



# Browsing mega-trends: IR 4.0

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# *We like it, don't we?*

New

Future

Changing

Crisis

Transformation

*Modernisation*

Globalisation

# Abstract

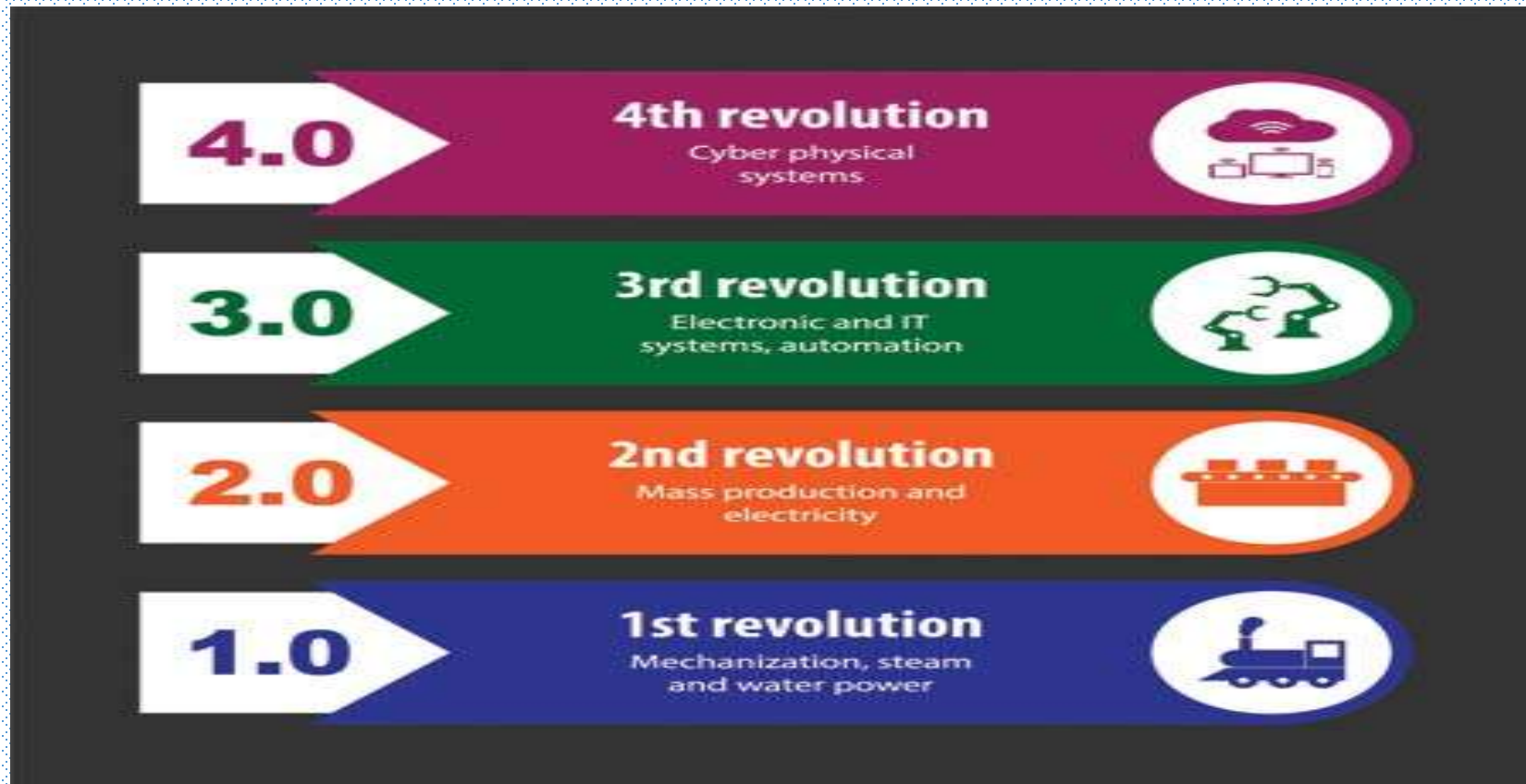
- We now have the '4<sup>th</sup> Industrial Revolution' and the 'Future of Work' has changed.
- Our objective here is to browse reports and statements from a range of international agencies and stakeholders (e.g. OECD, WEF, ILO, ITUC, etc.) to identify their dominant narratives, prospects and concerns.
- And to see what revolution means in this context?

