47

The dilemma of disruption / 47th St. Gallen Symposium
3–5 May 2017/ Essay Review

BREAKING THE STATUS QUO – WHAT'S YOUR DISRUPTIVE IDEA?
THE LEADERS OF TOMORROW'S PERSPECTIVE

Prof. Dr Markus Menz & Aïda Darouichi, University of Geneva

I. INTRODUCTION

This article summarises the perspectives of a select group of promising young people from all over the world, so called Leaders of Tomorrow, on the topic of the 47th St. Gallen Symposium: "Breaking the status quo – What's YOUR disruptive idea?". The participants in this year's St. Gallen Wings of Excellence Award were asked to focus on the fields of business, politics, science, or society, identify a problem of great magnitude, and come up with a disruptive idea to solve it.

Based on an analysis of the top contributions to the 2017 St. Gallen Wings of Excellence Award of this year's St. Gallen Symposium, the article organises the focal topics of the essays around each of the four fields and identifies interesting ideas and thoughts of the Leaders of Tomorrow. The objective is twofold. First, to report those ideas that the Leaders of Tomorrow most frequently address in their essays, and second, to highlight the most promising ideas of this cohort. This summary considers the top 63 contributions to this year's St. Gallen Wings of Excellence Award. This choice was made in order to focus on the highest-quality contributions. It is important to note, however, that this summary does not assess the quality of the essays, but solely focuses on the content of the contributions.

A notable point for this year is that even though the participants had to address the same question, there is a remarkable diversity among the contribution topics, themes, contexts, frameworks, and theoretical foci, deriving propositions for all of the four fields: business, politics, science, and society. In their essays some Leaders of Tomorrow
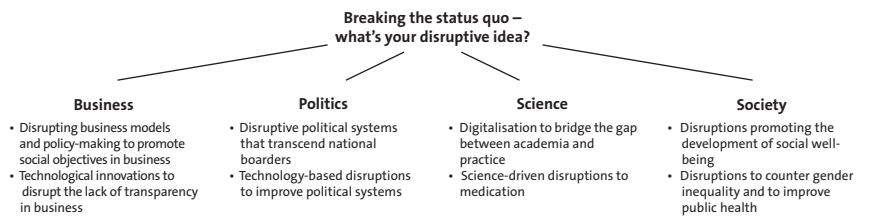

Figure 1: Organising the Contributions

proposed disrupting the status quo of global phenomena such as climate change, resource scarcity, technological shifts, and sociodemographic changes, while others focused on national level issues such as education accessibility, corruption, and gender inequality in specific countries. This year's works also referred to diverse geographies, including examples from Brazil, Japan, India, and South Africa. Some essays focused on broader geographic areas such as Europe or the Middle East.

While covering a wide array of themes and contemporary issues, the contributions fall into four main fields, as illustrated in Figure 1. The first set of essays suggests adapting the business landscape to evolving technological and social environments and shaping it according to the rising egalitarian and inclusive aspirations of society. The second strand of essays takes an evolutionary approach and suggests aligning political systems to the rising trends of globalisation and digitisation. The third set of essays asks how science and the scientific community can be levers to solve contemporary issues and improve the exchange between research and practice. The fourth strand of essays focuses on prominent social issues and proposes some pathways

for solving them.

II. DISRUPTION IN BUSINESS

A first strand of the top contributions suggests adapting business systems and practices to promote social values and information availability. The Leaders of Tomorrow suggest that the existing norms in the business environment that require disruption are at the company, government, and social levels. At the company and government levels, governmental incentives and business models need to be adapted to the rapidly changing technological environment and its accompanying innovations. At the social level, the modern social needs and the egalitarian aspirations that parallel them, call for changes in the incentive systems offered to businesses. Practically, the contributions within this strand suggest (a disrupting existing business models and policy-making to promote social (versus economic) objectives, and (b) increasing the business environment's transparency through the introduction of technological innovations.

