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VOICES OF THE LEADERS OF TOMORROW



CHALLENGES FOR HUMAN TRUST

IN A CONNECTED
AND TECHNOLOGY-
DRIVEN WORLD >>

About the Nuremberg Institute for Market Decisions (NIM)

The Nuremberg Institute for Market Decisions is a non-profit and interdisciplinary research institute dedicated to the systematic investigation of consumer and market decisions. The institute is also the founder and anchor shareholder of GfK SE.

At the interface between science and practice, NIM explores how market decisions are changing due to trends, new technologies, and new sources of information. Our goal is to deepen the understanding of consumer decisions as well as those of marketing executives, and to use this knowledge to help improve the quality of market decisions.

NIM fosters dialogue and cooperation with experts from science and practice, with innovators and startups who are particularly interested in market decisions and market insights. Research results are shared and discussed by NIM through publications, conferences and lectures with its members, and the professional public.

About the St. Gallen Symposium

The St. Gallen Symposium is one of the world's leading initiatives for cross-generational dialogue on economic, political and social developments. For 50 years, established leaders and visionaries have been brought together with extraordinary young talents in St. Gallen and at global locations, as well as in digital formats. Together, they address the chances and challenges of our time and work on finding solutions. The symposium is a student initiative. Under the strategic guidance of the St. Gallen Foundation for International Studies, the International Students' Committee – a team comprised of about 30 students from the University of St. Gallen (HSG) – drives the dialogue between generations.

The Leaders of Tomorrow are a carefully selected, global community of the most promising young talent. Each year, 200 academics, politicians, entrepreneurs and professionals aged around 30 years or younger represent the voices of the next generation at the St. Gallen Symposium. Leaders of Tomorrow qualify either through our global essay competition aimed at graduate students, or they attend based on their professional or academic merit through a strict hand-selection process. After the symposium, they join our Leaders of Tomorrow Alumni Community, which has over 2,000 members worldwide.

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THE FUNDAMENTAL ROLE OF TRUST IN SOCIETY

Philosopher Annette Baier described the importance of trust for humanity with an impressive metaphor: “Most of us notice a given form of trust most easily after its sudden demise or severe injury. We inhabit a climate of trust as we inhabit an atmosphere and notice it as we notice air, only when it becomes scarce or polluted.” (Baier, 1994). In doing so, she has summed up the importance of trust as well as the fact that it is often only the lack of it that brings this importance to light.

In light of this insight, the choice of the focus topic of this year’s St. Gallen Symposium could not be more spot on: Trust matters – and we are learning this the hard way, as trust in what was commonly acknowledged as fact erodes in societies all over the world, further accelerated by the COVID-19 pandemic and the associated disinformation campaigns. As expressed in the introductory quote, this decay of trust has let us appreciate its fundamental importance.

The present study gives voice to a selected group of top talent: The “Leaders of Tomorrow” from the network of the St. Gallen Symposium. A total of 620 Leaders of Tomorrow from all over the world accepted the invitation to share their views on the topic of this report. As they represent a highly educated cluster of the younger generation, who will certainly shape future economic developments and societies around the globe, the findings of this report will help the economic and political leaders of today to better understand the demands, opportunities and challenges in a rapidly changing world.

Trust has of course many facets and plays an important yet differently nuanced role in all areas of life. Its fundamental importance and multifaceted nature are reflected in the various chapters of this report. The Leaders of Tomorrow shared their views on the role of trust in politics, media, business, and technology. In addition, they assessed how the COVID-19 pandemic affected trust. Finally, this report is also a foray into the particular challenges of building trust in our digitally connected and technology-driven world. Trust is no longer reserved to fellow humans and institutions: In more and more domains, we rely on AI, algorithms and complex technologies, whose inner workings often remain opaque and whose criteria for trust still need to be developed.

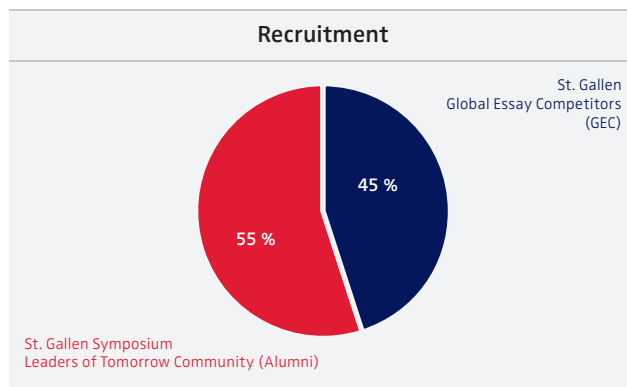
While the Leaders of Tomorrow expressed differentiated opinions in all these domains, which we elaborate on in the following chapters, one concordant message is clear: Trust matters and needs to be safeguarded against a problematic increase of disinformation, as well as in the ongoing process of digitalization.

Claudia Gaspar and Dr. Anja Dieckmann,
Nuremberg Institute for Market Decisions

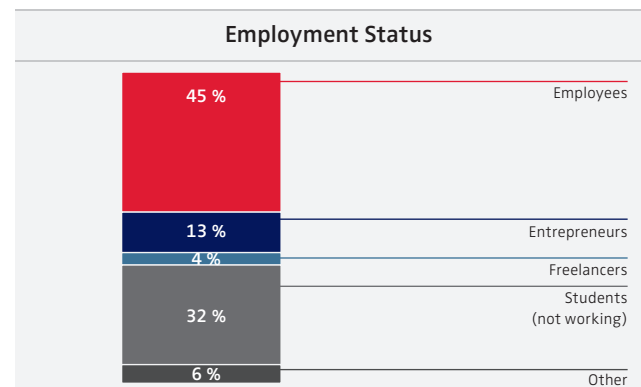
OVERVIEW: SAMPLE AND SURVEY METHODOLOGY

Online survey conducted in February 2021 with 620 Leaders of Tomorrow ...

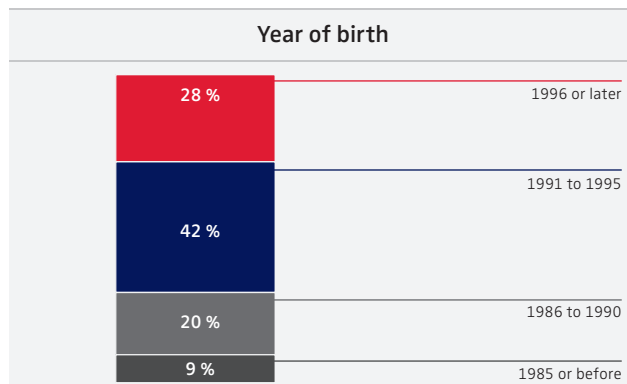
... personally invited through the network of the St. Gallen Symposium



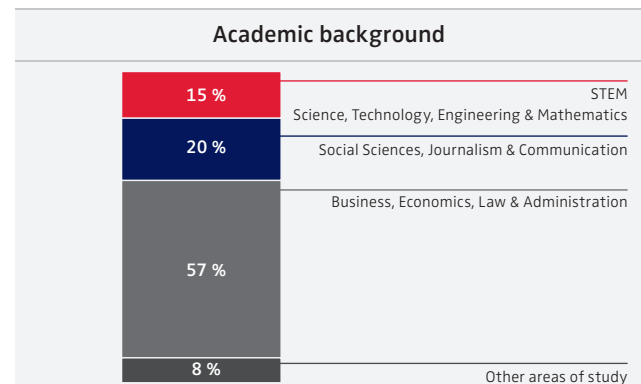
... both students and (young) professionals



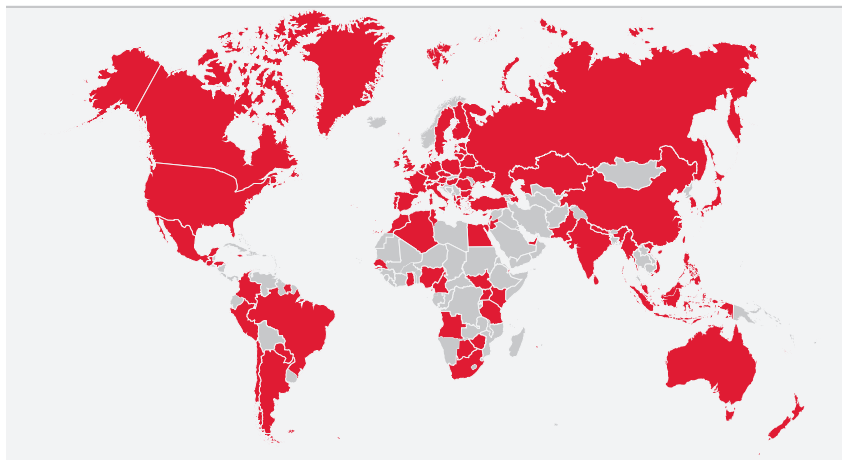
... mainly from Gen Y (Millennials)



... with a great variety of academic backgrounds



... from 84 countries all over the world



KEY INSIGHTS

15%

of the Leaders of Tomorrow think that the political leaders of today are both competent and willing to prioritize and make decisions in the best interests of the younger generations.

Wake-up call: There is a severe lack of trust in the older generation of leaders that should be urgently addressed

Believing in someone's competence and goodwill is indispensable for granting trust. For both dimensions, the majority of the Leaders of Tomorrow see a clear deficit, expressing doubts that the (older) leaders of today are competent and willing to act in the best interests of the younger generations. In general, business leaders are viewed more positively than governments and their representatives, but an urgent need for improvement applies to both.

26%

of the Leaders of Tomorrow think that the business leaders of today are both competent and willing to prioritize and make decisions in their best interest.

From the Leaders of Tomorrow's perspective, the most promising measures to enhance the younger generation's trust in society and institutions focus on strengthening ecologically responsible behavior, transparency and societal openness, as well as ethical values in general.

48%

of the Leaders of Tomorrow report that trust in their fellow citizens decreased during the pandemic.

COVID-19 is a massive trust disruptor; trust in governments, social media, press, and fellow citizens has been lost

The pandemic has undoubtedly shaken trust in people, society and the economy. According to the Leaders of Tomorrow, there are clear winners and losers: Governments, social media, journalists and the press, as well as fellow citizens, lost trust. Scientists and medical professionals – who are not only fighting at the forefront of the pandemic, but in addition battling the disinformation around it – have gained trust.

76%

of the Leaders of Tomorrow consider it a pressing problem that the line between objective facts and subjective opinion is getting more and more blurred in the media.

Corrosion of shared reality: Facts are increasingly drowned by opinions and outright lies, and social media is seen as the main culprit

The majority of the Leaders of Tomorrow see the spread of misinformation as a huge problem, and they consider social media channels as particularly contaminated by fake news. Traditional media, especially newspapers, are considered as much more reputable and trustworthy in this respect.

90%

of the Leaders of Tomorrow report that fake news frequently circulates in social media.

However, the Leaders of Tomorrow blame their own generation for having too much blind faith in news spread by social media, and relying more on information spread by friends and peers than on information reported by the – in their view more reliable – traditional news channels.

Companies should do more to flag and prevent fake reviews and ratings online

Lying is not only a problem of news channels, it also affects the choice of products and services online. Clear and comprehensive reviews and ratings from verified buyers are seen as essential for building trust in online shops. But the majority of the Leaders of Tomorrow admit that it is difficult to discern between genuine and fake ratings or reviews. Even more of them say that companies and platform providers don't do enough to identify fake ratings or prevent them altogether. For online retailers and service providers, this is a call to action to urgently devise control mechanisms for ensuring credibility of one of their main trust-building features.

78%

of the Leaders of Tomorrow agree with the statement "Most online companies and platform providers do not do enough to flag and prevent fake reviews."

To enhance trust in technologies, more transparency on how personal data is used and better education on the benefits and risks of emerging technologies are essential

The potential and actual impact of technologies on society depends not only on its capabilities but also on the level of acceptance. We examined how urgent and effective different initiatives are seen in boosting trust in tech. Transparency is seen as the most important criterion when it comes to trust building. In the context of technology, this means providing easy access to information about how one's data is used. The second pillar, rated almost as highly, is education – in the sense of providing a better understanding of the underlying processes of new technologies. Creating or strengthening independent supervisory authorities to monitor big tech companies is seen as the third most important measure.

82%

of the Leaders of Tomorrow consider easy access to information about how one's data is used as an urgent or at least necessary means to increase trust in tech.

To reduce negative effects of new technologies on society, the Leaders of Tomorrow call on their own generation to do more

As promising as they may appear, new technologies not only bring benefits, but also create new problems. This requires a high level of technological literacy and expertise on the part of both policymakers and users. But while the Leaders of Tomorrow view their own generation as technologically competent, they call for people to become more active in the fight against negative consequences for society arising from, for instance, disinformation, biases inherent to algorithms, and blind techno-optimism: They say that they need to do more to combat fake news, improve ethical standards, and be more critical of new technologies like Artificial Intelligence.

