

CS50 FOR MBAs

ADVERTISING & ABSTRACTION

DAN ARMENDARIZ

DANALLAN@CS.HARVARD.EDU

ONLINE ADVERTISING TYPES

The screenshot shows a web browser window displaying an Ars Technica article. The browser's address bar shows the URL: arstechnica.com/tech-policy/2015/04/six-us-senators-say-comcasttime-warner-cable-merger-should-be-blocked/. The page features a dark navigation bar with the Ars Technica logo, a main menu, and links for 'MY STORIES: 24', 'FORUMS', 'SUBSCRIBE', 'JOBS', and 'ARS CONSORTIUM'. A prominent advertisement for a 'FRAUD LAWYER' is positioned at the top right, with the text 'Boston White Collar Crime Lawyer Aggressive, Experienced, Qualified!' and a right-pointing arrow. Below the navigation bar, the article title 'Six US senators say Comcast/Time Warner Cable merger should be blocked' is displayed in large, bold letters. The sub-headline reads 'Al Franken and others call on FCC and DOJ to block \$45.2 billion cable deal.' The author is identified as 'Jon Brodtkin' with a date of 'Apr 21, 2015 1:17pm EDT'. Social media sharing buttons for Facebook (55 shares) and Twitter are visible. The main text of the article begins with 'Six US senators today urged the Federal Communications Commission and Department of Justice to block Comcast's proposed \$45.2 billion acquisition of Time Warner Cable.' A 'FURTHER READING' section includes a link to 'ONE YEAR LATER, COMCAST'S MEGAMERGER FACES UNKNOWN FATE, DUBIOUS PUBLIC' with a sub-headline stating '\$45 billion Time Warner Cable buy has taken longer than Comcast expected.' On the right side of the page, there is a vertical advertisement for 'Microsoft Cloud' featuring a collage of images and a hand pointing at a screen.

Register Log in

arstechnica

FRAUD LAWYER
Boston White Collar Crime Lawyer Aggressive, Experienced, Qualified!

MAIN MENU MY STORIES: 24 FORUMS SUBSCRIBE JOBS ARS CONSORTIUM

LAW & DISORDER / CIVILIZATION & DISCONTENTS

Six US senators say Comcast/Time Warner Cable merger should be blocked

Al Franken and others call on FCC and DOJ to block \$45.2 billion cable deal.

by Jon Brodtkin - Apr 21, 2015 1:17pm EDT

Share Tweet 55

Six US senators today urged the Federal Communications Commission and Department of Justice to block Comcast's proposed \$45.2 billion acquisition of Time Warner Cable.

As Comcast prepares for a **meeting tomorrow** with DOJ antitrust officials, the senators wrote a letter to FCC Chairman Tom Wheeler and Attorney General Eric Holder, saying, "we believe that Comcast-TWC's unmatched power in the telecommunications industry would lead to higher prices, fewer choices, and poorer quality services for Americans—inhibiting US consumers' ability to fully benefit from modern technologies and American businesses' capacity to innovate and compete on a global scale."

The letter was signed by Sens. Al Franken (D-Minn.), Bernard Sanders (I-Vt.), Edward Markey (D-Mass.), Ron Wyden (D-Ore.), Elizabeth Warren (D-Mass.), and Richard Blumenthal (D-Conn.).

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Microsoft Cloud

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Register Log in

ars technica

MAIN MENU MY

FRAUD LAWYER

<http://91.226.212.63>

Caution! Your computer contains a variety of suspicious programs. Your System requires immediate checking! The system will quickly scan your computer for malicious programs for free.

OK

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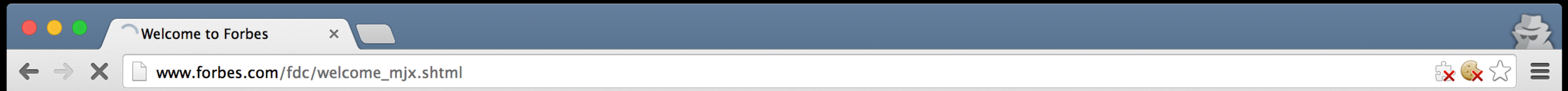
FURTHER READING

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ONLINE ADVERTISING

INTERSTITIAL



Forbes

Continue in 1

Thought Of The Day



Learning and liberty march hand in hand, or they do not march at all: the one is the condition of the other.

