

A young child with dark hair, wearing a floral-patterned shirt, is shown from the chest up. They are looking down at a glowing, translucent blue sphere held in their hands. Inside the sphere, a complex network of interconnected nodes and lines is visible, resembling a neural network or a data structure. The background is dark, and the lighting is focused on the child and the glowing sphere.

**Why Schools and Society
Should Make AI Literacy
a Top Priority**

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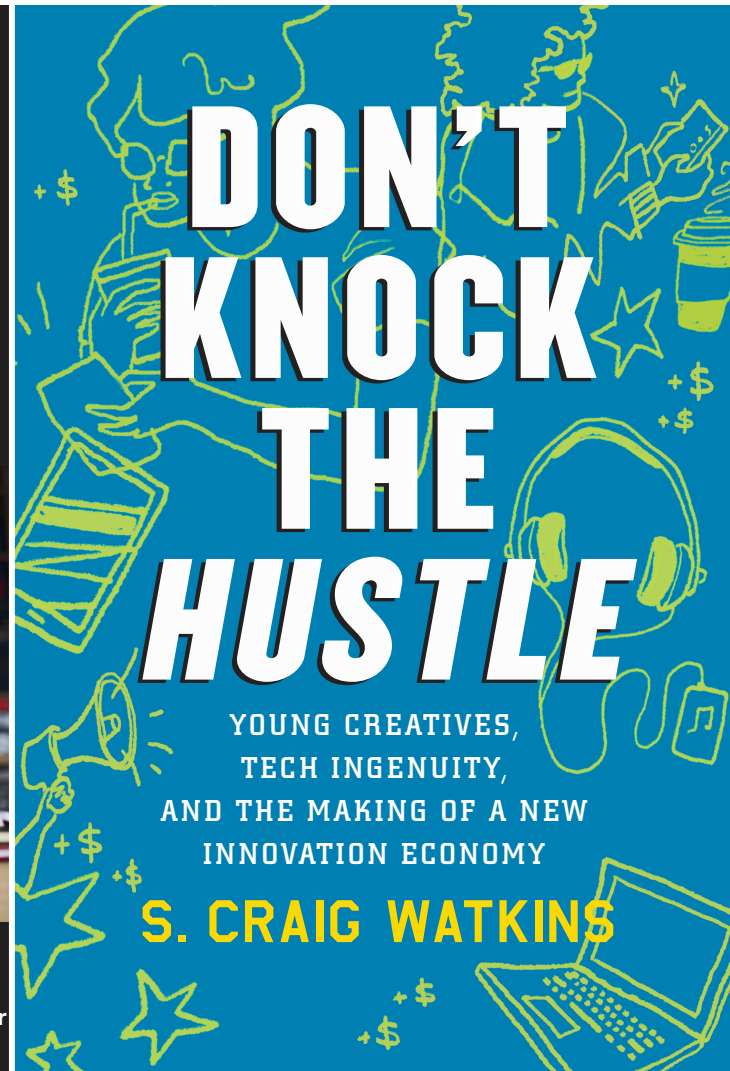
S. Craig Watkins
University of Texas at Austin,
MLK Jr. Visiting Professor
MIT



