



EDULIS LIBRARY

CTLI Premises

Belhar Main Road / Private Bag X9099

Kuils River/ Cape Town

7580/ 8000

Tel.: 021-957-9618

Fax : 086 489 2500

E-mail : edulis@westerncape.gov.za

<http://edulis.pgwc.gov.za>

Compiled by Edna Böhmer, February 2020

FUTURE-READY SKILLS

Exhibit 1: Students require 16 skills for the 21st century



Note: ICT stands for information and communications technology.

<https://www.weforum.org/agenda/2016/03/21st-century-skills-future-jobs-students/>

Accelerating Workforce Reskilling for the Fourth Industrial Revolution: An Agenda for Leaders to Shape the Future of Education, Gender and Work: White Paper.

/ World Economic Forum 2017 22 Pages
http://www3.weforum.org/docs/WEF_EGW_White_Paper_Reskilling.pdf

Adapting to the digital revolution.

60 Pages
https://mma.prnewswire.com/media/611754/Groupe_M_dia_TFO_An_Emergency_for_the_World_of_Education_Adapti.pdf

Adopting global skills innovation for the UK.

72 Pages
<https://www.thersa.org/globalassets/pdfs/reports/rsa-adopting-global-skills-innovation-for-the-uk.pdf>

Another Industrial Revolution: what schools need to know.

/ Kerry J. Kennedy February 25, 2019 5 Pages
<https://www.dailymaverick.co.za/opinionista/2019-02-25-another-industrial-revolution-what-schools-need-to-know/>

Approaches to Strengthening Secondary STEM & ICT Education in Sub-Saharan Africa.

March 2019 94 Pages
<https://mastercardfdn.org/wp-content/uploads/2019/07/Strengthening-STEM-ICT-in-Sub-Saharan-Africa-v.F.pdf>

Artificial Intelligence and Machine Learning: Stop Pretending

•Mar 10, 2017

[HubSpot](#)

Artificial intelligence and machine learning will eliminate millions of jobs. It's inevitable.

<https://www.youtube.com/watch?v=fBqFqcWVjCo>

2:52 minutes

Why schools should teach the curriculum of the future, not the past.

September 17, 2018 32 Pages
<https://www.weforum.org/agenda/2018/09/why-schools-should-teach-the-curriculum-of-the-future-not-the-past/>

What School Subjects Are Going to Be in the Highest Demand in the Next Decade?

3 Pages
<https://study.com/blog/what-school-subjects-are-going-to-be-in-the-highest-demand-in-the-next-decade.html>

Why Social and Emotional Learning and Employability Skills Should Be Prioritized in Education.

6 Pages
<https://app.secondstep.org/Portals/0/common-doc/sel-employability-briefing-paper.pdf>

Work and Organizational Psychology Looks at the Fourth Industrial Revolution: How to Support Workers and Organizations?

November 28, 2018 4 Pages
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6279953/>

World Economic Forum suggests 8 Education Models for Future Schools.

January 14, 2020 1 Page
<https://www.devdiscourse.com/article/education/831051-world-economic-forum-suggests-8-education-models-for-future-schools>

World Skills International and 3M launch a new joint project Education for the Future.

August 25, 2019 1 Page
<https://worldskills.org/media/news/worldskills-international-and-3m-launch-new-joint-project-education-future/>

Youth need skills for the fourth industrial revolution.

/ Onyi Nwaneri June 2019 3 Pages
<https://mg.co.za/article/2019-06-25-00-youth-need-skills-for-the-fourth-industrial-revolution/>

WCED Future Focused Education Conference. / Jessica Shelver 25 March 2019 3 Pages
<https://www.westerncape.gov.za/news/wced-future-focused-education-conference>

We need a reskilling revolution: Here is how to make it happen. / B. Brende April 15, 2019 3 Pages
<https://blogs.worldbank.org/jobs/we-need-reskilling-revolution-heres-how-make-it-happen>

We Need STEAM, Not STEM Education, To Prepare Our Kids For The 4th Industrial Revolution. / Bernard Marr January 16, 2020 3 Pages
<https://www.forbes.com/sites/bernardmarr/2020/01/15/we-need-steam-not-stem-education-to-prepare-our-kids-for-the-4th-industrial-revolution/#3231dcc155fb>

We need to reskill the world: Here's how to do it. / B. Brende May 13, 2019 3 Pages
https://apolitical.co/solution_article/we-need-to-reskill-the-world-heres-how-we-do-it

What are 21st Century Skills? 5 Pages 1 Video
<https://www.aeseducation.com/career-readiness/what-are-21st-century-skills>

What can we expect of the job world in 2030? 3 Pages
<http://inspire.africa/what-can-we-expect-of-the-job-world-in-2030/>

What exactly is vocational training? September 28, 2018 4 Pages
<https://www.skillsportal.co.za/content/what-exactly-vocational-training>

What Learning Will Look Like in 2035. / Tom Vander Ark February 17, 2016 3 Pages
<https://www.gettingsmart.com/2016/02/64273/>

Assessing Soft Skills: Are We Preparing Students for Successful Futures? A Perceptions Study of Parents, Teachers, and School Administrators. August 2018 24 Pages
https://www.nwea.org/content/uploads/2018/08/NWEA_Gallup-Report_August-2018.pdf

Assessment of Transversal Skills (ATS2020) Country Pilot Report: Slovenia. / Tanja Rupnik 2018 47 Pages
<https://www.zrssi.si/pdf/AssessmentofTransversalSkills.pdf>

Beyond Technology: The Fourth Industrial Revolution in the Developing World. May 2019 61 Pages
https://csis-prod.s3.amazonaws.com/s3fs-public/publication/190520_Runde%20et%20al_FourthIndustrialRevolution_WEB.pdf

