



## Arab risings and beyond

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## Then and Now

A decade on, it is easy to forget just how unexpected the 2011 uprisings that spread so rapidly across the Middle East and North Africa (MENA) were to the main participants and to outside observers alike. Before then, the "Arab street" enjoyed little agency to exact political and economic change so vociferously, just as it had never previously brought together the region's middle-class activists with the wider working population behind a single set of demands. The catalyst for what became the so-called "Arab Spring" was the despair of a vegetable trader deprived of his wares in a small town in Tunisia's neglected interior, not that of well-heeled protesters in the region's capitals. No previous campaign for the removal of corrupt leaders had inspired the same level of mobilisation, nor had so swiftly captured the imagination of the whole region.

In 2011, the removal in quick succession of four regional leaders (from Tunisia, Egypt, Libya and Yemen) forced other regional leaderships into concessions over public spending, constitutional amendments and social support. But the element of surprise soon lost its force as Tunisia and Egypt moved towards democratic elections. Even though they succeeded in maintaining their social cohesion, both countries witnessed the emergence of Islamist-backed majorities which the prevailing elites went on to manage in very different ways. By 2013, the elected Muslim Brotherhood President of Egypt, Mohamed Morsi was deposed by the Egyptian army, and in Tunisia, the Islamist-leaning Ennhada party eventually made common cause in government with Nidaa Tounes, a mixed heritage party bringing old and new régime interests together.

Elsewhere, Libya and Syria fared much worse despite different leadership outcomes: In Libya Muammar Qaddafi was deposed, hunted down and killed, while President Assad defied mass rallies demanding that he leave and prevailed in office. Both societies nevertheless descended into internal divisions and conflict and swiftly became prey to the proxy interests of their neighbours and external powers. Non-state actors such as ISIS in Iraq and Syria and the Houthis in Yemen sought to redraw the region's borders and politics, while others, such as the Kurds whose communities straddle at least four Middle Eastern states, fought to assert their national rights.

Outside observers and policymakers, above all in the West, took a 'watch and wait' approach after their initial enthusiasm for the rapid political changes taking place. But despite President Barack Obama's early support for the removal of President Mubarak of Egypt – at the risk of damaging a number of key US relationships with Gulf states – it was soon clear that financial and diplomatic support for 'transforming' societies such as Tunisia and Egypt was the order of the day, rather than direct (or even military) support in defence of unarmed citizens when things turned sour. The critical moment was President Obama's failure to enforce his stated 'red line' over the use of

chemical weapons by President Assad of Syria in August 2012, which facilitated the British parliament's vote against intervening in support of in Syrian civilians. This critical conjuncture emboldened Russia to use the pretext of overseeing Syria's surrender of its chemical weapons stocks to intervene directly in Syria to ensure that Assad was no longer at risk of being deposed. From 2013, the attention of most security establishments shifted to defeating the regional spread of ISIS and terrorism, rather than on protecting civilians or supporting the spread and survival of popular protest movements against MENA's remaining authoritarian leaderships.

Having stayed behind the loop of developments, and with western-led security alliances actively withdrawing from the region, the external policy consensus now is that the popular energies unleashed in 2011 were swiftly co-opted, abused and misused, and that should similar popular movements re-merge, 'the street' will likely continue to be ineffectual. Only in Algeria did subsequent peaceful protests by the loose-knit and self-styled Hirak succeed in unseating President Abdelaziz Bouteflika in 2019, while similar street activism in Lebanon and elsewhere has proved inconclusive. In most cases, the political systems which preceded 2011 remain in place, even if weakened by economic pressures, internecine struggles and the complex dynamics of a volatile regional system.