**The Digital
Edge** How Black
and Latino Youth
Navigate Digital
Inequality

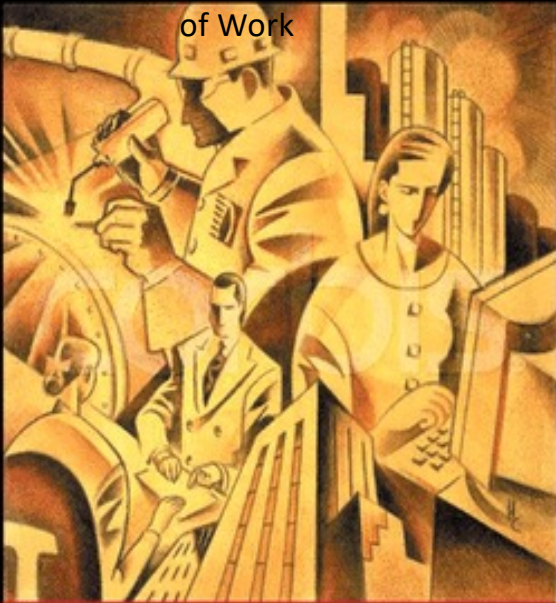


S. Craig Watkins
Andres Lombana-Bermudez, Alexander Cho,
Jacqueline Vickery, Vivian Shaw, and Lauren Weinzimmer



Frank Levy and Richard J. Murnane

of Work



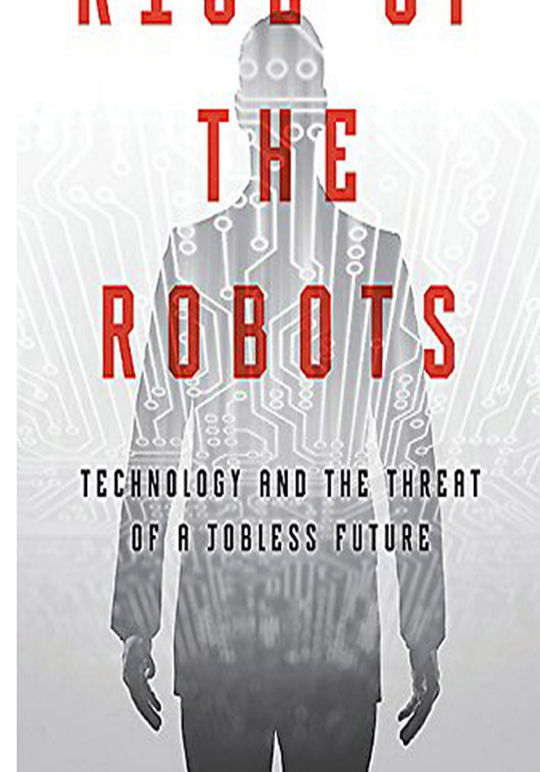
**THE NEW DIVISION
OF LABOR**

**How Computers are Creating
the Next Job Market**

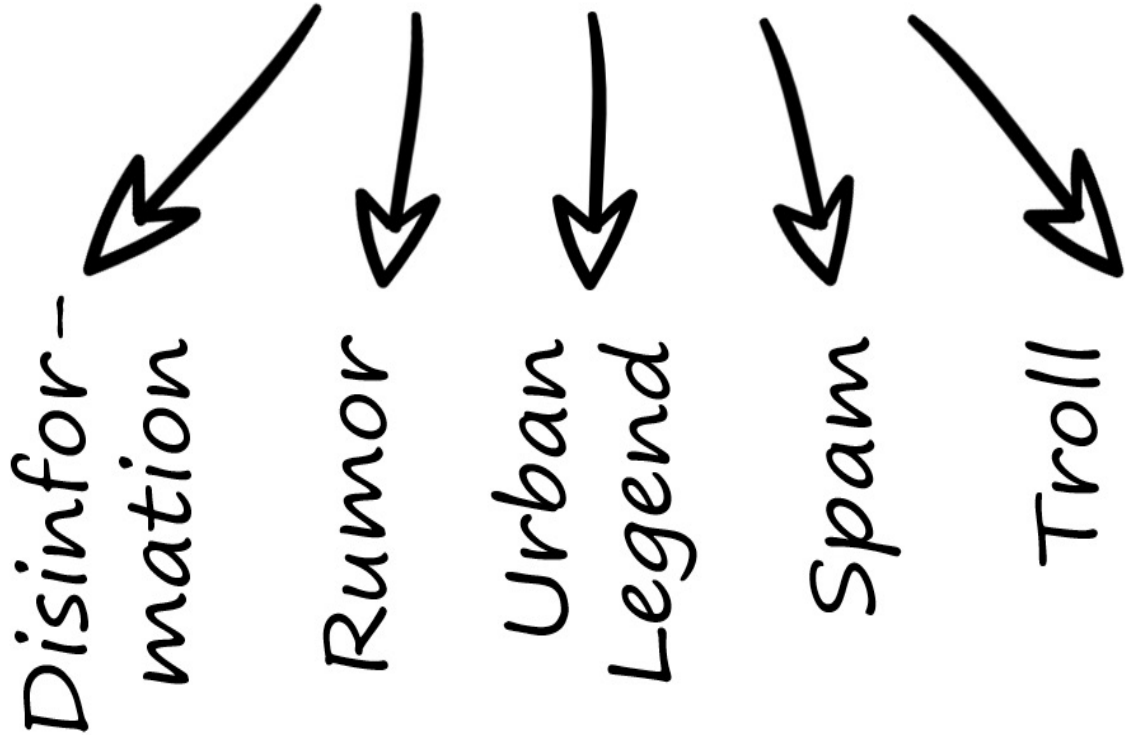
MARTIN FORD

**RISE OF
THE
ROBOTS**

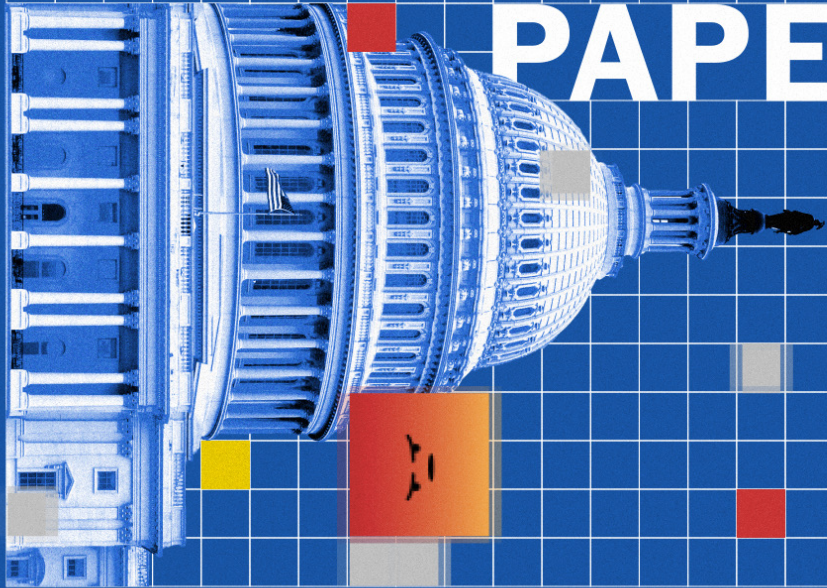
TECHNOLOGY AND THE THREAT
OF A JOBLESS FUTURE



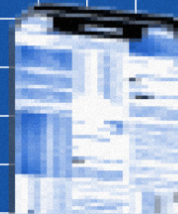
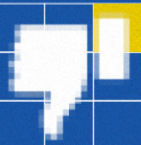
Misinformation



THE FACEBOOK PAPERS



Carol's Journey to QAnon - A Test Use
Study of Misinfo & Polarization Risks



Datafication and Systemic Racism

- **Algorithmic Discrimination (Noble 2018)**
- **Racial bias in online advertisements (Sweeney 2013)**
- **Predictive Policing (Brayne 2021)**
- **Criminal Justice System and Big Data (Angwin et al. 2016)**
- **Race and Facial Recognition (Buolamwini & Gebru 2018)**

What we know about children and AI

- Think of AI as trustworthy (Druga et al. 2017)
- Think of AI as creepy (Yip et al. 2019).
- Anthropomorphize AI devices (Druga et al. 2017)
