

**‘Bias in, Bias out’:
Gender Equality and the Fourth
Industrial Revolution**

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Bias in, bias out: an overview

Two parts

- Identify the ‘methodology’ and assumptions behind the dramatic and specific predictions of the impact of IR4.0- including the bases for predicted gendered outcomes
- Explore the implications of these predictions for future of society and gender equality- if the threat is so strong, now is the time for more radical thinking

Context

- As the economy takes a downturn, technological determinism pops up
 - Second Machine Age, Fourth Industrial Revolution, Industrie 4.0
- Debates on future of work are dominated by influential texts speculating on effects
 - Consensus that an upheaval in work organisation, job design, and labour markets is coming
- *‘There has never been a time of greater promise, or greater peril’* (Schwab 2016)
- Current unease concerns end of the professions (Susskind and Susskind 2015)

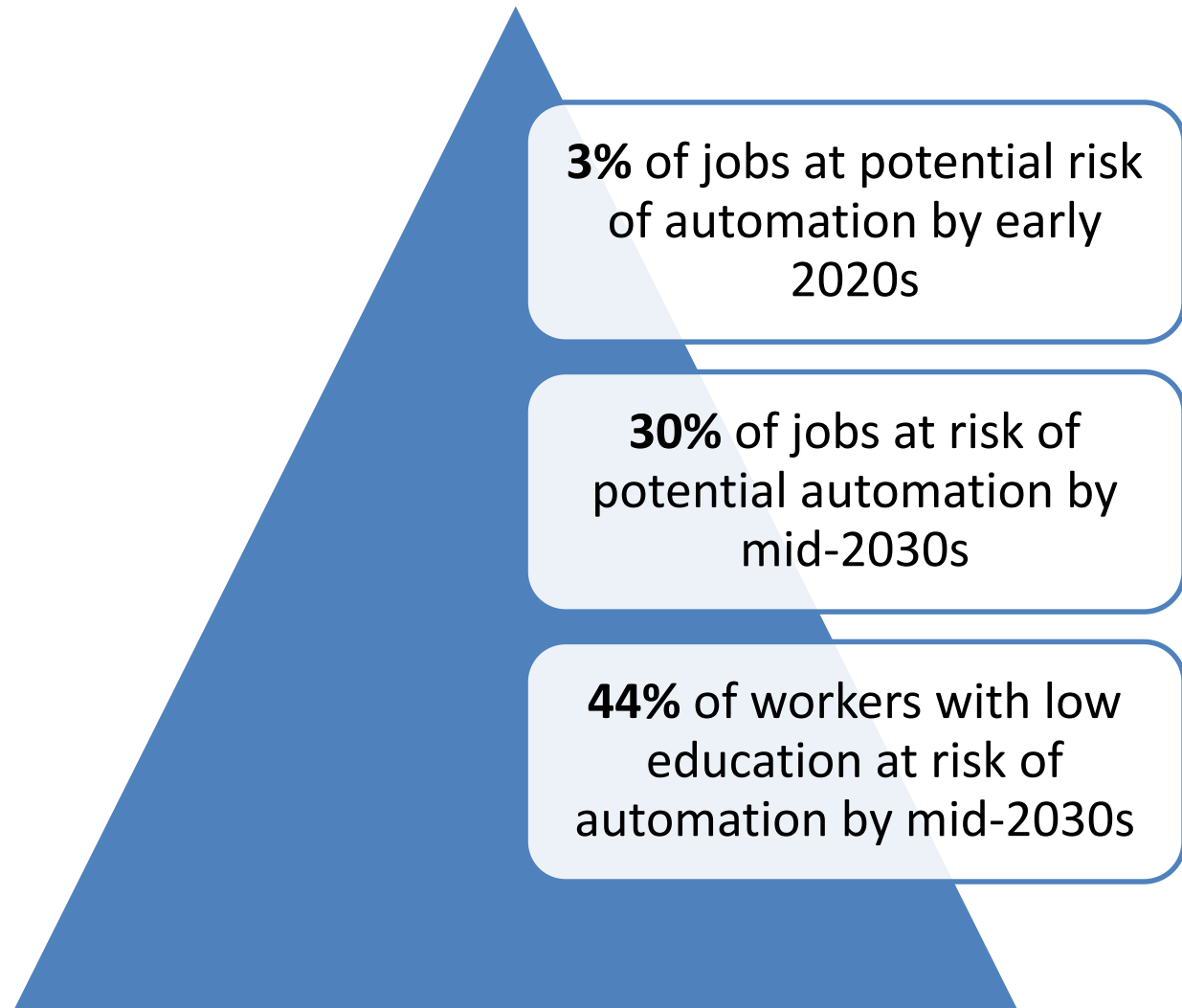
The Future of Employment

Carl Benedikt Frey & Michael Osborne

47% of US
employment is at
high risk of
displacement due
to automation
within next two
decades



pwc



Women workers could be more affected by automation over the next decade, but male jobs could be more at risk in the longer term

Predict 5.1m net job loss

2.45 million
(48%) falls
on women

- Women will face 3m job losses and 0.55m gains
- More than five jobs lost for every job gained

2.65 million
(52%) falls
on men

- Men will face nearly 4m job losses and 1.4m gains
- Three jobs lost for every job gained

The story so far...

