planning to use ONA in the next five years ⁴.

Given the current disruption to workplaces due to COVID-19, it wouldn't come as a surprise if that timeline is accelerated and a larger proportion of talent professionals prioritise ONA.

Despite all of the benefits it can provide, the current low usage of ONA can be attributed to the intangible outputs it is typically known for. ONA solutions either do not fully deliver on its promise, or deliver insights that are certainly interesting, but difficult to action. These types of solutions tend to underwhelm People Analytics leaders.

The primary pitfall is an over-emphasis on poorly defined social relationships. ONA can be applied to solve a myriad of business questions, from encouraging collaboration and new joiner on-boarding, to performance management and continuity planning. However, it is not a one size fits all solution.

Business value cannot be extracted from a completely standardised set of metrics and visualisations.

“According to the 2020 LinkedIn Global Talent Trend Report, around 41% of talent professionals surveyed showed an active interest in ONA.”



“Organisations are created by expanding relations between people and their networks, generating social capital, aligned with having greater or lesser institutionalized relations.”

Lin, 1999

For any implementation of ONA, it's imperative to first identify the problem, and then pinpoint what type of social interactions can best capture that aspect of the underlying network.

The ONA methodology described in this document focuses on grounding social relationships and communication within a specific business context.

In the case of Knowledge Governance, that business context is competencies.

Rather than capture all social interactions between members of the network, data collection focuses on interactions around the sharing of knowledge.

The data is used to develop and curate a set of metrics based on proven data science methodologies that best capture information around the business questions at hand.

The analysis can then be visualised using interactive dashboards produced with widely available visualisation tools such as Tableau and Microsoft Power BI.

The analysis and outputs of ONA for Knowledge Governance can get very sophisticated – but for the purpose of illustrating tangible benefits, this document will focus on four areas.

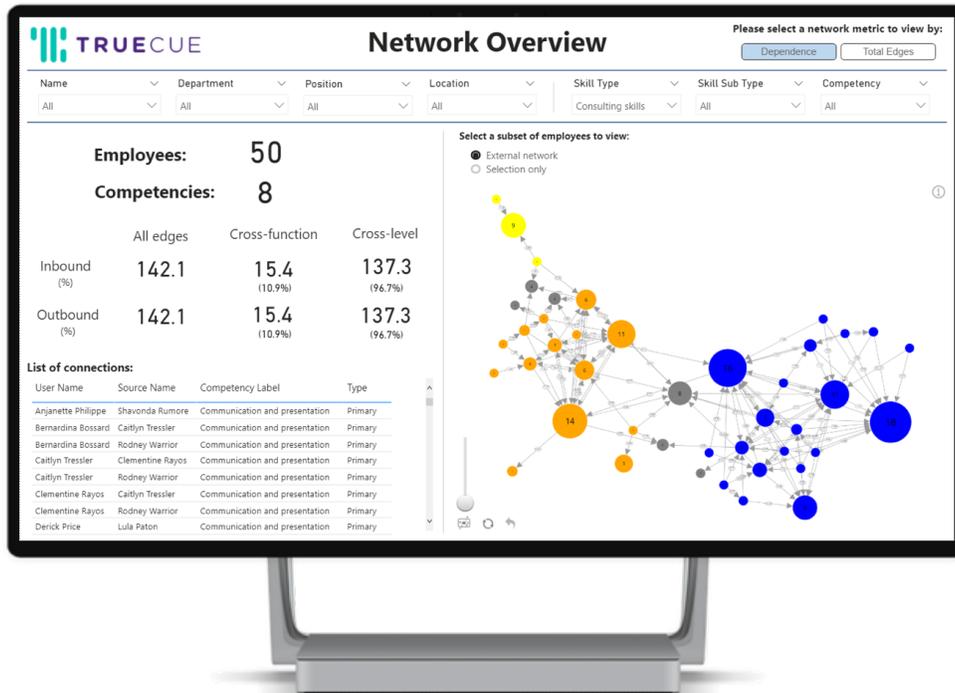
1. Network overview – to visualise the informal knowledge network
2. Knowledge management – to identify drivers of collaboration and knowledge risks
3. Knowledge directory – to help with sourcing knowledge in an era of increased remote working
4. Personal network report – to motivate personal and professional growth

