FUTURE OF WORK

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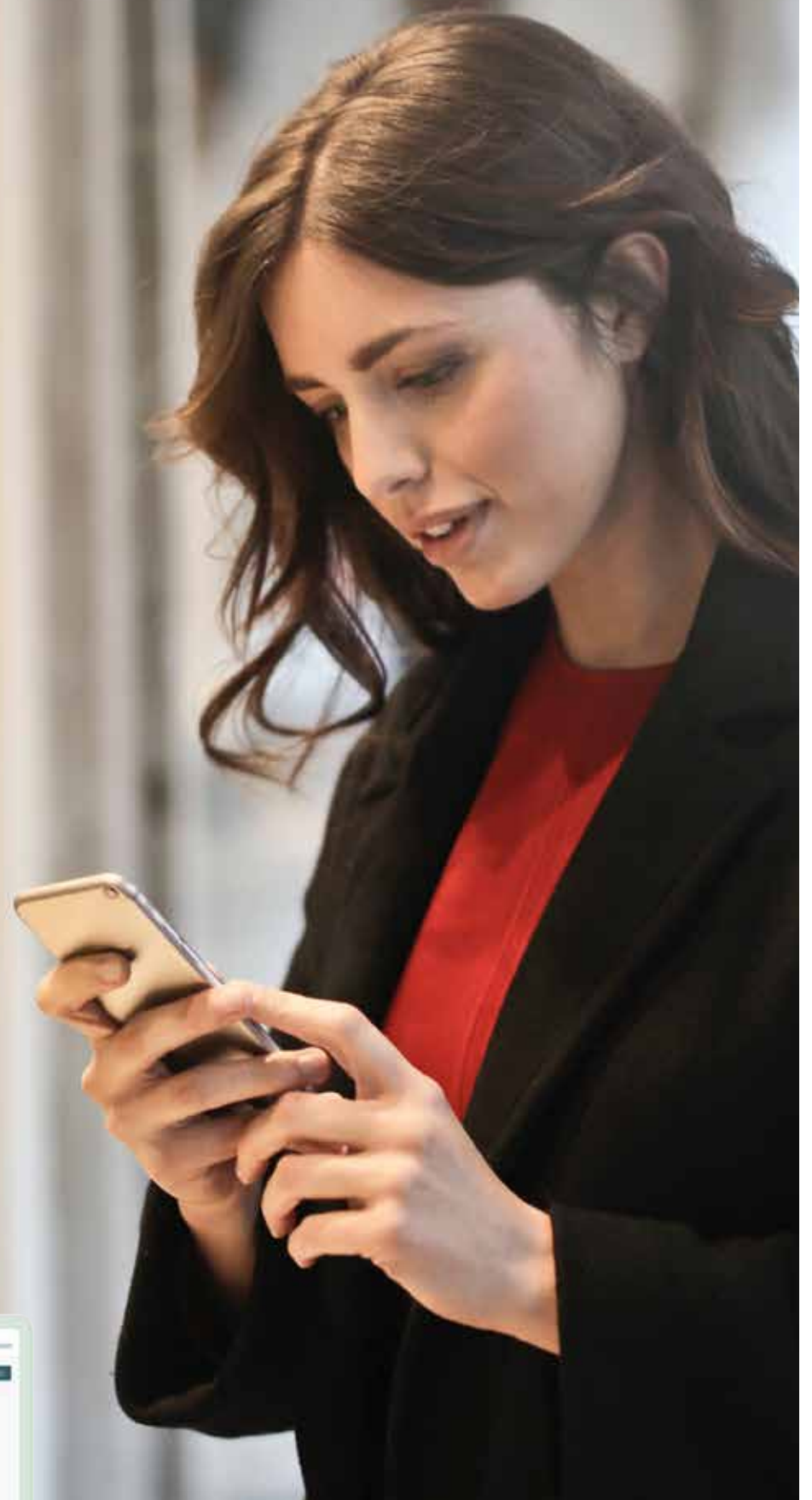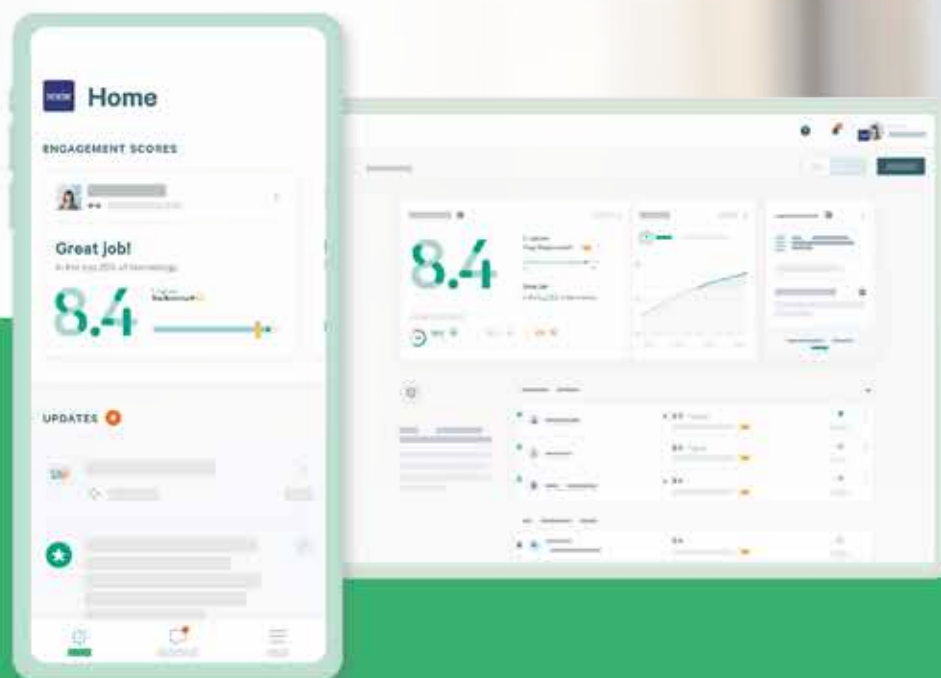
"Peakon gives you a **level of insight** that you'll **never have seen before** in your business. I don't understand how you can **run a business** today **without something like Peakon.**"

James Beechinor-Collins
Chief Digital Officer, Text100

FUTURE OF WORK

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Why work needs to be worthwhile

A meaningful corporate mission looking beyond profits will set companies apart in the future world of work, as employees align themselves with organisations promising a greater sense of purpose

Oliver Pickup

It is human nature at the end of a decade to look ahead. And, concerning the future of work, it is clear company purpose is imperative to attract and retain top talent in 2020 and beyond.

Millennials and the equally ethical Generation Z will make up almost 60 per cent of the global workforce at the start of the new decade, according to Manpower Group. By 2025, Deloitte predicts, 75 per cent of the workforce will be millennials. Therefore, it is critical for leaders, striving to future-proof their businesses, to tap into that ever-expanding talent pool of principled digital natives.

"Employee motivations are changing, and people need to feel they are doing something worthwhile," says Professor Jeremy Myerson, director of WORKTECH Academy. "There needs to be purpose in work, a broader meaning and communities of practice."

This chimes with Jo Cresswell, a community expert at Glassdoor, one of the world's largest job and recruiting sites, who says: "Job seekers are demanding more meaningful workplace experiences." This is backed up by Glassdoor's *Mission and Culture Survey 2019,* which indicates 77 per cent of adults would consider a company's purpose before applying for a job.

Little wonder almost three quarters (73 per cent) of the 7,300 respondents to Mercer's *2019 Global Talent Trends* survey are bracing themselves for employee-related disruption. Encouragingly, 99 per cent of those quizzed said they are taking action to prepare for the future of work.

A happy worker is a productive worker, goes the maxim. But in 2020, an increase in wages doesn't equal greater happiness or output, posits James Lloyd-Townshend, chairman and chief executive of Frank Recruitment Group. As he points out, recent Betterup research shows nine out of ten people are willing to earn less money to do more meaningful work.

"Today's workforce wants more than a paycheck," he says. "They want to be fulfilled by the work they do. A company which can offer them the purpose they crave will reap the benefits of having that talent on their team. In a world where it's incredibly challenging to keep employees engaged, creating a collective ambition is an easy win."

Indeed, engendering trust and loyalty is more likely to boost profits, from the inside out. "Thriving organisations," the Mercer study says, "put purpose at the heart of their talent value proposition and ensure the diversity and adaptability of their workforce."

Bud Caddell, founder of NOBL Collective, an organisational design firm spanning London and America, argues company purpose is an organisation's most valuable asset and attracts stellar talent and loyal customers like a magnet. He says: "It can also reinforce ethical behaviour without the need for draconian rules and enable faster decision-making because it creates simple heuristics for teams to follow without escalating every issue back up the hierarchy."

Unfortunately, leaders are often confused about the subtle differences between company purpose and its vision, which is why NOBL has created a how-to guide and toolkit. The template says company purpose is "why you choose to exist together, beyond financial gain", while vision is "the difference you'll create in your customers' lives or the larger world when you ultimately realise your purpose".

Facebook's "We believe connectivity is a human right" and Muji's "We believe in the allure of the natural" are held up as examples of purpose. Compare them with the visions of Uber, "We will change the way the world moves", and Airbnb's "We will help you belong anywhere".

"Company purpose is the most important element," says Mr Caddell. "It's your organisation's strongest, longest and most widely shared belief. Markets can change and vision may shift with those changes, but your sense of purpose should be unwavering."

Linda Aiello, senior vice president of international employee success at Salesforce, says delivering profit is not enough when it comes to attracting top talent. She urges business leaders to "think strategically about their purpose and what this offers employees".

Success is achieved by flattening hierarchies, encouraging feedback and ideas from all employees, as well as fostering inclusivity in the workplace. "It's about creating a progressive culture," says Ms Aiello. "There's a huge opportunity for forward-thinking businesses to reap the rewards from building a workforce that has a diverse set of influences and backgrounds. The right cultural framework and environment must be established for employees to be their authentic selves at work."

