BUILDING THE FUTURE: ADDRESSING THE OPPORTUNITIES AND CHALLENGES OF AN AI-ENABLED WORLD

The Aspen Institute's International Partners launched a global effort, with support from Microsoft, to build a network of NextGen leaders from the public, civic, academic and social sectors to engage in open discussion about one of the most pressing concerns for the present and future: artificial intelligence (AI).

The NextGen Network aims to provide a new outlook from the NextGen perspective on how AI and technology affect our society today, the opportunities it creates, as well as the challenges humanity might face in the near future. Furthermore, it brings the topic closer to the local context. The first workshop for the Network was held in October 2018 in Mexico City, Mexico. The second workshop has held in December 2018 in Berlin, Germany.

The Aspen Institute Germany hosted the second workshop for the NextGen Network in Berlin in December 2018, to bring the NextGen perspective on the impact of technology on society. The workshop brought together ~30 startup founders, innovators, researchers, entrepreneurs, civil society activists, policymakers, and leaders from the youth auxiliaries of Germany's main political parties to examine the opportunities provided by artificial intelligence (AI), as well as to pinpoint the ethical challenges this technology poses for Germany and Europe in light of a dignity-based social contract and other core societal values.

Germany's future AI leaders underscored the need for human dignity, trust and transparency in AI policymaking, as well as greater consumer agency over how their data is used. The basis for most policy recommendations was the founding of quasi-governmental institutions that would create instruments to vet new AI technologies and policies in line with core German and European values. This underscored participants' trust in public institutions to take a leading role in mitigating ambivalence surrounding AI.

Overall, the group landed with solid footing on a European solution to ethical issues surrounding AI, in lieu of a German or a decentralized federal solution. Many stressed a European path forward as the best way for Germany to play to its strengths – such as a commitment to international dialogue, public debate of ethical issues, and data privacy – in the global AI competition. Practical applications of such a path took the shape of EU-wide healthcare databases, or common EU strat-

egies for AI applications in the agricultural sector, mirroring hot-button issues currently discussed at the domestic level in Germany surrounding healthcare, technological advances in traditional industries, and climate change.

Conclusions from the NextGen Network workshop in Berlin will help the Aspen Institute and Microsoft plan similar workshops for collecting feedback on AI policy recommendations from around the globe. The NextGen Network will continue to gather further insights from other countries around the world and spark international exchange on how to develop concrete policy recommendations that can be internationally applied in an ever-globalizing world increasingly dependent on AI applications.

VALUES AND POLICYMAKING

Participants of the NextGen Network Workshop took up a series of moral dilemmas surrounding the use of automated vehicles (AVs)– a fitting exercise in a country where the automotive industry employs over 800,000 individuals, according to government figures. Using a survey developed by MIT to reveal biases called the Moral Machine, participants faced a series of scenarios in which an AV must choose between the lives of passengers or pedestrians in the event of an accident. This thought-provoking activity revealed collective moral preferences indicative of German and European values: the preservation of human life irrespective of social stature and adherence to the law.

After thinking about the origins of their personal value sets, participants were tasked with choosing two values and policies most important to the design and development of AI systems in Germany. While all groups valued transparency as a core tenet of AI development, they also posited whether awareness about the decision-making process of an AV would discourage consumers from using a self-driving car, or somehow skew the public's perception of the technology's safety.

Ultimately, the groups settled on six values they perceived as most important to future AI development in Germany and Europe: (1) human dignity, (2) non-discrimination, (3) equality, (4) accountability, (5) individual freedom, and (6) explainability.

Just weeks prior to the NextGen Network workshop, German Chancellor Angela Merkel's cabinet adopted its AI strategy to allocate 3 billion euros to fund 12 new AI research hubs in Germany and to hire 100 new professors in the field to make the country a global leader in AI. Participants discussed a more targeted AI strategy for Germany that plays to the country's established strengths, namely robotics and engineering, its commitment to international dialogue, public debate of ethical issues, and data privacy. This could make Germany and Europe a key player in forging a socially conscious path for future AI applications that deviates from and could compete with more individualistic, market-driven efforts currently spearheaded by the US, or the capital-intensive, state-aligned efforts of China.

Groups were tasked with imagining a scenario in 2028 to brainstorm practical applications of AI with a mock news article that, when ethically implemented, could improve German society (Find the 2028 scenarios here). The discussions about values fed into group perceptions of how AI could be used to solve pressing social problems, such as: the effects of climate change, the changing landscape of traditional industries like agriculture, the logistics of healthcare systems, and the prevalence of incurable diseases like cancer.

One group, for example, devised a scenario in which unethical hedge fund managers hoarded predictive weather data for monetary gain, leaving society unprepared for a destructive super-flood that wiped out crops. EU legislators moved to ban the monopolization of data that could be harnessed for the public good and invested heavily into existing AI drone technologies, data logistics and self-driving farming equipment, as well as public retraining initiatives, in order to get the agricultural sector back on its feet. In 2028, Bavaria's last traditional farm has become an amusement park, illustrating how society can come to embrace disruptive AI technologies when the human factor is taken into consideration.

From these brainstorming activities, the groups devised key policy recommendations for a German and EU approach to governing AI and using technology for social good.

KEY TAKEAWAYS

Despite the wide spectrum of values presented, groups' policy recommendations built off one another and reflected an institutions-based, Eurocentric model for AI regulation.

Emphasize essential values through German/EU policies on AI.

Policies should emphasize: human dignity, trust and transparency, user control and agency over their data, and convenience of technological applications. These core values dovetail with societal values in both Germany and Europe, implying that participants overwhelmingly prefer to work within established value frameworks, instead of reinventing the wheel, when regulating and developing new AI systems.

Found an advisory body to develop ethical AI standards and vet new technologies.

The advisory board would work across different policy and private sectors to develop ethical standards and guidelines for AI applications, as well as an independent council that would vet new AI technologies and enforce agreed upon standards. Such bodies would not only advise industry and set guidelines, but would also test applications before they hit the market.

Develop an EU-wide system to label AI technologies.

Similar to those used to rate the ecological standards of household appliances or organic foods in Germany, this would allow consumers to better understand how their data is being used, what a specific technological application can do, and how it was built. Favoring a Kantian approach, groups also suggested creating a blacklist of potentially harmful AI applications, such as those used in the context of war or weapons manufacturing, or those that could abuse facial recognition software.

Create quasi-governmental institutions to develop policies in line with German and European values.

The quasi-governmental institutions would collaborate with industry players to create mechanisms to vet new AI technologies and policies, and enforce new standards on AI systems. Europe and Germany are known to have some of the highest consumer protection regulations in the world, and trust in these public institutions would allow them to take a leading role in mitigating ambivalence surrounding AI..

This assumes quite a bit of faith in the EU as an arbiter of social good in the development of AI, despite the fact that, in an era of growing nationalism in Europe and elsewhere, this might not be a sentiment shared with the greater German population. Even the German government's recently adopted AI strategy focuses on German competitiveness, not European competitiveness, as the path forward. Even so, participants placed their bets on the EU.

Conclusions from the Workshop will be juxtaposed with those from other Aspen Institute and Microsoft workshops around the globe to develop global policy recommendations for AI applications informed by country-specific ethical standards.

Special thanks to Aspen Institute Germany for hosting the workshop and to Microsoft for support of the NextGen Network.