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<u>Online Piracy and Private Trackers: A return to form or an evolution?</u>

Today's advocates for online piracy commend the act as a form of praxis that, while going against state and commercial interests, simultaneously proliferates global access and openness to digital content. To the somewhat-informed and aligned partaker, this is what piracy is, and has been, all about. ThePirateBay, RARBG, and other public trackers have served these individuals as figureheads of a grander movement since the birth of the BitTorrent protocol, and more recent direct download sites including Libgen, Z-Library, and Sci-Hub have brought the principles of public torrenting to a wider audience, one that need not even know what a torrent is. Surprisingly, however, as one gets more and more involved in online piracy communities, one finds that they become less and less accessible. This paper will analyze the existence of private trackers, the invite and application-based torrenting communities that enforce strict membership guidelines, as well as the interesting dichotomy between them and the current principles motivating online piracy. First, however, a deep dive into the origins of online piracy, how it once worked, how it was answered legally, and how it has changed, will be needed as context to effectively place private trackers into the vast puzzle that is today's world of online piracy. This paper will then explore what inspired private trackers specifically, what existed before them, how they normally function, and will finish off with a first-person look into MyAnonaMouse, a private tracker that currently hosts one of, if not the most extensive collection of eBook and audiobook torrents. This paper will not debate or interrogate the ethics of online piracy as a practice.

What is Online Piracy?

Online piracy is the unlawful downloading and/or distribution of digital goods, one of the many forms of copyright infringement currently recognized by the United States Copyright Office[1]. The illegality of the practice varies considerably around the world, with many countries including Ukraine, Brazil, and India having little to no regulations whatsoever (or weak ones) and other countries like the United States, the United Kingdom, and Germany housing both public and private sector task forces dedicated entirely to piracy prevention and violator prosecution[2]. For the billions of people within the former countries, piracy is more common than lawfully engaging with digital goods, and at times is even institutionalized. Personal accounts from India mention ISP's and law enforcement departments utilizing pirated productivity and management applications, and within a study conducted by Microsoft, researchers found that over 91% of personal devices in the country were loaded with pirated software[3]. In Brazil, the lack of regional pricing that would take into account the average cost of living causes videogames to retail for 300+ real, or around 28% of the country's monthly minimum wage, the equivalent of £425.60 in the United Kingdom[4]. Consequently, Brazilian gamers rarely meet anyone who doesn't pirate their games, especially considering that for them, not doing so involves choosing to play their title of choice over putting food on the table. Even in the United States, where copyright infringers can be fined more than $5,000 for a single offense, more than

[1] Office, U. C. (2016, November 11). *U.S. Copyright Office: H.R. 3261, the "Stop Online Piracy Act"*. http://www.copyright.gov/docs/regstat111611.html

[2] (2018). *Reddit*. Dive into anything. https://www.reddit.com/r/Piracy/comments/ch5007/what_country_are_the_best_pirate_safe_haven/
 (2011, October 1). *Anti-Counterfeiting Trade Agreement (ACTA)*. United States Trade Representative. https://ustr.gov/acta

[3] Times, E. (2018, November 2). Microsoft tests show 91% new PCs from India loaded with pirated software. The Economic Times. https://economictimes.indiatimes.com/tech/software/microsoft-tests-show-91-new-pcs-from-india-loaded-with-pirated-software/articleshow/66475487.cms?from=mdr

[4] Always Bet On Dunc. (2022, September 4). *You Should Pirate Video Games | A Video Essay* [Video]. YouTube. https://www.youtube.com/watch?v=7AMfajsjn0I&t=864s

⅓ of gamers have pirated games in the past[5]. Regardless of country and/or consequence, piracy today serves as a tool to sidestep financial disparities and to bolster equal access when done safely, albeit piracy and its users have not always been motivated by such causes (differences in past and present motivations will be explored throughout the entirety of this paper).