What has changed is that outside forces and non-state actors play a much a larger role than in the pre-2011 era, or rather, that following the 2003 Iraq war and its repercussions, a different set of external powers than the US and its allies are determining the short-term outcomes of a much less cohesive region. The incursions into Syria of Russia, Turkey and Iran (in alliance with Lebanon's Hizbullah) in Syria were soon joined by the Saudi Arabian-led military action in Yemen, following Saudi Arabia's previous role in quelling rebellion in its neighbour Bahrain. But the region's current geopolitics highlight the absence of any organising principle for what is still loosely described as "the Arab world". The near collapse of Lebanon and continuing fragility of Iraq, combined with the resurgence of violence between Israel, Hamas and the Palestinians have dismissed any remaining pretence that the Arab League, or its leading players, have any control over intra-Arab politics.

In the absence of any counterweight from the US and EU, externally-sponsored mercenary forces have now joined competing alliances of militias in Libya to thwart the UN's ceasefire agreement of October 2020.

On the economic side, too, China has exploited the collective indecision and distraction of the US and EU to join Russia, Turkey and the United Arab Emirates (UAE), inter alia, in extending its

influence over regional trade routes into Africa and in concluding strategic investments across a network of self-interested regional alliances. Amid the distractions of the Covid-19 pandemic, counter-terrorism, criminal networks and the control of regional refugee flows across the Mediterranean still constitute the primary focus of western strategic alliances, while the largely reactive policy responses of the EU and NATO are further complicated by member states of each acting on opposite sides of the conflict in Libya.

## Underlying and structural change

Surveying the MENA region today, it is tempting to concur with Steven A. Cook's conclusion in September 2020<sup>1</sup> that "it is entirely reasonable to feel hopeless" about the future of the Middle East. Yet if the region appears now to have reverted 'to type', this does not mean that some things have not fundamentally changed as a result of the historic shock of 2011. Initial histories and assessments generally focus on the visible signs of reversal and failure, but this tells only part of the story.

At the time of the 2011 uprisings, a number of commentators explored parallels between the transnational uprisings in Europe of 1848 and those taking place in a ripple effect from North Africa to Bahrain, Syria and Yemen<sup>2</sup>. As with many sleights of hand, it is not hard to point out the dissimilarities in the analogies invoked. But in historical context, there is a parallel to be explored in the social and cultural changes to which the setbacks of 1848 gave rise: when widespread popular resistance to Europe's authoritarian leaderships failed, the energies of the movements' survivors went underground, in many cases to be diverted towards less politically confrontational cultural, educational and entrepreneurial goals. The results and rewards of the creativity of these expanding socio-cultural networks led to the emergence of new forms of mass production, consumerism and the political rights and freedoms that went on in turn to define the progress, regressions, global conflicts and eventual stabilisation of Europe's twentieth century history.

No single set of actors could, or can, claim responsibility for the unintended consequences of consecutive historical events, but the sources of the developments that endured were usually found at the periphery of mainstream events. Most importantly, they were rarely seen, much less actively

<sup>&</sup>lt;sup>1</sup> Steven A. Cook 'The End of Hope in the Middle East', Foreign Policy, 5th September 2020 <a href="https://foreignpolicy.com/2020/09/05/middle-east-end-hope-recovery-yemen-lebanon/">https://foreignpolicy.com/2020/09/05/middle-east-end-hope-recovery-yemen-lebanon/</a>

<sup>&</sup>lt;sup>2</sup> See, for example, Abdullah Alsaidi '1848 "Springtime" of Nations: Lessons for the Arab Spring', *IPI Global Observatory*, 24<sup>th</sup> July 2012 <a href="https://theglobalobservatory.org/2012/07/1848-springtime-of-nations-lessons-for-the-arab-spring/">https://theglobalobservatory.org/2012/07/1848-springtime-of-nations-lessons-for-the-arab-spring/</a>; Azar Gat "The Arabs' 1848, *The National Interest*, April 20<sup>th</sup> 2014 <a href="https://nationalinterest.org/feature/the-arabs-1848-10256">https://nationalinterest.org/feature/the-arabs-1848-10256</a>

promoted by the political establishments of the time. If they were, it was because the economic expansion of late nineteenth century Europe (in many cases territorial and colonial), its mass education systems and development of new technologies were perceived as posing no direct threat to the centralised forces of state power. Rather, for many European governments, they were deployed to extend their state monopoly over the use of violence: with devastating effects for the leaderships which pursued two world wars in the first half of the twentieth century.

