Diversity, Equity and Inclusion 4.0
A toolkit for leaders to accelerate social progress in the future of work

June 2020
Preface

The start of the decade has seen a convergence of three major trends: the accelerated use of Fourth Industrial Revolution technologies in the midst of the pandemic, job market disruptions to both remote work and work requiring physical presence, and a wide-ranging call for greater inclusivity, equity and social justice. Now more than ever, in the midst of such sweeping change, organizations have an opportunity to embed greater diversity, equity and inclusion. Societal change and the need for future creativity and innovation demand that business consider the best use of new technologies in enabling this journey.

Successful organizations are powered by the diverse opinions, skill sets and life experiences of their employees. To tap into the full potential of human diversity, organizations need to hire diverse talent and create an inclusive working culture underpinned by a fundamental sense of belonging, fairness and equity, enabling people to bring their “full self” to work.

In the Fourth Industrial Revolution, most companies are set to implement new technologies and practices to manage their workforces. However, implementing these tools without due consideration risks a range of unintended consequences which can ultimately undermine a company’s reputation and competitive position. Today, more than ever before, new workplace technologies and practices are no longer simply “neutral” with regard to diversity, equity and inclusion outcomes. Leading companies are increasingly recognizing this and proactively leveraging technology as part of organization-wide strategies for achieving “Diversity, Equity and Inclusion 4.0”. Conversely, companies without such an integrated approach are increasingly facing unintended consequences and risks when implementing new technology tools.

Recent events are a reminder of the persistent inequities that continue to pervade our societies and economies. As companies seek to take on more responsibility for addressing social justice ensuring that diversity and equality becomes the norm in the very near future, a key pathway is to adopt an integrated approach to diversity, equity and inclusion in the workplace, and a renewed commitment to tangible change. Ensuring racial justice, gender parity, disability inclusion, LGBTI equality and inclusion of all forms of human diversity needs to be the “new normal” in the workplace set to emerge from the COVID-19 crisis.

This toolkit is designed to highlight the opportunities and outline the challenges specific to greater use of technology in the service of diversity, equity and inclusion efforts. It is designed for organizational leaders, Chief Diversity and Inclusion Officers (CDIOs), and others actively working to promote diverse, equitable and inclusive workplaces globally. It is intended to complement a range of related publications produced by the World Economic Forum’s Platform for Shaping the Future of the New Economy and Society: “HR4.0: Shaping People Strategies in the Fourth Industrial Revolution”, developed in collaboration with the Forum’s community of Chief Human Resources Officers (CHROs) and a guide to sound decision-making in the context of the coronavirus pandemic, “Workforce Principles for the COVID-19 Pandemic: Stakeholder Capitalism in a Time of Crisis”.

For more information, or to get involved, please contact the World Economic Forum’s New Economy and Society team at cnes@weforum.org.
# Table of Contents

2  Preface
4  Diversity, Equity and Inclusion 4.0: Definitions
5  The Case for Diversity, Equity and Inclusion 4.0
7  Strategies for Diversity, Equity and Inclusion 4.0
9  Areas for Action
10  1. Talent Sourcing and Selection
10  Address bias in job advertisement
10  Tap into talent pools of diverse candidates
10  Identify best fit candidates based on merit and skills
12  2. Organisational Analysis and Monitoring
12  Benchmark diversity and inclusion across the organization
12  Measure behaviours which create exclusion
13  Understand employee experience and engagement levels
14  3. Employee Experience, Reward, and Development
14  Train and incentivize employees to enhance inclusion and belonging in their daily interactions
14  Conduct objective performance evaluations
15  Support career path planning alongside learning and development
17  References and Further Reading
19  Acknowledgments
Diversity, Equity and Inclusion 4.0: Definitions

The workforce of a diverse organization is fundamentally representative of the populations of the geographies in which they operate and of their customer base. Diversity describes the range of human differences and variations, whether they are inherent (by birth) or acquired (by experience). In today’s labour markets, these differences can be the basis for different forms of exclusion and result in different forms of discrimination.

A range of characteristics pose a risk of exclusion, preferential treatment or discrimination. Among these are:

- Age and generation
- Gender and gender expression
- Sexual orientation
- Mental and physical abilities
- Level of health
- Personality traits and behaviours
- Race, ethnicity and religion
- Language and nationality
- Location (such as rural and urban)
- Social origin and parental background
- Income, education and socio-economic status
- Appearance

Policies and practices that create inclusion make all employees feel welcome, valued and respected. They are provided equitable and fair access to progression opportunities, good working conditions and fair wages. Employees of inclusive organizations experience a deep sense of belonging as well as being empowered and growing.

