# **INFORMATICS SAT REPORT**

PIRACY HABITS OF ADOLESCENTS

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# INTRODUCTION

#### **ABSTRACT**

This Report examines the way in which Adolescents access copyright content illegally, and their changing habits. It encompasses a variety of qualitative and quantitative data submitted by 110 participants ranging from 5-21 years old. The following are the findings of this study and the evidence leading to the conclusion that new anti-piracy laws and initiatives are not responsible for a decrease in the number of adolescents illegally viewing copyrighted content in Australia.

The data collected for this report comes from primary and secondary sources; it makes up a variety of qualitative and quantitative data, collected anonymously adhering to the Australian privacy principles.

## **HYPOTHESIS**

"Since the introduction of new anti-piracy laws and initiatives, the number of adolescents illegally viewing copyrighted content in Australia has not decreased, due to the ability to stream content online."

# **CONSTRAINTS**

## **ECONOMIC**

#### TIME

I have a limited time frame to collect, normalise, and present my data. This collection can only happen after the conclusion of all dependent events on my Gantt chart. If dependent tasks go over time, I will have less time to collect data and then write my report. Any setback would then set back all other tasks shortening the time available to complete said tasks.

# COST

I have little to no budget to carry out the survey and present the data collected. I will be reliant on the hardware I currently possess and free software provided to students, as well as by the school. This means I will have to manually distribute my survey and will have no real way on incentivising people to fill it out. This could affect the final number of participants and even possible sources of secondary data due to licencing.

# **TECHNICAL**

I need an available computer and a fast internet connection. I would ideally have a mouse and mechanical keyboard as well as a multi-monitor setup for increased productivity. Some

of the software for which I acquired an educational licence, won't be available on other computers, if I lose access to my laptop.

# SURVEY HOSTING REQUIRMENTS

#### HARDWARE

The survey needs to be hosted on a platform that is secure and stable. It ideally needs to be on a web server that has 4gb+ of ram, 4ghz+ processer, 10gb+ of storage, and a fast internet connection. It needs to be reliable and able to handle a reasonable amount of simultaneous traffic.

#### **SOFTWARE**

The survey needs to be stable and secure. It should encrypt all entered information and employ SSL. It should also sterilise all inputs. It needs to function on as many devices/screen sizes as possible e.g. mobile and PC. It also needs to be lightweight and not very resource intensive.

#### SAMPLE SIZE

I need ideally 20+ people to fill out my survey in the space of a couple of weeks. This must all be done with as little bias as possible. I also need a range of ages within these responses to get accurate information. For an even more accurate picture, much of responses should come from people who do actively pirate or have pirated content.

#### **USABILITY**

I must collect enough usable data and then present it effectively in a way that any teen or adult can understand. The presented data must be an accurate summary of information created and be relevant to the report and final MMOS. I must filter out invalid data and have permission to use data from people surveyed or the organisation that the data was sourced from.

## **LEGAL**

I must conform to the Australian privacy principles and all ethical and legal requirements of carrying out and then publishing the findings of a survey of this type, in a report. I must also Secularly store all data collected and reference appropriate sources of secondary data and information. I must also conform to any relevant copyright acts and spam laws.

## SOCIAL

Some people may feel uncomfortable accurately filling out the survey due to the threat of self-incrimination from answering any of the more controversial questions(about illegal piracy). This could corrupt my conclusion and findings.

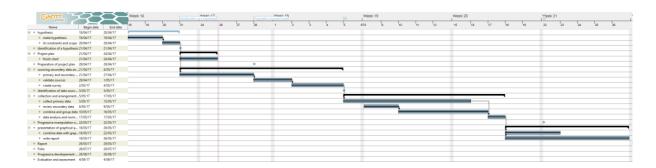
# SCOPE

To discover if the number of adolescents illegally accessing copyrighted material in Australia has decreased in the wake of new anti-piracy laws and initiatives. Has the ability to stream content cancelled out any effects of these new laws and initiatives have had on pirates?

Note: this is the same as original but has been reworded to read nicer see IT-Hypothesis.docx

# **PROJECT PLAN**

#### **GANTT CHART**



# **DATA SOURCES AND COLLECTION METHODS**

# **DATA SOURCES**

# **PRIMARY**

All primary data was sourced through a google forms survey, hosted by Google. This survey was distributed by me on Facebook and Reddit. The pages it was shared on were exclusively for Australians and gave a wide range of responses by different age groups and genders. The questions and the type of data they collected can be found bellow under survey questions.

