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Bias Buster Toolkit

Practical tools for Agile Teams to spot and reduce gender bias in AI

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The four Ds framework

Where gender bias enters AI Systems (and where your team can intervene)

1. DATA

What data are we training on?

- Who's included?
- Who's missing?
- What's being measured?

2. DESIGN

What assumptions are we building into the product?

- What's "normal"?
- Who did we design for?
- What did we not consider?

3. DEPLOYMENT

How are we testing and releasing this?

- Who's testing?
- Who's affected?
- Who monitors after release?

4. DECISIONS

Who has power to question and challenge this?

- Is it safe to speak up?
- Who has final say?

How to use this framework

In Sprint Planning: Ask "Which D are we addressing in this story?"

In Daily Scrums: Notice when work touches Data, Design, Deployment, or Decisions

In Sprint Review: Demonstrate not just what you built, but WHO you built it for

In Retrospective: Use this framework to structure your bias reflection

The Power of the Four Ds: Each D represents a moment where diverse perspectives can catch bias BEFORE it scales. Your Scrum Events are bias-detection opportunities.

Types of bias

While the Four Ds framework shows WHERE bias enters, understanding TYPES of bias can help you spot them more easily.

Sampling Bias

The training data doesn't accurately represent the real-world population. Example: Voice recognition trained on male voices.

Historical Bias

Biases from past data are perpetuated into the future. Example: Hiring AI trained on historical hires from less diverse era.

Selection Bias

Data collection process over- or under-represents certain groups. Example: Fitness app data from gym members only.

Measurement Bias

The data collection method itself is flawed or biased. Example: "Productivity" measured only by hours worked, not outcomes.

Cultural Bias

Systems designed with one culture's norms don't work for others. Example: Tests that assume cultural knowledge.

Algorithmic Bias

The algorithm itself has biases, even with unbiased data. Example: Optimization algorithms that amplify existing inequalities.

Confirmation Bias

The AI reinforces existing beliefs, creating "filter bubbles." Example: Recommendation systems that only show similar content.

How these connect to the Four Ds

Most types of bias appear in the DATA or DESIGN stages.

Your DEPLOYMENT and DECISIONS processes are your opportunities to catch them.

Interventions

Definition of done + inclusion

Add checkpoints to your DoD.Traditional Definition of Done ensures quality.
Inclusive Definition of Done ensures equity.

Retro Bias Lens

Add questions to your Retrospectives. Standard retro questions help your team improve.
Bias lens questions help your team improve EQUITABLY.

Backlog Bias Review

Review Product Backlog Items. Every backlog item is a future product decision.
Review them through the bias lens BEFORE they become features.