1. For women transport workers technological development is happening in the context of unequal pay, sex discrimination, gender-based occupational segregation and exposure to violence, on top of economic stagnation and an economic model that incentivises precarity and the lack of formal work opportunities.

2. The basis of technological change is digitalisation. This process will increasingly change the skills and abilities required in work. Technology exacerbates existing inequalities and therefore without policy intervention, technology threatens to exacerbate gender inequality in transport.

3. Women transport workers have already been heavily impacted by new technology, with, for example, the introduction of automated ticketing machines. Alongside the trend towards outsourcing and temporary contracts, women workers have experienced a negative impact on their working conditions.

4. Women overwhelmingly bear childcare and family responsibilities, which under current conditions means that they are often unable to work full time in the formal sector. Women are therefore forced to work in the informal sector or in part-time jobs which can offer more flexibility, albeit at the expense of decent employment conditions. Men carrying those responsibilities are affected in the same way.

5. Digital platforms are emerging that capitalise on the lack of regulation of the informal sector, and profit from the fact that workers are forced to take up multiple jobs in order to make ends meet. Women are among those most exposed to this process. Only those women who do not rely on platform work as their sole income or who have access to their own vehicle can potentially benefit from the flexibility currently offered by platform work.

6. Women are also subject to gender-based occupational segregation which leads to women and men often being employed in different jobs and are therefore affected differently by technological change. In platforms where no action is taken on gender-based violence and harassment women avoid working at night, often the most profitable time to drive.

7. Algorithmic management is a product of digitalisation. Algorithms are applied without accounting for human diversity. They use a one-size-fits-all approach that negatively impacts those who are not being considered by the ‘model’ that the algorithm is based upon. Algorithmic bias against women results from a lack of recognition for how gender-based occupational segregation, unequal pay and sex discrimination function in the workplace. Algorithms therefore perpetuate existing discrimination.

8. Women are a minority in transport, although they are a high proportion of workers in part-time roles and the informal sector. Many women in transport and logistics work in passenger facing, or office support roles. The demands of the work that women carry out in transport are often undervalued, which increases their vulnerability to automation.

9. This process is already evident in aviation and in urban transport with the loss of occupations overwhelmingly dominated by women such as ticket sales or bus conductors. Other occupations are outsourced, which again drives down conditions for women.
10. Automation can have health and safety implications for workers. For example, women working as fare collectors who empty ticketing machines and are exposed to crime and can experience issues like back pain. Or they are customer facing workers exposed to public anger when machines break down or malfunction.

11. In estimates of job losses due to technology a linkage is often made between low paid jobs and their risk of automation. Since job segregation and sex discrimination lead to women generally being lower-paid than men, they are over-represented in estimates of job losses. It is actually the low value women’s roles are given that increases their risk of automation.

12. All working women will be increasingly affected by the development of monitoring, surveillance, benchmarking and rating technology based on data. This can make them more vulnerable to pressures from management or customers. It can also make them more vulnerable to gender-based discrimination, and to algorithmic management and benchmarking that takes no account of human diversity and which do not measure the full range of elements that make up a job. This is evident in warehousing, a sector with a high number of women by comparison to other areas of transport logistics.

13. These forms of measuring productivity are particularly prevalent in areas where women are more likely to work, including subcontracted firms.

14. However, some forms of monitoring technology could help support women in the workplace. It could, if linked to emergency response teams or help buttons, make women transport workers safer. Data from these technologies could also be used to counter negative stereotypes about women’s ability to fulfil certain roles, and potentially show how they act to improve work processes.

15. Women’s exposure to technology varies significantly by race as well. Black and ethnic minority women in parts of the developed world will also be more exposed to technology because they work in the lowest paid jobs, such as ticketing, that are already quite easily automatable.

16. Black and ethnic minority women are also more vulnerable to racial biases in algorithms, which often do not recognise black faces. This will have serious implications for workers across the world, unless algorithms are regulated to ensure their universal applicability.

17. Technology can help women to achieve more flexible working arrangements such as remote working. However, this usually comes at the cost of pay, decent labour conditions and recognition of the value of the work.

18. In the gig economy women are often discriminated against because they lack the capital to buy or lease a vehicle. In areas where the legal status of platforms is unclear women employees have no legal recourse against the employer or abusive passengers. Women also lose out on the most profitable working times (usually at night) because of the increased danger of passenger violence and...