



Bias Uncoded:
How to integrate *AI* and other
technologies into your *D&I* agenda

FIDES
RESEARCH

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Introduction

Unconscious bias is one of the key inhibitors of diverse and inclusive workplace cultures. It impacts on every individual experience in the workplace, and affects who gets hired, promoted, and developed. It has severe consequences for the inclusion and retention of women, minority and diverse groups, and undermines law firm profitability in attracting and retaining the best talent. It is a commercial imperative therefore, for law firms to address unconscious bias as part of their diversity and inclusion strategies, and to invest in measures to mitigate its impact.

This paper investigates how AI and other technologies can be applied to help mitigate unconscious bias within law firm processes. It identifies the functions most likely to benefit from technological innovation, outlines the diversity & inclusion (D&I) technology that already exists and evaluates the potential costs and benefits for law firms to invest in these solutions.

Written in conjunction with leading D&I experts, innovation specialists and independent technology providers, we aim to show you an alternative way to approach unconscious bias within your firm.

The Problem

The legal sector faces a systemic problem; the leaders and fee-earners of private practice institutions no longer reflect those entering the profession or the clients they serve.

Women, for instance, have made up the majority of new admissions to the legal profession for the past twenty years, last year becoming the dominant gender in the profession at 50.1% of all practice certificate holders.¹ They outnumber their male counterparts in-house, and make up over two thirds of solicitors in central and local government.² Furthermore, female solicitors also enter private practice firms in disproportionate numbers, comprising 60% of associates nationwide in 2018.³

However, only 29% of private practice partners are women, which drops substantially in UK top 10 firms to 18%.⁴ Just six women hold senior leadership roles in the UK top 50, and there has never been a female managing partner of a magic circle firm.

A similar case can be made for Black, Asian or minority ethnic (BAME) solicitors. Whilst comprising 16.5% of UK practice certificate holders, a figure that has continued to rise year on year, only 8% of partners at the UK's largest firms are from a BAME background.⁵ Like female solicitors, they too are better represented in house, and are more likely to be the legal purchasers of tomorrow.⁶ As a result, where over 40% of male solicitors go on to become partners, under 20% of females and less than 10% of BAME minorities do.

Unconscious Bias

A decisive factor in the cause of this imbalance is unconscious bias; the nonconscious drivers that influence how we see the world and help us make decisions. Innate to all human judgement, unconscious bias can blind people to new information and inhibit them from considering valuable options when making important decisions. It influences how we think in teams, and how we treat people we perceive as dissimilar from us. In short, in the workplace, unconscious bias prevents people from being given equal opportunities when they are considered different to their decision makers and leaders.

However, organisations cannot afford to have non-diverse businesses and workplaces that are not inclusive. As has been validated by research, more diverse teams are more productive, successful and creative.⁷ Employees are also more engaged and remain at inclusive organisations for longer. Furthermore, law firms need to better prioritise their diversity and inclusion strategies due to client demand, who are pushing to see evidence of change as part of their own initiatives and policies.

1 Baker, T. (2018) 'The future is female – women lawyers outnumber men in the UK as the in-house boom continues', Legal Business, 22nd June. Available at <https://www.legalbusiness.co.uk/blogs/the-future-is-female-women-lawyers-outnumber-men-in-uk-as-the-in-house-boom-continues/amp/>

2 The Law Society of England and Wales (2016) 'Diversity Profile of the Solicitors' Profession 2015'. Available at <https://www.lawsociety.org.uk/support-services/research-trends/promoting-diversity-in-the-legal-profession/>

3 'Lawyer Gender Distribution in the UK' compiled by Aspirant Analytics, October 2018.

4 PwC (2017) 'Time for change: PwC Law Firms Survey' 2017'. Available at <https://www.pwc.co.uk/industries/business-services/law-firms/survey.html>

5 A large firm is categorised as one with 50 or more partners. See The Law Society of England and Wales (2016) 'Diversity Profile of the Solicitors' Profession 2015'. Available at <https://www.lawsociety.org.uk/support-services/research-trends/promoting-diversity-in-the-legal-profession/>

6 Although there is no legal obligation for employees to disclose their sexual orientation or if they have a disability, given the above trends, anecdotal evidence would also hold true for these stands of diversity in law firm leadership. Although 1 in 20 people in the workforce today identify as Lesbian, Gay or Bisexual, and 10-15% of staff at most employers will have a disability, 1 in 5 members of both these groups will not disclose this information to their employer through fear of repercussions.