(a) DISRUPTING BUSINESS MODELS AND POLICY-MAKING TO PROMOTE SOCIAL OBJECTIVES IN BUSINESS

Several Leaders of Tomorrow suggest changing existing business models and governmental incentives in order to promote social values and objectives. They argue that existing economic systems and firms tend to be locked in an economic orientation, which limits the development of their social contribution to society. Accordingly, the Leaders of Tomorrow propose a variety of solutions in order to unearth the social potential of businesses and economies ranging from new classes of assets and economic policies to novel governance structures. A Leader of Tomorrow suggests that a starting point for promoting social objectives in business environments is to adapt financial institutions. The contributor adds that in order to create a real disruption in financial institutions, society must ask a fundamental question — what is the purpose of the financial sector? The contributor further proposes a shift in how contemporary global issues should be addressed. Specifically, (s)he suggests integrating such issues in investment decisions and portfolios. In order to achieve such integration, a Leader of Tomorrow proposes the creation of a new class of assets exclusively made of impactful investments, which would promote investment in higher-risk but potentially truly innovative and transformative projects with high social impact. Another Leader of Tomorrow suggests building business models around social issues at play nowadays, such as discrimination against minorities. These business models would positively impact the environmental, economic and community contexts while having an inclusive approach towards minorities.

In a similar vein, several Leaders of Tomorrow argue that governmental policymaking should drive this shift of business environments towards a social perspective and advocate in favor of taxation and funding schemes that support social investments. A leader of Tomorrow suggests the creation of "Tradable Income-Based Securities (TIBS)" to fund high-quality investments in human capital and create social value. These securities are intended to finance high quality basic services to disadvantaged populations and will create financial value to investors through the mechanisms of increasing lifetime incomes, which lead to increases in government taxation revenues. Another Leader of Tomorrow proposes a new taxation system to refocus social priorities in favor of workers, rather than business. The essay argues that since young highly skilled workers tend to be driven by economic incentives instead of social impact, a tax scheme which would account for the societal productivity of jobs is needed and would help direct people towards jobs that have high social benefit. Given the rise in automation, a Leader of Tomorrow suggests strengthening such incentives by taxing machines, a view shared by another contributor who sees an urgent need to rethink employment in the age of artificial intelligence and calls for a revamping of current education systems. The contributor argues that education systems should be financed by the taxing robots to reorient labor skills and compensate for the rising demand for social welfare.

As another Leader of Tomorrow points out, one of the biggest challenges that parallel automation poses is the definition of the notion of work and how it is approached by individuals, education systems and governmental policies. Two Leaders of Tomorrow argue that changes in skill requirements are so substantial that they require a radical shift in the supply and creation of jobs, as well as in education systems. The World Economic Forum and private consulting firms estimate more than half of existing occupations will be obsolete in 2025. The authors suggest that leadership by governments is required for the creation of jobs and workforce education. A contributor proposes that governments directly hire and train people in the workplace, as well as incentivise the creation of jobs by private firms. Incentives would be distributed through appropriate economic policies and public-private negotiations. Another contributor advances the idea of disrupting existing educational systems by automating their repetitive aspects. Automation would then reorient the prevalence of knowledge diffusion in a prescriptive form towards a critical thinking model that develops problem solving skills. A further contributor advances the concept of "pivot academies" to address educational gaps that arise from the obsolescence of contemporary skills. These academies would leverage the potential of digital technologies and online platforms to promote partnerships with companies and certifying organisations in education. Such partnerships would encourage the development of market-ready skills in a structured and flexible way.

On top of the automation challenge, several Leaders of Tomorrow highlighted the role of governance structures in the effective support of social objectives and values. A contributor argued that most current policy interventions for distributing wealth have failed in developing local communities, and often lead to the creation of "local moguls". A need arises then in the creation of governance and monitoring systems that preserve social interests. One Leader of Tomorrow suggested the creation of a large philanthropic foundation to oversee the process of mine agreements' attribution. Another contributor advocated in favor of cooperative systems in the agricultural sector to promote the development of local communities and solve the "food-water-energy nexus," which refers to the financing, supply and decision-making challenges pertaining to the joint need of these three fundamental resources in agriculture. A further Leader of Tomorrow contextualised the governance debate in the "forest management challenge" and proposes a socalled "spectrum financing mechanism" that would be governed by three committees responsible for the allocation

of funds based on a sustainability rule that balances local and national sovereignty needs.