75%

of the Leaders of Tomorrow agree: "My generation does not do enough to combat the effects of fake facts amplified by new technologies."

Trust in AI varies dramatically depending on the task: Confidence is high in automated driving and rule enforcement but low in domains requiring expert intuition or empathy

The Leaders of Tomorrow have a clear idea of the domains in which they trust AI's capabilities, and of the domains in which they want to keep relying on humans. AI enjoys a relatively high level of trust when it comes to automated driving and automated rule enforcement. The lowest level of trust in AI is expressed in the area of psychotherapy, followed by jurisdiction and recruitment. All these domains are traditionally characterized by direct, personal interaction and a high need for empathy, and sometimes (for better or worse) require intuitive expertise that goes beyond the objective data points provided.

61%

of the Leaders of Tomorrow would rather rely on a self-driving car than on a human driver.

7%

of the Leaders of Tomorrow would rather rely on AI than on a human psychotherapist.

TRUST IN TODAY'S LEADERS AND THEIR AGENDA – WITH A FOCUS ON GENERATIONAL ISSUES

Leaders of Tomorrow are critical of the performance of political and business leaders

A certain level of skepticism seems to have always belonged to intergenerational etiquette. In the 1960s, activist Jack Weinberg coined the saying "Don't trust anyone over 30." When following the sometimes intense online battles between members of different generations – in particular between so-called boomers and millennials – two things can be observed: The saying works both ways, and the issue has lost none of its immediacy.

In this study, we examined how much trust the Leaders of Tomorrow place in representatives of today's – relatively speaking – older generation in power. The specific question was to what extent they trust these leaders to act in the best interests of the younger generations. The respondents were asked to evaluate two classic components of trust: Competence and goodwill. These components are considered to be indispensable for trustworthiness, regardless of whether we talk about interpersonal relationships or trust in institutions and organizations. If a person or entity wants to be considered trustworthy, she

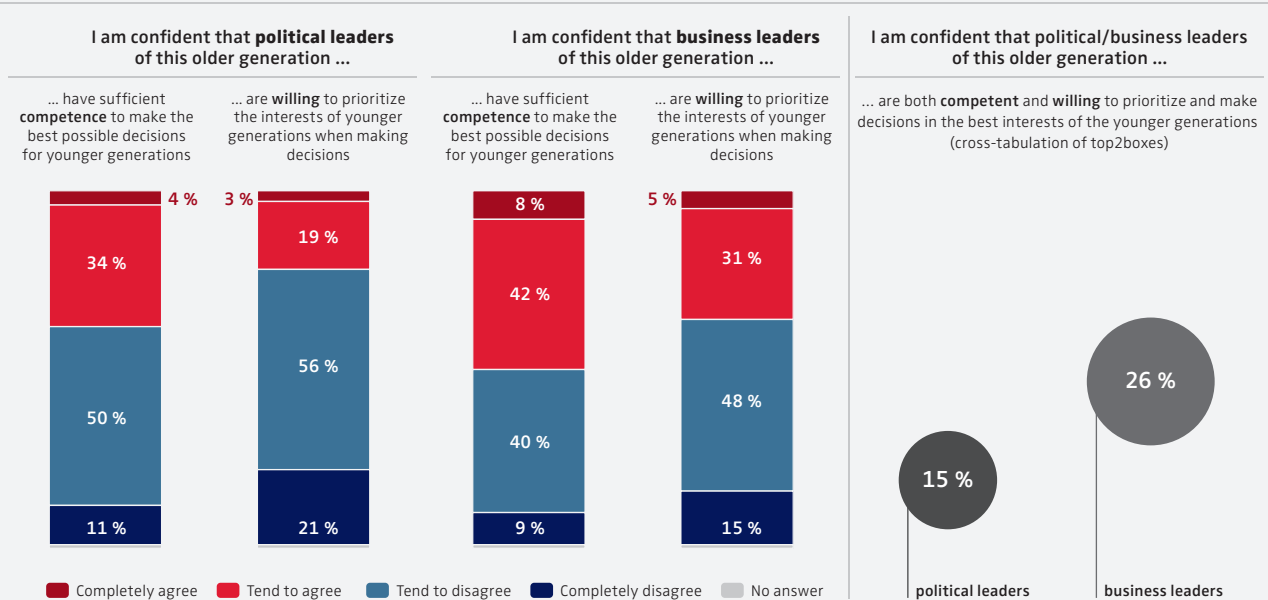
or he must have the skills and the intention to fulfill the expectations of the one who puts trust in her or him.

The Leaders of Tomorrow have differentiated perceptions of political and economic leaders in general and also regarding their competence and goodwill. All in all, business leaders are viewed more positively. However, an urgent need for improvement applies to both, which can be clearly seen in Figure 1.

FIGURE 1

The Leaders of Tomorrow question the current older leaders' competence and willingness to act in the best interests of the next generations

How much confidence do you have in the, relatively speaking, older generation of political and business leaders? | Percentage shares



n = 620; "Leaders of Tomorrow – Wave 2021"

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While political leaders are considered to be competent to make the best possible decisions for the younger generations by just under 40%, business leaders achieve 50%. The assessment of their willingness to prioritize the interests of the younger generations is even lower for both groups. Just 22% believe that politicians are willing to prioritize the interests of the younger generations, while business leaders reach 36%.

When the assessments of competence and goodwill are analyzed in a cross evaluation, it turns out that only 15% of the Leaders of Tomorrow think that the political leaders of today are both competent and willing to prioritize and make decisions in the best interests of the younger generations, and 26% state that the business leaders of today are both competent and willing to do so. Of course, one can question whether politicians or economic leaders should put the interests of the younger generations at the center of their actions. However, obviously many respondents doubt that they have appropriate competence in the first place.

The following quotes from qualitative interviews with representatives of the St. Gallen Knowledge Pool explain the doubts the Leaders of Tomorrow have concerning the older generation of leaders, but they also shed light on their strengths. Many express the wish that generations should work together and think that to master the challenges of the future, the support of the younger generation is needed, who may contribute technology understanding, flat hierarchy-thinking, and general open-mindedness.

How do you assess the different strengths and weaknesses between the older and younger generation of leaders?



"We need leaders from all generations to partner with each other in imagining and advancing solutions that bring benefit to our people and planet. ... Pathfinders such as shadow management committees comprising young leaders can help expand the overall pool of ideas, increasing the likelihood of finding solutions that work."

(Tommy, Singapore, Civil Service)



"Compared to the leaders in older generations apt to rely on top-down and capitalistic structures, leadership in younger generations does not necessarily require such a hierarchy but can come from bottom-up movements of people who share the same vision."

(Kensho, Japan, Designer/Researcher)



"New generations believe more in horizontal work relationships and rewarding creativity rather than the strict, pyramidal structures of the past."

(Alejandro, Mexico, Project Manager/ Multilateral Organization)



"We're entering into an age of unprecedented wealth inequality. The strengths of these older generations are certainly their wealth of experiences in their fields, but are these experiences providing more of a help or a hindrance in the rapidly changing world? New generations of leaders lean more toward equality, in all parts of the spectrum, their inexperience made up for in ingenuity and more open-mindedness."

(Kuome, Japan, Social entrepreneur/Consultant)



"I think the older generation is more self-conscious and more emotionally stable with greater ability to make meaningful personal connections than the current generation, who seem too distracted and in their digital cocoons. On the other hand, the current generation has at its disposal a better comprehension of the digital age and how advances in technology can be used to make society better and more equal."

(Morris Madut, South Sudan, Lecturer/Researcher)

Measures to strengthen the trust of the younger generation

Stabilizing and strengthening trust in society and institutions is an important task for leaders of today, regardless of which generation they belong to. And according to our results, action is necessary. We asked what measures the Leaders of Tomorrow expect from the current leaders to strengthen or regain the trust of the younger generation in institutions and society. We used a list of 10 different options from which respondents could select a maximum of 5. A standout front-runner did not emerge, but two options reached more than 60% consent (see Figure 2).

Environmental issues are enormously important for the younger generation. This was also clearly evident in last year's Voices of the Leaders of Tomorrow report (Gaspar, Dieckmann & Neus, 2020). Obviously, the topic plays a key role in fostering the younger generation's trust

in society and institutions. A total of 64% of respondents ranked greater prioritization of climate and environmental issues as one of the most relevant measures. Increasing transparency in institutional decision-making comes in second with 61% in favor. Another four measures were chosen by around 50% of respondents for strengthening or increasing the trust of the younger generation: Measures against economic inequality (e.g., redistribution of income and wealth), listening more to scientists on issues of great relevance for the future, promoting dialogue between people with different viewpoints or lifestyles, and a greater role of ethical values in leadership. By some margin, each of the following measures was named by about one-third of the survey participants: Greater focus on driving the digital transformation of the economy, regulation of social media platforms to prevent hate speech and fake news, and quotas for young leaders in institutional decision-making. Given the respondents' critical attitude toward social media that

will be discussed later in the report, the percentage of mentions for social media regulation is surprisingly low. At the bottom of the list, selected by only 17%, is the option "Greater investments in public security and law and order." The Leaders of Tomorrow's preferred set of measures therefore appears to focus on ecologically responsible behavior, societal openness, and values rather than regulation or direct empowerment of the younger generation. Thus, the Leaders of Tomorrow are much more in favor of transparency – allowing the current leaders to make choices but providing visibility in the decision-making process – than of introducing quotas of young leaders to force their voice to be heard in the decision-making process.

FIGURE 2

Prioritizing climate and environmental issues and more transparency are seen as the most relevant measures to strengthen the younger generation's trust in institutions and society

Which of the following measures would you want to see current political and business leaders take in order to strengthen the younger generation's trust in institutions and society? | Prespecified statements (selected up to 5 out of 10), number of respondents =100%, multiple responses



THE IMPACT OF THE COVID-19 PANDEMIC ON TRUST

With a bang, the COVID-19 pandemic bluntly revealed the vulnerabilities of our globalized world. Governments and private institutions, organizations and people in all countries had to start an ongoing fight against the virus and its spread across the globe at lightning speed.

Trust plays a crucial role in this fight: Trust in published facts and science as well as trust in the competence and goodwill of lawmakers and those in power. Recent studies have shown that, in general, greater trust in governments and public institutions leads to a higher level of compliance with guidelines to contain the spread of the virus (Bargain & Aminjonov, 2020; Pak, McBryde & Adegboye, 2021).

At the same time, in many countries parts of the population refused to follow the newly imposed rules and loudly expressed their doubts in the goodwill and competence of politicians and scientists. Some groups even questioned the existence of a pandemic. Conspiracy theories spread like wildfire, forcing health officials to not only fight the virus but to additionally contain harm from misinformation, leading the WHO (2020) to declare an “infodemic” alongside the pandemic itself. Both traditional and social media gave megaphones to self-declared “experts” with provocative and polarizing statements, often drowning out more balanced voices.

On the other hand, the pandemic has put scientists and health experts in particular in the spotlight. Often, politicians rely on them in their decision-making regarding preventive measures, so their work suddenly affects the lives of everyone. In response, some people seem

to experience a sort of “shoot the messenger” impulse, and frontline scientists report being exposed to hate speech and even death threats. In the USA, chief medical advisor Dr. Anthony Fauci had to increase security for himself and his family very early in the pandemic (Bennett & Perez, 2020) and still needs protection to this day. Sweden just recently announced greater protections for scientists after one prominent COVID-19 researcher quit over social media attacks (Torjesen, 2021) – just to mention two prominent examples. We investigated how the Leaders of Tomorrow’s level of trust for these and other professions and institutions was affected by the pandemic.

FOOD FOR THOUGHT

Fake facts and wrong assumptions can put us on a collision course with reality

Fake facts can spread easily inside social media and cause people to act on their false model of the world. But they do so at their – and our – peril. A virus does not become less dangerous if you believe it does not exist and gravity does not care if you believe you can levitate. Results of a mistaken understanding of reality have very real consequences.

The Space Shuttle Challenger disaster of 1986 shows that ignoring expert warnings can lead to catastrophe.

Engineers working on NASA’s shuttle program had raised safety concerns regarding the cold temperature before the planned launch but were overruled by management more worried about delays. Richard P. Feynman, Nobel Laureate in Physics and member of the commission that investigated the accident, was clear in his conclusion to the analysis of the Space Shuttle Challenger disaster of 1986: “For a successful technology, reality must take precedence over public relations, for nature cannot be fooled.”

