

WORKSAFE

Energy Safety

Gender Bias in Standardisation

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Presentation

This presentation explores four questions

- What is the role of Standards?
- What is gender bias in standardisation?
- How can we measure it?
- Can we reduce it?

Role of Standards

Standards are used for;

Health and Safety - to set repeatable benchmarks

Performance - efficacy- how well something is done or how accurately

Interoperability- how things interact or connect

What is Gender Bias

We asked one of NZ's most experienced female Standards consumer representatives what her opinion was of the bias in the Standards process

She is a leading contributor to the IEC work on AAL

She made the comments on the following slides:

An example from NZ wiring rules

This Standard sets out requirements for the design, construction and verification of electrical installations, including the selection and installation of electrical equipment forming part of such electrical installations.

These requirements are intended to protect persons, livestock and property from electric shock, fire and physical injury hazards that may arise from an electrical installation that is used with reasonable care and with due regard to the intended purpose of the installation.

In addition, guidance is provided so that the electrical installation will function correctly for the purpose intended and takes into account mitigating the foreseeable adverse effects of disruption to supply.

Wiring Rules

The text in red is text she has struggled to get included in the next edition.

She comments:

.. it's the wrong way up. An electrical installation is provided to offer *people* the functionality of electricity – heat, light, motive power, connectivity.

And this needs to be done in the context of mitigating the risks of the provision – shock, fire, physical injury hazards - **and** of its absence.

She continues

“From a gender perspective, Males deal with things, Females deal with people.”

I know this is a gross over-simplification, but as long as Standards set their purpose as dealing only with things, the gender bias remains as an in-built factor.

To turn this around, the Scope of standards needs to be focused on the impact on people. Yes, I know it's revolutionary, but up to now, the safety outcomes have been a consequence, not a driver. And quite often, a way of protecting the provider rather than the user.”

Committee membership

The answer for addressing bias is often said to be in the number of females on the committee. Or the balance.

But if they have no knowledge of the impact of bias, or how to recognise it, they have little impact.

The representation is just one factor.

Could we write Standards more focussed on performance?

“Yes, the standards we write for appliances should be about functionality as well. This is why the scope is so important – the purpose of a washing machine is certainly to clean clothing. But do you remember the early ones where the clothing came out in a massive wet knot? It was certainly clean, and an improvement on the even older copper tubs, but didn’t greatly reduce the physical effort required.

The example of lights on a stairwell is straightforward. What’s the purpose - to provide the additional safety needed in an environment where changes of level lead to a greater risk of falls, and more so in the dark. So you don’t need to be able to read, just to see the nosing, tread and handrail.”

More Standards

“I can’t say whether we need more standards, but we could usefully look at what we have already, and assess them for functionality-as-it-relates-to-people, as well as functionality-as-it-relates-to-process.

And one of the big issues that’s starting to arise is functionality-as-it-impacts-on-other-products (automatic car door opener / implanted pace-maker). Or this one: automatic window opener controlled by temperature sensors – fine, until the heat source is a fire. Not necessarily anything to do with gender, unless the window opener is there because the windows are out of (elderly female) reach, or too hard to manage.”

Small businesses

Noting that APEC is a collection of economies located in the Asian / Pacific region, one of the themes I (Lucy He) have heard discussed is the impact of controls on small businesses and the impact this has on female who in the majority operate small businesses

In the energy safety role I have, this sector uses Standards extensively and I recognise that assessments against these Standards can place substantial financial burdens on small businesses

Can we assess a bias against females

New Zealand operates a risk assessment methodology (Engine) that evaluates risk by looking at the factors that lead to an increased probability or consequence of electrical equipment not meeting expected benchmarks

Could we use the same process to assess the likelihood and consequence of a Standard having a bias against females?