- Home ecology is a significant factor in how these systems are adopted and used (Ito et al. 2012)

AI and Youth of Color

- AI devices are not built with diverse population of users in mind
- Failure to respond adequately to culturally specific inquiries
- Bias data sets can lead to disparate impacts





Hundreds of app developers make mobile apps for children. Some of them sell ads in their apps to make money.

```
SAMPLE CODE
SDK.configureAds({
  id: deviceId,
  ipAddress: deviceIpAddress,
  location: userLocation
});
```

Ad-technology companies help put ads into apps. They make packages of code that help app makers run ads.

Children can download these games, which are often free, by clicking a few buttons.

When a child starts using the app, personal data can be sent to ad-technology companies.

Some ad-technology companies don't collect this data, but many do because it helps personalize ads.



Sends personal information



Ad-technology Companies





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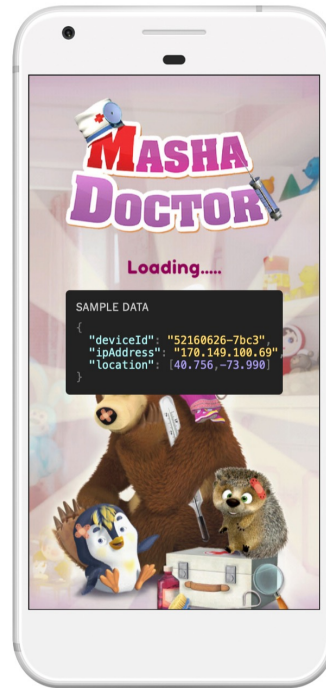
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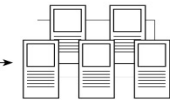
Ad-technology Companies



This information can include **IP address, location, demographic characteristics** and **ID numbers** that let ad companies track people.