Having a sense of belonging at work means that the work environment provides high psychological safety and employees can bring their full selves to work without fear of judgement. Employees feel comfortable expressing their opinions and ideas freely, and are appreciated for their unique contributions and recognized for their accomplishments.

Inclusive organizations take wider responsibility not just for the impact they have on their employees’ lives but also on the broader communities in which they operate, working towards social justice and equity for all.
The Case for Diversity, Equity and Inclusion 4.0

There are three key reasons why Diversity, Equity and Inclusion 4.0 is a greater imperative than ever before for any business.

1. Moral Imperative

Giving equal access and opportunities to all people to work under fair and equitable conditions is simply the right thing to do. Inclusive companies declare fairness and opportunity for all as part of their corporate values and codes of conduct, demarcating exclusionary behaviour as fully unacceptable. Moral questions posed by new workplace technologies and practices only further underline the need to build organizational cultures that proactively engage the entirety of their workforce on these issues.

2. Legal Imperative

The International Labour Organization has put into action a range of conventions to eliminate discrimination from all aspects of work. Ratified by the vast majority of countries, they serve as the basis for national legislation on equal treatment and opportunities in the workplace.

Multinational organizations need to consider the rights and entitlements given to potential employees across different locations by law when they operate in these different legal environments. Beyond merely reacting to changes in national legislation, an increasing number of employers aim to act as active custodians of the interests of their employee base irrespective of location, supporting local legislation to evolve towards even greater fairness in light of new workplace technologies and practices.
3. Economic Imperative

To reap the full competitive advantages of diversity, equity and inclusion, some initial learning effort by managers, employees and the whole organization may be required – but a wide range of research conclusively documents that well-managed diverse teams significantly outperform well-managed homogenous ones over time (see Figure 1).

To achieve this, companies will need to move beyond a focus on diversity for its own sake towards a focus on providing a safe, open and inclusive work environment that is underpinned by a sense of belonging for all employees. In return, diverse and inclusive teams – if well managed – have a broader range of knowledge and skills; are better at identifying and solving problems that others may overlook; and gain a competitive edge in accessing new markets and higher market share.

Expanding hiring to a broader talent pool provides new avenues for staffing hard-to-fill roles, while an inclusive workplace culture is a key driver of employee engagement, well-being and retention.

Consequently, companies leading their geography and industry for diversity, equity, inclusion and belonging perform better than their market average across a wide range of key performance metrics:

- **Profitability:** 25%-36% more likely to outperform on profitability
- **Innovation:** Up to 20% higher rate of innovation and 19% higher innovation revenues
- **Decision-making:** Up to 30% greater ability of spotting and reducing business risks
- **Employee engagement:** Statistically significant causal relationship with engagement and retention, for all employees

Conversely, companies that fall behind their regional and industry peers in diversity, equity, inclusion and belonging see a competitiveness penalty, being 29% less likely to achieve above-average profitability than their market mean. All of these factors are becoming ever more crucial for success in the “new normal” workplace and economy of the future.

---

Figure 1: Impact of diversity on team performance
Source: Korn Ferry Institute, 2019
Strong C-suite and organizational capabilities to lead through uncertainty and disruption are fundamental to the success of today's businesses. Appropriate strategies to build these capabilities can fuel greater productivity, innovation and resilience across the organization.

Increasingly, such strategies combine greater use of new technological tools with new, more human-centric approaches to workforce management that focus on employee experience, purpose and belonging and leverage diversity, equity and inclusion as core organizational strengths.

The “new normal” workplace emerging from the COVID-19 crisis is likely to significantly accelerate these trends.

### An Organization-Wide Approach

As noted in detail in this toolkit’s sister publication, HR4.0: Shaping People Strategies in the Fourth Industrial Revolution, achieving diversity, equity and inclusion requires an organization-wide effort from the most senior leaders of the organization, who can set the tone and lead by example with their actions, as well as by all managers of personnel and by all employees. A systemic transformation that creates a diverse, equitable and inclusive company spans the breadth of the company itself – its brand, its working culture, organizational processes, recruitment, reward and performance management as well as inclusive and accessible working facilities (Figure 2). If managed well, such an approach can be supported greatly by the appropriate use of relevant new technology tools.
The Role of Technology

In the Fourth Industrial Revolution – accelerated by the COVID-19 crisis – technology is no longer simply “neutral” with regard to diversity, equity and inclusion. Leading companies are increasingly recognizing this and proactively leveraging technology for “Diversity, Equity and Inclusion 4.0”, while companies uncritically implementing new technologies risk a range of unintended consequences.

