The Evolution of the Internet, Identity, Privacy, and Tracking

The End of Third-Party Cookies – Why Are They Going Away, What Is the Impact, and What Do We Do Now?!

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SVP – Identity, Data, and Privacy

IAB Tech Lab

@kickstand / #ProjectRearc

March 2020

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Our Mission

Sharing the cost, sharing the benefits

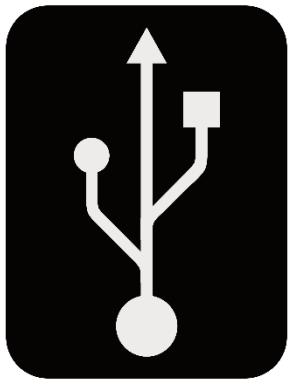
Member-driven, member-developed

Engage a member **community** globally to develop **foundational** technology and standards that enable growth and **trust** in the digital media ecosystem.

Broad availability & utility, by design

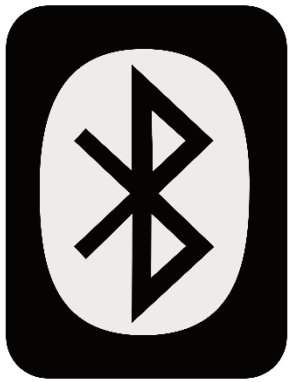
We live this – as a neutral, transparent, open-source, non-profit org

Technical Standards We All Rely on Every Day



USB

WiFi



Bluetooth

Tech Lab standards are similar…but for digital media.

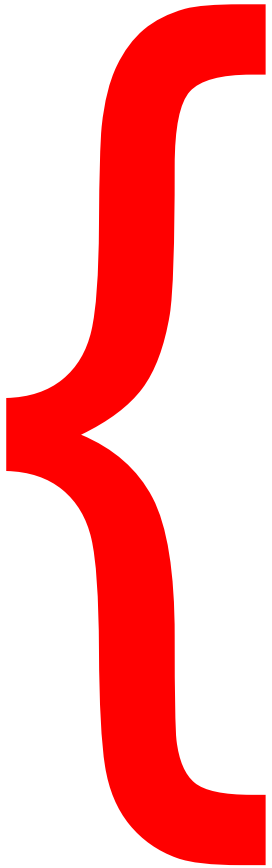
Tech Lab Standards Portfolio

Identity, Data, & Privacy

Brand Safety & Ad Fraud

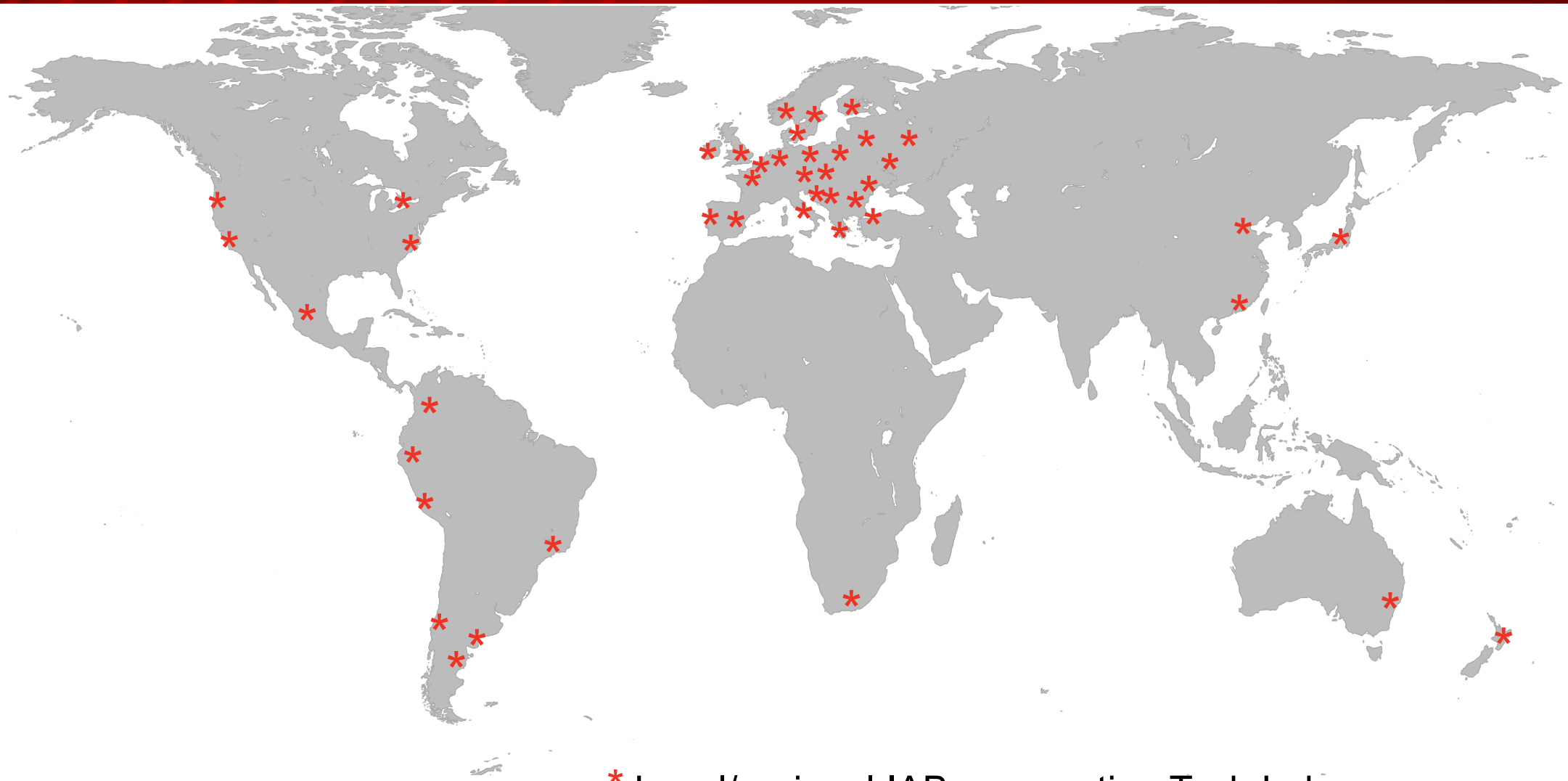
Ad Experiences & Measurement

Programmatic Effectiveness



- Specifications
- Guidelines
- Technology
- Services

Global Community, Creating Global Standards…



750+
Companies

30
Working Groups

2000+
People

* Local/regional IABs supporting Tech Lab

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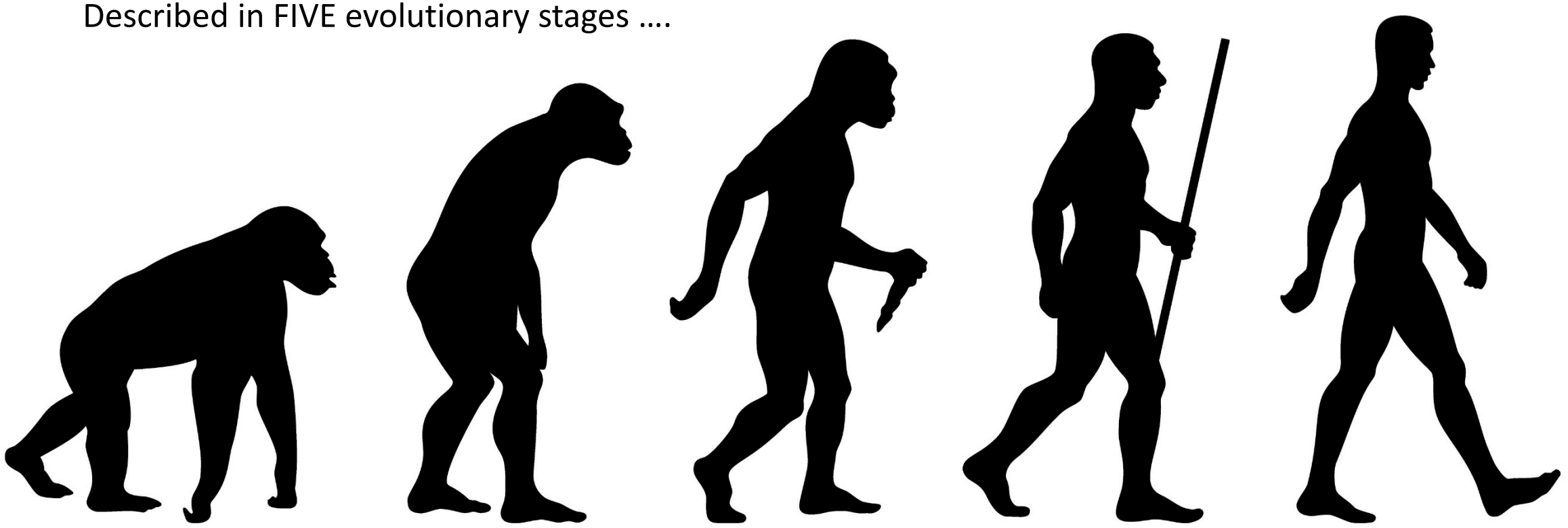
The Evolution of the Internet, Identity and Privacy

Described in FIVE evolutionary stages ….