#### **SECONDARY**

Secondary data was sourced from 5 separate studies conducted by notable organisations. Each report contributes a variety of quantitative and qualitative data about the habits and general trends of adolescent piracy.

## SOURCES:

- BSG Research Australia Content Protection January 2017
- Consumer behaviour access to content research update 01-09-2015
- Creative Content Australia research12-17yos 2016
- Creative Content Australia Research 18-64year olds 2016
- DeptComms Online Copyright Infringement Report

#### **COLLECTION METHODS**

Data was collected from primary and secondary sources. Primary data was collected through questions on a Google forms survey. This survey was then posted on a variety of Australian Facebook and Reddit groups as well as given to my classmates and house. People then clicked on it and filled it out. The results of this survey were automatically added to a spreadsheet. The questions had built in validation and some requirements. Time stamps are recorded on all collected data to make sure it is accurate.



## TYPES OF DATA

The survey gave a variety qualitative and quantitative data. Questions involved open text responses, closed word responses, scale numerical responses(answer from x-x) and numerical responses. All of which can be found in the question tables under survey questions.

#### VALIDATION

#### **ELECTRONIC**

The online Google forms survey which is the source for all primary data collected employed a variety of data validation techniques. These validation rules left only some quantitative data to be manually validated. All important questions were required to be filled out and ones with numerical results employed range checks. The survey's validation rules prevented any invalid quantitative data to be entered.

#### See questions bellow.

# **MANUAL**

The only manual validation was of qualitative data from open-ended questions. This validation involved going through a spreadsheet and deleting any invalid responses, from obviously joking answers and spam. Answers were also cleaned up by the manual deletion of any special characters (!@#\$%^&\* etc.). There were also cases in which people had misinterpreted text responses and had given irrelevant data, some of this was moved to other responses if it was relevant, the rest was deleted.

#### SURVEY QUESTIONS

Question Title	Age
Туре	Number
Validation rules	Required, 5-60
Format	Short answer
Options	NA

Question Title	Gender
Туре	Radio
Validation rules	
Format	Multiple choice
Options	<ul><li>Male</li><li>Female</li><li>Prefer not to say</li></ul>

Question Title	Have you streamed or download pirated content in the last 12 months? (this includes pirated content uploaded to youtube)
Туре	Radio
Validation rules	Required
Format	Multiple choice
Options	- Yes - No

Question Title	Are you aware of any changes in Australian Government policy in the last year towards piracy?
Туре	Radio
Validation rules	Required
Format	Multiple choice
Options	- Yes - No

Question Title	If so, how has it impacted on the amount of pirated content you consume? (Optional)
Туре	Radio, text box
Validation rules	

Format	Multiple choice
Options	<ul> <li>Streamed and downloaded less</li> <li>Downloaded less</li> <li>Streamed less</li> <li>No impact</li> <li>Other</li> </ul>

Question Title	Have you noticed any new anti piracy campaigns/initiatives or ads in the last 12 months?
Type Validation rules	Radio Required
Format	Multiple choice
Options	- Yes - No

Question Title	If yes, what were they and how have they affected how you access illegal content? (optional)
Туре	text box
Validation rules	
Format	Short answer
Options	NA

Question Title	On a scale from 1-10 how easy would you say it currently is to obtain copyright content illegally?
Туре	Linear scale
Validation rules	Required, 1-10
Format	Linear scale
Options	- Range from very hard (1) to Very Easy (10)

# SECTION 2

Question Title	Have you started downloading or streaming pirated content in the last 2 years?
Туре	Radio
Validation rules	Required
Format	Multiple choice
Options	- Yes - No

Question Title	Over the past year how has your consumption of pirated material changed?
Туре	2x linier scales
Validation rules	Required
Format	Table
Options	<ul> <li>Row 1, Downloading</li> <li>Row 2, Streaming</li> <li>Column 1, Less</li> <li>Column 2, no change</li> <li>Column 3, more</li> </ul>

Question Title	2 years ago what was your primary way of pirating content?
Туре	Radio
Validation rules	Required
Format	Multiple choice
Options	<ul><li>Downloading</li><li>Streaming</li></ul>

Question Title	Today what is your primary way of pirating content?
Туре	Radio
Validation rules	Required
Format	Multiple choice