Factors that contribute to probability of a bias

Factor	P1	P2	P3	P4	P5
Description	The committee membership is not balanced	Females are not able to, or are not resourced to participate	No organisations are included that represent females	The consultation process does not have specific consideration of Gender Bias	There is not a verification process for the inclusion of gender issues

Factors contributing to the consequence of a bias

The standard covers a subject where men and female are physically different	The standard relates to a sector dominated by males	The bias has a significant outcome	The standard relates to a subject area recognised to be able to have a bias	The applicability of the standard to females has not been identified	The Scope of the standard is not inclusive of the impact on people	The effect of a bias is not easily understood
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Can we assess gender bias

If we plot the sum of the factors on a graphical representation and add a delineation line we then have a way of determining whether a particular Standard will have a bias that would have an impact on females

Risk delineation lines

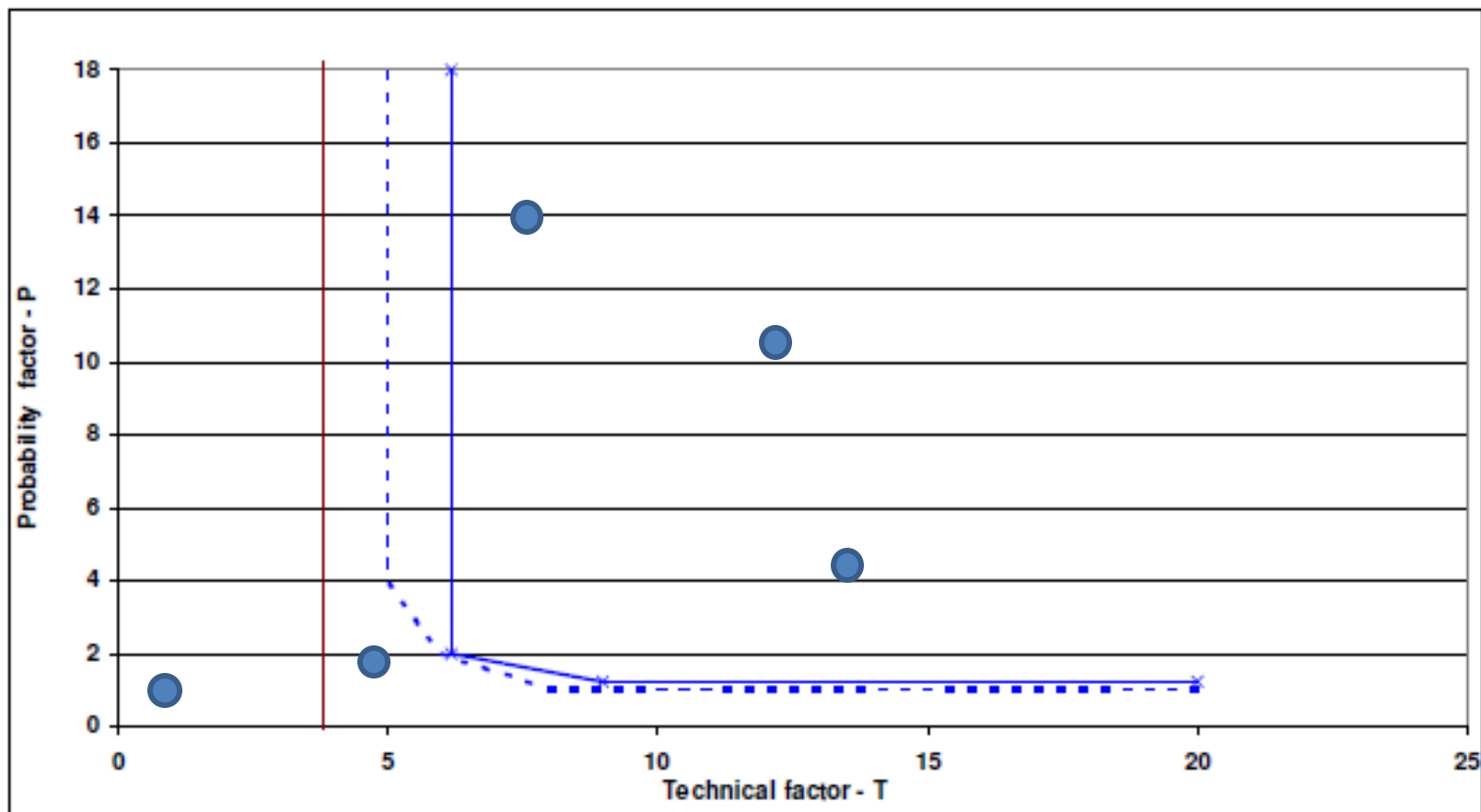


Figure 2 - Risk Engine delineation lines

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