The **Birth**

The Age of **Personalization**

The Age of **User-Generated Content**

The Age of **Social**

The Age of **Marketing Automation**

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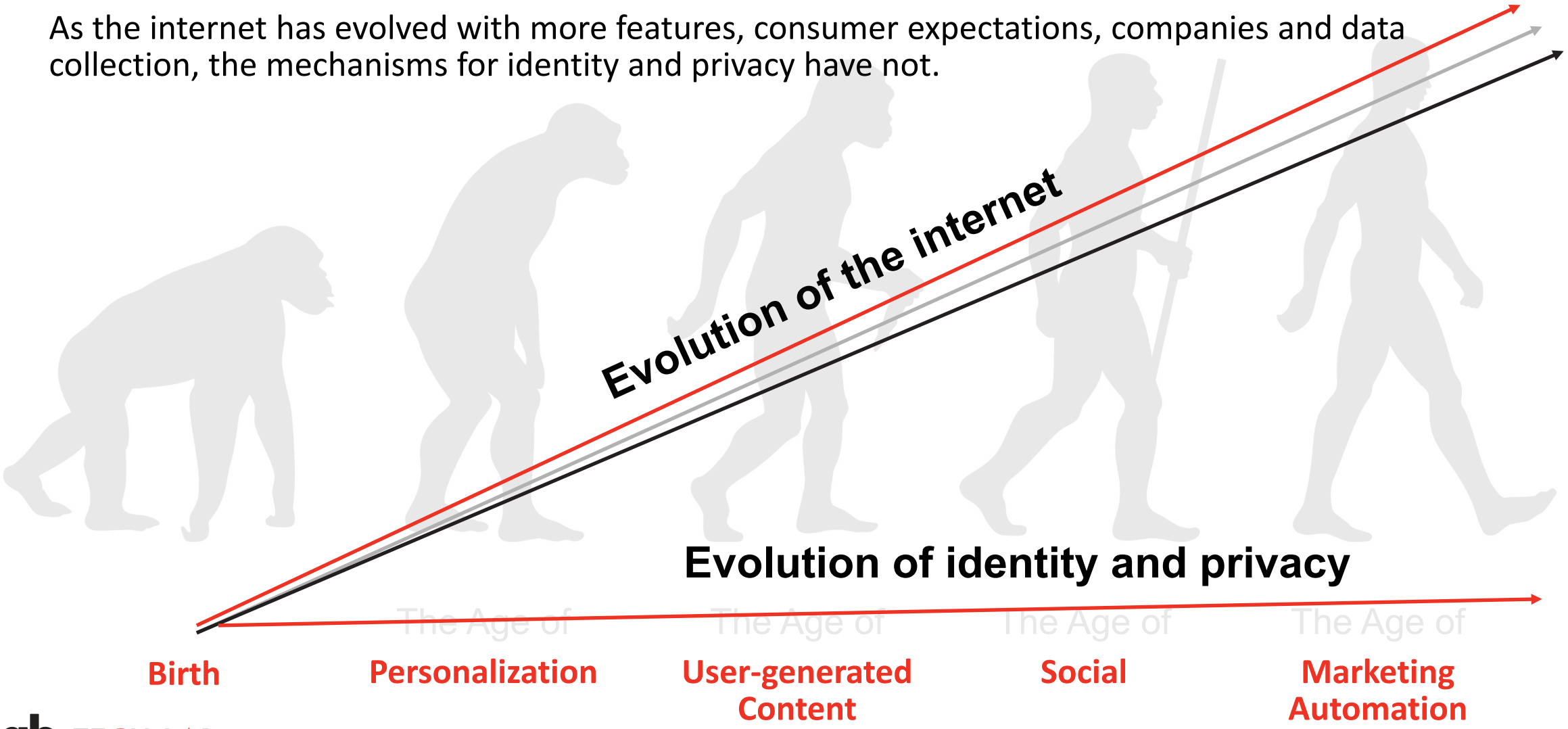
Our Point – A New Architecture is Needed

As the internet has evolved with more features, consumer expectations, companies and data collection, the mechanisms for identity and privacy have not.



The Punchline

- **The privacy and data crises of today is a result of:**
  - Core open architecture of the internet
  - Privacy and identity NOT built into the foundation of internet protocols
  - Tremendous innovation in internet content and services
  - Broad fragmentation of consumer identity, data, and privacy settings

- **We must re-architect digital marketing around NEW tech standards:**
  - Rethink all core use cases in this new “privacy by default” world
  - Ensure responsible use of consumer-provided data
  - Enable consumer transparency, choice, and control across all experiences
  - Improve industry accountability and trust

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The Birth of the Internet

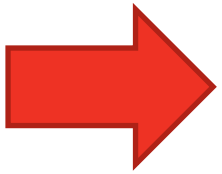
Mid 1990s – The movement towards egalitarian information sharing and access, using open technology standards

The Birth of the Internet and Web

The architecture and vision of the internet changed everything …

Client/server architecture:

- Proprietary client
- Proprietary communications layer
- Proprietary server



Internet architecture:

- Open, standardized client
- Open, standardized communication layer
- Open, standardized server

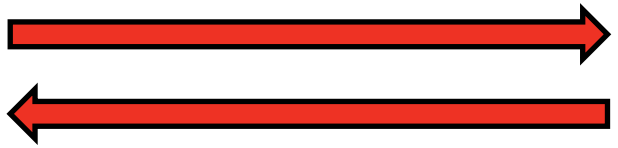
Vision: An open, decentralized platform in which any person can share information with anyone else, anywhere.

A Focus on Open, Ubiquitous Standards

Standard protocols for Web browsers and servers to communicate with each other.

"HTTP Request"

containing information such as browser type, device type, operating system, IP address, web site URL, and other personal data



Free "Web browsers"

"HTTP Response"

containing the data requested (images, videos, text, files, data, etc.)

Web servers

Largely the same standards and architecture that continues in use today!

Just One Small Problem …

There was no log-in, or other way to distinguish one request or user from another!

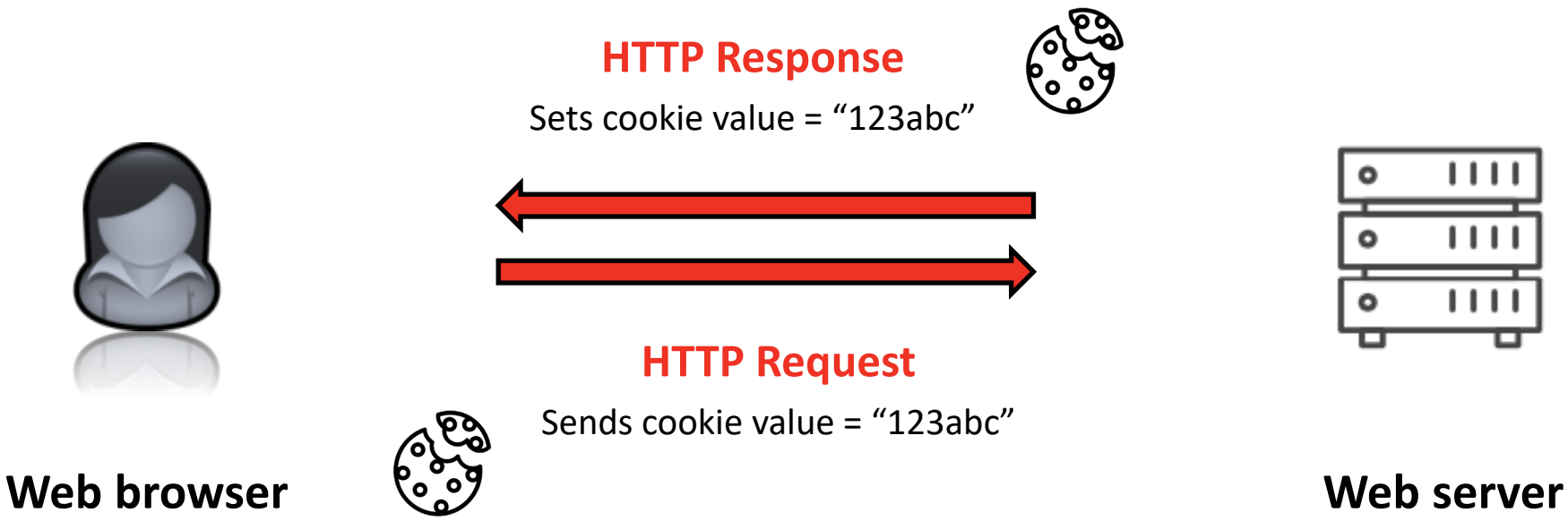
It's like talking to a room full of people that:

- Have no name tags,
- All sound the same,
- All look the same,
- Are all talking at once,
- About different things.

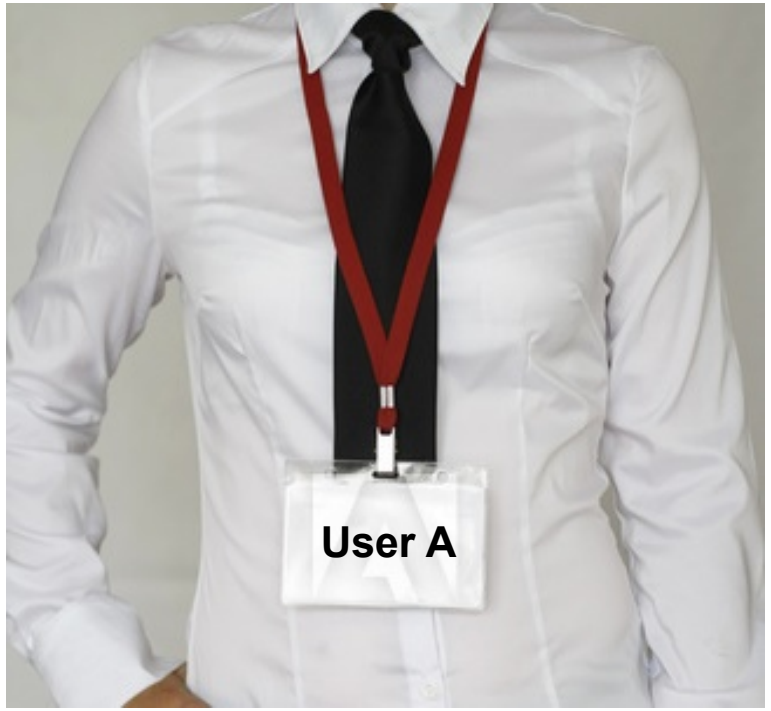
How do you make sense of it all!?

