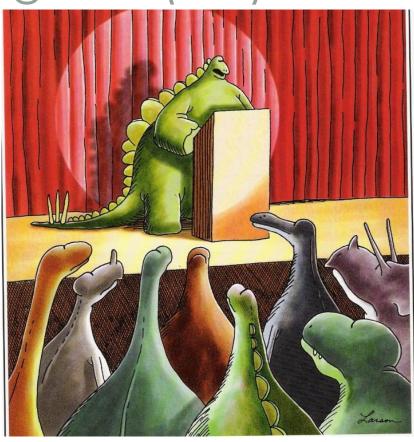
#### CYBERSHOCK

REVERBERATING ON A SMALL
BLUE PLANET

#### ARTIFICIAL INTELLIGENCE, VIRTUAL MEDIA, CONCRETE SHOCKS

- We are shaken and shaky. Al in cyberspace brings on
  - New deadly fears
  - New dizzying hopes
  - Shared by Humanity on a shrinking planet
  - Under dark skies.

### The picture is pretty bleak gentle(wo)men



#### Bleak! Bleak! Bleak!

 ...the world climates are changing, the robots are taking over, and we all have a brain the size of a small watermelon.

-(NB I added the robots and watermelon instead of mammals and walnuts)

## To make it worse we are an imaginative conscious water melon

Human beings are hugely imaginative, immensely curious and desperately communicative.

Changes of this magnitude make them look for scientific explanations, while looking up in the skies, fearing and dreaming

### THE ROBOTS ARE COMING, THE ROBOTS ARE COMING

One fear at a time.

Let's start with the fear of the robots in cyberspace

....best presented by Yuval Noah Harari

(Sapiens, Homo Deus)

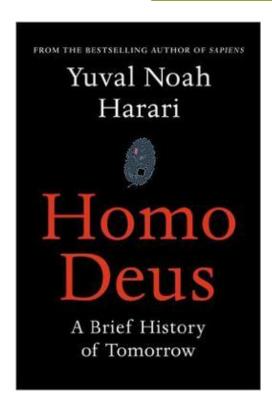
#### NEW YORK TIMES BESTSELLER

"Sapies tackles the biggest questions of history and of the modern world, and it is written in unforgettably vivid language." — JARED DIAMOND, Pulitzer Price-winning author of Gonr, Gerns, and Steel