Bridging The Soft Skills Gap: How the Business and Education Sectors Are Partnering to Prepare Students for the 21st Century Workforce. 17 Pages
<https://www.uschamberfoundation.org/sites/default/files/Closing%20the%20Soft%20Skills%20Gap.pdf>

Building the skills to participate in the 4IR : Connectivity is key to leveraging digital technologies in education. July 30, 2019 1 Page
<http://www.dfafrica.co.za/building-the-skills-to-participate-in-the-4ir/>

Building the workforce of the future learning from grow with Google. / Anna Round June 2018 60 Pages
https://www.ippr.org/files/2018-06/1529407840_google-digital-skills-june18.pdf

Challenges and Opportunities for Education in the Fourth Industrial Revolution. / C. Kayembe September 2019

16 Pages

https://journals.co.za/docserver/fulltext/ajpa_v11_n3_a6.pdf?epires=1580288151&id=id&accname=guest&checksum=3266B53D8BE34F218006CF277E582098

The changing nature of work. / World Bank Group 2019 151 Pages

<http://documents.worldbank.org/curated/en/816281518818814423/2019-WDR-Report.pdf>

The class of 2030 and life-ready learning: The technology imperative: A summary report . 31 Pages

https://education.minecraft.net/wp-content/uploads/13679_EDU_Thought_Leadership_Summary_revisions_5.10.18.pdf

Classroom to workplace: what young people need to succeed. / Sarah Brown and Henrietta H. Fore January 20, 2020 4 Pages

<https://www.weforum.org/agenda/2020/01/why-skills-are-crucial-for-the-transition-from-school-to-work/>

Computer science (CS) in the compulsory education curriculum: Implications for future research. 2017 13 Pages

<https://link.springer.com/article/10.1007/s10639-016-9475-z>

Computers and the Future of Skill Demand. / Stuart W.

Elliott October 27, 2017 112 Pages

<https://www.oecd.org/education/computers-and-the-future-of-skill-demand-9789264284395-en.htm>

Could new school subjects prepare SA for the Fourth Industrial Revolution? March 2019 6 Pages

<https://albertonrecord.co.za/204471/new-school-subjects-prepare-sa-fourth-industrial-revolution/>

21st Century Skills: evidence of issues in definition, demand and delivery for development contents. /

CJoynes, S. Rossignoli, Esi Fenyiwa Amononoo-Kuofi August 2019 75 Pages

https://assets.publishing.service.gov.uk/media/5d71187ce5274a097c07b985/21st_century.pdf

21st-Century Skills and the Fourth Industrial Revolution: a critical future role for online education. / John Reaves Jun 14 2019 1 Page

<https://onlineinnovationsjournal.com/streams/immersive-online-education/4f6fa2666b8cd098.html>

21st Century Standards and Curriculum: Current Research and Practice. / Halah Ahmed Alismail Dr. Patrick McGuire

2015 6 Pages

<https://files.eric.ed.gov/fulltext/EJ1083656.pdf>

2019 Workplace Learning Report. 44 Pages

<https://learning.linkedin.com/content/dam/me/business/en-us/amp/learning-solutions/images/workplace-learning-report-2019/pdf/workplace-learning-report-2019.pdf>

The 2030 Skills Scorecard Bridging business, education, and the future of work. 8 Pages

<https://gbc-education.org/wp-content/uploads/2019/09/GBC-Education-2030-Skills-Scorecard.pdf>

Using Classroom Assessment to Promote 21st Century Learning in Emerging Market Countries. / Jon

K. Price and Elizabeth Pierson 11 Pages

<http://cct.edc.org/sites/cct.edc.org/files/publications/Using%20Classroom%20Assessment.pdf>

Traditional Subjects: Can We Do Without Them? /

Sarah Briggs September 4, 2016 3 Pages

<https://www.opencolleges.edu.au/informed/features/traditional-subjects-can-we-do-without-them/>

Transforming School Education for The Smart Machine Age. /

Edward D. Hess 16 Pages

<https://www.darden.virginia.edu/sites/default/files/inline-files/transformingeducation.pdf>

Transversal Competencies and their Assessment: Perspectives from the Asia-Pacific. /

Ramya Vivekanandan. January 31, 2017 1 Page

<https://www.norrag.org/transversal-competencies-and-their-assessment-perspectives-from-the-asia-pacific/>

Transversal competencies essential for future proofing the workforce. /

S. T. Whittemore 49 Pages

<https://www.cornerstoneondemand.com/sites/default/files/partner/asset/files/skilla-transversal-skills-future-proof.pdf>

"Transversal skills are the foundation skills for future!!!" /

Jemi Sudhakar March 5, 2018 9 Pages

<https://www.linkedin.com/pulse/transverse-skills-foundation-future-ms-jemi-sudhakar>

TVET (Technical and Vocational Education and Training) 5 Pages

[https://en.wikipedia.org/wiki/TVET_\(Technical_and_Vocational_Education_and_Training\)](https://en.wikipedia.org/wiki/TVET_(Technical_and_Vocational_Education_and_Training))

Creativity, the Arts, and the Future of Work. /

Linda F. Nathan 7 Pages

https://link.springer.com/chapter/10.1007/978-3-319-78580-6_9

Creativity: the essential future job skill. 2017 1 Page

http://ex-staticpages.s3.amazonaws.com/static_page_assets/marketing-resources/assets/PDF/Creativity-The-Essential-Future-Job-Skill.pdf