So the “HTTP Cookie” Was Invented

An HTTP standard that allowed any web server to write an arbitrary value to a text file on the browser, which is returned with every request (to that web server).



Which Helped Distinguish One User from Another



Resulted in:

- Basic Web site analytics (users, pageviews, popular content, etc.)
- Basic reach and frequency measurement for ads

But … with Some Unintended Consequences

Thousands of cookies!

Every company must create its own proprietary user "identifier" because:

- A cookie may only be read by the server that set it.
- There was no common identifier provided to all parties.

Recap

The original architecture of the internet did not standardize consumer identity or privacy (and still doesn't).

- Cookies were (and remain) the sole mechanism for distinguishing each user
- A cookie may only be read by the party that set it

Early on, cookies and cookie-based identifiers enabled :

- Web site analytics
- Reach and frequency measurement

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The Age of Personalization

Late 1990s – The internet becomes a personalized and e-commerce experience.

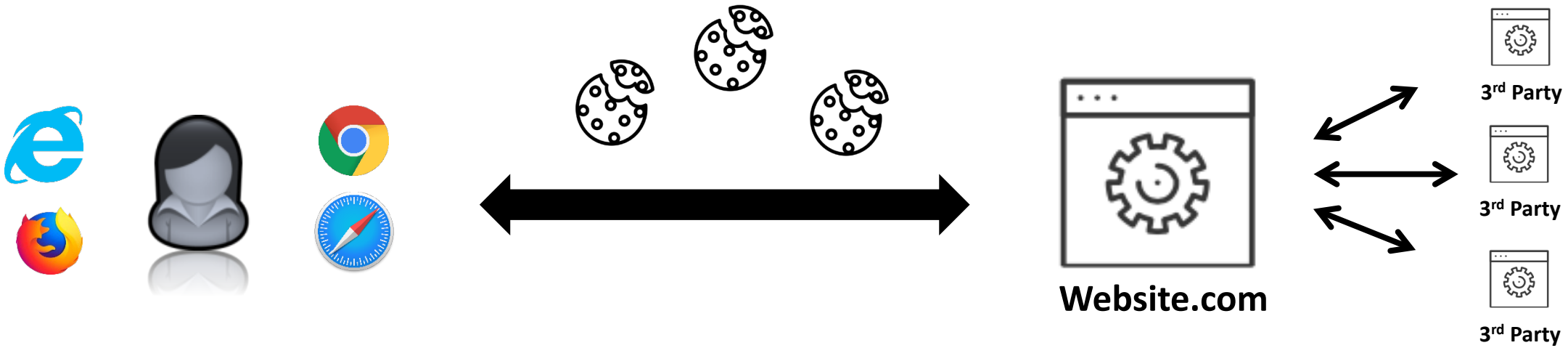
Amazon Helped Set New Consumer Expectations

Improved consumer experiences through e-commerce, personalized shopping experiences, and recommendations (analyzing consumer behavior and purchases):

- “Frequently bought together …”
- “Others looking at this item eventually buy …”
- “If you like this, you may also like …”

Without HTTP cookies, this was not possible then, and it’s still not possible today!

To Compete, Other Web Sites Followed Suit …



Web sites either built the features themselves, or they used 3rd party vendors.

Each 3rd party vendor added yet another cookie to the consumer's browser:

- No other way to distinguish consumer behavior
- No other way to integrate and offer the personalized experiences

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The original architecture of the internet did not standardize consumer identity or privacy (and still doesn't).

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Cookies and cookie-based identifiers enabled innovation:

- Web site analytics
- Reach and frequency measurement
- **E-commerce and personalized experiences**
- **Third party vendor features**

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The Age of User-Generated Content

2006 – The internet became primarily about what YOU contributed.

The Internet Gets Personal …

User-contributed content exceeds business-generated content:

- Videos (YouTube)
- Images (Flickr)
- Reviews (Yelp)
- Blogs
- Comments

Unprecedented sharing of personal data, feelings, opinions … everything!

Behavioral data collection within our industry expands accordingly. These were all free services, funded by personalized advertising.

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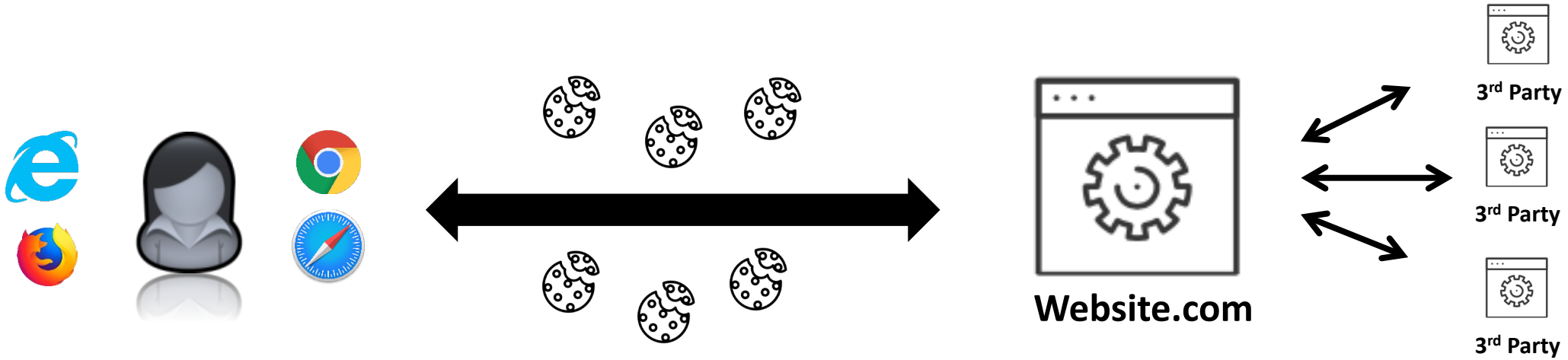

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- **User-generated media, comments, reviews, etc.**
- Third party vendor features

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The Age of Social:

2010 – The internet became a shared social experience with your friends.

The Internet Gets Social …

The internet as a social mechanism goes mainstream:

- Explicit “friends” connections
- Explicit sharing of interests, content, location, images, etc.
- Sentiment (“like” buttons)

The social internet sets new consumer expectations for online experiences:

- Professional (LinkedIn), friends (Facebook), interesting people (Twitter), etc.
- Social sharing becomes pervasive

Personal, internet-connected devices become ubiquitous (starting with iPhone).

Behavioral data collection within our industry expands accordingly. These were all free services, funded by personalized advertising.

Advertisers Start Targeting PEOPLE not Pages

A new model for marketers to reach consumers emerges, driven by:

- Vast personal data provided by consumers (e-commerce, interests, friends, opinions, demographics, location, sentiment, etc.)
- Ability for marketers to reach specific audiences
- Reduced media waste
- Pervasive expectation of personalized experiences

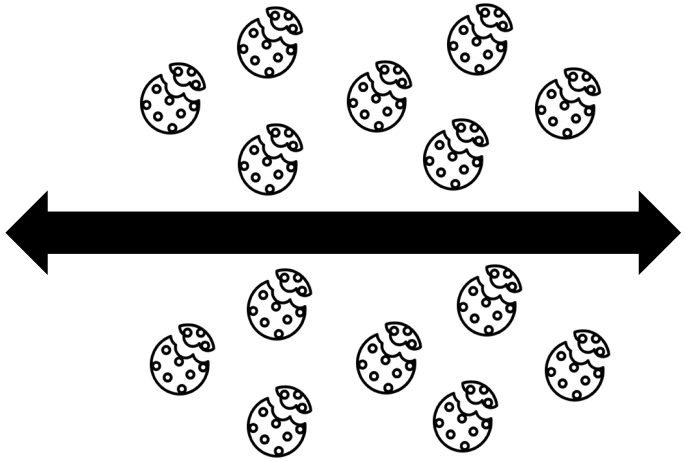
The large first parties (Google, Facebook, Amazon, etc.) build in-house systems.

Everyone else uses third-party vendors, in order to compete.

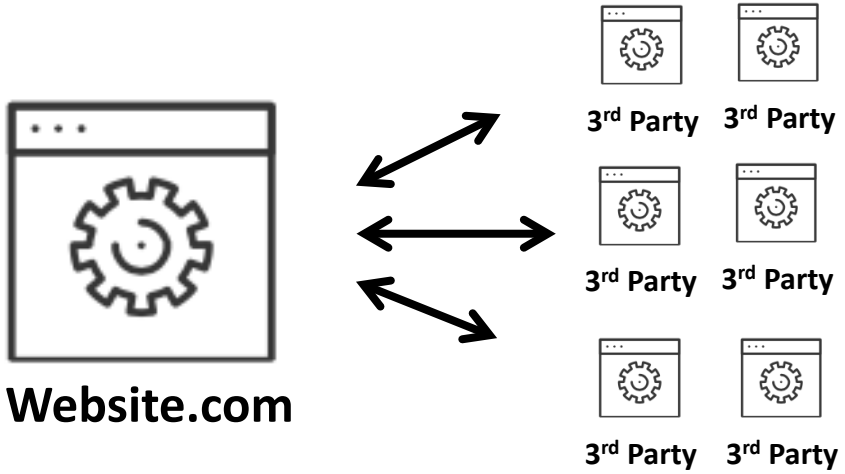
Privacy programs enable consumers to opt-out en masse – tied to a cookie (there's no other way!)