Finally, three Leaders of Tomorrow propose three company-level solutions to the promotion of social objectives of businesses. The first solution advances the idea of reviving local business customs that have social benefits, such as repair practices in Africa. A Leader of Tomorrow proposes reducing e-waste by repairing broken solar systems and distributing spare parts to their users. The second solution advances the option of connecting workers to end customers in order to urge companies to adopt safe and ethical working conditions. A technology-based solution, such as a platform, would improve the circulation of information and incentivise firms to provide safe working places. The third solution aims at including stakeholders' interests in the process of corporate decision-making. A Leader of Tomorrow suggests that corporations should have youth quotas imposed on their boards of directors in order to ensure inclusivity and representation of all interests that pertain to organisations.

(b) TECHNOLOGICAL INNOVATIONS TO DISRUPT THE LACK OF TRANSPARENCY IN BUSINESS

Another, smaller substrand of essays takes a more transformative approach towards existing business models and systems. Leaders of Tomorrow in this strand propose the introduction of novel technologies in the business environment to enhance its transparency. They argue that most of the status quo witnessed nowadays in business environment is due to a lack of timely information sharing and propose global solutions to these issues. According to a Leader of Tomorrow, in the last decades, economies have developed at such a rapid scale that the exploration of the innovations generated by these economies per se was difficult and accordingly in the next phase of global development disruptions would support the

new rules of cash and human capital distribution.

Consistently, several Leaders of Tomorrow suggest the introduction of blockchain technology into nowadays business models and sectors. A Leader of Tomorrow suggests that blockchain technology could be an effective system to fight corruption in business environments, especially where state-owned enterprises exist — such as in Brazil. As a decentralised transaction ledger, blockchain can provide a reliable ground for monitoring businesses, enable broad-based growth and sustainable economic development, especially in emerging economies. Taking an international and crossboundary perspective, another Leader of Tomorrow proposed creating an international development fund that would transcend national boundaries and be universally accessible. The benefit of such a fund run using blockchain technology lays in its circumvention of a central authority, such as a state. It would also empower individuals to engage directly in decisionmaking processes regarding funds allocation and organisational development strategies. Two further contributors suggest leveraging blockchain technology to enhance access to financial transactions for populations that lack access to banking systems. As a transparentsystem that records all past transactions and does not permit subsequent alteration, blockchain platforms would enable the processing of transactions and thus economic development to any individual that has a connection device or a mobile phone.

Advancing another type of technology, several essays put forward propositions that promote the usage of platforms in order to increase the transparency and accessibility of information and improve the functioning of current business systems. A Leader of Tomorrow suggests that intergenerational disadvantage is caused by uneven access to athome learning and funding for extracurricular activities. Therefore, a suggestion is to

create a crowdfunding platform to break this intergenerational cycle of disadvantage and bring project initiators together with their supporters around the common interest of helping people from disadvantaged groups. On a different note, another Leader of Tomorrow argued that the mergers and acquisitions market suffers from a strong lack of transparency and is biased by investment bankers' greed for deals. Meanwhile, the contributor claims, they oftentimes tend to fail at "identifying appropriate potential acquirers and targets, examining their strategic fit and synergies, arriving at the allimportant valuations and structuring the deal." Consequently, an open M&A deal platform would be a disruptive solution that brings together potential acquirers, targets and deal financiers without being biased by investment bankers. Finally, a further Leader of Tomorrow argues that current and future leaders tend to be disconnected from each other and need a platform to exchange and communicate their ideas. Accordingly, a solution would facilitate the current and future leaders' connection through an online platform