# What is the 4<sup>th</sup> Industrial **Revolution**?

- What does it look [like](#) ?

Building on the widespread availability of digital technologies that were the result of the Third Industrial, or Digital, Revolution, the Fourth Industrial Revolution will be driven largely by the convergence of digital, biological, and physical innovations.

[Klaus Schwab](#) [Example – Pizza delivery](#)



# What is the 4<sup>th</sup> Industrial **Revolution**?

- **ALGO v EGO**

- [ILO](#) Global Challenges for the future of work
- Versus
- Campus Review (2019)

## **Employers reveal what they want from Graduates**

- *February, Open Universities Australia (OUA) talked to our industry partners to see what they are expecting from students in today's digital workforce soft skills combined with theoretical expertise, exposure to up-to-date industry knowledge and agility.*
- *What are the skills that they are expecting? Soft skills are what enable students to integrate quickly and excel in the workplace. These skills include **communication, influencing, collaborating, problem solving, innovation, emotional intelligence, leadership, public speaking, conflict resolution and resilience.***

Production, Reproduction and Destruction of Human nature and Culture

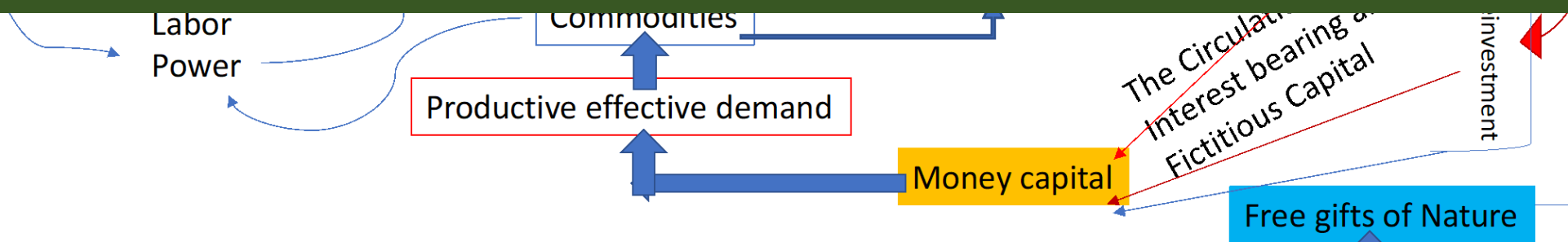


Bourgeois Demand

State Expenditure

David Harvey – the underlying dynamics stay the same because *Surplus Value* still goes to the owners of the means of production whatever the technological improvements.

Or Bill Robinson – ‘at this point of globalized capitalism, the structural power of transnational finance capital is really overwhelming, which has this enormous power to undermine [] progressive elements’ i.e. here is the revolution not technology.



