



"The primary will of the world is no longer about peace or freedom or even democracy; it is not about having a family, and it is neither about God nor about owning a home or land. The will of the world is first and foremost to have a good job. Everything else comes after that."

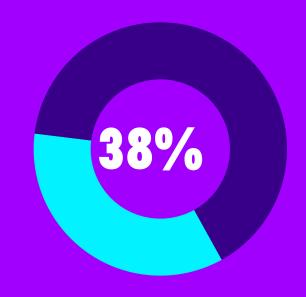
- Jim Clifton, The Coming Jobs War

DIGITAL—A GROWTH MULTIPLIER

Future value creation lies in humans and machines

WORKING TOGETHER

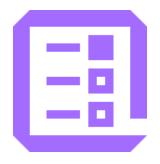
to create new user experiences, new products, new services, new possibilities. If businesses fully commit to AI and invest in human-machine collaboration, Accenture estimates they could **boost revenues by**



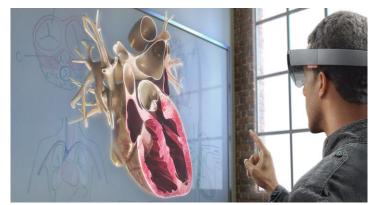
IN THE NEXT 5 YEARS and generate higher levels of employment and profitability.

AS A MARKET, WE HAVE EMBRACED DIGITAL.

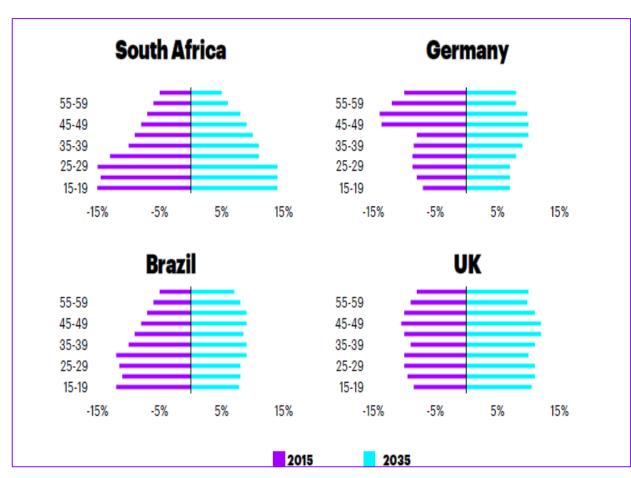
However, while South Africa scores well in terms of digital competitiveness compared to its emerging market peers – our challenge is to translate this into economic growth