Adopting an agile, startup approach and day-one mentality has enabled Amazon to innovate repeatedly. For Ben Farmer, head of human resources for Amazon UK Corporate, that pioneering attitude tops the list of how to attract talent. "Often team members share their knowledge with management teams rather than vice versa," he says. "We are constantly learning and teaching each other about new ideas because it makes us better as a business, and hiring and developing the best talent is vital to Amazon."

Moreover, failure to either recruit or retain talented staff is costly. The Chartered Institute of Personnel and Development's latest *Labour Market Outlook Report,* launched in November, found that in the UK 43 per cent of businesses report it is becoming harder to fill vacancies. Company purpose and a progressive culture have to be utilised in tandem to lure new workers and keep them motivated.

"Organisations need to invest in and deliver a strong employee value proposition (EVP)," according to Brian Kropp, group vice president for HR at Gartner. "Companies with attractive EVPs can reduce the compensation premium needed to attract qualified candidates as well as potentially decrease annual employee turnover by just under 70 per cent, all of which helps the company's bottom line and brand reputation," he says.

Given the pace of change, fuelled by ethical workers and enabling technology, it is hard to predict what the future of work will look like in 2030. But progressive organisations, anchored by a company purpose, stand the best chance of surviving, and thriving, in the coming turbulent decade.

10,000 hours/Getty Images

89% of people believe it is important for an employer to have a clear mission and purpose

77% would consider a company's purpose before applying for a job there

56% say company culture is more important than salary when it comes to job satisfaction

Glassdoor 2019

Ryoji Iwata / Unsplash

VACATION DEPRIVATION

Top countries for not taking their allocated annual leave; national averages

	Days received	Days used	Days unused
Japan	20	10	10
Italy	28	21	7
Australia	20	14	6
New Zealand	20	15	5
India	20	15	5
United States	14	10	4
Malaysia	16	12	4
Taiwan	14	12	2
Canada	17	15	2
UK	26	25	1

Expedia 2018

WORKING HOURS

Shorter hours might not solve Japan's problems

Traditional attitudes towards employment mean Japan might not be suited to the four-day working week trend spreading worldwide

Virginia Matthews

Microsoft Japan has earned international plaudits for its recent trial of a four-day week, most notably for the 40 per cent employee productivity boost which closely followed in its wake. But in a country where being on perpetual call is as culturally entrenched as geishas, the notion that the bulk of corporate Japan will be keen to follow the example of a foreign firm is questionable.
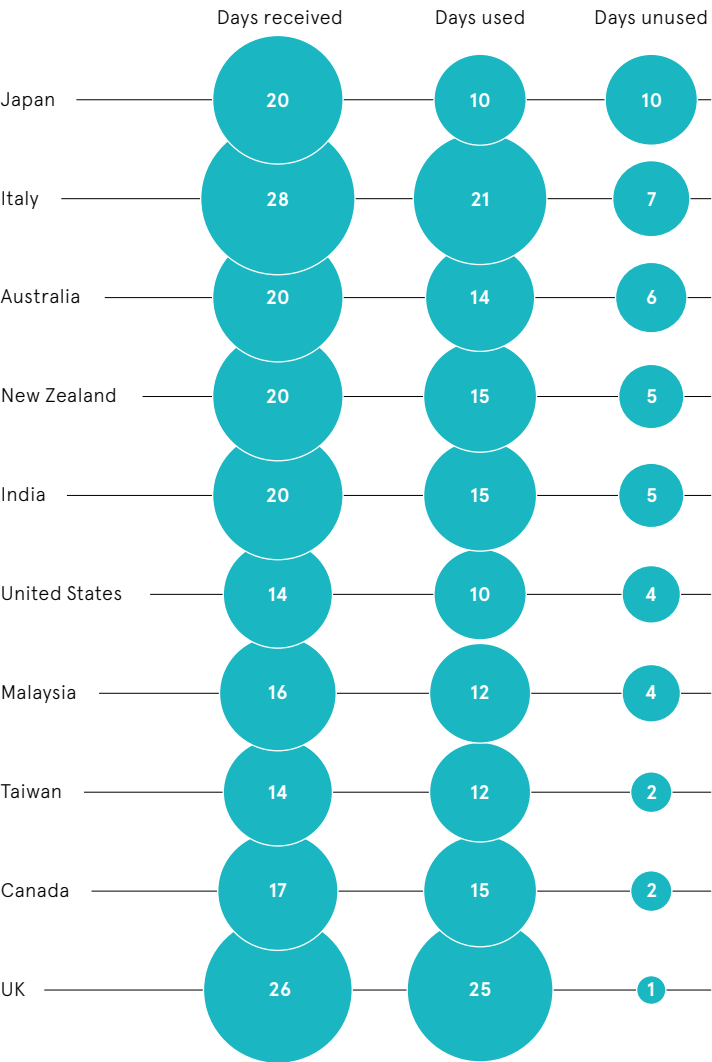
So says Ryosuke Endo, Tokyo-based global chief human resources officer at international recruitment consultancy JAC Group, who notes that the flexible working arrangements now familiar in the West remain unchartered waters for much of Japan.

"For us, being seen in the office is the expected norm and the idea of being equipped with company laptops so we can work at home from time to time is still alien. Although we know we have a productivity problem, the four-day week itself may not be the right strategy for us," he says.

> **Staying late at the office simply reflects the genuine happiness that staff feel when they can help their company grow and prosper**

The current Shinzo Abe government has already declared war on karoshi, or death by overwork, setting a 100 hours a month legal cap on overtime at larger firms. Yet to Mr Endo, it is next year's Olympic Games in Tokyo, which are expected to attract more than 600,000 foreign visitors, which may mark a more significant tipping point.

"The Abe administration undoubtedly needs more firms to embrace remote working before next summer if the capital's entire transport system isn't going to collapse," he says. "But by the time the visitors have gone home, I'm hoping that a more flexible attitude to work will already be well advanced in many companies."

While Japan's position at the bottom of the G7 for GDP per hour worked cries out for people policy reforms, the country's innate aversion to risk will not be easily overcome.

"Microsoft Japan is selling hard the notion of 'scrum management', which is a high-risk approach to software development that attaches no blame if expensive product trials go wrong," says cross-cultural Japanese business consultant and author Pernille Rudlin, founder of the Rudlin Consultancy.

"But this is a very strange and even unwelcome notion in a country where risk avoidance, together with detailed planning, record-keeping in triplicate and the constant watching of your colleague's performance is endemic."

While working hours in manufacturing, for example, are governed by shifts, service sector roles, where the country's low productivity is most marked, are rarely governed by formal job specifications. With most workers tending to be generalists, rather than specialists, it can be difficult for them to gauge when their job is done and dusted for the day.

To the Japanese, says Ms Rudlin, staying at the office until the boss goes home, partly to earn brownie points, but also in case you can be of service to your team, is the established way of working. This doesn't sit well with the European practice of knocking off early when things are quiet.

In the West, it is largely millennial workers who have helped drive the adoption of more flexible working patterns, particularly in talent-starved organisations.

Yet in Japan, where deference to elders is customary, younger generations may be more wary, notes Helen Macnaughtan, senior lecturer

in international business and management at SOAS University of London, who sees scant evidence that fresh-faced Japanese are also striving for change.

"Research indicates that Japan's millennials are only slightly more risk averse as their fathers and grandfathers when it comes to work. While they may say they reject the workaholic norm, the majority are keen to take the well-paid, high-status jobs that have traditionally guaranteed a job for life with the same firm," she says.

"Given that only 3 per cent of men across all age groups take their full paternity leave for example, it would be wrong to assume the bulk of Japan's young workers share the European obsession with work-life balance."

Dr Macnaughtan fears the Japanese government's overtime cap, which is backed by legal penalties, may in practice simply "drive excessive working hours underground". This is particularly true when it comes to male workers, she says.

"To a large extent, it is Japanese men in 'regular' jobs, so-called salarymen, who bear the brunt of the country's disproportionately long working day, yet many of them continue to believe that having no personal life is a reasonable sacrifice in return for job security for life."

In a country where women tend to be far better represented amongst the 40 per cent of employees who are defined as "non-regular" workers, receiving less money, training and development, but typically working fewer hours, she notes that employment remains a "highly gendered issue".

To Steve Crane, founder of Business Link Japan, which helps international organisations set up and develop in the country, shortage of talent will ultimately dictate how many employers follow Microsoft's lead.

"The mental health implications of excessively long hours are severe, but it's the scarcity of high-calibre job candidates that is starting to cause extra problems for foreign firms," Mr Crane says.

While he believes "softer" sectors, such as tech or creatives, may ape the Microsoft trial in a bid to attract interest, the bulk of the business community will take a wait-and-see approach.

"Financial services, for example, tend to be very conservative. While bigger employers may eventually opt for the four-day week, it may be introduced in a highly bureaucratic manner which could undermine the whole notion of flexibility," says Mr Crane.

While Japanese firms take a polite interest in Western ways of working, he sees no appetite for a widespread catch-up with the more creative employment practices now sweeping across America and Europe.

"Like many Westerners who know the country well, I have found that the level of pride in doing a good day's work is absolutely unique to Japan," says Mr Crane.

"While there still may be an element of presenteeism, for the most part, staying late at the office simply reflects the genuine happiness that staff feel when they can help their company grow and prosper." ●

Harry Cooper Photography/Shutterstock

Short hours and high productivity

At an average 29 hours a week, the Netherlands not only has the shortest working week in Europe, but enjoys one of the highest per hour productivity rates in the world.

With many sectors operating a standard four-day week, work-life balance is highly prized in a nation where free days are typically spent with family, pursuing hobbies or volunteering.

Dutch workers' preference for part-time, rather than full-time, work has also led to high participation in the labour market, according to Central Bureau of Statistics figures, with some 70 per cent of men and 60 per cent of women in paid work every week.

This equates to 12.8 million people, according to the most recent data, outranked only by even higher participation rates in Sweden, Germany and Estonia.

Yet, despite the rosy picture of boundless free time, there is a downside. As many as 1.5 million younger workers say they would like the opportunity to boost their income by working more hours and there is a marked difference in typical working hours for men and women.