You Guessed It … More Cookies

More Devices



More Cookies



More Third Parties working on behalf of the Publisher or Advertiser to provide rich, personalized experiences.

Each 3rd party vendor adds yet another cookie:

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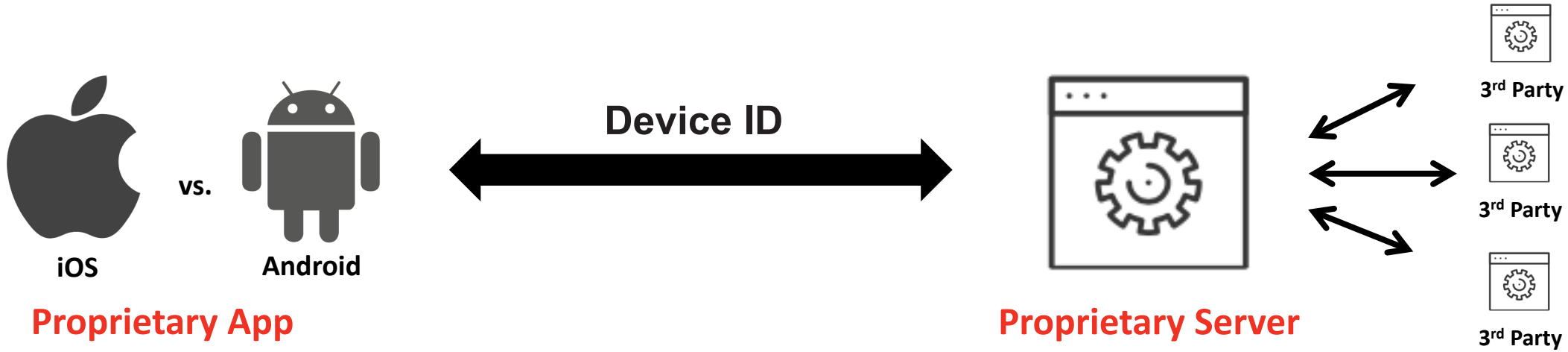
- No other way to integrate and offer these experiences

Except within Mobile Apps! (Cookies not Supported)



Within the Mobile App ecosystem, Apple/iOS and Google/Android:

- Provide all parties with the same proprietary device ID
- Operate closed environments (vs. the Web's open environment)
- Do not natively support cookies

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- Web site analytics
- Reach and frequency measurement
- E-commerce and personalized experiences
- User-generated media, comments, reviews, etc.
- **Social networks and sharing of personal data**
- **Location sharing**
- **Consumer privacy settings**
- Third party vendor features

Mobile Operating Systems disrupt cookies in the App environment, providing their own proprietary device ID.

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The Age of Marketing Automation:

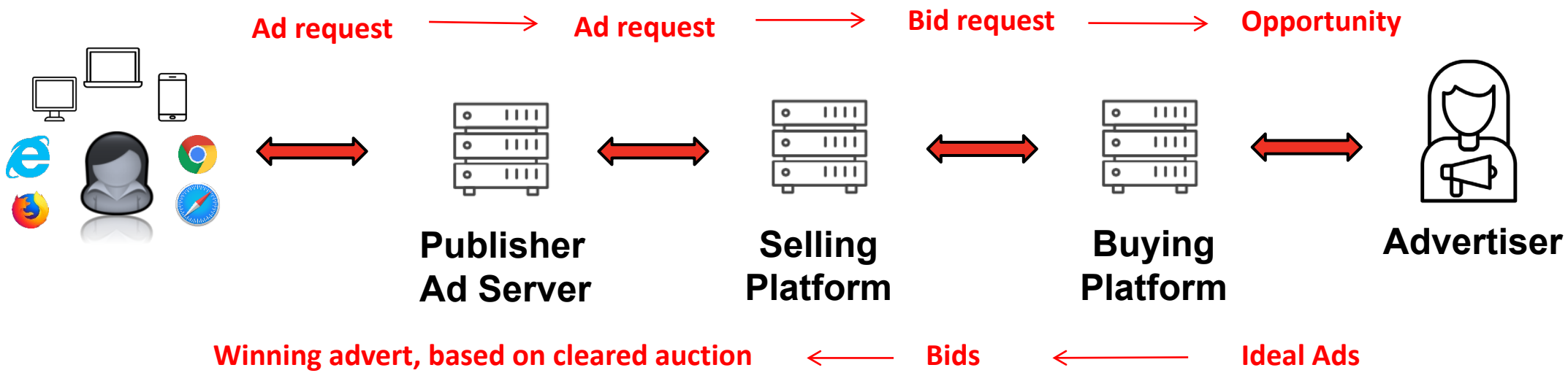
2010 to present – Machines and algorithms take over how brands connect with consumers, and how publishers monetize their services.

Manual Processes Replaced by Software & Algorithms

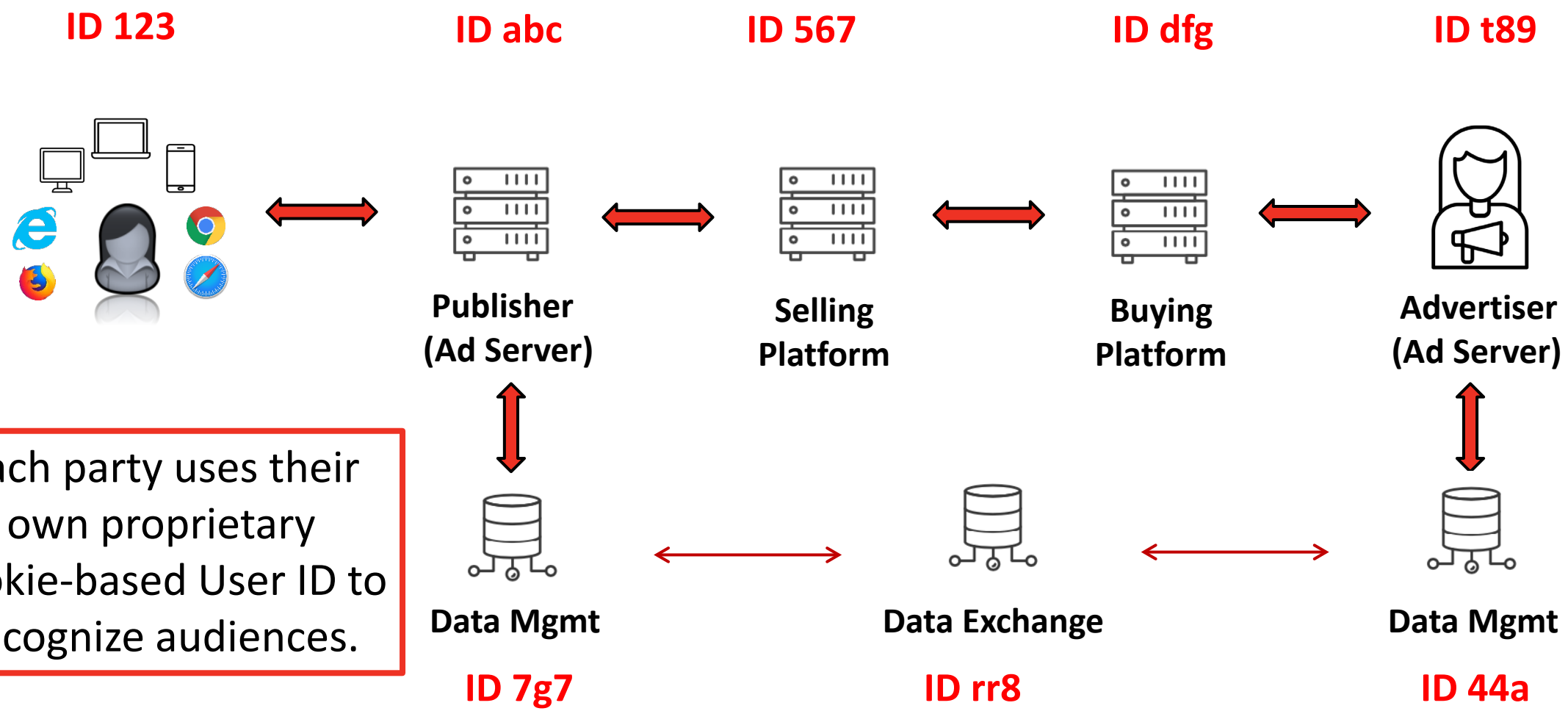
Every ad you see in an app or website results from:

- Real-time auction involving thousands of advertisers and tech platforms
- Potentially billions of data points

The New Way of Buying/Selling Advertising (happens in <1 second)