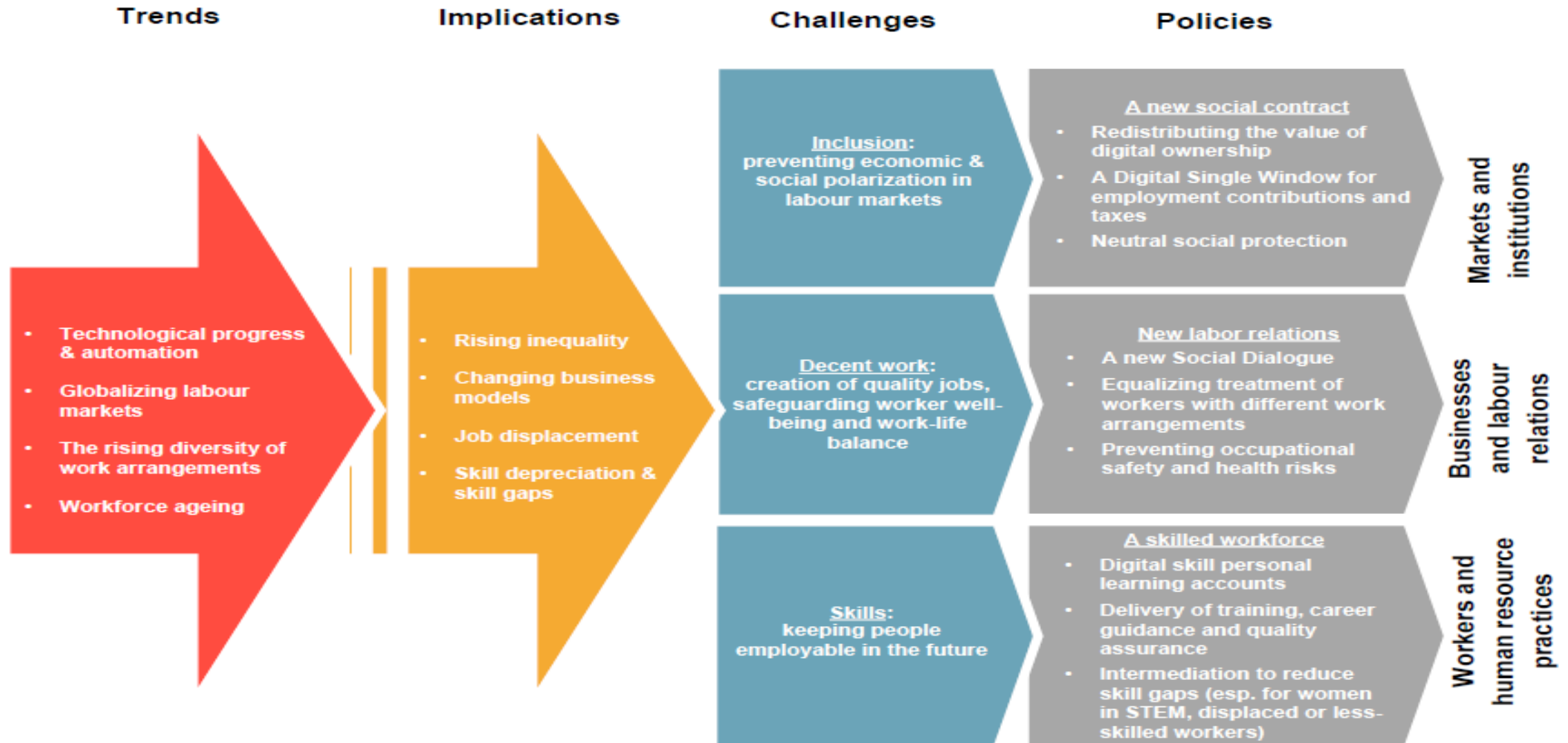
3. PRODUCTION. REPRODUCTION AND DESTRUCTION OF SPACE, PLACE AND NATURE

BUT what do the institutions *say* they want -

- HLEG (High-Level Expert Group on Artificial Intelligence)
- WEF (World Economic Forum)
- ILO (International Labour Organisation)
- ITUC (International trade Union Congress).



# Report of the HLEG on the Impact of the Digital Transformation on EU Labour Markets 2019



# Report of the AI [HLEG](#) on the Impact of the Digital Transformation on EU Labour Markets 2019

- **Net job creation but also job polarization**
- **The rising diversity in working arrangements**
- **Worker well-being and work-life balance**
- **Rising wage and income inequality**

World Economic Forum (WEF) **Leading through the Fourth Industrial Revolution: Putting People at the Centre** [11 January 2019]  
<https://www.weforum.org/whitepapers/leading-through-the-fourth-industrial-revolution-putting-people-at-the-centre>  
[http://www3.weforum.org/docs/WEF\\_Leading\\_through\\_the\\_Fourth\\_Industrial\\_Revolution.pdf](http://www3.weforum.org/docs/WEF_Leading_through_the_Fourth_Industrial_Revolution.pdf)

The Fourth Industrial Revolution presents an unparalleled opportunity to develop a more interconnected, efficient and environmentally responsible global industry landscape. Remarkable innovations in technology and digitalization can yield amazing advances in manufacturing possibilities. At the core of this exciting era of transformation, however, lies the most important resource of all: people. Responsible leadership of the production workforce – now and in the future – is predicated upon a human-centric mindset. Unlocking the true potential of the Fourth Industrial Revolution depends on constantly recognizing human potential – a