This toolkit is designed to highlight the opportunities and outline the challenges specific to greater use of technology in the service of diversity, equity and inclusion efforts.

Among the tools covered are technologies that broadly utilize new analytic and data science capabilities alongside artificial intelligence (AI), and within that broad umbrella, machine learning and natural language processing.

The toolkit additionally covers methods of analysing employee interaction, such as organizational network analysis and tools for immersive learning, such as augmented and virtual. The use of cloud-based communication and visualization platforms is also fundamental to most tools reviewed.

Opportunities provided by new technology

Technological solutions have the potential to establish best practices at scale and empower new practices that were previously implausible.

For example, technologies are able to review job applications for high volume roles in greater detail than a typically resourced people and culture department.

These technologies have been deployed to support company policies and practices, provide timely analytics, identify and reduce bias, introduce greater transparency and visibility, and support employee training. The “D&I technology” market is growing rapidly, with an overall estimated market size in 2019 of approximately $100 million.\(^{VIII}\)

Challenges posed by new technology

Research into the effects of new technologies has shown that they can contain biases that deepen rather than counteract exclusion. Some technologies can be taken to market before fully tested and prove to be ineffective or even damaging. In addition, the technology sector continues to lack diversity, which contributes to blind spots in product design.
Areas for Action

1. Talent Sourcing and Selection

Address bias in job advertisement
The language used in job adverts might bias the application process and limit the pool of applicants.

Tap into talent pools of diverse candidates
Existing approaches to posting roles might fail to reach diverse talent pools.

Identify best fit candidates based on merit and skills
The interview process might introduce a range of biases into the hiring process.

2. Organisational Analysis and Monitoring

Benchmark diversity, equity and inclusion across the organization
Decision-makers might lack visibility of the diversity, equity and inclusion Key Performance Indicators (KPIs) of their organization, such as pay and progression equity.

Measure behaviours which create exclusion
Learning and development personnel might lack insight into who needs training and why.

Understand employee experience and engagement levels
Managers might lack visibility of employee experience, especially in large organizations, leading to low understanding of inclusion shortfalls, such as benefits that favour one group over another.

3. Employee Experience, Reward, and Development

Train and incentivize managers and employees to enhance inclusion and belonging in their daily interactions
Dynamics within organizations might reduce the voice of employees from diverse backgrounds and affect their sense of belonging in the workplace.

Conduct objective performance evaluations
Managers might subconsciously apply inconsistent or biased criteria in performance assessment, evaluation and calibration, leading to negative consequences on pay and progression equity.

Support career path planning alongside learning and development
Learning and Development teams might struggle to offer personalized and targeted career path guidance at scale to all employees.
1. Talent Sourcing and Selection

Address bias in job advertisement

The Challenge: The language used in job adverts might bias the application process and limit the pool of applicants.

Tech-Enabled Solution: Supplement job advert text that is likely to bias the applicant pool. For example:

- AI-powered text analytics such as natural language processing evaluate the patterns within the language used in a job advert and rate it on its neutrality and appeal to different populations
- Augmented writing interfaces suggest alternative wordings to author more inclusive job descriptions

Examples of technology providers include: Applied, TalVista, tapRecruit, Textio

Tap into talent pools of diverse candidates

The Challenge: Existing approaches to posting roles might fail to reach diverse talent pools.

Tech-Enabled Solution: Expand candidate search capabilities to target diverse groups, including sourcing passive candidates. For example:

- Candidate search platforms offer enhanced connectivity to sub-groups of diverse candidates
- Platforms pre-match candidates to job opportunities on the basis of AI-powered analysis of job information and candidate profile
- Platforms support employee referrals and use existing social networks to reach diverse candidate pools
- Screen reading technologies help sight-impaired candidates navigate career websites and access job adverts

Examples of technology providers include: HiringSolved, Jaws, Joonko, Jopwell, Seekout, Teamable
Identify best fit candidates based on merit and skills

**The Challenge:** The interview process might introduce a range of biases into the hiring process.

**Tech-Enabled Solution:** Evaluate candidates against the skill sets required for the job at scale, and support the implementation of structured interviews and staff interview training. For example:

- Machine learning and natural language processing technologies power human-capital management systems with the capacity to remove personal and demographic information from applicant information packs, break these packs into chunks and distribute them to different evaluation teams.
- Automated pre-selection platforms identify good-fit candidates for interview on the basis of qualifications and skill sets utilizing data on the traits that determine success in those roles.
- AI-powered video interview systems provide new sources of coaching data for company-side interviewers, nudging them to reduce implicit bias.
- Chatbots, game-based assessment and video-based assessment act as a delivery mechanism for structured interviews and can integrate new ways to evaluate soft skills in job candidates.

