Introduction:

- My name is Rowdie Erwin. I'm a Media Director who's managed media buying for small independent agencies and large holding companies alike for nearly a decade, with many of my past clients belonging to the F100.
- For those that don't know what media buying is—I typically explain it to friends and family this way:
  - If you think of a modern ad agency, there are two primary functions that are being accomplished
    - There's the 'creative' side of the house, which is where creative assets (commercials or ad-units) are conceptualized and subsequently produced
    - And then there's the side of the house that deals with media buying..which is what I do. This involves the process of purchasing 'ad-space' on behalf of a brand to accomplish a specific business goal or objective. The creative assets that get produced on the creative side of the house are what fill the ad space that was purchased
    - Pre-internet, with 'traditional' media (television, billboards, magazines, etc.), the buying process for ad space was often long and arduous, involving phone calls, fax machines and 1:1 conversation between brand representatives and publisher reps.
    - With the rise of the internet, came a slew of new mediums that ads could be displayed, shown or played.
    - While digital ad buying initially remained a 1:1 exercise between buyers and sales reps, eventually, programmatic advertising came to be
      - Programmatic advertising is defined as 'the automated, data-driven buying and selling of digital advertising in real-time, using algorithms to place ads instantly across display, video, mobile and audio channels')
      - Programmatic buying is facilitated via an auction-based system referred to as 'Real-Time Bidding' (or 'RTB', for short) where advertisers bid on ad inventory in milliseconds as a user loads a webpage.
      - SHARE BOLT EXAMPLE
- **Part 2: The Live Demo (The "Trader's Confession")**
- **[TRANSITION FROM PREZI TO LIVE DEMO]**

- "To truly understand the privacy implications here, we can't just talk about 'theory.' We need to look at the mechanics.
- I've built a live simulation of what happens in the split-second between a constituent clicking a link and the page loading. This entire process takes roughly 100 milliseconds—faster than the blink of an eye.
- I want you to imagine for a moment that you are a client—maybe a marketing director at a large retailer—and I'm your media trader. You've given me $100,000 to find 'potential customers.'
- Here is the machine I use to spend your money."
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- **[CLICK STEP 1: User Visits Website]**
- "**Step 1: The Visit.** A user—let's say a Vermont resident—visits a news site. The content begins to load, but the ad slot is empty.
- Now, as a trader, I don't care about this specific website. I care about the *user*. I want to find the person who matches the 'audience segment' I bought. So, the website triggers a request."
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- **[CLICK STEP 2: Bid Request Initiated]** *(Wait for red packet & 'View Data' option)*
- "**Step 2: The Bid Request.** This is the most critical moment for privacy. The website takes that user's data and packages it into a digital envelope called a 'Bid Request.'
- *(Click 'View Data' / 'Inspect JSON')*
- If we look *inside* this envelope, we see it's not just a generic signal. It is a specific data payload containing their **Device ID** (a digital fingerprint), **GPS coordinates**, and **Keywords** about what they are reading right now.
- **[Addressing Data Brokers]** This is where the 'Data Broker' economy plugs in. As a trader, I might pay a third-party broker a fee to enrich this payload. I can layer on data like 'Credit Card Holder,' 'Likely to Move,' or even health inferences. I don't verify this data; I just pay the premium to target it."
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- **[CLICK STEP 3: Exchange Broadcasts Request]** *(Wait for signal to scatter to DSPs)*
- "**Step 3: The Broadcast.** The Exchange now broadcasts this user's sensitive profile to hundreds of bidders simultaneously. Even if a bidder *loses* the auction, they still receive and can store this location and device data.
- **[Addressing Proxy Targeting]** Here is a reality of the job: **The system favors scale, not privacy.** If I'm under pressure to spend your budget, I might be told to loosen my targeting. I've seen instances where platforms discourage explicit demographic targeting (like race), but provide 'affinity' keywords—like specific cultural interests or zip codes— that act as effective proxies for that same demographic. The machine wants to deliver the ad, and it will find the path of least resistance."
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- **[CLICK STEP 4: DSPs Evaluate & Bid]**
- "**Step 4: The Evaluation.** Algorithms on the buying side analyze that data payload instantly to determine the 'value' of the user.
- **[Addressing Agency Incentives]** There is often a conflict of interest here. Sometimes, as a trader, I might be incentivized to buy inventory not because it's best for *you* (the client), but because my agency has an upfront volume commitment with a specific vendor that

we need to hit to get a rebate. The algorithm can be tuned to prioritize those business deals over performance."

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- **[CLICK STEP 5: Auction Conducted]**
- "**Step 5: The Auction.** The exchange runs a second-price auction. It compares all the bids in milliseconds."

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- **[CLICK STEP 6: Winner Notified]**
- "**Step 6: The Winner.** The highest bidder (DSP 2) wins the right to show the ad."

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- **[CLICK STEP 7: Ad Delivered]**
- "**Step 7: Delivery.** The creative asset is sent back to the user's browser."

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- **[CLICK STEP 8: Post-Auction Tracking]** *(Wait for grey dots to fire)*
- "**Step 8: The Aftermath.** The ad loads. But look at these small signals firing off to the side—those three grey dots.
- These are **tracking pixels**. We use these to verify the ad was seen. But functionally, they are harvesting data again. They re-log the user's presence and send it to third-party verification partners, allowing us to track them across the web.
- **Conclusion:** This helps answer the question regarding 'Small Business Competitiveness.' This is a 'pay-to-play' system. A small Vermont business often cannot afford the minimum spend requirements (sometimes $10k/month) to access these top-tier tools. They are priced out of the cockpit, yet their data—and their customers' data—is still harvested by this machine every single day.
- That is the engine of Real-Time Bidding.
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