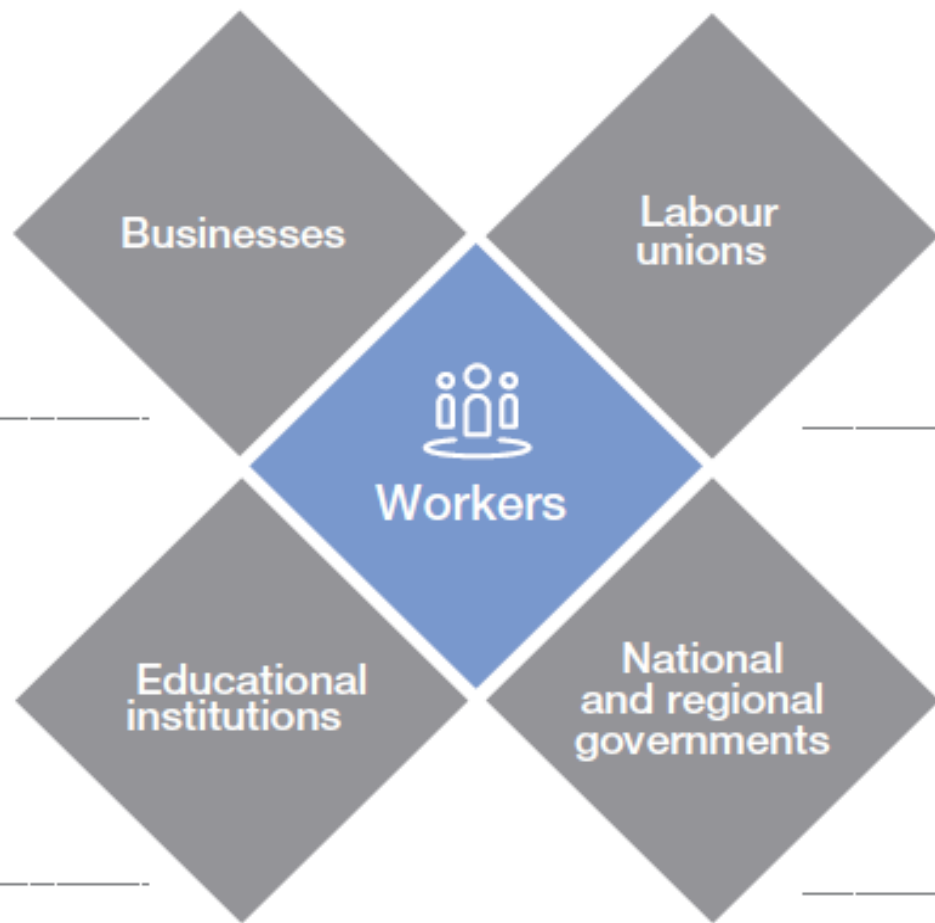
**And keeping people at the Centre**

# World Economic Forum (WEF) [Leading through the Fourth Industrial Revolution: Putting People at the Centre](#) [11 January 2019]

## The path to true collaboration

**Opportunity:** Increase the chances of acquiring and retaining critical talent and enhancing the relevance and employability of the workforce to drive innovation and economic growth when competition is high

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**Opportunity:** Prioritize the longer-term protection of employment over the short-term protection of jobs, with mechanisms that support the right balance between flexibility and security

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**Opportunity:** Bring the lifelong learning aspiration to reality for all, taking into consideration the uniqueness and diversity of workers' needs