7 McKinsey, for example found that companies in the top quartile for gender and ethnic diversity were more likely to have financial returns above their national industry medians, by 15% and 35% respectively. See Hunt, V. et al (2015) Diversity Matters, McKinsey & Company, January. Accessible at <http://www.mckinsey.com/business-functions/organizations/our-insights/why-diversity-matters>

Methods for mitigating bias

Law firms have addressed the issue of unconscious bias within their organisations in a number of ways. The most common approach has been to implement unconscious bias training, especially for leadership and key decision makers. Unfortunately, though an increased awareness of unconscious bias can have benefits, it is not a systemic and consistent solution to the challenge of bias in the workplace. As human biases occur outside conscious control, there is very little evidence that educating people about biases alone does anything to reduce their influence. A meta-analysis commissioned by the UK Equality and Human Rights Commission in March 2018 concluded that “The evidence for unconscious bias training to effectively change behaviour is limited, as most of the evidence available does not adopt valid measures of behaviour change”.⁸

Rather, an increasing number of firms are taking a systemic approach to unconscious bias by breaking down and removing bias from processes. This approach, taken from organisational psychology and behavioural design, is based on the belief that individual biases are exacerbated by systems and culture. As a result, biases can only be overcome collectively, and organisations and teams can become aware of bias in ways that individuals cannot. Using this approach, team-based practices are therefore redesigned to help identify biases as they emerge, and counteract them as they appear, thus mitigating their effect.⁹

It is in this respect that technology has the potential to be so impactful. Systemic problems require systemic solutions. This means a combination of strategy, processes, policies, technology, culture, and individual behaviors, purposely designed to address the biases that are barriers to fair and respectful treatment in the workplace. In the next section, we review the diversity & inclusion technology that already exists, before providing case studies from three areas where these products could bring the best outcomes to law firms.

⁸ Equality and Human Rights Commission (2018) ‘Unconscious bias training: an assessment of the evidence for effectiveness’, 23rd March. Available at <https://www.equalityhumanrights.com/en/publication-download/unconscious-bias-training-assessment-evidence-effectiveness>

⁹ See Morse, G. (2016) ‘Designing a Bias-Free Organisation’, Harvard Business Review, July-August Issue. Accessible via <https://hbr.org/2016/07/designing-a-bias-free-organization>

Technology solutions to mitigate bias

Applied correctly, technology can enable scalable, consistent treatment of people decisions (often in real time) while also alerting users to previously-hidden patterns of bias within organisations. The development of advanced artificial intelligence technology and natural language processing, as well as societal shifts enforcing organisations to better monitor D&I metrics, has resulted in the development of a number of new point-solution technologies and the addition of D&I features to existing HR systems.¹⁰

D&I technology can be defined as software that provides insights, or alters processes, in support of an organisations' efforts to become more diverse and inclusive.¹¹ Benefits of this new approach includes increasing awareness of the current state of D&I across an organisation, as well as enabling HR teams to better measure and monitor the impact of efforts in improving D&I outcomes.

However, there are risks associated with this approach, most prominently bias existing within the algorithms and technologies themselves. People may also reject technology if they perceive it to diminish their power over making critical people decisions, and ignore the insight it generates. On the other hand, individuals could overly trust the technology, rely on it to address all risk, and fail to monitor their own behaviours vigilantly.

As such, while technology can be a significant help, it is not a silver bullet. The aim of this paper is to show how technology can be integrated with other solutions for addressing bias within your organisation. Moving on, we focus on three main use cases for D&I technology within law firms: data analytics, recruitment and employee development and advancement.

Data Analytics

“More and more HR teams now have access to a lot of high quality data that they can reap the benefits from and begin to apply AI to”

Rob McCargow, Director of AI, PwC UK

With the increasing efforts made in measurement and reporting, organisations are beginning to accumulate banks of data from which they can discover unique insights about their people. HR departments already carry a wealth of information concerning individuals' performance and progression, as well as equal opportunities monitoring data.¹²

Analysing this data will give law firms an in-depth look into the diversity profile of its workforce, drawing attention to specific areas of the business where unconscious bias is most prolific, as well as benchmarking themselves against sector peers.

