

# ALGORITHMIC HIRING BIAS



# COSTS

\$ computer algorithm < \$ human screener



# COSTS

\$ computer algorithm < \$ human screener

# EFFICIENCY

Advance candidate pools quickly and accurately



# COSTS

\$ computer algorithm < \$ human screener

# EFFICIENCY

Advance candidate pools quickly and accurately

# FAIRNESS

Eliminate individual biases from human screeners

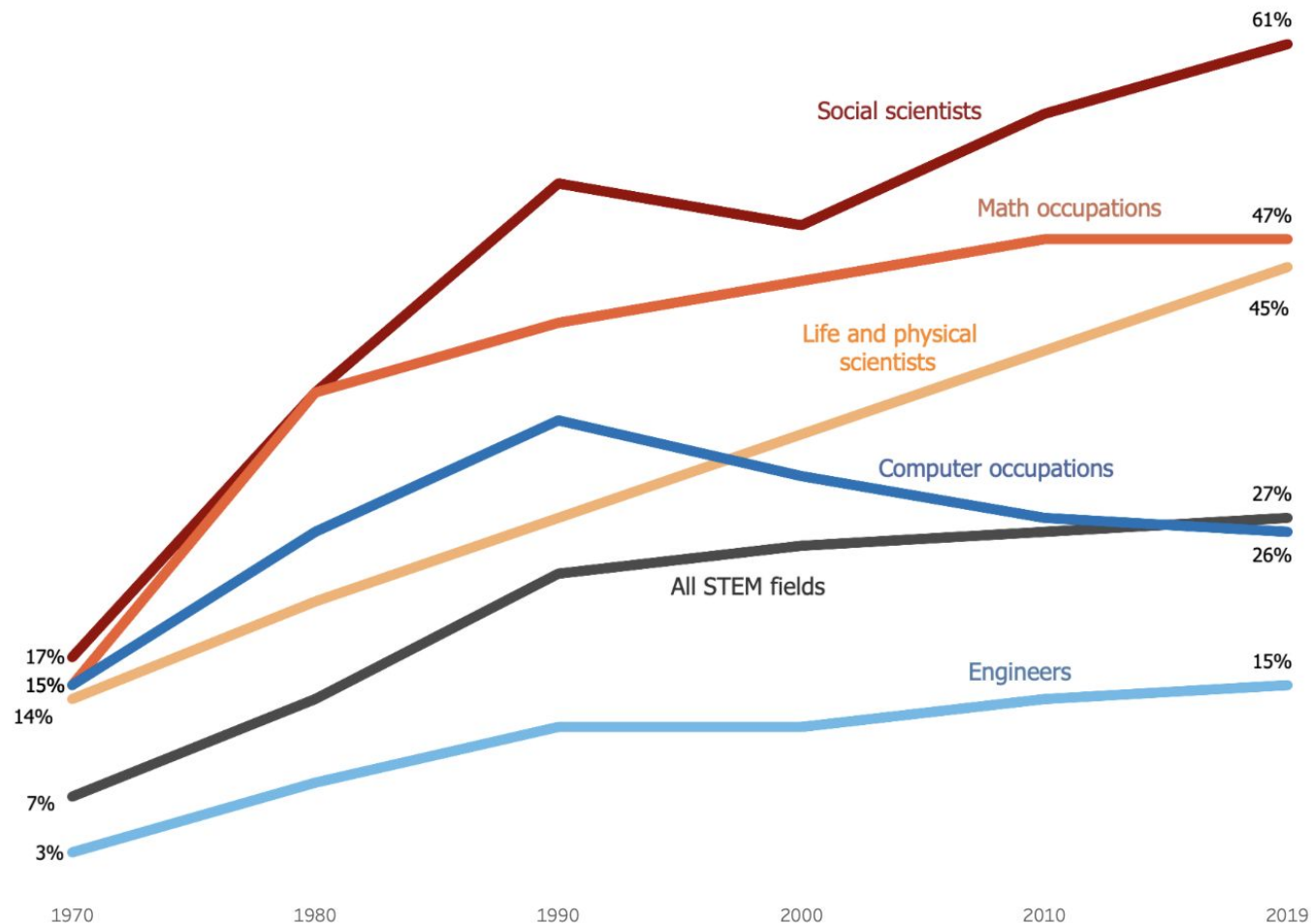


# FAIRNESS

Data-driven hiring processes often perpetuate systematic discrimination



# Percentage of science, technology, engineering, and math (STEM) workers who are women



**20%**

**Of Computer Programmers  
and Software Developers in  
the U.S. are Women**

**49%**

**Of Mathematicians and  
Statisticians in the U.S. are  
Women**





# Why Amazon's Automated Hiring Tool Discriminated Against Women



By [Rachel Goodman](#), Staff Attorney, ACLU Racial Justice Program

OCTOBER 12, 2018 | 1:00 PM

TAGS: [Women's Rights in the Workplace](#), [Women's Rights](#), [Privacy & Technology](#)



Technology & Ideas

## Amazon's Gender-Biased Algorithm Is Not Alone

They're everywhere, but nobody wants to know about it.

