

1 Labeling Practices

Raters were provided with a link to the YouTube video ad, any display text, and when available, the domain of the external link and the advertiser’s name and location. The video ad could have been made unavailable by the time of labeling, in which case we would rely more on other available information. The video description can contain links to the business’ websites, which we would then visit if needed. In cases where the video was unavailable and there was no other information, we labeled the ad as non-predatory (we did not encounter this very often). We only closely examined ads that exhibited signs of potential scams, which are listed in the codebook below. Besides watching the video ad, raters were instructed to examine user reviews on reputable sites such as Yelp, Better Business Bureau, Trustpilot, or sites with known authentic user reviews such as Reddit or Facebook Reviews. If the ad or the landing page were in a language that the raters could not understand, we used Google Translate; if the content remained unclear, we labeled the ad as non-predatory. It is important to note that due to time and effort constraints, we did not interact with the advertisers (e.g. make a purchase, download software, sign up for free products etc.) beyond visiting their websites, nor did we spend more than 10 minutes researching a single business. Thus we made reasonable assumptions about the predatoriness of the ads but also exercised caution and erred on the side of being conservative in our labeling.

2 Codebook

We include indicators of predatory ads seen in our experiments. These indicators serve as red flags, with a predatory ad potentially having one or more of these signs. Not all ads that exhibited these indicators were labeled as predatory, either because after researching the advertiser, we found no compelling evidence for predatory practices, or because of the distinctions that we have listed under each indicator. Under each indicator, we list examples from ads that did and did not receive the predatory label, either in quotes from their websites/ads or specific examples that pertain to the category. It is not within the scope of our study to be exhaustive about categorizing all possible predatory ads. Ads that did not contain any of the following indicators were labeled as non-predatory.

Ads in sectors that are controversial or prone to be predatory, such as subprime credits and loans, speculative or unregulated industries e.g. cryptocurrency, foreign exchange market (forex), fortune-telling, alternative medicine etc.

- We label the ads as predatory if they make strongly worded guarantees or results that are highly unlikely to be met, or make claims about their services/products or expertise that cannot be verified. We also use user reviews to corroborate the labeling i.e. if the review scores are very low. Examples include:
 - Guarantees of overnight, low-effort success in business, trading profits, weight loss
 - Sketchy dating sites or matching services
 - Cure-all products for health problems without scientific backing
 - “Quantum Healing Hypnosis practitioners have cured various types of cancer”
 - “I promise you’d make another \$10 million a year”
 - “This natural method that takes 10 seconds a day, discovered by Harvard researchers, will help your hearing problems”
- We label the ads as non-predatory if they use exaggerated language but are transparent about the advertised product or the variability of outcomes, or there is no strong evidence for predatory practices beyond the controversial nature of the business.
 - Legitimate subprime lenders or creditors
 - For-profit universities
 - Legitimate crypto and other currencies trading platforms
 - Aggregator sites (affiliated product reviews, news sites)
 - “Our panel of experts will make your financial independence possible”
 - “The Most Effective Nurse Coach Training on the Planet”

Ads advertising businesses with strong evidence of malicious or deceptive practices that we can verify through user reviews or Google searches of the business.

- We label the ads as predatory if the business or the ad contains, including but not limited to:
 - Websites that contain or distribute malware e.g. search hijackers, survey scams
 - Pyramid scheme, multi-level marketing scheme
 - Hidden recurring/non-cancellable billing
 - Businesses with (class-action) lawsuits for their practices (e.g. Lendio,¹ My Forex Funds²)
 - Promises of free products but does not deliver
 - Evidence of delivering counterfeit or very low quality products, based on user reviews
 - Other types of scams that are evidenced through Google searches
- Ads falling under this category are not labeled as non-predatory.