¹⁰ As the current market stands, one third of technology providers exclusively offer solutions on D&I, most of which who have launched in the last 3 years. The rest of the market are existing talent management vendors, whose primary business is something other than D&I but offer features that can improve diversity and inclusion in businesses. See Sherman Garr, S. and Jackson, C. (2018) Diversity and Inclusion Technology: Could this be the missing link? September. Available at <https://info.mercer.com/danditech>

¹¹ See Sherman Garr, S. and Jackson, C. (2018) Diversity and Inclusion Technology: Could this be the missing link? September. Available at <https://info.mercer.com/danditech>

¹² The protected characteristics under the 2010 UK Equality Act are; age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, sexual orientation. Apart from age and sex, it is not mandatory for organisations to collect this data, and they can only do so with the permission of their employees.

More specifically, data analytics can cross reference diversity data with the information gathered surrounding headcount, attrition, hiring and performance to identify the gaps in diverse talent and prompt change. Depending on the data collected, and an organisation's diversity goals, the following insights are just a few examples of what can be derived through data analytics:

- Proportion of diverse groups across all roles and PQE's
- Attrition rates (mapped against lateral partner hires and promotions)
- Workforce projections based on current hiring/attrition trends
- Key leavers and whether they belong to a diverse group
- Measurement of D&I policy outcomes

At present, data analytics has the most potential for identifying the barriers for gender balance in law firms. This is because information on gender is mandatory to collect and can be easily captured, whereas data regarding other diversity characteristics is harder to collect and therefore harder to measure.

Justine Thompson, Head of Inclusivity & Diversity at Bryan Cave Leighton Paisner, says, "The legal sector has placed social mobility and racial inclusion high on its agenda. Similar to many other industries, this is an area where we lack diversity." In line with this, the Equality and Human Rights Commission recently published a research report stating the need for organisations to introduce ethnicity and disability pay gaps, which would drastically improve the levels of reporting by these groups.¹³

As a result, firms are focusing on the need to capture this data, which will ultimately allow for a better picture of current diversity levels and plan how to achieve more diverse workforces. Once firms have collected this data, it is possible to identify where unconscious bias acts as a barrier to entry and progression within the organisation.

By examining data gathered from performance reviews, client satisfaction surveys and internal employee feedback, it is possible to pinpoint groups that are disadvantaged, which can then be addressed. A good example of this is analysing the statistics of women returning from maternity leave to investigate whether return to work policies are having the desired effect.

¹³ Adams, L. Luanaigh, A. Thompson, D. and Rossiter, H. (2018) 'Measuring and reporting on disability and ethnicity pay gaps', Equality and Human Right Commission, Research report 117, August. Accessible at <https://www.equalityhumanrights.com/sites/default/files/measuring-and-reporting-on-ethnicity-and-disability-pay-gaps.pdf>

Case Study: Aspirant Analytics

Launched in 2015, Aspirant Analytics uses advanced data, AI and people analytics to identify unique insights about a law firm's people and potential talent.

Aspirant collects data from all internal systems within a law firm, ranging from personal employee data and utilisation, to client matters and billable hours. It also pulls together publicly available data on lawyers, using artificial intelligence to aggregate this data, which can then be applied to address specific challenges and needs identified by law firm clients.

Using such a comprehensive pool of data, Aspirant is essentially able to trace the journey of an employee, tracking those from different demographics and backgrounds to understand the specific reasons why certain groups are either underrepresented or underperforming. It can then forecast what an organisation would look like were it to make specific changes to its workforce.

The product has been built as a tool that can be housed in a law firm HR department, without the need for data scientists to be able to access and manage the platform. Co-founder Vera Levitskaya commented that, "our core objective was to create a standalone product for clients, rather than needing to have a consultant present".

Aspirant have made particular progress in exploring how to achieve gender balance within the sector. Their key findings from analysing the top 40 firms in the UK include:

- To achieve 30% women in partnership, an increase of 286 female partners is needed
- The disparity between male and female progression within the sector starts at 5 PQE
- There is no 'drop out' of female solicitors from private practice
- Female partners are underrepresented at every level of PQE
- Accounting for current female hiring and promotion rates, female representation in partnership will not improve

Aspirant can also use modeling techniques to project whether their clients will reach their gender targets. By showing the difference in results from implementing a policy (i.e. targets for female promotions), this helps secure buy in from senior management. Vera Levitskaya adds: "Analytics is most influential when you present two future scenarios of a firm's diversity profile. One where no change has been made, and one showing the outcomes of significant step-change. It's much harder to ignore the problem when you know what the result could be."