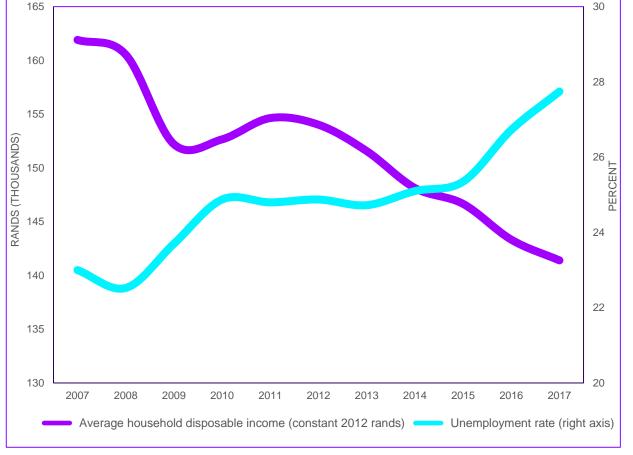


OUR DEMOGRAPHIC DIVIDEND LIES DORMANT

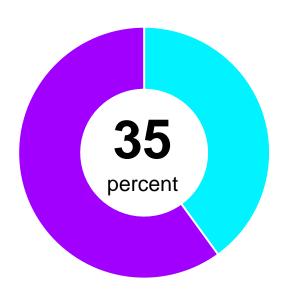






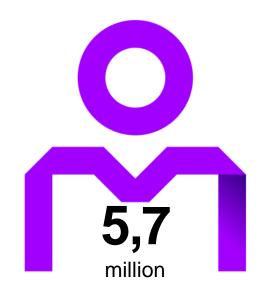


IMPACT OF AUTOMATION ON THE WORKFORCE OF SOUTH AFRICA – THE RISK IS REAL

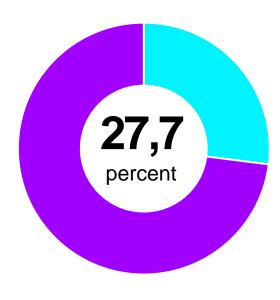


Of jobs currently at risk in South Africa

Comparatively: In Germany, 28% are currently at risk; while in Brazil it is 52%



In numbers – this is the amount of jobs at risk in South Africa



Unemployment reached a 14-year peak of 27.7% in 2017

THE TIME TO ACT IS NOW

In South Africa, we find ourselves at the cusp of a perfect storm...









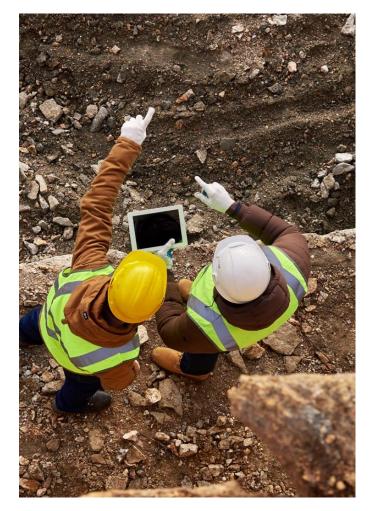












Machine operator

Johannes

Profession: Machine Operator

Country: South Africa

Age: 46

In Johannes' world industrial robots are already automated, programmable and capable of movement. Their functionality will only increase in future. Co-bots and Johannes will work together to increase productivity. Co-bots will perform the physical tasks of production and track performance, while Johannes will set, train and maintain the machine workers. In addition, Johannes will supervise and optimise the production process through sensor data and analytics.

Johannes will adapt to his changing world by learning new skills. He will continuously update his technology know-how and build his ability to analyse and synthesise data, applying judgment and creativity to improve process efficiency and product quality.

ANTICIPATED TASK AND SKILLS SHIFTS

Today

- Set up machines using blueprints, adjust settings (speed, temperature), and monitor machines for unusual sound or vibration
- Insert material into machines, manually or with a hoist, remove finished products
- Test and compare finished workpieces to specifications
- Remove and replace machine parts
- Document production numbers

Tomorrow

- Set up robotic machine workers, with the appropriate settings
- Supervise robotic production process, supported by sensor data from the whole production line
- Train, maintain and repair robots to ensure steady quality and productivity



HR business practitioner

Mapule

Profession: HR Business

Practitioner

Country: South Africa

Age: 42

Technology, digitisation, operating model redesigns and changes in the ways that employees want to work and engage with HR are making a significant impact on the way Mapule and her team need to work. HR chat bots, emerging crowd sourcing models, multi-generational liquid workforces and advancements in learning are only some of the changes that are impacting how Mapule and her team do their current job.

To meet the needs of a diverse and changing workforce, Mapule and her team will need to improve their data and analytical skills. They will also need to refocus on the truly human side of their work as the employee experience becomes a critical factor to attract and retain talent. Ultimately Mapule, as the HR manager, will need to learn how to leverage technology to find and hire the right talent on-demand, develop employees' skills so they remain relevant and deployable, and develop and support a new agile workforce capable of digital-speed adaptation.

ANTICIPATED TASK AND SKILLS SHIFTS

Today

- Prepare and maintain records related to the employee lifecycle, from hiring to termination
- Engage with employees to interpret and explain HR policies

Tomorrow

- Use applicant tracking software and HR information systems to streamline HR processes
- Apply analytics to available company and external data to develop insights on hiring trends
- Use analytics to match available skills to tasks and projects
- Increase focus on finding and hiring the right recruits and developing current employee skills
- Coach, mentor, facilitator, negotiator, work scenario planner