With demographic changes making an impact on the country, the retirement age has recently been raised to 67.

Sorry to break it to you but your workforce is seeing other people

An innovative online platform solves the problem of recruiting and managing quality casual workers, at the click of a button

In the age of rapid disruption and digitalisation, the human resources industry is in the thick of it. In the industrial and service sectors, such as hospitality and facilities management, where the gig economy has been growing exponentially, there has traditionally been a greater ratio of permanent employees to internal casuals; this is changing.

In 2016, one in twenty adults took on gig work at least once a week to supplement other forms of income; today this number has doubled to one in ten, according to a survey conducted by the University of Hertfordshire and data collected by Ipsos MORI. Whether this is due to how casual workers find job satisfaction or if it's a mere lifestyle choice, the fact is casual work is on the rise.
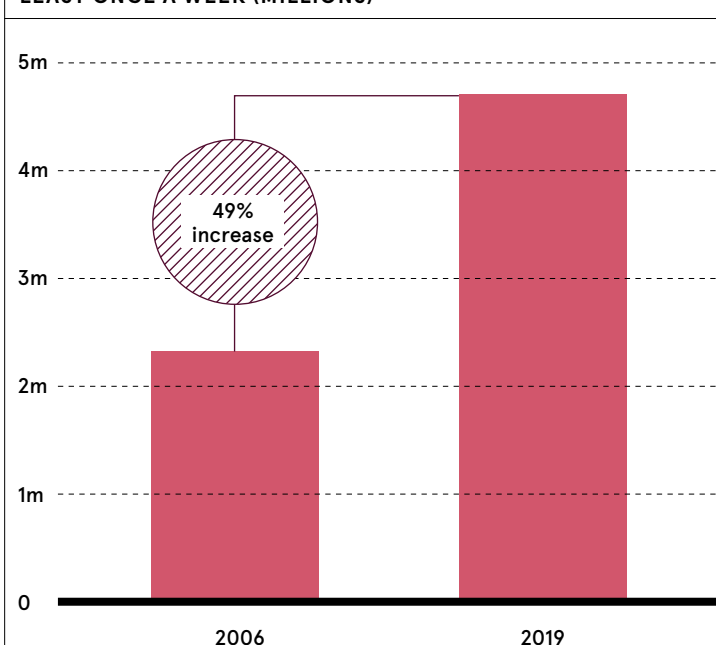
This being the case, employers are now curious about how their casual workforce operate within the larger gig economy, and for good reason. Employee engagement and loyalty are a growing concern, as casual staff now have more options and will go to work where they want, when they want.

For businesses, one of the main blockers for successfully running a casual workforce is tech-adaptation. Many businesses, big and small, are still not equipped with the right tools or mindset to respond to the changes taking place in their industry's workforce. Gone are the days of WhatsApp rota group chats, phone calls, and manual spreadsheets. To get the engagement and enrolment needed for survival, organisations must adapt their tools and talent pools.

The solution: democratise work with technology
The key to adapt to the changes in the workforce brought on by the gig economy is to democratise work through technology. By responding to the way internal casual workers are approaching temp work, businesses can manage and benefit from what seems to be the downfalls of the trend. By offering a digital experience for casuals and enabling them to work across multiple sites within the organisation, employers will win over engagement and maximise staff utilisation.

This is the exact gig economy transition that we, at Syft, offer with our SyftForce platform. SyftForce is built to counter the friction between businesses, casual workers and the growing gig economy. With our mobile and web apps, SyftForce streamlines the processes of managing work for both parties, while democratising casual work. This is done by creating transparency and efficiency between employers and the workforce.

SyftForce equips businesses to thrive in the gig economy
Democratising casual work means both employers and workers enjoy better control and choice over when and where they work. SyftForce helps businesses and casual workers find one another at the click of a button, confirming shift booking and attendance, instantly.

Besides managing permanent staff and internal casuals simultaneously on one merged platform, SyftForce enables businesses to connect with existing agencies, as well as benefit from Syft's marketplace of vetted casuals.

Dubbed Syfters, our temp staff network consists of more than 33,000 workers in hospitality, facilities management and the industrial sector. Syfters undergo a vetting process by which we verify their skills, experiences and ensure legal compliance. The credibility of the workers through our Uber-like rating system is intended for accountability with both the Syfters and employers, boasting a high average worker rating and a no-show rate of less than 3 per cent.

When push comes to shove, it is all about creating the future of work together and digitalisation of the gig economy allows us to do exactly this: quality casual workers at the click of a button.

For more information please visit www.syftapp.com or call +44 330 128 1418

UK ADULTS WHO HAVE WORKED FOR AN ONLINE PLATFORM AT LEAST ONCE A WEEK (MILLIONS)

49% increase

2006 — 2019

More than…

1/3

of jobs in the gig economy are found on apps

syft — The Future of WORK

PRODUCTIVITY

Can microtasking solve the productivity puzzle?

Distractions take many forms in the workplace, so could breaking up large tasks into smaller bursts be the antidote to procrastination?

Jon Axworthy

It's a working morning, you get a coffee on the go and you're already making progress on the day's first task when an alert toggles your attention to an email client. You flag it, reply to another and quickly check Twitter before answering a WhatsApp message, all the while getting further away from the original task. Sound familiar?

If it does then microtasking is a work process that could make you more resilient to the interruptions highlighted by a UC Irvine study, which found that workflow in a modern office is disrupted every 11 minutes. That may not sound very much, but when you consider the research also revealed the fallout of such disruption is a 25-minute lull in productivity, the impact on workload becomes clear.

Microtasking is a process whereby manageable pieces of work are effortlessly embedded into those habits that chip away at our daily attention span.

Jaime Teevan, chief scientist for experiences and devices at Microsoft Research, calls them "micromoments", the rest of us would probably call them social media rabbit holes.

"The idea behind casual microtasking is that tasks are made available to people in a passive way during those moments that are generally too small for larger, complex tasks," explains Dr Teevan, who leads a team that adapted an existing microtasking tool so it channelled document-editing microtasks from Word into a user's Facebook feed.

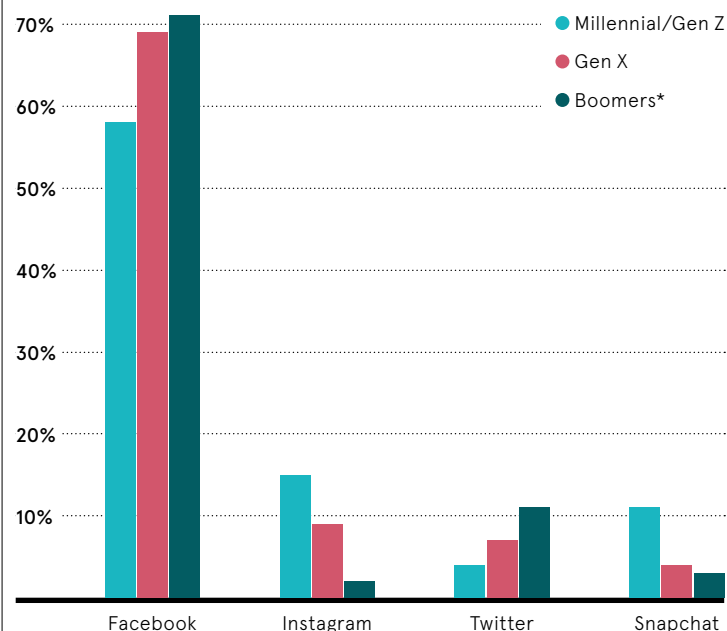The tool was calibrated to offer up a task every 2,000 pixels of scrolling and they discovered that when casual microtasking was incorporated into those moments, when we're distracted by other tech platforms, incremental progress on larger tasks could be achieved.

"We also found that about 20 per cent of the time, engaging with the microtasks resulted in people opening up the corresponding Word document," adds Dr Teevan, "distracting people away from their distraction, so to speak."

The team prefix their concept with the word "casual" to differentiate it from the current understanding of microtasking that has been co-opted into the gig economy via platforms such as Amazon Mechanical Turk.

"While both are structurally similar, designed to be completed in a few seconds, the key differences are in how people interact with them," says Dr Teevan. "Casual microtasks are inherently passive by design, people can choose to engage with them or ignore them and the microtasks that are presented are the users' own tasks."

To understand why casual microtasking could have far-reaching implications for productivity, we need to look briefly at the behaviour that causes procrastination.

"We procrastinate because of that momentary relief we feel, which is what makes the cycle especially vicious," says Dr Fuschia Sirois, professor of psychology at the University of Sheffield. "Add to this the instant gratification of social media and you're actually being rewarded for being distracted, so we keep doing it."

Casual microtasking seems to be so effective because it works within this habit loop of procrastination, rather than fight against it like many of the other touted "productivity hacks".

Microsoft now plans to extend its research by embedding microtasks into Word itself so as you're working, you will be able to identify snags in a task and flag them, using email to carry individual tasks to your or a colleague's inbox to be completed when you have another micromoment in your day.

Artificial intelligence (AI) is driving this further sophistication of microtasking and is crucial in its development towards a meaningful way of working

"For microtasking to work, you need to be able to piecemeal a project, to break it down into bite-size pieces in the first place. This is called decomposition," says Walter Lasecki, director of the Crowds and Machines Lab at the University of Michigan. "AI will be able to analyse the work you're doing and then break it into a to-do list of microtasks for you."

All work projects logically break down into a series of sub tasks and AI can be harnessed to do this based on past projects and a worker's preferences. It could even begin to send you a certain type of microtask at a particular time during the working day when it has established you are at your most creative or when your concentration levels are at their highest.

The question that remains is whether all this microproductivity will have any consequences for engaging with a task on a macro level. What are the dangers of being conditioned to think small when what's needed is to think big and doggedly stay with a task until its conclusion?

According to researchers in America, underperforming on a task doesn't come about because we stop paying attention; we just stop paying attention to a particular task.

"You start performing poorly on a task because you've stopped paying attention to it, but you are always paying attention to something," explains Alejandro Lleras, psychology professor at the University of Illinois.