Thanks to the award winning technology, which was funded by the UK Government, Aspirant can produce bespoke analysis on any area of its client's workforce. Therefore, Aspirant are well placed to combat unconscious bias in an organisation as they can tailor their assessments based on the individual challenges taking place in a law firm.

Case Study: Staffmetrix

Staffmetrix has built a workforce analytics platform that collates and presents data on the diversity profile of your organisation. The business was initially launched to help firms compile their gender pay gap reporting data, and is expanding its offering to provide a resource for HR teams to collect, assess and present an organisation's diversity data across all underrepresented groups.

This enables a law firm to be exact about where the imbalance lies in their organisation, by presenting breakdowns by region, office, practice area, business function and other categories. The product will then highlight any patterns that appear, especially where the overall pay gap is exceeded or improved upon.

Additionally, the product offers a benchmarking tool that allows an organisation to compare its gender/bonus pay gaps against the aggregated progress of its sector and/or the UK. In time it will deliver predictions of pay gap trends based on data collected from both internal systems and submissions to government databases such as gender pay gap reporting, CEO pay ratio reporting and ethnicity pay gap reporting.

CEO Anthony Horrigan noted that organisations should first be sure about what they are trying to achieve. "Analytics should be considered as a tool that enables greater understanding of a business problem or opportunity. Before the problem can be solved there needs to be a clear business outcome – bottom line improvement, reduction in churn, etc. This discussion

cannot be confined to the analytics team or to an outsourced provider, top down adoption of the plan must exist otherwise analysis can end up delivering a myriad of solutions to problems which are way down on the list of business priorities."

"Once the problem has been outlined the data required will become clearer; this clarity can be communicated to the entire organisation in an honest and transparent manner – this tends to solve the problem of data quality/quantity because everyone knows why they are being asked for more information."

Data analytics is a way to provide HR and D&I representatives with clear and accurate insights into where unconscious bias may lie in their organisation. Armed with this information, it can help engage senior management and influence necessary changes to policy and process. Although D&I data analytics platforms can unlock a wealth of information about law firms, human involvement is needed to ensure key business issues continue to be addressed, and that the data the platforms draw from remains valid.

Recruitment

"Bias can exist at every stage in the recruitment process – from application screening through to interview and assessment"

Justine Thompson, Head of Inclusivity & Diversity at Bryan Cave Leighton Paisner

When investigating the D&I technology that exists, recruitment offers a greater source of advanced tech solutions. These platforms attempt to remove bias throughout the recruitment process, from attraction, sourcing, applying, selection, assessment and scheduling.

Candidate sourcing is a key area where tech can play a role in reducing bias. There are products that help point organisations towards diverse candidates, such as Rare Recruitment and Applied, as well as help increase the number of diverse candidates applying to certain roles.¹⁴ Textio is a platform that uses 'augmented writing' to open up an organisation's job descriptions and online marketing communications to all people. It uses machine learning to highlight where there are biases in a piece of text and provides alternative language to make this information more inclusive.¹⁵

AI and machine learning can also have a substantial impact when it comes to removing bias from the recruitment phase. These products can remove information that could trigger bias amongst recruiters and hiring managers, and reduce the time it takes to complete processes through the automation of basic tasks.

Using vast amounts of data collected around high performance and productivity, technology can also derive key success indicators for your firm and assist in the sourcing and selection of individuals that are most likely to thrive in your business. (See EVA case study) Due to the quantity of diversity data now being collected, AI and machine learning programmes can be implemented with confidence that their results will not mirror previous hiring decisions.

Given that 50% of vendors in the D&I technology market offer recruitment related tools, it is evident that the greatest impact technology can have on diversity is by removing the barriers that block diverse talent from entering the sector in the first place.¹⁶

Case Study: EVA

EVA has launched a new piece of recruitment software that brings intelligent decision-making to the forefront of its business. Having profiled a range of people who have been successful in previous positions, the tool can instantly match people with precision to specific job roles, identifying where they would fit best in an organisation.