Examples of technology providers include: 8andAbove, applied, GapJumpers, greenhouse, HireVue, IBM Watson Recruitment, Knockri, mya, pymetrics, Talvista.
2. Organisational Analysis and Monitoring

Benchmark diversity, equity and inclusion across the organization

The Challenge: Decision-makers might lack visibility of the diversity, equity and inclusion KPIs of their organization, such as pay and progression equity.

Tech-Enabled Solution: Analyse employee data at scale, set targets and benchmark against peers. For example:

- AI-powered analytics solutions aggregate and process HR data at scale to distil key statistics about an organization’s workforce such as its composition across functions, levels and pay grades
- Cloud-based tracking dashboards provide real-time information on diversity and inclusion KPIs related to pay equity and career progression alongside core compliance metrics
- Cross-industry and geography benchmarking indices give leaders visibility of their competitive advantage or disadvantage as an employer

Examples of technology providers include: Gapsquare, LinkedIn Talent Insights, Our Office, People Fluent, Pipeline, Scout, Stratus TMS, Workday

Measure behaviours which create exclusion

The Challenge: Learning and development personnel might lack insight into who needs training and why.

Tech-Enabled Solution: Analyse employee interaction and dispositions, providing insight into target areas for further diversity, equity and inclusion training. For example:

- Behavioural assessment tools for people managers and employees which can be used as input for further coaching and development
- Machine Learning and Natural Language Processing technologies provide anonymized analysis of employee interaction or communication channels such as Slack or Microsoft Teams and can evaluate biases and exclusionary behaviour, sometimes utilizing methods such as organizational network analysis

Examples of technology providers include: Bunch, Envisia Learning, Harvard Implicit Bias, OrgAnalytix, Mesh/diversity, Trustphere
Understand employee experience and engagement levels

The Challenge: Managers might lack visibility of employee experience, especially in large organizations, such as benefits that favour one group over another.

Tech-Enabled Solution: Collect relevant employee feedback and information, and plan employee engagement strategies. For example:

- AI-powered chatbots and survey tools collect demographic data and track an employee’s experience of inclusion against key priority areas
- Data-driven dashboards present employee engagement data by group alongside potential interventions and strategies
- Online portals complement in-person employee resource groups or affinity groups and can integrate mentoring, notice boards and event management

Examples of technology providers include: cultureAmp, Glint, Limeade, Ollie, Planbox, Pluto, Waggl
Train and incentivize managers and employees to enhance inclusion and belonging in their daily interactions

**The Challenge:** Dynamics within organizations might reduce the voice of employees from diverse backgrounds and affect their sense of belonging in the workplace.

**Tech-Enabled Solution:** Expand employees’ soft skills in empathy by exposing them to other points of view and perspectives. For example:

- Virtual and augmented reality tools provide behavioural training, experiential learning and bias awareness through scenario re-enactment, helping employees enhance their soft skills
- Machine learning and natural language processing technologies capture, analyse and generate overviews of managers’ workplace communication within and across their team
- Collaboration platforms incentivize divergent ideas and greater inclusion by design

Examples of technology providers include: AllieBot, Balloonr, BeingVR, Cultivate, Equal Reality, Pluto, Planbox, Translator, Talespin, Vantage Point

**Conduct objective performance evaluations**

**The Challenge:** Managers might subconsciously apply inconsistent or biased criteria in performance assessment, evaluation and calibration, leading to negative consequences on pay and progression equity.

**Tech-Enabled Solution:** Help structure performance and progression management by collecting recognition and reward data, analysing performance review language and selecting feedback networks. For example:

- Machine learning applications suggest the most relevant colleagues to give performance feedback based on how, when and where people work and interact with one another within the organization
- Natural language processing applications identify biased language in written performance reviews and highlight if a performance review does not match the ultimate performance rating
— Machine learning algorithms analyse performance feedback data to identify key attributes of employees and measure differences by attributes such as gender or ethnicity, including highlighting tendencies to reward specific demographics more than others despite consistency in other attributes
— Organizational network analysis tools help identify potentially “hidden” (i.e. less-networked) high-potential employees

Examples of technology providers include: Culture Amp, Globoforce, Saba, SAP SuccessFactors, workhuman, Zugata

**Support career path planning alongside learning and development**

**The Challenge:** Learning and Development teams might struggle to offer personalized and targeted career path guidance at scale to all employees.