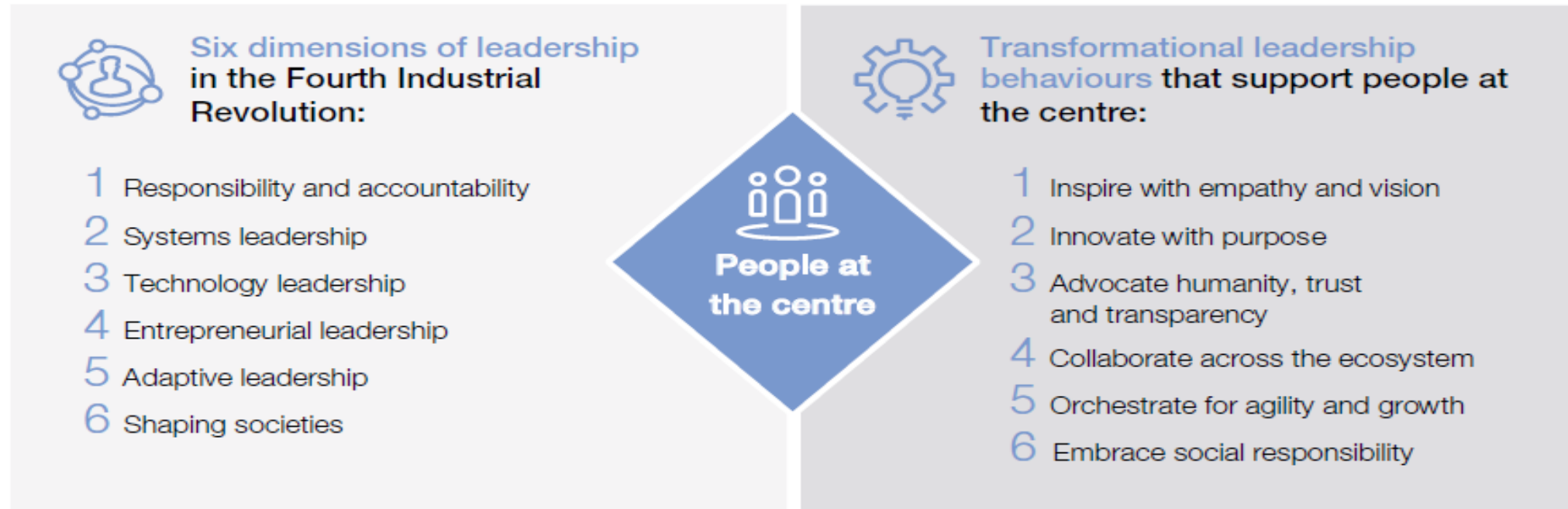
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**Opportunity:** Accelerate economic growth and greater prosperity for citizens through lifelong learning, by connecting and collaborating across key education, work and social welfare systems

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Figure 1: Leadership in the Fourth Industrial Revolution: Six dimensions of leadership and supporting behaviours

## Looking at leadership through a new lens



## ILO Perspective

- The formation of a [ILO Global Commission](#) on the Future of Work marks the second stage in the ILO Future of Work Initiative. Its job is to undertake an in-depth examination of the future of work that can provide the analytical basis for the delivery of social justice in the 21st century.

# The ILO asks questions

Questions to be asked to achieve effective governance at work.

- Does the contract of employment remain fit for purpose and, if not, how should the regulatory model be modified?
- How can progress be made toward normative consistency across regimes of governance: international, regional and national; or, private and public?
- What circumstances would create scope for further innovation in the international labour standards system, and what might that innovation be?
- How can private and public governance best be combined so as to reinforce each other?
- What new institutions and modes of governance might be needed?
- Given the fundamental role of employer and worker organizations in the governance of work, for democracy, and in the pursuit of social justice: what will be the forms of employer and worker organization – of collective solidarity – that will insist on accountable governance of work?

## ILO Future of Work Commission: ITUC Welcomes Calls for Revitalised Social Contract and Universal Labour Guarantee

“The Commission’s report shows the way ahead, and now governments and employers alike have to accept their responsibilities,” said Philip Jennings.



## FRONTLINE CAMPAIGNS FOR ACTION 2020

### ITUC Frontline Campaigns

**Democracies for People: Change the Rules**

**A New Social Contract**

**Just Transition for Climate Ambition**

### ITUC Pillars and Thematic Areas

**Peace, Democracy and Rights**

**Regulating Economic Power**

**Global Shifts - Just Transitions**

**Industrial Transformation – And future of work**

**Equality**

\*But where is - Education, Education, Education-> teach critical thinking

## 25/3 | International Union Rights - Focus on Industry 4.0

Contrary to the popular assumption that digital platforms are the 'cutting edge' of business innovation, their work practices are centuries old: including piece-work compensation, on-demand work scheduling, and labour hire systems that have been around as long as capitalism.

In previous decades, limits were imposed on some of these work practices: through ambitious labour regulations, full-employment macro economic policies, and collective bargaining.

