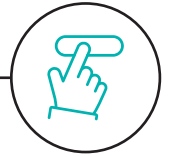Neil Milliken, Head of Accessibility & Digital Inclusion and member of the Scientific Community, Atos
Denise Reed Lamoreaux, Global Chief Diversity Officer, Atos

The value of a diverse workforce in inclusive AI development

At Atos, we are making a concerted effort to avoid the pitfalls that arise from negative bias, especially when used to analyze people data.

Given the critical nature of data in the legal, education, finance and transportation spaces, enormous damage could result in the blink of an eye if AI systems are not carefully constructed to eliminate the opportunity for the data to become tainted by discrimination.

The data sets we are using to train AI may also be reflective of pre-existing societal bias, and applied algorithms may amplify them. We must determine and function within the "boundary of acceptability" when developing algorithms so that technology doesn't go rogue and create a situation similar to recruiting tools that were reported in the media to inadvertently be biased against women. Those systems had been trained to rate applicants by observing patterns in data from resumes submitted over a 10-year period, most of which came from men. The tool is no longer used.

Atos does not discriminate on the basis of race, religion, color, gender, age, disability, sexual orientation, or any distinctive traits, and we cannot allow bad AI to negatively influence our recruiting practices. We are taking this to the next level by applying the concept of 'Design for Good' championed by Atos' Scientific Community member John Hall. Design for Good aims to prioritize the design of responsible digital applications. We are aiming for this moral compass — the Design for Good mentality — to be part and parcel of every decision made in the AI arena as well as for other digital technologies.

Accessibility and disability factors

Corporations the world over tend to leave people with disabilities out of the Design for Good phase, and rarely include them in their composition in BETA software testing or on Ethics boards. In fact, Ethics boards rarely include people who are affected by technology. It is critical to include people with disabilities at all stages of the development lifecycle, because it's one thing to observe bias and recognize it, but it's a completely different thing to really understand it from a personal perspective and to have experienced it yourself throughout your life.

AI-driven technologies also hold great potential for solving the challenges faced by people with disabilities. For example, the accessibility of our media-rich, hyper-connected world is being improved by algorithms which deliver automatic subtitle captions and audio image descriptions to include people who are deaf or blind.

Creating AI solutions requires more than diversity. Team members need to feel they are contributing, that their opinions are valued, and that all perspectives and suggestions are taken seriously for the Design for Good approach to produce unbiased results in reality.

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Key take aways for action now!
- Teams to be composed of a variety of people from all walks of life to allow for innovative thinking.
- Put in place checks and balances at all stages of the development lifecycle to ensure that employee initiatives are inclusive, not exclusive.
- Ethics boards to be representative of society to avoid "groupthink".
- Examine data for gaps and pre-existing biases.

Case study
Online finance for all

National Savings & Investments (NS&I), the UK state-owned investments organization, plays a central role in the country's savings system and serves more than 25 million customers. Backed by the UK government, all savings invested with NS&I are 100% secure. That makes the organization a popular savings choice for customers with a low appetite for risk, especially for retirees and the elderly.

As a key technology partner to NS&I since 2011, Atos is helping the organization use digital innovations to communicate better with all its customers, especially with those people who are not confident with online transactions.

When the organization decided to redesign its website, Atos was careful to incorporate the needs of the elderly into the design process. Using eye-tracking technology, we were able to identify potential issues such as the location of the login button and the balance-checking service. Our careful, inclusive approach helped ensure that the new-look website was attractive and accessible to what is a key demographic for NS&I.

Thanks in part to the success of the redesign, last year 76.9% of all NS&I interactions with retail customers were digital, ahead of the target of 75%. NS&I also retained the top spot for the banking and finance sector in the Top 50 Companies for Customer Service awards, for the third consecutive year.

Our work to increase the accessibility of NS&I's online services does not end there. In 2019-20, we will be introducing a secure messaging capability to the NS&I website, allowing the organization to provide targeted help to customers who otherwise might require paper-based interactions.