Personal information



Data is stored on servers of ad-technology companies

Based on the information that's sent to ad-technology companies about the user, they sell an ad.

In the process, the ad-technology companies use the data to build **user profiles** associated with ID numbers.

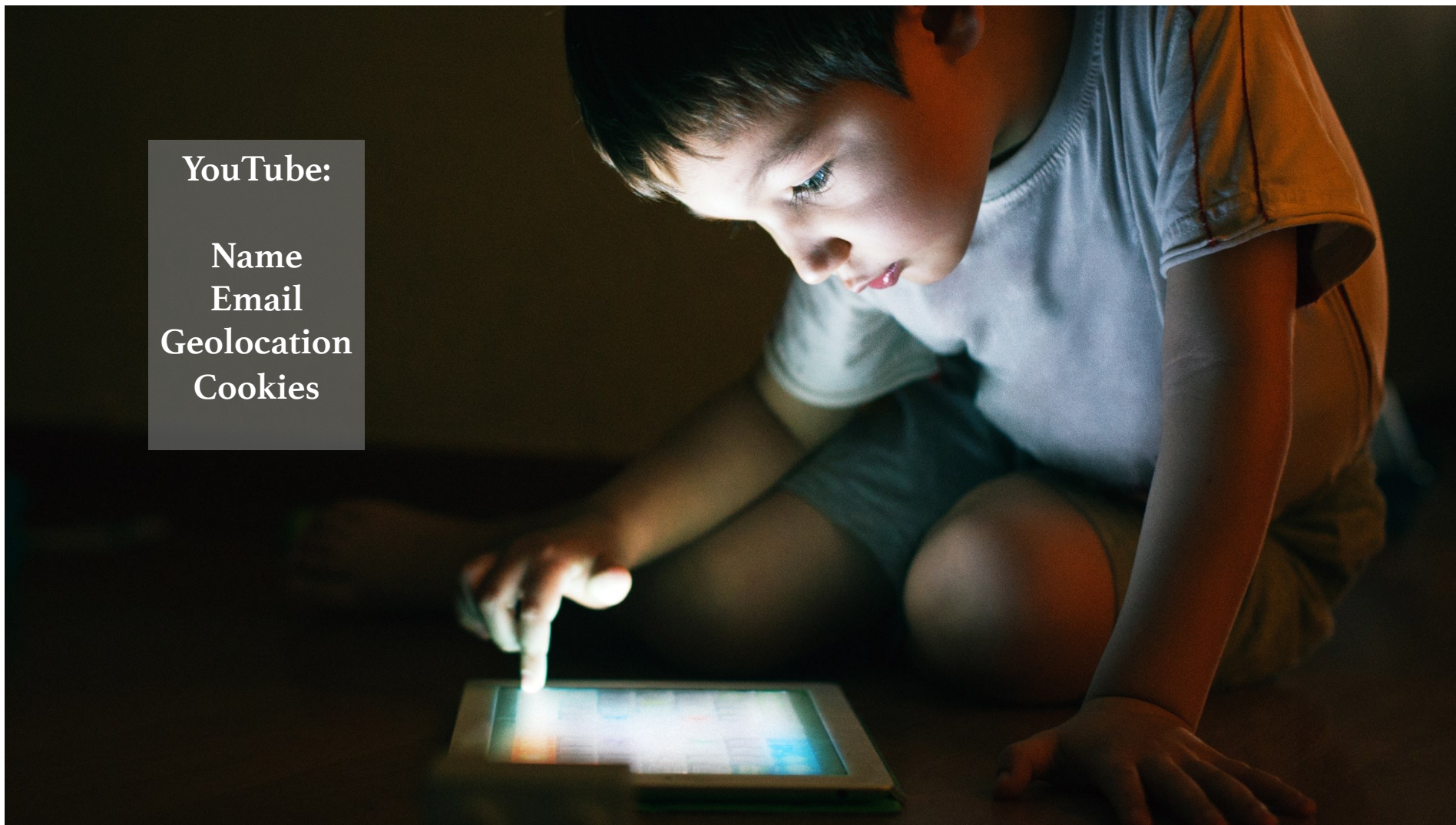
YouTube:

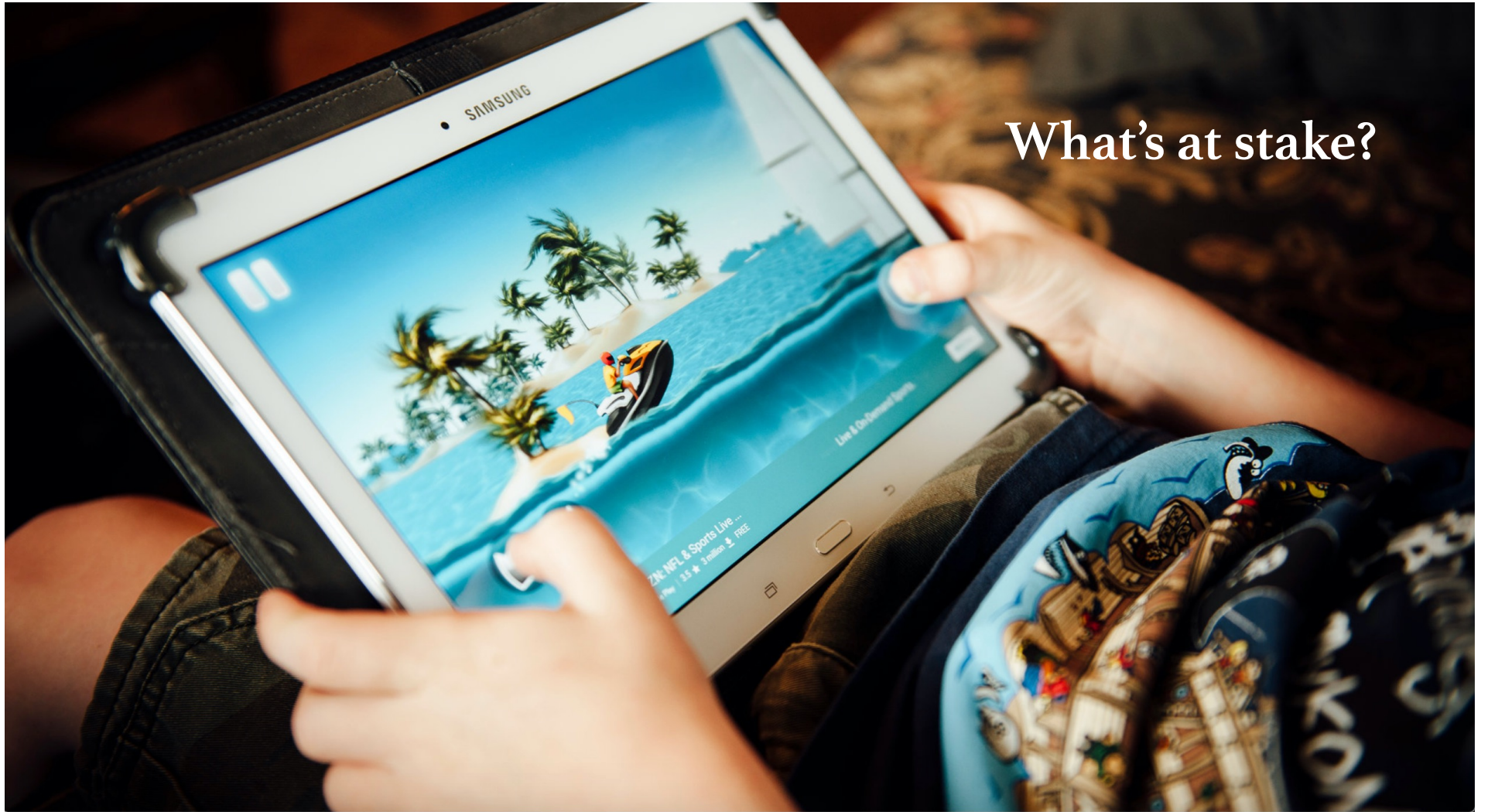
Name

Email

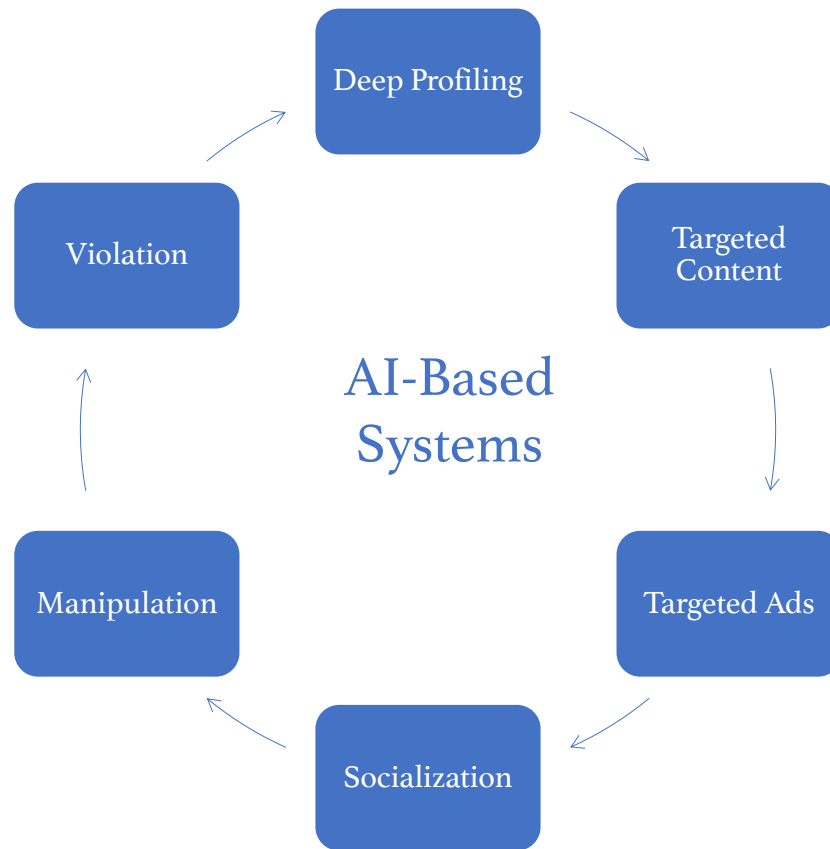
Geolocation

Cookies





What's at stake?





ABOUT THE FTC

NEWS & EVENTS

ENFORCEMENT

POLICY

TIPS & ADVICE

I WOULD LIKE TO...

Home » News & Events » Press Releases » Google and YouTube Will Pay Record \$170 Million for Alleged Violations of Children's Privacy Law

Google and YouTube Will Pay Record \$170 Million for Alleged Violations of Children's Privacy Law

September 4, 2019

FTC, New York Attorney General allege YouTube channels collected kids' personal information without parental consent

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FOR RELEASE

TAGS: [Children's Online Privacy Protection Act \(COPPA\)](#) | [Technology](#) | [Bureau of Consumer Protection](#) | [Consumer Protection](#) | [Advertising and Marketing](#) | [Children](#) | [Privacy and Security](#) | [Children's Privacy](#)

NOTE: *The FTC hosted an IN-PERSON press conference at FTC Headquarters on September 4. The news conference was also webcast; [view archival video here](#).*

Participants included FTC Chairman Joe Simons and Director of the FTC's Bureau of Consumer Protection Andrew Smith.

Google LLC and its subsidiary YouTube, LLC will pay a record \$170 million to settle allegations by the Federal Trade Commission and the New York Attorney General that the YouTube video sharing service illegally collected personal



[In English](#)

[En Español](#)

Related Cases

[Google LLC and YouTube, LLC](#)