¹<https://www.ftc.gov/news-events/news/press-releases/2020/05/ftc-sba-warn-operator-sbacom-lead-generator-lendio-stop-potentially-misleading-coronavirus-relief>

²<https://www.cftc.gov/PressRoom/PressReleases/8771-23>

Ads advertising activities that are illegal or promote dishonest behaviors that we can verify through Google searches of the business.

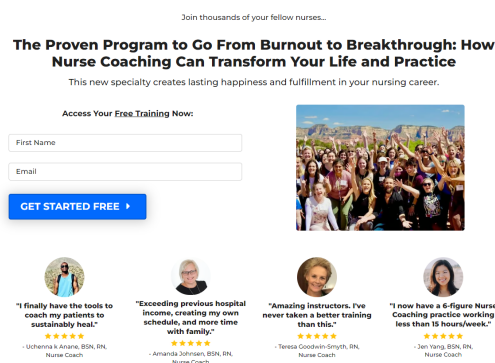
- We label the ads as predatory if they promote, for instance:
 - Hacking services
 - Selling fraudulent user engagement (such as fake likes, reviews)
 - Academic dishonesty services, such as paper-writing or exam-taking
- Ads falling under this category are not labeled as non-predatory.

Ads that use problematic or manipulative patterns such as clickbait (which can be promises of free products, attention-grabbing yet misleading thumbnails), misinformation, exaggerated language.

- We label the ads as predatory if we can find evidence of predatoriness of the business, using the indicators listed above. We label the ads as predatory if they use a bait-and-switch tactic for products or services that users have to pay money for.
- We label the ads as non-predatory if the ads are problematic but there is no substantial evidence of the business itself engaging in predatory practices that we could find. We also label the ads as non-predatory if the products or services are offered free of charge (without data theft, malware, or other harmful caveats).

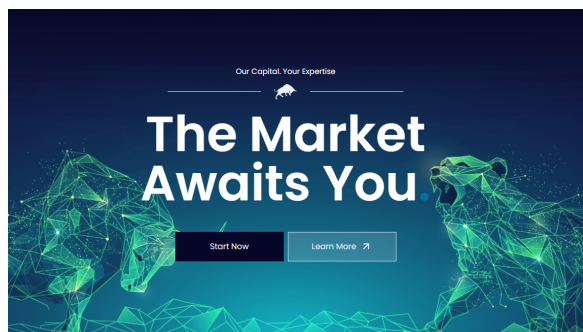


(a) Landing page for ExcelMindCyber. The site advertises 45-day training course at \$1,999 to break into cybersecurity with no experience required, with guaranteed job offers. We labeled this ad as predatory due to the highly unlikely nature of the advertised claim.

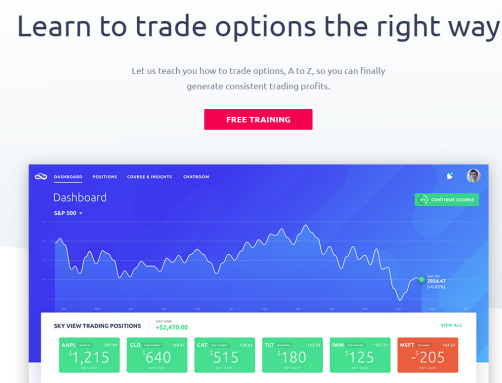


(b) Landing page for The Nurse Coach Collective. The site boasts a “proven” program to career transformation. We labeled this as non-predatory due to the neutral reviews of users, and evidence of success in the program (through actual health board certifications).

Figure 1: Two examples of career coaching ads’ landing pages, one ad labeled as predatory and the other not.



(a) Landing page for My Forex Funds. The prop trading firm is being sued by The Commodity Futures Trading Commission for fraudulently taking customer money. We labeled the ad as predatory.



(b) Landing page for Skyview Trading. It is an options-trading educational website that sells courses and other financial tools, along with providing free-of-charge content. We labeled the ad as non-predatory as there are mixed user reviews.

Figure 2: Two examples of financial ads’ landing pages, one ad labeled as predatory and the other not.