Curricula needs overhaul to address future skills deficit. /

Simnikiwe Mzekandaba October 11, 2018 3 Pages

<https://www.itweb.co.za/content/dgp45MaGzm5vX9I8>

Curriculum for Coding and Robotics is 100% ready - Minister Angie Motshekga. /

Lerato Selepe July 17, 2019 1 Page

<https://www.iol.co.za/the-star/news/curriculum-for-coding-and-robotics-is-100-ready-minister-angie-motshekga-29349990>

Decoding global trends in upskilling and reskilling. /

Orsolya Kovács-Ondrejko, Rainer Strack, Pierre Antebi, Ana López Gobernado and Elizabeth Lyle November 5, 2019 9 Pages

<https://www.bcg.com/publications/2019/decoding-global-trends-upskilling-reskilling.aspx>

Deeper Learning Competencies. April 2013 5 Pages

http://www.hewlett.org/wp-content/uploads/2016/08/Deeper_Learning_Defined_April_2013.pdf

Demand Driven Education Merging work & learning to develop the human skills that matter. /

Joe Deegan & Nathan Martin [2019] 44 Pages

https://www.pearson.com/content/dam/one-dot-com/one-dot-com/global/Files/about-pearson/innovation/open-ideas/DDE_Pearson_Report_3.pdf

Developing a future-ready education and skills system: a brief for a comprehensive review. 9 Pages

<https://westyorkshire.moderngov.co.uk/documents/s8793/item%20%20-%20Skills%20System%20Review%20Appendix%201.pdf>

Developing the Workforce for a Digital Future: Addressing critical issues and planning for action.

42 Pages

[https://cdn.aigroup.com.au/Reports/2018/](https://cdn.aigroup.com.au/Reports/2018/Developing%20the%20workforce%20for%20a%20digital%20future.pdf)

[Developing the workforce for a digital future.pdf](https://cdn.aigroup.com.au/Reports/2018/Developing%20the%20workforce%20for%20a%20digital%20future.pdf)

Development of transversal competences in school education (a didactic interpretation). / Nikolay Tsankov

2017 16 Pages

<https://scindeks-clanci.ceon.rs/data/pdf/2334-847X/2017/2334-847X1702129T.pdf>

Digital skills crucial to the success of Fourth Industrial Revolution. June 28, 2018 2 Pages

<https://www.jisc.ac.uk/news/digital-skills-crucial-to-the-success-of-fourth-industrial-revolution-28-jun-2018>

Digital Skills Toolkit. 88 Pages

<https://www.itu.int/en/ITU-D/Digital-Inclusion/Documents/ITU%20Digital%20Skills%20Toolkit.pdf>

Discussion Forum: The 4th Industrial Revolution.

September 11-13, 2018 10 Pages

<http://www.nstf.org.za/wp-content/uploads/2018/08/184IRConcept.pdf>

Does vocational training help young people find a (good) job? Systems combining structured learning on the job with classroom training can ease youth unemployment. 10 Pages

<https://wol.iza.org/uploads/articles/112/pdfs/does-vocational-training-help-young-people-find-good-job.pdf>

These are the skills you should learn that will pay off forever. / World Economic Forum 2017 1 Pages

<https://www.weforum.org/agenda/2017/08/these-are-the-skills-you-should-learn-that-will-pay-off-forever>

This is how we can eliminate learning poverty for children by 2030. / Jaime Saavedra October 30, 2019 2 Pages

<https://www.weforum.org/agenda/2019/10/ending-learning-poverty-the-call-of-our-times/>

To build the workforce of the future, we need to revolutionize how we learn. / World Economic Forum September 11, 2019 2 Pages

<https://www.weforum.org/agenda/2019/09/to-build-the-workforce-of-the-future-we-need-to-revolutionize-how-we-learn-welcome-to-digital-learning-2-0/>

Tomorrow's world: future of the labour market: Youth Commission Report 3. / Stephen Evans June 2019

25 Pages

<https://www.learningandwork.org.uk/wp-content/uploads/2019/06/YC3-Future-of-the-Labour-Market.pdf>

The Top 5 Tech Trends That Will Disrupt Education In 2020 - The EdTech Innovations Everyone Should Watch. / Bernard Marr January 20, 2020 2 Pages

<https://www.forbes.com/sites/bernardmarr/2020/01/20/the-top-5-tech-trends-that-will-disrupt-education-in-2020the-edtech-innovations-everyone-should-watch/#53a7cbde2c5b>

Towards a Reskilling Revolution Industry-Led Action for the Future of Work. / World Economic Forum In

collaboration with Boston Consulting Group. 2019 93 Pages

http://www3.weforum.org/docs/WEF_Towards_a_Reskilling_Revolution.pdf

Student assessment: Putting the learner at the centre.

67 Pages

<https://www.oecd-ilibrary.org/docserver/9789264190658-7-en.pdf?epires=1580545770&id=id&accname=guest&checksum=27CBAB09F06F3F290B528C4EED68F19>

Talent and Leadership Development In The Fourth Industrial Revolution Era.

/ Laura Lozza 10 Pages

https://www.google.com/search?q=Laura+Lozza&rlz=1C1GCEA_enZA801ZA801&oq=Laura+Lozza&aqs=chrome..69i57&sourceid=chrome&ie=UTF-8

Teachers' Readiness in Implementing 21st Century.