³ *Informal Networks: The Company Behind the Chart. Harvard Business Review, 1993*

⁴ *LinkedIn Global Talent Trends, 2020*



Network Overview



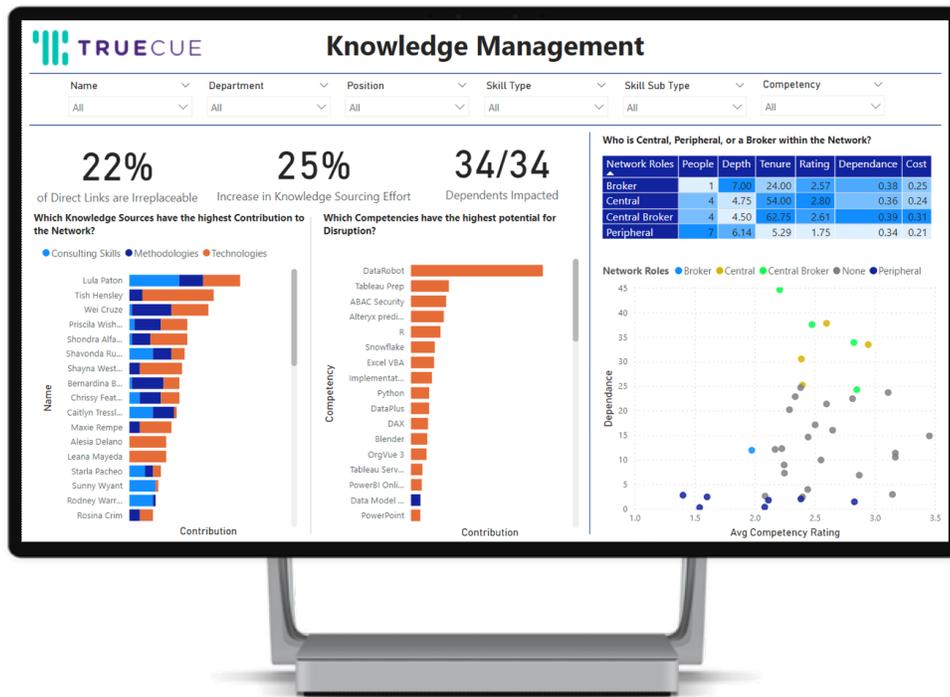
The network overview provides a visual representation of the informal knowledge flows within the organisation. In the typical visualisation of a network, individuals are represented as nodes. Nodes can be sized by different attributes – in this case by the dependence their network has on them – to highlight certain groups of individuals.

The arrows between the nodes demonstrate knowledge flow, pointing from dependants towards people they rely on for expertise in a specific area. From this, you can begin to understand how different teams and departments work together and the key individuals that connect them, as well as identify any siloes.

Many hours can be spent going into various levels of detail uncovering insight that is instinctively familiar. However, network diagrams do not provide significant depth of information, and easily become cluttered and difficult to read, limiting its effectiveness to provide actionable insights. From experience, a lot of new insight in terms of behaviour cannot be gathered from this birds-eye view of the network, instead requiring a more tailored approach for each type of question or hypothesis.



Knowledge Management



When it comes to knowledge management, ONA helps uncover concentration of expertise, both in terms of individuals and skills. Individuals with a high percentage of contribution to the network can be identified – they are valuable, but it highlights a possible risk: if these individuals were to leave the network, there could be considerable disruption given how many dependents they are linked to.

Through a network analysis, it is possible to gain deeper insights into not only which individuals may be impacted by the disruption, but also gain the capability to estimate the potential impact that may have on employee efficiency. This is achieved by looking at the existing network and simulating the removal of certain nodes. The impact of their removal can then be quantified, by modelling how people alter their communication channels around this disruption to gain access to the same knowledge that had been lost.