Yuval Noah Harari

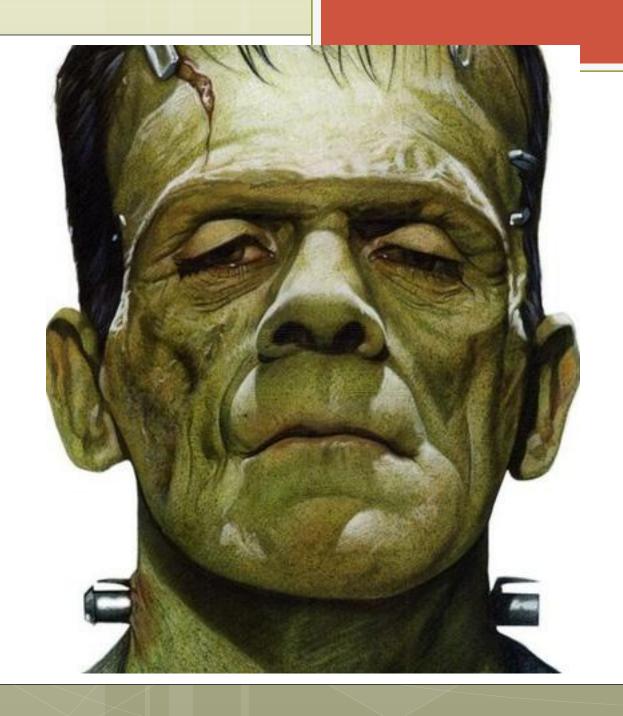


A Brief History of Humankind



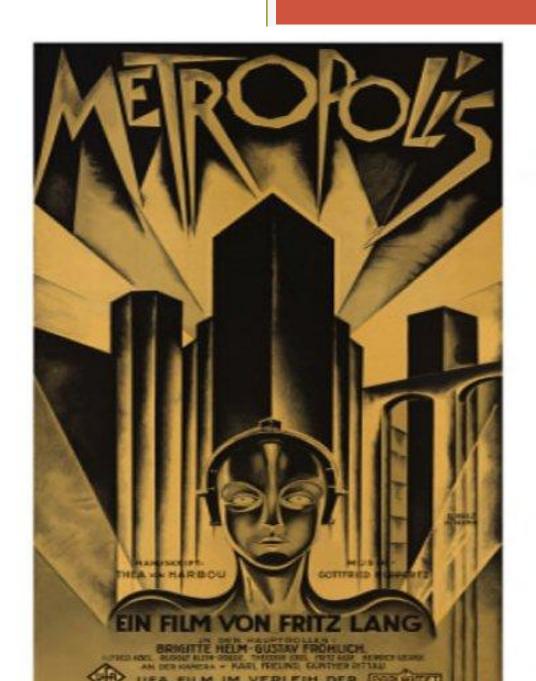
#### Nasty robots

- We've been afraid, says Yuval Harari in an interview, of our artificial creations killing us since 1818, when Mary Shelley wrote of Victor Frankenstein sowing the seeds of his own destruction by sewing together his own sentient monster.
- https://www.amazon.ca/Frankenstein-Mary-Shelley/dp/0486282112

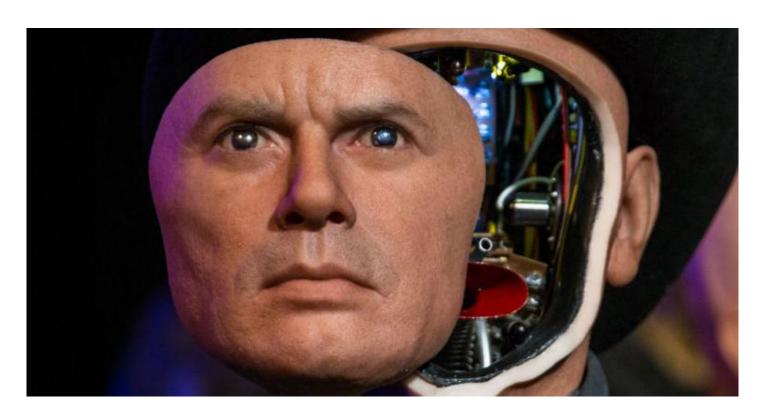


#### Homo Deus

• Fear of killer robots, stalked us on through the 20th century, from Fritz Lang's 1927 film Metropolis – in which an alluring female automaton doesn't kill us, but instead stirs the hearts and minds of a future mechanized society – right up to the 2016 HBO series Westworld, in which another group of beautiful robots starts to get a little too clever for humanity's comfort.



#### westworld



#### A touch of culture

- The fear of automaton and robots is older.
- o But
- Let's skip Descartes
- And go to Goya

### Goya the sleep of reason produces monsters



#### It is a new game...

- Now we are talking about robots with a brain wired by algorithm.
- The implications of the algorithm revolution, says Harari, are set to go much deeper than ending the careers of all lawyers, taxi drivers and financial traders.
- Algorithms are about to change what it means to work, and what it means to be human.

#### Techné

- "Humans have two basic types of abilities: physical abilities and cognitive abilities. As long as machines competed with us merely in physical abilities, you could always find cognitive tasks that humans could do better,"
- What will happen once algorithms outperform us in remembering, analyzing and recognizing patterns?" including emotional patterns (sensitive robots)

#### This means that ?

- algorithms will soon govern even mental and romantic decisions.
- In the next decades, algorithms will begin to "advise us which movie to see, where to go on holiday, what to study in college, which job offer to accept, and even whom to date or marry." (according to Harari)

#### Big brother

- We may well see, in fact, a full reversal of the humanist revolution, stripping humans of authority and putting nonhuman authorities in charge."
- Once an artificial-intelligence device has become indispensable, it's no longer a gadget or gizmo. It's the ruler. "Once Google, Facebook and other algorithms become allknowing oracles, they may well evolve into agents, and finally into sovereigns."