/ LearningNorazlin Mohd Rusdin April 2018 14 Pages

http://hrmars.com/hrmars_papers/Teachers%E2%80%99_Readiness_in_Implementing_21st_Century_Learning.pdf

Technical and Vocational Education and Training for sustainable skills for the Fourth Industrial Revolution: snapshot at some TVET colleges in

South Africa. / Moses Makgato 2018 19 Pages

http://cdn.lgseta.co.za/resources/research_and_reports/4IR%20Resources/TVET%20for%20sustainable%20skills%20for%20the%204IR_Snapshot%20at%20some%20TVET%20Colleges%20in%20SA_Moses%20Makgato_TUT.pdf

The 10 most beneficial lifelong learning skills to

have and why. / Lee Watanabe Crockett November 05, 2019 4 Pages

<https://www.wabisabilearning.com/blog/10-beneficial-lifelong-learning-skills>

The 10 Vital Skills You Will Need For The Future Of

Work. / Bernard Marr April 29, 2019 2 Pages

<https://www.forbes.com/sites/bernardmarr/2019/04/29/the-10-vital-skills-you-will-need-for-the-future-of-work/#1bbca8a43f5b>

Drawing the future: exploring the career aspirations of primary school children from around the world.

January 2018 104 Pages

<https://www.educationandemployers.org/wp-content/uploads/2018/01/DrawingTheFuture.pdf>

Educating for the 4th Industrial Revolution 2017 UNESCO-KEDI Asia-Pacific Regional Policy Seminar.

2017 3 Pages

https://teams.unesco.org/ORG/fu/bangkok/public_events/Shared%20Documents/IQE/2017/09-KEDI/docs/unesco-kedi-policy-seminar-2017-concept-note.pdf

Educating for twenty-first century competencies and future-ready learners: research perspectives from Singapore.

2017 12 Pages

<https://www.tandfonline.com/doi/full/10.1080/02188791.2017.1405475?scroll=top&needAccess=true>

Education and the Fourth Industrial Revolution.

/ Graham Brown-Martin January 14, 2018 4 Pages 1 Video

<https://medium.com/learning-re-imagined/education-and-the-fourth-industrial-revolution-cd6bcd7256a3>

Education and the Fourth Industrial Revolution: challenges and possibilities for Engineering

Education. / Kehdinga George Formunyam August 2019 9 Pages

https://www.academia.edu/40258817_EDUCATION_AND_THE_FOURTH_INDUSTRIAL_REVOLUTION_CHALLENGES_AND_POSSIBILITIES_FOR_ENGINEERING_EDUCATION

Education and The Future.

2018 67 Pages

<http://ibe-infocus.org/wp-content/uploads/2018/03/In-Focus-2017.pdf>

Education: Digital technology's role in enabling skills development for a connected world.

/ Axelle Devaux, Julie Bélanger, Sarah Grand-Clement and Catriona Manville 8 Pages
https://www.rand.org/content/dam/rand/pubs/perspectives/PE200/PE238/RAND_PE238.pdf

Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century.

257 Pages
https://hewlett.org/wp-content/uploads/2016/08/Education_for_Life_and_Work.pdf

Education skills and competencies, teaching and learning needed as a response to 4th Industrial

Revolution. / Samuel Kai Wah Chu 2017 27 Pages

https://teams.unesco.org/ORG/fu/bangkok/public_events/Shared%20Documents/IQE/2017/09-KEDI/docs/Session3%20Samuel%20Kai%20Wa%20chu%20edu.pdf

Education 2030. / HoloniQ and Quid. 2019 61 Pages

<https://www.holoniq.com/wp-content/uploads/2018/06/HoloniQ-Education-in-2030.pdf>

Effects of Vocational and General Education for Labor-Market Outcomes over the Life.

/ Ludger Woessmann 2018 20 Pages
file:///C:/Users/51790335/Downloads/EENEE_AR37.pdf

8 job skills you should have. 1 Page

<https://www.youthcentral.vic.gov.au/jobs-and-careers/plan-your-career/8-job-skills-you-should-have>

A Smart Move: Future-proofing Australia's workforce by growing skills in science, technology, engineering and maths (STEM).

April 2015. 24 Pages
<https://www.pwc.com/au/pdf/a-smart-move-pwc-stem-report-april-2015.pdf>

Soft Skills Education: Education for Future Success.

November 4, 2019 1 p.

<https://medium.com/med-daily/soft-skills-education-education-for-future-success-8357fa9a714f>

Soft skills that should be on the curriculum.

February 21, 2018 3 Pages

<https://www.educationandskillsforum.org/es/news-blogs/soft-skills-that-should-be-on-the-curriculum>

STEM for Sustainable Skills for the Fourth Industrial Revolution: Snapshot at Some TVET Colleges in

South Africa. / Moses Makgatho September 26, 2019 8 Pages

<https://www.intechopen.com/online-first/stem-for-sustainable-skills-for-the-fourth-industrial-revolution-snapshot-at-some-tvet-colleges-in-s>

Strengthening Life Skills for Youth: A Practical Guide to Quality Programming.

2014 60 Pages

https://www.s4ye.org/agi/pdf/Project_Design/Strengthening_Life_Skills_For_Youth.pdf

Strengthening Skills Expert Review of Australia's Vocational Education and Training System.

/ Steven Joyce 2019 168 Pages

<https://pmc.gov.au/sites/default/files/publications/strengthening-skills-independent-review-australia-vets.pdf>

The skilling challenge: How to equip employees for the era of automation and digitization – and how models and mindsets of social entrepreneurs can guide us . 24 Pages

https://www.ashoka.org/sites/default/files/atoms/files/2018_the_skilling_challenge_ashoka_mckinsey.pdf

Skills for a global future. / Anna Payton and Genevieve Knight
11 Pages

https://www.ncver.edu.au/_data/assets/pdf_file/0041/3179885/Skills-for-a-global-future.pdf

Skills 4.0: a skills model to drive Scotland's future.