“The system builds on models of past success and assesses each candidate on 150 different factors when matching them to a role.” Chief Technology Officer Charlie Markham explains. “You could argue that the tool itself is initially biased as it learns from real human decisions that result in successful placements. What we have done is worked to eliminate such bias by only including data in the learning process that cannot be resolved to any protected characteristics, and excluding human decisions known to be biased.”

This is achieved by certifying that every piece of data entered into the platform is relevant and meaningful. Specific emphasis is placed on keeping all diversity associated data away from machine learning processes to mitigate any skewing of the results.

Based on over 1 million interactions with its training data, EVA undergoes a rigorous verification process with an organisation through real user testing. Here they verify the results of a job application with real candidates to ensure the tool is used correctly and valid responses produced.

In addition to removing bias from several stages of the recruitment process, EVA’s platform offers features such as chatbots and automated scheduling, which gives recruiters the opportunity to spend more time on engaging candidates on a personal level.

The tech startup is preparing to launch its diversity tracking tool, which will display the diversity split of candidates who have applied to certain roles, and compare this to the market average. This will inform recruiters how attractive their roles are to diverse talent compared to others in the same sector.

¹⁴ See <https://www.rarerecruitment.co.uk/> and <https://www.beapplied.com/>

¹⁵ See <https://textio.com/>

¹⁶ See Sherman Garr, S. and Jackson, C. (2018) Diversity and Inclusion Technology: Could this be the missing link? September. Available at <https://info.mercer.com/danditech>

Case Study: Applied

Applied uses behavioral and data science to strip bias from the hiring process. Initially launched as part of a project from the UK's Behavioural Insights Team (BIT), the tool has been developed for commercial application in conjunction with the field's leading academics.

Whilst built to aid with all stages of the recruitment cycle, Applied is most innovative in the process it uses to shortlist candidates. Presented through a skillfully designed dashboard, which provides no personal information on a candidate, work sample assessments are anonymised and reorganised before they are graded by internal assessors. This assures candidates are being assessed on work-specific skills, in relation to one another and in a way that avoids order bias (Paying more attention to the first applications you read). Assessors are then given feedback and further insights on their reviews.

The platform also comprises more conventional elements of D&I technology, such as de-biasing job descriptions and gender language detection. The platform also works with organisations to build their own bias-free assessments and situational tests.

These solutions have become more prevalent in the legal market over the last few years, and as a result firms are beginning to see visible uplifts in the number of diverse trainee and junior lawyers. "As law firms start to see a more diverse make up internally, there needs to be more of a focus on retaining this talent," says Sasha Scott, Director of the Inclusive Group. How to make sure individuals don't feel excluded in the workplace once hired is a crucial factor when implementing an effective D&I policy.

Justine Thompson remarks: "Using technology in the recruitment process can have real benefits, but using AI to assist with sourcing and selection comes with real risk. If the data used to inform algorithms has been taken from 'what success [currently] looks like' in your own organisation, it is highly likely that data will have been subject to bias. That same bias then risks being baked into your AI". Recruiters must take the time to fully understand the risks and benefits in adopting technology as part of their process, and regularly review the impact.

AI and machine learning technology could transform the way we handle recruitment in an organisation, but it also comes with the biggest health warning. If the data and algorithms used don't undergo a rigorous verification and monitoring process, the product could end up replicating, or even exacerbating, the existence of unconscious bias in recruitment decisions. In part 4 we address these issues further, explaining how you can best mitigate these risks.

Employee development and advancement

The final way we envisage technology being applied to address unconscious bias in the legal sector is through employee development and advancement, in particular work allocation and utilisation. The attrition of female and minority lawyers to partnership, and other positions of senior management, is one of the greatest challenges faced by law firms, and a reality that existing D&I initiatives have struggled to address.

Adding automation to these processes helps remove biased judgement regarding which lawyers get access to more challenging client work, and thus better career development opportunities, as well as who is nominated for promotion. This is an area considered ripe for innovation as work allocation is based on objective data; the matter in hand, skillset(s) required, client in question and deadline.

PwC have recently implemented AI into their internal utilisation tool. Here, a machine learning optimisation

platform tracks demand and capacity of employees across the business, and simulates how to distribute work to everyone when a new project comes in. This has a secondary benefit of helping with progression, and organisations can check who is gaining access to the highest quality work and how to mediate this.