Major changes in trust in various actors

Whether or not to trust the various parties involved has become a question that people discuss and reflect upon every day. The perceptions have changed with the experiences throughout the challenging situation in which we find ourselves. The Leaders of Tomorrow are no exception here. For them, too, the experience of the pandemic has left its mark – in both positive and negative ways.

The pandemic has undoubtedly caused great damage to people, society and the economy. But some actors in society have gained trust. According to the Leaders of Tomorrow survey, there are three explicit winners and four losers: Governments, social media, journalists and the press, as well as fellow citizens, lost trust (see Figure 3). A particular danger here: A lack of trust in the press – and perhaps even in the basic facts of

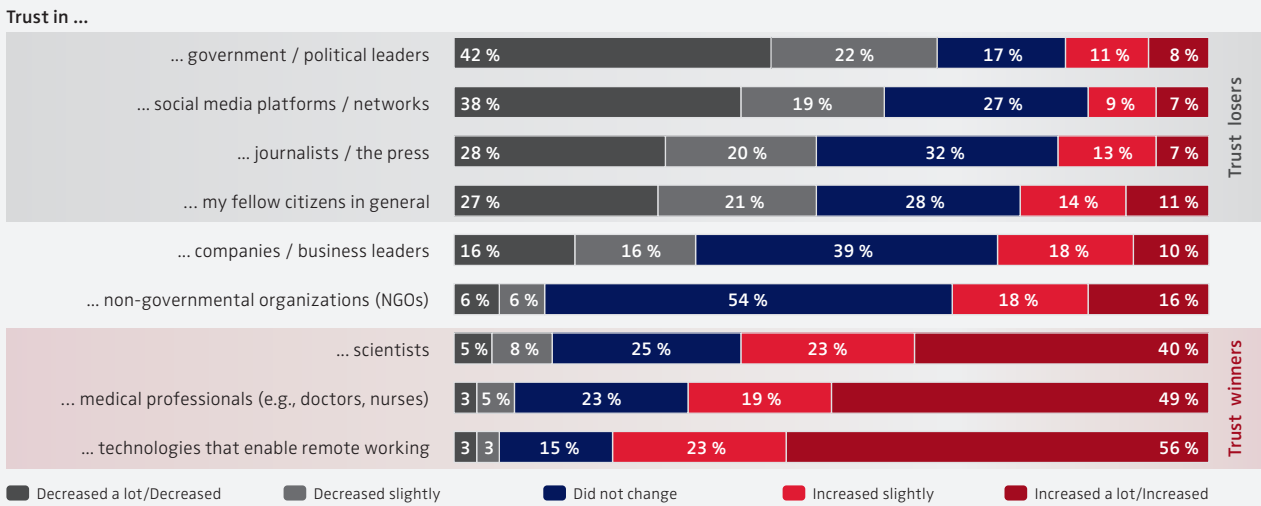
a shared reality – is leading to a fracturing of societies, which can take on characteristics of fanatical, quasi-religious battles, including dogma and claims of heresy or gullibility from opposing sides. On average, the reputation of companies remained the same, while NGOs slightly gained trust. The real trust winners, however, according to the Leaders of Tomorrow (and perhaps not only them), are scientists and medical professionals. Both have had to shoulder great burdens in recent months, and this is apparently seen and acknowledged.

The biggest trustwinners – remote working technologies – are not quite comparable with the other actors, as they are a means rather than an actor in their own right: It is technology that has made working, meeting and learning at a distance possible during these difficult times. COVID-19 has therefore given this technology a “confidence boost,” even if its use may not have been immediately

FIGURE 3

The COVID-19 pandemic has left its mark: The biggest trust losers are governments and social media, while trust in medical professionals and scientists increased

Considering your own experience regarding the way the pandemic was handled in your country: Did your trust in the following entities, groups, or technologies change? If so, in which direction and to what extent did it change? | Prespecified statements



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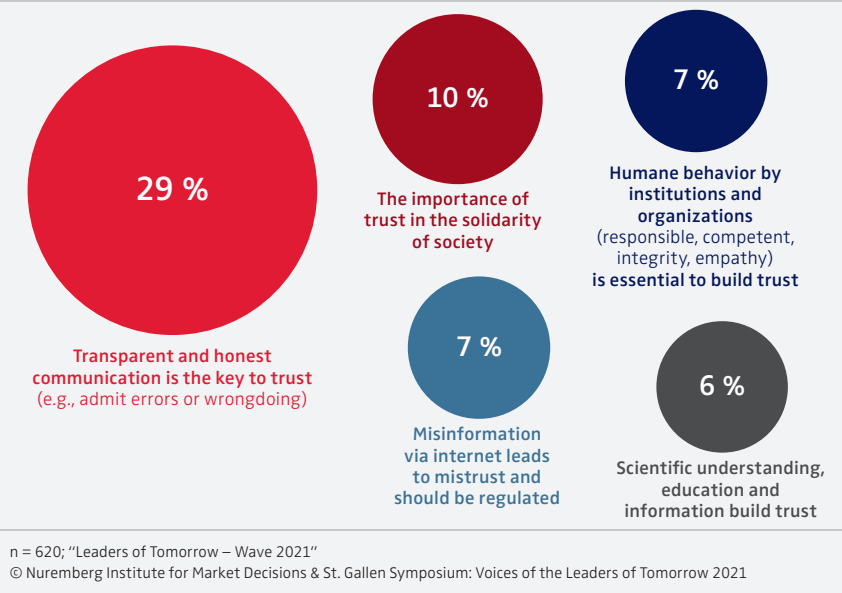
desired and welcomed by everyone. The positive experience will almost certainly have a long-term, practical impact.

What else will remain from the pandemic and affect our trust in various entities in the future? Respondents could share their views on this in an open-ended question (see Figure 4). Many learned that transparent and honest communication including admission of mistakes is vital for trust – a message that is further highlighted by a selection of quotes from their answers in the box below.

FIGURE 4

Key insight for the future derived from the pandemic: Transparent and honest communication is the key to trust

Is there a key lesson you've learned from the COVID-19 pandemic that could be relevant to the issue of trust for the future (even after the pandemic)? | Open answers, basis = respondents, Top 5



QUOTES FROM OPEN ANSWERS

Leaders of Tomorrow's key insights for the future of trust derived from the pandemic

- > "There will be no trust if there is no transparency. I rather trust an organization that accepts its weaknesses more than another one that tries to cover weaknesses for the sake of toxic positivity."
- > "The key learning I have gained from the COVID-19 pandemic is to see the big picture. To build trust in the society, every individual should look at the bigger impact of their actions. We realized how action of an individual can impact the community."
- > "Making mistakes in public decision-making during uncertain times is human, but it will only be accepted by others if you are willing to be transparent about it, take responsibility, and set out an action plan for change. Key learning for trust has been the importance of transparency and clear communication. Institutions that gave out prompt and true information would garner trust and credibility over time."
- > "Social media can help spread lies and misinformation and hinder the trust between citizens and toward governments."
- > "Regulating social media platforms is probably one of the most pressing issues of our time. During the pandemic, we have seen (and still witness) how much harm years of inaction in this realm has caused. People do not trust governments, scientists, and even each other. I am personally really worried about social peace in the future if nothing is done."
- > "It is important to teach scientific methodology to many people in order to facilitate scientific understanding. Only with scientific understanding are we able to ensure trust in science. This is relevant because we need science in order to solve our problems."
- > "Science has the power to rapidly change the lives of all. Trust in science is imperative to foster its ability to bring solutions to the world's biggest problems."

TRUST IN MEDIA AND THEIR REPRESENTATIVES

On January 6, 2021, Trump supporters stormed the Capitol in Washington. They believed Joe Biden “stole” the election and with it the presidency. Trump himself had been stoking anger with this claim for months, but the vast majority of elected officials, judges and election observers disagreed. They found no evidence of irregularities or fraud. The election was recognized as legitimate. But many Trump supporters continued to believe in fraud. The unprecedented plethora of disinformation and lies that marked Trump’s presidency (The Washington Post Fact Checker, 2021) had therefore culminated in the shocking and – fortunately – failed insurrection that many had believed impossible in the USA. While the coup attempt failed,

at least five people died in connection with the storming of the Capitol. It has further divided America, with both sides claiming moral and constitutional superiority.

Increasing acceptance of disinformation and lies

The key issue in this event is that it is not a matter of differing views, but of questioning hard facts that have been backed by various highly regarded sources and institutions beyond suspicion of corruption. Consensus on objective events, on the integrity of formerly esteemed sources, on reality itself, is crumbling. The USA is only one example. This development can be observed – to varying degrees – in many countries around the world. And the problem seems to be growing. False claims have become “alternative facts” and are often trivialized rather than called what they really are: outright lies.

FOOD FOR THOUGHT

Sowing the seed of doubt

The fostering and fueling of doubts is a project long in the making. Starting most prominently with uncovering the tobacco industry’s successful discrediting of scientific evidence of health risks, scientists have gathered many examples of lobbying campaigns designed to confuse the public. In their book “Merchants of Doubt” (2010), science historians Naomi Oreskes and Erik Conway unveil various industry attempts to deny evidence for risks in their products, from food to fuels. There are consultancies specialized in targeted disinformation, reframing widely agreed-upon scientific evidence as merely one of several views, blurring the line between

facts and opinions. These attempts continue to date, as documented recently by epidemiologist David Michaels in “The Triumph of Doubt” (2020). The increased doubt in facts is no longer restricted to science but has spread to the very fundamental of democracies and international political institutions. As philosopher Harry Frankfurt (2005) points out, “Respect for the truth and a concern for the truth are among the foundations for civilization,” so disregard for the truth for the sake of persuasion may well be considered one of the greatest threats to human societies, with no simple solution in sight and long-lasting consequences.

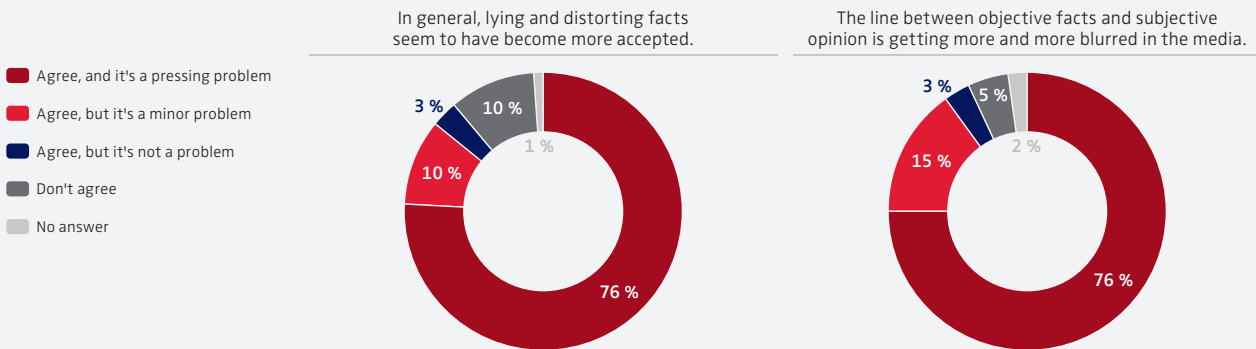
In a digitally connected world, the spread of misinformation has reached an unforeseen dynamic. The internet makes it easy for more and more people to spread their own opinions or content of dubious origin as factual reports. And social media algorithms accelerate the spread of whatever content is liked within certain bubbles, fueling the construction of peculiar explanations and parallel “realities” where any contradicting news is reflexively labeled “fake news.”

In fact, a strange contrast has developed as a result of the global digitalization of communication: While the world’s different cultures are moving closer together through networks, communities

FIGURE 5

The vast majority of Leaders of Tomorrow perceive a pressing problem with lying and distortion of facts as well as with blurring of facts and opinions

What do you think of the following statements? Do you agree with these impressions? And do you assess them as a problem or not?
Prespecified statements



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and collaboration, groups with different perceptions of reality are moving further away from each other, regardless of spatial proximity or distance. Facts are denied and twisted if they don't fit into one's worldview. The majority of the Leaders of Tomorrow also see this development and perceive it as a huge problem (see Figure 5).

A total of 76% agree with the statement "In general, lying and distorting facts seem to have become more accepted" and see it as a pressing problem. Just as many assess the blurring of facts and opinions as a pressing problem of our time.

The results are emphasized by quotes of St. Gallen Knowledge Pool members. Most are deeply worried about the phenomenon, and many fear that it may even increase. Besides regulatory means, their proposed countermeasures focus on education, personal interaction and participation.