The same can be investigated for skills, rather than individuals.



One of the most valuable lenses ONA provides, is segmenting individuals into network roles. Some of the main roles have been described below:

- **Central Connectors**

Have a high number of direct information relationships, typically as a result of having a great deal of expertise in one if not many areas. They often possess deep, network-embedded expertise critical to current operations. In addition, they often play a critical role in transferring organisational know-how and getting newcomers up to speed.

- **Brokers**

Brokers are those who have ties across subgroups in a network and so have a disproportionate ability to help an organisation capitalise on opportunities requiring integration of disparate expertise.

- **Peripheral Players**

Peripheral employees have the fewest ties and often reside on the boundaries of a network. Employees on the periphery tend to be more disengaged and dissatisfied with the organisation than those who are well-connected, and as a result, are more likely to depart. It's important to note that peripheral players often possess niche expertise that an organisation requires. In addition, they could possess external relationships that would be beneficial for the organisation.

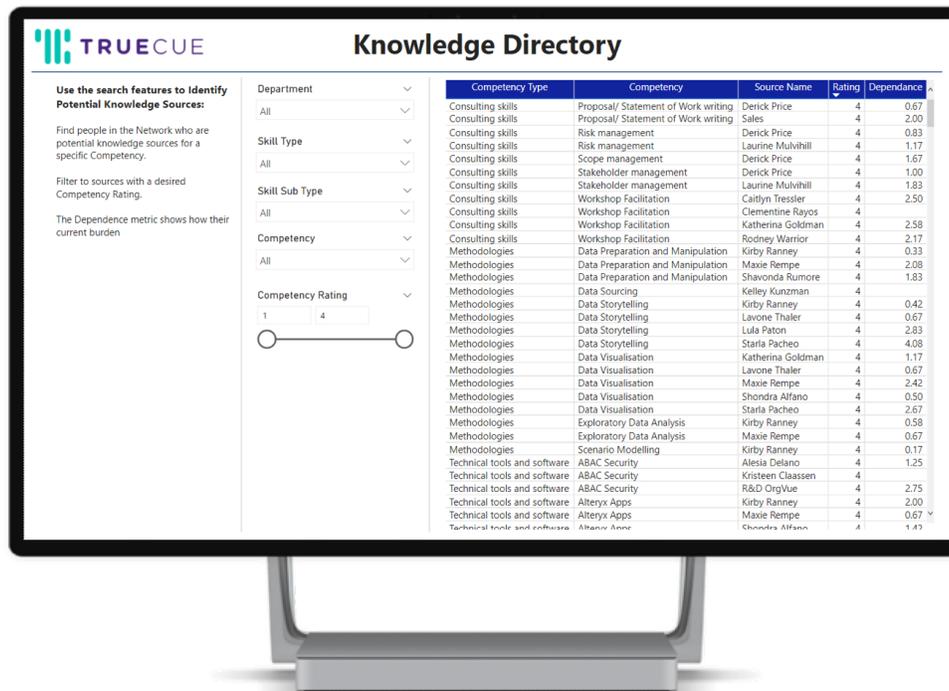
Once again, context is highly important here. It's easy to instinctively think of Central Connectors and Brokers as high performers, and Peripheral Players as low performers, but these network roles are also the result of the Organisation's structure. For example, if a junior member of the team is flagged as a Central Connector, you could most likely attribute that to high performance. Similarly, members of senior management could be expected to be Central due to the nature of their work.

Alternatively, some team members who are in specialised or external facing roles might deliberately be Peripheral, and that may be the correct role for them. If a member of senior management is becoming more Peripheral over time, then it is more likely to be considered a risk.

When you couple an individual's network role, with their knowledge contribution and risk of disruption, you can begin to really understand who the most vital members of the network are. By monitoring this over time, you can pre-emptively identify knowledge risks, and take actions to alleviate them by upskilling current employees, hiring the necessary additional expertise, or simply repositioning network players to spread their knowledge out more.



