Architecture and Responsible Technology

Rebecca Parsons



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A story of responsibilities for -ilities

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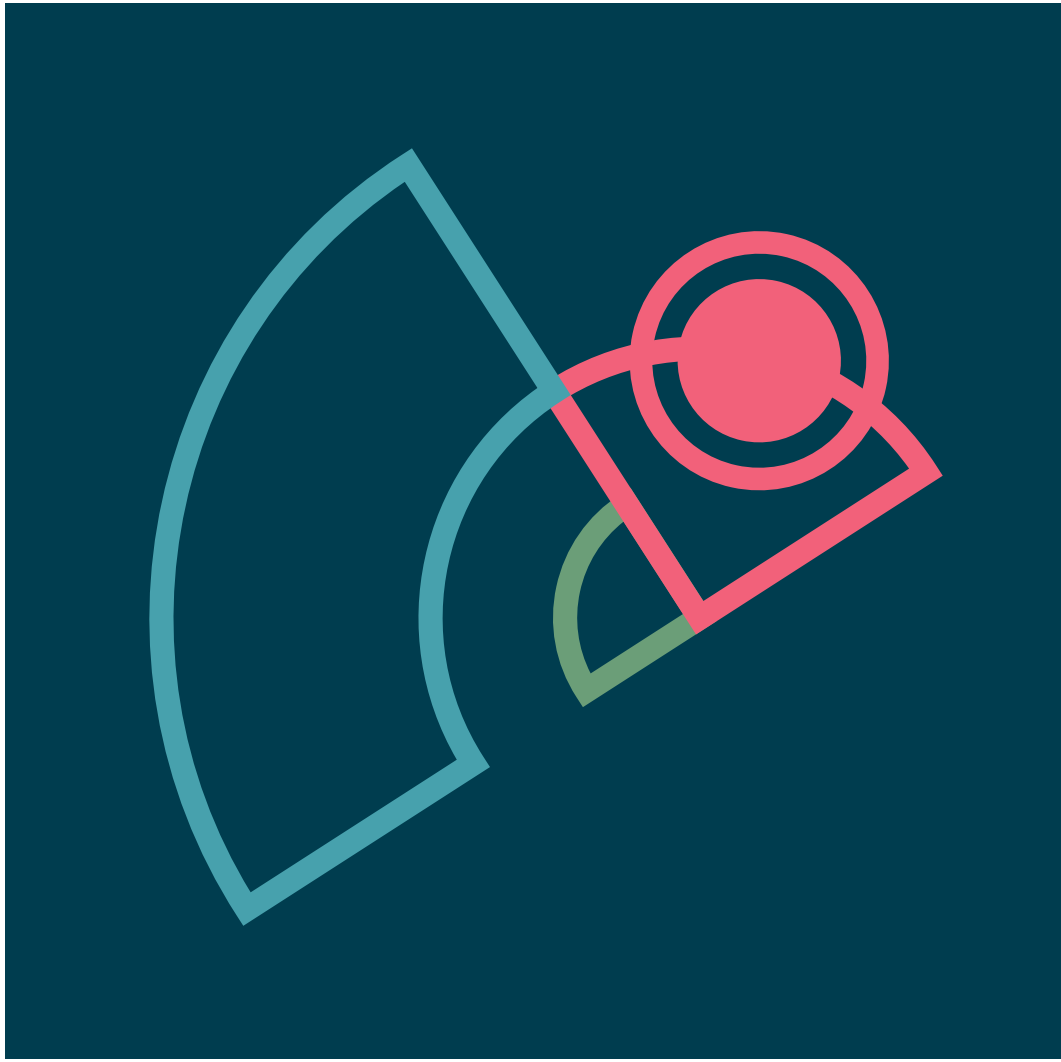
A story of inadvertent irresponsible tech

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Is technology good, bad, or neutral?

There are differing perspectives.



“I think that technologies are morally neutral until *we* apply them. It’s only when *we* use them for good or evil that they become good or evil.”

William Gibson

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But how do we know?

