Why You No Haz Content Protection

Introduction

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I Can Haz Content Security

Why is this so hard?

Pre-release Leaks and Piracy

Online video is difficult to protect

Piracy reduces revenue by 19% on average

The piracy value of content increases as it approaches release

Pre-release Screener Security

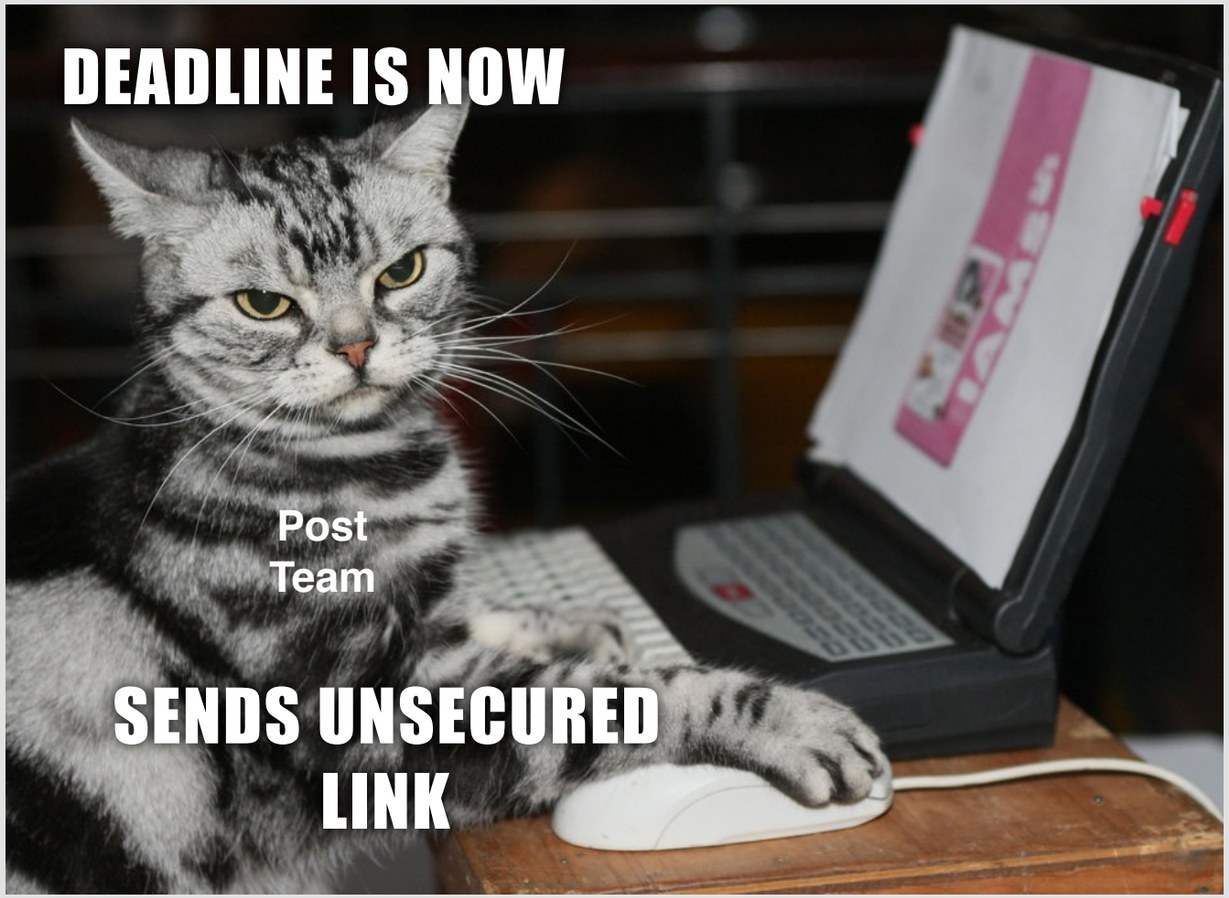
Online video is difficult to protect

92% of all award screeners leak

Screener audiences typically number in the thousands

Post-production Workflow Security

Online video is difficult to protect



"Post is the weakest link in our security chain." ~global production security head

Security vs Usability

The cost benefit equation

Security features exist to restrict access

Users just feel inconvenience

Secure by Default

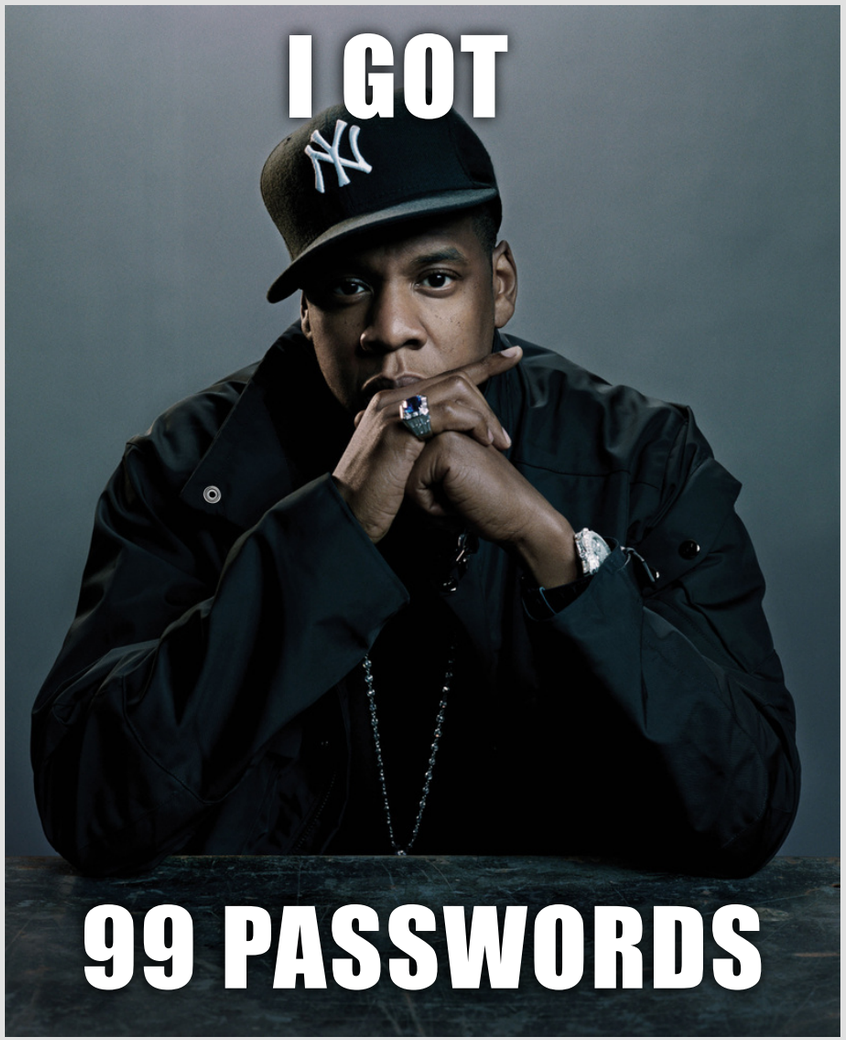
Making security disappear from the users's view