"Email, Twitter, WhatsApp, all these distractions still demand our attention, which means it's not attention that's the problem. It's not a finite resource. What we've found is that it's prolonged attention to one outcome that limits performance, and the way to stay focused is by deactivating and reactivating your goals."

This insight into how our brains process information actually strengthens the case for casual microtasking as a futureproof way of getting work tasks over the line in the face of overwhelming distractions. It appears that to work smarter, you need to work smaller. ●

> "Tasks are made available to people in a passive way during those moments that are generally too small for larger, complex tasks

End of email: why collaborative communication is the future of work

As organisations adapt to new ways of working, email hasn't kept up and is hindering alignment, says **Johann Butting**, head of EMEA, Slack

E mail is broken. Inboxes have become to-do lists, where the work you do and the information you see is determined by the person sending you the message. In an age where nearly every element of our work involves some aspect of teamwork, this 40-year-old technology no longer fits.

Consider your personal life. If you have young children, you're constantly organising school trips, family outings and plans. Where do you do this? In WhatsApp groups, with relevant people who can respond in real time. The idea of trying to do this by email is no longer viable and we're seeing the same shift at a business level.

The same efficiencies, improvements and time-saving tools we use in our private lives are now being applied to our working lives, and they are allowing organisations to tackle the fundamental challenge of co-ordination and alignment.

Email is the default co-ordinating point for communications, but inside a company it works poorly. Enormous flows of information course through it, but each person has only a tiny view. Email holds rich history: all the decisions made, questions answered and information shared, but if you're new to a company, or just in the wrong inbox, you have access to none of it.

Scaling knowledge

This is why instead of an indiscriminate push of information, we need a controlled pull, where employees have access to, and the ability to search for, the information they need.

We believe Slack is leading a paradigm shift in communication, moving organisations from individual to team-based communication, organising messages by channels rather than inboxes. Channels can correspond to anything: projects, teams, planning, office locations, business units or functional areas.

Instead of everyone having their distinct, partial, fragmented view of information, Slack creates a rich, permanent, searchable record of knowledge for your organisation, giving control back to employees and creating an environment that supports increased competitiveness and innovation.

Take a new starter in an email-based company. When they join, their email folder is empty. Their boss might send them a few emails with things to look at, but essentially they are out of the loop and beholden to the boss for information.

In channel-based communication such as Slack, the new starter is immediately part of all knowledge streams in a company. They can join a project, search for it on Slack and get information on the project from its beginning. In an age of intensifying global competition, the ability to make better use of historic knowledge within an organisation is critical in enabling agile, fast-moving companies that iterate and innovate quickly.

The intellectual property of successful businesses sits in the communication between its employees, rather than in carefully crafted documents sitting in hidden folders. The future of work is about collaboration across departments at speed, rather than silos and hierarchies.

Email's formal style – "Dear xxx, … yours sincerely" – is not conducive to agile communication or innovation. A messaging platform is much quicker and much less formal, breaking down barriers between different departments and reducing the time needed to collaborate.

Collaborative work is agile. For successful companies, the old school, top-down method of managers telling employees what to do no longer works. Instead, modern business leaders drive accountability and engagement by allowing employees to take control of developing the business with their own expertise.

Why is this important?

It's not just collaboration that is key to the future of work. Slack's 2019 State of Work report surveyed 17,000 knowledge workers across ten countries to understand the major shifts in modern work. We found a direct correlation between how employees feel about their own productivity and how well they are aligned to both a company's overall objectives and their own colleagues.

For example, when workers understood their company's strategic goals, 84 per cent said they felt aligned to the business and 88 per cent knew how their day-to-day work contributed to the success of the organisation. On the flip side, when employees were unsure about their company's goals, only a third (33 per cent) understood how their work contributed to business success.

This lack of clarity has a knock-on effect on growth and productivity. Three quarters of aligned workers said they felt empowered to make strategic decisions and pursue new business, with fewer than a quarter (22 per cent) of unaligned employees agreeing. Significantly, unaligned workers were 12 times more likely to rate morale and satisfaction as very poor than aligned workers.

While there is no one-size-fits-all solution to creating an aligned workforce, making collaboration easier and communication more transparent is a hugely powerful driver.

The world of work is becoming more complex, with every aspect from tech and development to procurement and human resources having their own specialist tools. While these tools help individuals be more productive, there is a risk they can also cause information to become more siloed.

Bringing people, data and applications together in a single space is how Slack helps firms unlock greater organisational alignment and performance.

Automation is taking over mundane tasks, freeing us up to be more creative and focus on higher-value work. At the same time, the next generation of people joining the workforce want a more complete understanding of a company's direction and how their work is making an impact.

For leaders, adopting new technologies and new ways of working to empower employees to be aligned and even more collaborative may feel like losing some control which can be difficult. However, at Slack, we encourage people to try it. In a complex, uncertain world, companies that do not are missing out on the most important drivers of the future of work.

For more information please visit
www.slack.com/intl/en-gb

slack

Slack by the numbers

5bn+
actions in Slack each week, including over one billion mobile actions as of October, 2019

6m+
paid seats as of September, 2019

12m+
daily active users (DAU) as of September, 2019
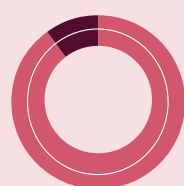
100k+
paid customers as of September, 2019

40%+
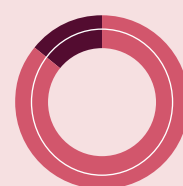of FTSE 100 companies are paid users as of September, 2019

50%
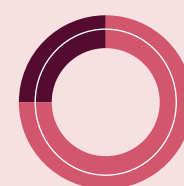of DAU are outside of North America as of April, 2019

When knowledge workers feel aligned with their company, everyone benefits

90% know what success looks like

86% understand their company's strategy

75% feel they are empowered to make decisions

Slack in practice
Vodafone dials up developer innovation

"We have scaled rapidly over the past 12 months, so understanding the team membership, microservice ownership and what value streams and products team are working is a non-trivial task," says Vodafone UK's head of systems engineering Paul Whyte.

To aid collaboration and speed up communication, the systems engineering team at Vodafone introduced a custom search integration into Slack where any Slack user can easily query team membership and micro service ownership hierarchies to understand the current organisational configuration.

Slack's ability to integrate more than 2,000 different software tools into one collaborative system has also aided productivity at Vodafone's software development team. "We have automated a host of previously manual tasks for our engineering teams using Slack, including the ability to streamline the provision of our infrastructure. These automations have helped us remove the tacit knowledge previously required to execute these tasks – empowering our teams to be more self-sufficient and autonomous," according to Mr Whyte.

> " Instead of an indiscriminate push of information, we need a controlled pull, where employees have access to, and the ability to search for, the information they need

PARENTAL LEAVE

There are some dramatic differences in statutory paternity leave and pay worldwide, depending on the country and whether you are a mother or a father. Across the OECD, Croatia appears to have the most balanced rules for both parents, while there is a stark contrast in Estonia. The United States, meanwhile, is the only industrialised nation not to require employers to offer paid parental leave

PAID LEAVE AVAILABLE TO PARENTS

Number of weeks leave equivalent to full-rate pay

Eurostat/OECD/Unicef 2019

● Maternal ● Paternal

Country	Maternal	Paternal
United States	0	0
Switzerland	8	0
Australia	8	0.8
New Zealand	8	0
Ireland	9	0
Turkey	11	1
UK	12	0.4
Mexico	12	1
Belgium	13	5
Cyprus	14	0
Israel	14	0
Iceland	16	7.8
Spain	16	2.1
Netherlands	16	0.4
Malta	16	0.2
France	19	5.6
Portugal	20	12.5
Greece	23	0.4
Italy	25	0.4
South Korea	25	17.2
Luxembourg	26	10.4

GLOBAL MATERNITY POLICIES

Survey of employers worldwide

Aon 2019

Provide enhanced maternity pay beyond the statutory requirement?

68% Yes

32% No
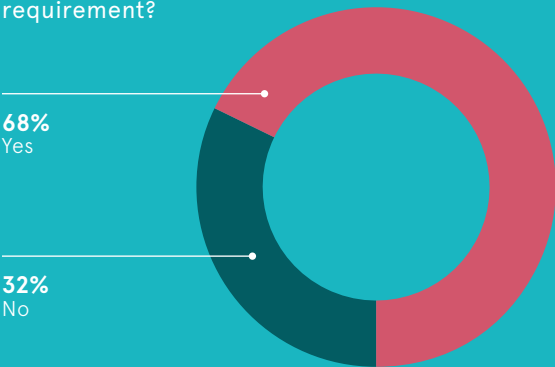
Had requests for shared parental leave?

58% Yes

42% No
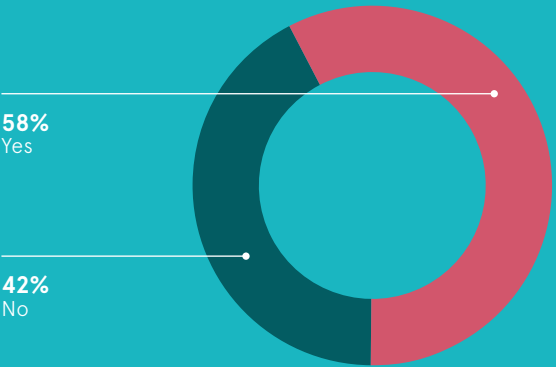
Policies for shared parental leave

38% Match enhanced maternity pay provision

58% Apply statutory shared parental pay

4% Enhanced but at a lower rate than enhanced maternity pay provision
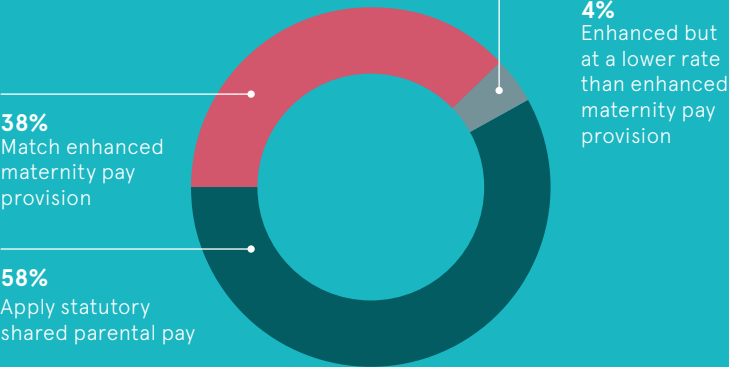
18wks

average entitlement of paid leave available to mothers around the time of childbirth across the OECD