- Predictions about the future of work are replete with uncertainty and wildly different estimates which feed speculation
- Technological determinism runs throughout
 - Its causal simplicity appears to provide great certainty and has immense appeal
 - Technology is seen as an autonomous entity that develops its own direction; it then determines societal development, regardless of context
- Investments inclined to use technology as a control mechanism rather than to liberate from tedium
- Context is one of increasing job polarisation and earnings inequality, with little evidence that technology has delivered productivity benefits
- Even if 'predictions' in some sense correct, outcomes would suggest need for radical intervention to shape society's future
 - Cannot simply hand the future to high-tech firms
- Need a collaborative approach to develop a more not a less equal society

Beyond futurology based on current gender patterns

‘To harness the opportunities of technological innovation and manage transition in the best possible way, we must rediscover what it means to build a society based on co-operation: one that benefits everyone.’
(Watson FoW Commission)

That means taking the opportunity to rebuild the gender order

1. New gender division of labour/ new approach to both wage work and unpaid work
2. Rethinking the social wage
3. Rethinking working time, family time and personal time in the gig economy
4. Changing gender segregation at work/radical reorientation of STEM occupations
5. Co-determining the future

1. New gender division of labour/ new approach to both wage work and unpaid work

Predicted

- a) major reduction in volume of available waged work
- b) likely disproportionate impact on women due to gender segregation

require a radical rethinking of the gender order

Necessary because segregation linked to domestic division of labour

Possible because of predicted reduction in volume of wage work/ increase in productivity that needs to be shared out more evenly by gender and social class

Fraser's routes to a new gender order

Important (as Nancy Fraser argues) to have an idea of the world one wishes to aim for

- Preferred option- universal care giver and universal breadwinner
 - Alternatives- dual breadwinner model (risks neglect of care) - carer/breadwinner model reinforces difference.

But Fraser assumes change comes via gender division of labour/ why employers would adjust not explored

- Rubery (2015) *Social Politics* – An attempt to map changes needed in employer behaviour to accommodate new gender order and interventions required
- a utopian thought experiment aka Fraser

But need for utopian vision if take implications of 4IR at face value for employment and economic stability, poverty, inequality etc.

- opportunity for radical intervention
- need to go beyond double Polyanian movement to re-embed market in society- need Fraser's third movement to embed market in more gender equal society

Gender equality under 4IR both requires and allows

- a more even distribution of wage work by both volume and quality.
- redistribution of unwaged work to establish a more level playing field by gender /take care responsibilities out of the competition by involving all in care work.
- combination of wage work and care work due to reduced volume of wage work

Towards a new work sharing strategy

- Need new norm for standard employment - 30 hours not 40 hours
- Could be variable over lifecourse – e.g. new VW agreements which allows for reduction to 28 hours to meet family/personal commitment - but should avoid upward flexibility in VW agreement allowing more overtime to compensate (under 4IR need more hires not more hours)
- Living wages at 30 hours- paid for by higher productivity (no decrease in overall wage share)
- Reductions in wages for higher income earners but fewer hours plus compensation at household level as both partners can work and care
- Fill gaps in care by either doing more unpaid care work as fewer hours in wage work or by more paid care work services to reduce wage work shortage

Towards a new work sharing strategy

Problems

- Conflicting schedules- not everyone can work school hours as no services etc. outside of school hours- will still need subsidized childcare/ parents having priority for work fitting with school hours/school holidays etc/ flexible working from home
- Skill shortages prevent work sharing - but skill shortage not due to lack of talents but to underdevelopment of talents/ lack of second chances and acceptance of interrupted careers - focus on skill upgrading means skill shortage only in short to medium term

2. Rethink the social wage

Concern with 4IR has led to spreading interest in a universal basic income

- Includes those in precarious work and those excluded from social protection
- alternative to apparently increasingly irrelevant or insider-focused employment protection (for a counter argument see Rubery 2015, 2017, 2018, Bosch 2017) .
- Consistent with acceptance of demand constrained employment- conditional 'work first' welfare systems make no sense in world of work shortage

Gender impact

- Some feminists in favour
 - covers those doing unpaid care work and precarious work
 - egalitarian approach that should reduce gender gaps .

But

- Funding of UBI difficult and insecure (subject to political conditions)
- Insufficient protection - not able to even up bargaining power women/men or workers/ employers
- limited discussion of how to 'pay for the kids'. (Folbre)

Alternative approach drawing on Tony Atkinson's last book on Inequality (even though gender hardly mentioned)

- Basic income for children to level playing field men and women/ remove need for family wage
- Combined with subsidised childcare so women not 'paid to stay home'
- Extend and develop minimum citizenship entitlements at high level as complementary to social insurance-entitlement based on wide definitions of contribution.