The analytical trend of seeking out the 'hidden hand' of history and in expecting the unexpected has gained prominence through works such as Nassim Nicholas Taleb's 'The Black Swan' of 2007<sup>3</sup>. While no one, as Taleb's analysis sets out, can factor in 'black swans' in their forecasts, failing to accept their all-but-inevitable occurrence renders most forecasts obsolete almost as soon as they are cast. Most enlightened forecasters now incorporate into their projections the exponential and 'non-linear' impacts of developments in one sphere or sector on developments in another. In an already vastly more inter-connected world than that of 15-20 years ago, these impacts can rarely be confined to individual geographies, even if the timing and scope of their 'ripple effects' varies. The Covid-19 pandemic, which, as Taleb points out was not a 'black swan' but entirely predictable<sup>4</sup>, has merely accelerated underlying trends that can no longer be captured by linear projections into the near or more distant future.

Not coincidently, this form of forecasting is most closely associated with the frontiers of the finance and investor community, and of most interest to venture capitalists seeking to identify and invest in the infancy of scientific and technological innovations that have the potential to 'disrupt' existing economic models and grow exponentially over the next 10-20 years. By extension, it is also no surprise that new forms of 'virtual' think tanks and expertise have grown up to challenge existing centres of policy expertise. Tony Seba and James Arbib, the founders of the 'RethinkX', the virtual think tank they formed in 2017 met, as James Arbib writes, 'at a military think-tank briefing to discuss the potential geopolitical implications of the disruption of energy and transportation'. They were both '(c)hastened by the idea that investors, governments, businesses, and civic leaders were being fed such inaccurate and dangerously misleading analysis '5. Their main objection was to the misunderstanding, as they saw it, of

<sup>&</sup>lt;sup>3</sup> Nassim Nicholas Taleb 'The Black Swan', Random House Publishing, 2007

<sup>&</sup>lt;sup>4</sup> Bernard Avishai 'The Pandemic Isn't a Black Swan but a Portent of a More Fragile Global System', *The New Yorker*, April 21<sup>st</sup> 2020 <a href="https://www.newyorker.com/news/daily-comment/the-pandemic-isnt-a-black-swan-but-a-portent-of-a-more-fragile-global-system">https://www.newyorker.com/news/daily-comment/the-pandemic-isnt-a-black-swan-but-a-portent-of-a-more-fragile-global-system</a>

<sup>&</sup>lt;sup>5</sup> James Arbib in the introduction to 'Rethinking Humanity', RethinkX report, June 2020 (by James Arbib and Tony Seba) <a href="https://tonyseba.com/wp-content/uploads/2020/09/RethinkXHumanityReport.pdf">https://tonyseba.com/wp-content/uploads/2020/09/RethinkXHumanityReport.pdf</a>: 'Top mainstream analysts from major corporations, government, and NGOs discussed the apparently linear, incremental progress that solar, batteries, and electric vehicles were making and how "the transition" would take decades. The two of us, both independent outsiders with no big institutions behind us, were dumbfounded. We shared a very different view — these were not transitions, but technology disruptions. Technology disruptions are not linear progressions and they do not take decades to play out. They may appear to start slowly, but they move exponentially

the exponential speed with which technological disruptions impact everything from apparently unrelated economic sectors to societies as a whole; the 'transitions' they were being presented with were far too limited in scope and far too slow.

For analysts of the Middle East more accustomed to the snail's pace of change, or the region's seemingly endless potential for things to get worse<sup>6</sup>, the challenge to 'think exponentially' may be difficult to grasp. But the impact of new technologies is already evident in the differential approaches of a number of MENA states towards addressing climate change, in investing in new sources and forms of energy and food security, and in creating hubs and incubators for new 'start-up' and platform-based business models. The current malaise of the MENA region can be partially offset by the islands of innovation that link the Gulf states, above all the UAE and its constituent members, to Israel, the US and other financial and innovation hubs in Asia. The recent rapprochement – or Abraham Accords – between Israel, the UAE and Bahrain (later joined by Morocco and Sudan) can be explained as much by the need to legitimise previous business development links between states at the forefront of the region's digital revolutions, as to their shared interest in coordinating resistance to Iran's strategic ambitions.