#### Robots as invaders

Tthis is all likely to have a devastating effect on human jobs and democracy. For a sign of what's on its way in the jobs market, just take a look, Harari says, at the military: "hitech forces 'manned' by pilotless drones and cyber-worms are replacing the mass armies of the 20th century, and generals delegate more and more critical decisions to algorithms."

#### Humans obsolete?

- Humans won't be as valuable or desirable as algorithm-run artificially intelligent machines
- In a nutshell humans may become obsolete.

#### Or robots will keep human for the pleasure of torturing them

(This is not a new phantasm. The Greek Gods were horrible, nasty, mean rulers)

In October 2016.

Hawking joined Tesla founder Elon Musk and Apple co-founder Steve Wozniak in signing an open letter that pleaded for artificial intelligence to be used for benevolent endshttps://thestand.investec.co.uk/yuval-harari-reveals-future-mankind/)

### Hope Is eternal



#### John Verdon

- Presented last week a dizzying vista of an increasing complex world opening new ways for humans to communicate, exchange and adapt (Presentation available?)
- Never before in human history has our species been so entangled and connected with each other.
- This mega connection is holding much promise and opportunity

# No big brother but being part of a complete sharing humanity

- I truly don't see how we are less humane today – as a society than we were even 100 years ago. (Verdon)
- And sustainability? We are in the process of domesticating renewable energy which can transform the entire world as well as in the process of domesticating DNA

#### UBER DEMOCRACY

- It is not the end of democracy. It is the end of democracy within a state, and rigid constraint
- It is an uber democracy evolving in open time for an open transparent humanity

#### New Enlightment

- Artificial intelligence opens to more intelligence, shared knowledge, communicating possibilities, opening minds.
- It does not makes us less human, it makes us enriched humans.
- Even more so as AI will integrate more and more different voices including one which has been ignored for so long: the voice of women who proceed information in another ways more complex and pragmatic.

#### Women voice! Praise the lord!



#### Ah! Ah! Cassandra time



#### Why Cassandra?

- She has been misinterpreted:
- She refused Apollo (the God of Supreme Algorithm) and Dionysus, (the Hubris drunk with itself) for she is living in real time and real space, a world where emotions still rule and where men drunk with their power do not pay attention to administer the chaos they have created.
- Important issue since THE ART OF POLITICS IS THE ORGANIZATION OF EMOTIONS (greed, fear, hatred, desire)

## The robot are on the path of being the master of the world and

And we have this



#### Just an example....

- Indeed the entire social fabric of humanity is changing
- It is undergoing changes at a velocity which is confounding the best futurists.
- It is a new order all right but it is accompanied with new and old disorders

#### And the disorders outside

- Are matched by disorders inside our conscience, cognition and the heart of ourpsyché. (I keep the separation between outside, inside, body and soul for our comfort)
- Which agitate the planet with a confounding velocity.

## THE SMALL WATER MELONS ARE EXPLODING AND IMPLODING

- At the individual level we are **hyper connecting**, stretching ourselves to the point of nothingness (EXPLOSION)
- When it comes to regrouping we are hypo connecting, creating echo chambers mostly around the worst emotions (IMPLOSION).

#### Hypothesis

- Despite the unprecedented impact of technology and interconnections between technology, society and the natural world, we continue to assume that human thinking is stable.
- But the human mind is evolving. Stress, shock, "cybershock", and breakdowns
  in organisational cohesion attest to the new challenges. Partly as a result of
  exposure to computers and information technology at early ages, younger
  generations metabolise knowledge and emotions in new ways.
- These changes are neither individual nor cultural, and therefore are not temporary. There is potential for these changes to be integrated genetically, and to affect sociability. They therefore have implications for loyalty, esprit, respect, training and education. Chaos and instability may emerge as the most important "enemy". It is particularly important for strategic units addressing complex threats to understand pioneering research in human ecology. This work is part of ongoing research in human ecology and touches no more than the surface of these complex issues.