27 Pages

https://www.skillsdevelopmentscotland.co.uk/media/44684/skills-40_a-skills-model.pdf

Skills of the Future Workforce: Upskilling for Hybrid

Jobs. July 26, 2019 3 Pages

<https://www.getsmarter.com/blog/employee-development/skills-of-the-future-workforce-upskilling-for-hybrid-jobs/>

Skills policies and systems for a future workforce. /

Global Commission on THE FUTURE OF WORK February 2018 10 Pages

https://www.ilo.org/wcmsp5/groups/public/---dgreports/---cabinet/documents/publication/wcms_618170.pdf

Skills, qualifications and jobs in the EU: the making of a perfect match? Evidence from Cedefop's European skills and jobs survey. 2015 122 Pages

https://www.cedefop.europa.eu/files/3072_en.pdf

8 Things Every School Must Do To Prepare For The 4th Industrial Revolution. / Bernard Marr May 22, 2019

3 Pages

<https://www.forbes.com/sites/bernardmarr/2019/05/22/8-things-every-school-must-do-to-prepare-for-the-4th-industrial-revolution/#55641d86670c>

Emerging Technologies and Preparing for the Future Labor Market. / Robert D. Atkinson March 2018 26 Pages

<http://www2.itif.org/2018-emerging-technology-future-labor.pdf>

Empowering our students with 21st Century Skills for today. / David Ross April 24, 2017 1 Page

<https://www.gettingsmart.com/2017/04/empowering-students-21st-century-skills/>

Enabling the Workforce of the Future The Role of Learning and Development. December 2019 68 Pages

<https://business.dcu.ie/wp-content/uploads/2019/12/IITD-EnablingTheWorkforceOfTheFuture-1.pdf>

Envisioning the future of education and jobs: trends, data and drawings. / OECD 2019 9 Pages

<http://www.oecd.org/education/Envisioning-the-future-of-education-and-jobs.pdf>

Equipping Every Learner for the 21st Century: A White Paper. 28 Pages

<https://www.cisco.com/c/dam/en/us/solutions/collateral/enterprise-networks/unified-wireless-network/GlobalEdWP.pdf>

Essential education: future jobs must be taught with tech. / David Cowan September 4, 2018 7 Pages

<https://www.raconteur.net/technology/essential-education-future-jobs-tech>

European semester thematic factsheet skills for the labour market. 15 Pages

https://ec.europa.eu/info/sites/info/files/european-semester_thematic-factsheet_skills-for-labour-market_en_0.pdf

Facing the challenges of the future of education.

2019 4 Pages

<https://www.tandfonline.com/doi/full/10.1080/23735082.2019.1585120>

Factors Influence The Students' Readiness on Industrial Revolution 4.0 " / Abd Rahman Ahmad, Pannirchelvi A/

P Segaran, Ng Kim Soon, Hairul Rizad Md Sapry, Siti Sarah Omar July 2019

4 Pages

<https://www.ijrte.org/wp-content/uploads/papers/v8i2S/B10680782S19.pdf>

Finding Strong Footing: The Future of Assessment in the Learning-to-Employment Landscape. / Jamai Blivin

and Merrilea J. Mayo 48 Pages

<https://workfitcampus.org.za/wp-content/uploads/2019/04/ShfitHappens2-1.pdf>

Finland leads for the second year globally in providing future-skills education for youth, according to the 2019 Worldwide Educating for the Future Index (WEFFI) January 14, 2020 3 Pages

<https://eiuperspectives.economist.com/talent-education/finland-leads-second-year-globally-providing-future-skills-education-youth-according-2019-worldwide>

Fit for the future education in Wales: White Paper for discussion. October 2018 33 Pages

<https://futuregenerations.wales/wp-content/uploads/2019/10/2019-10-16-Fit-for-the-Future-Education-in-Wales-1-1.pdf>

Schools of the Future: Defining New Models of Education for the Fourth Industrial Revolution.

January 2020 34 Pages

http://www3.weforum.org/docs/WEF_Schools_of_the_Future_Report_2019.pdf

7 Critical Skills for the Jobs of the Future. 4 July 2017

3 Pages

<https://singularityhub.com/2017/07/04/7-critical-skills-for-the-jobs-of-the-future/>

7 Great Education Policy Ideas for Progressives in

2018. / Lisette Partelow, Catherine Brown, Sarah Shapiro and Stephanie

Johnson March 28, 2018 15 Pages

<https://www.americanprogress.org/issues/education-k-12/reports/2018/03/28/448156/7-great-education-policy-ideas-progressives-2018/>

Seven Skills Students Need for Their Future. 1p.

<https://asiasociety.org/education/seven-skills-students-need-their-future>

A silent crisis: how global education poverty can be tackled. / Jaime Saavedra January 06, 2020 4 Pages

<https://www.weforum.org/agenda/2020/01/education-learning-poverty/>

Skill and vocational development needs over the period to 2030: A Joint Situation Report by the Partnership for Skilled Professionals. 96 Pages

http://www.bmas.de/SharedDocs/Downloads/EN/PDF-Publikationen/skill-and-vocational-development-needs.pdf?__blob=publicationFile&v=3

A Skilled Workforce for Strong, Sustainable and Balanced Growth: A G20 Training Strategy. / International

Labour Organization 2011 48 Pages

<https://www.oecd.org/g20/summits/toronto/G20-Skills-Strategy.pdf>

Rebuilding education for the class of 2030. / Futurewave

Business September 25, 2018 1 Page

The significance of 2030 in South Africa.