III. DISRUPTION IN POLITICS

The second thematic cluster of essays includes contributions which argue that political systems are locked into obsolete or inappropriate models that need to be disrupted. The Leaders of Tomorrow argue that new political models should be adopted in order to solve global issues such as corruption, refugees' integration, and the need for democracy. They suggest different approaches supported by technological progress in order to shift current political governance systems towards more accurate systems. Their overarching perspective is that political systems should promote and support democratic and inclusive values. In this stream, studies refer to (a) disruptions promoting political systems that transcend national borders, and (b) technology-based disruptions that promote

more effective political systems.

(a) DISRUPTIVE POLITICAL SYSTEMS THAT TRANSCEND NATIONAL BORDERS

A first substrand of essays argues that existing political systems may not fully account for the global scale of some contemporary phenomena such as population displacement, terrorism or the rise of right-wing powers – all global challenges that transcend national borders. Accordingly, several Leaders of Tomorrow advanced novel approaches in order to manage these issues at an effective scale. For example, a Leader of Tomorrow suggests the creation of "democratic unions" that would promote the strength-ening of democratic values. These would be a first step towards a shared sense of purpose and global identity which would be endorsed beyond national boundaries. Another contri-butor examines the example of the Hanseatic League and proposes "global hanses" as a new governance system. Such hanses would consolidate around shared values of egalitarianism and liberalism in an increasingly globalised world. Such a Hanseatic system would be advant-ageous because of the flexibility and respon-siveness it may have when faced with global issues. A network of global hanses' purpose would be to ensure that globalisation and its effects are governed in ways that match the capacities of different communities. A further Leader of Tomorrow proposes creating "start-up nations" as modern governmental systems made of "small autonomous regions that experiment new political systems as combi-nations of laws, rights and liberties." Such nations would act as incubators for novel political systems and be more prone to freely experiment with new mechanisms as they wouldn't be constrained by inertia or risk aversion, in contrast to today's governance models. Finally, another Leader of Tomorrow suggests taking political cooperation to the transnational municipal networks' level (TMN). The contributor argues that "at the national level, governments have shown short-comings

in addressing global challenges" such as climate change, as economic restrictions apply and national politics interfere. Consequently, TMNs would be "more flexible and prone to effectively manage global issues especially by introducing Pigovian taxes which would tax the externalities produced in cities.

Three notable essays take a more nuanced approach towards restructuring existing politi-cal governance systems than the aforemen-tioned solutions. They suggest leveraging information transparency and negotiation platforms to solve global issues that need a political hand or that are blocked by lobbying forces. A first contribution proposes the crea-tion of a "United Nations Parliament of the People" that would directly elect representa-tives from around the world. Such a parliament would "directly voice peoples' interests" and disrupt existing status quos emanating from lobbying stakeholders. It would also tighten the relationship between the United Nations and global populations, which tend to lose touch with each other under the current governance system. A second contribution begins with the observation that information suffers from a lack of transparency when emanating from topdown streams that relate institutions to individuals. Such a lack of transparency reinforces a vicious circle of social injustice and calls for an information system that encourages transparent communi-cation and social justice. Accordingly, the author proposes the creation of a system that protects and rewards whistleblowers. Such a system would enforce pressure on institutions due to the threat of information leakages. According to the essay, "a whistle-blower system" would have positive effects on democracy, consumption and livelihoods as it would support better social justice. A third contribution attends to the question of water scarcity and its use as a political lever in international negotiations. The Leader of Tomorrow suggests that desalination tech-nology enables us to remedy this global and increasingly pressing issue, but requires

substantial investments. Consequently, a solution could consist of public-private coalitions that would be part of a new diplomatic framework centered around the primacy of water rather than national or ethnic boundaries.