CLERICAL WORK IS MOST AT RISK OF AUTOMATION



South Africa

Rank of automation risk	Occupation	Industry	No. of jobs	Time spent on tasks	
				Human- like	Machine-like
lst	Bookkeeping, Accounting, and Auditing Clerks	Office and Administrative Support	99,190	43%	57%
2nd	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	Production	18,031	44%	56%
3rd	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	Production	6,945	43%	57%
4th	Laborers and Freight, Stock, and Material Movers, Hand	Transportation and Material Moving	94,439	43%	57%
5th	Insurance Claims and Policy Processing Clerks	Office and Administrative Support	68,633	46%	54%
Gth	Electrical and Electronics Installers and Repairers, Transportation Equipment	Installation, Maintenance, and Repair	28,111	46%	54%
7th	Bill and Account Collectors	Office and Administrative Support	20,283	43%	57%
8th	Team Assemblers	Production	37,656	39%	61%
9th	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	Production	1,656	49%	51%
10th	Farm Equipment Mechanics and Service Technicians	Installation, Maintenance, and Repair	96,756	46%	54%
	Total		471,700		

Key: Time spent on task:





1 (full time)

THE MORE INTENSIVE THE USE OF HUMAN-LIKE SKILLS TO PERFORM A TASK, THE LESS LIKELY THIS TASK WILL BE AUTOMATED



Partially automate

Probability of automation: 25%-75%

- Interconnected work activities
- Resolution of unstructured problems (e.g. Win in question and answer program)

Probability of automation: >75%

- Well-defined procedures, criteria and rules
- Routine manual tasks
- Autonomous mobility (e.g., cars that are driven by themselves)
- Routine cognitive tasks (e.g., travel agents)

Run with the machine (RWM)

Probability of automation: <25%

- Tasks that require social intelligence (e.g., negotiation, giving advice, persuading).
- Complex communication (e.g. writing complex articles).
- Analysis of complex patterns (e.g., data science).
- Sensory-motor skills (e.g. hairdressers).
- Creativity and ingenuity (e.g. design, new business models).

Probability of automation: 25%-75%

- Take advantage of expert knowledge and experience.
- · Jobs that require judgment
- Medium complexity language and communication (e.g. writing simple articles)
- Recognition of patterns (e.g., medical diagnosis, facial recognition)

Total Automate

Routine, predictable, rulebased

Complexity of tasks

Ad-hoc, non predictable, need for judgment

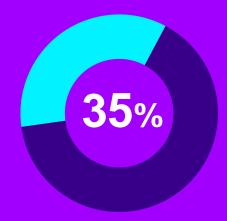
Partially automate



"The illiterate of the future will not be those who cannot read and write, but those who cannot learn, unlearn and relearn."

- Alvin Toffler (1928 — 2016), author of Future Shock

From:



5.7 Million Jobs

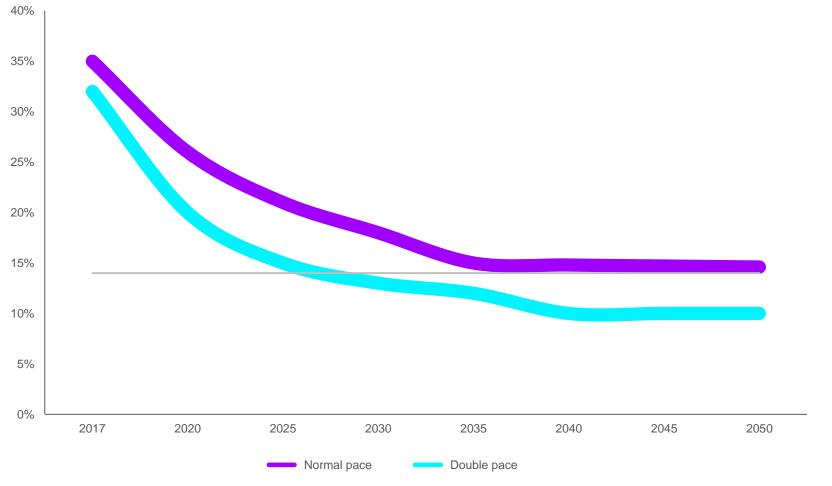
To:



To 2.5 Million Jobs by 2025

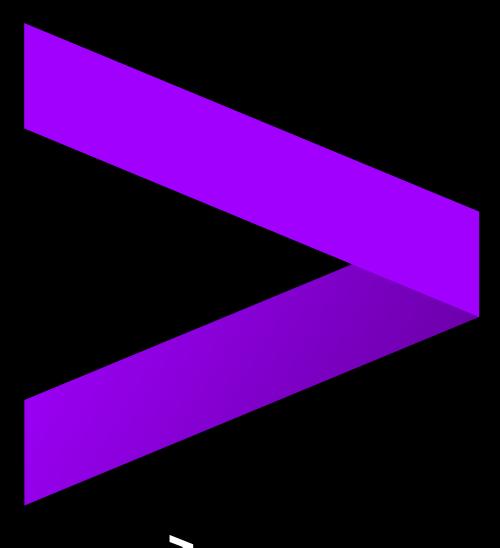
BY DOUBLING THE PACE AT WHICH ITS WORKFORCE ACQUIRES RELEVANT SKILLS, SOUTH AFRICA CAN REDUCE THE SHARE OF JOBS AT RISK OF AUTOMATION

Figure 7: Doubling the pace of learning will reduce jobs at risk of automation in South Africa from 35 percent to 14 percent by 2025.



THE SOUTH AFRICAN CHALLENGE

RESOLVING THE JOBS DEBATE WITHOUT COMPROMISING TECHNOLOGICAL COMPETITIVENESS





WORK USED TO BE A PLACE TO GO TO. NOW IT IS A PLACE TO WHICH WE CONNECT... VIRTUALLY.

TECHNOLOGY IS UNCOUPLING WORK FROM FINITE HOURS AND LOCATIONS.

ONE JOB, ONE EMPLOYER FOR LIFE IS OLD SCHOOL.

YOUR CO-WORKERS ARE FREELANCERS AND ROBOTS.

WORKFORCE WORK HR 92% 81% 82% of employees say they of executives say it is of employees say they expect digital to important or critical to expect **HR** to change as take actions NOW to transform their work a result of digital in the next three years transition their advances in the next workforce to succeed three years in the digital economy The workforce are ready and willing to work with Al-67% workers say it is very important to develop the skills to work with machines in the next 3-5 years 47% believe AI will help them do their job more efficiently

OUR WORKFORCES WANT CHANGE

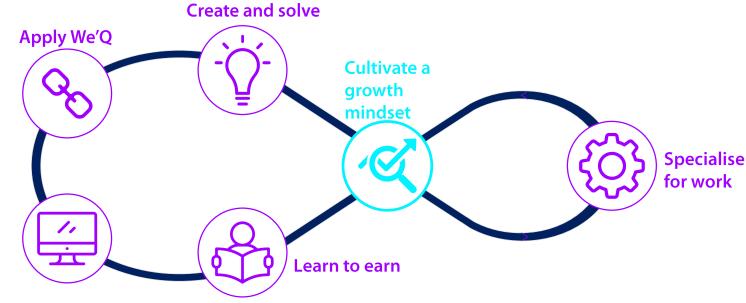


"Instead of teaching students to answer questions, we should teach them to ask them. Beyond creating better employees, we must aim to create better leaders and innovators."

- RAYA BIDSHAHRI, SINGULARITY UNIVERSITY

INTRODUCING NEW SKILLS NOW

LEARNING NEW SKILLS NOW CAN HELP UNLOCK ADVANTAGES IN THE DIGITAL ECONOMY.



Build Digital know-how and culture

Apply We'Q

Skills to interact, build relationships and show the selfawareness needed to work effectively with others in person and virtually

Build Digital know - how and culture

Skills and know-how to use, manipulate and create technologies and data as well as right attitude towards the tech

Create and solve

Skills to approach problem solving creatively, using empathy, logic and novel thinking

Learn to earn

Foundational skills to get work and be ready for the workforce

Cultivate a growth mindset

Skills to stay relevant, continuously learn and grow, and adapt to change

Specialise for work

Relevant skills to address local market priorities and industry needs



RESPONSIVE, RESPONSIBLE AND RESPONSE-ABLE LEADERSHIP IS NEEDED

PRIORITIES FOR LEADERS

REIMAGINE WORK

Shift from workforce planning to work planning



PIVOT THE WORKFORCE

to areas that unlock new forms of value



SCALE UP NEW SKILLING

to work with intelligent machines



THE SOUTH AFRICAN OPPORTUNITY

FROM DIGITAL DIVIDE TO DIGITAL DIVIDE ND