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We call them unintended consequences for a reason…

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We suffer consistently from unintended consequences.



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We suffer (in)consistently from unintended consequences.



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Why are we talking about this now?



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Increased complexity and inter-connectedness means consequences are harder to predict.



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Increasing footprint of impacts to our every day lives.



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… perhaps this thing called Generative AI?



What is responsible tech?

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Responsible tech is the active consideration of values, unintended consequences, and negative impact of technology.

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Responsible tech includes a wide variety of voices in adoption and deployment, and seeks to manage and mitigate potential risk and harm to all communities affected by the technology.

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Externalities need to be included in the analyses

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Let’s also not forget that we can find upside too. :-)

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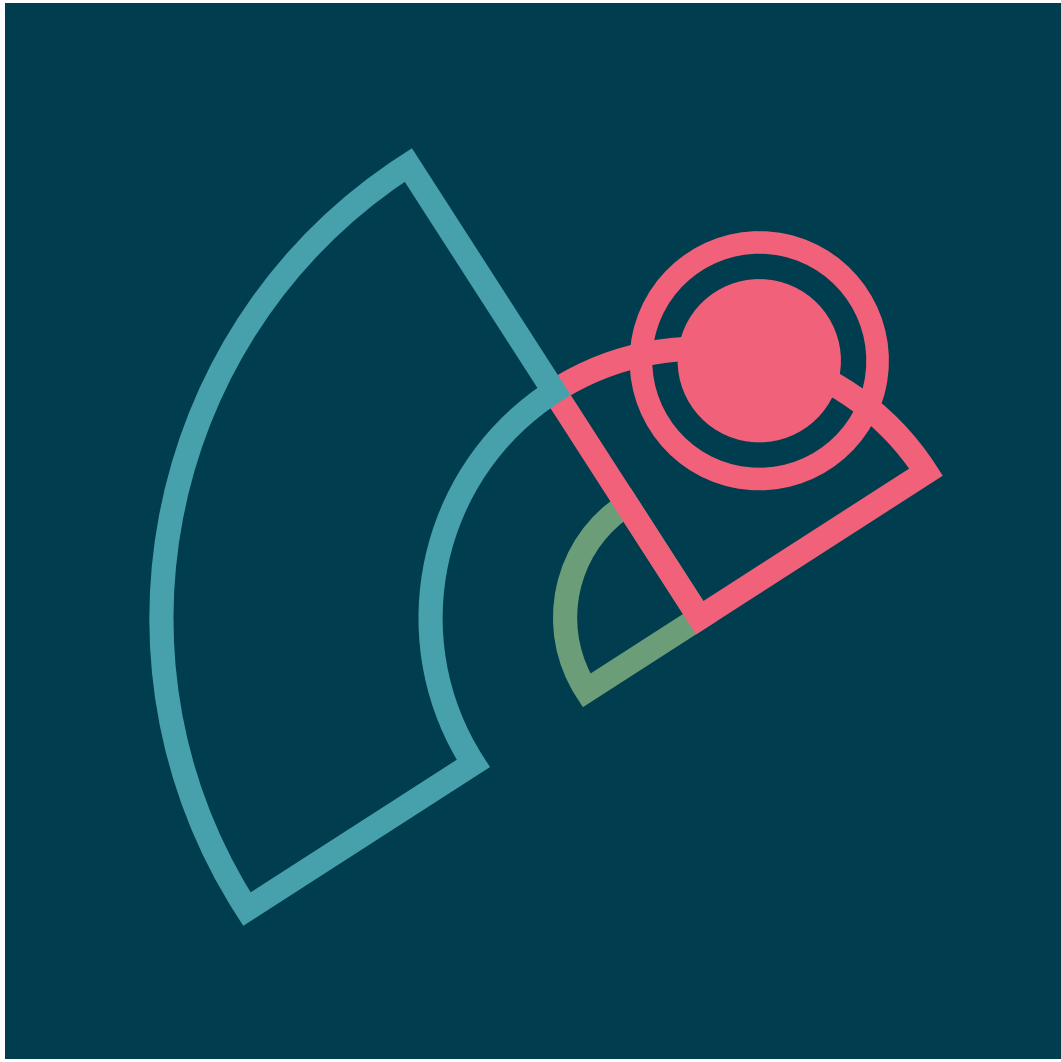
Principles of responsible tech