(b) TECHNOLOGY-BASED DISRUPTIONS TO IMPROVE POLITICAL SYSTEMS

A second substrand of essays suggests digital disruptions of existing political systems. Such disruptions would improve the function-ing, transparency and effectiveness of existing systems by bringing political representatives and individuals closer together. For example, a Leader of Tomorrow proposes a crowdsourcing solution to promote online participatory democracy. The author suggests introducing crowdsourcing as part of the lawmaking processes through government platforms. Such platforms would enable direct inter-action between governments and citizens and make a clear step forward toward participatory democracy. Another Leader of Tomorrow points out that nowadays, established politicians tend to struggle with convincing voters and citizens, especially when dealing with inclusive social projects. The author posits that this phenomenon might be due to a gap between politicians and voters, which trans-lates into protest voting in favor of right-wing parties. To counter such a development, the contributor suggests the deployment of a "civic engagement platform" to promote individuals' engagement in public policy. Such a disruptive tool would facilitate the interaction between politicians and citizens and help better preserve democratic values.

Taking the debate around politics and digital disruptions to the topic of information, a fur-ther Leader of Tomorrow argues that societies today tend to be pervaded by the "post-truth" character of information. (The most promi-nent examples might be 2016's elections.) According to the authors, such a phenomenon raises a pressing need for informed individual

responses to actively counter the spread of biased or manipulated information. A solution would then be to introduce a "blockchain that records individuals' responses". A further notable contribution argues that such a platform system should be adapted to communication contexts to enable discussions with mis-behaving individuals such as terrorists. The author argues that in an era of qualified psychologists and advanced technology, a social platform might help engage terrorists in dialogue and drag them progressively towards the eradication of extremist behaviors.

Finally, several Leaders of Tomorrow argue that contemporary political platforms tend to be overburdened by the plethora of objectives and targets they pursue, making them somehow trapped into "bad equilibria." Therefore, as a Leader of Tomorrow points out, there are nearly unlimited issues. Given the constraints of time, leaders' first major challenge is to decide which issues are worthy of attention. A Leader of Tomorrow suggests prioritising a manageable number of objectives. An exemplary starting point that has as much urgency as practical reach would then be to reduce the Millennium Development Goals from ten to two fundamentals: food security and disease prevention. Furthermore, when dealing with specific humanitarian issues, two Leaders of Tomorrow suggest tapping the potential that incentives to businesses and governments may have and leveraging their contribution to addressing urgent priorities. In the context of refugee integration, two solutions are advanced: the introduction of a credit system to refugees' host countries (where the credits would be tradable in free market) and economic incentives to the employers of refugees. Both authors argue that economically incentivising businesses and countries to take social approaches towards migration issues would prioritise this specific issue in their agendas and facilitate the effective solving of such global issues. A noteworthy contribution

points towards the pivotal role that young political leaders may have in reshuffling political parties' agendas. As the representatives of the younger generation's interests, they need to set priorities for future politics and be as diverse as the generation they represent. Accordingly, a need for education and culture in politics arises and the author suggests the launch of a "Graduate Programme in Politics" for that purpose.

IV. DISRUPTION IN SCIENCE

A third strand of the top contributions analyses how disruption relates to science and the scientific community. The Leaders of Tomorrow identified the individual and social potential of the introducing scientific progress into the debates over medication accessibility, education, and resource scarcity. They highlighted the need for connecting academics and practitioners in order to fully unleash the potential of academic and scientific research. They also provided solutions to promote the development of the academic-practice interface. The contributions within this strand suggest (a) digital disruptions to bridge the gap between academia and practice, and (b) science-driven solutions to contemporary medical care.

(a) DIGITISATION TO BRIDGE THE GAP BETWEEN ACADEMIA AND PRACTICE

Several Leaders of Tomorrow highlighted the gap that exists between academia and practice. While all of them agree that science and its progress have never been as advanced and fast-paced as nowadays, some of them suggest that several logistical and ethical dilemmas tend to impede its diffusion or proper usage. Logistical issues refer to financing practices and choices that don't necessarily prioritise socially centered projects, whereas ethical challenges refer to the integrity of science and the extent to which it may develop independent from political

dogma. Accordingly, the Leaders of Tomorrow suggest connecting scientists directly to practice with the support of digital technologies.