<http://www.business-it.co.za/rebuilding-education-for-the-class-of-2030/>

Report skills 2030. Why the adult skills system is failing to build an economy that works for

everyone. / IPPR February 2017 74 Pages

https://www.ippr.org/files/publications/pdf/skills-2030_Feb2017.pdf

The reskilling revolution can transform the future of work for women. / Miki Tsusaka January 20, 2020 3 Pages

<https://www.weforum.org/agenda/2020/01/women-reskilling-revolution-future-of-work/>

Responding to the challenges and opportunities in the 4th Industrial revolution in developing

countries . / More Iackson Manda and Soumaya Ben Dhaou 10 Pages

<https://collections.unu.edu/eserv/UNU:7324/p244-Ickson-Manda.pdf>

The Role of Artificial Intelligence in the Evolution of Learning & Development: White Paper. 8 Pages

<https://www.geteverwise.com/whitepapers/>

[Everwise_white_paper_AI_in_Learning_and_Development.pdf](https://www.geteverwise.com/whitepapers/whitepaper-white-paper-ai-in-learning-and-development.pdf)

The Role of Education in Building Soft Skills: Putting into Perspective the Priorities and Opportunities for Teaching Collaboration and Other Soft Skills in

Education. / Alan D. Greenberg and Andrew H. Nilssen April 2015

32 Pages

<http://downloads01.smarttech.com/media/research/wainhouse.pdf>

5 Emerging Trends in 21st-Century Education.

July 16, 2017 2 Pages

<https://www.gettingsmart.com/2017/07/5-emerging-trends-in-21st-century-education/>

5 things we know about the jobs of the future. / World

Economic Forum January 2020 1 Page

<https://www.weforum.org/agenda/2020/01/future-jobs-and-skills-in-demand/>

4 Myths About the Future of Education. / John Spencer

January 8, 2020_1 Page_4 Video's

<http://www.spencerauthor.com/innovation-myths/>

The four skills young people need to find work in the Fourth Industrial Revolution. 6 Pages

<https://theirworld.org/news/four-skills-young-people-need-to-find-work-succeed-in-fourth-industrial-revolution>

The Fourth Industrial Revolution and education. 1 Page

[file:///C:/Users/51790335/Downloads/5177-Main%20document-23862-1-10-20180528%20\(1\).pdf](file:///C:/Users/51790335/Downloads/5177-Main%20document-23862-1-10-20180528%20(1).pdf)

The Fourth Industrial Revolution (4IR) and Education. 2019 1 Page

<https://www.macmillan.co.za/news/education-news/4/the-fourth-industrial-revolution-4ir-and-education/186>

The Fourth Industrial Revolution: New paradigm for education and training. / Michael Fung 24 Pages

https://www.wipo.int/edocs/mdocs/mdocs/en/wipo_cr_sin_18/wipo_cr_sin_18_t_4.pdf

4IR and the SA education system. / Ramukumba Khathu

July 16, 2019 3 Pages

<https://www.bizcommunity.com/Article/196/371/193213.html>

Frankenstein and the Fourth Industrial Revolution (4IR): Ethics and Human Rights Considerations. /

Raphael Mpofu and Angelo Nicolaides 2019 25 Pages

https://www.ajhtl.com/uploads/7/1/6/3/7163688/article_71_vol_8_5_2019_unisa.pdf

The Future Education / Education in 2030. / Sarwar

Khawaja 27 February 2019 6 Pages

<https://ksarwar.com/the-future-education-education-in-2030-sarwar-khawaja/>

Future jobs, future skills. 32 Pages

https://www.jtsi.wa.gov.au/docs/default-source/default-document-library/stem-skills-strategy-may-2019.pdf?sfvrsn=265f731c_6

The future of education and skills education 2030. /

OECD 2018 23 Pages

[https://www.oecd.org/education/2030/E2030%20Position%20Paper%20\(05.04.2018\).pdf](https://www.oecd.org/education/2030/E2030%20Position%20Paper%20(05.04.2018).pdf)

The Future of Jobs and Jobs Training. / Lee Rainie and Janna

Anderson May 3, 2017 94 Pages

<https://www.pewresearch.org/internet/2017/05/03/the-future-of-jobs-and-jobs-training/>

The Future of Jobs and Skills in Africa: Preparing the Region for the Fourth Industrial Revolution. May 2017

14 Pages

http://www3.weforum.org/docs/WEF_EGW_FOJ_Africa.pdf

The Future of Jobs Employment, Skills and Workforce Strategy for the Fourth Industrial

Revolution. / World Economic Forum. January 2016 167 Pages

http://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf

Preparing the Future Workforce: Science, Technology, Engineering and Math (STEM) Policy in K-12 Education. 52 Pages

<https://files.eric.ed.gov/fulltext/ED510327.pdf>

Preparing tomorrow's workforce for the Fourth Industrial Revolution. 59 Pages

<https://www.unicef.org/rosa/media/3936/file/Preparing%20tomorrow%E2%80%99s%20workforce%20for%20the%20Fourth%20Industrial%20Revolution.pdf>

Preparing 21st Century Students for a Global Society; An Educator's Guide to the "Four Cs". 38 Pages

<http://www.nea.org/assets/docs/A-Guide-to-Four-Cs.pdf>

Preparing young people for the future of work: Policy roundtable report. / Kate Torii Megan

O'Connell 2017 26 Pages

<http://www.mitchellinstitute.org.au/wp-content/uploads/2017/03/Preparing-young-people-for-the-future-of-work.pdf>

Readiness for the future of work: An Overview of the 2035 Landscape and the Emerging Policy Instruments for Preparing Our Youth and Societies. / A.T. Kearney 30 Pages

<https://miskglobalforum.com/wp-content/uploads/2018/12/Readiness-for-the-Future-of-Work-2019.pdf>

Realizing education for all in the digital age. 2019

98 Pages

<https://www.adb.org/sites/default/files/publication/503706/adbi-realizing-education-all-digital-age.pdf>