The Origins of Online Piracy:

In the year 1981, Dennis Hayes' invention of the smartmodem would kickstart the first commercial wave of bulletin board systems (BBS), online servers that businesses and consumers alike could access through their terminals to play games, direct message, and engage with public posting forums[6]. As smartmodems speeds increased from 1200 bit/s to 9600 bit/s and more during the mid 80's, uploading and downloading files joined the other activities one could find in BBS communities, eventually becoming so lucrative that they birthed new BBS groups dedicated entirely to file-sharing, the most infamous of which was WaReZ[7]. Not motivated by the profitability of their actions or the popularity they accrued but rather by the natural competitiveness of the grander community they all formed, WaReZ (also known as the WaReZ scene or simply The Scene) was an organized network of private groups, originally hosted on BBS systems, that applied themselves to the free distribution and eventual "cracking" of games, movies, music, software, and more[8]. The hidden nature of BBS systems along with the fact that prosecution under the U.S. Copyright Act of 1976 required any infringement to be for the

[5] Fenlon, W. (2016, August 26). *PC piracy survey results: 35 percent of PC gamers pirate*. PC Gamer. https://www.pcgamer.com/pc-piracy-survey-results-35-percent-of-pc-gamers-pirate/
[6] Grahame, J. (2009, March 27). *Getting online: The Hayes smartmodem*. Retro Thing. https://www.retrothing.com/2009/03/hayes-smartmodem.html
[7] (2005, July 2). *Timeline of file sharing*. Wikipedia. https://en.wikipedia.org/wiki/Timeline_of_file_sharing
(2005, January 4). *Warez scene*. Wikipedia. https://en.wikipedia.org/wiki/Warez_scene
[8] David Pogue, "Some Warez over the Rainbow," MacWorld, October 1997, https://cdn.preterhuman.net/texts/computing/macintosh/Macintosh.txt.

purpose of "commercial advantage or private financial gain" made The Scene effectively untouchable to external parties for the time being[9].

Within the early 90's, online media companies began developing digital rights management (DRM) software to protect their copyrighted material themselves, since national governments were at the time still not equipped to suppress The Scene just yet[10]. DRM's marked The Scene's transition from being private media sharing groups to elite bases of skillful "crackers", individuals that were well-versed in bypassing DRM protections, prompting the creation of the The Digital Millennium Copyright Act which made DRM circumvention and circumvention tools illegal[11]. Because of this added difficulty, The Scene grew more fast-paced and at times even cut-throat, with funding from outside individuals becoming a new motivation for many groups[12]. These funders eventually became known as packagers and provided their coders/crackers/suppliers with whatever they needed, while also ensuring that their group's releases were up to par with Scene standards[13]. Around the same time that DRM protections were gaining popularity, the birth of the modern internet resulted in Scene groups replacing their BBS systems with topsites, private websites that Scene members used for their internal communications and release work[14]. Individuals that distributed Scene releases externally became known as couriers and began to populate the wider world of online piracy thanks to the access that their topsite reputations gave them[15]. Public release sites used direct download

[9] (2004, May 28). *No Electronic Theft Act*. Wikipedia. https://en.wikipedia.org/wiki/No_Electronic_Theft_Act
[10] Smith, E. (2017, October 19). *The Incredibly Technical History of Digital Rights Management*. https://www.vice.com/en/article/evbgkn/the-incredibly-technical-history-of-digital-rights-management
[11] Suehle, R. (2011, November 3). *The DRM graveyard: A brief history of digital rights management in music*. Opensource.com. https://opensource.com/life/11/11/drm-graveyard-brief-history-digital-rights-management-music
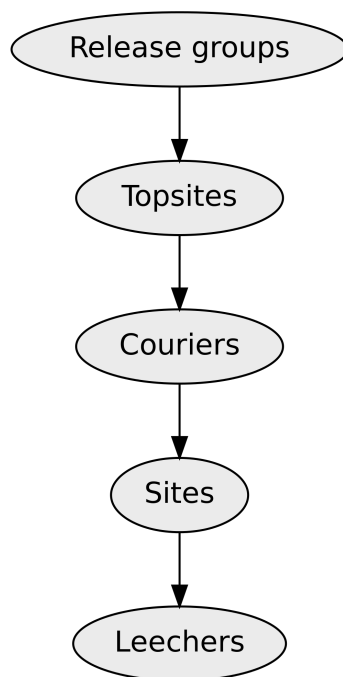[12] (2012). *Reddit*. Dive into anything. https://www.reddit.com/r/IAmA/comments/rz8i4/comment/c49vofm/?utm_source=share&utm_medium=web2x&context=3
[13] Ibid.
[14] Eve, Martin Paul (2021) *Warez: The Infrastructure and Aesthetics of Piracy*. Earth, Milky Way: punctum books. ISBN 978-1-68571-036-1.
[15] Ibid.