SHARE →



• Hartley Shawcross

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ADSENSE

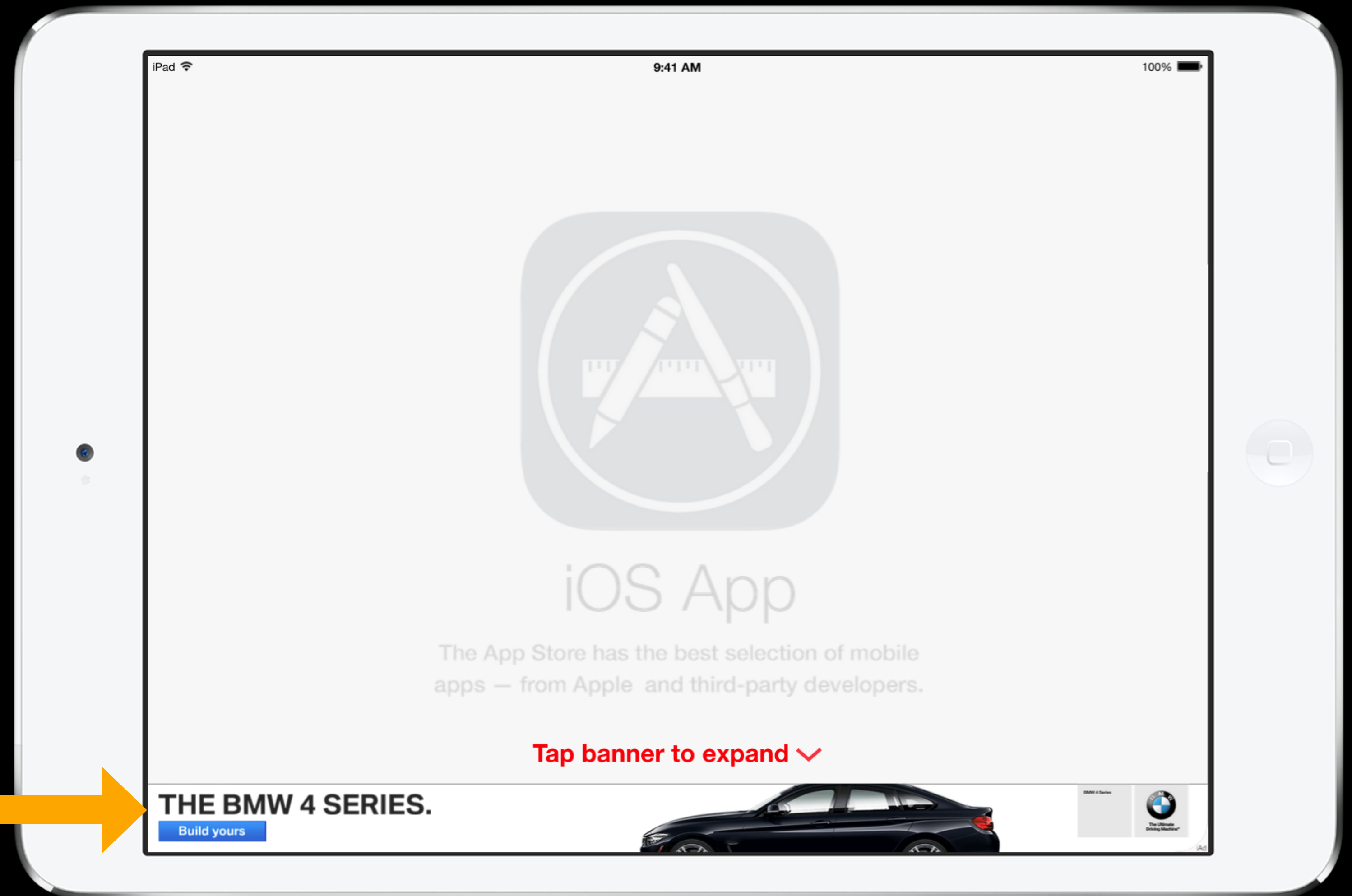
GOOGLE'S ONLINE ADVERTISING PLATFORM

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<ins class="adsbygoogle"
  style="display:inline-block;width:300px;height:250px"
  data-ad-client="ca-pub-xxxxxxxxxxxxxxxx"
  data-ad-slot="6440411535"></ins>
<script>
(adsbygoogle = window.adsbygoogle || []).push({});
</script>
```



iAD

APPLE'S ADVERTISING PLATFORM FOR iOS APPLICATIONS