Our Vision For South African Education: Driving Education Conversations & Solutions. 2019 15 Pages
<https://www.uj.ac.za/faculties/facultyofeducation/Documents/Edu-Kagiso-trust.pdf>

Pearson's predictions: the most sought-after jobs and skills of 2030. / David Barnett 4 Pages
<https://www.pearson.com.au/insights-and-news/the-future-of-education/the-future-of-skills/sought-after-skills-in-2030/>

Plugging into the New, 21st Century Vision of Learning. April 26, 2017 2 Pages
<https://www.gettingsmart.com/2017/04/new-21st-century-vision-learning/>

Policy options framework for the Fourth Industrial Revolution in South Africa. December 2018 40 Pages
http://www.hsrc.ac.za/uploads/pageContent/10155/4IR%20Framework%20Report_Final_lowres.pdf

Powering the Future World of Work through Digital Skills Education. / Deirdre White July 14, 2019 4 Pages
<https://news.sap.com/2019/07/digital-skills-education-powers-future-work/>

Preparing our Youth for an Inclusive and Sustainable World: The OECD PISA global competence framework. / OECD. 2018 17 Pages
<https://www.oecd.org/education/Global-competency-for-an-inclusive-world.pdf>

PreParIng Teachers To Deliver 21sT-cenTury skills. / OECD 2012 14 Pages
<https://www.oecd-ilibrary.org/docserver/9789264174559-4-en.pdf?epires=1579683472&id=id&accname=guest&checksum=2C9FF20AF5021A13A91DC2FB243E7C1>

The Future of Learning
•May 20, 2019
[Goldman Sachs
https://www.youtube.com/watch?v=SVz_Zp3lf88](https://www.youtube.com/watch?v=SVz_Zp3lf88)
2:44 minutes

The Future of Skills: Employment in 2030. / Tom Vander Ark September 29, 2017 3 Pages
<https://www.gettingsmart.com/2017/09/the-future-of-skills-employment-in-2030/>

The future of skills employment in 2030. / Hasan Bakhshi, Jonathan M. Downing, Michael A. Osborne & Philippe Schneider 2017 124 Pages
https://www.oxfordmartin.ox.ac.uk/downloads/reports/the_future_of_skills_employment_in_2030_0.pdf

Future of Skills: Jobs in 2030
•Sep 27, 2017
<https://www.youtube.com/watch?v=M908RNjj0n8>
2:11 minutes

Future of Work, Future of Education ... Rethinking how to learn in a world of exponential change.
June 9, 2019 6 video's
<https://www.thegeniusworks.com/2019/06/education-for-the-future-preparing-children-for-an-incredible-exponential-world/>

The Future of Work in Africa Implications for Secondary Education and TVET Systems. / Edward K Brown and Helen Slater December 2018 94 Pages
<https://mastercardfdn.org/wp-content/uploads/2019/05/Future-of-Work-and-Implications-for-Secondary-Education-and-TVET-FINAL.pdf>

The Future of Work: Jobs and skills in 2030. February 2014 198 Pages
https://www.oitcenterfor.org/sites/default/files/file_publicacion/thefutureofwork.pdf

Future of Work Skills and Industry Summit 28

November 2018. 16 Pages

https://desbt.qld.gov.au/_data/assets/pdf_file/0025/9439/future-of-work-pre-reading-pack.pdf

Future-proofing the workforce accelerating skills acquisition to match the pace of change. 2018 36 Pages

https://future-skilling.adecgroup.com/downloads/Adecco_-_Future_skilling_report_2018.pdf

Future Ready Research on incorporating career education in the Australian Curriculum. January 2019 39

Page

https://cica.org.au/wp-content/uploads/future_ready_-_research_on_incorporating_career_education_in_the_australian_curriculum.pdf

Future-Ready Skills: Digital Transformation in Education. 13 Pages

https://edudownloads.azureedge.net/msdownloads/MicrosoftEducation_Future_Ready_eBook.pdf

Future Skills: How to thrive in the complex new world. 93 Pages

http://www.globaledufutures.org/images/people/WSdoklad_12_okt_eng-ilovepdf-compressed.pdf

Future Skills You'll Need In Your Career By 2030. /

University of the Witwatersrand July 4, 2019 3 Pages

<https://www.topuniversities.com/student-info/careers-advice/future-skills-youll-need-your-career-2030>

The futures of learning 2: What kind of learning for the 21st century? Cynthia Luna Scott November 2015 144 Pages

https://www.dpsgs.org/pdf/The_Futures_of_Learning.pdf

National Skills Development Plan 2030. Government

Gazette. March 7, 2019 37 Pages

'An Educated, Skilled and Capable Workforce for South Africa'

<https://www.chieta.org.za/Portals/0/ndp2030.pdf>

A New Skills Agenda for Europe: Establishing a Skills Guarantee 2016. 10 Pages

https://www.easpd.eu/sites/default/files/sites/default/files/Policy/Education/easpd_position_paper_new_skills_agenda_skills_guarantee.pdf

New Vision for Education: Unlocking the Potential of Technology. / prepared in collaboration with The Boston Consulting

Group. 2015 32 Pages

http://www3.weforum.org/docs/WEFUSA_NewVisionforEducation_Report2015.pdf

9 Skills Young People Need in the Future Workforce.

4 Pages

<https://www.skillsyouneed.com/rhubarb/skills-young-people-need.html>

OECD Future of Education and Skills 2030

Conceptual learning framework. 2019 15 Pages

http://www.oecd.org/education/2030-project/teaching-and-learning/learning/skills/Skills_for_2030.pdf

On the brink of massive change: Is this the future you want? /Tom van der Ark, Tom May 11, 2017 3 Pages

<https://www.gettingsmart.com/2017/05/on-the-brink-of-massive-change-is-this-the-future-you-want/>

The Ontario Curriculum: Career Studies, Grade 10, Open ... 2019 41 Pages

<http://edu.gov.on.ca/eng/curriculum/secondary/career-studies-grade10.pdf>

Learn or Die | Upskilling Is The Future of Education

•Nov 14, 2018

[Growth Tribe](#)

Traditional education systems are failing us.

https://www.youtube.com/watch?v=ICYHm_leahY

7:33 minutes

Lifelong digital skills development, current picture and future challenges.