Other providers Pipeline and Zutgata have taken a different approach to addressing employee development.¹⁷ Their systems apply natural language processing to find bias in performance feedback reviews, which is then fed back to hiring managers. Pipeline first identifies where bias might exist within individual feedback, and secondly flags if the overall language in the review does not match the performance rating, suggesting changes to either the rating and/or language.¹⁸

Despite diverse representation at different levels of leadership being one of the greatest diversity challenges, very few technology providers have developed solutions targeted at this particular space. Beyond the identification of high potential employees, there has been less direct focus on progression and leadership development.

Case Study: Mason & Cook

Mason & Cook is a specialist consulting and technology business which focuses on formalising work allocation structures within law firms. They have been working on a technology product to help assist resource managers more readily access information to match associates to work, and thus increase their face time with the business.

Initially, this process involves associates completing a skills matrix which focusses on their competencies and aspirational career development, alongside current utilisation and workload, to help inform resource managers of their suitability towards certain client matters.

“Technology can analyse and synthesise this information faster than humans can” said CEO and founder Dave Cook. “Through using this software, resource managers can present partners with a more unbiased list of associates to choose from when they allocate work”.

Not only does this level the playing field in terms of development, but the system effectively provides inclusion nudges to partners to more fairly distribute work and consider associates they perhaps would not have thought of otherwise. The system also has the added benefit of analytics, allowing you to measure utilisation by diverse group and assess whether mediating action needs to be taken.

¹⁷ See <https://www.pipelineequity.com/> and <https://www.zugata.com/>

¹⁸ See Sherman Garr, S. and Jackson, C. (2018) Diversity and Inclusion Technology: Could this be the missing link? September. Available at <https://info.mercer.com/danditech>

Risks to be aware of

There are certainly benefits to gain from the above solutions and technology more generally, but it's important to note the risks involved. These products will have a direct impact on the wellbeing and career progression of individuals, and if solutions aren't monitored or used appropriately, it could have a detrimental effect.

However, that is not to say that they shouldn't be utilised or aren't worth the risk. Rob McCargow, Director of AI at PwC says: "You must take a multi-faceted approach to building confidence in the technology. There's no one way to ensure a bias-free solution, but if you cover off all the necessary measures, you can be confident using technology will benefit and not hinder."

Below are some key criteria you should consider before adopting a technology solution in your D&I agenda.

1). Data

Quality

The output (i.e. results) of these technology solutions is based on the data input. This implies that in order to ensure the results produced are free of bias, you must be inputting clean data into the system.

If you choose to adopt an AI or machine learning element to your D&I processes, quality control is imperative. Machine learning works by taking large data sets as input, from which it learns and distills the key facts, and delivers conclusions based on this.

For example, Amazon has recently scrapped its internal AI recruitment tool for bias against female candidates.¹⁹ This is because AI will continue to retain and learn from past biases, therefore favouring the traditional candidates for these positions, ultimately exacerbating the lack of diversity.

Consequently, it is essential to follow the well-known "garbage in, garbage out" rule of computing, and ensure all data sets inputted into a machine are thoroughly checked and clear of human bias.

"Machine learning is amazing at taking a complex set of input parameters and example scenarios and finding correlations between them" says Charlie Markham. "In the case of Amazon, these were unfortunately biased and spurious. However, we should not discard this technology, but instead recognise that any new employee requires supervision."

"At EVA.ai our machine learning is fed only relevant professional career data, which cannot be used to identify individuals or their personal characteristic. The machine learning is supervised by a large number of agents, and its results are separately checked for bias."

"We should treat machine learning like a new junior employee. We should control access to sensitive data, supervise them carefully and measure their performance, fairness and productivity" he says.

In conclusion, firms should choose the ways in which they apply AI wisely, and use multiple different data sources upon which to generate conclusions. AI won't be an effective tool unless it has enough accurate, unbiased information to learn from, so firms should apply sufficient amounts of training data before attempting to use the tool to solve a problem.

¹⁹ Dastin, J. (2018) 'Amazon scraps secret AI recruiting tool that showed bias against women', Reuters, 10th October. Available at <https://www.reuters.com/article/us-amazon-com-jobs-automation-insight/amazon-scraps-secret-ai-recruiting-tool-that-showed-bias-against-women-idUSKCN1MK08G>

Quantity

Another requirement needed for this technology to be effective is large amounts of data, and the amount of data currently gathered regarding ethnicity, disability and social mobility is minimal.