"The erosion of commonly held truths is the most existential threat to modern democracy. If there are no common facts, there is no common understanding.... How might we tackle misinformation while being sensitive to race, class, gender, and other forms of discrimination? There are no easy solutions. But hoping for a return to pre-constructivist beliefs where central bodies decide what is factual is neither palatable nor fair. I suspect the way forward requires us to pay attention to social cohesion. Trust and human connection are deeply coupled. If our interactions with others decay, the bubbles we live in will contain us in a subjective reality. This prevents us from understanding and empathising with others, which in turn leads to trust decay. Left unchecked, trust decay will lead to truth decay and a loss of governability." (Tommy, Singapore, Civil Service)



"I worry that this is an issue that will grow with time. My perception is that trust decay has been magnified in the past year, with people shut in their houses and only really interacting online. Realities can diverge online because our online ecosystems are so individualized. My primary suggestion would be (once the pandemic subsides) to dedicate ourselves to getting out from behind the screens to have good-faith dialogue face-to-face." (Kiera, United States, Policy Entrepreneur)

“Trust decay” has been lamented as a threat to societies. How do you assess this phenomenon and its future development?



“One benefit of social media is, e.g., that human rights violations that might go undetected are uncovered and exposed in real time. Nevertheless, over the past two decades the lines between opinion, fact and fiction have become increasingly blurry. I also believe a paradigm shift is necessary among (formerly) respected sources of facts to make sure that not speed but accuracy is the main objective in journalism once more.” (Zarah, Germany, Founder & CEO)



“I think the key to solving it is education. We should rely on the school system to help educate people to identify reliable sources of information and give them enough historical perspectives and understanding of the world and science for them to be able to have their own INFORMED opinion rather than relying on social media.”

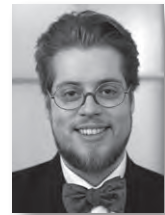
(Jérôme, France, SVP I/Head of Growth & Insurance)



“The craving to be first to share information disincentivizes people from critically verifying sources, preferring instead to put truth on the cross for clicks. Worst of all, even the professional media houses are getting drawn into the game. David Conrad is right when he says ‘in the arms race between those who want to falsify information and those who want to produce accurate information, the former will always have an advantage.’” (Morris Madut, South Sudan, Lecturer/Researcher)



“I also think that you trust what you know, or what you are part of. If people have a way to understand how things work or even symbolically be part of it, or see that they have a clear way to do so, maybe things would be easier.” (Mateo, Colombia, Tech Entrepreneur)



“There is just too much stuff happening that is actually important versus Kardashian-inspired content hogging the same wavelengths that gives us a feeling of equivalence. ... Everything happens in real time, which means that our leaders are inevitably reacting in real time. ..., it will get worse until we eventually add more structure to information flows.”

(Miha, United Kingdom, Entrepreneur)



“ ‘Trust decay’ is definitely proving to be one of the most insidious problems of the modern age. The internet is an incredible and unparalleled tool for equal learning, but the advent of ‘fake news,’ alongside such phenomena as the filter bubble and echo chambers, have shown that not all ‘facts’ on the internet are created equal. ... The only real way to tackle this is through teaching robust internet literacy, much in the way we teach reading as an absolute standard.”

(Kuome, Japan, Social entrepreneur/Consultant)

Reliability of and trust in media

Is the fake news problem limited to the internet? The press and new media are often referred to as the fourth power in democratic societies. While not an official part of the political system, their social influence is strong. For this reason alone, journalists should feel obliged to keep to the truth. Nevertheless, fake news, that is, deceptions and their dissemination – sometimes deliberate, sometimes even in good faith – have obviously become an omnipresent problem for trust. So, which media have the biggest problem in this regard, and which receive comparatively few accusations of fake content? The Leaders of Tomorrow take a clear stand here as well (see Figure 6).

Newspapers are apparently regarded as the most trustworthy media. Nearly 70% agree that they carry fake news only sometimes at most, and only 25% believe that this happens frequently.

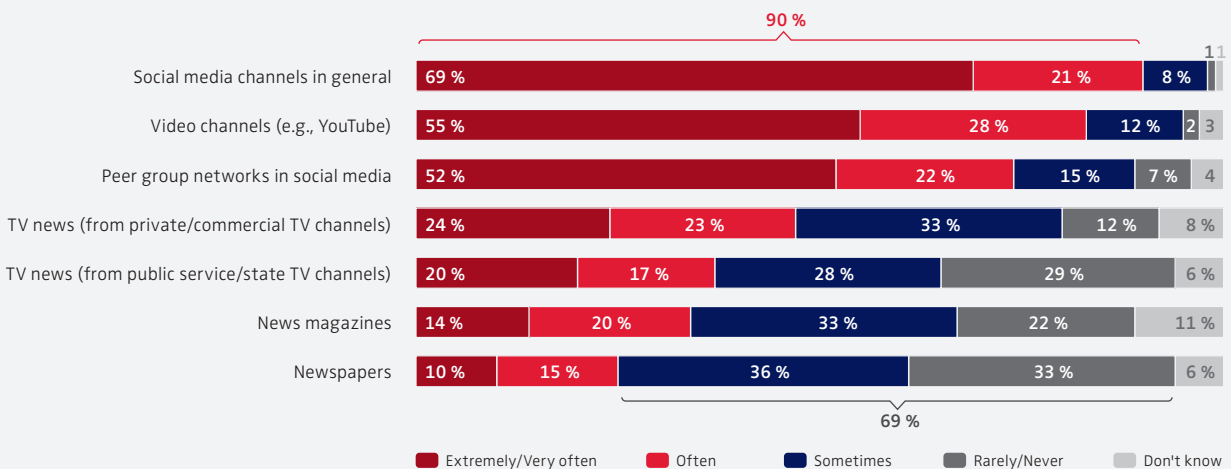
Unfortunately, it is exactly this most trusted news source that has been losing subscribers and revenue to the new, more polarizing social media sources over at least the last two decades.

The exact opposite is the case with social media. In total, 90% of all survey participants report that fake news frequently circulates there. This number is not much lower for video channels and private networks on the internet (83% and 74%). All traditional media – that is, TV and news magazines in addition to the above-mentioned newspapers – perform significantly better than online media. This scathing criticism of social media is remarkable because, after all, Leaders of Tomorrow are digital natives. And apparently, they view their own generation as a whole as too uncritical in this regard, as the following results show.

FIGURE 6

Social media channels are seen as the biggest spreaders of fake news; newspapers are considered most reliable by the Leaders of Tomorrow

In your experience, how often are fake messages shared on the media channels listed below? | Prespecified statements

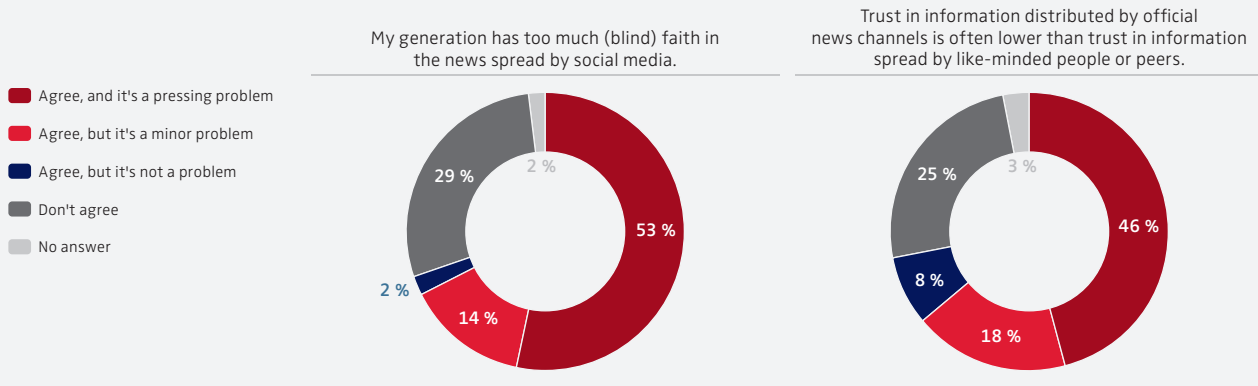


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FIGURE 7

More than half of the Leaders of Tomorrow accuse their own generation of blindly trusting the news spread by social media and trusting their peers more than official sources

What do you think of the following statements? Do you agree with these impressions? And do you assess them as a problem or not?
Prespecified statements



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Criticism of own generation's relationship with social media

The Leaders of Tomorrow consider their own generation to be too gullible when it comes to social media and peer-to-peer networks. They criticize them sharply (see Figure 7). A total of 69% agree with the statement "My generation has too much (blind) faith in the news spread by social media." More than 50% consider this blind trust not only a given, but also an urgent problem.

They also think that their own generation tends to rely a lot on information by friends and peers. More than 70% agree with the statement "Trust in information distributed by official news channels is often lower than trust in information spread by like-minded people or peers," and 46% consider it a pressing problem.

FOOD FOR THOUGHT

Carl Sagan's Baloney Detection Kit for critical thinking and debunking pseudoscience

While fake news and pseudoscience may get more amplified – and thereby do more damage in today's social media – they are not new problems. Humanity has struggled with drawing the line between fact and fiction, science and pseudoscience, and with its own gullibility since at least the dawn of philosophy.

Carl Sagan, an exceptional scientist and communicator, dedicated a whole chapter in his 1996 book "The Demon-Haunted World: Science as a Candle in the Dark" to "The fine art of Baloney Detection" and recommended a toolbox we can use to debunk fake facts and false experts that we present here in shortened form:

1. Strive for independent confirmation of the "facts."
2. Encourage substantive debate on the evidence by expert proponents of all points of view.
3. In science there are no authorities – at most there are experts.
4. Consider multiple working hypotheses to see which survives falsification attempts.
5. Don't get too attached to your hypothesis – it is only a means in the pursuit of knowledge.
6. Quantify whatever you can, to be able to decide between competing hypotheses.
7. In an argument, every link must hold, including the premise.
8. Occam's razor: Choose the simpler of two hypotheses that explain data equally well.
9. Ask whether the hypothesis can, at least in principle, be falsifiable.

Fake information detection

Even highly educated people like the Leaders of Tomorrow need to ask themselves how they can actually distinguish real facts from fake information. An open question gave them an opportunity to share how they personally approach this issue.

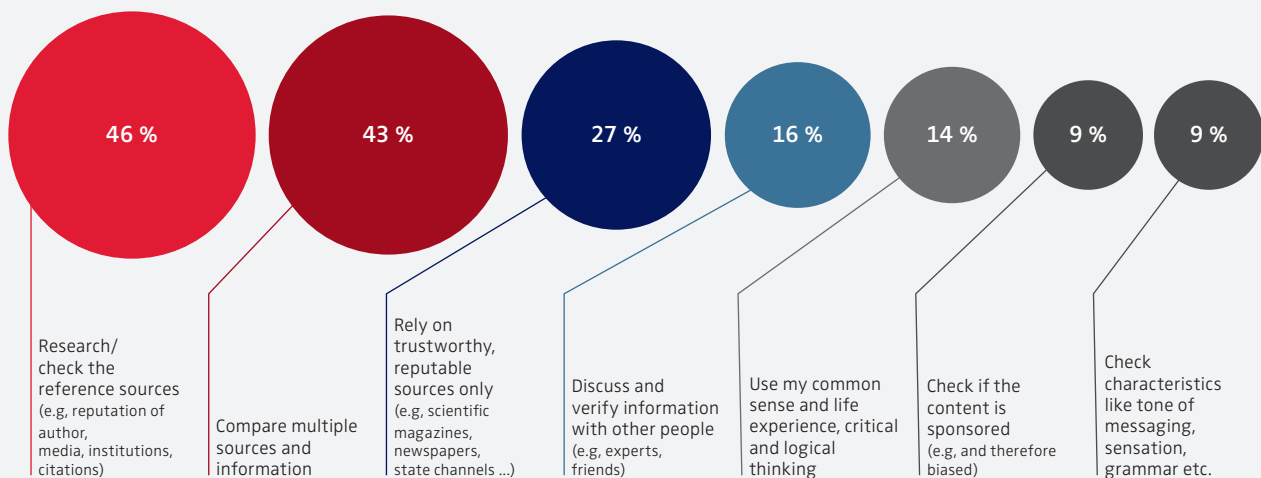
The most frequent methods mentioned by more than 40% of the respondents are checking the reference and/or comparing multiple sources respectively (see Figure 8). The third most popular method, stated by 27% of respondents, is to rely only on trustworthy, official, reputable sources such as scientific magazines, newspapers, state channels, etc. In other words, solely reports from trusted media sources are read or at least taken seriously. This method may seem too simple at first glance. Ultimately, however, the question arises as to whether it is even possible to check the primary data sources in each and every domain.

