

# Enforcement Remedies to Sustain Copyright in the Digital Economy

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Regional Workshop on the Disruption in the Digital Creative Economy: A  
Multifaceted Challenge with Great Potential

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## Updates to Copyright Laws for the 21<sup>st</sup> Century

- Trafficking in “Illicit Streaming Devices” or piracy apps
- Protect foreign works (national treatment and most favored nation)
- Communication to the public right including the making available right.
- Exclusive retransmission right over the Internet.
- Contributory and vicarious or facilitation or authorization liability.
- Simultaneous or near-simultaneous fixation (i.e., live broadcast events shall be protected from unauthorized re-broadcast or retransmission so long as an ephemeral copy is made).
- Site blocking, including dynamic (real-time) and flexible (i.e., notification) orders as to variances, and covering either single title (e.g., live event) or entire online location.
- Term extension.
- Rework safe harbors so that knowledge or constructive knowledge triggers requirement for effective remedial action, and dissolves ‘no facilitation’ defense.
- TPMs and RMI (WIPO Treaties)
- Camcording (possession of an audiovisual recording device in a cinema/theater)

## Trafficking in “ISDs” or piracy apps

Anyone who manufactures, creates, imports, loads, distributes, hosts, offers to the public, provides, or otherwise traffics in [illicit media devices, products, or components, including apps or add-ons], or offers to the public, or provides or hosts services related thereto, that:

- (A) are promoted, advertised, or marketed for the purpose of infringing copyright, or enabling or facilitating infringement of copyright;
  - (B) have only a limited commercially significant purpose or use other than to infringe copyright, or enable or facilitate the infringement of copyright; or
  - (C) are primarily designed, produced, or performed for the purpose of infringing copyright, or enabling or facilitating the infringement of copyright,
- shall be liable and subject to civil (and administrative) remedies. Anyone who engages wilfully and for the purposes of commercial advantage or financial gain in any of the above activities shall be liable under criminal procedures and penalties.

## Enforcement Remedies to Sustain Copyright in the Digital Economy

### Disable Consumer Access to...

**Copyright  
Piracy Sites**

**Piracy  
Devices and  
Apps**

**Malware  
Distribution**

**High Risk  
Advertising**

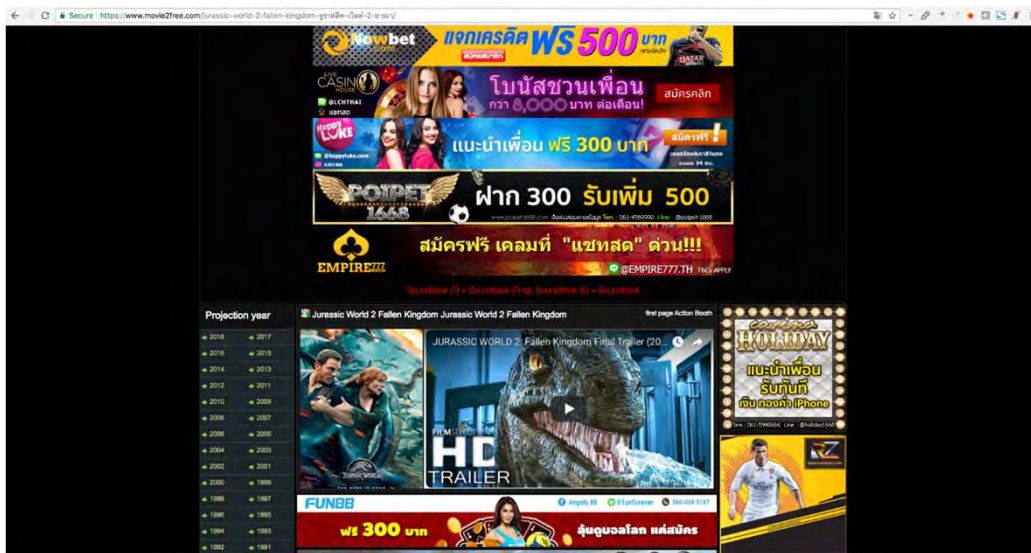


[Search with Google](#)

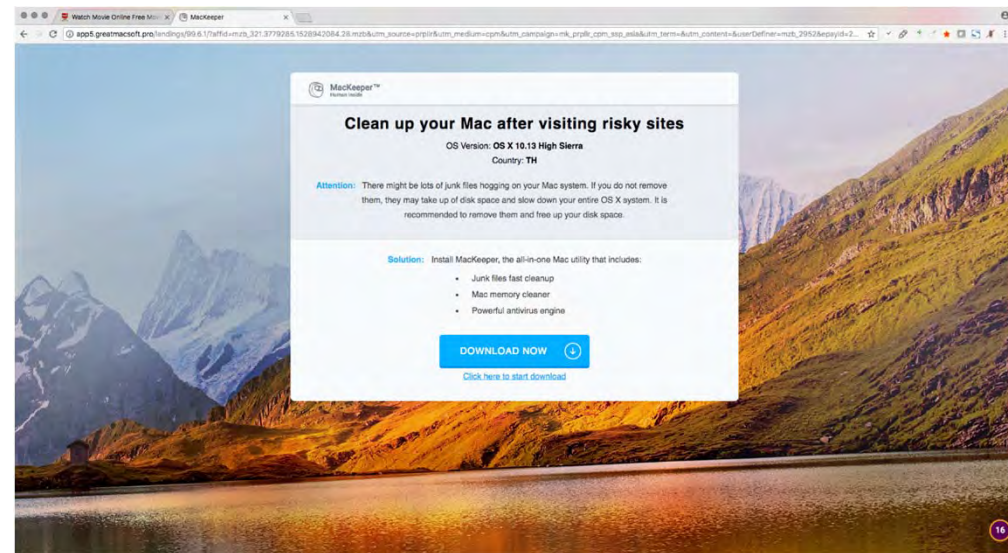
Show Google on: [English](#)

## High Risk Advertising (Watters study, 2014)

### movie2free.com (piracy)



### Malware/download



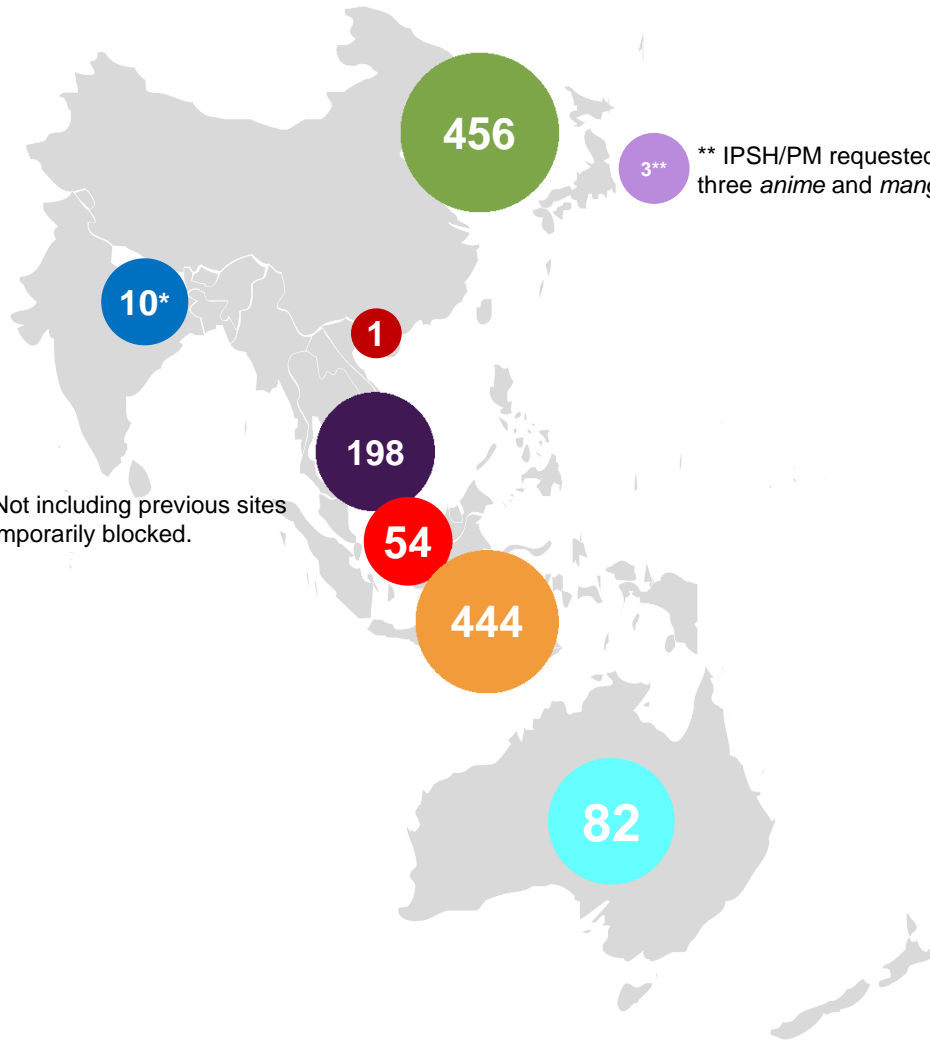
- For local language sites, 6.26% of movie and TV ads were Mainstream, while 93.74% were High Risk.
- Advertising for the gambling industry comprised 16.05% of the high risk ads, and the sex industry, 62.22%.
- Malware and “download” sites were also common advertisers.