8wks

average entitlement of paid leave available to fathers, either through paid paternity leave or paid father-specific parental or home care leave

0wks

paid maternity leave for new mothers in the United States – the only OECD country without a national statutory entitlement to paid leave

OECD 2019

Denmark 27 ● 1.1
Canada 27 ● 0
Chile 30 ● 1
Sweden 35 ● 10.9
Japan 36 ● 30.4
Croatia 39 ● 2.9
Finland 41 ● 5.7
Poland 42 ● 2
Germany 43 ● 5.7
Norway 45 ● 9.8
Slovenia 48 ● 2.6
Romania 48 ● 4.7
Austria 51 ● 6.9
Latvia 53 ● 1.1
Czech Republic 53 ● 0
Slovakia 54 ● 0
Lithuania 62 ● 4
Bulgaria 65 ● 1.7
Hungary 72 ● 1
Estonia 85 ● 2
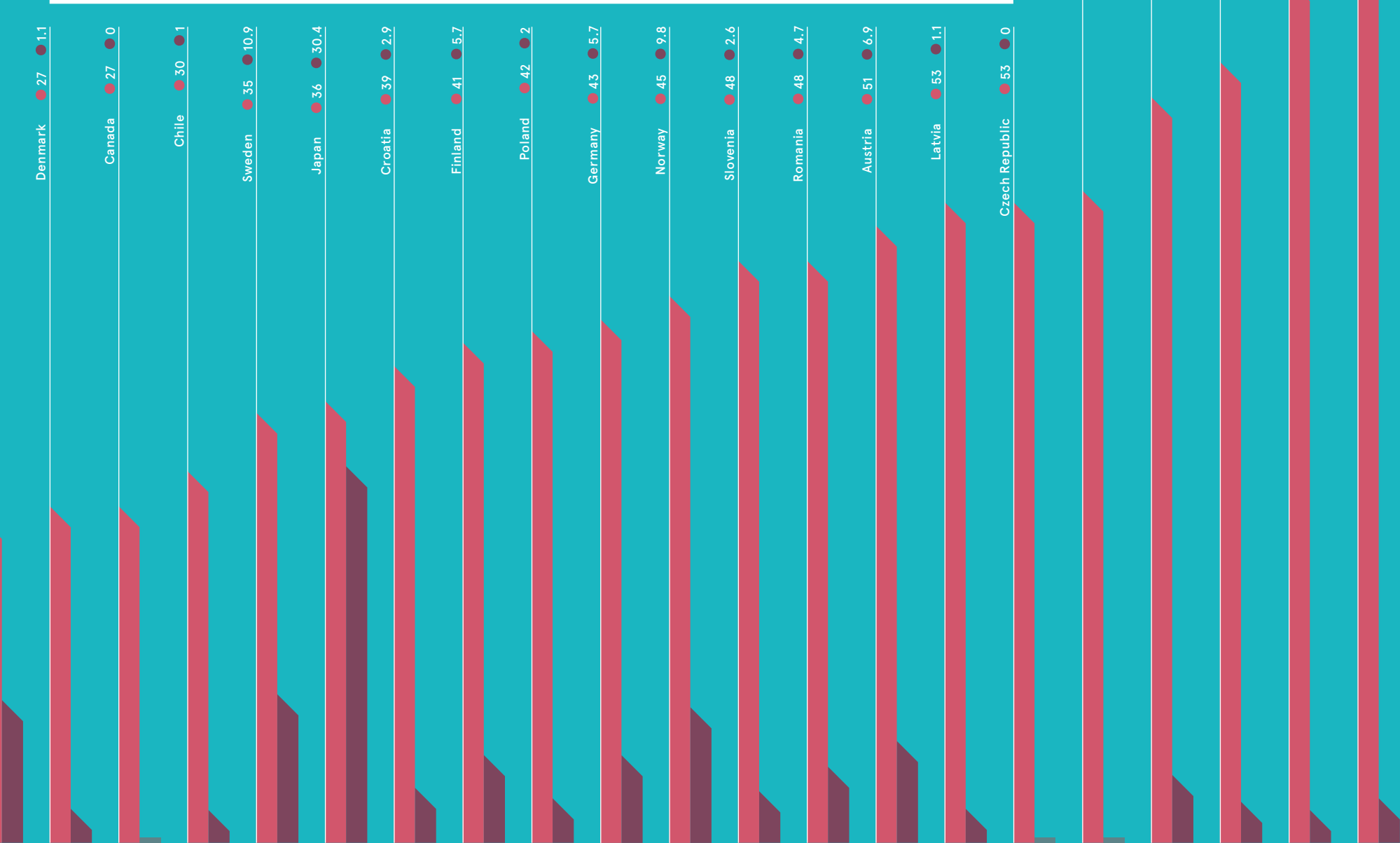
MATERNITY LEAVE WITH JOB PROTECTION

Number of weeks after maternity leave which a woman can take as parental leave with her job protected, disregarding payment conditions; 2016 data for selected countries only

Ministry of Health, Labour and Welfare 2019

| 183.7 | 150 | 130 | 78 | 65.7 | 52 | 44 | 35 | 26 | 18 | 12 |
| Poland | Spain | Slovakia | Norway | OECD average | South Korea | Japan | Canada | Italy | UK | US |

Commercial feature

Connecting the unconnected workforce
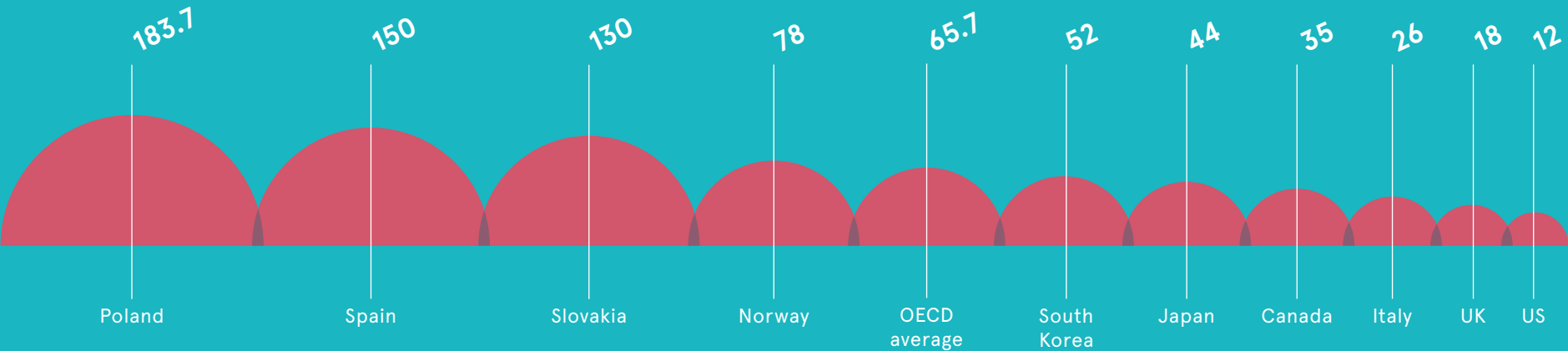
With four out of five workers in a non-desk-based role, unconnected to emails, businesses are missing out on leveraging the ideas and knowledge of those most engaged with customers and products. Connecting the entirety of their organisation is crucial

S ocial media has reinvented communication, enabling people to close the gap between friends and family wherever they are in the world. By connecting the previously unconnected, it has reduced the distance between people who are meaningful to each other or part of meaningful groups. In the workplace, however, a gap remains.

Eighty per cent of the global working population, or 2.7 billion people, are deskless. They're the frontline staff in hotels, retail stores, hospitals, factories and beyond. These employees are at the coalface on a daily basis, dealing with customers and handling the products, yet too many of them feel silenced and disconnected from management.

A recent study of 2,000 business decision-makers based in head offices and 2,000 frontline workers exposed a major communications failure between these two groups of people. While 86 per cent of employees said they feel connected to their direct co-workers, only 14 per cent said the same about colleagues in HQ and just 3 per cent about their C-suite.

The vast majority of frontline workers feel they receive information passively, rather than participating actively in a mutual exchange. While half of managers said new ideas from frontline staff are the main topic of their conversations with them, just one in five frontline employees agreed and one in six said they never speak with their head office.

This clear disconnect is preventing valuable ideas from rising through the business, limiting innovation and stopping key talent being recognised and feeling appreciated.

Nine in ten managers said their frontline workers are empowered to share ideas with them, but only 45 per cent of the frontline workers agreed. A further 38 per cent of workers have shared their idea, only for it to be ignored. This not only blocks ideas from being deployed, but leaves employees feeling voiceless and ignored, stymying

employee engagement, draining motivation and driving people out the door. Yet 83 per cent of managers confidently claim they give all employees a voice in their business.

"Big companies are trying to transform into a more sharing culture, but we hear from our customers, including Walmart, Starbucks and Deliveroo, that before talking about being more productive or collaborative, you have to be connected," says Julien Codorniou, vice president of Workplace from Facebook, which conducted the research.

"It's not easy to create a network that incorporates 100 per cent of your employees, particularly when most are deskless. But when you do manage to connect everyone, you can remove silos, share news fast, identify talent and ultimately drive competitive advantage.

"You make decisions better and quicker because you're more informed, and you can increase employee sentiment, engagement and retention. By connecting your workforce, your people are happier and then stay longer, and that has a big impact on your bottom line.

"On the other hand, if people aren't connected, they don't know who they work for. They don't know the values and culture of the company. They feel like they don't have a voice and that they can never be identified by the management of the people at HQ. The choice of tools you use to connect people can have an amazing impact on the business at every level: top line, bottom line, productivity and retention."