CEO of Staffmetrix, Anthony Horigan has argued that firms' efforts in doing this have improved, but that is no longer the issue. "A lot of law firms have a process in place to collect this information, but individuals within the organisation don't feel comfortable supplying it, instead selecting a 'prefer not to say' option. Law firms need to run campaigns explaining the reason they're seeking this information is actually to increase the amount of diverse talent overall, and that this will not reflect on them as individuals."

Reed Smith's Innovation Hub Manager Alex Smith supports this argument, commenting that: "Most technology projects fail based on the data you don't capture. You need to incentivise people to capture the types of data needed."

"Most technology projects fail based on the data you don't capture"

Alex Smith
Innovation Hub Manager, Reed Smith

2). Monitoring

After validating your technology solution, and the data input, is free from bias, there must subsequently be a monitoring process in place to check results regularly.

It is even more crucial when operating AI or machine learning that sufficient checks and balances are in place, as the complexity of these algorithms can cause the system to generate more in-depth responses as it becomes more intelligent. This is why it is imperative that everything fed into the machine, and everything it produces, is monitored by an individual or team of people who are skilled in understanding its workings.

"A lot of the models will be developed using supervised or semi-supervised learning, i.e. results will be classified by a human and used to improve the model iteratively. At this stage it's crucial to involve only a small number of human subject matter experts to ensure consistency and robustness" says AI and FinTech Practice Leader at PwC Europe Michael Berns.

The most well-known example that demonstrates the consequences of not monitoring technology is Microsoft's chatbot.²⁰ In March 2016, Microsoft unveiled an AI chatbot called Tay, a bot run on twitter that is able to engage in casual conversation the smarter it gets. However, in only 24 hours the chatbot had morphed into the result of numerous racist, political and offensive tweets. Microsoft removed Tay from Twitter after it began responding to tweets in the same way.

In summary, monitoring the solution you implement is essential to ensuring this type of evolution doesn't happen in your systems. Particularly because it wouldn't be as obvious as in the case of Microsoft, but rather a subtle form of bias that could easily be overlooked.

20 Hunt, E. (2016) 'Tay. Microsoft's AI chatbot, gets a crash course in racism from Twitter', The Guardian, 24th March. Available at <https://www.theguardian.com/technology/2016/mar/24/tay-microsofts-ai-chatbot-gets-a-crash-course-in-racism-from-twitter>

3). Transparency

Most tools that you will be purchasing or building will run off relatively complex algorithms. Unless you're a developer or data scientist, these are to likely be difficult to comprehend without the required skillset.

However, you still need to ensure that the method from which you are achieving your results is clear and transparent. If you don't know how a tool reached a certain recommendation, you can't trust that it's free of bias and fit to be embedded into your organisation.

Machine learning in particular doesn't give an explanation of how it reaches a conclusion, and the more it's used, the more it learns. The more it learns, the more complex and opaque the process is. "This is why you should ensure a level of model interpretability", says Rob McCargow. Employing someone who can interpret the decisions a system is making will provide you with the certainty needed that the results are accurate, unbiased and not skewed.

IBM recently released a set of open source software tools that help gain visibility into artificial intelligence, eliminating the issues arising from 'black box algorithms'.²¹ It provides real-time insight into the thought process of AI and detects any suspicion of unwanted bias. The toolkit also offers new data parameters which could help reduce any bias it has detected.

4). Team Diversity

An essential characteristic of any D&I technology you're looking to use is that there is a diverse team of individuals behind it.

"There is a much greater risk of bias creeping into your system if the data is curated by a non-diverse team," says Rob McCargow. "There needs to be diversity of thought, which comes not only from different genders, ethnicities and a range of backgrounds, but also from those with unique perspectives and personalities, sitting within varied roles in an organisation."

Innovation Hub Manager Alex Smith stresses it is a requirement of AI procurement that not enough organisations consider, especially because it's not something you can guarantee from a tech startup. "There is a pipeline issue with diversity in the technology sector, which can lead to dangerous consequences when using this technology to address bias. You need to assess the diversity of the teams behind those products your organisation is looking to invest in. Law firms should enquire about the vendors diversity in the same way they're asked the question by clients".