# High Risk Advertising (Watters study, 2014)

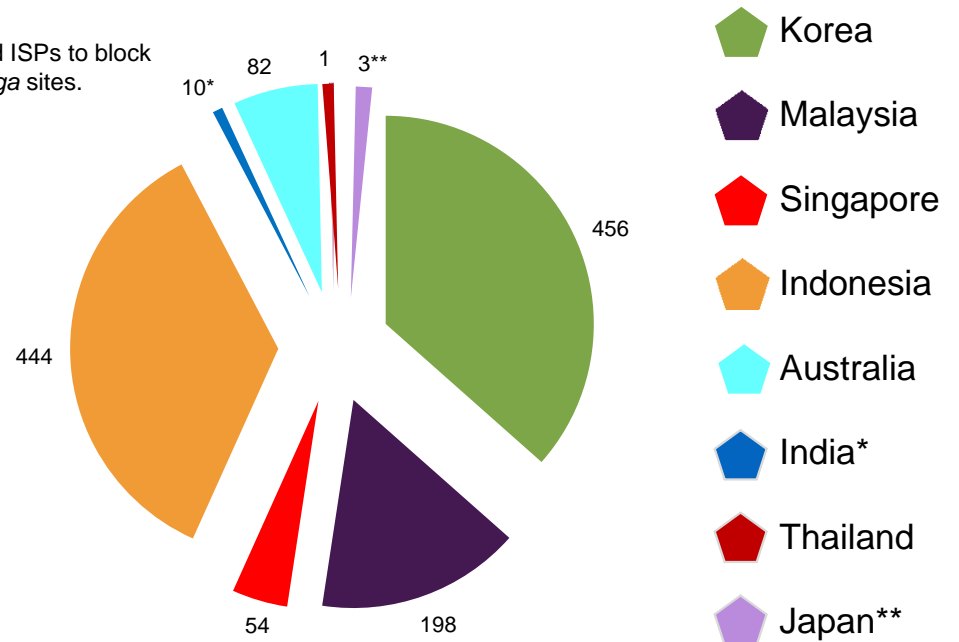
The screenshot shows a web browser displaying a movie page for 'Jurassic World 2: The Fallen Kingdom'. The page is cluttered with various advertisements and overlays:

- Top Left:** A vertical list of years from 1992 to 1948.
- Top Center:** An advertisement for 'RB88' with the text 'ชวนเพื่อนมาสนุกด้วยกัน' and 'ได้เงินฟรี ถึงเพื่อนทั้งเรา'.
- Top Right:** A Facebook-like interface with a profile picture and text: 'ดูหนังออนไลน์ 0.5 หมื่น จำนวนคนที่ดูไป'.
- Middle Left:** A QR code and text: 'ดาวน์โหลด ติดตั้งเอาไว้มือถือรับฟรี 300 บาท'.
- Middle Center:** A large movie poster for 'Jurassic World 2: The Fallen Kingdom' with 'IMDb 7.0/10' and 'HD All 1080p 720p 360p'.
- Middle Right:** A Facebook-like interface with text: 'นี่คือความลับ ดูหนังออนไลน์...'. Below it, a category list: 'category', 'Comic', 'cartoon movie', 'Foreign movie', 'Movie sequences', 'New movie', 'Asian Movies', 'Thai movie'.
- Bottom Center:** An advertisement for 'โบนัสพิเศษเงินฝาก' with 'ฝากเงินเสาร์ - อาทิตย์ รับ ฟรี 1%'.
- Bottom Right:** A category list: 'category', 'Action [1012]', 'Adventure Adventure [872]', 'Animation Animation [298]', 'Biography, Real Life [113]', 'Comedy Comedy [669]', 'Crime Crime [356]', 'Documentary Documentary [10]', 'Drama Life [399]'.

# SITE BLOCKING UPDATE BY THE NUMBERS 2018



## SITES BLOCKED IN APAC



### TOTAL SITE BLOCKING #s IN APAC

**1,245 sites\*\*\***

147 judicial; 1,098 administrative  
**2,006 total domains**

\*\*\*Not including Japan

Updated as of June 11, 2018



# Countries with, or Obligated to Have, Measure to Disable Access to Infringing Sites The Emerging Best Practice



## Site Blocking Works to Reduce Online Infringement

### KOREA CASE STUDY



**90%** average decrease in visits to blocked sites as of three months after a block



**51%** decline in visits to P2P sites as of three months after the third wave of blocks in June 2015 compared to one month before

MPA Study on Site Blocking Impact in South Korea, June 2016

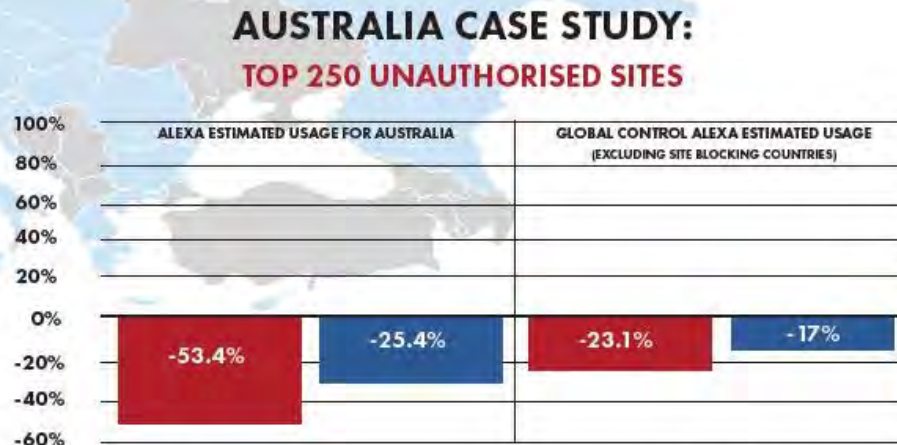
# Site Blocking Works to Reduce Online Infringement

## CHANGE IN ALEXA ESTIMATED USAGE FOR AUSTRALIA TOP 250 UNAUTHORISED SITES

### COMPARISON OF AUSTRALIA TO GLOBAL CONTROL

OCTOBER 2016 vs NOVEMBER 2017

- SITES BLOCKED IN AUSTRALIA
- TOP 250 UNAUTHORISED SITES IN AUSTRALIA



# 53.4%

- Site blocking in Australia has resulted in a usage reduction of 53.4% to sites blocked in August 2017, when compared to before blocking was implemented.
- Usage has decreased for each blocking wave implemented in the country.