Three rules for secure by default systems:

1. Select effective but unobtrusive controls
2. Measure their effectiveness
3. Repeat

Usability of Passwords

Security improvements have been counterproductive



Expected Results of SSO and password policies:

- **Strength** - Policy forces users to select strong passwords
- **Rotation** - Users will regularly change passwords
- **Originality** - Users will select new and different passwords

Password Policies in Practice

Security improvements have been counterproductive

Actual Results:

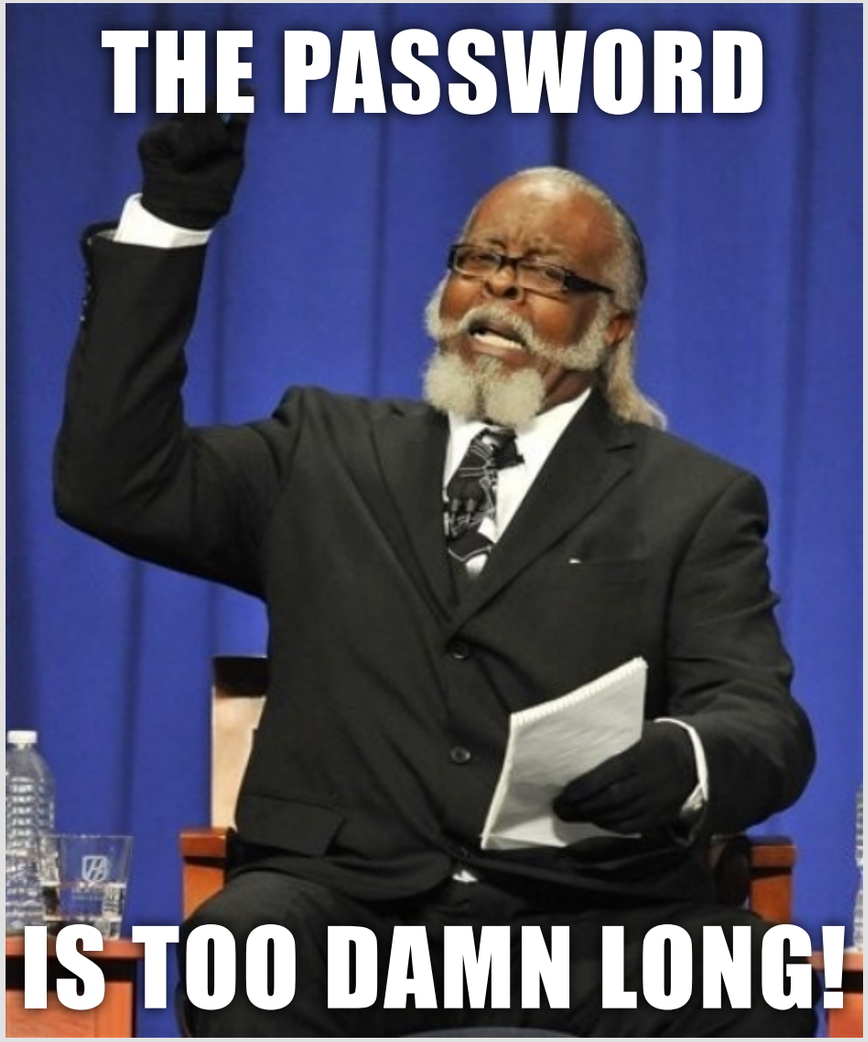
- **Pattern Reuse** - Users change reuse tactics[1]
- **Frequent Resets** - Users regularly forget passwords[2]
- **Sticky Notes** - Users adopt less-secure memory aids[3]

Security team's reaction:

- **Push Multi-factor Authentication**

Usability Workarounds in Review and Approval

How teams are coping with security requirements



Observed in post-production review and approval:

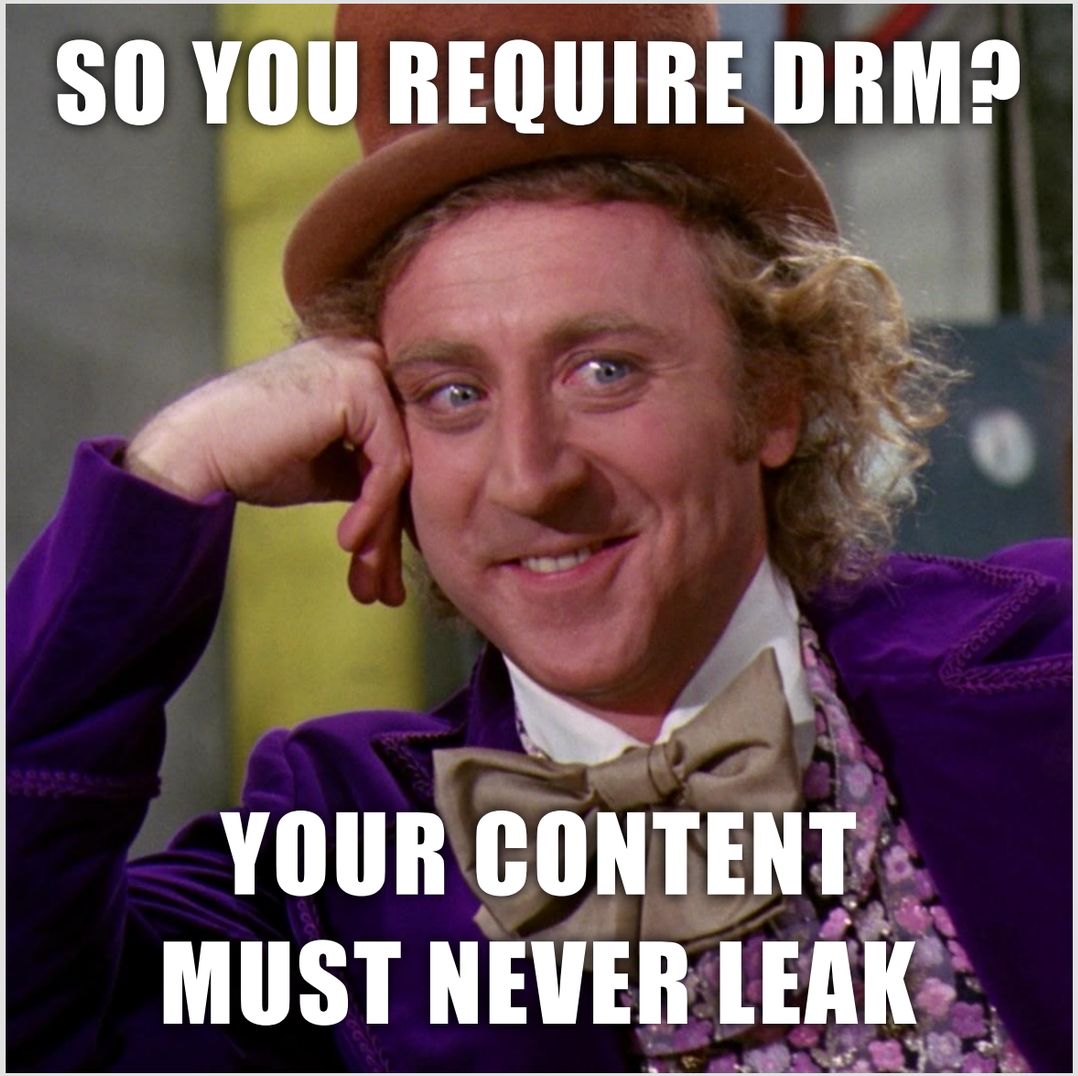
- **Passwordless Sharing**
- **Less-secure Tools**
- **Expediency Wins**

What works?

- **Device registration**
- **Strong endpoint controls**

DRM as a Default Control

What if we just DRM everything?



DRM works great where it works

But...

- **Requires special software**
- **Users hate it**
- **Can't secure all workflows**
- **Content can still be pirated**

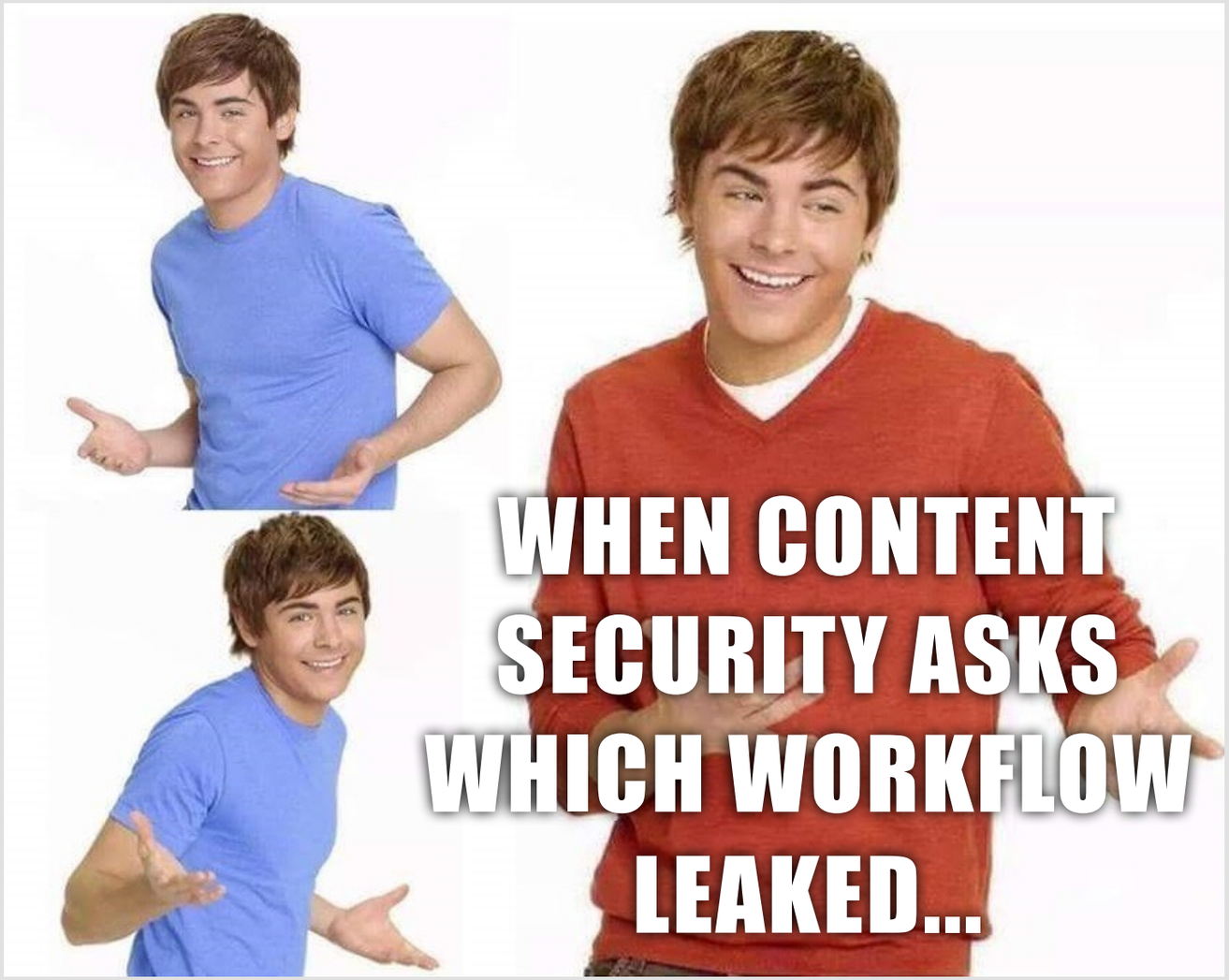
Watermarking as a Default Control

What if we watermarked everything?