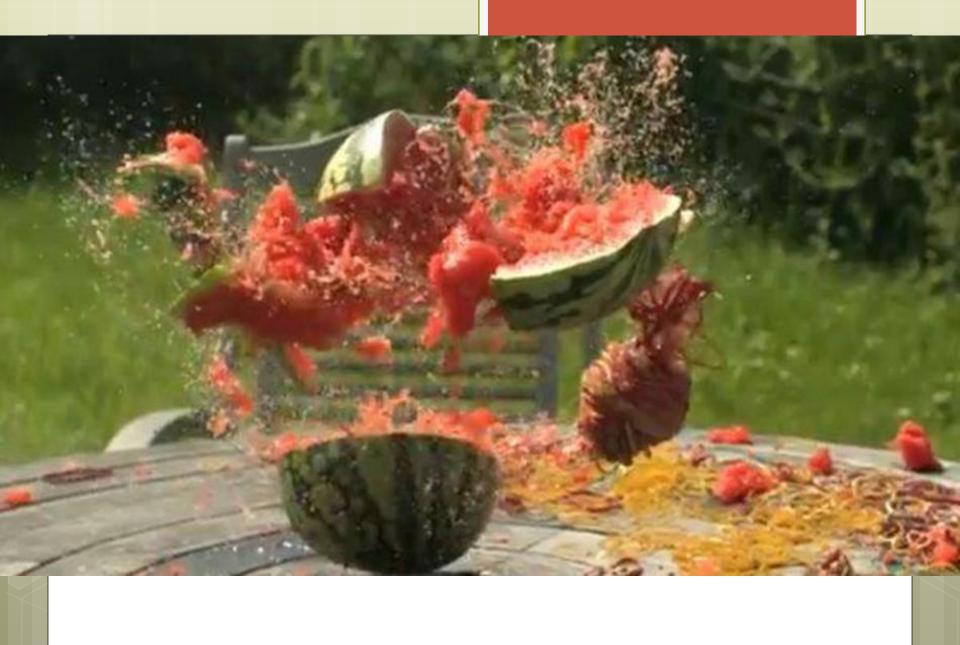
#### Application

 Nicole Morgan "Lose canons in Cyberspace". Choice of Force: Special Operations for Canada, edited by David Last and Bernd Horn. Queen's McGill Press, 2005

0

### HYPER CONNECTING and scattered brains

• EX-PLOSION



### : "the process of thinking" and "the act of remembering".

• Neurologists explain how learning stabilizes preestablished synaptic combinations while eliminating others by a process called epigenesis. By a very early age the major synaptic avenues are traced, fixed, and the only change possible is to add a few streets. But we also know that the richer and more varied the early experience, the richer and more varied the cerebral structure. This doesn't mean it is impossible to go beyond heredity, but that it is easier during a limited period of time and within certain parameters. Experts have named this early learning period a "window of opportunity" – a whiff of liberty, or the source of evolution within determinism.

#### Infoglut

- More importantly, this learning process explains how shared experiences can eventually alter genetic material. Nothing is ever truly stable, but the genetic structure aims at stability. The issue of our times is a radical change in the way the "window of opportunity" is used: On one side information has never been so abundant, complex, and interrelated. On the other hand the intellectual tools used to process information have never been so inadequate, as educators have abandoned structure.
- Super-abundance of information has fostered the term infoglut

#### A crumbling cognitive: ADD

- Paradoxically, the technical tools designed to process and communicate the interrelated and sophisticated mass of data are part of the glut. Search engines, for example, simply give us more information to wade through.
- The abandonment of structure and repetition has become a problem with the way we manage information. Repetition is essential for structuring a young brain. In this process, reactive behaviours become actual structures, literally imprinted in the individual circuits. It might be seen as a restrictive exercise.
- Yes, it is (habits and prejudices are formed), and no, it is not (without this process, no information can "stick"). E., Jensen, 2000 Learning Smarter: The New Science of Teaching, San Diego, California.: The Brainstore, Inc. R. Rupp, How We Remember and Why We Forget. New York: Three River Press, 1988.