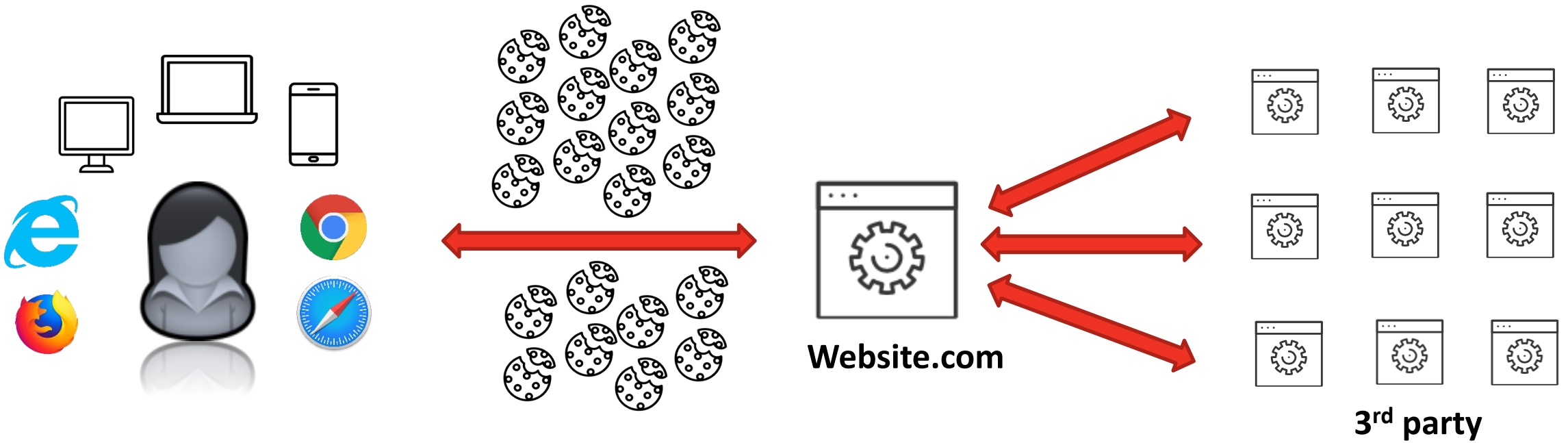


Marketing Automation Supply Chain Today



Each party uses their own proprietary cookie-based User ID to recognize audiences.

Way, Way, WAY More Cookies!

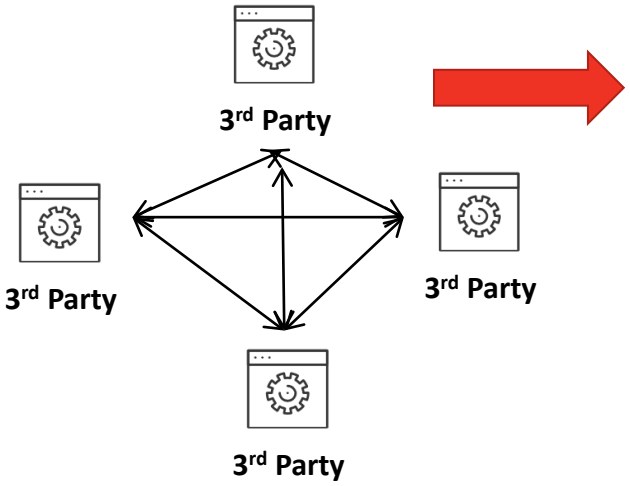


There are now <u>hundreds</u> of platforms in the digital ad supply chain, each using a different cookie-based user token.

- ALL “pixel sync” to share user IDs to enable automated buying/selling.
- **The Result**: <u>100s of billions of pixels per day</u>, slowing publisher pages.

What is an ID “Pixel Sync”?

ID syncs allow third parties to work together on behalf of a mutual customer.
Proprietary IDs are communicated between parties to update ID mapping tables.



“here is my ID for this user; please respond with yours!”

Every 3rd party whose code runs on a Web site uses that interaction within the browser to share ID information with their partners, each of which spawns a separate additional request on that page.

ID Syncs Have Caused Exponential Growth in “Trackers” on the Web

- 4 parties = 12 ID sync pixels for each device, app, login, etc.
- 8 parties = 56 ID sync pixels for each device, app, login, etc.

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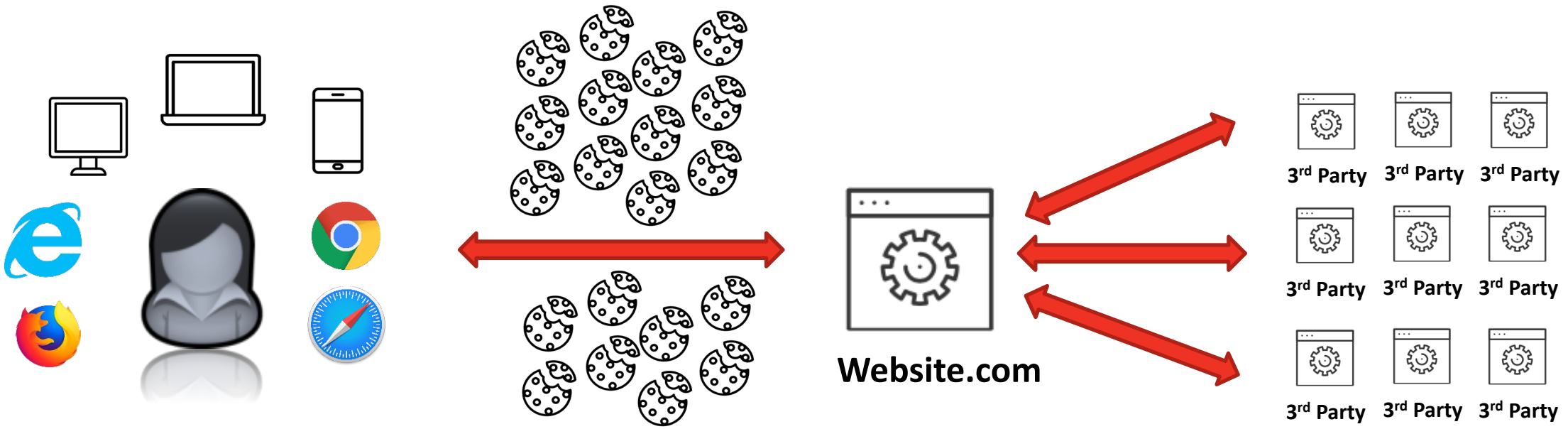
The Age of Privacy:

2020 – Re-architecting digital marketing around consumer privacy and responsible data use.

THIS is the current situation we're in …



100s of disparate 3rd party cookies or probabilistic IDs.
Billions of redundant "trackers" (ID syncs) on pages to connect them.
Opaque consumer data collection, sharing and use.
Fragmented consumer control over privacy.

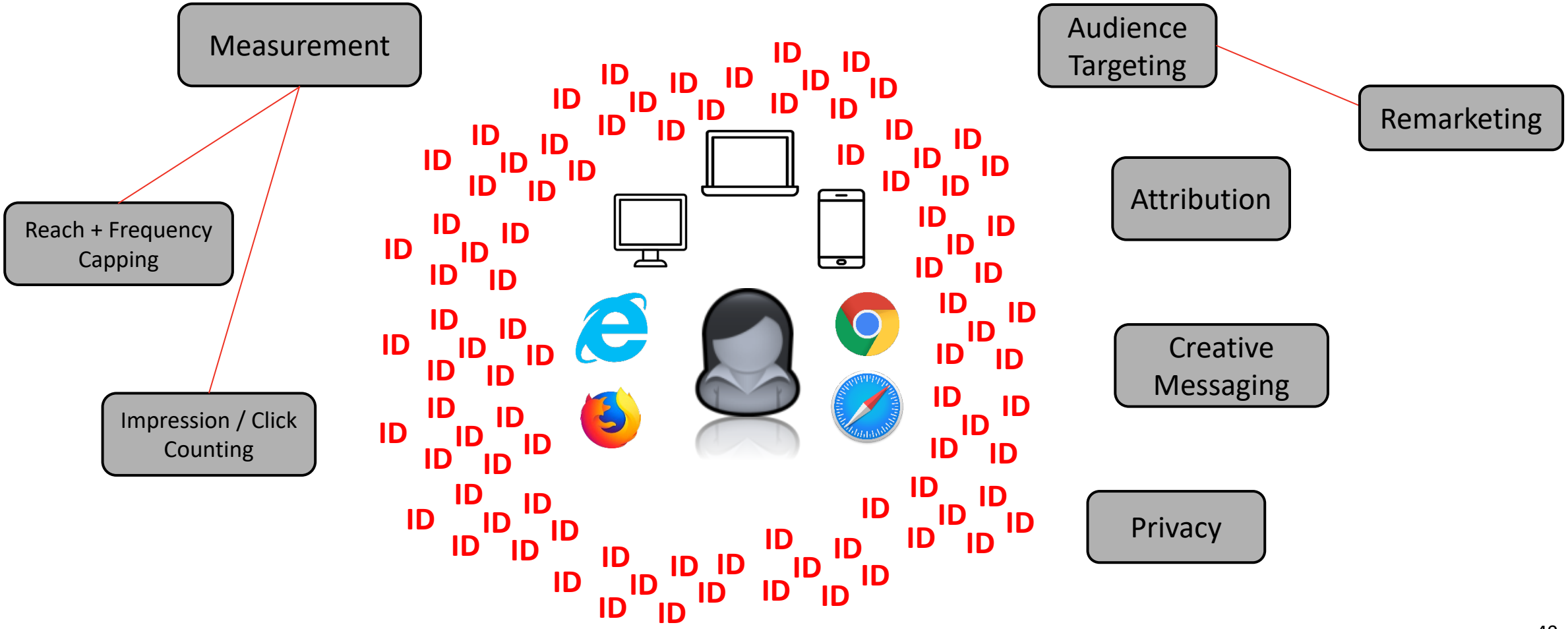
The “Perfect Storm” within our Industry

All these factors are increasing and feeding upon each other:

- Proliferation of **connected devices**
  - Smart phones, speakers, TVs, homes, watches, cars, devices, ….
- Scale of **personal data collection**, sharing and use (and potential for misuse)
  - Rise of machine learning and AI decisioning
- **Consumer expectations** around privacy, transparency, control
- **Regulation** in favor of consumer privacy, transparency, control
- **Blocking of third-party tracking** – by browsers, operating systems, add-ons

Identifiers, Addressability and Third-Party Vendors

Identifiers and addressability fuel all core ad-supported use cases and systems.



