Analysis of Security Vulnerabilities in the Movie Production and Distribution Process

Simon Byers
Lorrie Cranor
Dave Korman
Partrick McDaniel
Eric Cronin

ACM workshop on Digital Rights Management, 2003

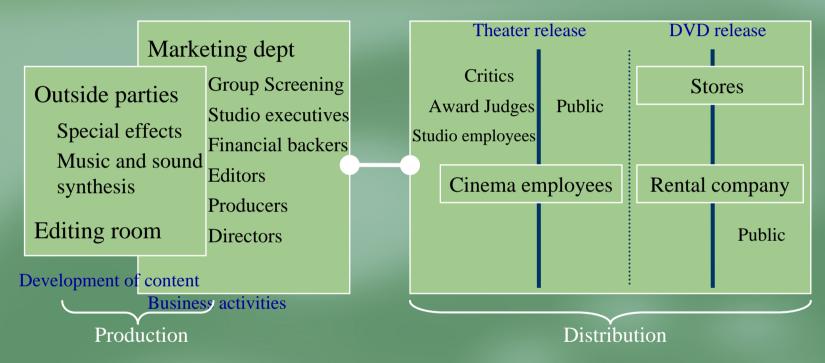
Presented by Mu Li

Paper Synopsis

This research paper attempts to determine the source of unauthorized copies by studying the availability and characteristics of recent [Jan,2002-Jun,2003] popular movies in the file sharing networks.

- Movie production and distribution
- Security vulnerabilities
- Empirical analysis
- Current and recommended security measures

Background



Insider: "In general, insiders are members of the (at least partially) trusted community"

"We consider all participants in the movie production and distribution process other than the end consumer to be insider"

Outsider: End consumers, could be you and me!

Appreciative comments

- Targets: box office top 50 legal demand is high, except illegal demand will be also high
- Source: peer to peer network
 Napster is gone but there are still BitTorrent Kazaa eMule and so on...

Critical comments

Authors analysis result:

Theater/Internet release time lag

DVD/Internet release time lag

Insider leaks!

Authors' suggested solution:

Short-term: increase physical security medium-term: available technologies

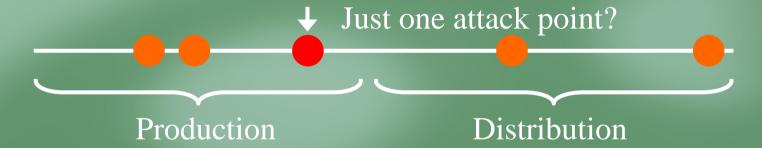
Long-term: Digital Rights Management (DRM) solution

Something important is missing here:

when during a movie's "lifetime" it is most vulnerable to piracy?

Critical comments (cont.)

" we have multiple samples for about half of the movies in our dataset, for example both a though-the-air quality sample and a DVD quality sample"



Supervise every employee?
Update all cinemas' equipments?
Monitor Internet all the time?



Question

Is there any gray area between the definition of insider and outsider?