Knowledge Directory



When working remotely, knowing who to go to for advice may not always be clear – especially for new joiners. A knowledge directory from an analysis of information flows can come in particularly handy. Employees will be able to choose the expertise they are looking for, drill-down to a list of experts by team, function, geography and even select the required proficiency. The idea is to help employees working remotely to cut through excess names and navigate the network to find the expertise they need.



Personal Network Report



Another benefit of ONA is that it allows employees to compare how they perceive their skill-set against the perception of the network. They can also compare their skill-set attributes to their current grade, the grade above, and those of high performers. Furthermore, individuals can see what they are known for and how the network values them. This information provides individuals with metrics they can use for their career progression and personal growth. It also ensures that employees are performing in the areas that are expected in their grade. However, above all, it could be a useful tool in keeping employees motivated. By quantifying contribution, individuals may take it upon themselves to more actively contribute to and exploit the network.

In summary, ONA can help act as a preventative measure to minimise disruption and be a driving force of creating new connections to drive performance. Remote working is the 'new normal' of 2020, and this 'new normal' looks like it is here to stay.

Thus, organisations need to shift attitudes of 'remote working as a contingency plan' to 'remote working as a future'. Outputs from ONA can help an organisation's network and collaboration grow as it would in the office.



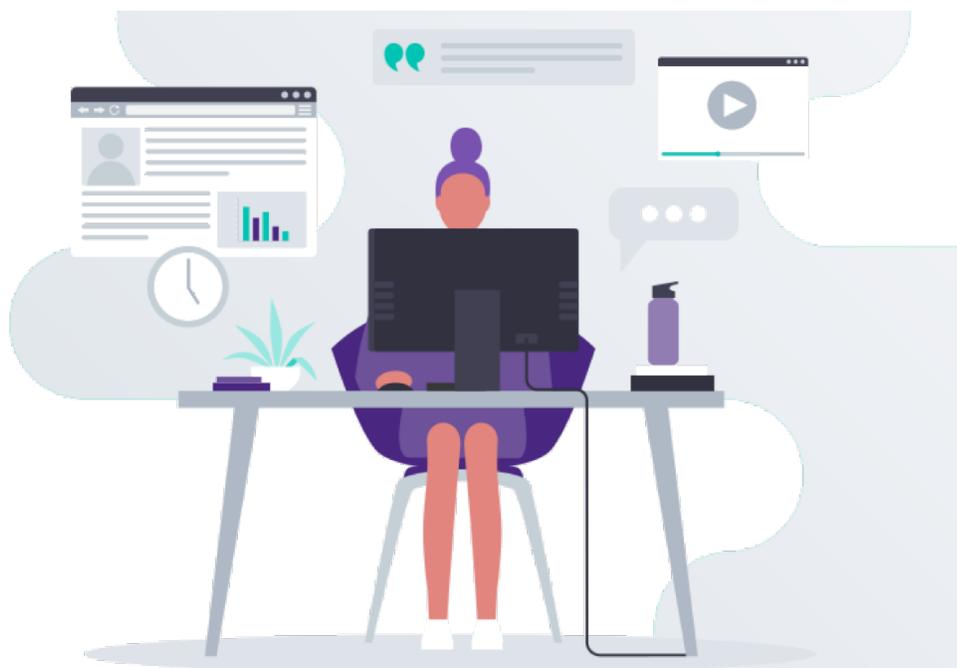
If you've got this far, the value of ONA has likely struck a chord. However, extracting maximum and long-lasting value from ONA requires a method.

Here, we describe an approach anchored around four key elements: hypothesis led, active data collection, competency-based, tracking for on-going value.

Hypothesis Led Consultative Approach

Before embarking on any analytics challenge, it's important to define hypotheses – preferably in the form of a logic tree. This helps to breakdown a question (or hypothesis) into its different components vertically. Answering each component question or hypothesis will in turn help answer the higher-level hypothesis. The approach is a convenient marriage of management consulting techniques and the scientific method of formulating hypothesis ⁵.