# 23.1%

GLOBALLY

- Blocks have therefore decreased usage of those sites in the target region of Australia by 30.3% more than they have decreased in the global control.

**↓ 25.4% IN 17% GLOBALLY**  
(EXCLUDING AUSTRALIA)

# 35.1%

- The usage of the top 50 sites in Australia has decreased by 35.1% since October 2016.
- This is 25.5% further than the 10.6% in the previous report.
- The impact of the two August 2017 blocking injunctions is the driving force behind these changes;

# Site Blocking Works to Reduce Online Infringement

## UK CASE STUDY:

### INJUNCTIONS INCREASE TRAFFIC TO LEGAL SOURCES OF CONTENT

↑ **12%** average increase in usage of legal streaming sites like Netflix for all users of the major piracy sites blocked in the UK in 2013

↑ **23.6%** increase in usage of legal streaming sites among the heaviest users of those major piracy sites

[The Effect of Piracy Website Blocking on Consumer Behavior, Carnegie Mellon University, November 2015](#)

↑ **6%** increase in visits to paid legal streaming sites like Netflix<sup>^</sup>

↓ **22%** decrease in total piracy for all users affected by the blocks

↑ **10%** increase in videos viewed on legal ad-supported streaming sites like BBC and Channel 5

<sup>^</sup>The latest figure may be lower due to increased price sensitivity of the remaining pirates in 2014 or due to the lower popularity of the 53 sites in 2014 compared with the 19 sites blocked in 2013.

[Website Blocking Revisited: The Effect Of The UK November 2014 Blocks On Consumer Behavior, Carnegie Mellon University, April 2016](#)

**Without Piracy, Box-Office Revenue Would Have Been 14 - 15% Higher Per Year.**

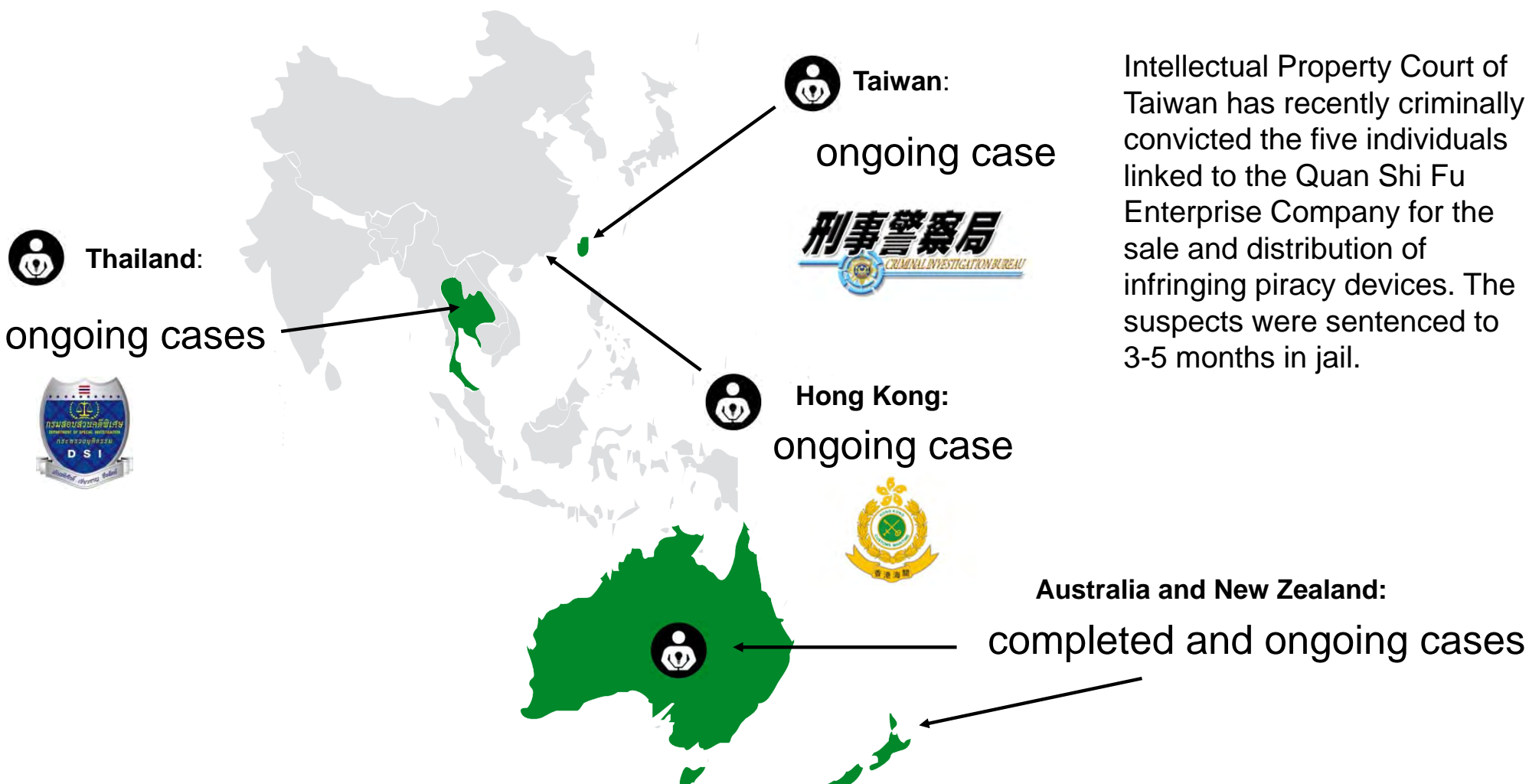
[The Dual Impact of Movie Piracy on Box-Office Revenue: Cannibalization and Promotion, Carnegie Mellon University, February 2016](#)

## Piracy Devices and Apps

- Since 2010 we have witnessed a proliferation of piracy streaming devices - devices being sold that illegally provide customers with free access to unauthorized motion picture and television content.
- They are sold through websites, social media (eg Facebook), retail outlets, or even home delivery.
- Legitimate boxes such as the Apple TV and Roku TV are designed to prevent the loading of applications designed to access unauthorized content.
- Other boxes are not designed as such, and many are marketed and advertised to provide illegal access and “cut the cord” (which amounts to obtaining content without permission from the creators).



