



D

Driven by metrics like daily active users, companies strive to engage all of us in online commerce, media, entertainment and social connections, among others. But these are all activities that we do in *addition* to work. We arguably spend more time at work than on most other activities every day. Work is an important part of our intellectual and emotional lives. It gives us financial security and a sense of purpose, meaning and identity. Hence, what we do at work and how we do it matters.

Today, office work has become digital work and the pandemic has accelerated this shift. Communication and productivity tools have helped streamline digital work to make it more efficient and less cumbersome. However, what is not well-understood is *how* we work—do we all work the same way, where do we differ, what we enjoy, what we find boring, frustrating or painful, among others. Understanding how we work is a precursor to what we can do to change our experience at work.

But, when compared to the billions invested in building social media platforms to help us connect with people, to find jobs, share cat photos, etc., there has been a much lower investment in technology to understand the human experience at work and to make it better. Case in point—when was the last time you heard of tech innovations to help teams discover opportunities for mentorship at work, mitigate frustrations, find help, or share pain?

How big is this problem? There are an estimated 500 million plus office workers world-wide who spend at least 5 hours each day on digital work. Even though the



THE NEXT LABOUR REVOLUTION

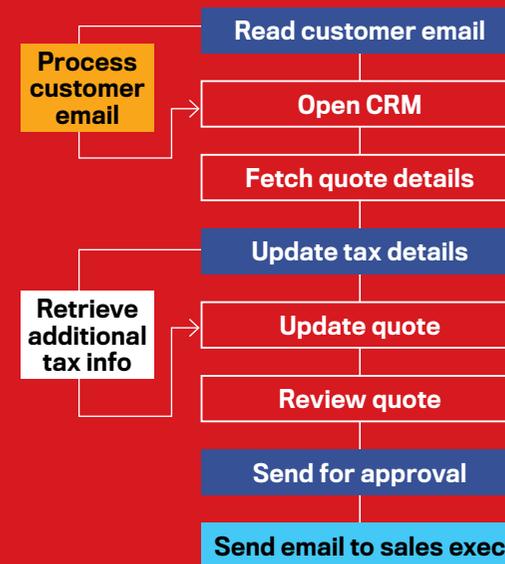
THE FUTURE OF WORK RESTS ON USING TECHNOLOGY TO UNDERSTAND AND IMPROVE EMPLOYEES' EXPERIENCE AT WORK

world spends trillions of dollars on office work, we have not yet seen the improvement of employee experience become an imperative economic issue that technology can address. Finally, the pandemic has isolated a large fraction of office workers at home, given them more opportunities to shift jobs across the globe, and therefore made it harder to retain talent. Hence, it is more important than ever to care

about the employee experience.

Organisations do pay heed to these concerns but are stifled by lack of sufficient innovation in technology. For example, companies hire people who manually interview a few people across teams, gather high-level data through interviews and then offer advice on how to streamline work. But these approaches are incomplete, analog and not scalable. Can technology offer a

HOW A QUOTE IS GENERATED



An example of a work graph of a team generating quotes and how it can be used to figure out what actions can reduce friction in the team's daily experience at work



better solution? Here is one possibility. Recent advances in computing and machine learning offer new means for using data to understand and improve the employee experience. The approach entails (1) sampling how teams interact with software at work, (2) applying machine learning to this data to decipher patterns of how teams work and (3) identifying the team's pain points from these patterns and improving the team's experience. An invariant to this approach is to preserve privacy by anonymising the individual and focusing on the team patterns instead.

The key insight is to treat the very act of doing work as a source of data versus traditional approaches that only treat the outcome of work as data (e.g., how many transactions did a team close?). This data is then useful to drive change at the workplace. At the heart of this vision are 'work graphs'—maps that are a connected sequence of steps that teams execute to get work done. Work graphs are generated automatically using machine learning to learn from how teams interact with software at work and form a basis for understanding work at any

scale. These maps of how teams execute are similar to the world wide web graphs that power search engines or connections between people (social graphs) that power most social platforms.

A work graph is the DNA of how digital work happens. And like DNA, the work graph is a single source of information to understand, diagnose and fix several problems with data.

A team's experience at work can be distilled from the patterns in the work graph. Hence, a wide variety of insights can be gleaned: for example, frustrations with IT and technology that hurt teams' daily experiences, patterns of work common across teams and hence opportunities for mentoring or learning, broken patterns of work revealing tedious and unnecessary complexity in work patterns for teams, among others. The alternative to the work graph is to rely on interviewing people, guess work, gut instinct and hoping changes in organisations help. A recent article in the *Harvard Business Review* used work graphs to reveal the gap between how management expects their teams to get work done versus the reality is about 60

per cent wide. Therefore, these organisations must first better understand their teams' experiences at work before making changes to benefit the team. Else their efforts may not be effective in helping their people.

The scale of data in the work graph is likely larger than social media, which is widely known to generate a large volume of data that fuels businesses. For example, for every single interaction on social media platforms (e.g., a user clicked on "Search for a job" or "Like a comment"), there are 40x more digital interactions that take place at work (e.g., "Sent an email"). After all, the world spends between 6-8 hours every day on digital devices at work and there is data underneath these activities.

Thus far the world has not seen how we experience work as a technology problem. But the pandemic has changed this. Given the scale of office work in the world, this is a consumer-scale opportunity inside the workplace. This, I believe, will be a theme for 2022. ■

Rohan Murty is the founder and chief technical officer at Soroco