Discussing and verifying information with other people (e.g., experts, friends) or using their common sense and life experience as well as critical and logical thinking is stated by about 15%. Nearly 10% check whether the content is sponsored (and therefore potentially biased), or look out for characteristics like tone of messaging, sensation, grammar, etc. On average, respondents who answered the question use two different methods to protect themselves against fake news. Whether these measures are sufficient to prevent people from being stuck inside their own filter bubbles, however, is debatable.

FIGURE 8

The Leaders of Tomorrow check trustworthiness of information in the media primarily by checking the reference sources and comparing multiple sources

How do you typically recognize or check whether information in the media is trustworthy or not? Please list the most important criteria
Open answers, basis = respondents



Basis: Respondents with at least one answer: 492; Average number of different checks: 1.9 (incl. other); 1% do not follow specific criteria; 20% no answer

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TRUST AND FAKE REVIEWS IN ONLINE BUSINESS

Trust, besides all other important roles in everyday life, has a very important function in any kind of business relationship. Economists have identified trust as a crucial factor in trade and investment decisions because it enables more efficient transactions (Güth, Ockenfels & Wendel, 1993). Trust lowers the perceived risk and thus the cost and effort of controlling every detail of an exchange. Without customer trust, no business model can be successful in the long run. Online retail is no exception. And as COVID-19 has caused yet another boost in online shopping, the factors contributing to trust in online settings deserve some attention.

Consumers have learned to shop increasingly online, and it is very likely that this experience will have long-term effects. Even after the end of the COVID-19

restrictions, online commerce will probably account for a much higher share than before in most countries.

Drivers of perceived trustworthiness in online business

In an article about the sharing economy, Mareike Möhlmann and Timm Teubner (2020) note that online trust needs to be built between strangers. This is an interesting phenomenon, as it seems to run against our evolutionarily-rooted reservation toward strangers. " ..., physical proximity, personal relations, and repeated interactions have been substituted by technology. Novel ways extend the formation of trust into digital environments, successfully mitigating perceptions of 'stranger danger'."

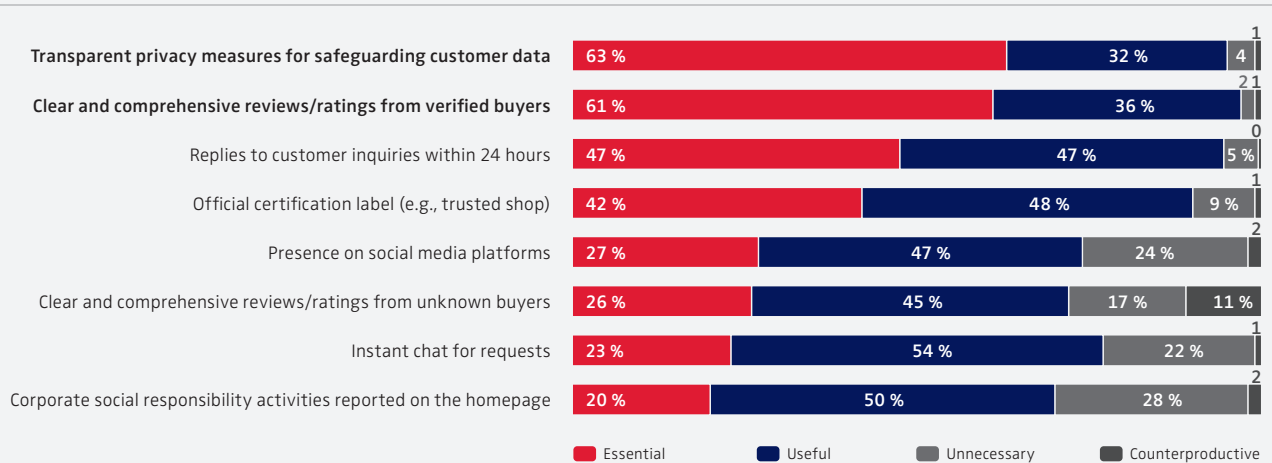
There is plenty of advice on strategy and measures for gaining trust as a prerequisite to success in e-business. Reviews and ratings by other customers play a central role in dispelling concerns and support the choice of products and services online. But it is less clear how essential their contribution to trust-building is compared to other convenience and image aspects such as certification labels or the presence of social media platforms.

While this is clearly not a representative sample of online shoppers, it is interesting to learn what the Leaders of Tomorrow think about this issue, as many of them are or will be running their own online businesses, which may lead them to particular judgemental scrutiny. Our results suggest that reviews and ratings are indeed considered particularly important (see Figure 9). This assess-

FIGURE 9

Indispensable features: Around 60% of the Leaders of Tomorrow consider transparent privacy measures and verified reviews/ratings as essential to gain trust

How relevant and useful are the following features/tools for an e-commerce provider/online-shop to gain the trust of customers? | Prespecified statements



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ment is in line with a statement from Giana M. Eckhardt (2020): "Hunting for 'stars,' the icons of the reputation economy, is a prerequisite for survival in e-commerce [...]."

While none of the features listed in the survey are rated as dispensable or counterproductive for building trust by the majority of respondents, only two of them are rated as "essential" by around 60%. For example, besides "Transparent privacy measures for safeguarding customer data," "Clear and comprehensive reviews/ratings from verified buyers" should not be missing in any online store. Two other factors are rated as essential by between 40% and 50% of the respondents: "Replies to customer inquiries within 24 hours (or even faster)" and "Official certification label (e.g., trusted shop)." All other features are as-

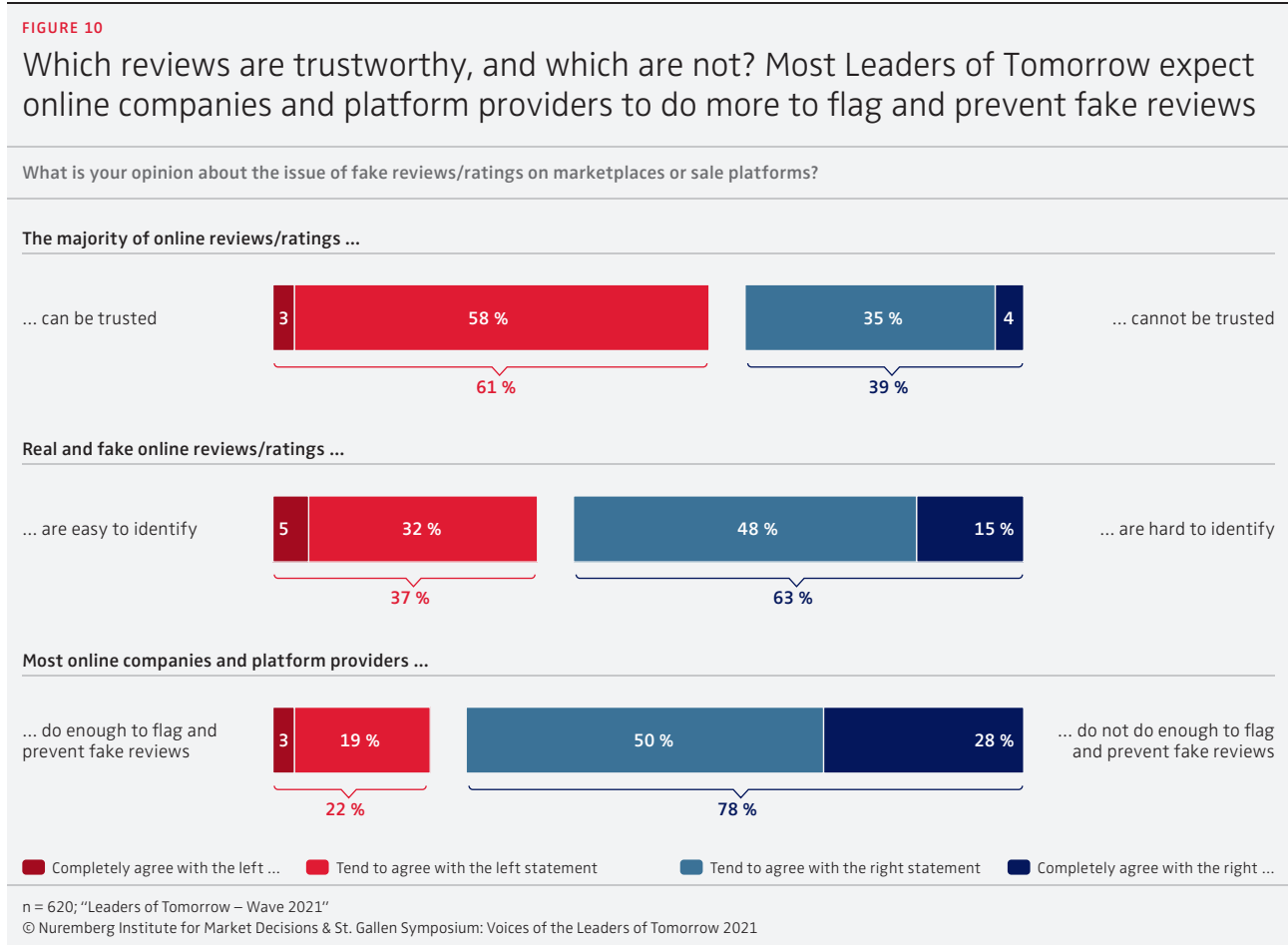
essed as being less essential for building trust (below 30%). This message is important because maintaining any service, of course, means additional effort and costs for the provider, and if resources are tight, focusing on the four main factors may help.

Trust in online reviews

The increase in lying and cheating, as discussed in the previous chapter, is not only a problem of social media and news channels, it also impacts e-commerce and online services. Thus, the question arises as to what extent the reviews and ratings themselves can be trusted. According to monitoring service Fakespot (Lee, 2020), during the first wave of the pandemic, fake reviews on Amazon rose sharply: 42% of 720 million reviews as-

essed from March through September 2020 were judged as unreliable. Amazon has invested heavily in detecting and eliminating bought reviews, but a recent paper (He, Hollenbeck & Proserpio, 2021) shows that – while Amazon indeed deletes a large share of bought reviews – it does not act fast enough: Fake reviews are removed after an average delay of more than 100 days, which is abundant time to deceive many customers.

The majority of the Leaders of Tomorrow (61%) consider the reviews and ratings on online portals to be trustworthy, but the other 39% believe the opposite (see Figure 10). Apparently, the reliability of reviews is a polarizing matter. No wonder, since most also believe that it is difficult to discern between genuine and fake ratings or reviews. The proportion of those who think they can easily identify



fakes is significantly higher among those who say the reviews can be trusted (46%) than among those who say they cannot be trusted (23%). Respondents are relatively unanimous on the question of whether companies and platform providers do enough to identify fake ratings or prevent them altogether: They don't, according to just under 80%. So there is still room for improvement when it comes to living up to expectations.

Relevance of brand reputation for online business

According to a Forbes article, a quarter of a company's market value can be directly related to its reputation, and 87% of executives think that reputational challenges are more important than other strategic risks (Blanchard, 2019). Branding experts Susan Fournier and Shuba Srinivasan wrote: "Of all the assets under marketing control, brands are perhaps the most valued. A strong brand attracts new customers, retains existing customers and offers a platform for the introduction of new products. A strong brand can reduce risk by encouraging broader stock ownership, insulating a company from market downturns, granting protection from product failures and reducing variability and volatility in future cash flows." (Fournier & Srinivasan, 2018).

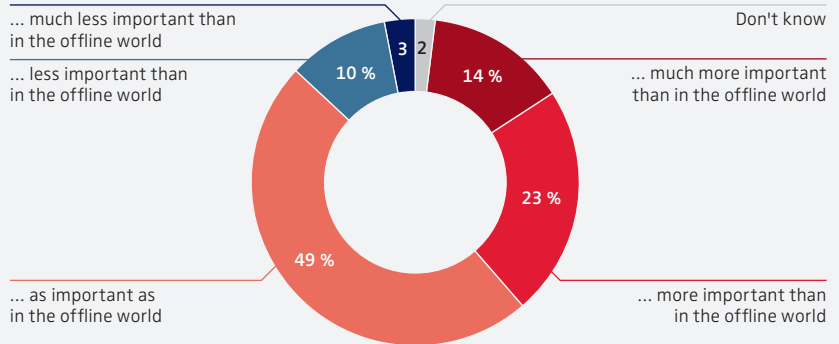
Therefore, a well-known brand with a good reputation seems to be very important for companies and a relevant trust factor for customers' purchase decisions – at least in the offline world. Do the same rules apply in the online world, where many different products are available and easily comparable (in price) at any time? How do the Leaders of Tomorrow rate the importance of positive brand recognition in the online world compared to the offline world?