# 25/3 | International Union Rights - Focus on Industry 4.0

The more recent resurgence of insecure work has not been driven by technology, but by the deliberate relaxation of those former constraints on employers. We can easily imagine better ways of compensating and protecting gig workers: starting by applying traditional protections (minimum wage, pension entitlements), just as in other paid positions. The barrier to better treatment is not technology, but the imbalance of power in modern economies.

- JIM STANFORD is Economist and Director of the Centre for Future Work in Sydney, Australia and is the author of *Economics for Everyone* (London: Pluto, 2015)

# CAVEATS

- A 'Revolution' to start with? No.
- Anticipation and reification: can we learn from last mega trend? Globalization was in our heads (Washington consensus = super-structure) before it really happened (financialisation = infrastructure) – Gramsci
- The 'Brand' effect: a conceptual 'fourre-tout' (catchall) and re-dressing: whose agenda? WEF Human centric: really? (Unions ≠ Workers), The EU social model re-shuffled?
- The reality became amplified (e.g. Uberification) and distorted
- Diversion and decoupling: inequality and climate change means no such thing as 'sustainable capitalism'?

# Examples of Leading Research in Australia & NZ

- **Regulating work in the gig economy: What are the options?**

[Andrew Stewart](#), [Jim Stanford](#)

<https://journals.sagepub.com/doi/abs/10.1177/1035304617722461>

- <https://www.futurework.org.au/research>
- **AI and the future of work.** Colin Gavaghan. Project funded by the New Zealand Law Foundation, examining the legal (though also social and ethical) impacts of artificial intelligence in various aspects of New Zealand society.
- (Forthcoming in The Economic and Labour Relations Review) **The Future of Work: Implications and challenges of contemporary demographic, technological and social trends**, John Burgess; Julia Connell; Alan Nankervis (Eds)
- David Peetz <https://press.anu.edu.au/publications/realities-and-futures-work>
- Mark Dean & John Spoehr / Jane Halteh and al., in Labour & Industry, Vol.8, No 3, September 2018.

# New releases/ events

## **International Journal of Labour Research: The Future of Work: Trade Unions in Transformation**

[https://www.ilo.org/actrav/info/international-journal-labour-research/WCMS\\_731147/lang--en/index.htm](https://www.ilo.org/actrav/info/international-journal-labour-research/WCMS_731147/lang--en/index.htm)

## **Leicester Artificial Intelligence Network (LAIN): Artificial Intelligence, Platforms & Workers 25/10/19**

## **Central London BUIRA Seminar, Friday 31 January 2020: Digitalisation, employment and industrial relations**

- **Prof Birgit Mahnkopf** (Berlin School of Economics and Law) *The future of work in the era of 'digital capitalism'. Digitalization and its impact on employment, workers and industrial relations*
- **Dr Kim Moody** (University of Westminster) *The 'logistics revolution' of the 21<sup>st</sup> century as a material aspect of digital capitalism*

# New releases/ events

- **Relations industrielles/Industrial Relations (RI/IR) Call for papers: Digitization and Regulation of Work and Employment** (to be published semester 2, 2020)
- **Call for Papers: New Work Arrangements - A review of concepts and theories.** Guest Editors: Ralph Kattenbach, International School of Management, Hamburg, Johannes Moskaliuk, International School of Management, Stuttgart, Barbara Kump, WU Wien. Special issue of *management revue – Socio-Economic Studies* must be submitted by **May 31, 2020**. The publication is scheduled for issue 3/2021. <http://www.mrev.nomos.de/guidelines/submit-manuscript/>
- **The Future of Organizations in the Age of Digital Transformation - A Critical Discussion Beyond Marketing and Buzzwords.** Guest Editors: Susanne Durst, University of Skövde (Sweden), Serdal Temel, Ege University (Turkey), Pia Ulvenblad, Halmstad University (Sweden). Special issue of *management revue – Socio-Economic* scheduled for issue 4/2020.