methods for their users, while Scene members used File Transfer Protocol (FTP) servers, standardized for the modern internet in 1985, to transfer releases between themselves[16]. Scene groups also commonly used Internet-Relay-Chats (IRC), released in 1988, for day-to-day communications[17]. Both IRC and FTP existed before the formation of the modern internet, topsites simply organized a Scene group's access to them under one portal.

```mermaid
graph TD
    A[Release groups] --> B[Topsites]
    B --> C[Couriers]
    C --> D[Sites]
    D --> E[Leechers]
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A graphical representation of the Scene post-BBS.

1997 marked the year that the U.S. government finally caught up to The Scene's activities in order to successfully prosecute its participants. The 1997 No Electronic Theft Act "added a threshold for criminal liability where the infringer neither obtained nor expected to obtain anything of value for the infringement"[18]. This along with The Scene's previously discussed shift

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[16] Ibid.
  (2002, May 24). *File Transfer Protocol*. Wikipedia. https://en.wikipedia.org/wiki/File_Transfer_Protocol
[17] Ibid.
  (2001, October 20). *Internet Relay Chat*. Wikipedia. https://en.wikipedia.org/wiki/Internet_Relay_Chat
[18] (2004, May 28). *No Electronic Theft Act*. Wikipedia. https://en.wikipedia.org/wiki/No_Electronic_Theft_Act

into the internet resulted in online piracy becoming a much more dangerous activity to partake in, not only for Scene participants but also for removed citizens. Operation Buccaneer in late 2001 was the FBI's first ever recorded attack on a WaReZ group, resulting in multiple members of the group DrinkOrDie receiving felony convictions[19]. Despite Operation Buccaneer causing substantial damage to The Scene, however, the release of the BitTorrent protocol in 2001 soon after moved the greater online piracy community to new levels of access and popularity it'd never seen before.

The Origins of Torrenting:

The BitTorrent whitepaper states that "BitTorrent is a pioneering distributed communication protocol invented by Bram Cohen in 2001. As a peer-to-peer protocol, it facilitates the transfer of large, highly demanded files, eliminating the need for a trusted central server"[20]. Below is a short description with excerpts from the whitepaper on how the protocol functions:

When a BitTorrent user (sometimes referred to as a peer) wants to download a file, the program that the user employs to interact with the BitTorrent protocol (referred to as the client) will automatically announce their request to a tracker, "a server that keeps track of which peers have which files available. Through this process, all peers are naturally segmented into 'swarms' of users, with every user in each swarm having a common interest in exchanging pieces of a specific file. Before an exchange begins, files are cut into pieces. Clients advertise which pieces of a file their user has available, and those pieces are uploaded by users who have them and downloaded by users who need them. Once a user has completed a download, they may allow their client to continue to upload pieces despite no longer needing any

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[19] (2004, June 2). *Operation Buccaneer*. Wikipedia. https://en.wikipedia.org/wiki/Operation_Buccaneer
[20] (2019, February). *BitTorrent (BTT) White Paper*. BitTorrent Foundation https://www.bittorrent.com/btt/btt-docs/BitTorrent_(BTT)_White_Paper_v0.8.7_Feb_2019.pdf

download in return; this is called 'seeding.' The default for most clients is to 'seed' to other downloaders. This activity, however, is entirely altruistic. There is no economic penalty for users closing their BitTorrent client once a download has finished", and users who choose to take advantage of this are instead "leeching", another term from the online piracy community[21].

Originally designed for etree.com, an FTP-based music community that traded live concert recordings, BitTorrent instead quickly became adopted by piracy communities across the world as their file-sharing method of choice, since they could now leave the work of making their content accessible on a server, optimizing said server's bandwidth, and securing said server from hackers and anti-piracy groups to the people behind BitTorrent trackers[22]. This did not simply constitute a transferring of responsibilities, but also a facilitation and a securement. Today, BitTorrent trackers are divided into public and private variants. Public trackers allow anyone to access their website. They place no rules or requirements on their users and do not guarantee the safety or integrity of any content their users download. Today's highest-traffic torrent trackers in the world are all public due to their ease of access and lack of seeding minimums[23]. This popularity, along with the fact that their inherent nature is to increase access to content that is pay-walled, country-locked, not officially translated, abandoned, etc, have cemented public trackers as figureheads of the anti-copyright movement, with even some trackers like The Pirate Bay garnering political support from political parties around the world[24]. Sweden's "Pirate Party", a political party that believes that "people with an access to free communication, culture and knowledge grow, feel better and create a more enjoyable and