FIGURE 11

More than one-third of the Leaders of Tomorrow consider brand image more important in the online than in the offline world

Being a well-known brand with a good reputation has been a very important trust factor for many purchase decisions in the offline world. How do you assess its importance in the online world?

Being a well-known brand in the online world is ...



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The largest proportion, almost half of the respondents, see no difference between the relevance of a good brand reputation in the online versus the offline world (see Figure 11). This message alone should put marketing managers in a good mood. After all, in the early days of e-commerce, there were speculations, rumors and discussions on whether brands were doomed in view of the new transparency – especially of prices – on the internet. But the Leaders of Tomorrow's message gets even more positive: While only 13% of the survey participants believe that the importance of a strong brand is less than in the offline world, significantly more see it exactly the opposite way. A total of 37% believe that brand reputation is even more important in the online world than in the offline domain. However, this does not mean that it will become easier to build and maintain a good brand image. The challenges for a successful brand presence on the internet may become even more diverse and greater than they are today.

TRUST IN NEW TECHNOLOGIES AND AI

From gene modification to nanotechnology and geoengineering, increasingly high hopes as well as dangers are associated with new technologies. This ambivalence is exemplified by two recently published books. On the one hand, in "How to Avoid a Climate Disaster" (2021), Bill Gates pragmatically lays out the most promising technological fixes for the climate crisis. Interestingly and maybe unintentionally, the metaphor of "Spaceship Earth," often employed by climate activists to highlight planetary boundaries, may also stimulate the quest for technocentric solutions.

On the other hand, Pulitzer Prize-winning author Elizabeth Kolbert takes a critical stand in "Under a White Sky" (2021), whose title refers to the potential alteration of the spectrum of light by injecting sulphur dioxide into the atmosphere to offset global warming. In her "book about people trying to solve problems created by people trying to solve problems," she provides many examples of how technological interventions to counter human-made damages to nature have caused new problems, necessitating new fixes. Overreliance on technological fixes may only buy us little time and lead to a constant need for new fixes.

That also young, tech-savvy people are skeptical of techno-optimism can be seen in responses to Elon Musk's recent announcement of a \$100 million prize for the best carbon capture technology on Twitter (Clifford, 2021). Many came up with the same simple solution and posted a picture: A tree.

Although this distrust of technology as a problem solver for all human challenges is meaningful and important, the discussion about the use of its capabilities is as well. Solely relying on new technologies to fix things instead of leaving our comfort zone and changing our mindset and behavior may prove an illusion, but ignoring technological potential is not an alternative. How do the Leaders of Tomorrow judge the role of technology?

A majority of 62% of the Leaders of Tomorrow believe that new technologies have the potential to solve at least some of humanity's pressing problems (see Figure 12). However, most are not completely convinced, but only cautiously optimistic. A total of 45% "tend to agree," while only 17% "completely agree,"

agree" with the statement "New technologies will soon be able to solve many of humanity's pressing problems."

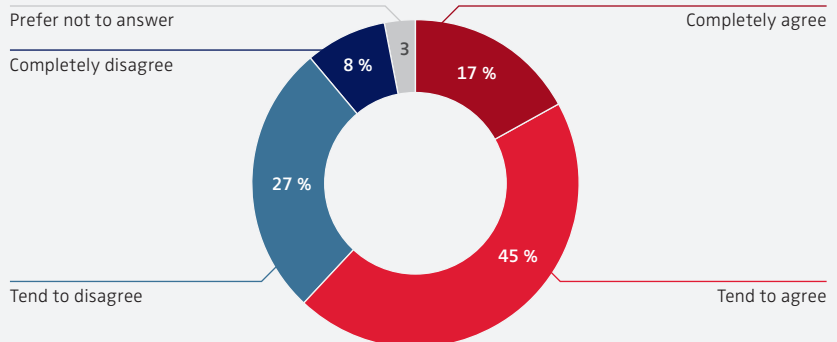
A couple of answers from the qualitative interviews with young talents from the St. Gallen Knowledge Pool describe in more detail which domains are considered promising and where high hopes placed in technology may be exaggerated – or at least where more skepticism may be advised. While for some respondents, hope clearly prevails, others also express serious concerns (See pages 22 and 23).

FIGURE 12

Most Leaders of Tomorrow tend to be confident about the problem-solving potential of new technologies; however, more than a third are skeptical

What is your opinion about the statement below? | Prespecified statements

New technologies will soon be able to solve many of humanity's pressing problems.



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Do you agree with the assessment that technology may solve some of humanity's problems soon? If so, which do you consider the most promising ways and domains?



"It is interesting to see new technologies solve a social issue. However, at the same time, they tend to create new challenges. For example, the internet solved many problems and increased the efficiency of how people communicate, but created new problems like cybersecurity. Then, new technologies come into play and try to solve cybersecurity issues. The consequence would be that there will be always a problem, and this sequence never ends."

(Seiya, Japan, M&A Advisor)



"I do believe that different forms of technology hold the potential to solve some of the most pressing problems facing humanity today. However, one big challenge to realizing this potential is the political disorder in several parts of the world which leads to either a) misuse of technological advancements or b) underutilization of technological resources."

(Maleeha, India, Research Associate)



"It is promising that technology could help us relieve some problems such as those related to food shortage and medicine. But subjective problems such as the quality of life and well-being are not likely to be solved only by the advancement of technology."

(Kensho, Japan, Designer/Researcher)



"As we've seen in the pandemic, the only limit to innovation is dedication. Similar advances in medicine hold a lot of promise, as do clean and green technologies for decarbonizing our economy."

(Kiera, United States, Policy Entrepreneur)



"The most promising way I can think of is to relieve the inequality of conditions. Today, technology is helping to democratize the access to education and well-remunerated jobs, no matter what the background of the person is. ... Today, with access to technology, people can access high-quality educational resources for a low price or even for free, whenever they want to."

(Mateo, Colombia, Tech Entrepreneur)



"Technology holds the potential to solve a great raft of humanity's greatest issues, most of which are inextricably linked to the ever-burgeoning global population. Energy, climate, and resource crises are the major problems that will worsen alongside our population growth. I think the most promising ways in which they're being tackled are regarding renewable energy, cleaner emissions, better energy efficiency, and a reinvigoration of space exploration."

(Kuome, Japan, Social entrepreneur/Consultant)



"I think solutions to some of the most pressing issues of our time such as climate change, diseases like cancer, etc., rely on advancement in technology. We cannot however overlook the possibility of our society's villains taking advantage of these advances in human civilization and using them for destructive purpose or selfish gains."

(Morris Madut, South Sudan, Lecturer/Researcher)



"I believe the biggest problems that will require considerable technology to solve are those relating to the long-term prosperity of our planet, ... The times for simple fixes are sadly over. If we stick to this dogma and do nothing new – or keep on going at this glacial pace – we're likely not gonna have to worry about the risks of an AI Skynet because it will be all Mad Max out there anyway in a few decades." *(Miha, United Kingdom, Entrepreneur)*



"Technology has solved and will solve many of humanity's greatest problems. At the same time, technology has transformed rather than solved some problems. The development and deployment of technological solutions introduce new dimensions to old problems, including barriers to digital tools and intergenerational divides on digital familiarity. Several technological developments have also created negative externalities. I'm particularly concerned about the impact of social media platforms on social cohesion and youth mental health. Perhaps it's time to declare an end to the social media experiment."

(Tommy, Singapore, Civil Service)

Criticism of their own generation

As already discussed, the older generation of political and business leaders will not be able to master the challenges of the future without the support of the younger generation. A main argument was the understanding of new technologies. Therefore, the competence and commitment of the younger generation is seen as crucial for the future of humanity. Unfortunately, things are not quite so simple. The Leaders of Tomorrow are in fact critical of their own generation when it comes to new technologies.

As with social media before, the Leaders of Tomorrow condemn shortcomings in their own generation’s approach toward new technologies (see Figure 13). Once again, their peers reap the most criticism for their handling of fake news. A total of 75% either fully or partially agree with the statement “My generation does not do enough to combat the effects of fake facts amplified by new technologies.” A total of 66% confirm a lack of commitment to ethical standards in new technologies (“My generation does not put enough emphasis on ethical standards

in new technologies”) and 59% criticize a too naive and trusting attitude toward artificial intelligence (“My generation is not critical enough of new technologies such as artificial intelligence”).

Measures to enhance digital trust

The potential and actual impact of technologies on society depends not only on its capabilities but also on the level of acceptance. So how can “digital trust” be built and expanded? It is a matter of two dimensions: On the one hand, trust in the effectiveness and functioning of the technology itself, and on the other hand, trust in the norms and rules under which the technologies are used. To put it more concretely: Even if all machine processes work well, people might suspect that they are subject to the mercy of some uncontrolled power and unpredictable masterminds and will not trust applications. The extent to which trust in the people behind the technology influences trust in the technology itself is also shown, for example, by a few open comments from the respondents (see box, page 25).

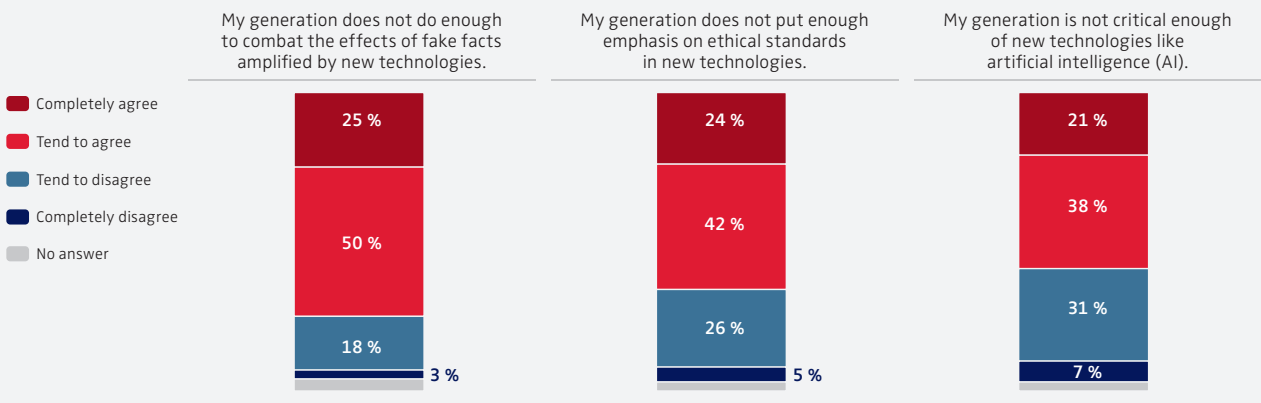
To get the Leaders of Tomorrow’s perspective on how to enhance confidence in technology, we provided them with a list of initiatives and (potential) legislation that might (or might not) encourage trust in new technologies. We wanted to know how urgent and effective each of these would be seen in boosting trust in tech (see Figure 14).

Transparency is once again the most important criterion when it comes to trust building. In the context of technology, this means providing easy access to information about how one’s data is used. A total of 49% of the Leaders of Tomorrow find this to be extremely urgent, and a further 33% see it as necessary. The second pillar, rated almost as highly, is education – in the sense of providing a better understanding of the underlying processes of new technologies. The measure “Enhancing education on emerging technologies to make people aware of their benefits and risks” is considered very urgent by 48% and necessary by 34%. In contrast, least important, both in urgency and necessity, are the dismantling of powerful big tech companies and a mandatory commitment of programmers to act

FIGURE 13

Many Leaders of Tomorrow take a critical stance toward their own generation’s attitude and behavior regarding new technologies

What is your opinion about each of the statements below? | Prespecified statements



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QUOTES FROM OPEN ANSWERS

Trust in people behind technology from the Leaders of Tomorrow's point of view

- > "No matter how perfect technology development is, the fact that human brains worked to develop them should not be taken lightly. It's not that we have trust in the machines and technologies that we have, we have trust in the companies and people who work in the companies that developed these technologies."
- > "It would be naive to completely believe that technology will be solely used for the common good of all. I think technology can and will continue to be used for any and all possible application, good or bad as the app is only as good as the best intentions of the developer or ignorance of the regulators. Trust in technology will prevail as long as developers and regulators try their best to make clear some aspects of moral obligations and societal mindfulness behind the development of an app. That being said, we should not fear the pace of technological advancement, but accept that the future still holds enormous digital possibilities and humans have greater affinity for best intentions than bad."

