# Factors of Concern In Artificial Intelligence

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### Introduction

For my practicum, I did a research project on bias in artificial intelligence (AI) for the class CPSP359S (Discovery Research). My research question was, "How should bias in AI be identified and mitigated appropriately?"

### Research Methods:

Identifying and categorizing bias in AI and Machine Learning (ML), determining the impact of biases on the stakeholder community, and targeting areas where bias can develop. Consulted organizations and corporations specializing in AI.

### Findings To Date:

- **AI/ML Bias Types:** implementor, training, lack of expertise, bad or incomplete data, sample, prejudice, exclusion, algorithm, measurement bias
- **Result:** marginalization <—> incorrect conclusion
- **Target:** predesign, development, deployment stages

### Significance:

Bias in AI is a serious problem that can remove from its reliability and decrease public trust. By managing its shortcomings, we can ensure that this technology stays accessible and non-malicious for everyone as its usage expands.

### Discussion:

As AI relies on drawing conclusions from human data samples, bias is inevitable. Reducing false conclusions requires a greater variety of current information, which may not always be available, limiting its capacity for performance. For the rest of the project, I plan to determine the most suitable applications for AI based on these limitations.

### Where Can Bias Develop?
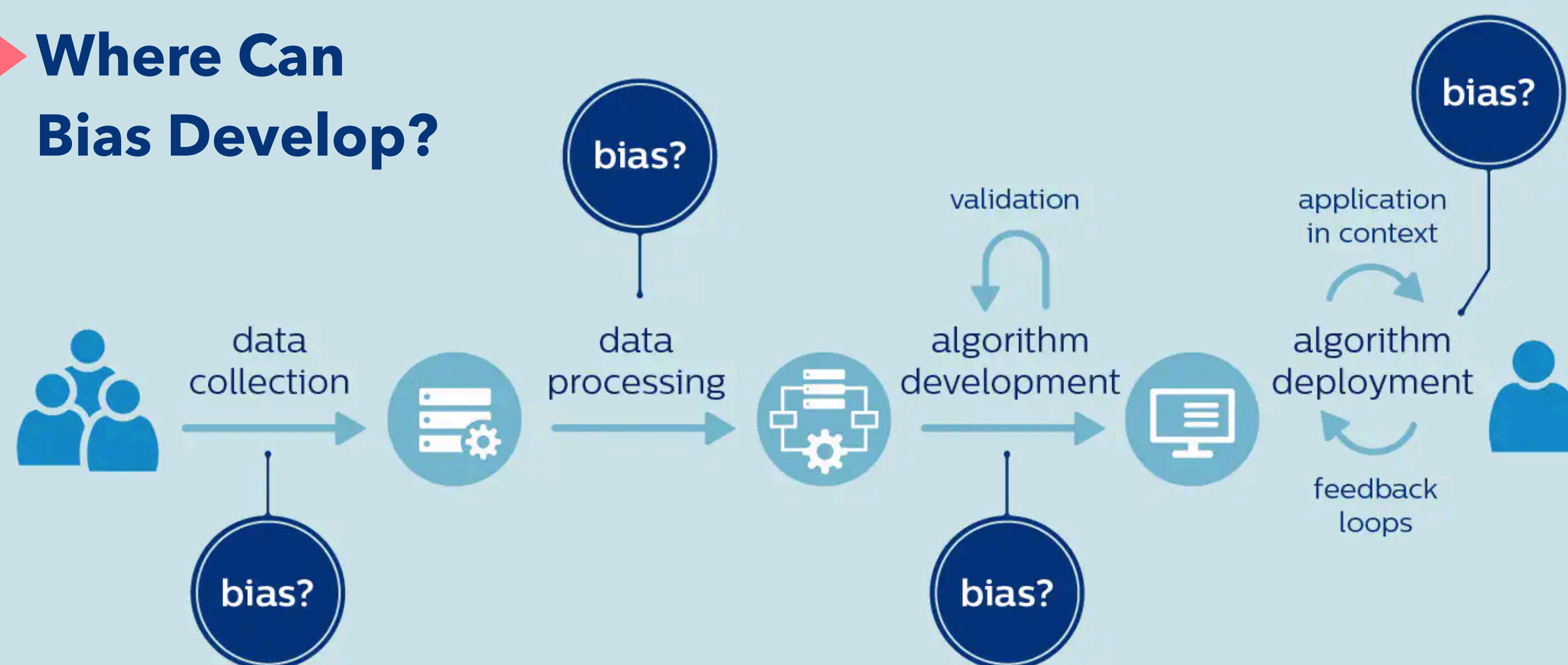


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### Image Source:

van Houten, Henk. "For Fair and Equal Healthcare, We Need Fair and Bias-Free AI." *Philips*, 10 Dec. 2020, https://www.philips.com/a-w/about/news/archive/blogs/innovation-matters/2020/20201116-for-fair-and-equal-healthcare-we-need-fair-and-bias-free-ai.html

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