# Use of SB, Criminal Referrals and Knock and Talks to Address Piracy Devices and Apps



# Appendix – Piracy Briefers

# AUSTRALIA'S PIRACY LANDSCAPE 2018

## PIRACY WEBSITES BLOCKED IN AUSTRALIA SEES 53.4% DROP IN USAGE

### Alexa Estimated Usage for Australia

Change in Alexa estimated usage for Australia top 250 unauthorised sites

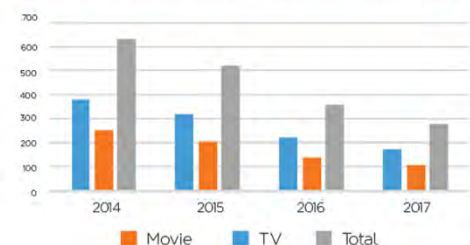


October 2016 vs November 2017

"Site Blocking Efficacy: Australia | ASA: INCOPRO May 2017 Report"

**16.9 million** = total number of BitTorrent movie and TV downloads in 2017

### Annual BitTorrent Movie & TV Downloads in Millions



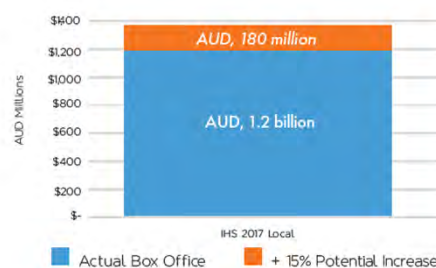
MovieLabs data March 2018

### Australia Usage of Top 250 Sites by Category



"Site Blocking Efficacy: Australia | ASA: INCOPRO May 2017 Report"

**15% increase** in box office if piracy is completely stamped out



"The Dual Impact of Movie Piracy on Box-Office Revenue: Cannibalization and Promotion", Carnegie Mellon University (March 2018)

In Australia, local visits at legitimate sites are **6.16** times higher than those at pirate sites

### Legitimate Online Video Services



### Top 5 Pirate Sites

The top five pirate sites received a total of **8,869,386** page views from Australians in March 2018

RANK	WEBSITE	TOTAL VISITS	LOCAL VISITS
1	thepiratebay.org	158,832,121	2,846,410
2	rargto	56,100,141	1,614,462
3	kissanime.ru	57,796,900	1,567,949
4	eztv.ag	27,869,636	1,551,848
5	myanimelist.net	46,819,073	1,288,717

Custom analysis of Alexa data (March 2018)

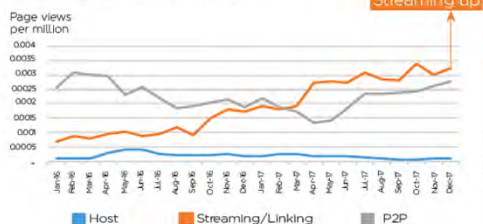


# HONG KONG'S PIRACY LANDSCAPE 2018

## STREAMING PIRACY SIGNIFICANTLY UP

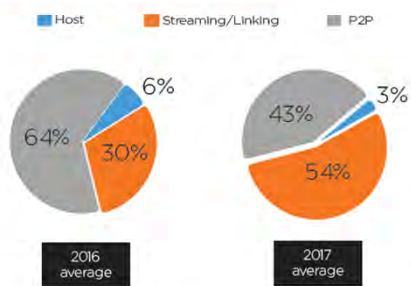
**376%** = Increased pageviews of an average user of streaming piracy websites between Jan 2016 & Dec 2017

### Piracy Traffic by Category



\*The count of pageviews is the total number of times the pages of a website were viewed or refreshed within the selected time period. Page views per million indicates what fraction of all the page views by Alexa Toolbar users go to a particular site.

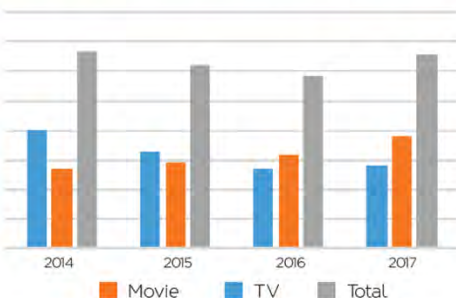
### More Streaming/Linking Piracy



Custom analysis of Alexa data

**65.9 million** = total number of BitTorrent movie and TV downloads in 2017

### Annual BitTorrent Movie & TV Downloads in Millions



BitTorrent piracy has seen a reduction in 2015, possibly due to a user shift to host sites such as rapidgator.net and link sites such as maplestage.com.

MovieLabs data

## "Profits streaming away: Why Hong Kong broadcasters are crying foul over set-top boxes"

### -SCMP

- Internet Streaming Devices (ISDs) - set top boxes loaded with apps, pose a major new piracy threat to the film and television industry
- These devices are easily available in Hong Kong
- The devices enable users to watch thousands of hours of copyrighted film and TV content for no payment
- Local authorities are considering taking enforcement operations against criminal syndicates selling ISDs

In Hong Kong, local visits at legitimate sites are **1.46** times higher than those at pirate sites

### Legitimate Online Video Services

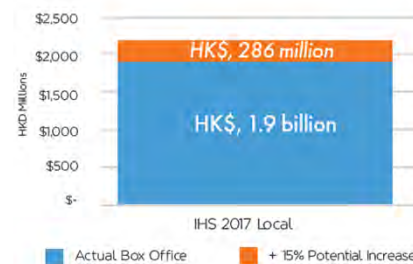


Local Pirate Site Visits: 44,07,925

WEBSITE (TOP 5)	TOTAL VISITS	LOCAL VISITS
8maple.ru	10,724,973	1,793,426
eyny.com	26,302,400	844,319
maplestage.com	9,282,778	655,839
thepiratebay.org	158,832,121	561,568
rarbgproxy.org	12,160,464	552,773

Custom analysis of Alexa data, March 2018

**15% increase** in box office is piracy is completely stamped out



\*The Dual Impact of Movie Piracy on Box-Office Revenue: Cannibalization and Promotion | Carnegie Mellon University, February 2017

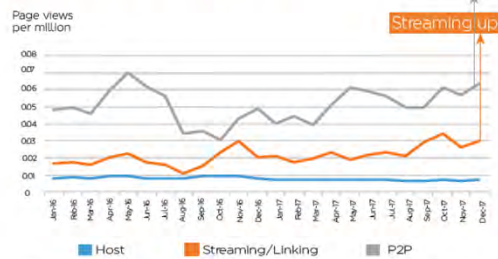
# INDIA'S PIRACY LANDSCAPE 2018

## Streaming and P2P piracy CONTINUE TO RISE

Increased pageviews of an average user of streaming piracy websites between Jan 2016 & Dec 2017

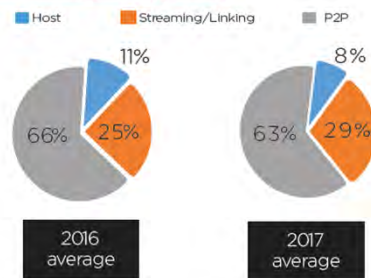
**32.10%** =

### Piracy Traffic by Category



\*The count of pageviews is the total number of times the pages of a website were viewed or refreshed within the selected time period. Page views per million indicates what fraction of all the page views by Alexa Toolbar users go to a particular site.

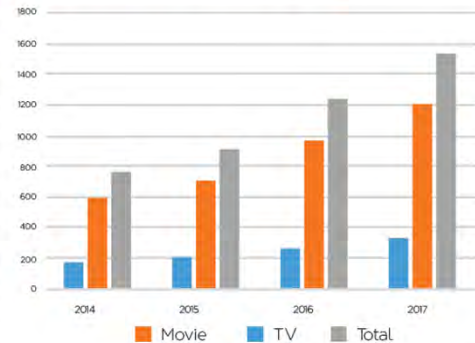
### More Streaming/Linking Piracy



Custom analysis of Alexa data March (2018)

**1.5 billion** = total number of BitTorrent movie and TV downloads in 2017

### Annual BitTorrent Movie & TV Downloads in Millions



MovieLabs data March (2018)

## WHAT'S AT STAKE?

In 2017:

**USD 33.3 billion (INR 216,667 cr.)** = film & television industry contribution to the Indian Economy

**2.36 million** = number of jobs supported by film & television industry

In India, local visits at legitimate sites are **3** times higher than those at pirate sites

### Legitimate Online Video Services

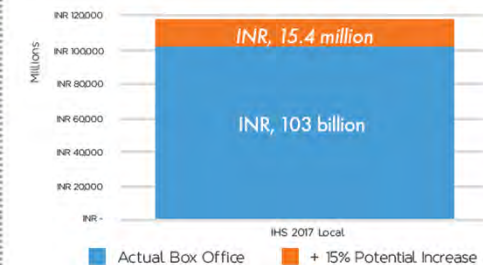


Local Pirate Site Visits: 23,911,851

WEBSITE (TOP 5)	TOTAL VISITS	LOCAL VISITS
rarbg.is	24,962,718	5,687,326
thepiratebay.org	158,832,121	5,383,391
1337x.to	53,900,021	5,178,818
torrentz2.eu	25,385v,681	3,945,763
fmovies.pe	10606,947	3,716,554