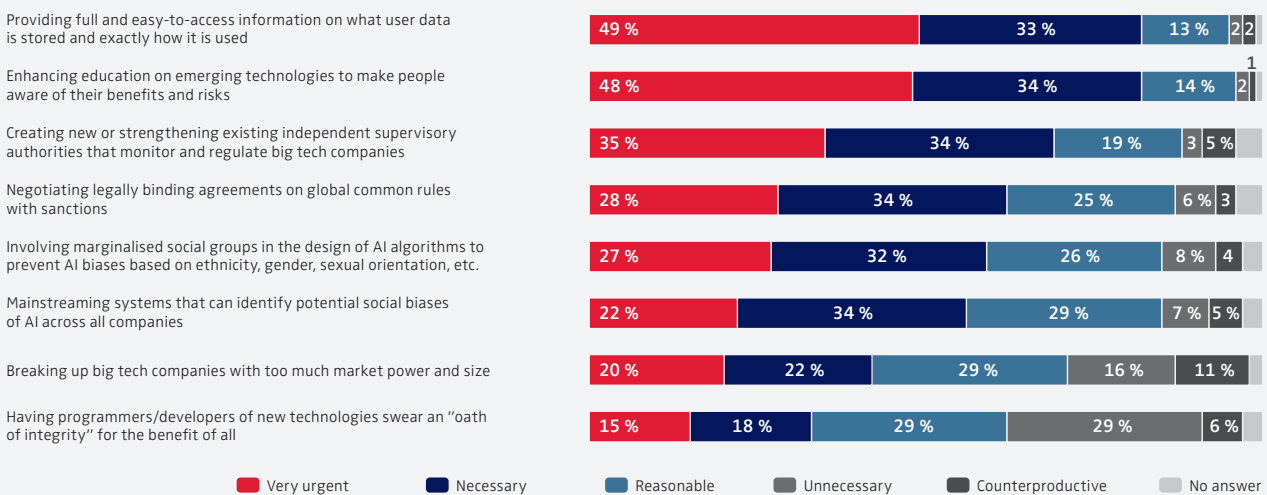
only for the common good. The other four proposed measures were ranked somewhere in between. These measures involve, in descending order of their rated urgency, independent supervisory authorities for regulating Big Tech (rated urgent by 35% and necessary by 34%), global agreements on rules (28% and 34%), involving marginalized groups in AI design to prevent biases (27% and 32%), and the extension of systems to identify potential social biases of AI (22% and 34%). To put it in a nutshell: To strengthen trust in technology, the Leaders of Tomorrow put most emphasis on empowering individual responsibility, transparency and supervision.

Some quotes from the St. Gallen Knowledge Pool further illustrate the Leaders of Tomorrow's position. Common themes among the trust-building measures raised by the respondents include legal accountability, education and participation (see page 26).

FIGURE 14

Empowering self-responsibility through transparency on data usage and more education on emerging technologies are considered the most urgent measures to increase trust in technologies

How urgent and effective do you think the following measures would be to strengthen trust in tech? | Prespecified statements



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Do you see a need and also an opportunity to increase people's trust in new technologies?



"New technologies must take into account different points of view of people from all – or at least most – races, ethnicities, backgrounds, genders, sexual orientations, social classes, economic levels. This way, new technologies can guarantee that all points of view are considered equal and nobody is discriminated against because of biases or privileges that developers may be overlooking because they don't know – or they don't live – those realities."

(Alejandro, Mexico, Project Manager/ Multilateral Organization)



"Getting lawmakers up to speed with innovators and new technologies is one method that can be used to increase trust. When the public can be confident that lawmakers understand the promises and pitfalls of technologies, the public can be secure in trusting them."

(Kiera, United States, Policy Entrepreneur)



"To restore people's trust, society must have clear and unambiguous assurances from the government and Big Tech on what and how personal information is used, with clear executable consequences for non-compliance."

(Morris Madut, South Sudan, Lecturer/Researcher)



"It's probably helpful to not be too trusting of things we do not understand. New technologies are no different. Their novelty has resulted in regulators and regulations often being one step behind. Moving quickly compromises trust when accountability for the impact of new technologies is unclear. ... While regulatory sandboxes attempt to limit risk, governments must also ensure regulations can catch up with new technologies that become dominant."

(Tommy, Singapore, Civil Service)



"Fundamentally this is a question of education. Let's face it, the way we educate kids and young people these days is antiquated – we ask them to memorise minutiae while the whole knowledge of the world sits seconds away in their pocket. We teach them how to manually calculate things no one ever needs to, instead of teaching them how to stay safe and 'street-smart' on the internet."

(Miha, United Kingdom, Entrepreneur)

Perceived trustworthiness of AI

We already talked about two basic components of trust: competence and goodwill. Both components are relevant in private relationships as well as for trust in institutions and organizations – in other words, in all relationships in which people are involved on both sides. But trust in technology is different from trust in people. Technology has no consciousness and no emotions – neither good nor bad. Ideally, it is just reliable and objective. Theoretically, this lack of feelings could be trust-promoting, as machines do not possess an inherent inclination for moral evaluation, rivalry, vanity, or revenge.

In practice, however, matters are more complicated. Examples abound of discriminating algorithms – against minorities, against ethnic groups, against women. For example, Apple’s algorithms

associated with their newly launched credit cards in 2019 sparked an inquiry (Vigdor, 2019). The system had offered men much higher credit limits than women, even if they were married, sharing all their bank accounts. And in 2020, Twitter had to apologize for racial bias in its image-cropping algorithm that is supposed to select the most interesting part of an image. Users had found out that the algorithm systematically preferred white over black faces (Hern, 2020). Obviously, algorithms can learn prejudices from humans.

With all these arguments and examples in mind, it is clear that dealing with AI is a very complex and emotionally charged issue. However, AI has already replaced some of the work and tasks of human beings, including decision-making in many economic sectors, and could replace human beings in many more. Artificial Intelligence (AI) is developing rapidly and is capable of more and more

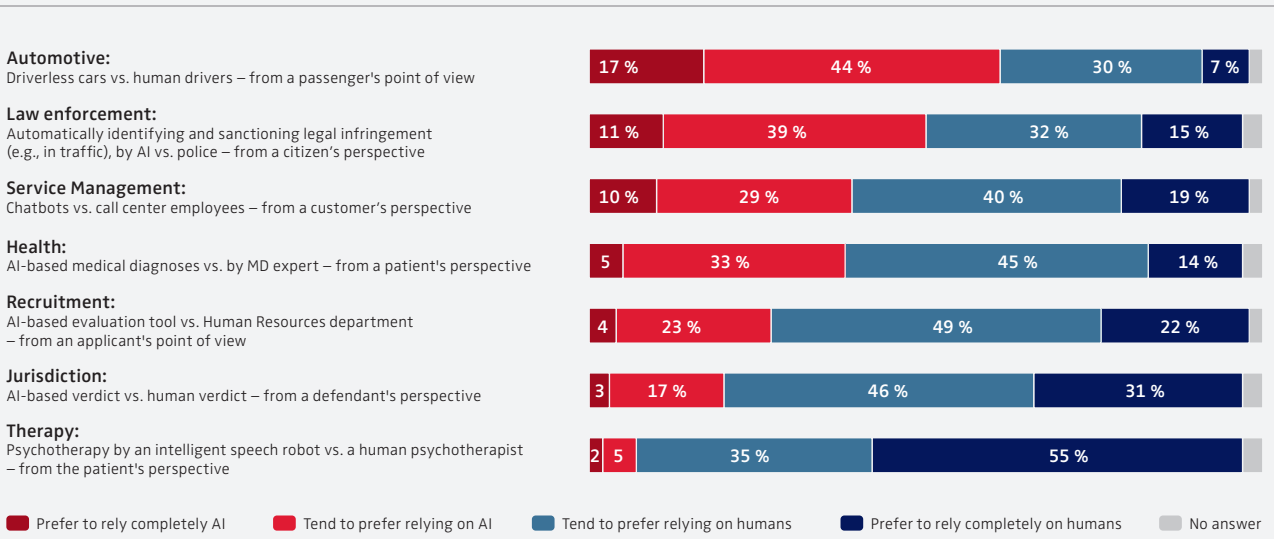
tasks. In which domains do the Leaders of Tomorrow trust AI’s capabilities, and in which do they want to keep relying on humans?

61% – thus the majority of Leaders of Tomorrow – would, as passengers, rather rely on AI than on a human driver (see Figure 15). However, this is the only majority in favor of AI in the competition “human versus machine” in this survey. Parity exists, at least, on the topic of law enforcement. Automatic monitoring and punishment of violations (e.g., in traffic) would be handed over to AI by at least half of the Leaders of Tomorrow. For all other listed tasks and responsibilities, humans are preferred, albeit with varying degrees of preference.

FIGURE 15

Artificial Intelligence (AI) is most trusted by the Leaders of Tomorrow when it comes to driverless cars and automated law enforcement

To what extent do you trust AI's capabilities? Where would you prefer to rely on AI and where would you prefer to continue relying on human beings/human experts? | Prespecified statements



n = 620; “Leaders of Tomorrow – Wave 2021”
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These results are also supported by recent experimental evidence. In a series of experiments, Berkeley Dietvorst and his colleagues (Dietvorst, Simmons & Massey, 2015) observed that people tend to trust human judgment over algorithms, leading them to coin the term algorithm aversion. In particular, people lose confidence in algorithms when they observe them making a mistake. Even when an algorithm still consistently beats human judgment, people then tend to prefer to go with their gut. It seems that when it comes to AI, perfection is expected, and errors are not forgiven.

The Leaders of Tomorrow express the lowest level of trust in AI in the area of psychotherapy. Humans are also trusted much more when it comes to jurisdiction. Recruitment is the third topic with little approval and should preferably not be handed over to AI according to the Leaders of Tomorrow. What do the domains for which AI skepticism is largest have in common? All are traditionally character-

ized by direct, personal interaction and a high need for empathy, which sometimes (for better or worse) requires an intuitive expertise that goes beyond the objective data points provided. Obviously, many doubt that AI has the capabilities required for these tasks.

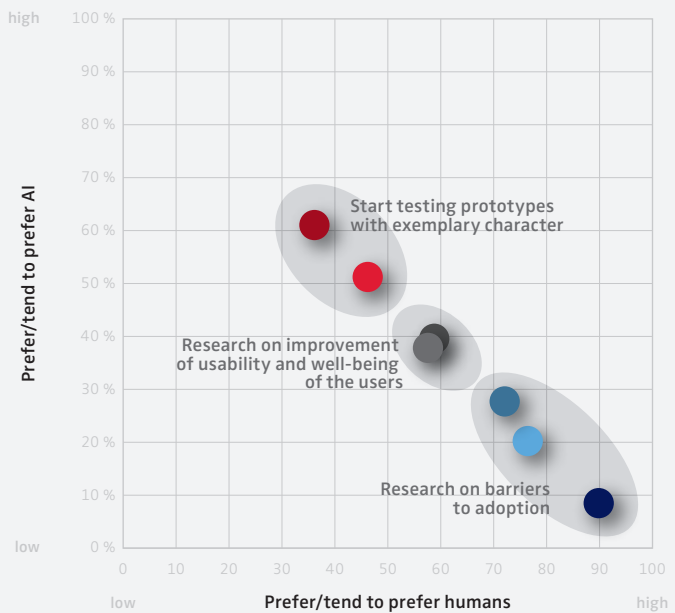
And indeed, the so-called algorithm aversion seems to be task-dependent (Castelo, Bos & Lehmann, 2019). People seem especially reluctant to trust algorithms for tasks that require intuition and empathy (e.g., in one experiment people trusted algorithms more for financial guidance than for dating advice). This finding suggests that in people's perception, AI may still lack the social and emotional intelligence relevant in domains where the need for such qualities is high and where there are therefore no straightforward criteria for evaluation. The Leaders of Tomorrow seem to share this view, as some comments show (see box on page 29).

FIGURE 16

Different levels of AI acceptance require different measures

Where would you prefer to rely on AI and where would you prefer to continue relying on human beings/human experts? | Percentage shares

- **Automotive:**
Driverless cars vs. human drivers – from a passenger's point of view
- **Law enforcement:**
Automatically identifying and sanctioning legal infringement (e.g., in traffic), by AI vs. police – from a citizen's perspective
- **Health:**
AI-based medical diagnoses vs. by MD expert – from a patient's perspective
- **Service Management:**
Chatbots vs. call center employees – from a customer's perspective
- **Recruitment:**
AI-based evaluation tool vs. Human Resources department – from an applicant's point of view
- **Jurisdiction:**
AI-based verdict vs. human verdict – from a defendant's perspective
- **Therapy:**
Psychotherapy by an intelligent speech robot vs. a human psychotherapist – from the patient's perspective



QUOTES FROM OPEN ANSWERS

Leaders of Tomorrow's thoughts on the limits of AI

- > "Technology is the fuel of the synergy between growth and development. AI and other technological advances act as catalysts to make stronger and reliable decisions. In critical areas like jurisdiction and law enforcement, AI-based solutions cannot be automated; however, they can surely be utilized for empowering humans toward stronger decision-making."