Options	<ul> <li>Downloading</li> </ul>
	- Streaming

Question Title	Has it become harder in the last year to access pirated content?
Туре	Radio
Validation rules	Required
Format	Multiple choice
Options	- Yes - No

Question Title	If so, why?
Туре	text box
Validation rules	
Format	Long answer
Options	NA

Question Title	What pirated content do you consume?
Туре	Checkbox
Validation rules	
Format	Multiple choice
Options	<ul><li>TV shows</li><li>Movies</li><li>Games</li><li>Music</li><li>Software</li><li>Other media</li></ul>

Question Title	Has the accessibility of Illegal Streaming services made you view more pirated content?
Туре	Radio

Validation rules	Required
Format	Multiple choice
Options	- Yes - No

Question Title	Was it because of the ability to stream pirated content?
Туре	Radio
Validation rules	Required
Format	Multiple choice
Options	- Yes - No

# **SECTION 3**

Question Title	Have you ever pirated content?
Туре	Radio
Validation rules	Required
Format	Multiple choice
Options	- Yes - No

Question Title	If you have, what was your main reason for stopping? (optional)
Туре	Checkbox
Validation rules	
Format	Multiple choice
Options	<ul> <li>Change in economic situation</li> <li>New anti piracy legislation</li> <li>No longer as convenient</li> <li>Anti-piracy campaigns</li> <li>Threat of Persecution</li> </ul>

Question Title	Anything to add about the way you access content? (optional)
Туре	text box
Validation rules	
Format	Short answer
Options	- NA

# **DATA MANIPULATION AND SECURITY**

# PREPARING DATA

# CODIFYING QUALITVE DATA

All qualitative data was first manually validated. Upon the completion of this all qualitative responses were categorised. Any different responses were given their own categories. While reworded, the data and resulting information remained the same, allowing for graphing and numerical examination. These responses would in most cases then be graphed by a number of matching records. In most cases the questions were multiple choice and this was not required.

## **CLEANSING QATA**

Thanks to validation rules on the survey there was no need to cleans any quantitative data. Qualitative data however required some cleansing. I manually went through the spreadsheet of responses and removed spam and joke answers to text response questions. I also spell checked qualitative data.

## USE OF HARDWHERE AND SOFTWARE IN MANIPULATING DATA

## HARDWARE EMPLOYED

- iPhone 6s 16g
- Desktop Core i5 4670k, 8gb ram, gtx 770, 2x 1080p BenQ monitors, das keyboard, razer Naga gaming mouse.
- Mid 2014 MacBook Pro core i7, 8gb ram.
- Brother laser printer

# SOFTERWERE USED

- Windows 10.1
- OSX 10.12
- IOS 10.2

- Microsoft Office 365 suit used word to write the report and various other required documents.
- Google Chrome used to source data and access the web.

- Google sheets hosted my data set with all primary data on it.
- Google forms hosted and ran my survey.
- Gantt project created a project plan with it.
- Outlook sent emails.
- Adobe PDF reader used to view reports and gather data from them.

- Tableau created all graphs and generally visualised all data collected on it.
- Snapchat discussed how to properly use Tableau with a class mate
- Google inbox read and sent emails.
- Snipping tool used to take screenshots for images for the report.

#### FILE MANAGEMENT PLAN

#### FOLDER STRUCTURE/HIERARCHY

```
C:\USERS\JAMES\DROPBOX\DOCUMENTS\SCHOOL-STUFF\2017\IT\SAT
   IT-Hypothesis.docx
   IT-SAT-Sources.docx
   SAT-Graphs.twb
   SAT-Responses.xlsx
 ---Project-Planning
        Gant-Chart-FINAL.gan
   -Report
        Sat-Report.docx
      --Assets
        +---graphs
                Active-pirates-graph.png
                Active-Pirates.png
                Campaign-Know.png
                Content-Source-Today.png
                Did-Notice.png
                Is-It-Harder.png
                knowledge-of-policy.png
                Last-Year-Downloading.png
                Last-Year-Streaming.png
                Reasons-For-Stopping.png
                SAT-Graphs.twb
                Streaming-Change.png
        \---Images
                FB-Post.PNG
                File-Tree.PNG
                Gantt-Chart.png
  -- SAT-Information-And-Documentation
        Final-Hand-In.docx
        Ideas-For-SAT-Hypothesis.pptx
        Sample-Hypothesis.pdf
\---Secondary-Data
        BSG-Research-Australia-Content-Protection-January-2017.pdf
        Consumer-Behaviour-Access-To-Content-Research-Update-01-09-2015.pdf
        Creative-Content-Australia-Research-12-17yo27s-2016.pdf
        Creative-Content-Australia-Research-18-64-year-olds-2016.pdf
        DeptComms-Online-Copyright-Infringement-Report-FINAL.pdf
```