The dynamics of North Africa are also changing along a 'favourable to less-engaged' axis in respect of digital technologies and renewable energies. On the energy side, Morocco's wind and solar energy plants already account for 37% of its power generation capacity, while investment in a 'green' hydrogen plant due to be operational from 2025 is intended to meet Morocco's target of deriving 52% of its energy needs from renewable sources by 2030. By contrast, Algeria, as a hydrocarbon exporter, remains heavily dependent on fossil fuels for domestic energy use as well as for more than 95% of its export revenues. For Algeria, lower oil and gas prices have deterred new partners to invest in the sector, and with only 1% of their electricity production provided by renewables, their belated shift towards developing 'green' hydrogen 'appears to be more like a survival imperative rather than optional outcome'.

The international debate over meeting the 2015 Paris COP21 'net zero carbon emission' targets by 2050 further complicates the picture. The International Energy Agency (IEA)'s energy futures

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as they trigger powerful feedback mechanisms that drive extremely rapid change, the impacts of which can ripple out across not just the economy but society itself.'

<sup>&</sup>lt;sup>6</sup> See Steven A. Cook, art cit.: '...in thinking about the Middle East's many problems, it is worth remembering that things can always still get worse. It would be a mistake to take even the region's last remaining vestiges of stability for granted. New depths of turmoil are still possible to achieve.'

<sup>&</sup>lt;sup>7</sup> Reda Amrani 'How Algeria can become a clean energy leader', *Oil and Gas Middle East*, May 17<sup>th</sup> 2021 <a href="https://www.oilandgasmiddleeast.com/exploration-production/38375-how-algeria-can-become-a-clean-energy-leader">https://www.oilandgasmiddleeast.com/exploration-production/38375-how-algeria-can-become-a-clean-energy-leader</a>

report of May 2021<sup>8</sup> intensified the debate when it urged governments and the major oil companies to cease, with immediate effect, all future fossil fuel exploration and development projects. As a previous champion of the hydrocarbon sector, the IEA's abrupt change of direction has added grist to a coalition of climate change activists who recently succeeded in securing a Dutch court ruling compelling the oil company Shell to reduce by 45% its CO2 emissions by the end of 2030 compared to 2019 levels<sup>9</sup>.

Previous projections envisaged that oil and gas would be more gradually phased out in favour of renewable energy sources, hitherto not deemed to be 'equivalent' due to battery storage and continuity of supply issues. But as the dynamic growth of the electric vehicle industry has shown, combined with a new set of officially-imposed deadlines for phasing out the sale of internal combustion engine (ICE) vehicles - potentially as soon as 2026 within the European Union<sup>10</sup> - the end of the 'fossil fuel era' may come much sooner than many MENA governments expected and can now reasonably plan for<sup>11</sup>.

As key players in the Organization of the Petroleum Exporting Countries (OPEC), the implications of these step changes are dramatic for MENA's hydrocarbon exporters. As the Financial Times writes: 'Turmoil in producer countries seems inevitable', predicting that 'per capita income in already volatile producer economies will plunge by 75 per cent. The IEA says this "could have knock-on societal effects" — another understatement 12. On the front line of MENA's economic dependency on the export of fossil fuels are Iraq, Iran, Libya, Algeria and, notwithstanding the diversification of its economy in recent years, Saudi Arabia. Decades-long 'post-oil' transition programmes may no longer suffice to manage the major economic disruptions that are likely to impact the hydrocarbon-dependent economies of the MENA region over the next ten years. They are already managing the volatility of oil prices as demand declined during the 2020-1 pandemic, which are unlikely to

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<sup>&</sup>lt;sup>8</sup> IEA 'Net Zero by 2050: a Roadmap for the Global Energy Sector', Press Release, 18th May 2021: 'the Roadmap sets out more than 400 milestones to guide the global journey to net zero by 2050. These include, from today, no investment in new fossil fuel supply projects, and no further final investment decisions for new unabated coal plants. By 2035, there are no sales of new internal combustion engine passenger cars, and by 2040, the global electricity sector has already reached net-zero emissions.' https://www.iea.org/news/pathway-to-critical-and-formidable-goal-of-net-zero-emissions-by-2050-is-narrow-but-brings-huge-benefits-according-to-iea-special-report.