#### Disembodied brain

- Another major change in brain structure is illustrated by the influence of images in the modern learning process. Interactive screens replace books, and we revert to the pre-alphabet of iconic images. Students are saturated with visual images, and those designing educational materials are advised to vie for their attention in a rich visual environment.
- From traditional textbooks to the educational software, we find a wealth of pictorial representations. But a picture is not worth a thousand words. The visually rich technical environment is actually changing the way we think. Images do not "speak" to us as books do. R.K.Lowe. Successful instructional diagrams. London: Kogan Page, 1993.

#### Scattered brains

- The stress caused by information overload suggests that the increase in nonhereditary Attention Deficit Disorder (ADD) is linked to the information revolution.
- At the adult level you get the multitask fanatic who has become incompetent and disturb everyone

#### Scattered brain in cyberspace

A new way of life is taking place, which at the extreme removes the individual from physical contact, a HUGE issue since we get 80% of our clues from not verbal communication.

We are in another dimension far more isolating than the old withdrawal of teenagers into books or reveries.

We are entering a world of addiction with as a consequences changes in the wiring of the brain.

There have been some reports of self-imposed social isolation that illustrate the negative side of withdrawal. Since the 1990s, the term *hikikomori* has been used to describe the estimated 500,000 to one million Japanese citizens who refuse to leave their homes. According to Dr. Takahiro Kato, a psychiatrist working at a *hikikomori* support center in Fukuoka, Japan, many *hikikomori* display depressive and obsessive-compulsive tendencies, while a minority "appear addicted to the Internet."

#### IT IS AN ADDICTION

• BUT IT GOES MUCH FURTHER

### Hypo connecting and echo chambers

• The making of new narrow minded tribes

### JAPAN on the brink of extinction

- "In a country where over 70% of unmarried men between 18 and 34, and 60% of women, have no relationship with a member of the opposite sex, and where birthrates are among the lowest in the world after Japanese women gave birth to fewer than one million babies in 2016 for the first time since the government began tracking birth rates, Bloomberg reports on an industry (robots) that's profiting off the reluctance of young Japanese men and women to find a human partner."
- Japan's Lonely Single Men Are Settling For Virtual Reality "Wives Of The Future"

#### DEMOGRAPHICALLY

Japan is going out of the map

### Imploding watermelon



#### The medium is the mirror

- By making so much information so accessible, social media has drastically changed the way we consume information and form opinions in the modern era.
- Well informed, well educated, better able to vote for the Common Good. This has been the mantra of our modern times.
- The danger, however, is that social media creates an "echo chamber" that filters the information people receive so that it largely supports their existing opinions.

#### The bigger, the smaller

- A recent study published in *PNAS* examines this phenomenon and finds that social-media users show marked focus in the types of news that interests them. These social-media participants tend to develop strong and well-defined communities around the news outlets they support, and they tend to make connections with like-minded people regardless of the geographic distance between them.
- the more active a community was, the more self-segregated and polarized it was.

# A dream come true for the hidden and repressed emotions.

- The emotions you find in graffiti on walls of toilets (The worst were at the Sorbonne)
- Nobody is then surprised that pornography tops all the enquiries.
- But comes second (if not first) resentment, sexism, bigotism, racism, antisemistism and a spectrum of violence.

#### Al Qaida and the ALT's

- I have been working on ideologies for the last twenty years,
- Extreme ideologies manifesting in modern times, use the internet not only to recruit the young creating powerful echo chambers of a new kind.