---

By [Cathy O'Neil](#) [+Sign Up](#)

October 16, 2018, 6:00 AM PDT





# Validation

11% conducted  
studies

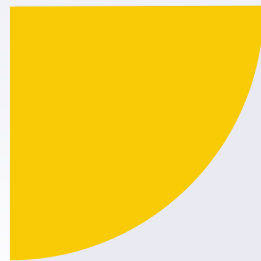
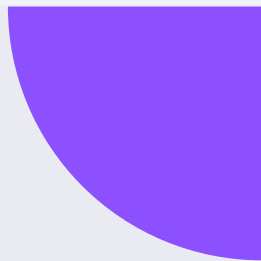
**72% do not  
mention validation**



## Validation

11% conducted studies

**72% do not mention validation**



## Fairness

17% pass 4/5th law

44% mention bias

**17% do not mention bias**

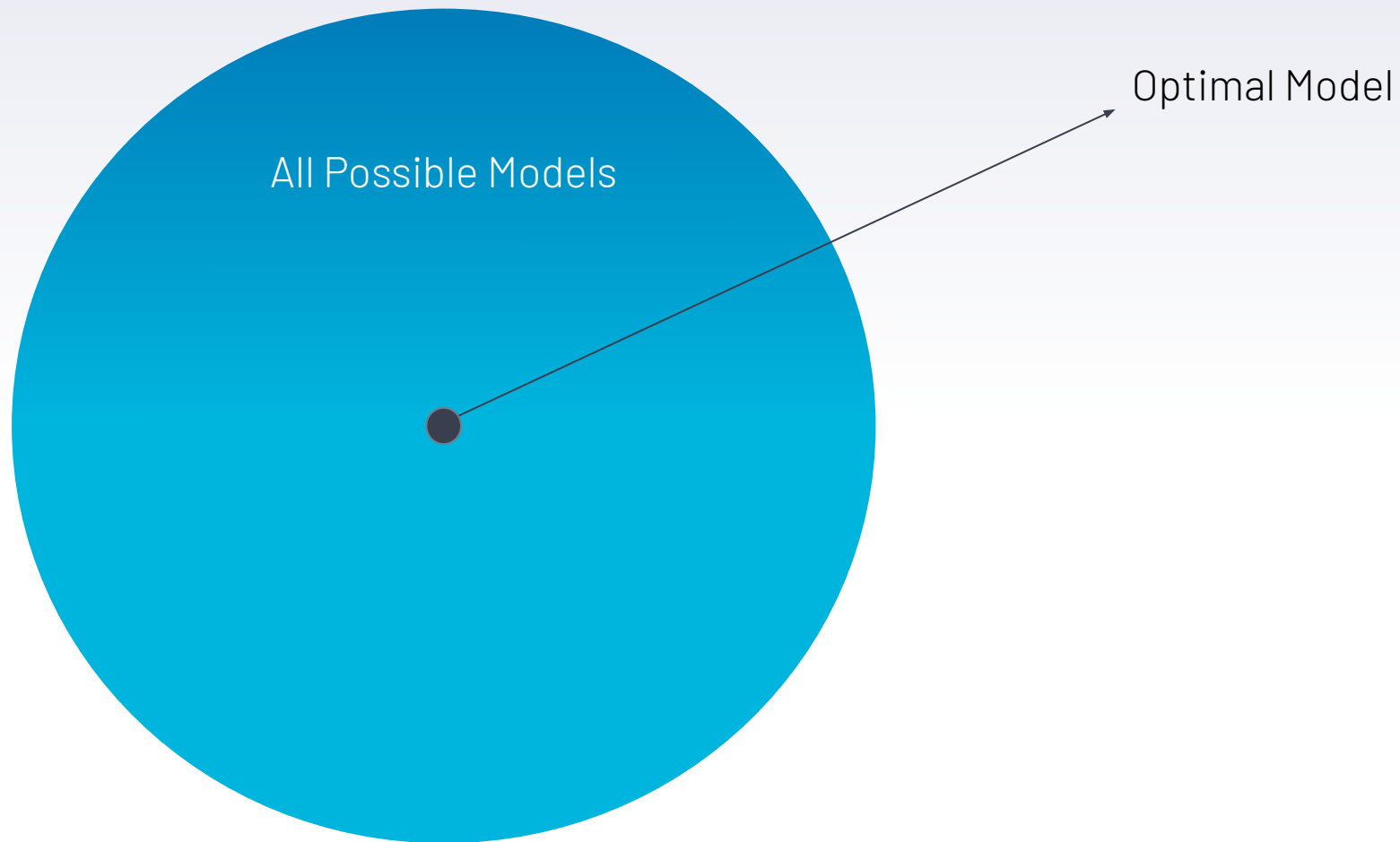
1

# Rethinking Research Priorities

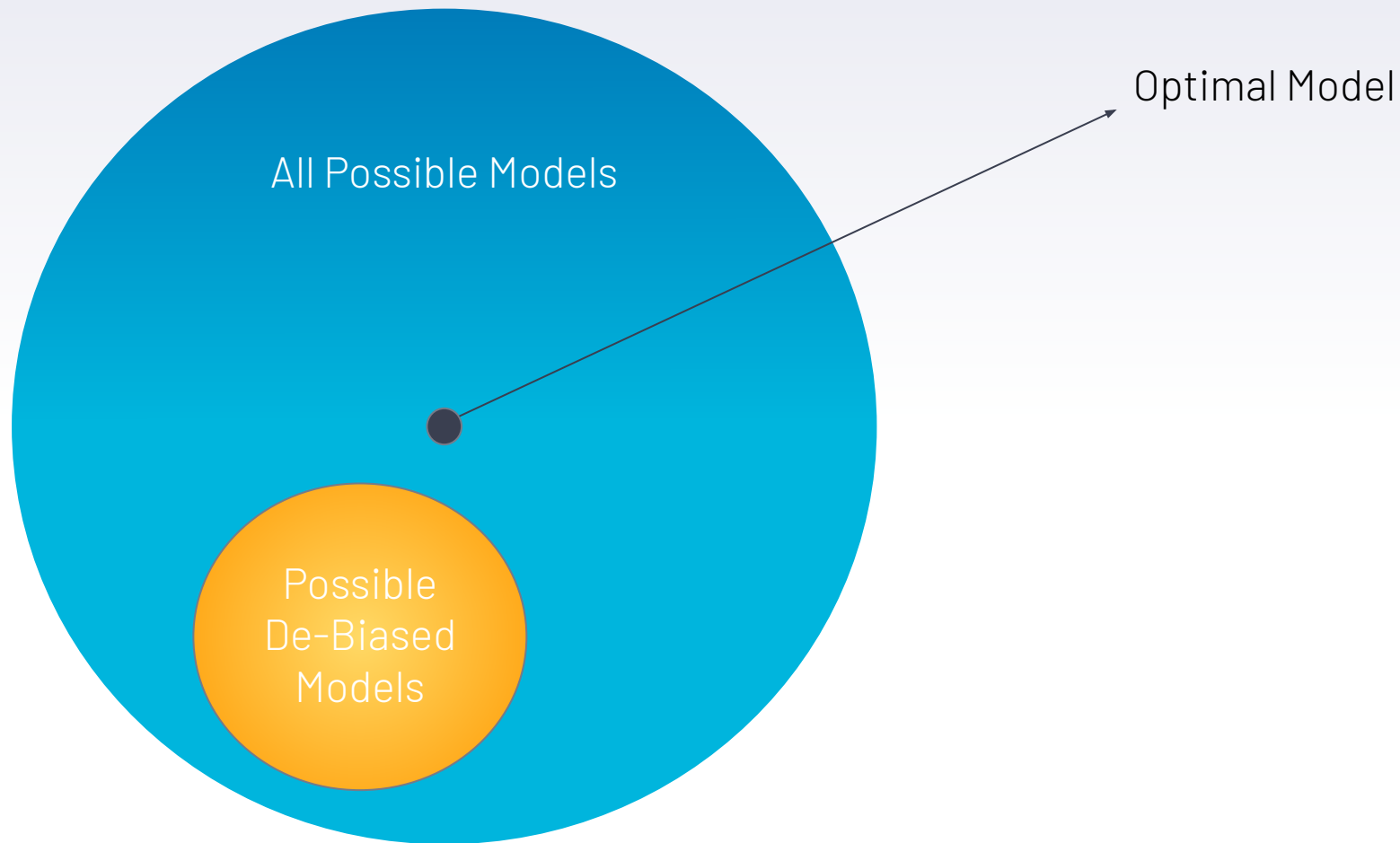




All Possible Models







2

# Engineering Innovation Processes





## De-Biasing Algorithms



**De-Biasing  
Algorithms**



**Frequent  
Updates of  
Model**



**Diverse**



**De-Biasing  
Algorithms**

**+ Frequent  
Updates of  
Model**

**+ Diverse  
Implementation  
Team**

# Next Steps

Legislation and  
Accountability



# Next Steps

Legislation and  
Accountability

Intersectional  
Considerations

# Next Steps

Legislation and  
Accountability

Small Company  
Accessibility

Intersectional  
Considerations



# THANK YOU