Will watermarking solve all our problems?

Forensic Watermarking

What does it provide?



Forensic watermarking is a tracking tool to:

- Determine which workflow leaked
- Identify individuals involved
- Analyze and improve the workflow

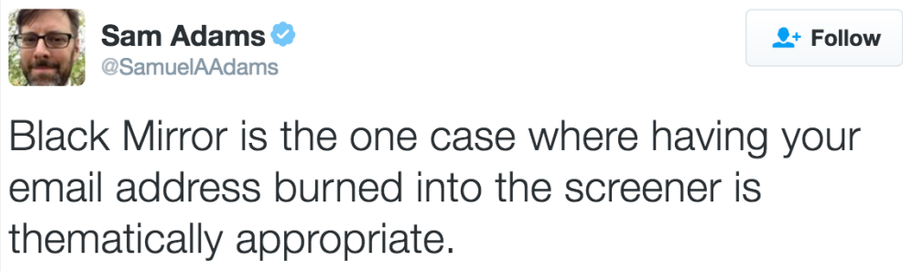
Not a leak deterrent, unless the user knows it's there

Visual Watermarking

What does it provide?

Visible marks on the video provide a deterrent

Not robust against a sophisticated attacker



Traditional Challenges with Watermarking

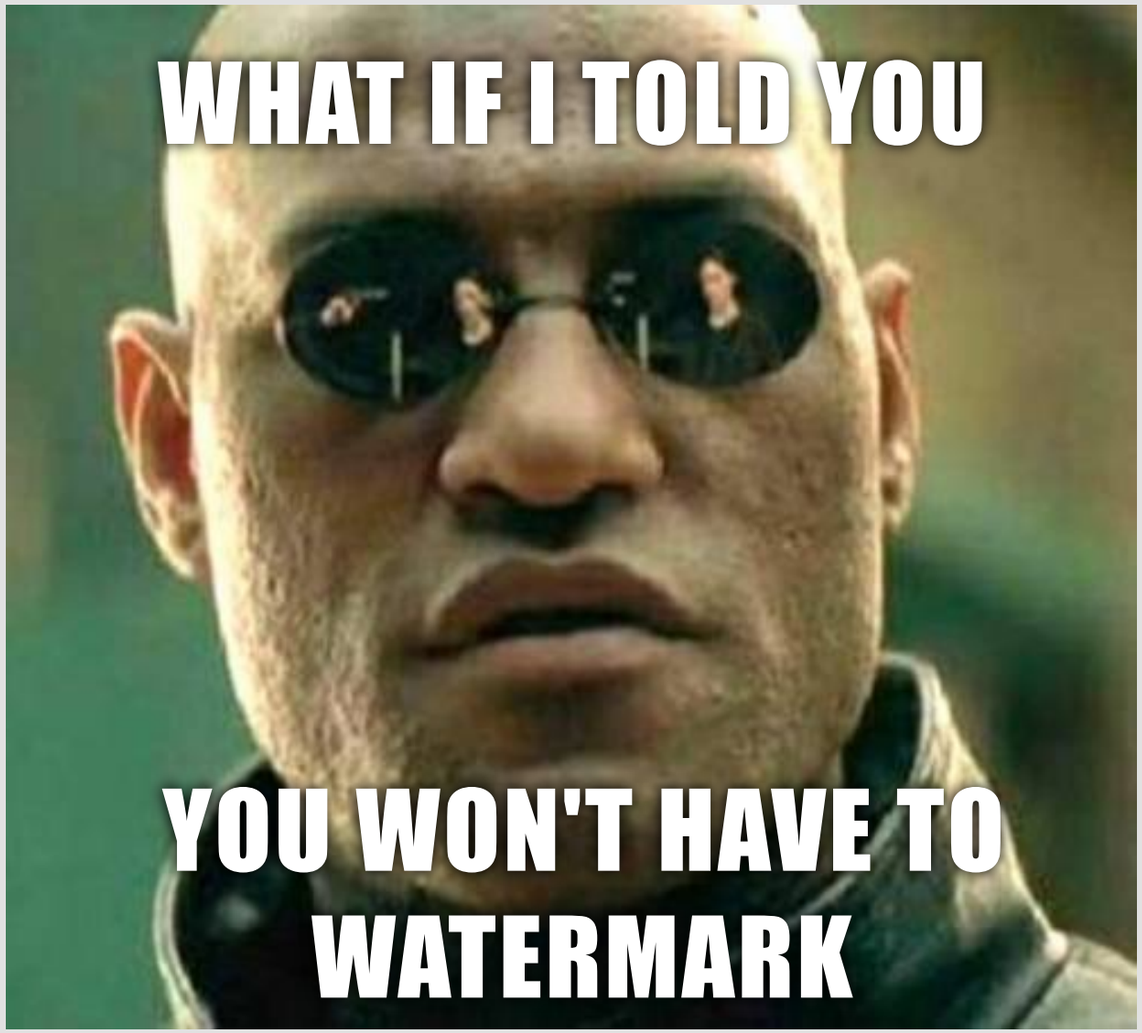
Watermarking can be expensive and slow

Watermarking is traditionally:

- Slow to execute
- Interruptive to teams
- Hard to enforce

Watermarking Cost is Decreasing

Trends in the industry

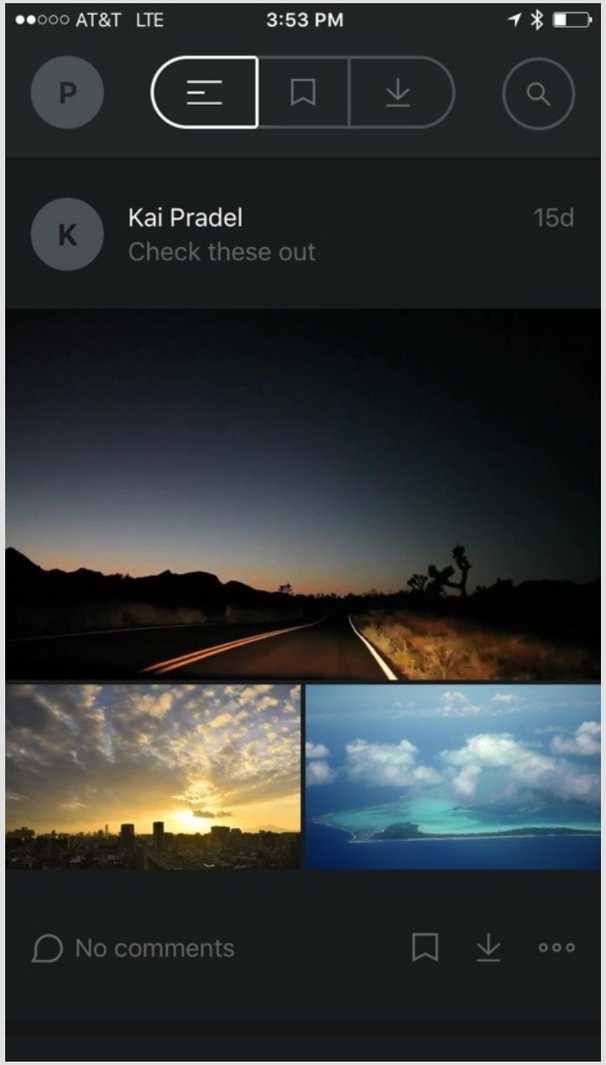


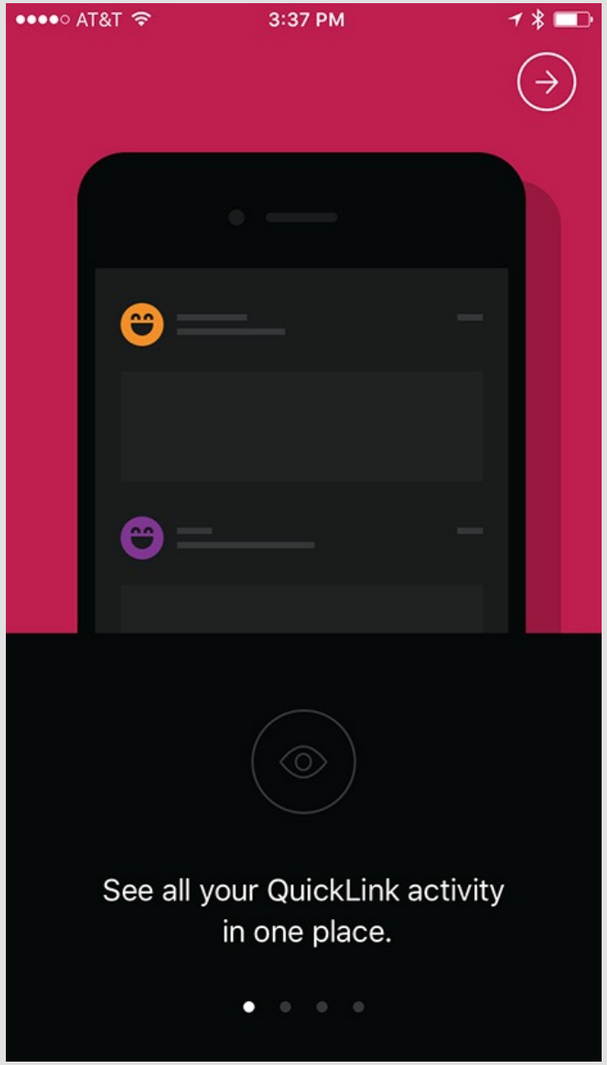
Recent advancements in watermarking:

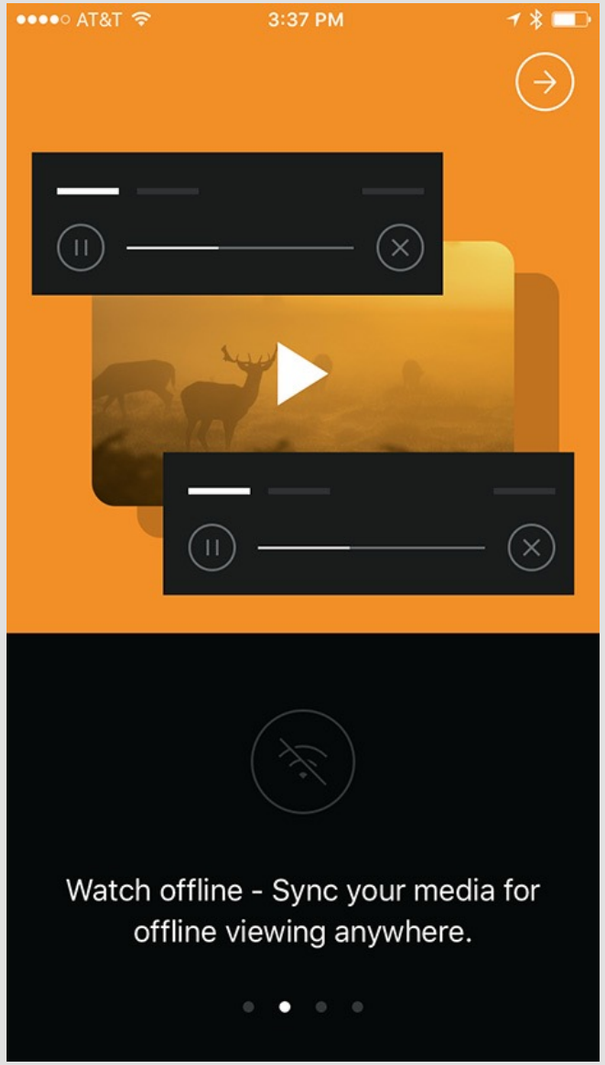
- Two-step processing
- Parallel processing
- Live streaming support
- On-demand