One Leader of Tomorrow proposes the creation of an online platform inspired by crowdsourcing business models and peer-reviewed funding allocation processes. Such a platform would offer a funding solution that is not burdened by bureaucratic aspects but instead judges young researchers on their research projects and their ability to market them to the public. Research's practical impact would then be ensured and the connection between scientists and their funders would be a direct one on both the financial and the knowledge levels. A further Leader of Tomorrow suggested a threefold solution that would improve the financing, career path, and knowledge sharing of scientists in order to better benefit a large practitioner audience. According to this contribution, knowledge sharing would be ensured via a national public platform that digitises policy problems for researchers and encourages research. Scientific funding would be ensured by public-private partnerships, and scientific careers would be favored to have regular switches between academia and practice. Such a system would strengthen the policy impact of scientific research.

Two notable contributions stress the egalitarian dimension that digitisation promotes for younger generations: "Digital natives are a generation with access to a semblance of a global playing field." Accordingly, this change in how individuals access data, information, and science disrupts "the way people approach productivity gains," but most importantly "how they seek for and communicate science". A suggestion from the essays is to take advantage of digital technologies to change the way in which research is published. A Leader of Tomorrow proposes software that is structured around markup documents that would be seen as open source projects. Research would thus become more

collaborative, inclusive and more responsive to scientific challenges. A further Leader of Tomorrow goes a step further and proposes the automation of scientific discovery. The author argues that as human cognition starts being modeled and replicated digitally through artificial intelligence initiatives, the cognitive aspect of automating science becomes more and more realistic. In the essay, a practical guide on how to operate such automation is outlined and the preconditions to its success are delineated. This ideologically advanced essay is illustrative of the potential that digital disruptions have brought to the scientific field and how they may not only bring scientist closer to practice, but even substitute for the human dimension altogether. It is therefore important to have an inclusive approach towards science that bridges the scientists-practitioners gap in order to have close interactions regarding the purpose and reach of science.

(b) SCIENCE DRIVEN DISRUPTIONS TO MEDICAL CARE

A second strand of essays that attend to the question of disruptions in science focuses on science-driven solutions to medical care. Several Leaders of Tomorrow proposed solutions based on novel research breakthroughs. Remarkably, a Leader of Tomorrow seized the issue of antibiotic resistance and proposed the use of Clustered Regularly Interspaced Palindromic Repeats (CRISPR), a gene editing tool, to overcome this issue. The author argues that since CRISPR tailors a customised therapeutic approach to address the problem of genetic mutation, it can be leveraged to develop CRISPR-based antibiotics and improve extant medication.

On a different note, another Leader of Tomorrow analyses the dearth of medical devices on the pediatric market and proposes a multifold solution grounded in scientific research. The author begins with the observation that as the world population has

never been as large as nowadays and the medical complexity is increasing, there is a clear growth in the need for medication and care devices for children. Science has reduced infant mortality, which increases the need for treating an extended pathophysiologic heterogeneity of children. Consequently, meeting the global challenge of supplying scientific advancements to the entire population in order to cope with this increase in needs requires a collaborative approach, based on an open science model centered on knowledge sharing.

Another notable contribution suggests the introduction of placebo-driven treatment in order to improve access to medical care in the least developed countries. The contributor suggests that as medical care is difficult to access in these countries, a potential tool for reducing the strain on the few resources that exists lays in conditioned responses to placebo medicines. As a proven mechanism and effect, placebos could be integrated into treatments and medications, and provide an opportunity for more efficient medication in the least developed countries.