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Principles

- Focus on the outcome and who should benefit
- Don’t assume someone won’t misuse your creation
- Look around for stakeholders you might not have considered and how they might be harmed
- Sometimes, you might have to decide how fair you want to be



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As technologists, we are pretty bad at many of these things…

How do we sell the value internally?

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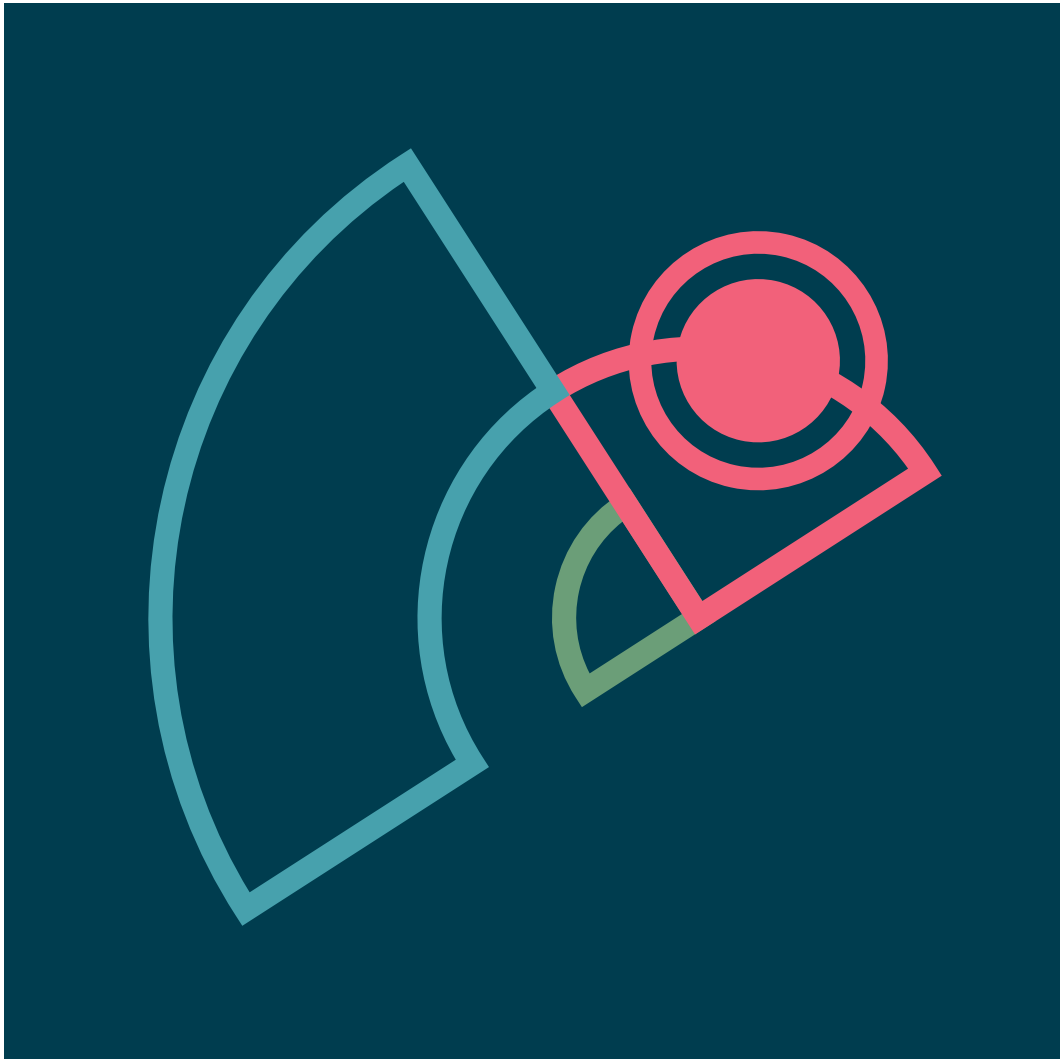
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Value to businesses