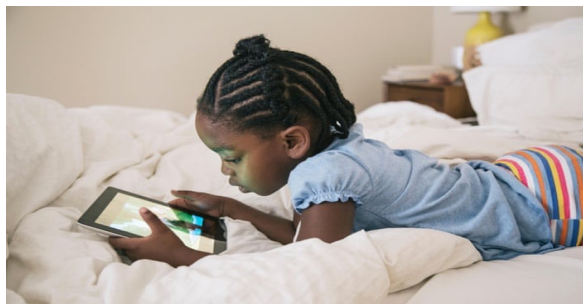
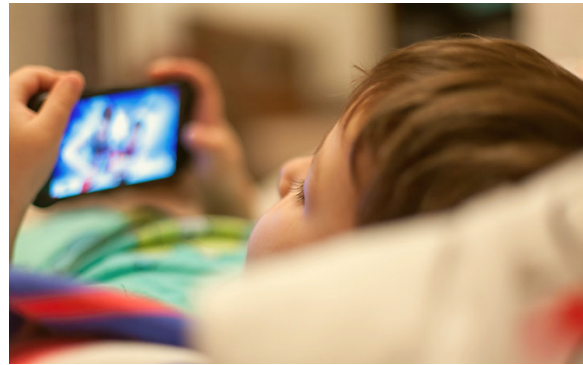
Related Actions

[Prepared Remarks of Chairman Joe Simons at FTC YouTube Settlement Press Conference](#)

[Statement of Chairman Joe Simons and Commissioner Christine Wilson Regarding YouTube](#)

[Statement of Commissioner Noah Joshua Phillips Regarding YouTube](#)

Children's use of smart devices begins at especially young ages, rendering them exposed to the influences of artificial intelligence.



AI literacy must begin early and evolve over the course of a young person's life.

The Digital Edge How Black and Latino Youth Navigate Digital Inequality



S. Craig Watkins

Andres Lombana-Bermudez, Alexander Cho,
Jacqueline Vickery, Vivian Shaw, and Lauren Weinzimmer

The Digital Edge

How Black and Latino Youth Navigate Digital Inequality



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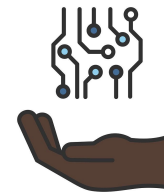
Technology rich, Curriculum poor

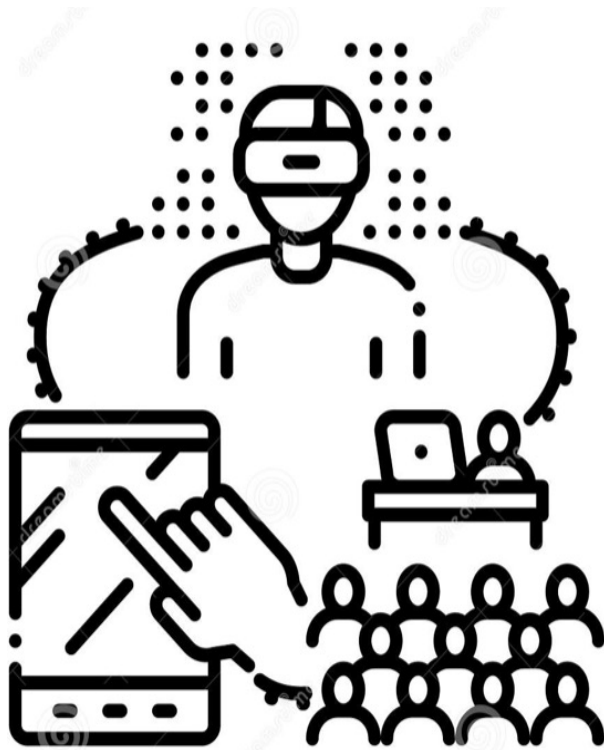


Evolution of the Digital Divide



AI Literacy





TECHNOLOGY RICH, CURRICULUM POOR

Arms race.

Associate presence of tech as an indicator of 21st century learning.

Is the curriculum preparing students for a world dominated by AI?