#### FILE NAMING CONVENTIONS

The entire SAT directory employed universal naming conventions. Every word in a file name starts with a capital letter to make them easily distinguishable. Additionally, every space is represented by a dash to increase data integrity and make it easily read by different programs.

## SECURITY CONTROLS PHYSICAL SECURITY

All primary data collected is stored on secure devices. It is only stored on Google and Dropbox servers apart from my two other personal computers. The data stored on Google and Dropbox servers are protected in locked buildings under armed patrol. Only trusted engineers are let in these server rooms which are also under constant surveillance. The additional 2 devices owned by me which they are on, are my desktop computer and my Mac laptop. The desktop is securely stored in my locked house which is also protected by an alarm system. My laptop is only ever stored in my locked locker or my locked house. Otherwise, it is carried and protected by me.

#### SOFTWARE SECURITY

All devices on which data is stored on are encrypted and password protected. Additionally, anytime data is remotely accessed it is done so using SSL and encrypted for transmission. All remote access also requires a password.

#### LEGAL OBLIGATIONS

All Primary data was collected anonymously and all data utilised was collected adhering to the Privacy Act of 1988, Privacy and data protection act 2014, copyright act 1968 and spam act 2003. No IP addresses or identifiable information was recorded and uses consented to a privacy statement before filling out the survey. Their data was not shared with anyone but myself and to an extent Google. The information collected was also always stored on an encrypted device in secure locations. Users explicitly gave permission for the information they enter to be published as well. I also reference all secondary data used

They agreed to the following:

- You have read the above information.
- You also agree to the Google Terms of use found below.
- You voluntarily agree to participate.
- You agree to have non-identifiable information you enter published.

# **RESULTS**

#### **DEFINITIONS**

For the purposes of this report, some language needs to be clearly defined. The following is the language you will encounter while reading this report and out interpretation of those terms.

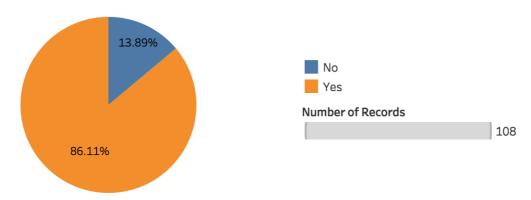
- Active pirates: people who have consumed pirated content in the last 12 months (May 2016 - May 2017)
- Adolescents: anyone aged 21 and younger.
- new anti-piracy laws and initiatives: Any anti-piracy laws or initiatives that were created or came into effect over the past 2 years.

## **KEY FINDINGS**

This report examined a variety qualitative a quantitative data sourced from primary and secondary sources. The following are the trends observed, habits identified, and the overall effect streaming pirated content, as well as their coherence to the observations, gathered from secondary sources.

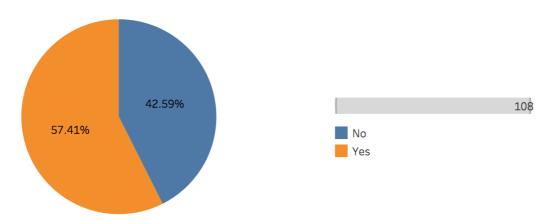
#### **OVERAL HABITS**

#### Percentage of active adolescent pirates

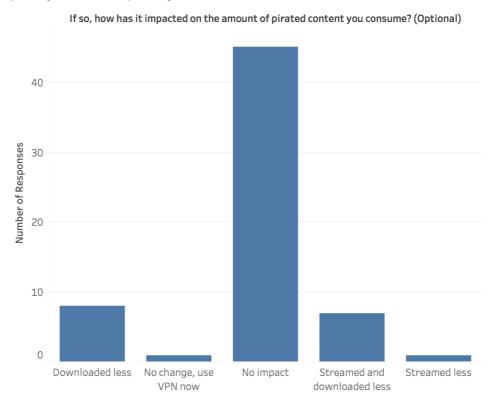


86.11% of adolescents who filled out our survey admitted to streaming or downloading pirated content in the last 12 months. This was much higher than expected. While the percentage of average pirates in this age group typically is not small the department of communications report put the number of people who consumed illegal content aged 16-24 at only 59% (DEPARTMENT OF COMMUNICATIONS, 2015, p. 33). While our data is from people aged in the same range recorded 91.95% of participants as being active pirates. While their time frame for active pirate classification was only 3 months it does not seem to justify the almost 33% difference. The only conclusion that can be made is that in our sample size we had a lot more pirates than what should be the national average.

