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# Management, Procurement and Law (Proceedings of the ICE)

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## **Discussion: Choose your future: a feminist perspective on Construction 4.0 as techno-utopia or digital dystopia**

MAPL-21 | Discussion

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**Discussion:** Choose your future: a feminist perspective on Construction 4.0 as techno-utopia or digital dystopia

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### Contribution by David Cunningham

In her research article 'Choose your future: a feminist perspective on Construction 4.0 as techno-utopia or digital dystopia' Dr Jenni Barratt (2020) asserts without evidence that Construction 4.0 is 'gendered', and states that the 'currently gendered idea of Construction 4.0 could exacerbate current gender divisions and inequalities that currently blight the construction industry'.

This unsupported premise frames the argument which follows, which consists of a parade of different literary titles dealing with utopias and dystopias.

Dr Barrett (2020: p. 156) includes a reference to the 1996 film *Trainspotting*, recalling the moment

... when Renton instructed society to guard against blind consumption of new technology without attention to personal and social needs in the 1996 film *Trainspotting* (Hodge *et al.*, 1997).

Dr Barratt possibly intends to suggest the following monologue (Monologuedb, 2021):

Choose a job. Choose a career. Choose a family. Choose a f\*\*\*ing big television. Choose washing machines, cars, compact disc players and electrical tin openers. Choose good health, low cholesterol, and dental insurance. Choose fixed interest mortgage repayments. Choose a starter home. Choose your friends. Choose leisurewear and matching luggage. Choose your future. Choose life... But why would I want to do a thing like that? I chose not to choose life. I chose something else. And the reasons? There are no reasons. Who needs reasons when you've got heroin?

'Who needs reasons when you've got heroin?' is not a viewpoint likely to be shared by many members and fellows of the Institution of Civil Engineers.

Dr Barratt (2020: p. 156) concludes with a 'call to arms':

May civil engineers now subvert the genre and intersect gender inclusivity across all aspects of future research, innovation and strategy in relation to Construction 4.0, so that this utopia might actually be realised and not dispatched to the long list of the construction industry's dystopian disappointments.

If Dr Barrett wishes to encourage more women into civil engineering, she might draw attention to the significant successes in the use of Construction 4.0 tools and technologies, in areas ranging from improvements in project controls via introduction of a common data environment (CDE), to the reconstruction of Notre Dame Cathedral supported by a comprehensive 'digital twin' virtual model

of the cathedral developed via a combination of virtual reality, three-dimensional modelling and cloud computing technologies (Platt, 2021).

### Author's reply

The author agrees with the suggestion that the range of tools and technologies developed as part of Construction 4.0 in recent years provide exciting and attractive opportunities for those wishing to enter the civil engineering profession. However, the author questions whether these opportunities will be available for everyone. There is a significant body of historical and contemporary evidence that both 'construction' and 'technology' are gendered terms and practices. Examples of this supporting evidence are cited in the article via numerous sources, such as Fowler and Wilson (2004), Wajcman (2010) and Herman (2015) amongst many others.

The author offers an array of literary sources as a reflection of this cultural reality. These texts provide an important cultural resource, context, and narrative parallel by which to theorise the social reality, a common approach in sociological inquiry. When the fictional narrative is described in juxtaposition with the academic and government literature, it highlights the futility of attempting to achieve gender equity by encouraging women into civil engineering via celebration of its technologies, without attention to the endemic social or cultural context.

The author agrees that the methodological approach is not typical of research in the civil engineering field. The atypical and interpretivist approach is both valid and important, so that alternative viewpoints can be understood and appreciated. In this case, the approach has been particularly useful as it has allowed a new viewpoint to be communicated, which may, or may not, be at odds with the views that are traditionally held within the industry, yet resonate with its poor performance in relation to gender representation and pay gap data.

The use of the quote from the 1996 film, *Trainspotting*, was used as a contribution to this interpretivist narrative. Unfortunately, the discussant assumes a somewhat different quote to the one that was being referred to in the article, one that was not alluded to or discussed at any point. Instead, the previous lines from the film were those being discussed. They ask us to 'choose our future'. The author asks that we choose a diverse and inclusive future, rather than accepting a gendered inevitability.

As a leader of the Women In BIM international network, the author is all too familiar with the barriers that face women in digital construction careers. One of the key issues here is that the 'significant successes in the use of Construction 4.0 tools and technologies' which the contributor suggests might encourage them are produced and implemented disproportionately by men, including those suggested. This can indicate to women that they are less likely to be able to engage in these opportunities and it can have the opposite effect, discouraging them from joining or staying in the profession, thus reinforcing the problem. The article challenges this story that new technologies can bring a new utopia for the industry, offering an alternative but vital viewpoint to the dystopian technocracy.

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