Advanced Technologies and the Workplace, Part I: A Primer

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You have probably heard the phrases “fourth industrial revolution” and the “future of work.” Both refer to changes in the way people live, work, and relate to one another due to rapid developments in technology. Here are five things you should know about advanced technologies and the workplace:

1. **It’s not just AI.** Much focus is paid to artificial intelligence (AI) and its impact on the workplace. And, without a doubt, AI is making, and will continue to make, important changes to the world of work (and the world around us). But there are additional technologies that modern workforces are increasingly using and about which we should all be aware. For example, organizations are utilizing more robotics in the workplace, particularly “intelligent” robotics performing tasks that historically required human intelligence. In addition, biometric technology, which recognizes and authenticates workers based on their unique biological or behavioral traits (e.g., facial recognition software, fingerprint scanners, and voice recognition tools) are becoming more commonplace as a secure way to authenticate employee identity. Organizations are also increasingly using wearable technology like smartwatches, smartglasses, and exoskeletons to augment employees’ physical and perceptual capabilities. Finally, augmented and virtual reality are entering workplaces at a faster clip and are being used in recruiting, training, and collaboration activities.

2. **If you aren’t ahead, you aren’t behind . . . yet.** Organizations are all at different stages of digital maturity. Given the developments in technology that exist today and are likely to evolve over the next decade, the future of work will inherently involve an ever-increasing combination of human and automated functions. This means that, for better or worse, many business leaders will be looking to HR to collaborate with other strategic internal stakeholders to lead their organizations’ digital transformations. Staying current with not only the technology that is available but also the legal and practical risks and best practices associated with new technologies will be increasingly important.

3. **Potential bias is not the only area of concern.** A host of labor and employment laws may be implicated whenever new technologies are introduced into a workplace. Most media and regulatory attention relating to advanced technologies has focused on the potential for AI to unintentionally treat one group (for example, women) differently than another (for example, men). While this is a serious and important concern, there are other labor and employment issues about which employers should be aware. For example, many technologies entering the workplace collect, move, analyze, or store data—often sensitive data. The ever-growing list of international, federal, and state laws regulating data use and collection, as well as common laws concerning privacy, could create compliance concerns. Additionally, wearable devices such as exoskeletons or virtual reality glasses raise workplace health and safety compliance issues that employers may want to consider.

4. **Regulation is increasing.** One factor that may inhibit organizations from adopting advanced
technologies is a concern about compliance risks. The “fit” between twenty-first century technology and twenty-first-century laws is not always a good one, leading some organizations to hesitate before, for example, incorporating AI into their talent acquisition processes. While some industry consortia have tried to gap fill, particularly with regard to ethical issues involved with using different types of technologies, the lack of legislative guidance continues to cause some organizations to be reluctant to use AI and other advanced technology. There has, however, been an uptick in regulatory activity in this space. While legislation will never keep pace with technology, it seems likely that more regulatory action will be forthcoming and organizations may want to consider state-by-state analyses before adopting new technologies.

5. **Legal compliance is not enough.** While legal compliance is a necessity, the advance of AI and other technologies into the workplace presents equally important employee relations challenges. Employees are often anxious about what technological developments will mean for their jobs. In advance of the implementation of any new technology in the workplace, attention to communication strategies and the potential for retraining or upskilling is also very important.