[21] (2005, July 31). *Leecher (computing)*. Wikipedia. https://en.wikipedia.org/wiki/Leecher_(computing)
[22] Peterson, K. (2005, January 10). *The Seattle Times: Business & Technology: BitTorrent file-sharing program floods the Web.* https://web.archive.org/web/20050120091729/http://seattletimes.nwsource.com:80/html/businesstechnology/2002146729_bittorrent10.html
[23] (2023, January 22). *10 Most Popular Torrent Sites of 2023* * TorrentFreak. https://torrentfreak.com/top-torrent-sites/
[24] (2010, May 18). *The Pirate Party Becomes The Pirate Bay's New Host* * TorrentFreak. https://torrentfreak.com/the-pirate-party-becomes-the-pirate-bays-new-host-100518/

humane society for everyone to live in", also sees "modern information technology", which includes BitTorrent and its public trackers, "opening up possibilities for people to take action for their own lives and participate in affecting the development of society"[25].

The Private Tracker:

Where then do private trackers fit into all this? How does their exclusivity, which seemingly conflicts with online piracy's reputation as a radical tool for the expansion of access, coexist alongside the openness of their public counterparts? Where did they originate from, how do they function across the world, and are they as intimidating as they seem? Private trackers began with the birth of Torrentbits, created in 2003 and known for releasing the source code that many other private trackers would go on to use in the future[26]. From an archived version of the Torrentbits website in February of 2004, "Our goal is not to become another Bytemonsoon or Suprnova [two of the first public trackers]… The goal is to provide the absolutely latest stuff. Therefore, only specially authorized users have permission to upload torrents"[27]. Today, private trackers are invite and application-based communities with strict rules regarding uploads and seeding. Private trackers are thus "typically much smaller than their public counterparts but can harbor some of the most active sharers"[28]. Reasons as to why one may choose private trackers over public ones include but are not limited to a heightened sense of community, access to higher quality or hard to find torrents, media archival capabilities, increased security, faster downloads,

[25] (2013, April 13). P*irate Party Declaration of Principles/4.0*. Wikisource, the free online library. https://en.wikisource.org/wiki/Pirate_Party_Declaration_of_Principles/4.0

[26] (2006, April 5). *Torrentbits*. https://sv.wikipedia.org/wiki/Torrentbits
   (2018). *Reddit*. Dive into anything. https://www.reddit.com/r/trackers/comments/8fstrd/comment/dy6cr68/?utm_source=share&utm_medium=web2x&context=3

[27] (2004, February 11). *TorrentBits*. https://web.archive.org/web/20040211063727/http://www.torrentbits.org/faq.php

[28] (2023, January 5). *25 Private Torrent Trackers Went Offline After BREIN Tracked Down 'Scripter'* * TorrentFreak. https://torrentfreak.com/25-private-torrent-trackers-went-down-after-brein-identified-scripter-230105/

etc. To better answer the aforementioned questions and assess the concerns and opportunities within private trackers, we will take a first-hand look into a tracker by the name of MyAnonaMouse and see just how they differentiate themselves from public trackers, as well as from the common conception of private trackers.

MyAnonaMouse:

MyAnonaMouse is a private tracker dedicated to the sharing and preservation of ebooks, audiobooks, and sheet music. To become a member of the site, users enter a dedicated IRC channel and complete a short test and accompanying interview administered by one of the many site moderators. The questions asked ensure that users read the site's rules and help moderators understand why users want to be a part of the site. MyAnonaMouse's application is open year-round, which is rare to see within the world of private trackers. Consequently, they regularly see new members every day that contribute to the liveliness of their collection and community alike. While often overlooked, the community aspect of private trackers constitutes one of the most important factors separating them from public trackers and contributing to the rest of their benefits.

Community and Culture:

On their homepage, MyAnonaMouse hosts an IRC shoutbox where users can freely talk amongst themselves and discuss their latest reads or new technical difficulties they've encountered. If users want to continue their conversations elsewhere or simply have them saved, they can create a post in the site's forums, which hosts categories including "Announcements", "Support", "User", "Activities", and "Torrents". Alongside these sections, the site has various creative writing competitions, an extensive selection of book clubs, and a food corner where members can discuss anything from food fermentation to tea. Just the slightest look at the shoutbox will reveal even the lowest-rank users reporting bugs and gifting new members with download credit, at times even engaging directly with the site's moderators under their forum announcements. Public trackers rarely allow their users to talk with moderators publicly and instead normally send them to a ticketing portal for any requests, including ones that don't involve a moderator. This culture of friendship and sitewide engagement, regardless of one's rank, is part of what makes many private trackers a positive example of modern day digital civil society, and a continuation of BBS communities within the 80's. From a user on Reddit discussing their experience with PTP, a private tracker for movies and TV shows, "I've consumed so much media that it's given me a great new perspective on life, and it's really entirely based on the communities that are passionate enough to collect, archive, and enthusiastically share this content with other like minded individuals"[29].