The above concepts are not revolutionary – but they provide much needed focus when it comes to designing the strategy for ONA data capture and subsequent analysis.



⁵ *Strategic Thinking in Complex Problem Solving*. Arnaud Chevallier, 2016



To illustrate, when we were carrying out ONA internally, we asked the question “We believe our two consulting teams don’t talk that much to each other, is this true?”

Deconstructing this hypothesis into its constituent parts helped design the appropriate data collection strategy.

A simplified logic tree is presented below:



Active Data Collection

ONA is becoming more and more popular. So much so that a number of vendors of e-mail systems, messaging systems and core HR systems, are starting to produce organisational network analysis graphs that show who is communicating with whom, and create reports and dashboards that show who might be overworked or under-utilised in the workforce 6.

This kind of ONA analysis leverages what is called “passive” data and there are two very important limitations of this approach: Firstly, the context of the communications traffic will not be analysed (for example, sharing anecdotes via email / instant messaging).

6 People Analytics Grows Up: Healthy New Focus On Productivity. Josh Bersin, 2017

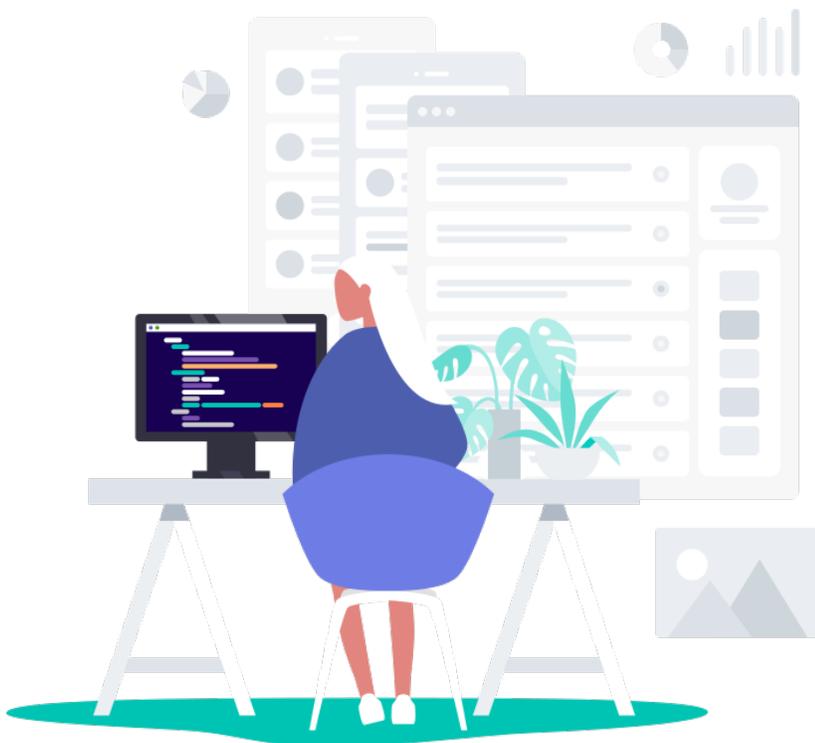


And, if the context can be discerned, this brings us to a more fundamental issue of this approach - the ethics are debatable as this method can be perceived as intrusion of privacy.

We highly recommend an active data capture approach by rolling-out a network survey using employee questionnaires. This lets us tailor the types of relationships captured to the business question at hand. The surveys are designed to solicit responses about who talks to whom about work and who advises whom on work related matters. It should be self-evident that these surveys need to be tested with a small focus group for appropriateness and time commitment.

We have observed that when the benefits of the ONA analysis are clearly articulated (such as creating a knowledge directory or having access to a personal network report), individuals are willing to spend 20-30 minutes filling out a network survey. In-fact, when we launched an ONA survey internally, we had a completion rate of 95%.

For reference, the recommended response rate to ensure the validity of ONA is 80%.