Browser “Tracking” Changes Accelerating, in the Name of Privacy

2017 | Jun | Oct | 2018 | Jun | Oct | 2019 | Jun | 2019

Today

Safari ITP 1

Safari ITP 2

Firefox introduces ETP

Safari ITP 2.1

Safari ITP 2.2

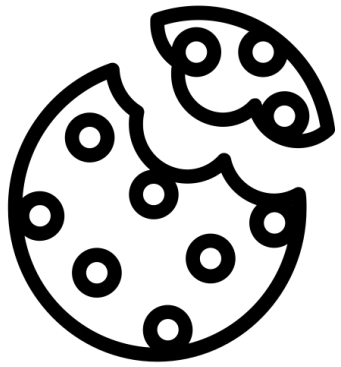
Safari introduces PPACA

Chrome support for SameSite

Chrome announces the privacy sandbox

Firefox enables ETP by default

Edge announces “Auditing Privacy on the Web”



ALL efforts focused on reducing cross-site tracking at scale…

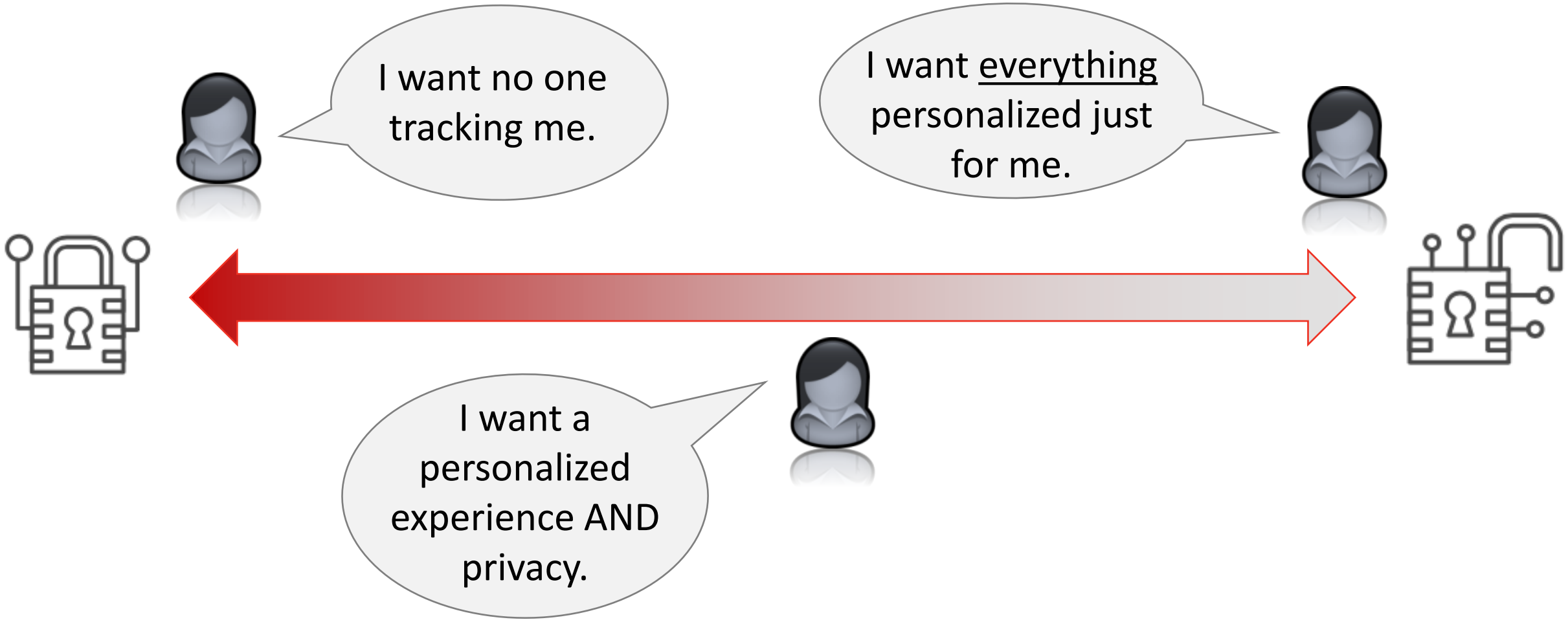
…and, most recently, Chrome cookie announcement

Can Digital Marketing Work without 3P Identifiers?

All Ad Tech Systems Supporting the Ad Industry Will Need to be Retooled

It's Between Consumers and the Brands They Trust Now

Consumers have different tolerances on the continuum of privacy and personalization.



Project Rearc: Rearchitecting Digital Marketing

Mission: Harmonize privacy, personalization, and community.

Goals / Objectives:

Engage stakeholders across the industry, globally

Rearchitect digital marketing with alternatives to 3P cookies that support:

- A robust Open Web that fuels innovation in content and services
- Consumer transparency, choice, and control across all experiences
- More explicit relationships between 1st parties & trusted 3rd parties
- Open standards that support interoperability and efficiency
- Improved industry accountability and trust

Anticipated Components:

- Technical standards and guidelines (NOT an identity product/service!)
- Compliance program

Addressability Standards in a “Privacy by Default” World

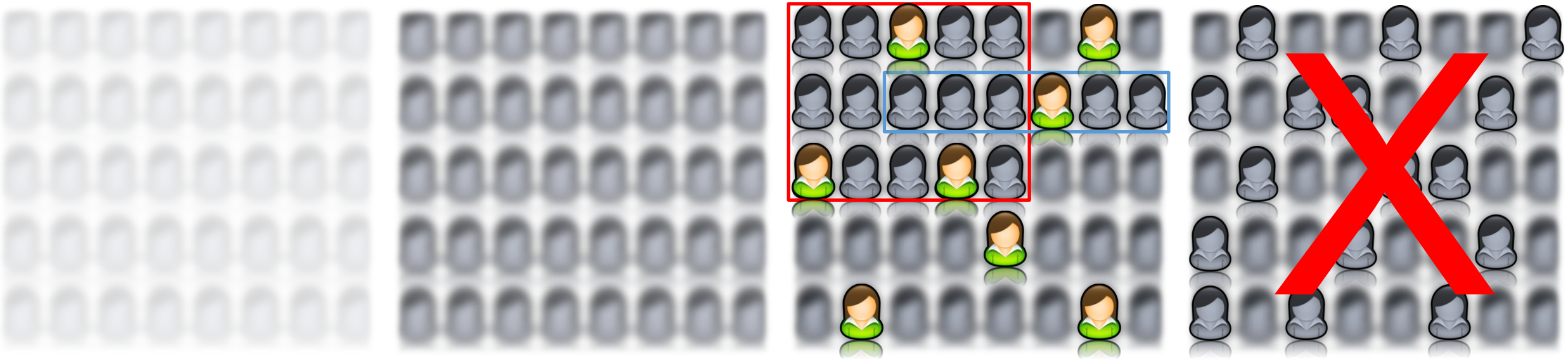
Privacy by Default | **Tracking by Default**

Non-addressable

On-device Audiences
(e.g., Privacy Sandbox)

1st-party Audiences:
site/app context,
behaviors, authentication

3rd-party Audiences
(based on cross-site tracking)



Addressability & Tracking

- 1st-party tracking ONLY
- No 3rd-party ID via RTB

- 1st-party tracking ONLY
- On-device data, targeting, measurement, etc.
- Audiences via “cohorts”

- 1st-party tracking
- Consumer-provided ID connecting trusted brands and publishers.

- 1st and 3rd-party tracking
- IDs passed via RTB

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On-Device and 1P Audiences – Role of Standards / Tech Lab

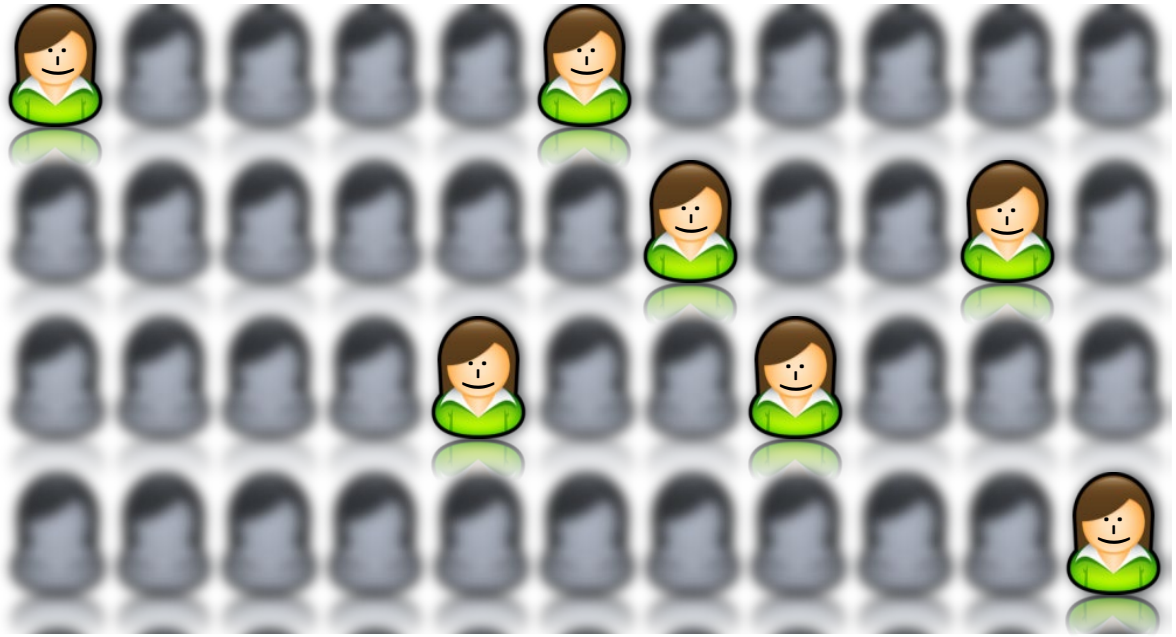
1. **Browser Proposals (such as Privacy Sandbox)**
   - Engage with browser/OS platforms and W3C
   - Encourage cross-platform interop/standards