Archival:

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[29] (2023). Reddit. Dive into anything.
https://www.reddit.com/r/trackers/comments/16d2hwc/private_trackers_are_great_communities/?utm_source=share&utm_medium=web2x&context=3

Private trackers like MyAnonaMouse are favored by many users for their library-like structures, vast and highly organized collections that have much higher "retention" times, or time before a torrent runs out of seeders, compared to torrents on public sites[30]. On MyAnonaMouse, users have a multitude of filtering options for their searches, ranging from upload date to specific awards won. This allows users to build their own media archives with the confidence that, regardless of how old their next archival piece of media is, they will be able to find it as if they were in a real library, and if they do in fact find it, seeding will be the least of their issues. Abigail De Kosnik, author of "Piracy Is the Future of Culture", explains that media archivists turn to private trackers for their archival because "the decentralisation of pirate archives, the fact that the entire system of file-sharing depends on numerous copies being stored in multiple sites, means that redundancy and mirroring – measures against content disappearance and loss – are built into internet pirate cultures. Centralised archives, even online archives that maintain mirror sites, are more vulnerable to emergency events than decentralised archives, whose contents are always already copied and dispersed"[31].

Ratio, Speed, and Accessibility:

One of the biggest concerns users of public trackers have with private trackers is their demanding "ratio" rules. From the Private Trackers Wiki, "a user's ratio is a number that is calculated based on how much the user has uploaded and downloaded. To find your ratio, you divide your upload amount by your download amount." Some private trackers opt to go "ratio-less" and don't enforce any sort of ratio requirement, generally paired with seeding requirements that ask you to seed for a certain amount of time. MyAnonaMouse uses both

[30] (2015.). Retention. Private Trackers Wikia. https://privatetrackers.fandom.com/wiki/Retention
[31] De Kosnik, A. (2019). Piracy Is the Future of Culture. Third Text, 34(1), 1–9. https://doi.org/10.1080/09528822.2019.1663687

approaches and requires that users "maintain a global (overall) ratio of 1.0" and seed their downloads for a total of "72 hours within 30 days". Private trackers generally disable a user's account or put them on a watchlist if they are violating their ratio or seeding requirements, although some are more lenient than others. MyAnonaMouse allows users to have up to 50 torrents at a time that haven't fulfilled their seeding requirements, while also providing users with methods to exempt their "hit and run" torrents with site points. The major benefit private trackers receive from using ratio requirements is that their torrents receive no leeches, consequently increasing download speeds while also fostering a giving and collaborative community culture. So while private tracker ratio requirements may seem like an accessibility barrier at first glance, low bandwidth users may actually have better experiences on them due to the faster download speeds (also caused by higher bandwidth users seeding the torrents, possibly even with seedboxes). This is not to say that ratio requirements are not deterring users away from private trackers. For higher-end private trackers, almost all users need tools called seedboxes. Seedboxes are remotely hosted servers with high bandwidth that users can rent out to upload and download files, most commonly used to preserve their ratio on private trackers. The recurring cost of renting a seedbox is another limiting factor contributing to the inaccessibility of many private trackers, given that many users cannot afford to legally buy their digital media to begin with. Luckily, long-time members of private trackers recognize the in-accessibilities present within their communities and will collectively shower new users with site credit, which they can then use to build download buffers, giving them ample time to build their ratio and engage with the site's contents. In terms of disability accessibility, many private trackers including MyAnonaMouse have support forums for users who are visually impaired.

<u>Quality:</u>