Finally, two remarkable contributions highlight the potential of science-based technological advancements in improving the daily functioning of human cognition. A Leader of Tomorrow suggests using "strategic virtual tasks simulations" in contemporary education systems. Such a practice would promote a scientifically-driven learning mechanism to teach individuals problem solving skills, and should be directed towards the resolution of global challenges. Thereby, individuals would be better acquainted with persistent issues that pervade our world and engaged in active patterns of problem solving. Another Leader of Tomorrow takes a slightly different view on human cognition and focuses on the problematic of "overwhelmed brains". Spotting the phenomenon of information overload since digitisation has conquered the world of information, the author argues that

digitisation is a cause of important stress, in part because of social media addiction and the human need to find personal space and time to reflect. The contributor proposes an application based on "electron shells and the octet rule 1-2-8". The application would block most information from electronic devices and enable individuals to contact a limited number of people and access limited data. "1 represents oneself, the individual. 2 represents the two most important people for the individual. 8 is the remaining choices of information or contacts one can choose to be connected with." By filling each shell with selected information, the author argues that "individuals will be able to reduce information overload and prioritise what to think about first." Such a system is aimed at improving brain function and promoting better stability, thanks to better control of stress factors.

V. DISRUPTION IN SOCIETY

A fourth strand of the top contributions analyses what disruptions could be brought to society. The relatively few essays in this stream have picked a variety of social issues, such as gender diversity in workplaces, educational gaps, the conceptualisation of the notion of God, and specific proposals to disrupt social inertia and the status quo. Essays of this stream cluster around (a) disruptions promoting the development of social well-being, and (b) disruptions to break gender disparities and improve public health.

(a) DISRUPTIONS PROMOTING THE DEVELOPMENT OF SOCIAL WELL-BEING

Some Leaders of Tomorrow argue that today's societies are pervaded by novel technologies and increasingly complex environments where disruptions occur more and more often. These characteristics bring substantial stress to individuals. A priority, therefore, is to improve social well-being within this new technological environment. This year's top contributions

advanced several options to move towards better social well-being by addressing specific issues with targeted solutions. Notably, a Leader of Tomorrow calls for more emphasis on the concept of "mindfulness" – defined as "drawing attention to sensations of the present moment, observing without judgement and leaving aside mental wanderings" – to promote better mental well-being. The author argues that individuals tend to be caught up by things that happen around them, leaving little room for mindfulness. Mindfulness has been proven to contribute to a better quality of life, social interaction, and human productivity, but its practice is not widespread. The contributor proposes considering mindfulness to be a must-have (versus a "nice-to-have") in order to increase brain health and its positive impact on social well-being.

Another Leader of Tomorrow proposes the introduction of "noometrics" as a methodology in decision-making processes. The author begins with the idea that contemporary technologies enable the analysis of human speech, language and texts, the closest representations of human thought processes. Accordingly, noometrics would be a software-based solution to analyse and model human thoughts to derive a quantitative base of human science. A combination of data science and social considerations would be then provide a new ground for informed decisions that benefit the society and individuals.

From a theoretically different stance, another Leader of Tomorrow suggests to solve problematic global social issues and improve social well-being by rethinking the philosophical assumptions and beliefs of society. The author suggests that in order to fight developments such as terrorism, individuals should be encouraged to conduct deep reflections on fundamental concepts, dogmas, and beliefs. A starting point would be to reflect on the concept of creation, namely, God. The author encourages leaders and policy makers to revolutionise the way

future generations think in order to actively engage them in the resolution of social dilemmas and challenges as the one of terrorism and thereby improve their environment.

A further contribution addresses the question of social polarisation and extremism. The author argues that today's societies are increasingly polarised and tempted by extremist tendencies. Such dynamics are favored by the factual relativism or post-truth communication of information. The author proposes breaking down such dynamics and communication patterns by disrupting the cycle of internet-led, "post-truth" communication. An alternative model of the internet would be rich in signaling, metainformation, nudges, and other social mechanisms. Such a model would improve the transparency and accuracy of shared information, which would dampen the polarisation and extremist tendencies of societies.