Custom analysis of Alexa data (March 2018)

**15% increase** in box office if piracy is completely stamped out



\*The Dual Impact of Movie Piracy on Box-Office Revenue: Cannibalization and Promotion", Carnegie Mellon University, March 2018

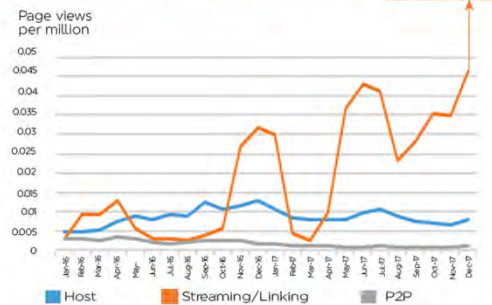
# INDONESIA'S PIRACY LANDSCAPE 2018

## STREAMING PIRACY SIGNIFICANTLY UP

Increased pageviews of an average user of streaming piracy websites between Jan 2016 & Dec 2017

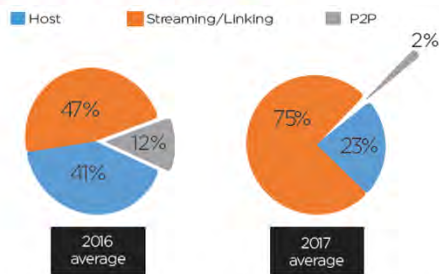
**1,420%** =

### Piracy Traffic by Category



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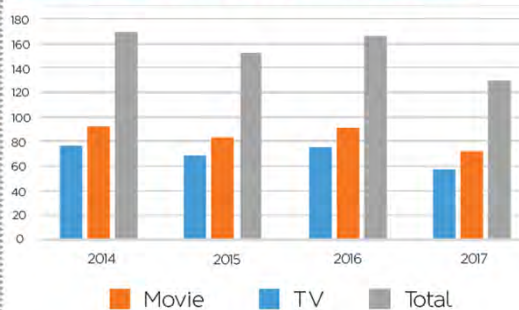
### More Streaming/Linking Piracy



Custom analysis of Alexa data (March 2018)

**129 million** = total number of BitTorrent movie and TV downloads in 2017

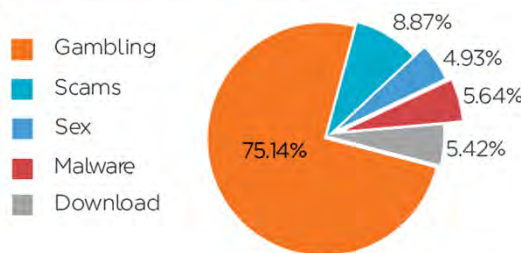
### Annual BitTorrent Movie & TV Downloads in Millions



MovieLabs data (March 2018)

**88.94%** = percentage of high-risk advertisements (sex industry, gambling, scams) appearing on pirate websites for Hollywood content

### Legal vs Illegal Website Visits



How Risky Are Piracy Websites For Indonesians? The Role of Search, Dr. Paul A. Watters, Massey University

Local visits at pirate sites are **2.17 times higher** than those at legitimate sites.

### Legitimate Online Video Services



Custom analysis of Alexa data (March 2018)

**15% increase** in box office if piracy is completely stamped out

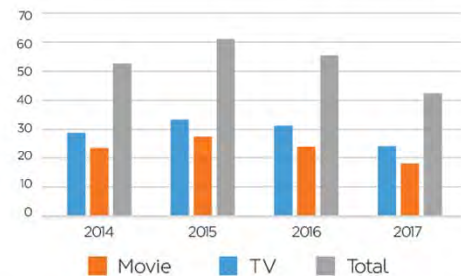


"The Dual Impact of Movie Piracy on Box-Office Revenue: Cannibalization and Promotion", Carnegie Mellon University (March 2018)

# New Zealand's Piracy Landscape

**42 million** = total number of BitTorrent movie and TV downloads in 2017

Annual BitTorrent Movie & TV Download in millions



BitTorrent piracy has seen further reduction in 2017, possibly due to a user shift to link sites such as gostreamis and 123movies.

MovieLabs data (December 2017)

**96.34%** = percentage of high-risk advertisements (sex industry, gambling, malware) appearing on movie/TV pirate websites

Advertisements on Movie/TV pirate sites

- Mainstream advertising
- High-risk advertising

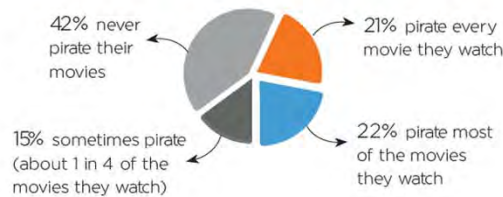


93.26% of ads were High Risk on music pirate sites, while 6.74% were Mainstream. 57.71% of High Risk ads on movie/TV pirate sites and 7.24% of ads on music pirates sites were malware.

Sweet As? Advertising on Rogue Websites in New Zealand. Dr. Paul A. Watters, Massey University (April 2014)



**51%** of Kiwis regularly watch movies online, of which **43%** usually watch from an illegal source



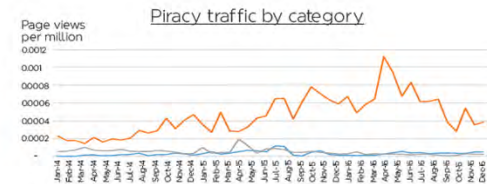
2015 report by Flicks.co.nz

## Top 10 sites used for online piracy in New Zealand in 2017

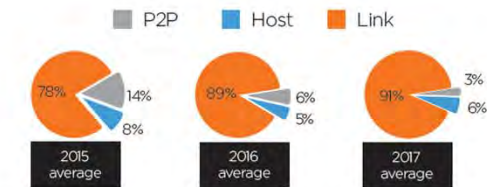
	HOST	ALEXA RANK	LINK	ALEXA RANK	P2P	ALEXA RANK
1	vid2tv	195	gostreamis	90	thepiratebay.org	21
2	gorillavid.in	304	itswatchseries.to	116	rarrbgto	108
3	thevideo.me	438	primewire.ag	200	eztv.ag	214
4	betaviciu.me	655	0123movies.com	241	freshseries.net	2346
5	dactios.in	1225	putlockers.fm	254	avistaz.to	3044
6	longfiles.com	2367	solarmoviez.ru	270	speed.cd	3163
7	vid.me	2480	yesmovies.to	293	piratebay.to	3353
8	hightail.com	2582	123movieshub.to	321	forums.mvgroup.org	3716
9	uploadrocket.net	2582	watch-series.is	390	freetob.co.nz	409
10	auroravid.to	6167	123moviesfree.ac	454	dimead.co.nz	4737

Custom analysis of Alexa data (December 2017)

**97%** of all page views at pirate sites are at host sites, i.e. cyberlockers (6%) and link sites (91%), on average in 2017

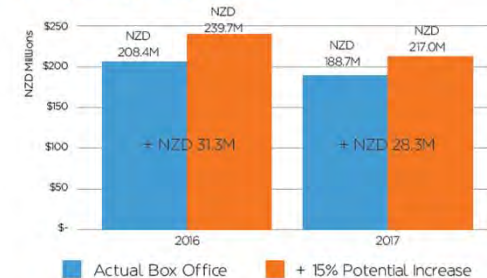


\*The count of pageviews is the total number of times the pages of a website were viewed or refreshed within the selected time period. Page views per million indicates what fraction of all the page views by Alexa Toolbar users go to a particular site.