2. **Contextual at the Site/App Level**
   - Standardize content taxonomies
   - Establish best practices, scale and accountability

3. **First Party Behavioral**
   - Standardize audience taxonomies
   - Establish best practices, scale and accountability

Standards for Authenticated Consumers

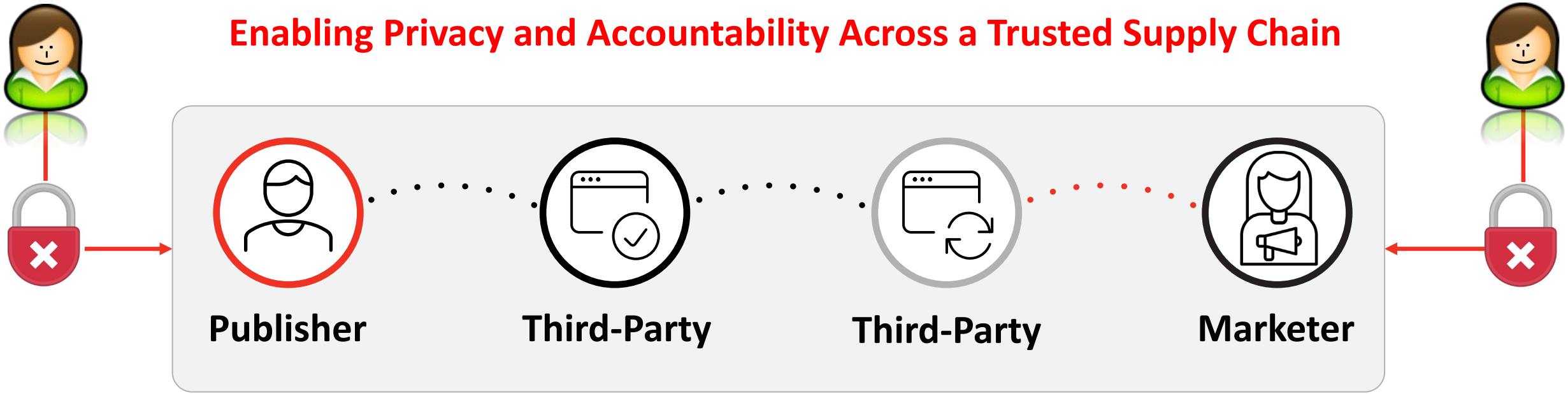
First parties (publishers, apps, brands, ecommerce, services, etc.) can leverage trust + personal data to personalize experiences. They need a secured, trusted supply chain in which to execute.



Could Include:

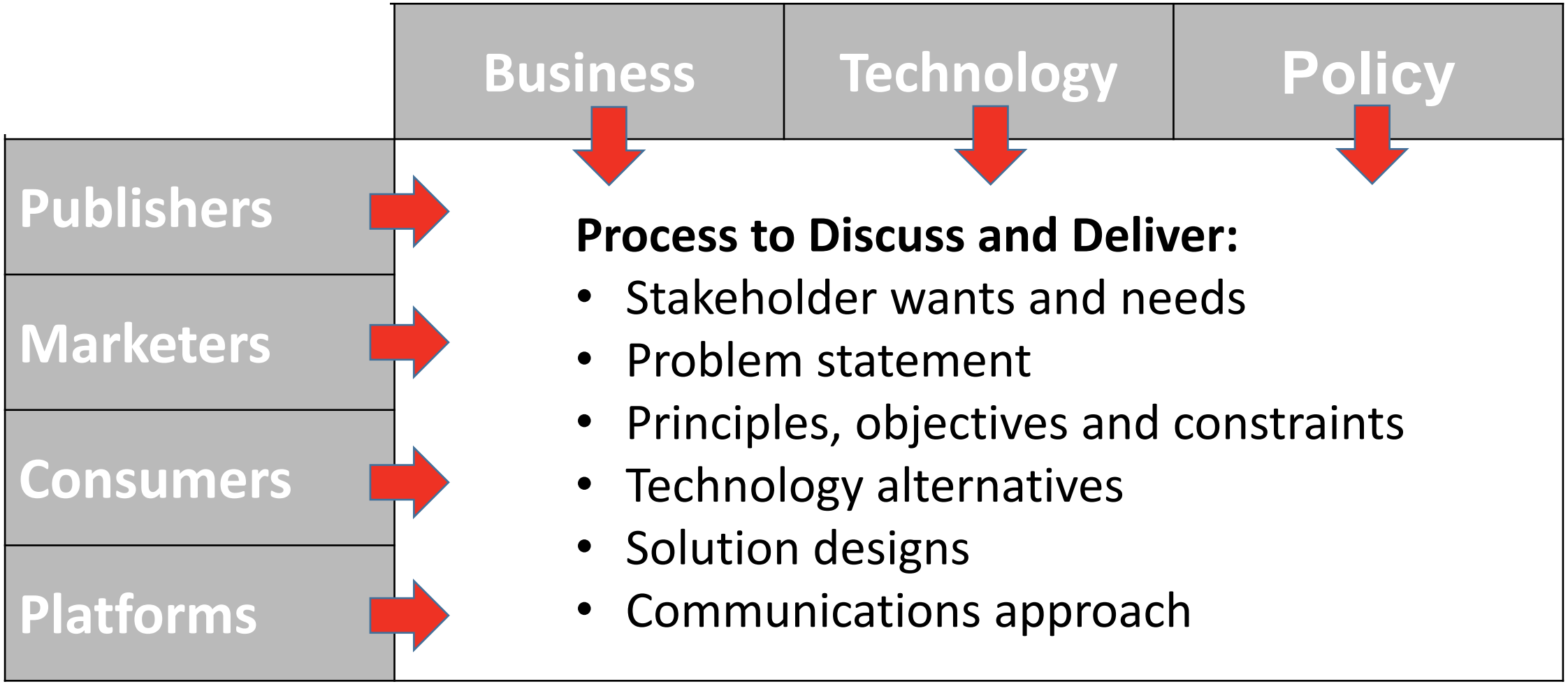
- Subscription services
- Shared login services
- Email walls (to access content)
- Ecommerce order fulfillment

