

The Algorithmic Bug Bounty



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MACHINE BIAS

Bias in Criminal Risk Scores Is Mathematically Inevitable, Researchers Say

ProPublica's analysis of bias against black defendants in criminal risk scores has prompted research showing that the disparity can be addressed — if the algorithms focus on the fairness of outcomes.

by Julia Angwin and Jeff Larson, Dec. 30, 2016, 4:44 p.m. EST



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TRENDING

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- Algorithms: New Language Needed To Discuss Their Alleged Neutrality
- Clickworking the News: It's Just As Weird As It Sounds
- Trends: Trending Trends Are Trending — Is It Just A Trend?
- Epistemic Closure: New Report Finds Facebook Users Are At Risk Of Disease
- Antarctica: Melting of Totten Glacier Could Cause Sea Levels to Rise by At Least 6 Feet, Study Says

Accountability

Explainability

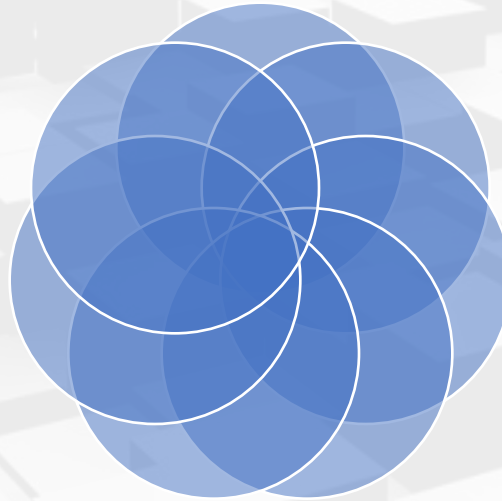
Openness

Transparency

Algorithmic
Fairness

Interpretability

Opacity



Transparency \neq Accountability



Peeking Beneath the Hood of Uber

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ABSTRACT

Recently, Uber has emerged as a leader in the “sharing economy”. Uber is a “ride sharing” service that matches willing

as open platforms, these websites are poised to unlock the productive potential of millions of people.

Uber has emerged as a leader in the sharing economy.

```
if ($race = NOT_CAUCASIAN) then { illegal_discrimination() };
```

Auditing Algorithms: Research Methods for Detecting Discrimination on Internet Platforms

Christian Sandvig^{*1}, Kevin Hamilton², Karrie Karahalios², & Cedric Langbort²



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Facebook, Terms of Service, <https://www.facebook.com/terms.php>