Custom analysis of Alexa data (December 2017)

**15% increase in box office if piracy is completely stamped out**



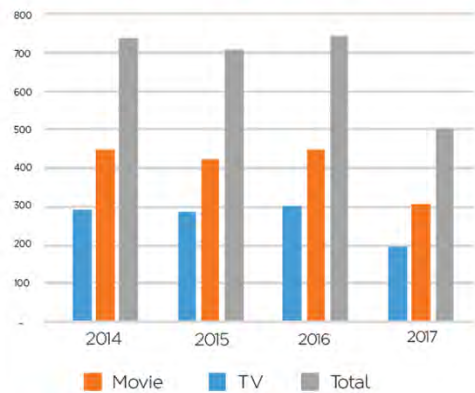
"The Dual Impact of Movie Piracy on Box-Office Revenue: Cannibalization and Promotion", Carnegie Mellon University (February 2016)

# PHILIPPINES' PIRACY LANDSCAPE 2018

BitTorrent piracy is down but still a **problem**

**502 million** = total number of BitTorrent movie and TV downloads in 2017

Annual BitTorrent Movie & TV Downloads in millions



MovieLabs data (December 2017)

## Legal vs Illegal Website Visits

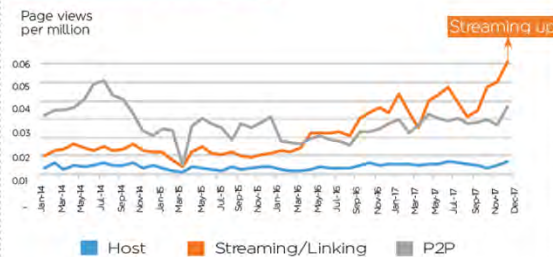
There are over **22 million** visits to infringing websites in the Philippines, compared to **18 million** visits to the **top 3** legal sites for movies and shows

Custom analysis of Alexa data (December 2016)

## STREAMING PIRACY SIGNIFICANTLY UP WHILE P2P DECLINES

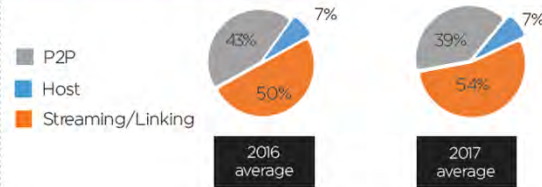
**75.14%** = increased pageviews of an average user of streaming piracy websites between 2016 & 2017

Piracy Traffic by Category



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## More Streaming/Linking Piracy



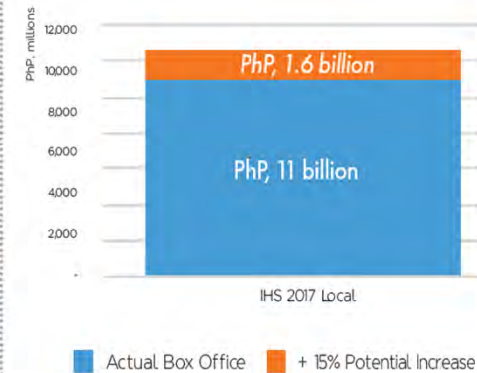
Custom analysis of Alexa data (December 2017)

**661.23 billion PhP** = economic contribution of film & TV industries

**7.34%** = gross domestic product represented by film & TV copyright industries

Joint study by the Intellectual Property Office of the Philippines (IPOPHL) and the World Intellectual Property Organization (WIPO), 2014

**15% increase** in box office if piracy is completely **stamped out**



IHS 2017 Local

"The Dual Impact of Movie Piracy on Box-Office Revenue: Cannibalization and Promotion", Carnegie Mellon University (February 2017)

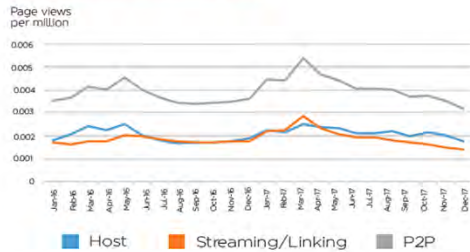
# SINGAPORE'S PIRACY LANDSCAPE 2018

## GRADUAL DECREASE OF STREAMING PIRACY & P2P

Increased pageviews of an average user of streaming piracy websites between Jan 2016 & Dec 2017

**55.10%** =

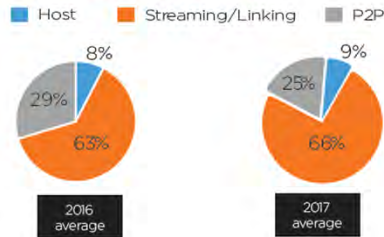
### Piracy Traffic by Category



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Custom analysis of Alexa data (March 2018)

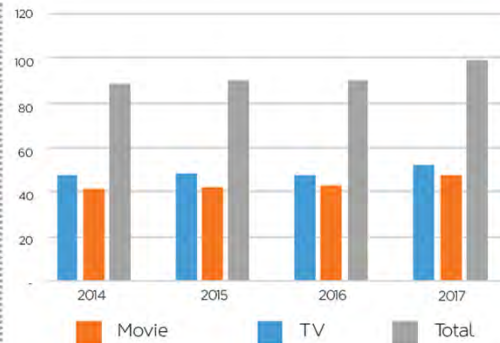
### More Streaming/Linking Piracy



Custom analysis of Alexa data (March 2018)

**99 million** = total number of BitTorrent movie and TV downloads in 2017

### Annual BitTorrent Movie & TV Downloads in Millions



MovieLabs data (March 2018)

**90%** = percentage of high-risk movie/TV advertisements (i.e. sex industry, gambling, malware, scams) appearing on pirate websites

### Movie/TV Advertisements



Measuring Online Advertising Transparency in Singapore: An Investigation of Threats to Users, Dr. Paul A. Walters, Massey University, March 2018

Local visits at pirate sites are **1.14 times higher** than those at legitimate sites.

### Legitimate Online Video Services

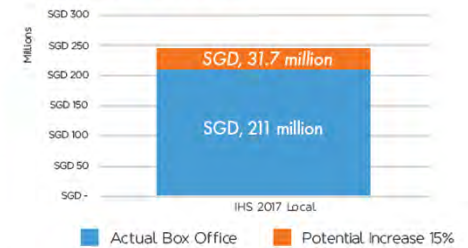


Local Pirate Site Visits: 7,225,349

WEBSITE (TOP 5)	TOTAL VISITS	LOCAL VISITS
kissanime.ru	5,7796,900	1,712,560
thepiratebay.org	158,832,121	1,364,532
kissasian.ch	25,012,429	1,318,244
kshowonline.com	10,036,112	952,801
rarbproxy.org	12,160,464	635,626

Custom analysis of Alexa data (March 2018)

**15% increase** in box office if piracy is completely stamped out



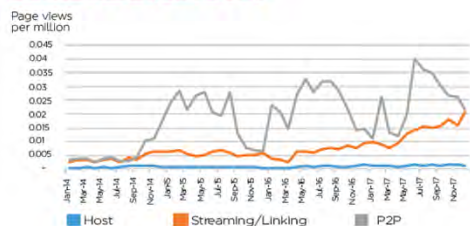
"The Dual Impact of Movie Piracy on Box-Office Revenue: Cannibalization and Promotion", Carnegie Mellon University, March 2018

# SOUTH KOREA'S PIRACY LANDSCAPE 2018

## STREAMING PIRACY SIGNIFICANTLY UP WHILE P2P DECLINES

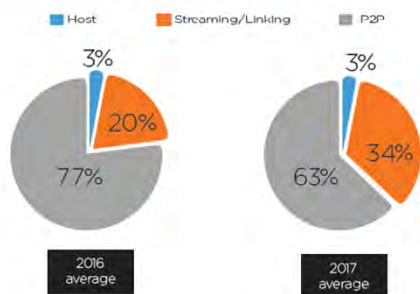
**81.5%** = Increased pageviews of an average user of streaming piracy websites between Jan 2016 & Dec 2017

### Piracy Traffic by Category



\*The count of pageviews is the total number of times the pages of a website were viewed or refreshed within the selected time period. Page views per million indicates what fraction of all the page views by Alexa Toolbar users go to a particular site.