Frontline workers need a space where they can share their experiences with the entire company. Doing this requires technology that really connects everyone, including remote and deskless workers, in a secure and scalable way. According to a Forrester *Total Economic Impact* study, businesses that connect their people are 34 per cent faster to inform frontline workers of company news and see 32

per cent more production innovation, as well as a 25 per cent reduction in leadership communication costs.

Workplace from Facebook is a SaaS (software-as-a-service) startup within Facebook whose mission is to bring the power of community to work. By bringing the familiarity of Facebook to business collaboration, Workplace allows employees to connect and communicate using an interface that 2.5 billion people around the world already use.

More than three million people are already connected on Workplace across businesses of all sizes. Employees can chat one to one or in groups through instant messaging, using text, pictures, voice and video. They can share updates, files and feedback, and broadcast live

announcements, training sessions or meetings. With Workplace Chat, they can make HD video calls with up to 50 people wherever they are in the world.

The ever-familiar News Feed is also included, incorporating artificial intelligence to update employees on the people and projects most relevant to them in a scrolling stream of posts that can be liked and commented on. Meanwhile, Workplace ensures global organisations are truly connected by breaking down language barriers through automatic translations and video captioning.

"I can write in French, but my colleagues in Japan will see the contents in Japanese," says Mr Codorniou. "Connecting the frontline means

" When you do manage to connect everyone, you can remove silos, share news fast, identify talent and ultimately drive competitive advantage
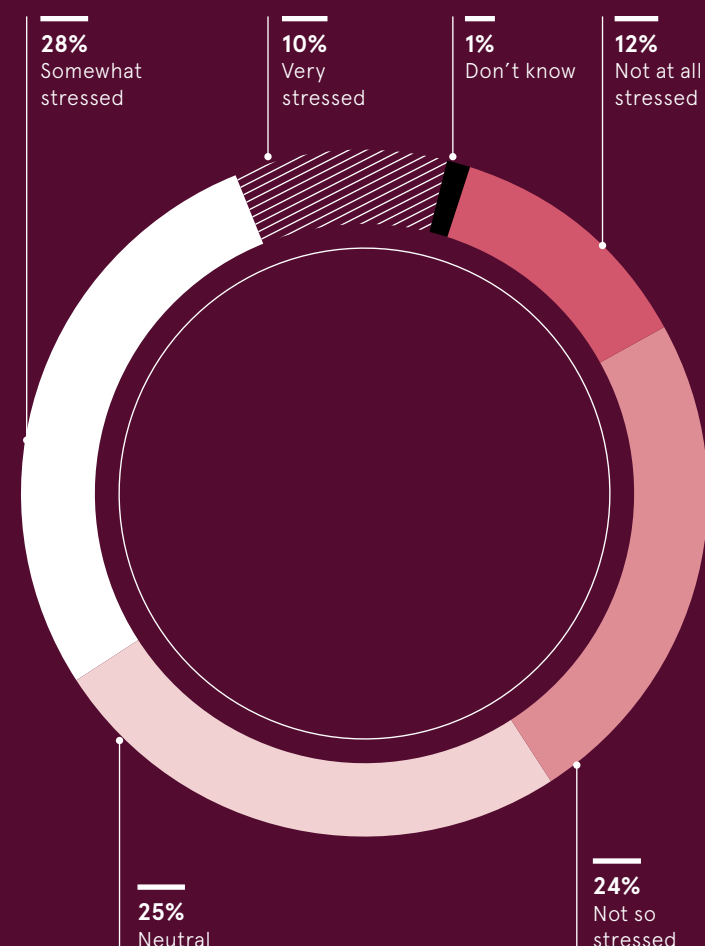
COMMUNICATION FOSTERS INNOVATION

54%

of workers say they do not have a voice within their company. How can businesses encourage idea-sharing across the whole organisation?

IDEAS SHOULD COME FROM EVERYONE IN THE BUSINESS, BUT IN REALITY THIS ISN'T HAPPENING

98% of business leaders agree that ideas should come from everyone

88% of workers agree that ideas should come from everyone

62% of business leaders think this happens in reality

34% of workers think this happens in reality

Workplace 2019

THE PROSPECT OF COMMUNICATING IDEAS STRESSES PEOPLE OUT

28% Somewhat stressed

10% Very stressed

1% Don't know

12% Not at all stressed

25% Neutral

24% Not so stressed

EIU 2018

MANAGERS ARE FAILING TO CREATE AN ENVIRONMENT THAT WELCOMES IDEAS

90% of managers confidently report that their frontline workers feel empowered to share business ideas with them

52% believe that their employees' new ideas are the main topic for conversations with frontline staff

45% of frontline workers actually share their ideas with senior team members

Workplace 2019

Commercial feature

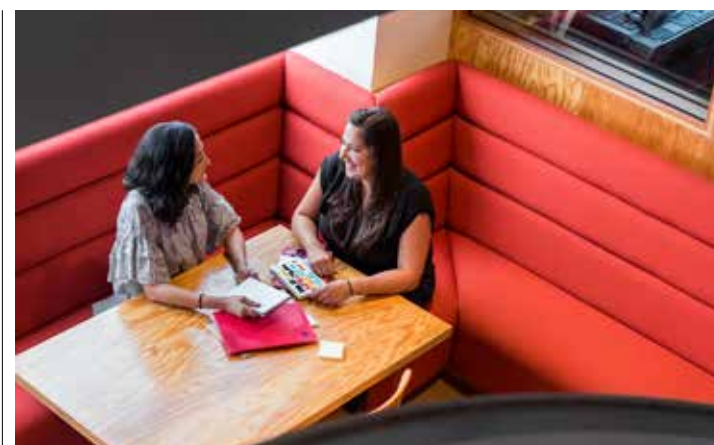# Community allows idea-sharing to thrive

LIXIL, a Japanese manufacturer of building materials and housing equipment, faced a challenge common to many predominantly deskless companies: connecting its people.

The sprawling Japanese conglomerate employs 70,000 people across 150 markets, but with seven in ten of its employees working on the frontline on plants, showrooms and sales sites, it was a company in search of an identity.

It realised the best ideas lay in the minds of these frontline staff, yet they weren't forthcoming because they had no way to access decision-makers or influence the product-development process. It was clear LIXIL needed these two areas to connect.

"When most of our employees have no desk or email access, but they are online on their mobiles, how do we get 70,000 people working together towards an aligned vision that we've agreed for the company?" says Jin Montesano, LIXIL's chief public affairs and people officer. "There's only one way to do that and that's to build community."

Deploying Workplace from Facebook has enabled LIXIL to not only build its community, but also eliminate the gulf between frontline staff and management, bringing the people with the greatest ideas much closer to the decision-making process.

Typical of a Japanese company, LIXIL traditionally had a formal and hierarchical culture with employees who are very careful about how they behave and talk to colleagues, particularly those more senior to them. Workplace has allowed the company to flatten this out and engrain an informality crucial to encouraging ideas to be shared.

"This makes conversations and engagement much easier and it's been the single most powerful reason why Workplace is working for LIXIL," says Ms Montesano. "Workplace has also allowed us to create what we call the 'LIXIL civilisation'. We don't want to destroy or abolish our different cultures, but what connects us is a base foundation.

"Just like the Roman civilisation was built on the rule of law and paying taxes, the LIXIL civilisation is built on belonging to the communities we're building on Workplace. If we want to go from being a company facing commoditisation to one that's disrupting home tech, then culture and connection are everything."

Shining a light on frontline staff

Ron Coughlin received an unusual email from an employee shortly after joining Petco, the pet retailer, as chief executive. The staff member, whose French bulldog had recently passed away, attached a loving photo of the pooch and asked a simple question: why does Petco's bereavement policy only cover relatives, despite its long-standing belief that pets are family?

From that day forward, any Petco employee whose pet dies receives paid time off to grieve. The incident also made Mr Coughlin realise that one email had made an important policy much better for staff. Yet only those in Petco's corporate office and store leaders had access to email to contact him. Frontline staff across its 1,500 pet stores were disconnected.

What was needed was not just a platform that enabled every employee in the organisation to communicate and connect, but one that amplified their thoughts and ideas and facilitated an immediate, two-way feedback loop. The company decided that Workplace from Facebook would be the tool to connect all 27,000 Petco employees in this way.

"Our frontline staff interact with pets and pet parents in our stores every day, and it's our job to stand up for them and ensure their voices are heard and their needs are both understood and appreciated," says Daniel Sundin, director of internal communications at Petco. "We had strong disconnects among our corporate offices, regional leadership and store locations just because they couldn't really see what the other was doing."

With Workplace, that gap has been greatly reduced. Petco's HQ is now able to hear much more clearly the challenges its retail locations are facing, and therefore address those issues faster and more effectively. Frontline staff are much more visible to management thanks to videos and photos they upload to Workplace, and Petco's leaders can get messages directly to everyone without facilitation and with immediate feedback.

"Workplace shines a light on every part of the organisation," says Mr Sundin. "We're seeing things we didn't see before and it ultimately makes us stronger. People choose to work at Petco because they love animals. Now they're really able to connect with like-minded people across the company to find it's more than just a job. Workplace has helped facilitate that."

> " Workplace shines a light on every part of the organisation. We're seeing things we didn't see before and it ultimately makes us stronger

connecting the unconnected. When you do that at global scale, great things happen. Facebook is already known for connecting people, but by connecting everyone in the same company for the first time and going beyond the technological and cultural challenges, it becomes a fantastic way to be more productive and collaborative.

"It's hard to give everyone a voice, especially when you have people who have never touched a SaaS application before. There's a reason it wasn't possible before. It was expensive, it didn't work, it wasn't mobile friendly and it wasn't adapted to a population of employees who don't deal with emails.

"The future of work is connecting everyone and creating that network of employees who can then be turned into a platform for automation, bots, integrations, becoming the place where you get the job done every day with experiences that are integrated, user friendly and mobile. That's what Facebook is famous for – connecting people – and it's time to bring that to work."

For more information please visit workplace.com

workplace
from FACEBOOK

STRESS

How to find a healthy level of stress

If senior executives are truly concerned with corporate wellness, they need to implement more tactical strategies to tackle the root causes of workplace stress and burnout

Azadeh Williams

Michael Olsen / Unsplash

O ur working lives are faster, more competitive and global than ever before, but the pressure to be always on is taking a significant toll on mental and physical health.