- Compliance
- Protection of brand from reputational harm
- Enhancement of brand from commitment to responsible tech
- Enhancement of employer brand and retention, particularly for GenZ and Millenials
- Increased market opportunity
- Increased investor interest

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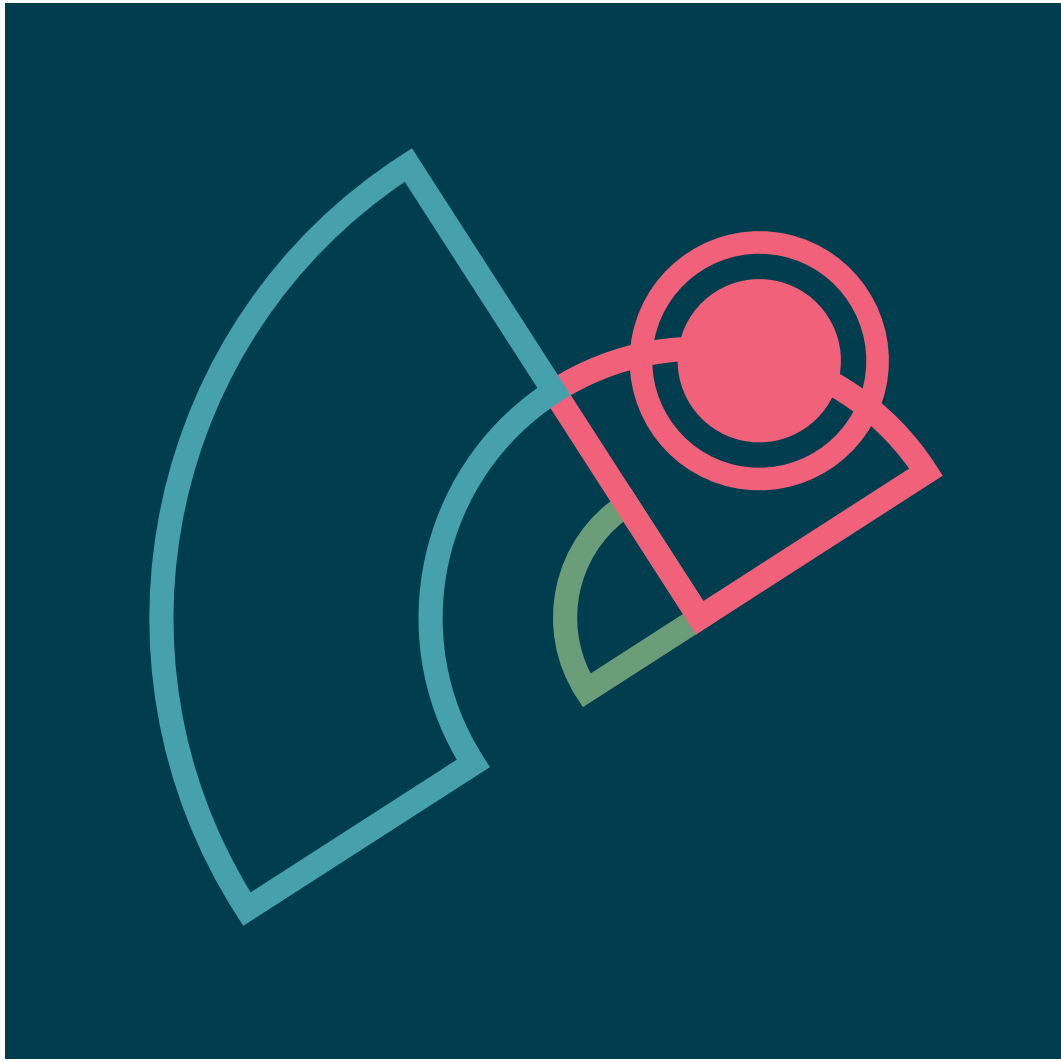
What can a tech pragmatist architect do?