“Although people analytics has become mainstream, only 9% of companies believe they have a good understanding of which talent dimensions drive performance in their organisations.”
Deloitte, 2017



Competency data

A fundamental promise of ONA is to shed light on how the network collaborates and thereby identify risks and uncover new opportunities. We believe that collaboration is driven by individuals approaching others for their skill-set – be it advice or to get things done.

Hence, we recommend network surveys that capture information about individual competencies and who these individuals' approach for support or advice in relation to these competencies. To ensure the ONA outputs are fit for purpose, it is critical to get the survey design correct in terms of the necessary granularity of competencies (the taxonomy), the competency rating scales and alignment on connection segmentation.

Another reason to choose competencies as the basis of a network survey is to be able to create a Knowledge Directory and Personal Network Report as outlined earlier. An alternative would be to base network surveys around individual activity data – where a network picture would be built up around the activities that an individual undertakes and how they are linked to others in relation to this activity.

This approach will help with efficiency gains in streamlining organisational activity and understanding key network players for those activities (responsible, approver, delivery).

In an ideal world, both approaches would co-exist.

However, in the environment where organisations need to calibrate due to the rapid onset of remote working, we recommend prioritising the competency-based approach.

This ensures that employees are empowered with knowledge directories and personal network reports that will help with professional growth and motivation.

“ONA allows organisations to reveal a real-time heat-map of skills across teams, matrix structures and geographies. Now, more than ever, it is imperative to facilitate virtual knowledge and capability sharing across our teams.”

Neda Scrini - Chief People Officer, orgvue

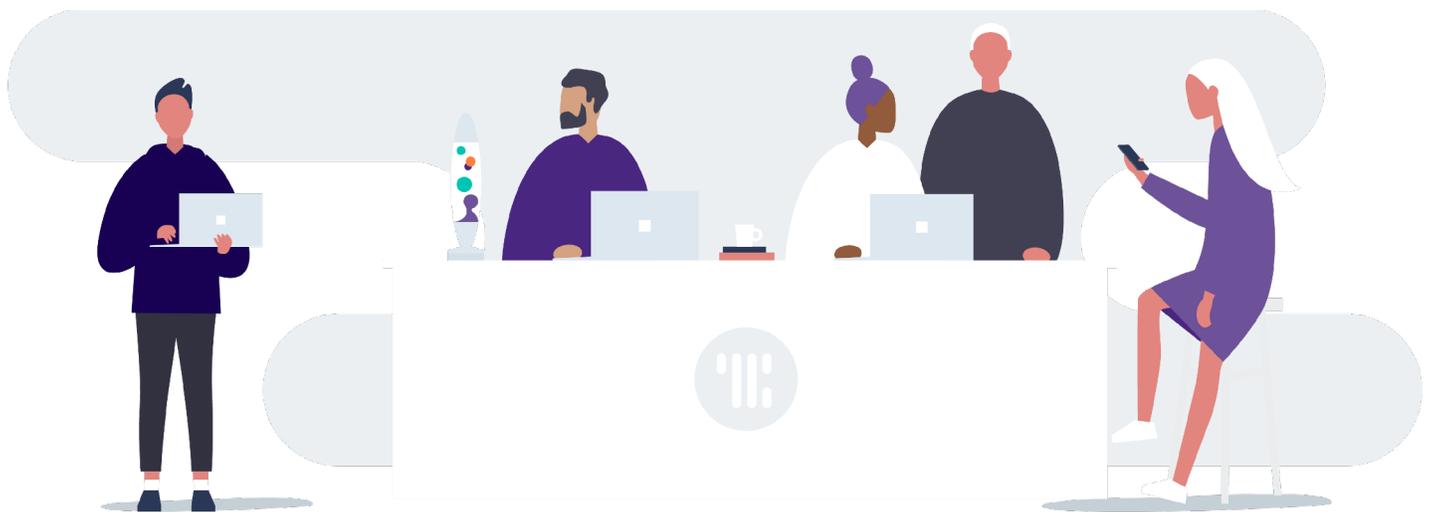


Tracking

Performing ONA as a one-off will generate insight and create actions. Let's consider three situations:

- A Central Connector has been identified who is critical to the network and whose loss would be a massive disruptor. It was deemed that the network needs to be more robust with at least another two Central Connectors being developed with a similar profile by creating networking opportunities and knowledge sharing forums
- An analysis of the Knowledge Directory revealed that there was a concentration of technical know-how among a few teams and this needed to spread out more. This could be achieved by creating L&D initiatives
- Looking at a person's Personal Network Report, a high-performer realised that the network does not recognise her for a key technical skill in which she is world-class. Her objective was to work with her manager to ensure that the wider team builds an appreciation for her capabilities so that they can leverage it as and when necessary

It becomes evident that ONA needs to be conducted at a regular cadence to determine if the actions identified from it have had an impact. Once deployed for a team (or organisation), we recommend embedding network surveys as an integral part of the performance review process. Subsequent network surveys can be trimmed-down or based on reviewing previous survey inputs. This will ensure that these surveys aren't onerous on time.





Harmonising ONA

ONA in isolation is valuable. However, it's value to the business grows exponentially when the analysis is in conjunction or harmonised with a wider suite of people analytics.

Let's look at an example where an organisation has identified Central Connectors. The departure of these network players will result in knowledge loss and significant disruptions to the network. Before taking any action, it's arguably worth analysing the likelihood of departure, which can be estimated by calculating Flight Risk using Machine Learning Algorithms ⁷.

This requires data about employees and their positions from core corporate systems, data derived from comparing employees with their manager or peers along with data about external macroeconomic and market forces.

All the relevant data needs to be brought together, cleaned and feature engineered for machine learning. Models then need to be developed, tested and optimised. And lastly, the models need to be deployed so that they learn on a continuous basis and provide flight-risk analysis on the fly.

The above sequence of events requires a fit-for-purpose analytics set-up consisting of the right skill, technology and governance.

It boils down to harmonising people data – creating an ecosystem that brings together all relevant people data into one place and makes it easy to access for on-demand analytics.

Organisational Network Data is an integral part of that ecosystem.

⁷ *Global Talent Trends Report 2020, LinkedIn*

“The most valuable assets of a 20th-century company were its production equipment.

The most valuable asset of a 21st-century institution, whether business or non business, will be its knowledge workers and their productivity.”

**Peter Drucker,
1999**



About TrueCue

TrueCue's mission is to empower business leaders with truth and certainty from their data. They provide high-impact consultancy and data-driven solutions underpinned by their cutting-edge technology platform – a SaaS data warehouse automation platform built for the Microsoft Azure Cloud.

Combining analytics, consulting and technology expertise to create data-driven solutions, the TrueCue team supports organisations on their end-to-end data and analytics journey – covering data management, visualisation, operational reporting, advanced analytics and data science.

Their solutions are widely used across the public, private and third sectors, with clients including the NHS, Nuffield Health, Imperial College Health Partners, Local Government, EDF, HSBC, and GlaxoSmithKline, to name but a few.

So, whether its understanding patient care to optimise treatment strategies, driving customer insight to create the next sales campaign, or understanding donations across a charitable trust, their solutions have lasting value which drive performance improvements, so that you can take action on what matters most, with confidence.

TrueCue are a Microsoft Gold Partner, Tableau's-longest standing EMEA Partner, and Alteryx EMEA 2019 Partner of the Year.



THE TRUTH IS WHAT DRIVES SUCCESSFUL DECISIONS.

But, most businesses have no idea what that truth is.

They know the threads which will lead them to the truth are out there somewhere, but they're muddled, hard to find and often contradictory.

We provide a single source of the truth to business leaders craving certainty.