**Tech-Enabled Solution:** Provide targeted and personalized learning programmes in the workplace. For example:

— Human capital management tools match prospective mentees with potential mentors based on skills, competencies and various personality traits
— Learning and development platforms offer personalized career path mapping and link this to development, coaching and targeted skill development opportunities

Examples of technology providers include: Chronus, Landit, Levo, SAP SuccessFactors
A Proactive Approach to Managing New Technologies for Diversity, Equity and Inclusion 4.0

Diversity, equity and inclusion professionals will need to apply sound judgement and evidence-based evaluation and testing to realize the potential and minimize the risks of new workplace technologies. While new workplace technologies might present fresh sources of bias, evidence to date has suggested that fixes for those biases are available and have strong capacity to scale.

To realize the potential of new workplace technologies, organizations seeking to implement an integrated Diversity, Equity and Inclusion 4.0 approach should ask technology providers to share details about:

- Clarity about the input data used and how it addresses any privacy concerns
- Clear correlation to success predictors against key KPIs
- Evidence base for the validity of psychometric methods used in the evaluation
- Due diligence on whether the product has biased outcomes by race, ethnicity, gender or other dimensions
- Reporting on the diversity of the teams that have produced the tool and on the adequacy of their bias mitigation training
References and Further Reading


Deloitte, Diversity and Inclusion Revolution: Eight Powerful Truths, 2018


Korn Ferry Institute, The Inclusive Leader: Optimizing diversity by leveraging the power of inclusion, 2019, https://www.kornferry.com/content/dam/kornferry/docs/article-migration/Korn-Ferry-The-Inclusive-Leader_2019_06.pdf


RedThread Research and Mercer, Diversity & Inclusion Technology: The Rise of a Transformative Market, 2019


World Economic Forum, HR4.0: Shaping People Strategies in the Fourth Industrial Revolution, 2019

World Economic Forum, Workforce Principles for the COVID-19 Pandemic: Stakeholder Capitalism in a Time of Crisis, 2020
Acknowledgments

The World Economic Forum would like to thank the members of the Platform for Shaping the Future of the New Economy and Society, the Stewardship Board for Equality and Inclusion and the Members of the Global Future Council on the New Equality and Inclusion Agenda for their thought leadership and guidance. We also thank the members of the broader core community of the Platform for their ongoing commitment and contributions to addressing several of the challenges discussed in this toolkit.

The views expressed in this toolkit do not necessarily represent the views of the World Economic Forum nor those of its Members and Partners. This briefing is a contribution to the World Economic Forum’s insight and interaction activities and is published to elicit comments and further debate.

Members of the Global Future Council on the New Equality and Inclusion Agenda

Prasad Swaminathan, Council Co-Chair, Group Head of Talent and Learning, ABB
Laura D. Tyson, Council Co-Chair, Distinguished Professor, Haas School of Business, University of California, Berkeley
Michael D. Aguirre, Council Fellow, Postgraduate Fellow, Inequality in America Initiative, Harvard University
Jahanzaib Ansari, Co-Founder and Chief Executive Officer, Knockri
Gary Barker, President and Chief Executive Officer, Promundo Global
Umran Beba, Senior Vice-President; Chief Human Resources Officer, Human Capital Management, PepsiCo Inc.
Haroon Bhorat, Director, DPRU, School of Economics, University of Cape Town
Sari Brody, Global Equality, Diversity and Inclusion Manager, IKEA
Wanda Bryant Hope, Chief Diversity and Inclusion Officer, Johnson & Johnson
Caroline Casey, Founder and Director, The Valuable 500
Mario Martin Delgado Carrillo, Chairman of the Political Coordination Board of MORENA, Chamber of Deputies of Mexico
Patsy Doerr, Global Head of Diversity and Inclusion, Credit Suisse
Rebeca Grynspan, Secretary-General, Secretaría General Iberoamericana (SEGIB)
Nora Lustig, Samuel Z. Stone Professor of Latin American Economics, Director, Commitment to Equity Institute, Tulane University
Mary Lou Maher, Head of Global Diversity and Inclusion, KPMG
At the World Economic Forum

Till Alexander Leopold, Head, Frontier Solutions Practice, Platform for Shaping the Future of the New Economy and Society
Vesselina Ratcheva, Insights Lead, Benchmarking Practice and Manager, Global Future Council on the New Equality and Inclusion Agenda, Platform for Shaping the Future of the New Economy and Society
Melisande Schifter, Project Lead, Frontier Solutions Practice, Platform for Shaping the Future of the New Economy and Society
Saadia Zahidi, Managing Director, Platform for Shaping the Future of the New Economy and Society
The World Economic Forum, committed to improving the state of the world, is the International Organization for Public-Private Cooperation.

The Forum engages the foremost political, business and other leaders of society to shape global, regional and industry agendas.