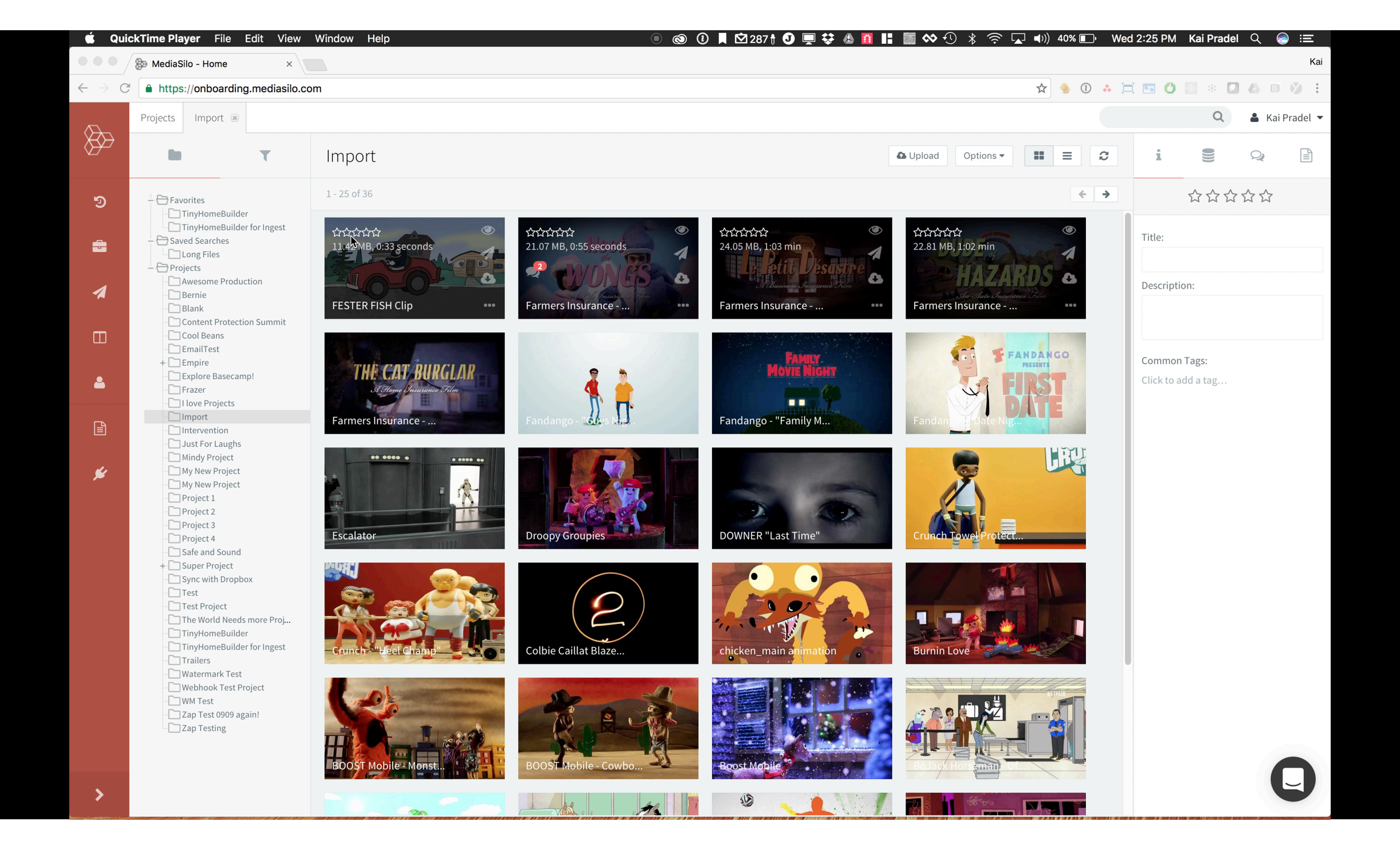
Case study: MediaSilo GO

Executive reviewer use case





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Fandango - "Family M...
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