<sup>&</sup>lt;sup>9</sup> Giulia Bottaro 'Seismic shock for Shell as it loses landmark case on environmental strategy' *Proactive Investors*, 26<sup>th</sup> May 2021 <a href="https://www.proactiveinvestors.co.uk/companies/news/950623/seismic-shock-for-shell-as-it-loses-landmark-case-on-environmental-strategy-950623.html">https://www.proactiveinvestors.co.uk/companies/news/950623/seismic-shock-for-shell-as-it-loses-landmark-case-on-environmental-strategy-950623.html</a>

<sup>&</sup>lt;sup>10</sup> Brad Anderson 'Euro 7 Regulations May Kill Off The Internal Combustion Engine By 2026' CarScoops, May 31st 2021 <a href="https://www.carscoops.com/2021/05/euro-7-regulations-may-kill-off-the-internal-combustion-engine-by-2026/">https://www.carscoops.com/2021/05/euro-7-regulations-may-kill-off-the-internal-combustion-engine-by-2026/</a>

The IEA has delivered an overdue message', Editorial, Financial Times, May 18th 2021 https://www.ft.com/content/4b524b96-7311-4fd7-9b2e-ff989dfb2b84

<sup>&</sup>lt;sup>12</sup> Derek Brower, Justin Jacobs & Myles McCormick '6 takeaways from the IEA's net-zero scenario', Financial Times, May 20th 2021 <a href="https://www.ft.com/content/f33110b2-c214-4d85-9de5-254bbb539834">https://www.ft.com/content/f33110b2-c214-4d85-9de5-254bbb539834</a>

rise to their previous heights, with the IEA predicting prices of US\$35 a barrel in 2035 and US\$24 in 2050 as demand and volumes decrease.

The transformation of economies through digital innovations is already tentatively underway, with Tunisia, Morocco and Egypt taking the lead in North Africa alongside Saudi Arabia and the UAE, the latter being the region's 'tech' pioneer, and an early proponent of the devolved capabilities of blockchain 'to transform 50 per cent of government transactions into the blockchain platform by 2021'<sup>13</sup>. Dubai has also had a Clean Energy Strategy in place since 2015 that 'aims to produce 75 per cent of its energy requirements from clean sources by 2050'<sup>14</sup> and in May 2021, inaugurated in collaboration with Siemens Energy 'the first industrial scale, solar-driven green hydrogen facility in the Middle East and North Africa'<sup>15</sup>.

In 2018, the Tunisian parliament passed a 'Start-Up' Act as part of a strategy to encourage digital businesses at the instigation of the local start-up community, and Egypt, which has the region's largest population of 100 million, has also launched an artificial intelligence (AI) strategy to speed up employment, to create 15 'Smart' cities, and to drive faster economic growth in the communications and IT sector that already contributes 40% more to Egypt's GDP than in 2018<sup>16</sup>. In a region where 75% of the population is under 25 or 30 years of age, youth unemployment rates are still too high and rising for governments to provide solutions to employ university graduates, much less unskilled workers who risk being squeezed out by increasing automation. Increasingly, a highly educated 'digital' workforce will take the place of governments in generating new forms of employment and in creating new economic sectors to replace those that AI makes obsolete.