> "The idea of replacing therapy with an AI chatbot sounds not only unengaging but dangerous. The human mind is far more nuanced than
- whatever glorified Excel spreadsheet an AI bot would be running off."

> "Technology lacks one very crucial trust factor, which is empathy. In fields like psychotherapy and recruitment where human touch is a must, we must not completely trust technology to do the jobs. While it's a step toward advancement, we must not trust technology to take over emotions or fields that require human empathy for the formation and maintenance of trust."

However, confidence in AI may well increase in the near future. Once AI manages to bridge the uncanny valley – imperfect resemblance to humans leading to eerie feelings and rejection – our relationship with this technology may change. Research has shown that anthropomorphism, the attribution of human characteristics to a non-human agent, can predict responsibility and trust placed on the agent as well as increase social influence by the agent (Waytz, Cacioppo & Epley, 2010). Thus, human appearance and behavior, such as responsive movements and natural voice, of AI interfaces may increase our trust and help overcome barriers to adoption, broadening the domains for which applications are embraced.

From a practical point of view, different levels of acceptance of AI will require different measures to increase trust (see Figure 16). While driverless cars

and automated law enforcement appear to be ready for testing prototypes with exemplary character, AI-based medical diagnoses and chatbots in service management may need more research to improve user experience. For AI-based recruitment, jurisdiction, and psychotherapy, on the other hand, much deeper research will certainly be needed to understand the reasons for barriers and ways to overcome them.

But whatever is possible in the future, AI will not be able to fully replace face-to-face personal interaction for psychological well-being, social calibration and human trust – and it is questionable whether this is something to strive for in the first place. So instead of just optimizing the human-likeness of machines for interaction, we must not neglect fostering humanity and community between people.

CONCLUDING REMARKS AND OUTLOOK

In addition to all the suffering caused by the COVID-19 pandemic, it has also proven to be a stress test for our trust in basic assumptions underpinning media, democracy, government, markets, and the decisions we take in them. Since the beginning of the pandemic, a bifurcation could be observed between those who claimed the measures were overblown (“it’s just a flu!”) and those who saw a serious threat to health and life. As if we are living in Schrödinger’s box: With fiercely competing and mutually exclusive interpretations of what reality we are really living in, we have to wait for the wave function to collapse by irrefutable proof of which version was “real.”

Trust in markets and market actors

Trust is at the core of any human decision, cooperation, or transaction. If you break or take away trust, individuals have to spend more time and effort. Without trust – for example, due to lack of a working legal system that enforces contracts and punishes bad-faith actors – transaction costs rise: Resources and human time and attention have to be dedicated to check, verify, and potentially try to enforce compliance from another actor. For online transactions without personal interaction, customer ratings and reviews were intended as a means to bolster trust in market actors and their products. In retrospect, they have become another battlefield for lies and misleading comments often funded by those with vested commercial interests.

Trust in AI

In the past, we have been asked to trust people, companies and institutions, and the rule of law. Additionally, we now have to decide whether – and how – to trust algorithms, AI and increasingly complex

technology that shapes the information we see, guides our awareness, and influences our decisions. We know that AI is prone to biases inherent in its training data and, depending on those, we must decide to what end the AI should be optimized. As a new technology that is neither an actor with real agency, nor a simple-to-understand mechanism, we still have to learn how much we should trust AI to make or suggest decisions on our behalf, while it is perhaps optimized toward the profit of a provider and not our own benefit.

Trust in media and the crisis of objective reality

Disinformation campaigns and the spread of lies are a massive problem in our modern societies. A lack of trust extending even to basic facts of a shared reality is leading to a fracturing of societies, which can take on characteristics of fanatical, quasi-religious wars, including dogmas and claims of heresy or gullibility from opposing sides.

How can one recognize a real expert from a fake one? In democratic societies, we got used to having journalists sanity-check and filter out the most outrageous or crazy cases – that mechanism no longer seems to be effective given the overflow of information. The media business model – both for social and traditional media – is supporting conflict and polarization. Whatever gets consumers to click on and interact with content will get reinforced. Unfortunately, this is typically provocative, aggressive content of dubious factual truth. We have allowed the creation of a profit-driven feedback-mechanism that amplifies the most divisive voices and statements to the detriment of more balanced and

thoughtful discourse. Much like the famous rat “stimulating” itself by triggering its dopamine emitters while dying a slow death of starvation, it can be argued that we, as humans, have created an attention trap for ourselves that we now find hard to escape, even though the unhealthy effects can clearly be seen.

Unfortunately, lying is cheap and debunking lies is time-consuming and expensive. And with the media business increasingly squeezed for profit and focused on engagement rather than facts, journalism – which takes time and is costly – is increasingly falling by the wayside. With a lack of journalism and balanced reporting, 1% fringe ideas get amplified to appear like all contested issues are really “50%/50%,” undecided, or just a matter of personal opinion. However, serious journalism is a prerequisite of an informed public, and a prerequisite of a working democracy.

Trust in our own decisions

Our decisions are at an increasing risk of being taken on an unreliable and constantly shifting foundation of polarizing and competing “alternative facts,” unchecked assumptions and clashing mental models of how the world works and what “The Truth” is.

It is time to reflect, as individuals and societies, on how much we can – and indeed should – trust information, our own evolving world view, and the resulting decisions we take, believing them to be in our best interest and in line with our values.

How much we can and should trust media, AI and our own exploitable and bias-prone decision process is a discussion worth having – and it’s worth having now.

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SAMPLE AND SURVEY METHODOLOGY: RECRUITMENT OF THE LEADERS OF TOMORROW

620 Leaders of Tomorrow from around the globe

The study was targeted at the “Leaders of Tomorrow”: A carefully selected, global community of very promising young talent.

Each year, 200 academics, politicians, entrepreneurs and professionals around 30 years or younger are invited to challenge, debate and inspire at the St. Gallen Symposium.

A total of 100 Leaders of Tomorrow qualify to participate in the St. Gallen Symposium through the St. Gallen Global Essay Competition on an annual basis. The St. Gallen Symposium has invited students from all fields of studies and corners of the world to share their views on pressing global challenges each year since 1989. During the last 30 years almost 30,000 thought-provoking essays from more than 1,000 universities in over 120 countries have been submitted.

The other portion of the Leaders of Tomorrow are hand-selected exceptional young entrepreneurs, politicians and professionals (the so-called “Knowledge Pool”) who, together with the students qualifying through the essay competition as well as former attendees, form the Leaders of Tomorrow community of the St. Gallen Symposium.

St. Gallen Global Essay Competition participants

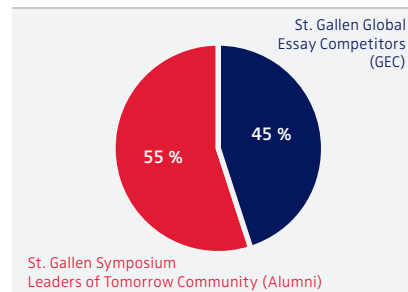
For the Voices of the Leaders of Tomorrow report, students from over 200 universi-

ties who have competed in the St. Gallen Global Essay Competition were personally invited to take part in the study by the St. Gallen Symposium. While COVID-19 prevented the symposium last year and led to a global and hybrid conference format this year, this did not interfere with the survey for this report.

St. Gallen Symposium Leaders of Tomorrow Community

The St. Gallen Symposium team selected participants through their worldwide community of young talent who attended past symposia as Leaders of Tomorrow.

Conducting the survey



The online survey was conducted in English in February 2021. A total of 620 Leaders of Tomorrow participated in the survey with an interview time of about 30 minutes. The survey demanded an intensive reflection on the role of trust in politics, media, business, and into the particular challenges of building trust in our digitally connected and technology-driven world from the respondents. In addition, they assessed how the COVID-19 pandemic affected trust.

Giving voice to a unique group of global talent

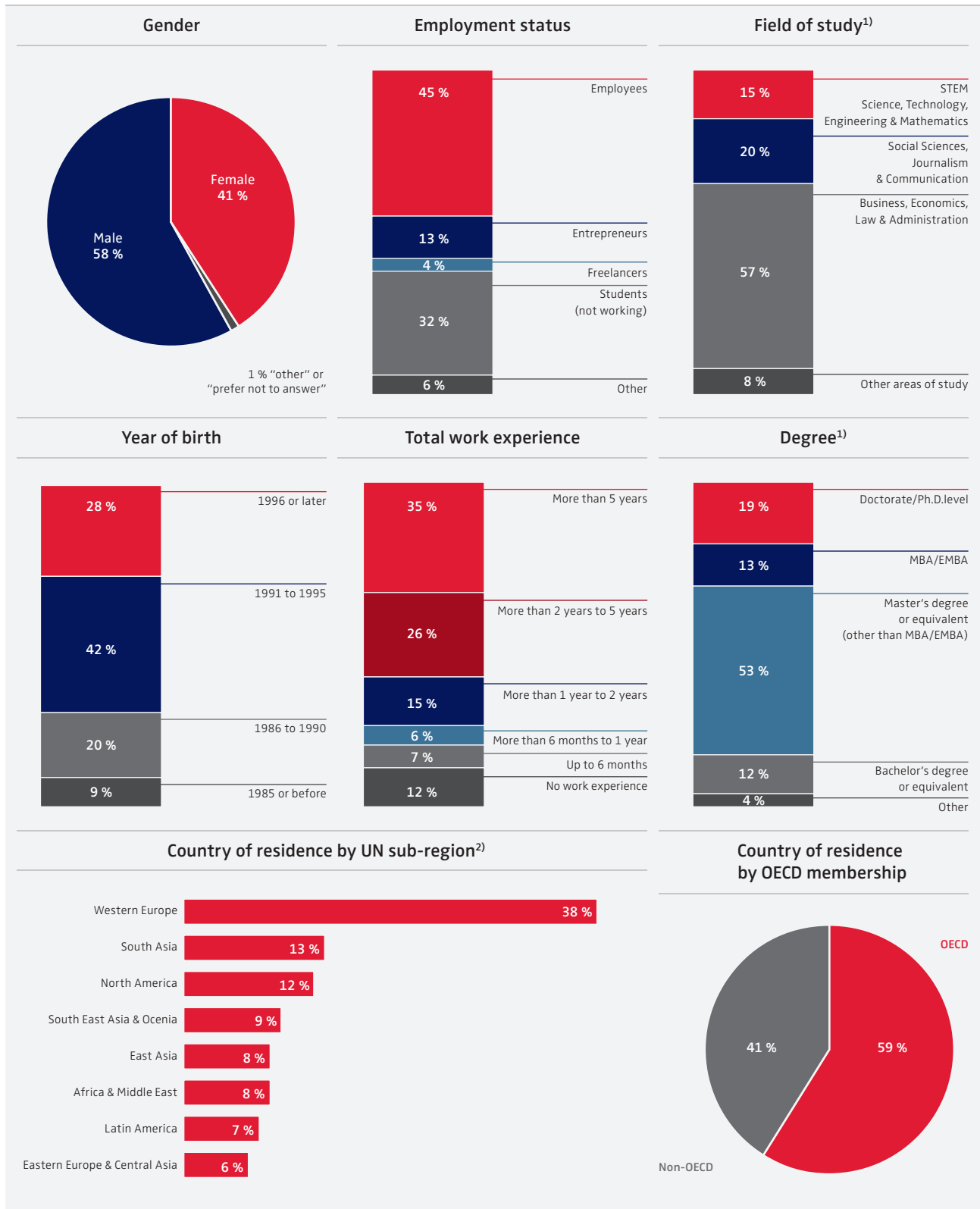
Since we cannot know for certain today who will take on relevant positions of leadership and responsibility in the future, this survey cannot claim to be “representative” in the traditional sense of population sampling – neither of all future leaders in general, nor of the regions in which the participants live.

However, we captured a broad and international group of participants from the Leaders of Tomorrow community that allows a very interesting and unique snapshot of a carefully selected group of young and qualified individuals from 84 countries around the world.

To understand how an increasingly globalized world is developing, it is important to have this broad participation from across regions and countries and from both developed and emerging or developing economies.

With active and very vocal participants coming from all around the world, this study can certainly give a voice to a culturally and economically diverse set of contexts, values, desires and mental models, something that is necessary to reflect the truly global and increasingly multi-polar world we live in.

Leaders of Tomorrow – Wave 2021



1) Current field of study/degree for students or field of study of highest degree/highest degree held for non-students
 2) Regions follow United Nations sub-region scheme; the more common term "Middle East" was used for what is formally called "Western Asia"
 n = 620; "Leaders of Tomorrow – Wave 2021"
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