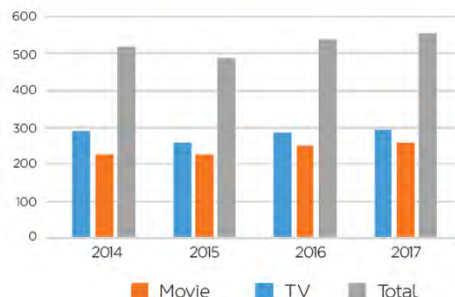
### More Streaming/Linking Piracy



Custom analysis of Alexa data (March 2018)

**552 million** = total number of BitTorrent movie and TV downloads in 2017

### Annual BitTorrent Movie & TV Downloads in Millions

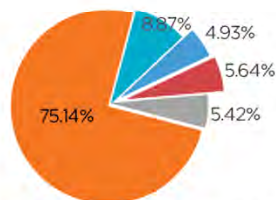


MovieLabs data (Dec 2017)

**38.64%** = percentage of high-risk movie/TV advertisements (sex industry, gambling, malware) appearing on pirate websites alongside local content

### Breakdown

- Gambling
- Scams
- Sex
- Malware
- Download



COPIED FROM INDONESIA AS THERE WAS NO PIRACY LANDSCAPE FOR KOREA LAST YEAR

How Risky Are Piracy Websites For Indonesians? The Role of Search, Dr. Paul A. Walters, Massey University (July 2014)

In South Korea, local views at pirate sites are **2.10** times higher than those at legitimate sites

### Legitimate Online Video Services



Local Pirate Site Visits: 7653,821

WEBSITE (TOP 5)	TOTAL VISITS	LOCAL VISITS
tzoame	2,618,764	2,235,900
torrent.cam	2,283,431	1,774,087
torrenthaja.com	1,854,181	1,584,524
linktv.pro	2,661,160	1,064,144
tcorea.com	1,309,035	995,166

Custom analysis of Alexa data (March 2018)

**15% increase** in box office is piracy is completely stamped out



comScore 2017 Local

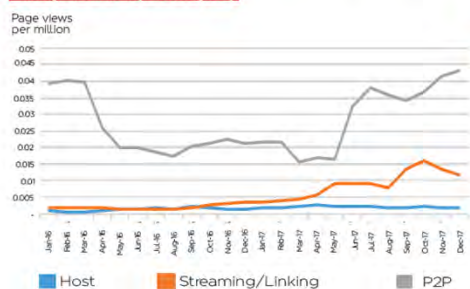
\*The Dual Impact of Movie Piracy on Box-Office Revenue: Cannibalization and Promotion, Carnegie Mellon University (February 2017)

# TAIWAN'S PIRACY LANDSCAPE 2018

## P2P SIGNIFICANTLY UP

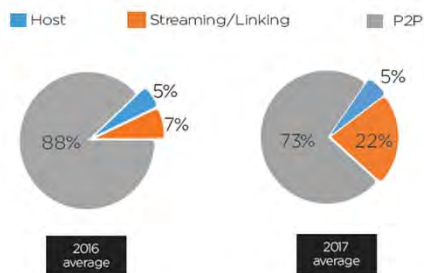
**608%** = Increased pageviews of an average user of streaming piracy websites between Jan 2016 & Dec 2017

### Piracy Traffic by Category



\*The count of pageviews is the total number of times the pages of a website were viewed or refreshed within the selected time period. Page views per million indicates what fraction of all the page views by Alexa Toolbar users go to a particular site.

### More Streaming/Linking Piracy

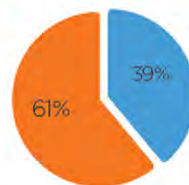


Custom analysis of Alexa data (March 2018)

**39%** = percentage of high-risk advertisements (sex industry, gambling, malware, scams) appearing on pirate websites

### Movie/TV Advertisements

- Mainstream Advertising
- High-Risk Advertising

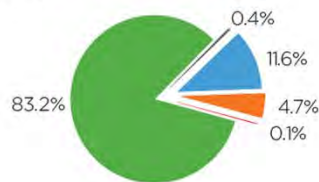


A significant number of household name brands in Taiwan are choosing to advertise on rogue sites, which are facilitating the distribution of infringing content (movies and TV shows).

While it is positive that Taiwanese viewers are being exposed to fewer higher risk ads, it is also extremely concerning that they would see almost 40 times more mainstream ads than Australians visiting a similar number of sites.

### Frequency by Ad Category - High-Risk Advertising

- Malware
- Downloading sites
- Sex Industry
- Gambling
- Scams



Mainstream Advertising Support for Online Piracy in Taiwan. Dr. Paul A. Waters, Massey University, March 2018

In Taiwan, local page views at pirate sites are **3.43** times higher than those at legitimate sites

### Legitimate Online Video Services

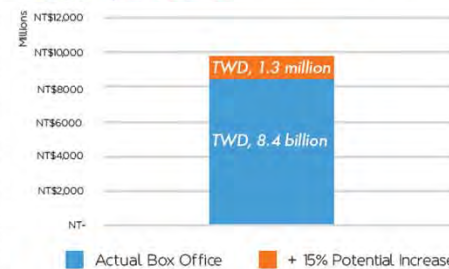


### Local Pirate Site Visits: 38,506,823

WEBSITE	TOTAL VISITS	LOCAL VISITS
eyny.com	26,302,400	21,579,168
58b.tv	8,002,671	7,792,768
8maple.ru	10,724,973	5,661,681
maplestage.com	9,282,778	3,473,206
anime1.me	3,201,241	1,825,681

Custom analysis of Alexa data (March 2018)

**15% increase** in box office is piracy is completely stamped out



\*The Dual Impact of Movie Piracy on Box-Office Revenue: Cannibalization and Promotion, Carnegie Mellon University, March 2018

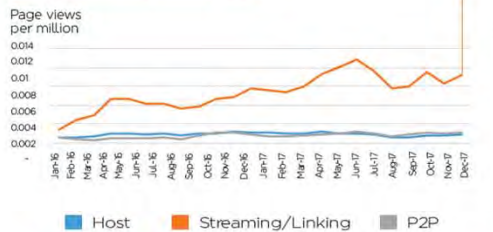


# THAILAND'S PIRACY LANDSCAPE 2018

## STREAMING PIRACY SIGNIFICANTLY UP WHILE P2P DECLINES

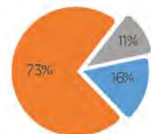
**81.35%** = Increased pageviews of an average user of streaming piracy websites between 2016 & 2017

### Piracy Traffic by Category



\*The count of pageviews is the total number of times the pages of a website were viewed or refreshed within the selected time period. Page views per million indicates what fraction of all the page views by Alexa Toolbar users go to a particular site.