Authenticated Consumer – Role of Standards / Tech Lab

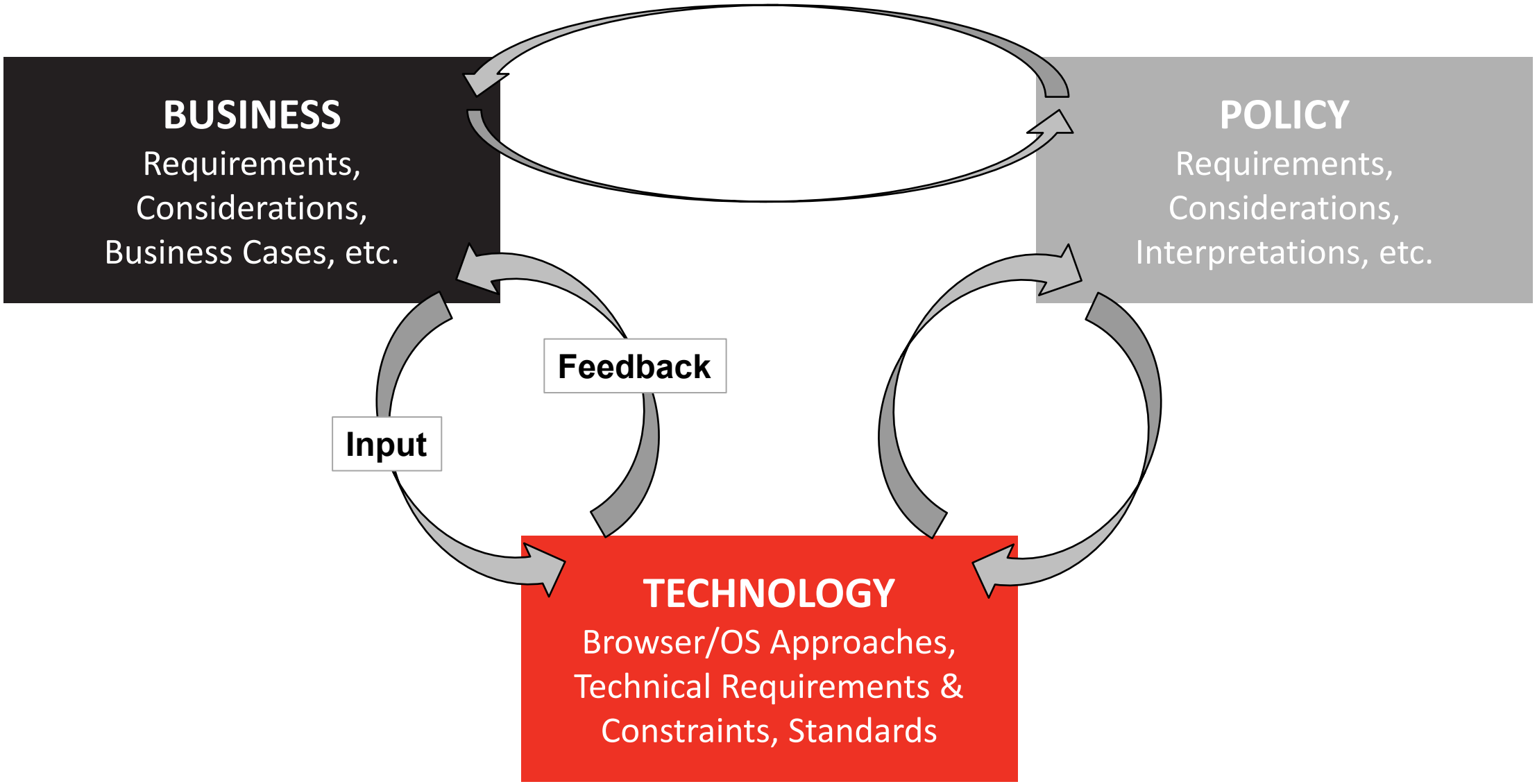


- Ensure responsible use of consumer-provided identifiers.
- Allow third parties to execute on behalf of trusted first parties, without enabling third-party tracking.
- Standardized consumer messaging, policies, disclosures, controls.
- Tech standards and accountability/compliance mechanisms … NOT a universal identifier!

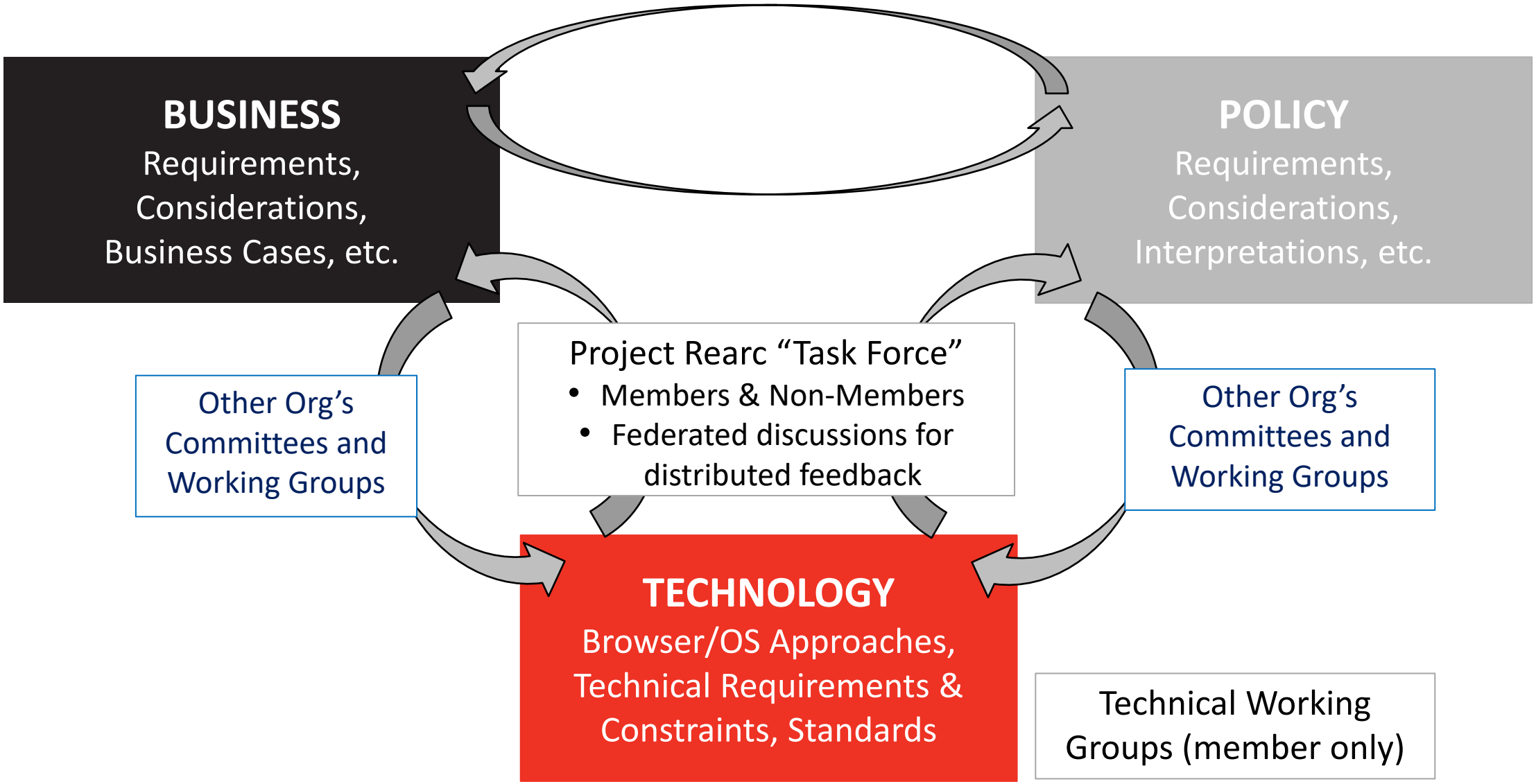
Project Rearc: GLOBAL Stakeholder Input Is Critical



Stakeholders in Project Rearc



Tech Lab Engagement in Project Rearc



Proposed Rearc Process

Phase 1 – Understanding the Problem *

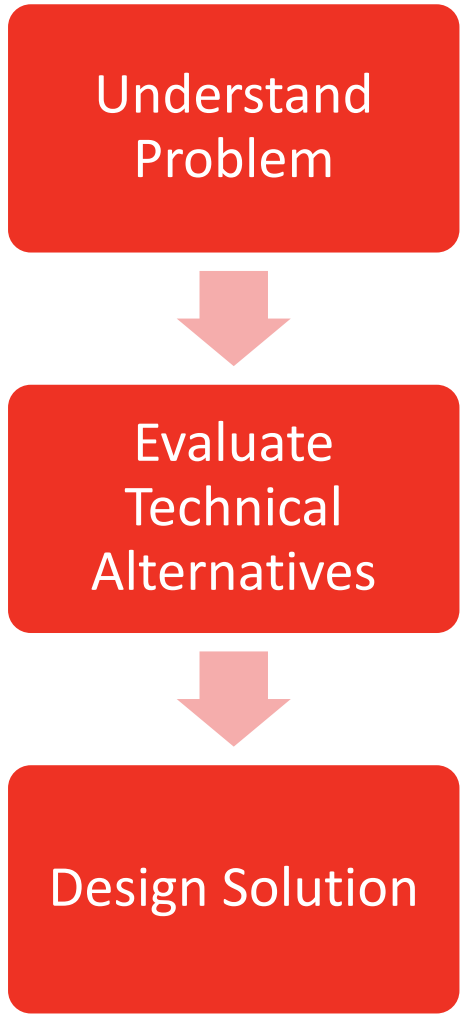
- Advertising use cases and identifier dependencies
- Business impact from loss of identifiers
- Privacy issues and principles

Phase 2 – Understanding Technical Alternatives *

- Discussion of technical alternatives
- Business, technical, and policy considerations around each
- Definition and application of evaluation criteria
- Browser/OS proposal analysis and feedback
- Selection of proposed alternative(s)

Phase 3 – Solution Design of Selected Alternative(s)

- Business and policy requirements
- Minimum standards required, including accountability mechanisms



* Drawing from work already completed, whenever possible.

Project Rearc Webinar Series

Three webinars in March-April, each repeated twice:

Webinar 1: **Cookies and Tracking – Why Are They Going Away, and What Do We Do Now?**
(Educational / level-setting for all)

- **Thursday 3/26 at 12pm-1pm ET / 9am-10am PT**
- **Tuesday 3/31 at 12pm-1pm ET / 9am-10am PT**

Webinar 2: **What does the removal of identifiers mean for publishers?**
How does this affect your business? (Business model impact / sell side)

Webinar 3: **What does it mean for agencies & brands?**
How does the removal of third-party cookies and identifiers impact their businesses?
(Business model impact / buy side)

Get all relevant business & tech stakeholders from your company to attend the webinars (to level set) and/or to participate in the relevant task force & working groups

Project Rearc: How to Participate

REARC GLOBAL TASK FORCE

- Open to members & non-members globally
- Gathering critical business & policy input & conversations from all stakeholder groups & various trade organizations to inform technical requirements
- Structured process, bi-weekly meetings & regular updates

TECH LAB WORKING GROUPS

- Technology-focused Tech Lab members
- Focus on tech standards & guidelines for privacy-centric addressability and industry accountability

LOCAL & SPECIALIZED COMMITTEES & WORKING GROUPS

- Forums for relevant constituency & local businesses to address all the regions of the world and all stakeholders
- Provide your business cases and policy input, collaboration, and dialogue to inform tech solutions
- E.g. IAB US (Business Case Working Group within Data CoE)
  IAB Australia, IAB Canada, IAB Ireland, IAB UK
  4As, ANA, DAA, DCN, LMC, WFA, etc. (all invited to participate)
  Who else ….?

Thank You!

To participate in Project Rearc, contact your favorite trade organization or visit:
iabtechlab.com/project-rearc