3. Rethinking working time, family time and personal time in the platform economy

4IR suggests a change in the nature of working time organisation

- from continuous to discontinuous,
- from guaranteed to constant competition for work tasks/work time,
- from bounded working time to blurred working time/ family time/personal time including sleep.

Gender effects

- men and women may be equally likely to engage in the platform economy but women are more likely to be reliant on this form of work
- women face the most major costs of variable hours, unpaid time bidding for or waiting for work (in effect unpaid work time)
- women encounter most problems from the blurring of work/family/personal time as more are combining platform economy type work with childcare.
- flexible working/working from home not necessarily a solution as women find it more difficult to clear time/space in the home environment

3. Rethinking working time, family time and personal time in the platform economy

Addressing gender and quality of life issues requires a multipronged strategy.

1. Need action to limit the platform economy which is passing transaction costs on to workers/women in the form of unpaid work time
 - Regulations and/or incentives to encourage or require employers to rebundle work tasks and/or develop preferred supplier arrangements
 - Contrary to insider/outsider debates, need to provide security and reduce unpaid work time for the vulnerable- competition to perform fragmented work tasks just increases the misery for all.
2. Need action to limit notions of 24/7 availability for those in regular employment
 - e.g. restrictions on workplace email log ins to a maximum number of hours.
3. Need action to guard against segmentation between offsite workers and onsite workers
 - e.g. encouraging a mix of work patterns for all (working on site at least weekly and more so when space at home is limited- for example in school holidays and/or expecting all to be remote workers part of the week).

Such measures are only partial but a general move to a maximum of 30 hours a week would greatly enhance their effectiveness as would also lead to time banking and more team based work across all levels of the hierarchy.

4. Changing gender segregation at work

The predicted gender effects of 4IR reflect the current gender division of labour in wage work which is often taken to reflect

- gender differences in preferences and talents

But both preferences and opportunities shaped by:

- gendered processes in the education and training systems,
- the organisation of employment in specific sectors and areas (for example working time and other work expectations),
- problems of entering and retaining specific types of jobs (including employer preferences by gender that work to the advantage and disadvantage of both sexes)
- limited provision of childcare,
- competition to enter some professions due to their overvaluation,
- limited interest by men in female-dominated jobs due to undervaluation etc.

4. Changing gender segregation at work

For a more gender equal society multi-pronged action is needed:

a) Opening up training and educational opportunities by subject

- despite significant change in the gender distribution by level of education and subject speciality some barriers still remain, e.g. STEM subjects
- Upskilling of the workforce
- predicted job losses assume limited scope for those in low skilled jobs to move into higher skilled areas.
- upskilling through a more inclusive and ambitious education system and reskilling of the existing workforce could reduce labour shortage constraints on work sharing and enable re-employment after job loss.

4. Changing gender segregation at work

b) Changing the gender order at work

Action to prevent the exclusion and downgrading of women's careers due to care responsibilities through rights to work flexibly and part-time

- Rights to return to full-time working
 - rights to flexible/part-time working at the point of hiring (currently right to request limited to those who have worked 6 months full-time for one employer)
 - plus greater access to childcare, dedicated father's and mother's leave etc.
- **Narrowing of wage inequality**
 - to increase potential for men to move into female dominated jobs
 - to reduce competition for male-dominated jobs
- **Change to working time culture/ length of working hours**
- **Reinforcement of application of both gender and age discrimination policies**
 - to counter use of gender stereotyping
 - to guard against discrimination against older women due to aesthetic labour considerations

4. Changing gender segregation at work

c) Radical re-orientation of STEM occupations

- Women remain under-represented
 - In the ICT sector, levels of female employment are decreasing (from 18% in 2016 to 17% in 2017)
 - Tend to be concentrated in the lower-paid sectors
- Policy initiatives, based on ‘add women and stir’ approach, barely scratches the surface
 - Retention is challenging, with more women leaving than being recruited
- ‘Brotopia’ (Chang 2018) and frat house culture undermining pipeline of female talent
- Need to implement ICT sectoral changes based on work sharing, working time, and gender segregation
- Absence of women in design and development of technology futures exacerbates problems of ‘bias in’

5. Co-determining the future

- Decision-making re technology investment is primarily determined by those at top of the corporate ladder (male-dominated) so decisions will likely reflect their interests
- It could be otherwise, for example:
 - In Germany, IG Metall's response to Industrie 4.0 has resulted in less fear due to potential for social dialogue around future of work
 - From 1960s on, there were a number of projects in Scandinavia intent on promoting industrial democracy and quality of working life when faced with new technology implementation (e.g. NJMF in Norway, DEMOS in Sweden, DUE in Denmark and UTOPIA in Denmark and Sweden)
- Participatory design and co-determination from bottom-up will increase representation of women workers and give women a voice in determining the future

Conclusions

- Predictions of radical change in the world of work may be exaggerated but provide an opportunity to propose radical change in the organisation of work, society, and the gender order
- But need to have a vision of what that radical change could or should be
- So far UBI is the main radical alternative suggested- need to use this example of thinking 'outside the box' to propose more and richer alternatives