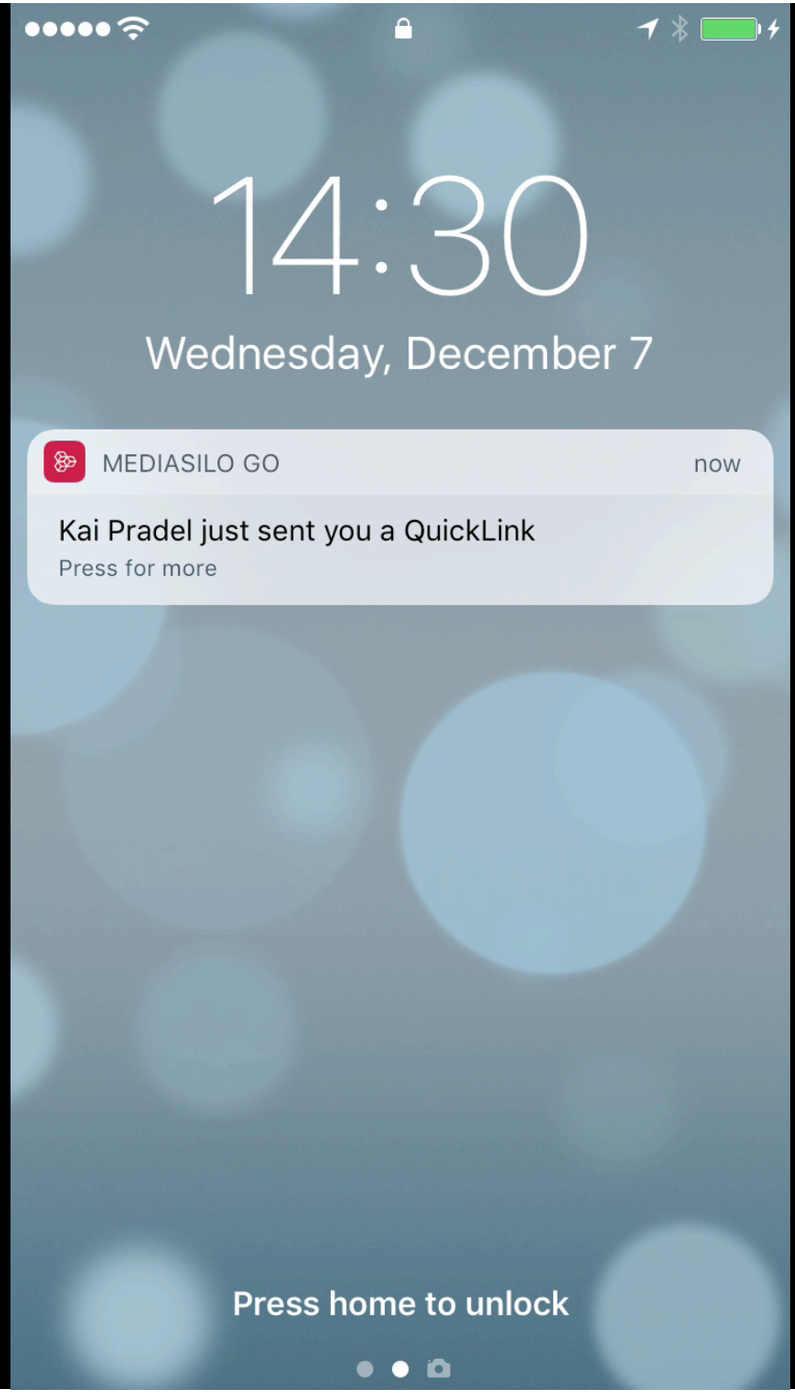
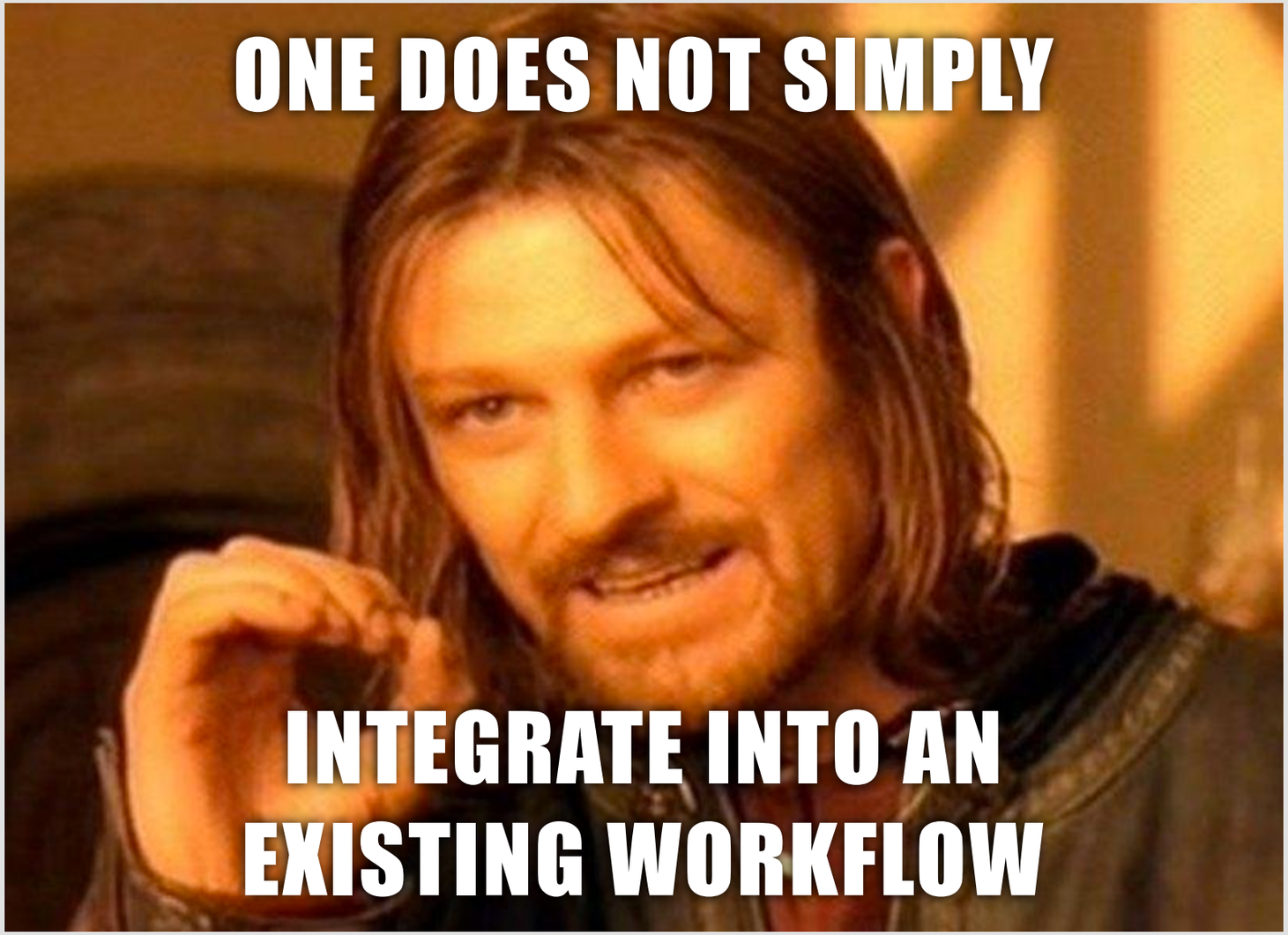

14:30
Wednesday, December 7
MEDIASILO GO
now
Kai Pradel just sent you a QuickLink
Press for more
Press home to unlock