For now, much of the infrastructure, seed investment and development capital for innovations in everything from AI, Big Data, to biotechnology and 'fintech' relies on governments taking the lead in creating the enabling environment for disruptive technologies to take root. But as access to mobile technologies has expanded, increasing numbers of citizens are connecting with others via virtual networks within and beyond their borders. Many young innovators in the MENA states choose to migrate, or – often deliberately – seek start-up funds from foreign-based angel investors and venture capitalists, the better to escape the constraints and controls of their state of origin.

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<sup>&</sup>lt;sup>13</sup> See UAE 'Emirates Blockchain Strategy 2021' <a href="https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/federal-governments-strategies-and-plans/emirates-blockchain-strategy-2021">https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/federal-governments-strategies-and-plans/emirates-blockchain-strategy-2021</a>.

<sup>&</sup>lt;sup>14</sup>UAE 'Dubai Clean Energy Strategy' (updated 20<sup>th</sup> April 2021) <a href="https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/local-governments-strategies-and-plans/dubai-clean-energy-strategy">https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/local-governments-strategies-and-plans/dubai-clean-energy-strategy</a>

https://www.energyglobal.com/other-renewables/20052021/siemens-energy-and-partners-inaugurate-solar-driven-green-hydrogen-facility-in-dubai/

Mohamed Alaa El-Din, 'Egypt builds strong AI industry to serve development goals: Official' Daily News Egypt, 31st
May

https://www.zawya.com/mena/en/economy/story/Egypt\_builds\_strong\_AI\_industry\_to\_serve\_development\_goa\_ls\_Official-SNG\_214455587/

But despite increasingly intrusive state-level oversight of these interactions, the current leaderships of the MENA region also need, and have an interest in encouraging and retaining, independent entrepreneurs. As one of a number of strategies to deflect the energies of the post-2011 generations away from politics towards self-improvement, self-employment and recreational activities, digital enterprises are not currently deemed to pose a threat to incumbent governments. But just as for their nineteenth century European predecessors, the geostrategic preoccupations of MENA's ruling elites may blind them to the unintended consequences of the hidden revolutions taking place within and between their societies. This new dynamic is already leading to 'hubs of disruption' that link centres of innovation and expertise across state boundaries, as in the Maghreb Start-Up Network<sup>17</sup> which aspires to build economies of scale within North Africa's next generation of economic and business sectors.

## The Coming Game Changers

Most analyses of regional developments have left the continuing agency of citizens out of the equation since 2011, and those caught in conflict zones are now largely seen as displaced victims rather than as having any control over their destinies. But for those within MENA's educated middle classes who have understood that political activism is no longer the best, or even a viable, option to engineer longer term change, the prospects are somewhat different. Growing beneath the surface of the region's strategic machinations and intrusive state controls are the social, educational and economic innovations that mainstream analyses only partially capture. The consequences for political systems that rely on centralised controls will be slow in coming, but because they are largely uncharted and unseen, the new and devolved socio-economic networks currently taking shape will be all the more powerful when they do emerge as the dominant organizing systems within their societies and beyond.

Many of the erstwhile protestors of 2011 are now engaged in the socio-cultural innovations that were unleashed in that era, the abiding legacy of which is their understanding of how to consolidate their knowledge, links and networks internationally, or wherever best suits their purpose. Not all will be doing this with political ambitions or political change in sight, but the failure of existing governance structures and leaderships to engage with their societies has left a legacy of individual and collective self-reliance that was neither widespread nor apparent before 2011. Now, if you were to ask a young Tunisian (or Egyptian, Algerian etc.) entrepreneur what they expect from their

<sup>&</sup>lt;sup>17</sup> Maghreb Start-Up Network, https://www.facebook.com/MaghrebStartupNetwork/.

leaders, they would be most likely to respond: "provide us with the infrastructure, space and the legal framework, then stay out of our way". What this signifies is a radical shift from seeing governments as ultimate providers to being enablers, at best, or obstacles at worst to creating the eco-systems for the socio-economic transformations already underway.

What may spur a new generation of MENA activists to make common cause with each other over the next decade are the exogenous and external developments at a global and technological scale that the region's current leaderships will no longer be able to control if they continue to lag behind. This time change is less likely to be driven by the street, as by culture, innovation, business and a 'mastery of the algorithms' that will determine most of what emerges.