# Additional trade union resources online

- <https://www.etui.org/Topics/Economic-trends-policies>
- <http://www.thefutureworldofwork.org/docs/bridging-the-digital-divide/> (Global Unions: UNI)
- <https://tuac.org/documents/?policy-issue=innovation-digital-economy>



# Additional sources & projects

- **Machines & Measure, Capital & Class Special Issue** (based on the International Labour Process Conference (ILPC) 24 - 26 April 2019 'Artificial Intelligence, Technology and Work' organisers Juan Grigera, Phoebe Moore, Lydia Hughes and Jamie Woodcock)
- **Digitalisation and 'Deep Automation' at Work.** Goal: This project, Martin Upchurch in conjunction with Phoebe Moore at Middlesex University, seek to explore the limits of digitalisation and deep automation at work. The studies focus on Quantified Self, digital labour, robotics and AI. A critical assessment is made of claims of coming technological singularity from the 'post capitalist' and 'full automation' schools of thought.
- <https://www.researchgate.net/project/Digitalisation-and-Deep-Automation-at-Work>
- **For a Future of Work with Dignity: A Critique of the World Bank Development Report, The Changing Nature of Work.** Mark Anner, Pennsylvania State University, United States Nicolas Pons-Vignon, University of the Witwatersrand, South Africa Uma Rani, International Labour Organization, Geneva. **Global Labour Journal, 2019, 10(1).**

# Reports

- **ILO (working paper) ROBOTS WORLDWIDE: THE IMPACT OF AUTOMATION ON EMPLOYMENT AND TRADE [27 October 2018]**
  - [https://www.ilo.org/global/research/publications/working-papers/WCMS\\_648063/lang-en/index.htm](https://www.ilo.org/global/research/publications/working-papers/WCMS_648063/lang-en/index.htm)
  - [https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms\\_648063.pdf](https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_648063.pdf)
- **Asian Development Bank (ADB) THE FUTURE OF WORK: REGIONAL PERSPECTIVES [24 January 2019]**
  - <https://www.adb.org/publications/future-work-regional-perspectives>
  - <https://www.adb.org/sites/default/files/publication/481901/future-work-regional-perspectives.pdf>
- **OECD. HOW'S LIFE IN THE DIGITAL AGE? OPPORTUNITIES AND RISKS OF THE DIGITAL TRANSFORMATION FOR PEOPLE'S WELL-BEING [26 February 2019]** [https://www.oecd-ilibrary.org/science-and-technology/how-s-life-in-the-digital-age\\_9789264311800-en](https://www.oecd-ilibrary.org/science-and-technology/how-s-life-in-the-digital-age_9789264311800-en)
- **OECD. GOING DIGITAL: SHAPING POLICIES, IMPROVING LIVES [11 March 2019]**
  - [https://www.oecd-ilibrary.org/science-and-technology/going-digital-shaping-policies-improving-lives\\_9789264312012-en](https://www.oecd-ilibrary.org/science-and-technology/going-digital-shaping-policies-improving-lives_9789264312012-en)

# Reports

- **OECD. MEASURING THE DIGITAL TRANSFORMATION: A ROADMAP FOR THE FUTURE [11 March 2019]**
- [https://www.oecd-ilibrary.org/science-and-technology/measuring-the-digital-transformation\\_9789264311992-en](https://www.oecd-ilibrary.org/science-and-technology/measuring-the-digital-transformation_9789264311992-en)
- **OECD Skills Outlook 2019: Thriving in a Digital World [9 May 2019]**
- [https://www.oecd-ilibrary.org/education/oecd-skills-outlook-2019\\_df80bc12-en](https://www.oecd-ilibrary.org/education/oecd-skills-outlook-2019_df80bc12-en)
- **Eurofound. Technology scenario: Employment implications of radical automation [10 April 2019]**
- <https://www.eurofound.europa.eu/publications/report/2019/technology-scenario-employment-implications-of-radical-automation>
- [https://www.eurofound.europa.eu/sites/default/files/ef\\_publication/field\\_ef\\_document/fomeef18009en.pdf](https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/fomeef18009en.pdf)
- **Asian Development Bank (ADB). New Technology and Emerging Occupations: Evidence from Asia [11 April 2019]**
- <https://www.adb.org/publications/new-technology-emerging-occupations-evidence-asia>
- <https://www.adb.org/sites/default/files/publication/496876/ewp-576-new-technology-emerging-occupations-asia.pdf>