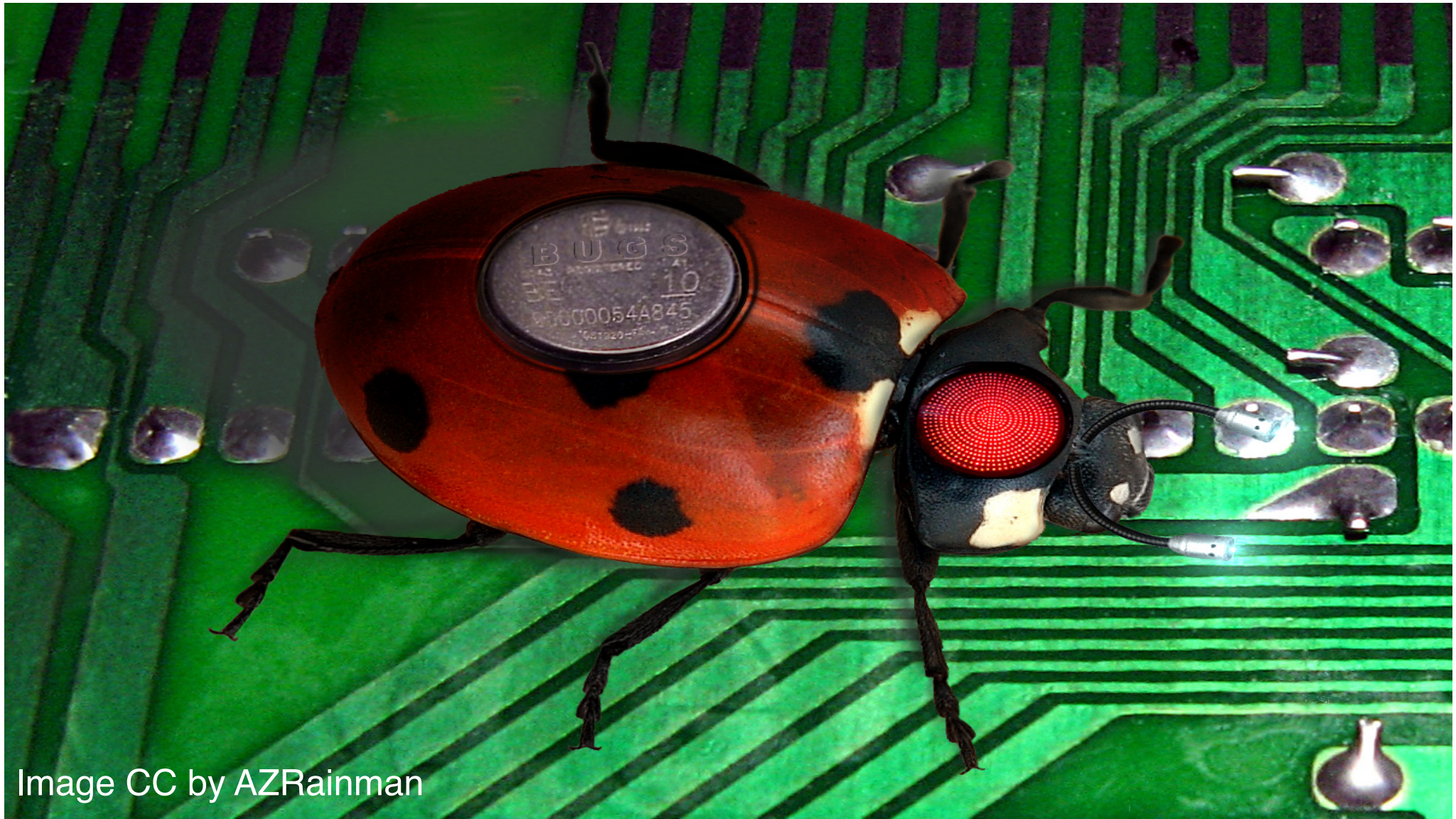


Image CC by AZRainman

By BRIAN MASTROIANNI / CBS NEWS / March 2, 2016, 1:43 PM

Defense Department invites you to "Hack the Pentagon"



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Updates (0)

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Jordan Wiens

@psifertex

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United Airlines bug bounty program

Wow! @united really paid out! Got a million miles for my bug bounty submissions! Very cool.

Most recent account activity

Date	Description	Activity
07/10/2015	United Bug Bounty	1
07/10/2015	United Bug Bounty	999,999





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SANDVIG V. SESSIONS — CHALLENGE TO CFAA PROHIBITION ON UNCOVERING RACIAL DISCRIMINATION ONLINE



ACLU

AMERICAN CIVIL LIBERTIES UNION

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

CHRISTIAN W. SANDVIG
2117 Washtenaw Avenue
Ann Arbor, MI 48104,

KYRATSO KARAHALIOS
1109 S. Douglas Avenue
Urbana, IL 61801,

ALAN MISLOVE
5 Grayfield Avenue
West Roxbury, MA 02132,

CHRISTOPHER WILSON
46 Symmes Street, No. 3
Roslindale, MA 02131,

FIRST LOOK MEDIA WORKS, INC.
114 Fifth Avenue, 18th Floor
New York, NY 10011,

Plaintiffs,

-v.-

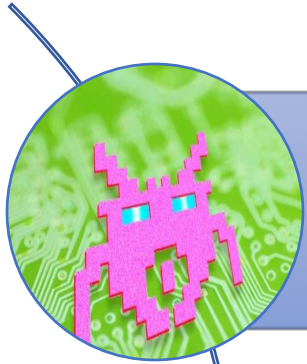
LORETTA LYNCH, in her official capacity as
Attorney General of the United States
950 Pennsylvania Avenue, NW
Washington, DC 20530,

Defendant.

Case No.

COMPLAINT
FOR DECLARATORY AND
INJUNCTIVE RELIEF





“Bias Bugs”: Fostering at-scale External Auditing



Legal Safe Harbors



Building Workforce and Educational Sources

We Need Bug Bounties for Bad Algorithms

In the age of algorithmic decision-making, we need to incentivize algorithmic auditors to become our new immune system.

MOTHERBOARD

The Algorithmic Bug Bounty



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