The global Covid-19 pandemic has already given many people pause to observe and reflect on the larger shocks in our midst. Futurologists and investment analysts of different stripes are now suggesting that the underlying trends of recent years – above all the advent of a wider array of new technologies and the demands of climate change – will accelerate the impacts on our lives on a much faster trajectory than was anticipated before the Covid-19 pandemic pushed the global 'pause button' of early 2020.

The most ambitious critics of linear projections foresee radical changes taking place as soon as the end of the current decade. The authors of the RethinkX report 'Rethinking Humanity' of June 2020 summarise their thinking as follows:

The five foundational sectors [information, energy, food, transportation, and materials], which gave rise to Western dominance starting with Europe in the 1500s and America in the 1900s, will all collapse during the 2020s. These sector disruptions are bookends to a civilization that birthed the Industrial Order, which both built the modern world and destroyed the rest. Furthermore, we are experiencing rising inequality, extremism, and populism, the deterioration of decision-making processes and the undermining of representative democracy, the accumulation of financial instability as we mortgage the future to pay for the present, ecological degradation, and climate change — all signs that our civilization has reached and breached its limits. The response from today's incumbents to these challenges — more centralization, more extraction, more exploitation, more compromise of public health and environmental integrity in the name of competitive advantage and growth — is no less desperate than the response

<sup>&</sup>lt;sup>18</sup> Alfredo Valladão foresaw the importance of the emerging digital economy to the MENA region in his 2014 paper 'Masters of the Algorithms', GMF Policy Paper, 14<sup>th</sup> March 2014 <a href="https://www.gmfus.org/publications/masters-algorithms-geopolitics-new-digital-economy-ford-google">https://www.gmfus.org/publications/masters-algorithms-geopolitics-new-digital-economy-ford-google</a>

from those of prior civilizations who called for more walls, more priests, and more blood sacrifices as they faced collapse'. 19

This vision – of more widespread contestation over power and the failure as well as inability of governments to respond to the expectations of their citizens - is echoed in the more prosaic language of the US Office of the Director of National Intelligence's 4-yearly projection 'Global Trends 2040'<sup>20</sup>. The timeframes for these forecasts may differ – although the RethinkX report also sees political disruptions continuing beyond 2030 – but neither doubts that the world has already entered a period of intense instability at all levels of human organization. The spread of violence in the MENA cannot be discounted, nor, given the volatility of the young demographic of the region can further street-level protests, new forms of extremism, populism, terrorism and the emergence of non-state actors be excluded.

Much depends on how the 'ripple effects' of new technologies and climate change impact on different parts of the MENA region. The more optimistic scenarios foresee the region's new agricultural technology ('agritech') investments reducing MENA's heavy reliance on food imports and its water-hungry traditional agricultural sectors<sup>21</sup>. But in states, like Egypt, where around a third of the population is employed in agriculture, the need to create alternative forms of employment is one of many unintended consequences, and a major structural and societal challenge, posed by technological advances. New approaches to traditional problems can also be found, as in Egypt's 'New Delta' agricultural project to use recycled agricultural wastewater to cultivate strategic crops on hitherto unusable land in Lower Egypt, employing up to 5 million people in the process<sup>22</sup>.

Of most immediate concern to security analysts are the biotechnology and cyber security threats that are already emerging as the downside of new and devolved technologies. For every advance in alternative food production and meat substitution through stem cell technologies foreseen by RethinkX and others, there are concerns about the 'escape' of new viruses and the deliberate spread of biological warfare enabled by emerging technologies<sup>23</sup>. Cyber security also conflates a

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<sup>&</sup>lt;sup>19</sup> James Arbib and Tony Seba 'Rethinking Humanity' June 2020 <a href="https://tonyseba.com/wp-content/uploads/2020/09/RethinkXHumanityReport.pdf">https://tonyseba.com/wp-content/uploads/2020/09/RethinkXHumanityReport.pdf</a>