Finally, along the same problematic of information sharing but through the lens of public safety, a further contribution proposes leveraging communication devices to improve resource allocation and effectiveness of police intervention. Arguing that electronic devices and data analysis systems have the power to optimise rules of distance minimisation and priority solving, the author proposes introducing a system for police resource allocation by identifying the smallest distance between individuals seeking help and police vehicles. Such a technology-supported solution may seem a basic solution but its value in limited-resource and high intervention-need countries, such as South Africa, would be of great social value.

(b) DISRUPTIONS TO COUNTER GENDER INEQUALITY AND TO IMPROVE PUBLIC HEALTH

A second substrand of contributions addresses two fundamental social concerns: gender equality and public health. Two notable

contributions highlight the importance of having women in top leadership positions, as "decisions taken by men may not always effectively address issues faced by the opposite gender". Accordingly, one contributor proposes corporate-driven promotion of women to top positions. A multidimensional approach combining incentives to education, work-and-life balance, and time-schedule arrangements would be a first step towards such a solution. The author suggests that a gender-sensitive approach towards MBA curricula, the enforcement of paternity leaves, and aligning school schedules to parental needs would actively support the development and ascension of women in their workplaces. Another Leader of Tomorrow places the root causes of gender disparity in the workplace, and proposes better preparing students to enter the job market. The author argues that a solution to counter gender disparity is the early neutralisation of unconscious social biases, which emanate from social norms, at the individual level. As a receptive audience and future workforce, students – especially at the academic level – are good vehicles for changing the perception of women in the workplace. Accordingly, heightening their awareness of the challenges that women face in their jobs and what individual level behaviors they might endorse to reduce discrimination would be a good starting point to solve the gender inequality gap.

On a different note, some contributions focused on public health issues and how disruptions might change the status quo. One Leader of Tomorrow departs from the observation that watershed dam development has been claimed as a major solution to climate change in recent public and social discourse. However, watershed dams have been shown to cause substantial damage to the natural environment including damage to rivers, lakes, and tributaries. According to the author, "the lack of integration between human health and the environment acts as a barrier towards adaptive and sustainable

mitigation measures [for the development of clean energy resources which benefit human health and well-being]." Consequently, the essay develops a two-dimensional "ecohealth" solution which accounts simultaneously for human well-being and ecological interests. The first aspect focuses on the creation of adaptive decision-making techniques that target both public health and sustainability. The second pertains to the promotion of a socio-ecological resilience in watershed governance and would enable flexible and ethical management of watersheds in light of public health priorities. It would also lead to more effective management and governance of hydroelectric projects with reduced negative externalities on the environment.

VI. IMPLICATIONS AND CONCLUSIONS

This review summarised the top contributions to the 2017 St. Gallen Wings of Excellence Award of this year's 47ᵗʰ St. Gallen Symposium. The participants were asked to propose ideas to disrupt the status quo in business, politics, science, and society. In sum, the essays approached this year's topic in each of the four fields from two different angles. On the one hand, several contributions proposed changing existing models and systems in each of the four fields in favor of more socially inclusive ones. On the other, several essays proposed using new technologies in order to disrupt the status quo and to move each of the fields in new directions. The authors proposed a variety of solutions and priorities to pursue each of these objectives and contributed thereby to the concrete development of promising ideas.

To conclude, because of the vast number of highly interesting ideas of the Leaders of Tomorrow, many aspects had to be neglected, and this summary may sometimes appear reductionist. Despite this limitation, however, it may stimulate discussions during the 47ᵗʰ St. Gallen Symposium, both among the Leaders of Tomorrow and with the Leaders of Today. In addition, it may encourage participants to reflect on and critically discuss the Symposium's topic, "Breaking the status quo – What's YOUR disruptive idea?".

This review was written by Prof. Dr. Markus Menz and Aïda Darouichi from the Geneva School of Economics and Management at the University of Geneva, in cooperation with Swiss Re and the St. Gallen Symposium. Markus Menz is Scientific Advisor to the St. Gallen Wings of Excellence Award.

IMPRINT

**St. Gallen
Wings of Excellence
Award**