"Despite this, there are ways that tech companies can still be diverse even if there aren't enough women or minorities in the back-end development. Diversity of thought should be present throughout the process; those testing the machine learning, the end product, and how it's initially created and subsequently amended. These all need to be different roles with diverse talent running through each one".

²¹ Lomas, N. (2018) 'IBM launches cloud tool to detect AI bias and explain automated decisions', Techcrunch, 19th September. Available at <https://techcrunch.com/2018/09/19/ibm-launches-cloud-tool-to-detect-ai-bias-and-explain-automated-decisions/>

5). Maintaining human involvement

With the proliferation of chatbots, automated job applications and video interviewing to remove human biases in a recruitment process, and in the workplace more generally, there is a risk this absence of human interaction could make individuals feel devalued by an organisation," says Sasha Scott.

"Technology should simply assist those managing inclusion and progression programmes, and provide the data for these initiatives. Someone's personal development should never be managed wholly by technology, or this could have an adverse effect on their desire to work there."

You want to ensure you're finding the right balance between removing human judgement from the process where bias is most prolific, and also incorporating team members enough for prospective candidates to get a sense of the culture of your firm and remain invested in the organisation.

"With EVA.ai we develop partnerships between our users and AI, building a trusting relationship where recruiters comfortably delegate duties to the bot, while feeling confident that any issues will be immediately escalated to them" says Charlie Markham. "We call this exchange "hand-over / hand-back". Our measure of good AI-human partnerships is the ease of hand-over and users' confidence in this process."

6). Generating buy-in

"Despite the serious efforts made by law firms in supporting an inclusive culture, as well as the rise in the number of champions willing to advocate for change, it can still be a challenge to secure the necessary investment and buy-in needed from senior management"

Dave Cook, CEO at Mason & Cook

The successful implementation of D&I technology hinges on the ability to convince law firm leaders to commit to both purchasing and investing the time to utilise such resources. "The most valuable asset is lawyers own time," says Alex Smith. "In order for these solutions to be effective, you need to convince senior management that it deserves both their time and willingness to be invested".

"From a Startup perspective you need have full support from the senior management, as starting with AI involves a cultural shift in order to be successful" says Michael Berns. "Introducing a new shiny technology is the easy part, but getting the buy-in throughout the organisation and leading the change management process are required to make the most of this opportunity."

Innes Miller, co-founder of Staffmetrix describes their experiences in generating buy-in: "A top-down approach, along with a senior D&I champion is the best way to expect that new processes are truly implemented and carried out, otherwise it's difficult for any initiative to gain traction. Engaging NEDs can also be beneficial, as they have the best access to board decision making powers."

Conclusion

In conclusion, technology represents an opportunity to transform recruitment and progression in the legal sector. People analytics gives firms the opportunity to pinpoint bias within their organisation, and monitor progress of change management, whilst tools to aid recruitment and employee development has the potential to change the diversity of those entering workforce, and the opportunities they have to thrive.

With proper understanding of the risks associated with using these platforms, and appropriate standards put in place, such solutions could be utilised to move the needle on the law firm diversity debate.

However, technology alone does not solve the problem of bias in any organisation. The effectiveness of D&I technology solutions will be limited if they are implemented into a non-inclusive workplace culture. The point was summarised nicely by Alex Smith, who noted:

“Technology can be a great tool to assist in creating a diverse and inclusive workplace, but it cannot be the only effort. Cultural change remains the most important element to tackling this issue. Many firms are now employing these types of technology, but without creating a behavior change which assures people are using it diligently, the technology solutions become redundant”.

In light of this research we recommend:

1). Using data analytics to identify the gaps in your D&I framework

Monitoring and assessing progress on this front will become more critical with subsequent rounds of Gender Pay Gap reporting, and the likely introduction of ethnicity and disability pay gap reporting.

2). Be specific with the solutions you adopt

For best results, technology should only be used to address specific concerns within your organisation. Make sure the technology you implement aligns with your D&I goals.

3). Measure, assess and change

Consistently measure the outcomes of your D&I technology and assess whether they are fit for purpose. Share your results with the firm to encourage further momentum for D&I practices and behavior change to make your workplace more inclusive.

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