<sup>&</sup>lt;sup>20</sup> US Office of the Director of National Intelligence 'Global Trends 2040: A More Contested World' March 2021 <a href="https://www.dni.gov/index.php/gt2040-home/emerging-dynamics/state-dynamics">https://www.dni.gov/index.php/gt2040-home/emerging-dynamics/state-dynamics</a>

<sup>&</sup>lt;sup>21</sup>Dunya Hassanein 'The future of agritech in Mena', *Wamda*, 20th November 2020 https://www.wamda.com/2020/11/future-agritech-mena-panel-overview

<sup>&</sup>lt;sup>22</sup>Mohamed Sabry 'Egypt plans 'New Delta' to boost food security' April 6<sup>th</sup> 2021

https://www.al-monitor.com/originals/2021/04/egypt-plans-new-delta-boost-food-security

<sup>&</sup>lt;sup>23</sup> See, for example, Kathleen M. Vogel and Sonia Ben Ouagrham-Gormley, 'Anticipating emerging biotechnology threats' *Politics and the Life Sciences*, Fall 2018, Vol 37, No. 2 <a href="https://www.cambridge.org/core/journals/politics-and-the-tife-sciences">https://www.cambridge.org/core/journals/politics-and-the-tife-sciences</a>, The sciences of the science

number of risks and threats, as summarised in a recent World Economic Forum agenda paper: '(t)he complexity of digitalization means that governments are fighting different battles — from "fake news" intended to influence elections to cyber-attacks on critical infrastructure. These include the recent wave of ransomware attacks on healthcare systems to the pervasive impact of a compromised provider of widely-adopted network management systems. Vital processes, such as the delivery of the vaccines in the months to come, may also be at risk.'<sup>24</sup>

Despite what now appears to be increasing geopolitical fragmentation, the key to understanding the game changers for the MENA region is that the human response to global connectivity is far more likely to determine what happens next than predictions of the demise of globalisation and the increasing isolation of the Arab world. None of the region's advances is likely to be smooth, not least since progress in a world of the unexpected, unintended consequences and setbacks will be uneven. Societies in conflict will not benefit from technological advances that require strong states and leadership to design and implement, certainly not over the short term.

But security analysts, and policy-driven alliances such as NATO, need to think beyond the more immediate challenges that Europe's proximity to the MENA region serves to attract. More attention should be given to the 'hidden hand' of developments that could ultimately structure more positive and enduring changes over the longer term. This may mean devising new ways of decentralising approaches to conflict resolution that are not so reliant on state and non-state actors insufficiently incentivised to act on their undertakings and commitments, as in Libya. It requires seeking out and engaging actors who have yet to emerge as leaders, across social and economic sectors and geographies that have yet to define themselves as being the economic and political hubs of the future. Above all, for NATO, it will require a much larger focus on identifying new 'organizing systems in the making' and seeking out the individuals that are driving change wherever they are.

In a parallel universe, it was a set of criminal 'influencers' who assisted the FBI to track and arrest 800 criminals in June 2021 following a worldwide operation that covertly used a mobile communications app that was believed by its users to protect criminal activity<sup>25</sup>. Big Data may now be King, but expecting the unexpected, and proactively seeking out the most unlikely of

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the-life-sciences/article/anticipating-emerging-biotechnology-threats/CCBB40DBD2BCE6CECDE9F2ACB71588CE

<sup>&</sup>lt;sup>24</sup> World Economic Forum 2021, Davos Agenda 'These are the top cybersecurity challenges of 2021' <a href="https://www.weforum.org/agenda/2021/01/top-cybersecurity-challenges-of-2021/">https://www.weforum.org/agenda/2021/01/top-cybersecurity-challenges-of-2021/</a>

<sup>&</sup>lt;sup>25</sup> BBC News 'ANOM: Hundreds arrested in massive global crime sting using messaging app' https://www.bbc.co.uk/news/world-57394831

security partners, is critical to grasping what the longer-term outcomes of 2011 may yet bring to MENA and beyond.



