

The Importance of Societal AI for Industry

University of Waterloo, Cheriton School of Computer Science
August 9, 2018
Marco Lilek, under the guidance of Robin Cohen

Across all industries, modern businesses are becoming increasingly reliant on computer systems to remain competitive. Even in traditionally computer-agnostic industries such as health care, we are seeing a rapid development and adoption of computational-based solutions for services such as disease diagnosis, hospital administration, and even surgery. But as we have witnessed over the last few years, such endeavours, even when manifested through goodwill, can have unintended consequences on the greater society. From the perspective of those that lost their data or jobs respectively, these events were justifiably undesirable; however, why should the perpetrators care? If technology is bound to outpace law, why should any company relying on novel computer systems care about the societal impact of their activities? The response is economical: sustainable income.

First, consider a company which relies on branding for its competitive advantage. In order to remain successful, such a company needs to maintain a strong image in the eyes of its customers, and in turn the public. Suppose such a company face a scandal, such as a leak of private information. Even through the unrefined law may forgive such a company for its negligence, its users certainly will not; if this company is publically traded, this scandal would have immediate, detrimental financial consequences. Moreover, one can be certain these consequences will be more detrimental should a similar situation happen again: trust is hard to regain but easy to lose. Such a company could have avoided this outcome by being more aware of the possible implications of its activities beyond its value proposition, which is precisely the focus of societal AI.

Some companies don't rely on branding for success—for such companies, delivering the lowest cost product within legal boundaries is all that customers will care about. But if such a company's competitive advantage is entirely reliant on cutting corners, then it does not have a very strong business model: as long as it is permitted by the law, cutting corners is easy—there's nothing stopping competitors from doing the same. Assuming an industry with sufficient competition, such a company will struggle to find sustainable income in the long run, because there will be nothing stopping their competitors from capitalizing on these cost savings until they dry up. Alternatively, it is hard to copy a player which is cautious of societal implications of its operations, because (1) it can be hard to achieve in the first place, and (2) it is hard to replace a player whose operations are deeply rooted in the livelihood of multiple stakeholders, such as its stockholders, the local community, or society as a whole. By developing computerized systems which acknowledge society as whole, a company can lock in sustainable sources of competitive advantage that will ensure long-term revenue.

In summary, it is in a company's best interest to consider the societal implications of its computer systems. Not only does this consideration avoid problems with the law, but it also ensures strong brand maintenance and operations will incur sustainable cost savings. Given the unbridled integration of AI in business across all industries, there is a clear business need for societal AI as this development continues to progress.