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Practices and Actions

- Create guidelines and methodologies for responsible tech
- Data protection and privacy
- Invest in transparency
- Eliminate (and audit for) algorithmic bias

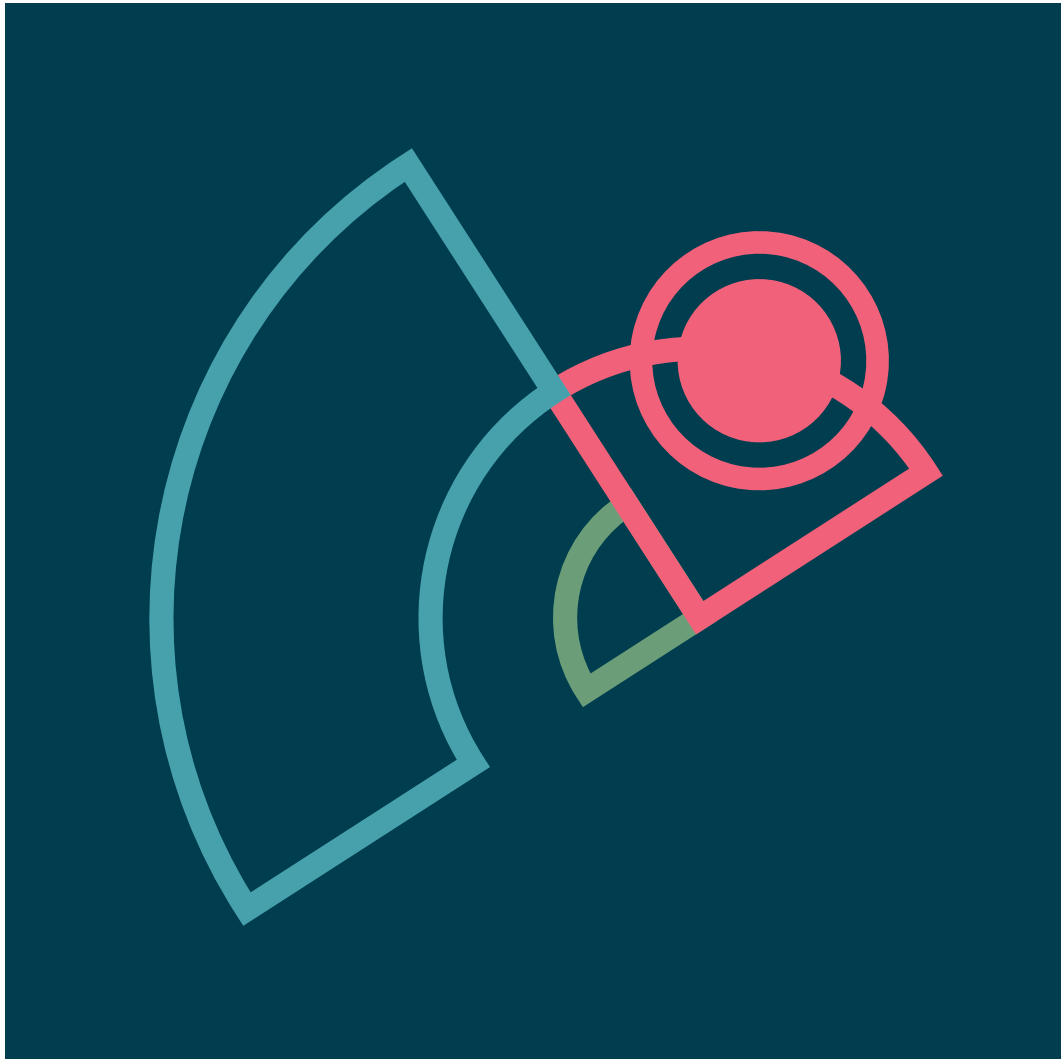


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Some more

- Observability
- Minimize environmental impact
- Diversify the workforce
- Accessibility and inclusive design