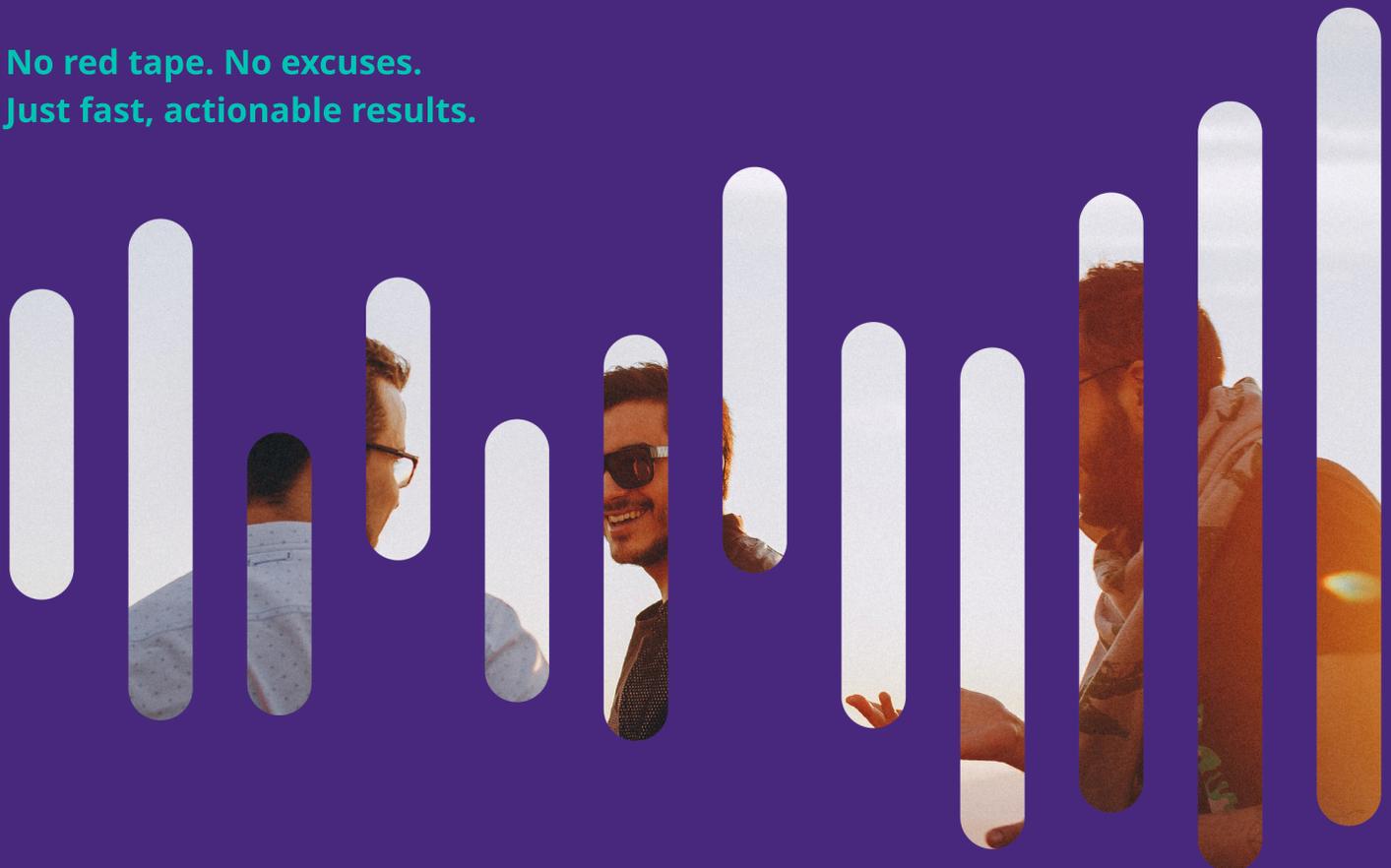
We do this by providing best-in-class technology to filter out the noise and untangle the knots.

Our people help companies identify the right questions and work with them to find the long term, sustainable answers.

Our philosophy is about providing real value, so that working with us isn't a flash in the pan, but something that is as useful today as it will be in a decade.

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