A recent survey by YouGov and the Mental Health Foundation revealed 74 per cent of UK adults have experienced so much stress that at some point they felt overwhelmed or unable to cope. An alarming 32 per cent said they experienced suicidal feelings as a result.

Statistics in America are even more shocking. Research from the American Institute of Stress shows 83 per cent of US workers suffer from workplace stress. Alarmingly, work-related stress causes 120,000 deaths and results in $190 billion in healthcare costs yearly.

"Most of us will feel stressed at some point during our working day, that's just a given," says health and wellness consultancy MobGroup's director Mark Briant. "But what happens when that spills over into the unmanageable and everything gets a bit much? For a lot of people, they are starting to reach levels of daily stress which are unsustainable and ultimately lead to burnout."

Experts agree eradicating workplace stress is not only unrealistic, it also shouldn't be the end goal. Instead, organisations need to put in place strategies that strike a healthy balance between "good" and "bad" stress.

"Our research shows that some stress is indeed good for you, but too much of it can cause anxiety, depression, burnout and all sorts of physiological problems," says Jacob Morgan, futurist, TED speaker and founder of the Future of Work University. "Too little stress will just leave you bored and disengaged. The key is to manage an amount that keeps you excited and engaged at work, but doesn't cause you any emotional, mental or physical harm."

So are nap rooms, virtual reality (VR) meditation rooms and yoga retreats the answer to achieving corporate wellness nirvana? According to World Employee Experience Institute founder and

> ❝
> **Some stress is indeed good for you, but too much of it can cause anxiety, depression and burnout**

chief executive Ben Whitter, some companies may be doing "tactical things" to promote wellness, but in isolation their impact is negligible. This is because often companies ignore some of the bigger things that get in the way of a positive employee experience. As a result, they risk missing the mark and end up with a very stressed workforce.

"If you give free massages and sleeps pods, but as a company you provide poor quality leaders and line managers, then none of the above is going to make much of a difference," he explains. "Likewise, if people aren't connected to something bigger through their work and the brand, then these new trends are nothing more than fads that won't be of real value beyond the short term."

In his book Employee Experience, Mr Whitter explores evidence from global corporates and businesses of all sizes. His findings show the key to a positive, sustainable employee experience rests on "the whole, rather than the parts".

"In a study by Harvard Business Review, companies with a well-defined purpose outperformed their markets by 5 to 7 per cent. This is no accident," he adds. "A strong purpose provides a platform to bring together these corporate activities to maximise their total impact on people. But at the same time, purpose is only one part of creating a strong company. It must be surrounded by a compelling mission and the values people believe in."

According to global transport and logistics company Kuehne + Nagel's senior vice president of customer and employee experience Jason Allen Ashlock, ensuring their 70,000-plus employees work in an optimum environment doesn't start with free fitness passes, but with a deeper empathy towards fundamental human needs.

Pressmaster / Shutterstock

HEX method

A small dose of "healthy" stress is good for productivity, but a lot risks long-term damage to personal wellbeing and the bottom line. So how can companies strike a balance?

According to World Employee Experience Institute's Ben Whitter, the companies getting it right lead through holistic employee experience (HEX). This serves as a powerful tool that balances critical elements of work, while assessing a person's stress against strength.

HEX is made up of:

Truth
Immerse people in the combination of a company's purpose, mission and values. Truth is at the heart of the business and serves to connect everything and everyone. A positive employee experience will be reflected through other HEX elements.

Human
Treat employees like human beings, not numbers on a payroll. Employees are co-creators and co-producers of their own experience.

Leadership
Collective leadership and human-centred leaders are accountable for wellbeing outcomes and serve as a critical element of a balanced employee experience.

Structure
How an organisation is structured is key to aligning all experiences within a business

to move companies away from short-term thinking and purely tactical approaches to promoting wellness.

Technology
Collaborative digital platforms, technology and equipment should facilitate successful human experiences and enable employees to perform at their best.

Workplace
A workplace is not a building; it's a blend of places and spaces that inspire and enable great work. The design and concept of an employee-defined workplace can significantly impact positive emotional connections, community, collaboration and innovation.

Community
Build a connected community by design and intention. A successful employee experience focuses on the collective, to build a deep sense of belonging, all working as one to make a wider, positive societal impact.

"None of our strategies are as sexy or flashy as VR therapy or free lunches; that's intentional," he says. "We've worked for nearly a year-and-a-half, performing internal experiments and gathering data from our colleagues on what really moves the needle when it comes to job satisfaction, engagement and happiness. What we found was the basic human impulses that lead to wellbeing can be met through simple practices that build connection, increase a sense of belonging, remove barriers to progress, and enable expression and ownership."

One of the most successful components of Kuehne + Nagel's corporate wellness strategy includes a peer leadership programme in which employees are invited to serve as "culture carriers".

"A certain percentage of their weekly hours are devoted to helping management and leadership listen to employees, identify their struggles and clarify their needs," says Mr Allen Ashlock. "It helps get the best work done for colleagues and customers, and provides education and connection opportunities. This layer has surfaced a remarkable talent base and is also a practical representation of how much we care about building our people and culture."

HubSpot's chief people officer Katie Burke says getting corporate wellness right starts with the C-suite and when leaders and line managers are encouraged to build their work around their life, not the other way around. This creates a trickle-down effect and helps grow a positive, cohesive culture everyone can enjoy.

"A few years ago, we heard that folks weren't sure if our executives even took a holiday, so as a result we started adding vacations and personal milestones to our monthly management priorities," she says. "This normalised, for example, our head of sales being home for his son's birthday or our chief operating officer taking time for his annual fishing trip. It set the tone that taking time off and enjoying life outside work isn't the exception, it's the norm, and that if senior executives can make
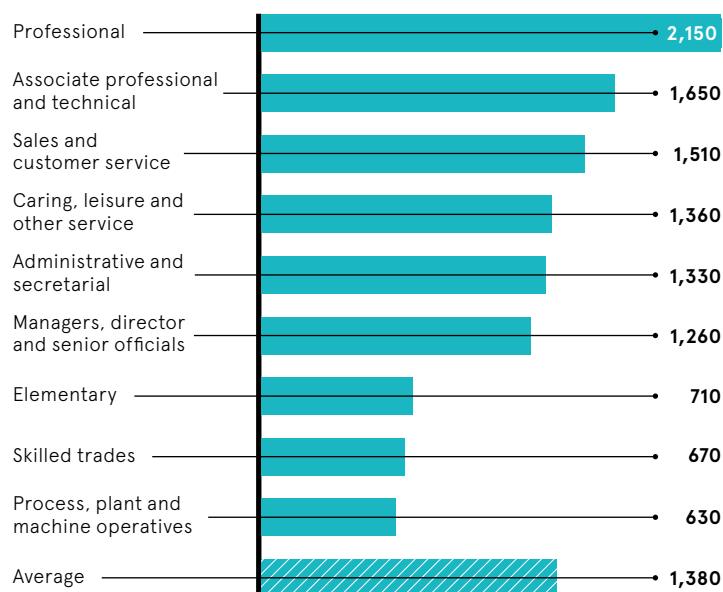
time to do it, every employee should be able to do the same."

Normalising discussions around mental health, stress and anxiety is also critical for workplace wellbeing, Ms Burke adds, as it automatically creates an accepting environment where it's OK to talk about it.

"We're super proud to have our Healthy@HubSpot programme that offers fitness classes, nutrition consultations and a global wellness week focused on mental, physical and emotional health. But I also view our core benefits as directly tied to employee wellbeing," she says. "This ensures we normalise therapy and discussions about mental health, rest and avoiding burnout. It's been a huge part of our overall strategy to ensure our employees are healthy and happy." ●

74%

of UK adults have felt so stressed at some point over the last year they felt overwhelmed or unable to cope

61%

of those who have felt stressed reported feeling anxious

51%

reported feeling depressed

Mental Health Foundation 2018

MOST STRESSFUL JOBS

UK prevalence rate for work-related stress, depression or anxiety by occupation per 100,000 workers between 2016–17 and 2018–19

Occupation	Rate
Professional	2,150
Associate professional and technical	1,650
Sales and customer service	1,510
Caring, leisure and other service	1,360
Administrative and secretarial	1,330
Managers, director and senior officials	1,260
Elementary	710
Skilled trades	670
Process, plant and machine operatives	630
Average	1,380

Health and Safety Executive 2019

How holograms will revolutionise work as we know it

Next-generation tech that lets you interact with lifelike avatars and share information in a hologram is set to transform remote working

Heidi Vella

Spatial

Emerging communication technologies are promising to unify an increasingly dispersed workforce, not through boring 2D video conferencing screens, but with 3D holographic images, avatars, and virtual and augmented reality.

Spatial, a new virtual communication app that uses the Microsoft HoloLens 2 headset, enables workers based in different locations to participate in meetings together using avatars, or holographic shapes, of themselves.

Using virtual reality (VR) and augmented reality (AR), teams can see and interact with 3D images of projects they are working on collectively, and drag and share information, including text and images, from their devices into a shared holographic space in real time.

Spatial co-founder Jinha Lee, a Massachusetts Institute of Technology graduate, says the company's vision is to unlock people's creativity and release them from the tiny screens they are currently working on to a much bigger space.

The main aim, however, is to reduce the need for office space and air travel, which can minimise energy use and reduce costs. Eventually, the company hopes to be able to teleport an entire office space virtually to another place so remote workers can feel part of a team.

"Working remotely can feel isolating, but by teleporting the office space to someone's house, for example, via a 3D holographic feed, the remote worker can hear and see everything that is happening," says Mr Lee.

The technology is currently being trialled by toymaker Mattel and others, but wider commercial release is planned for early next year.

Early adopters of virtual communication technologies include firms in manufacturing and offshore oil and gas that are using AR and VR to teleport expert knowledge to wherever it is needed.