# Overall awareness of changes in Australian Government policy in the last year towards piracy

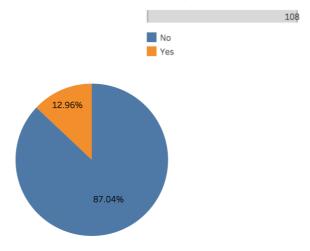


Responses to knowledge of changes in australian government policy towards piracy

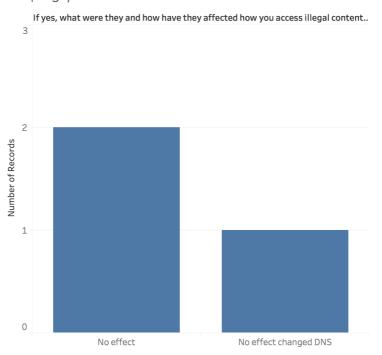


Over 57% of adolescents surveyed said that they were aware of any changes in Australian Government policy in the last year towards piracy. However, when then asked what effect this had on the amount of content they consume 0% said that they stopped pirating content. 72% said that these changes that they were aware of had had no impact on the amount of pirated content they consume. This conforms with the results of project Rebel's 4<sup>th</sup> most popular response when it surveyed 369 pirates about the reason they still pirate as "nobody is stopping me" (Sycamore, 2016, p. 7) and (Meadows, 2016, p. 31). This said though there is a minor decrease in the volume people pirate.

Responses to knowledge of any new campaigns/initiatives or ads

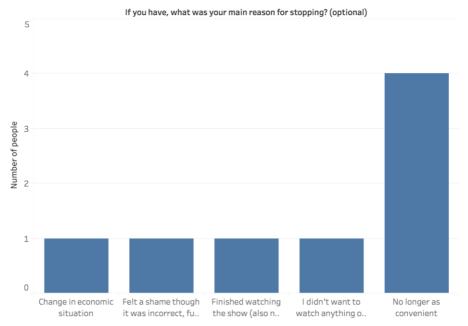


Respondents who did notice a new campaign/initiative or advert



Of 108 adolescents surveyed only 13% had noticed any new anti-piracy campaigns/initiatives or adverts. Of the 3 that stated an effect, only one acted which was prompted by an email from his ISP "about piracy" this action, however, did not affect the amount of content he pirates. This is similar to the recommendations of 6% of Australians asked about piracy (Meadows, 2016, p. 16). There is agreement that piracy is wrong though. In 2016 it was at its highest of 73% this is up from 64% in 2014 (Meadows, 2016, p. 13). The reason for this shift is not clear however it does not seem to have affected actual piracy numbers.

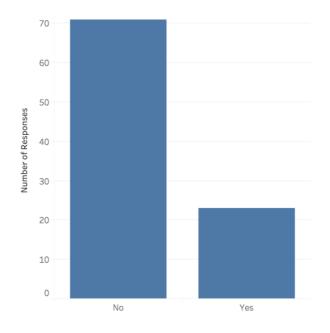




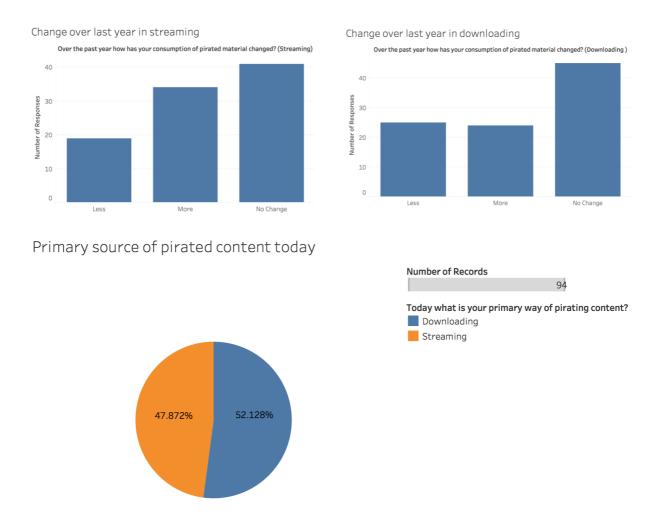
Out of the 11 non-active pirates, none had listed Threat of persecution, New anti-piracy legislation, or initiatives as their reason for stopping. The majority of non-active Pirates responded as piracy is no longer as convenient. Others simply didn't need to anymore due to economic situation or lack of interest. This is very similar to the results of campaign and initiative effects.