Secure by Default Means Everywhere

Integrating across systems to sustain good user experience



Integrating secure-by-default features across systems

- Security as a service (API)
- Reusable components

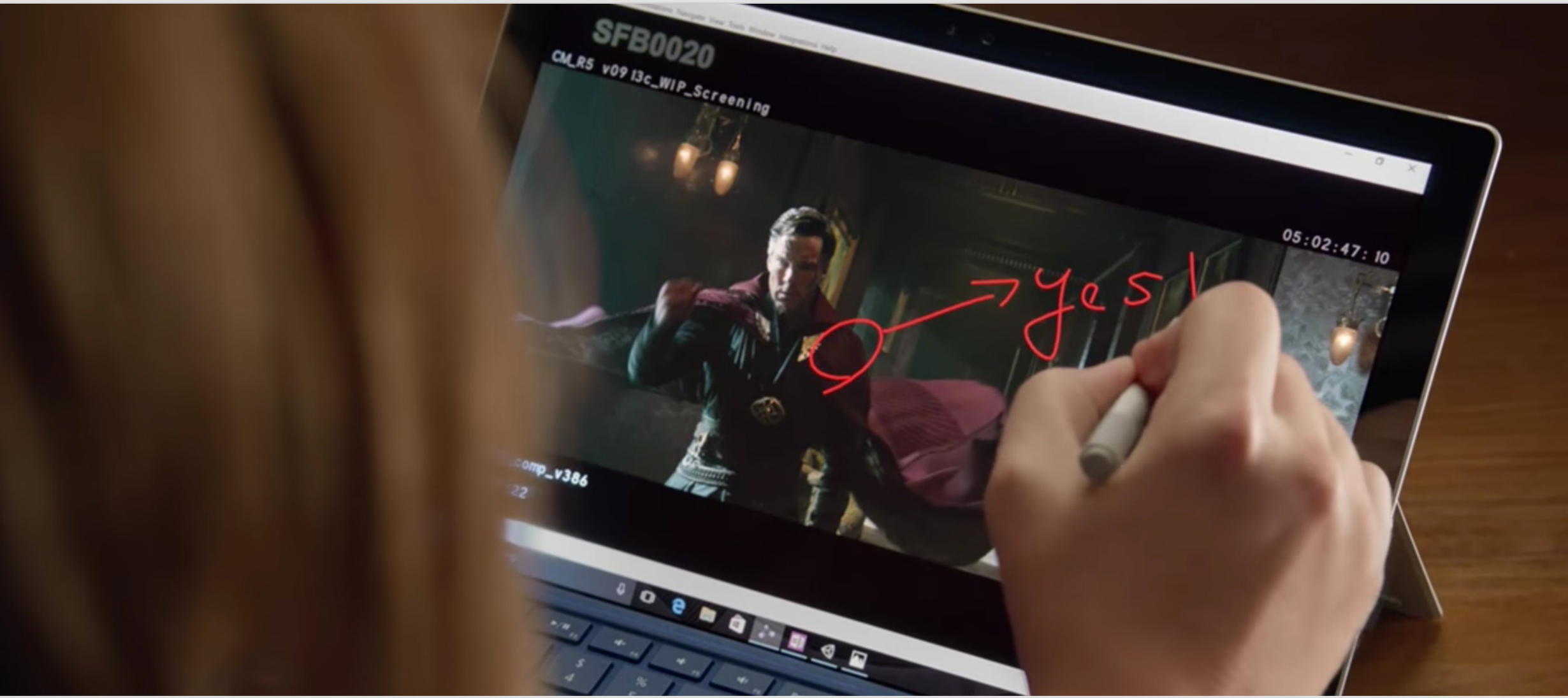
Case study: Global broadcast and production company

Integrating watermarking into an existing application

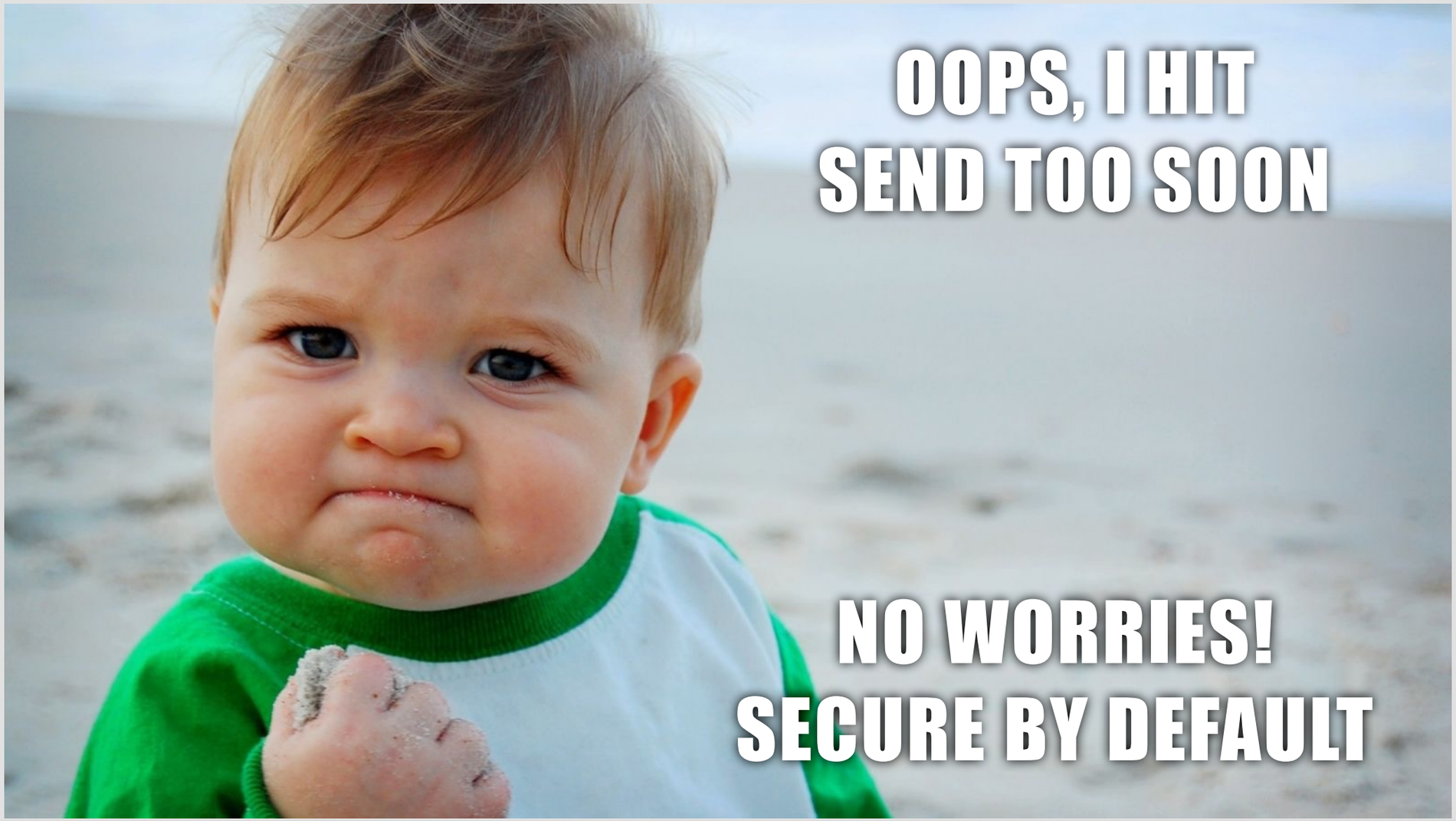
- Existing content portal for entire library
- New, secure portal for originals

Case study: CineSync SafeStream Integration

Collaborative review use case



cinesync
SafeStream

Thank You

And hey, be secure out there