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The Responsible Tech Playbook

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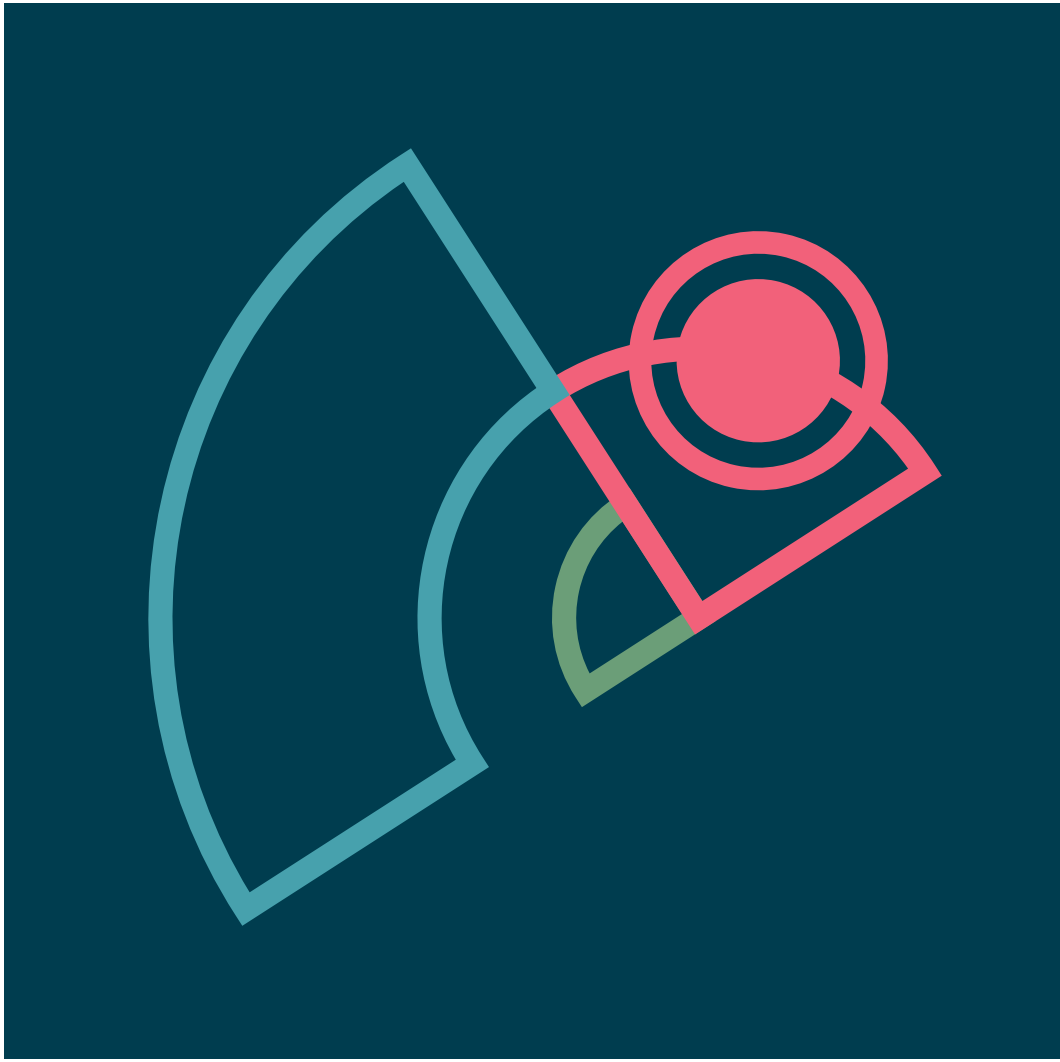
-ilities and responsible tech

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Let’s start with AI

- Bias and thus data sets
- Copyright fair use
- Non-determinism
- Hallucinations
- Resource utilization