#### The ultra right in USA

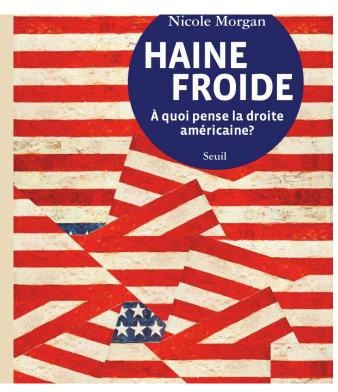
erdue dans ses problèmes, l'Europe prête peu d'attention à la scène politique américaine. À peine prend-on note d'un mouvement populiste sorti de l'ombre: le Tea Party, où se côtoient intégristes religieux martelant la Bible, athées agitant la Constitution américaine, jeunes sans emploi, retraités ruinés par la crise et nostalgiques d'une Amérique toute-puissante. Un tel éclectisme n'empêche pas ce mouvement d'être révolutionnaire, car il réclame un changement radical de pouvoir, qu'il veut faire passer du secteur public au secteur privé: la complète libre entreprise.

Cette idéologie s'est formée aux États-Unis, mais sa vocation universelle concerne l'avenir de tous les États-nations modernes. Comme toute idéologie, elle repose sur des postulats simplistes qu'elle transforme en vérités irréfutables sous la bannière d'une pseudo-science: ici l'économie. Comme les idéologies dures, elle véhicule des émotions fortes qui puisent dans l'inconscient collectif, haine et peur en tête, punitions à l'appui, intégrismes en sus. La haine la sous-tend, le chiffre l'aseptise, l'incompétence la qualifie.

Ce livre donne toutes les clés d'une formidable machine à penser qui s'est construite sur un demi-siècle, avec sa grande prêtresse, ses prix Nobel, ses alliances sulfureuses et ses puissances qui habitent sur ce continent virtuel où ne vit qu'un pour cent de la population mondiale.

Nicole Morgan (PhD) est professeur de philosophie au Collège militaire royal du Canada de Kingston. Elle a notamment publié Le Manuel de recrutement d'Al-Qaïda (Seuil, 2007, en collaboration avec Mathieu Guidère), et Le Sixième Continent, L'Utopie de Thomas More (Vrin, 1996).

HAINE FROIDE Nicole Morgan





### TRIBALISATION AND CYBERPOLITICS

- SCOTT ATRAN is the director of research in anthropology at the CNRS, École Normale Supérieure, and a senior research fellow at the University of Oxford. He is co-founder of Artis Research, and the author of Talking to the Enemy (2010) and In Gods We Trust (2002).
- https://aeon.co/essays/radical-islam-andthe-alt-right-are-not-so-different

#### Escape from Freedom

- It was religious philosopher Søren Kierkegaard who first discussed 'the dizziness of freedom' and the social disruption that it creates. Seizing on the idea in *Escape from Freedom* (1941), humanist philosopher Erich Fromm argued that too much freedom caused many to seek elimination of uncertainty in authoritarian systems.
- This has combined with what social psychologist Arie Kruglanski calls 'the search for significance', propelling both violent jihadists and militant supporters of populist ethnonationalist movements worldwide. In the wake of these forces, we see what psychologist Michele Gelfand describes as a 'tightening' of political cultures, featuring intolerance of behaviours that differ from the norm.

### Radicalization IN ECHO CHAMBERS

- Our wide-ranging interviews and psychological experiments have uncovered not a 'clash of civilizations', but civilisation's unraveling,
- as young people unmoored from traditions flail about in search of a social identity that gives personal significance and glory.
- Individuals radicalise to find firm identity in a flattened world. In this
  new reality, vertical lines of communication between generations
  are replaced by horizontal peer-to-peer attachments that can
  span the globe, albeit in vanishingly narrow channels of ideas and
  information.
- Our research has shown that, despite its vitriol against 'globalists', today's alt-Right movement involves the same narrow-minded global weave of tweets, blogs and chatrooms linking physical groups across the world as the jihadi movement.
- (I will add other movements but we do not have time)

#### It is very potent

- But even more than today's jihadists (where personal networks rooted in immigrant neighbourhoods and clustered in particular towns and foreign territories remain key to recruitment), the alt-Right grassroots movement has coalesced online, on the dark side of social media.
- Before the predominance of the internet there were fringe newsletters, radio programmes and rallies, like the attempted Nazi march in Skokie, Illinois in 1977 whose case went before the US Supreme Court, and the short-lived KKK demonstration in Warren, Ohio in 1998. But the rise of social media has allowed people who might want to be part of the white-supremacist movement to adhere without incurring the stigma previously associated with physically joining.