Working with the University of Essex and using mixed reality headsets, senior BT field engineers ran a trial that involved remotely viewing and advising junior colleagues in different engineering tasks to onboard personnel quickly and reduce response times.

Professor Hani Hagras, research director at the School of Computer Science and Electronic Engineering, University of Essex, worked on the project and says this will soon be commonplace in the engineering sector.

"Engineers will wear headsets to see a holographic image of the engineering problem and, via an avatar, will guide the less experienced engineer to fix it. The supervisor will see in real time what the junior engineer can see and will know how they perform when fixing it," says Professor Hagras.

Eventually, the junior engineer could be guided by an artificial intelligence-powered avatar, instead of a real-life colleague, he adds.

Immerse, a virtual experience platform, has done similar work with DHL and Shell. Using AR and VR technologies, it created a virtual world where new employees could experience hands-on training in critical situations remotely.

As well as creating cost-savings by not needing to transport people to training centres, it also helps managers monitor the performance of trainees.

"In VR you can view every single movement someone is making because it's collecting around 30 datapoints a second. This provides the power to track performance through precise data capture," says Immerse chief executive Tom Symonds.

The technology also offers quicker onboarding through increased employee focus and concentration because it's impossible to get distracted while wearing a headset, he says. Experts agree the future of virtual communication lies in mixed reality headsets.

"We need to have a mix of different applications working together, such as AR and artificial intelligence (AI); combined they can create new technologies and new possibilities for education, communication, training and co-working," says Professor Hagras.

For example, in the future, sensor-captured data of a person's body language and facial expressions can be fed into machine-learning algorithms to create AI-powered holograms that accurately mimic and represent an individual in precise detail, creating a more lifelike virtual experience.

There are, of course, barriers to widespread adoption. For starters, will employees consent to having their every movement recorded and how does the wearer write notes with a headset on? Both practical and privacy issues will need to be addressed.

Nevertheless, a new consumer trends report by Ericsson found the majority of respondents surveyed expect mixed reality and a full internet of senses experience in the future. More than half said they imagine the difference between physical and digital reality will almost disappear by 2030.

Supported by interconnectivity, the cloud, AI, 5G, which can address latency issues, sensors and faster processing, virtual communication technologies are the future and development is moving faster now than it has in the last ten years.

Professor Hagras concludes: "A conservative estimate is, within the next decade, it will become the norm; a business tool similar to a laptop or a smartphone, replacing video conferencing. There is definitely the investment to do it." ●

What a Mali mine teaches us about the future of work

Tech has increased safety, efficiency and technical skills of employees at Mali's Syama mining project, which can teach businesses valuable lessons about work in an automated age

Oliver Balch

01

02

01
Surface automation control room at the Syama underground mine

02
An automated truck at Syama

Miners at the underground Syama gold mine in the Malian desert are of a different kind. Gone are the days of descending in elevator shafts to toil with picks and shovels. The 1,500 workers at this state-of-the-art subterranean mine are as likely to be dressed in office wear as overalls and hobnail boots.

Owned by Australia-based Resolute Mining, the $223-million site is the world's first fully automated mine. Equipped with everything from driverless trucks to robotic drills, the mine operates 24/7 and is up to 30 per cent more efficient than conventional mining operations.

Mining automation is taking off at pace around the world, but what are its implications for workers? Does its spell the end for soot-faced mine workers and, if so, what does the future hold for them?

John Welborn makes no bones about the fact that mining is entering an epoch-changing moment, yet Resolute Mining's chief executive only sees advantages for workers. Automation offers jobs that are safer, higher skilled, longer lasting and, thanks to efficiency gains, better paid, he insists.

Because automation was built into the creation of the Syama mine, the threat of job losses hasn't arisen. That said, Mr Welborn concedes that mining companies looking to shift to more automated systems have an obligation to invest in training up new employees and retraining existing workers.

Again, he is characteristically upbeat about the prospects of doing so. By way of illustration, he cites his octogenarian mother who, although once unable to even operate a video recorder, now uses a smartphone with ease. What has changed, he suggests, is the intuitive nature of modern technology.

He notes that all 16 senior managers at the Syama underground mine were initially expats. Four years on, six are Malian. The remaining ten, meanwhile, have instructions to train up eventual local replacements within the next 36 months.

Such inclusion of local people is vital if the mining sector is to maintain its social contract, argues Nicky Black, director of social and economic development at the International Council on Mining and Metals, who says local communities rightly expect to benefit from mining automation.

Meeting this expectation will require proactive steps by the industry's big players. "We will need to work across sectors in new ways to equip people with the skills they will need in an increasingly uncertain future," she says.

Initial moves are already afoot. The government of Western Australia, for example, has a memorandum of understanding in place with COMESA (the trade bloc for eastern and southern Africa) that includes provisions to transfer mining-related knowledge and training.

Individual companies are also taking a lead. A case in point in Sandvik. The Swedish engineering firm, which is behind much of the automated tech in the Syama gold mine, offers its new clients a combination of classroom training, high-tech simulators and hands-on instruction. Mastering its automation system only takes a "couple of weeks", according to the Riku Pulli, Sandvik's vice president of business unit automation.

Rio Tinto is another company addressing the pending skills gap. The London-listed mining giant, which operates a Centre for Mine Automation in Sydney, recently announced a £5.26-million education programme with startup accelerator BlueChilli and Amazon Web Services.

The four-year initiative aims to help school-age learners across Australia acquire work-related digital skills, such as systems design and data analytics. The focus on transferrable skills, rather than mining-specific aptitudes, marks a tacit acceptance of the role that mining companies have in preparing workers for jobs outside, as well as inside, the sector.

Capturing the technology and knowledge spillovers from the mining automation process is especially critical for resource-dependent emerging economies, says technology innovation expert Nahom Ghebrihiwet.

"Host countries should aim to convince international mining companies to establish research hubs and encourage mining firms to collaborate with local knowledge institutions," he says.

Creating such hubs will not be straightforward, Dr Ghebrihiwet concedes, although he points to the United Nations-backed African Minerals Development Centre (AMDC) in Addis Ababa as a good place to start. If successful, such alliances can help create spin-off firms that can in turn provide high-tech services to the mining industry as well as other sectors.

In low-income, resource-rich African countries, it will obviously be difficult to establish such research hubs. However, organisations such as the AMDC could help establish pan-African centres of excellence.

While the Syama gold mine proves that an inclusive approach to automated mining is possible, workers remain understandably nervous about the future. Coal India, for example, alone employs nearly 300,000 people. If mining automation affects just a fraction of these jobs, the investment required for retraining will be vast.

Even with the right training, mine workers will be disappointed if they expect a like-for-like swap in their employment. Truck drivers most likely won't be overseeing the truck fleet once it is fully automated. Instead, the promise of automation is new jobs will emerge in areas such as mine maintenance, information processing and data science.

It is futile to try to halt mining automation, especially given the improved safety it offers, says Jeff Geipel, managing director of Canadian non-profit initiative Mining Shared Value. Yet the harsh reality is direct employment at mines is destined to dwindle. "So governments and industry will have to be creative to address this," Mr Geipel concludes. ●

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> **We need to work across sectors in new ways to equip people with the skills they will need in an increasingly uncertain future**

'We must realise the critical nature and value of constantly refreshing our personal skillset'

Innovation often brings both opportunities and challenges. There are legitimate concerns about what the impact will be on those whose industries are disrupted. As history teaches, automation and new technologies will not replace human work, but rather transform it, boosting existing employment and creating whole new types of work.

Thirty years ago, there were no data scientists. Twenty years ago, search engine optimisation did not exist and ten years ago no one employed social media managers.

Of course, the fourth industrial revolution has many unknowns, one of which is that we are faced with the task of preparing for jobs that don't yet exist. We prepare by ensuring that everyone, no matter their age, gender, ethnicity, background or skill level, is given the opportunity to gain the skills needed to thrive in the future workforce and society.

It is now time for businesses to get ready for a gear change in upskilling across the UK workforce. Given that 90 per cent of all jobs will have a digital element to them by 2020, lifelong learning really matters.

However, some fear that we aren't ready for what's coming. Earlier this year, techUK surveyed parents working in tech to find out what they thought the future of work held for their children.

Parents working in tech roles are not convinced that, as it stands, the education system will help develop the opportunities required for their children. Some 73 per cent of those surveyed felt the curriculum did not place sufficient emphasis on the types of skills that would become more vital in the future world of work, with 90 per cent believing their children would need to retrain throughout their lives to keep up with the pace of technological change.

The need for us all to embrace a culture of lifelong learning was my fundamental takeaway from London Tech Week this year. To drive this change, there needs to be a cultural shift. We must engage an ever-changing workforce by transforming attitudes to learning across the whole of our lifetime and realising the critical nature and value of constantly refreshing our personal skillset.

So how do we adapt to our digital future? Businesses are already preparing their employees and we need to ensure curriculums align industry needs with the outturn of skills. The tech industry is engaged in retraining, apprenticeships and the upcoming adoption of T-levels to reduce the impact of automation on workers in the short term.

This proactive approach gives both businesses and their pipeline of talent the skills and infrastructure they need to participate in the workforce.

I am a technology optimist and believe new technologies, such as automation, can allow workers to be more creative and have a better work-life balance. Flexible working and people's relationships with organisations are becoming more fluid. The numbers of contractors, freelancers and portfolio workers are increasing. Identifying where and how to engage this flexible and diverse talent will become increasingly important. Skills and education are fundamental if we are to take advantage of these opportunities.

Let's be clear, we can't uninvent technology, so it is not going away. But we can harness it for good, manage the ethical challenges and leverage the opportunities for all society.

I see remarkable examples of progress where AI and machine-learning are helping people and society to achieve remarkable things; helping doctors with the early detection of diseases and supporting scientists grappling with climate change to bring together diverse groups from around the globe through real-time speech-to-speech translation.

There is no doubt that technology is forcing humans to confront our digital future and it is our personal responsibility to keep up through lifelong learning. Join the future of work discussion at London Tech Week, June 2020: www.londontechweek.com ●

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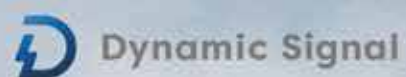techUK