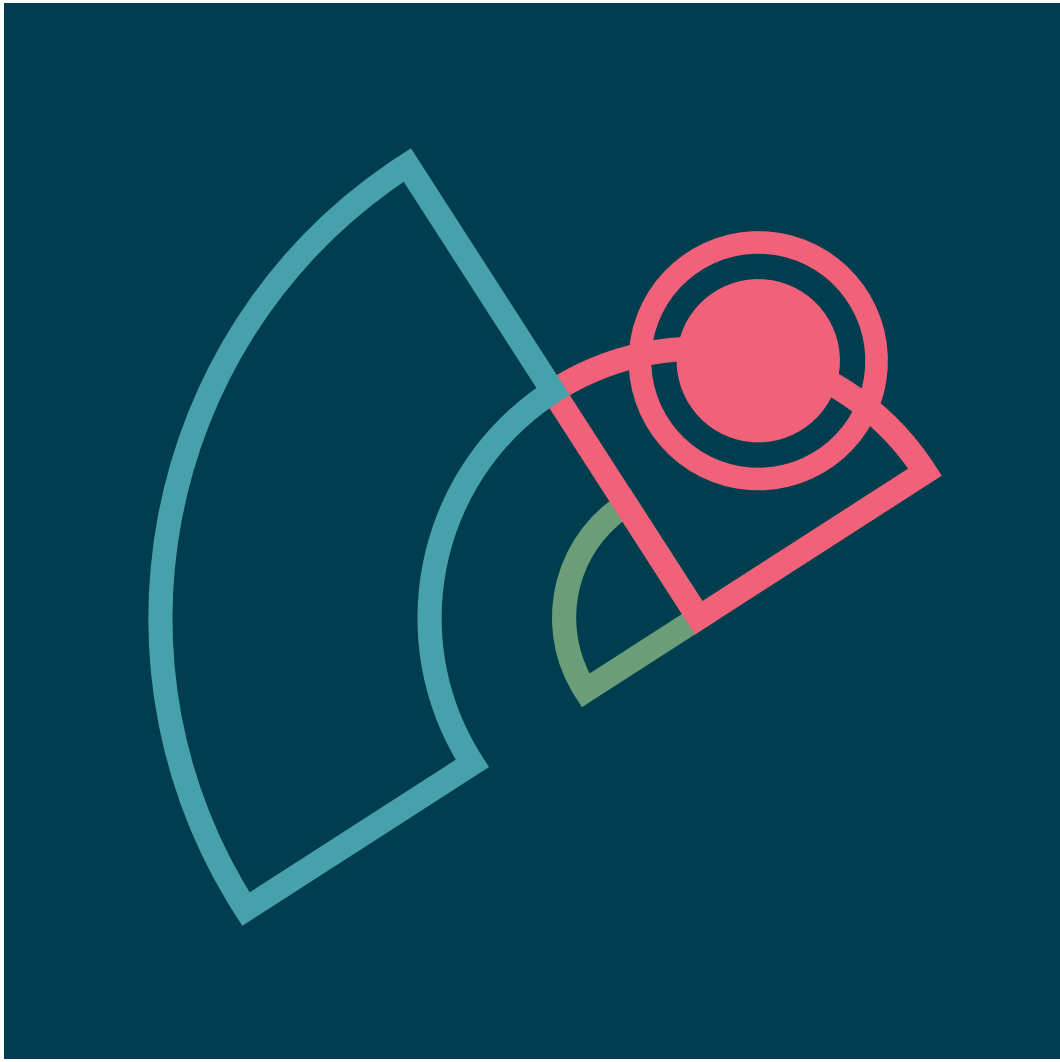


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And some others

- Accessibility and inclusive design
- Data privacy and protection
- Security
- Reliability
- Observability



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Testing and continuous delivery and/or deployment

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With fitness functions even!

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It isn’t just about diversity, although that helps.

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“I think that technologies are morally neutral until *we* apply them. It’s only when *we* use them for good or evil that they become good or evil.”

William Gibson

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We can make our technology more responsible, if we believe we can and we insist we do.

Cathy O'Neil

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Thank you

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