#### The young generation

• From jihadis in Europe to white supremacists in the US, people most susceptible to joining radical groups are youth in their teens and 20s seeking community and purpose. The attraction of community is especially keen where there are sentiments of social exclusion or community collapse, whether or not accompanied by economic deprivation. It is a sense of purpose that most readily propels action and sacrifice, including a willingness to fight and die – especially when that purpose is perceived to be in defence of transcendent values dissociated from material costs or consequences.

#### It is not a hiccup

- Adans remembers
- At the 2017 World Economic Forum in Davos, where I presented some of <u>our research findings</u>, I had the impression that most people in attendance thought that the recent surge of jihadism and xenophobic ethnonational populism were just atavistic blips in the ineluctable progress of globalisation that were destined to soon go away. That to me was the most worrisome feature of Davos, whose denizens basically run the world (or try to). Few there seemed willing to change their policies or behaviour. They seemed to view the left-behinds of the dark side of globalisation as simply losers that might be given a handout when artificial intelligence and robots deny them any chance for a decent living.

#### Remember

- Whether alt-Right or radical Islam, the values of liberal and open democracy increasingly appear to be losing ground around the world to those of narrow, xenophobic ethno-nationalisms and radical ideologies.
- Our research team at Artis International and the Centre for the Resolution of Intractable Conflict at Oxford University has found that these forces are clobbering free societies today much like fascists and communists did back in the 1920s and '30s. In Hungary, we find that youth strongly support the government's call for restoring 'national cohesion', lost with the fall of Miklós Horthy's fascist and pro-Nazi regime; the call to root out 'cosmopolitan' and 'globalist' values is strong. In Iraq, we find that nearly all of the young people we have interviewed who are coming out from under Islamic State rule in Mosul initially welcomed it for stability and security amid the chaos following the US invasion until they were alienated by the ever-increasing brutality.

## But also put in in a new context: Youth bulge in Africa



#### Youth population trends and sustainable development

There were 1.2 billon youth aged 15-24 years globally in 2015, accounting for one out of every six people worldwide. By 2030, the target date for the sustainable development poals, the number of youth is projected to have grown by 7 per cert, to nearly 1.3 when provided with the knowledge and opportunities they need to thrive. In particular, young people should acquire the education and skills needed to contribute in a productive economy, and they need access to a job Among the greatest challenges facing many countries today are inadequate human capital investment and high unemployment rates among youth.

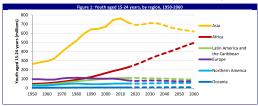
Some ountries are struggling currently to educate and employ their young people, while also anticipating substantial growth in the number of youth. These countries will be doubly challenged in their efforts to assure universal high-quality education, productive employment and decent work for all." This bird employment and decent work for all." This bird youth population and describes the challenges facing ountries in educating and employing their youth.

The size of the youth population has peaked in all regions but Africa.

In Latin America and the Caribbean, Europe, Northern America and Oceania, youth populations have stabilized in size and are projected to change little over the coming decades (figure 1).

By contrast, Asia and Africa are in the midst of substantial changes in the size of their youth populations. After rapid and sustained growth through the latter half of the 20th centru, the number of young people aged 15-24 in Asia is projected to deduce from people aged 15-24 in Asia is projected to deduce from million in 2009. Still. Asia will be home to more youth than any other region until around 2009, when it bould be surpassed by Africa according to UN projections.

In Africa, the number of youth is growing rapidly, in 2015, 226 million youth agod 15-24 level in Africa, accounting for 19 per cent of the global youth population, By 2030, it is projected that the number of youth in Africa will have increased by 42 per cent. Africa's youth population is expected to continue to grow throughout the remainder of the 21st century, more than doubling from current levels by 2055.



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