2017 25 Pages

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/634178/

[Skills and lifelong learning meeting digital skills demand Bacon final.pdf](#)

The link between STEM education and future jobs.

3 Pages

<https://www.educationbusinessuk.net/features/link-between-stem-education-and-future-jobs>

Local Government Workforce and Future Skills Report Australia September 2018.

87 Pages

<https://www.lgnsw.org.au/files/imce-uploads/1/>

[Local Government Workforce and Future-Skills Reports %E2%80%9393 Australia.pdf](#)

Maths should be compulsory at school: our future jobs depend on it.

/ David van Gogh February 5, 2018 3 Pages

<https://www.abc.net.au/news/2018-02-06/stem-subjects-australian-education-system-jobs-atlassian/9373456>

National Career Education strategy.

15 Pages

<https://cica.org.au/wp-content/uploads/Future-Ready-a-student-focused-National-Career-Education-Strategy.pdf>

Getting Skills Right: Good Practice in Adapting to Changing Skill Needs: A Perspective on France, Italy, Spain, South Africa and the United Kingdom.

/ OECD 2017 84 Pages

https://read.oecd-ilibrary.org/employment/getting-skills-right-good-practice-in-adapting-to-changing-skill-needs_9789264277892-en#page2

Getting Skills Right: South Africa.

/ OECD 2017 78 Pages

https://read.oecd-ilibrary.org/employment/getting-skills-right-south-africa_9789264278745-en#page20

The global skills shortage: Bridging the Talent Gap with Education, Training and Sourcing.

2019 7 Pages

<https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Documents/SHRM%20Skills%20Gap%202019.pdf>

Global Skills Trends, Training Needs and Lifelong Learning Strategies for the Future of Work.

/ Report prepared by the ILO and OECD for the G20 Employment Working Group .

June 11-12, 2018 26 Pages

https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_646038.pdf

Global trends challenged by African realities:

Workforce of the future 2030.

October 2019 27 Pages

<https://www.pwc.co.za/en/assets/pdf/workforce-for-the-future-2030.pdf>

How to prepare students for the jobs of the future.

4 Pages

<https://digitalmarketinginstitute.com/blog/how-to-prepare-students-for-the-jobs-of-the-future>

How well do schools prepare children for their future?

May 2017 29 Pages

<http://www.educationappg.org.uk/wp-content/uploads/2017/04/Preparing-for-the-future-inquiry-report.pdf>

Humans Wanted: How Canadian youth can thrive in the age of disruption: The coming skills revolution.

44 Pages

<https://www.rbc.com/dms/enterprise/futurelaunch/assets-custom/pdf/RBC-Future-Skills-Report-FINAL-Singles.pdf>

Impact of ICTs on Learning & Achievement.

5 Pages

<http://www.infodev.org/articles/impact-icts-learning-achievement>

The importance of developing math skills.

January 23, 2020 1 Page

<https://www.engineeringforkids.com/about/news/2020/january/importance-of-developing-math-skills/>

The importance of teaching soft skills in today's

classroom. October 3, 2018 1 Page

<https://learnwelledge.com/the-importance-of-teaching-soft-skills-in-todays-classrooms/>

Improving education, training and innovation.

2019 34 Pages

Discussing education and training in South Africa.

http://www.justice.gov.za/commissions/FeesHET/hearings/set2/set2-day01-NDP_PSET_CHP9.pdf

Innovative Curriculum Model Development in Robotics Education to Meet 21st Century Workforce

Needs. 2015 10 Pages

<https://www.asee.org/documents/zones/zone3/2015/Innovative-Curriculum-Model-Development-in-Robotics-Education-to-Meet-21st-Century-Workforce-Needs.pdf>

Intelligence Unleashed: How Artificial Intelligence Will Improve Education.

/ Tom Vander Ark March 1, 2016

2 Pages

<https://www.gettingsmart.com/2016/03/intelligence-unleashed-how-artificial-intelligence-will-improve-education/>

Ireland's national skills strategy 2025.

63 Pages

https://www.education.ie/en/Publications/Policy-Reports/pub_national_skills_strategy_2025.pdf

It's learning. Just not as we know it. . How to accelerate skills acquisition in the age of intelligent technologies.

/ Accenture 40 p.

<https://www.accenture.com/acnmedia/thought-leadership-assets/pdf/accenture-education-and-technology-skills-research.pdf>

Jobs are changing, so should education.

8 Pages

<https://royalsociety.org/-/media/policy/Publications/2019/12-02-19-jobs-are-changing-so-should-education.pdf>

The jobs forecast is unsettled. It's time for a reskilling revolution.

/ World Economic Forum 2020 Pages

<https://www.weforum.org/agenda/2020/01/denmark-reskilling-revolution-future-of-work>

Jobs of the future—surviving the Fourth Industrial Revolution.

March 06, 2019 2 Pages

<https://www.careerjunction.co.za/blog/the-future-of-jobs/>

Jobs will be very different in 10 years. Here's how to prepare.

/ World Economic Forum 2020 3 Pages

<https://www.weforum.org/agenda/2020/01/future-of-work>