Overall there is a small decline in the number of active pirates with a net 6.7% decrease in active pirates.11 have become non-active and only 4 have begun pirating.

Has it become harder to access pirated content?



When asked if over the last 2 years if it had gotten harder to pirate content, 76% of pirates said it had not, while 24% of pirates said it had. When asked how easy is it to currently obtain copyright material from a scale of 1(very hard)-10(very easy), the average for the same 24% was 8/10. As a result it cannot have gotten significantly harder to pirate content over the last 2 years.



Over the last year streaming has increased significantly more than decreased and downloading has decreased slightly more than increased. This said though the habits of the majority of pirates seem not to have changed. Today downloading does still surpass streaming as people's primary way of pirating content however streaming has increased by almost 13% in 2 years. 19% of children aged 12-16 said they watch pirated content on YouTube (Sycamore, 2016, p. 18).

## CONCLUSION

The introduction of new anti-piracy laws and initiatives is not responsible for a decrease in the number of adolescents illegally viewing copyrighted content in Australia. This is due to the ineffectiveness of these new laws and initiatives and not the growth of streaming pirated content.

Firstly, we are only seeing a modest 6.7% decrease in the number of active pirates. While a decrease none the less, it cannot be attributed to any new anti-piracy laws or initiatives. This is because of the 57% of adolescents surveyed who were aware of changes in government policy, and the 13% who had noticed any new anti-piracy campaigns/initiatives or adverts, none had reported that they stopped pirating content as a result. The most likely cause of this decrease is the growth of legal streaming services acknowledged by 3 separate reports over the last 3 years. Legal streaming among Australian pirates aged 12-17 has grown by 28% from 2014-2016 (Sycamore, 2016). Between 2014 and 2015 Choice but the average increase among Australians of streaming services at 19% (Choice, 2015). Project rebel (adults) also put subscription levels among pirates aged 18-64 at 32% in 2015 (Meadows, 2016).

Streaming of pirated content is on the rise but this is only in volume. Active pirates are starting to stream more and download less. At this point in time though active pirates are still downloading more than they stream. This growth is increasing piracy rates but only by 1.07%. this increase while small is enough to cancel out any effects of any new anti-piracy laws and initiatives. It is clearly the ineffectiveness of the new anti-piracy laws and initiatives in the first place though that is the biggest reason for this, not the growth of streaming pirated content.

## **BIBLIOGRAPHY**

- Choice. (2015). CHOICE Digital Consumers Paying for Content Behaviour & Attitudes.

  CHOICE accessed 26/05/17-28/05/17. retrieved from

  https://www.choice.com.au/~/media/e7132464fa2b4609809f26e1b13bf113.ashx
- DEPARTMENT OF COMMUNICATIONS. (2015). MARKETING RESEARCH REPORT. accessed 26/05/17-28/05/17. retrieved from https://www.communications.gov.au/sites/g/files/net301/f/DeptComms%20Online%2 0Copyright%20Infringement%20Report%20FINAL%20.pdf
- Meadows, A. (2016). *Project Rebel.* Sycamore. accessed 26/05/17-28/05/17. retrieved from http://www.creativecontentaustralia.org.au/\_literature\_204118/2016\_Research\_-\_Australian\_Piracy\_Behaviours\_Wave\_8\_Adults
- Sycamore. (2016). *Project Rebel Kids.* accessed 26/05/17-28/05/17. retrieved from http://www.creativecontentaustralia.org.au/\_literature\_204119/2016\_Research\_-\_Exploring\_online\_piracy\_behaviour\_and\_attitudes\_amongst\_Australians\_aged\_12-17

All documents can also be found in \Secondary-Data folder.