As part of their rules and requirements, MyAnonaMouse requests that no audio rips be uploaded to the site, ensuring that all audiobook torrents they track are of a higher quality than that of what can be found on public trackers. This rule is rather lenient in comparison to other private trackers that may require certain encodings or resolutions for their movies and TV shows, making their content "archive-worthy" and a major attraction for their users[32]. The usage of quality regulations amongst private trackers harkens back to The Scene's community-wide release rules, with the major difference being that private trackers get to decide for themselves what rules they impose on their own community[33]. Today, private trackers house many P2P groups, Scene-like communities that dedicate themselves to the cracking of games without the strict rulesets WaReZ groups hold themselves to. Because of this, P2P groups are mostly looked down upon by WaReZ groups, who also do not consider P2P groups as part of The Scene.

<u>Private Trackers Around the World:</u>

At the end of the day, private trackers are just bundles of Javascript, HTML, and CSS that online piracy communities have adapted to fit their needs. Consequently, private trackers can be found thriving across the globe. Invitehawk.com, a website dedicated to sharing private tracker invites, has a section dedicated entirely to foreign private trackers, and shares invites to trackers

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[32] (2015). Reddit. Dive into anything.
https://www.reddit.com/r/trackers/comments/3rhbna/comment/cwommdi/?utm_source=share&utm_medium=web2x&context=3
     Gordon, W. (2019, September 26). *Beyond the Pirate Bay: What Is a Private BitTorrent Tracker?*. PCMag.
https://www.pcmag.com/how-to/beyond-the-pirate-bay-what-is-a-private-bittorrent-tracker
[33] (2023). *» scenerules.org*. https://scenerules.org/

in Bangladesh, China, India, Italy, France, Romania, Turkey, etc[34]. Most of these trackers

prioritize content from their own country, although western media can also be found within their

libraries. As discussed earlier in the paper, regulations surrounding online piracy, and thus

private trackers, are vastly different across the globe, with most other countries being much more

lenient than the United States. Another major imbalance within private tracker communities is

caused by country bans, or the prohibition and exclusion of entire countries by private tracker

moderators. Many users in Pakistan and Sudan do not have high-speed internet access, cannot

afford to rent seedboxes, and must find other ways to access private trackers for their

well-seeded files[35]. These pre-existing disparities cause users to spoof their ratios with hacked

clients and sell/trade accounts for wages or shared access. For these reasons, Pakistan, Sudan,

and other countries in the global south are the most commonly banned amongst western private

trackers[36]. For private trackers based within the global south, membership is often easy to obtain

and upkeep, most likely since enforcing high ratio requirements would limit the growth and

profitability of the trackers substantially[37].

Conclusion:

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[34] Achelous. (2021, June 27). Private trackers [foreign/international] - Sorted by country. InviteHawk - Your Only Source for Free Torrent Invites.
https://www.invitehawk.com/topic/148272-private-trackers-foreigninternational-sorted-by-country/
[35] Howdle, D. (2018, July 10). Worldwide Broadband Speed League 2023. Cable.co.uk.
https://www.cable.co.uk/broadband/speed/worldwide-speed-league/
[36] (2015, May 3). Banned Countries at Private Trackers [Sorted by Tracker].
http://torrentinvites.org/f23/banned-countries-private-trackers-sorted-tracker-127111/
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[37] Achelous. (2021, June 27). Private trackers [foreign/international] - Sorted by country. InviteHawk - Your Only Source for Free Torrent Invites.
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Public trackers have permanently shaped the general public's conception of online piracy and the online piracy community, putting their dedication to undisputed access and openness at the forefront of the greater movement. The online piracy movement is about more than just increasing access, however, it is about surviving the conditions of capitalism together, bringing our media with us, and constructing resilient bonds that supercede physical boundaries. Consequently, private trackers occupy a nuanced yet largely unmapped position within the world of online piracy. The immediate downsides implied by their name shroud many from uncovering their countless benefits, and their common associations with eliteness and obscurity only worsen their chances of discovery. Despite all this, private trackers continue to evolve and grow into communities that push the online piracy movement forward, achieved through their media preservation capabilities, strong senses of community, and increased speeds/security, all qualities which public trackers generally lack. While their history and existence may never be known by many, the impact of private trackers will continue to be felt by the online piracy community and the rest of the world alike.

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