```
override func viewDidLoad() {  
    super.viewDidLoad()  
    self.canDisplayBannerAds = true  
}
```


ONLINE ADVERTISING TECHNOLOGY

The image shows a screenshot of a web browser displaying an article on Ars Technica. The browser's address bar shows the URL: `arstechnica.com/tech-policy/2015/04/six-us-senators-say-comcasttime-warner-cable-merger-should-be-blocked/`. The page features the Ars Technica logo and a navigation menu with items like 'MAIN MENU', 'MY STORIES: 24', 'FORUMS', 'SUBSCRIBE', 'JOBS', and 'ARS CONSORTIUM'. The main article title is 'Six US senators say Comcast/Time Warner Cable merger should be blocked', with a sub-headline 'Al Franken and others call on FCC and DOJ to block \$45.2 billion cable deal.' and author 'by Jon Brodtkin - Apr 21, 2015 1:17pm EDT'. The article text discusses the senators' letter to the FCC and DOJ regarding the proposed merger. A 'FURTHER READING' section is visible on the right side of the article. Two areas are highlighted with a red dashed border: a top navigation bar and a sidebar advertisement.

Navigation Bar:

- ars technica
- MAIN MENU
- MY STORIES: 24
- FORUMS
- SUBSCRIBE
- JOBS
- ARS CONSORTIUM

Highlighted Advertisements:

- Top Bar:** FRAUD LAWYER. Boston White Collar Crime Lawyer Aggressive, Experienced, Qualified!
- Sidebar:** Microsoft Cloud advertisement featuring a collage of images and the text 'Microsoft Cloud'.

Main Article Content:

Six US senators say Comcast/Time Warner Cable merger should be blocked

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TARGETING

ONE TECHNOLOGY: CREATING A "PIXEL"

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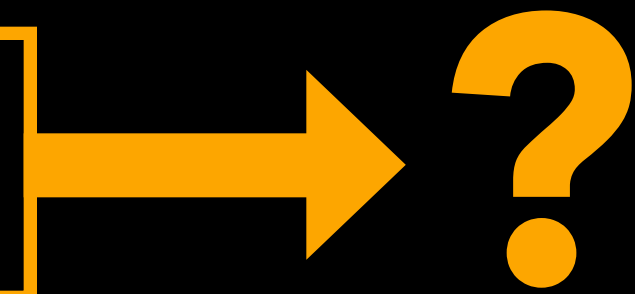


TARGETING

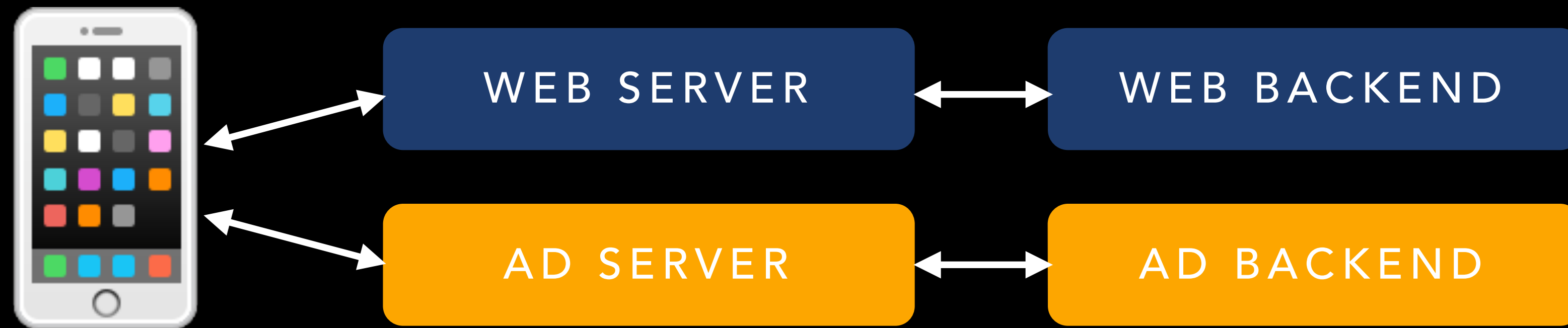
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```

```



ONLINE ADVERTISING PLATFORMS



AD BLOCKERS?

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ars technica

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LAW & DISORDER / CIVILIZATION & DISCONTENTS

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LATEST FEATURE STORY

FEATURE STORY (2 PAGES)

Tech vs. terror: Drones and data fight a new battle against poachers

Tech once developed to protect troops from IEDs now guards endangered species.

WATCH ARS VIDEO

ONLINE ADVERTISING

FINGERPRINTING

<https://panopticklick.eff.org>

Separate the implementation of a system from
its usage through the use of an **interface**

ABSTRACTION

The interface provides a **barrier** that users should not break.

Why not?

ABSTRACTION BARRIER

Deciding on the abstraction level can be key;
sometimes an abstraction gets in the way.

If it does, we might say something is
over-engineered.

“Should we run our product in the cloud?”

EXAMPLE ABSTRACTION DECISION

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