ACCESS

LITERACY

**DIGITAL
DIVIDE**

GEOGRAPHY

PARTICIPATION

DIGITAL DIVIDE

Broadband
Mobile only
High Capacity
Low capacity networks

ACCESS

Skills
Disposition
Data

LITERACY

School
Home
Library

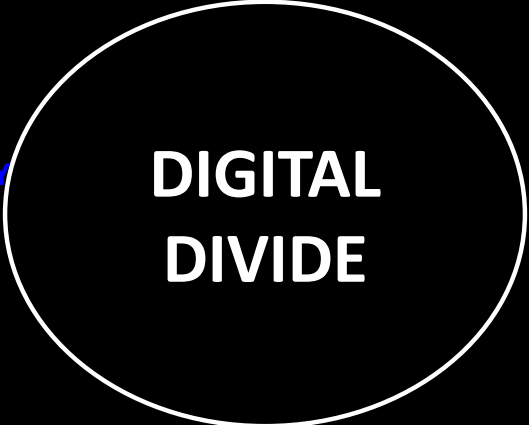
GEOGRAPHY

Friendship
Interest-driven
Civic-driven

PARTICIPATION

Skills
Disposition
Data

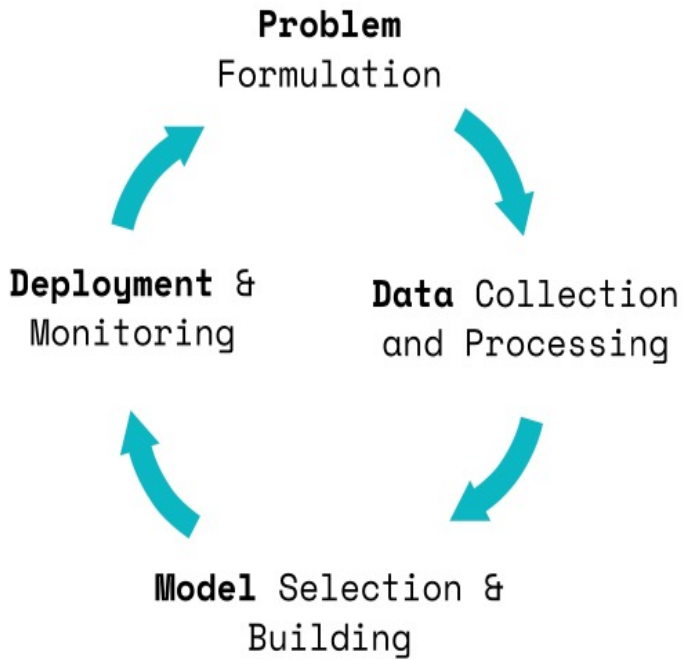
LITERACY



DIGITAL
DIVIDE

What is **AI Literacy**...today?

- **Technical Literacy**
- **Critical Literacy**
- **Behavioral Literacy**



TECHNICAL LITERACY

How are AI systems built?

How do they function?

“A Call-to-Action in STEAM Education”

By **S. Craig Watkins**

The report produced by the National Endowment for the Arts, *Tech as Art: Supporting Artists Who Use Technology as a Creative Medium*, is a timely, albeit unlikely, intervention into the debate about the future of STEM (science, technology, engineering, and math) learning in the U.S. Among its many recommendations, I was especially struck by this one:

Educators and policymakers can support integration of the arts with STEM through educational initiatives inclusive of creative coding and other arts-based learning to bridge digital divides, promote digital literacy, and build essential 21st-century skillsets.

This recommendation is, in earnest, a call-to-action



CRITICAL LITERACY

What are AI systems designed to do?

What are the social, ethical, and equity issues?

Diverse expertise.



BEHAVIORAL LITERACY

How do AI systems shape human behavior?

Human agency
and digital wellness.

Rights of Data Subjects

under the GDPR



Data Subject (DS)
All natural persons whose personal data (PD) is processed by a controller or processor in line with art. 3 GDPR.



Right to be informed
Provide the information listed in Art. 13 if the PD was provided by the DS or Art. 14, if not.



Right of Access
Confirm and if applies, provide access to the DS own PD and the information listed in Art.15.



Right to Rectification
Allow the rectification of inaccurate PD and the provision of supplementary data.



Right to Erasure - "Right to be Forgotten".
Erase the PD, when a DS request so and there are no legitimate grounds for retaining it.



Right to Restriction of Processing
Impede the processing of PD under the situations stated in Art. 18, e.g. it is unlawful.



Notification Obligation
Notify any rectification or erasure or restriction of processing to each Recipient. Exempt Art.19



Right to Data Portability
If Art.20(1) applies, give back the PD as required and allow the transfer to another DC.



Right to Object
Provide the option to object the processing if the conditions in Art.21 apply. Also, quickly respond and demonstrate legitimate grounds.



Automated decision-making
Do not base a decision solely on automated means, include profiling, which produces legal or similar effects. Exempt Art.22(2)(4)



Others
e.g. communication about a PD breach, withdrawal of consent and compensation.

craig.watkins@austin.utexas.edu

craigw@mit.edu

[@scraigwatkins](#)