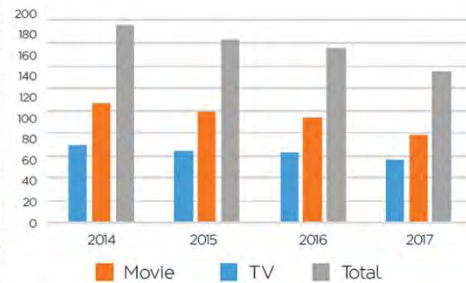
Legend: Host (blue), Streaming/Linking (orange), P2P (grey)



Custom analysis of Alexa data

**135 million** = total number of BitTorrent movie and TV downloads in 2017

### Annual BitTorrent Movie & TV Downloads in Millions



BitTorrent piracy has seen a slight reduction in 2017, possibly due to a user shift to host sites such as 4shared.com and link sites such as movie2free.com.

MovieLabs data

**93.74%** = percentage of high-risk advertisements (sex industry, gambling, malware, scams) appearing on pirate websites

### Movie/TV Advertisements

Legend: Mainstream advertising (blue), High-risk advertising (orange)



In particular, 62.22% of High Risk ads were for the sex industry and 16.05% were for gambling.

The Impact of High Risk Advertising on Thai Social Values: The Role of Piracy Websites  
Dr. Paul A. Walters, Massey University, March 2015

In Thailand, local views at pirated sites are **3.85** times higher than those at legitimate sites

### Legitimate Online Video Services



Local Pirate Site Visits: 279,492,253

WEBSITE (TOP 5)	TOTAL VISITS	LOCAL VISITS
movie2free.com	13,185,465	12,485,019
siambitme	4,971,434	4,795,748
037hd.com	4,362,665	4,206,832
subthai.co	3,421,159	3,271,203
kseries.co	3,332,312	3,190,450

Custom analysis of Alexa data (March 2018)

**15%** increase in box office if piracy is completely stamped out



IHS 2017 Local

Legend: Actual Box Office (blue), + 15% Potential Increase (orange)

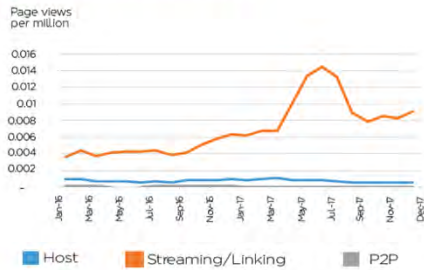
"The Dual Impact of Movie Piracy on Box-Office Revenue: Cannibalization and Promotion", Carnegie Mellon University, February 2016

# VIETNAM'S PIRACY LANDSCAPE 2018

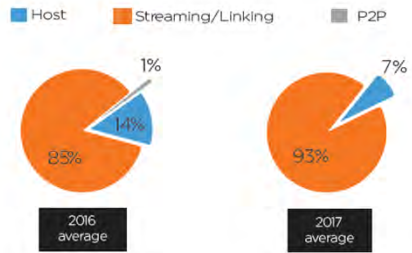
## STREAMING PIRACY SIGNIFICANTLY UP

**150%** = Increased pageviews of an average user of streaming piracy websites between Jan 2016 & Dec 2017

Piracy Traffic by Category



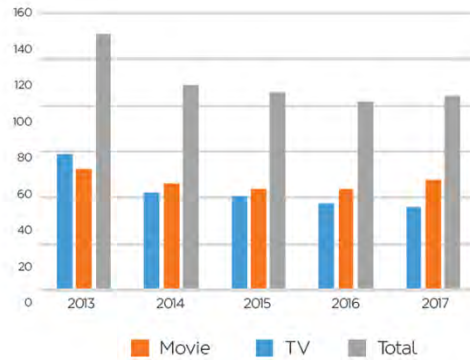
\*The count of pageviews is the total number of times the pages of a website were viewed or refreshed within the selected time period. Page views per million indicates what fraction of all the page views by Alexa Toolbar users go to a particular site.



Custom analysis of Alexa data

**84 million** = total number of BitTorrent movie and TV downloads in 2017

Annual BitTorrent Movie & TV Downloads in Millions



MovieLabs data

The world's largest piracy site **123movies** closing down for good; urges people to buy content

- **98 million** visitors a month
- Listed in latest US Trade Representative's **Notorious Markets** report
- **123movies** message to users: "PS: Please pay for the movies/shows, that's what we should do to show our respect to people behind the movies/shows."

In Vietnam, local page views at pirate sites are **12.43** times higher than those at legitimate sites

Legitimate Online Video Services

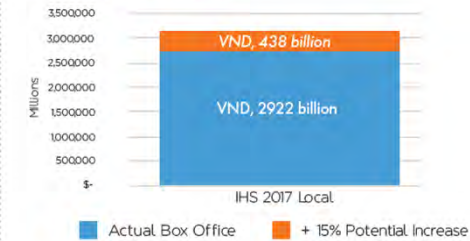


Local Pirate Site Visits: 46,599,412 in March 2018

WEBSITE	TOTAL VISITS	LOCAL VISITS
phimmoi.net	23,009,182	22,138,803
banh.tv.com	8,642,057	7,578,384
phimbathu.com	7,701,688	6,598,188
bitutv.com	7,129,668	6,150,777
anime47.com	4,391,842	4,133,260

Custom analysis of Alexa data (March 2018)

**15% increase** in box office if piracy is completely stamped out

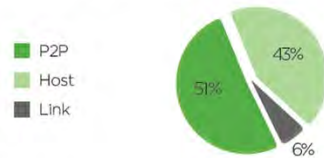


\*The Dual Impact of Movie Piracy on Box-Office Revenue: Cannibalization and Promotion", Carnegie Mellon University, February 2017

# Japan's Piracy Landscape 2016

**31%** of Japanese internet users were involved in some form of movie or TV piracy in 2015.

Share of users by category

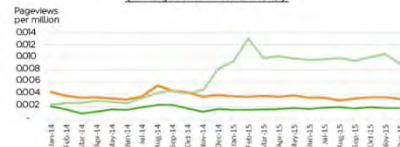


51% of Japanese users access P2P download sites and applications, 49% of users access web-based sites used for online piracy including host sites i.e. cyberlockers (43%) and link sites (6%).

custom analysis of comScore data

**22.3 million** = average unique users for online piracy sites or applications per month in 2015

Site/App Users, % of Pageviews (Analysis of Alexa Data)



At the end of 2014, and in early 2015, there was a significant increase in Japan's page views to sites in the host site category, including rapidgator.net, uploaded.net and uploadable.cu.



## TOP 10 Sites/Applications Used for Online Piracy in 2015 by Category

NO.	HOST	ALEXA RANK	REACH PER MM
1	ziddu.com	138	0.091372
2	uploadable.ch	153	0.099267
3	uploaded.net	186	0.048846
4	rapidgator.net	190	0.042824
5	videomegatv	283	0.036692
6	flashx.tv	354	0.030295
7	datafile.com	436	0.028218
8	streaminto	501	0.02401
9	faststore.org	550	0.023123
10	bitshare.com	804	0.010525

NO.	LINK	ALEXA RANK	REACH PER MM
1	b9dm.com*	158	0.040482
2	jpddl.com	1128	0.009131
3	megafilmeshd.net	2334	0.002389
4	avxhome.se	2893	0.002247
5	filmsonlinegratis.net	2950	0.001734
6	avaxhm.com	3243	0.00196
7	armageddonfilms.biz	4050	0.001248
8	phim3s.net	4256	0.001279
9	putlocker.is	4281	0
10	alluc.com	4366	0.001882

\* b9dm.com numbers are from August 2016.

NO.	P2P	ALEXA RANK	REACH PER MM
1	kickass.so	535	0.005731
2	tokyotosho.info	763	0.01317
3	kickass.to	1041	0.000013
4	kat.cr	1056	0
5	torrentz.eu	1989	0.005178
6	thepiratebay.se	2120	0.000153
7	bitsnoop.com	2389	0.002678
8	vitorrent.net	2432	0.004686
9	extratorrent.cc	3573	0
10	rutracker.org	3721	0

custom analysis of Alexa data