

ICANN87 GAC Session (DNS Abuse)

Domain Hopping and Registration Data Verification

Lessons from Ongoing Monitoring of Manga Piracy
Sites

JPMAC

Japan Publishers' Manga Anti-Piracy Conference
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Key Points

Registration data verification: issues and proposals from long-term tracking of piracy operators

Common with DNS Abuse	Bad actors act while hiding their identity
Phenomenon	Frequent "domain hopping": the same operator keeps running the same site while moving from one domain to the next
Key feature	Ad-supported piracy sites would normally want to keep the same domain, yet they change domains at short intervals
Background	Domains are cheap and easy to register even with false data, so frequent domain changes make it easy to escape anti-piracy measures



Stronger verification is needed: at registration, and after a notice with supporting evidence

JPMAC

Japan Publishers' Manga Anti-Piracy Conference

An organization of five major Japanese publishers and lawyers that works against online manga piracy

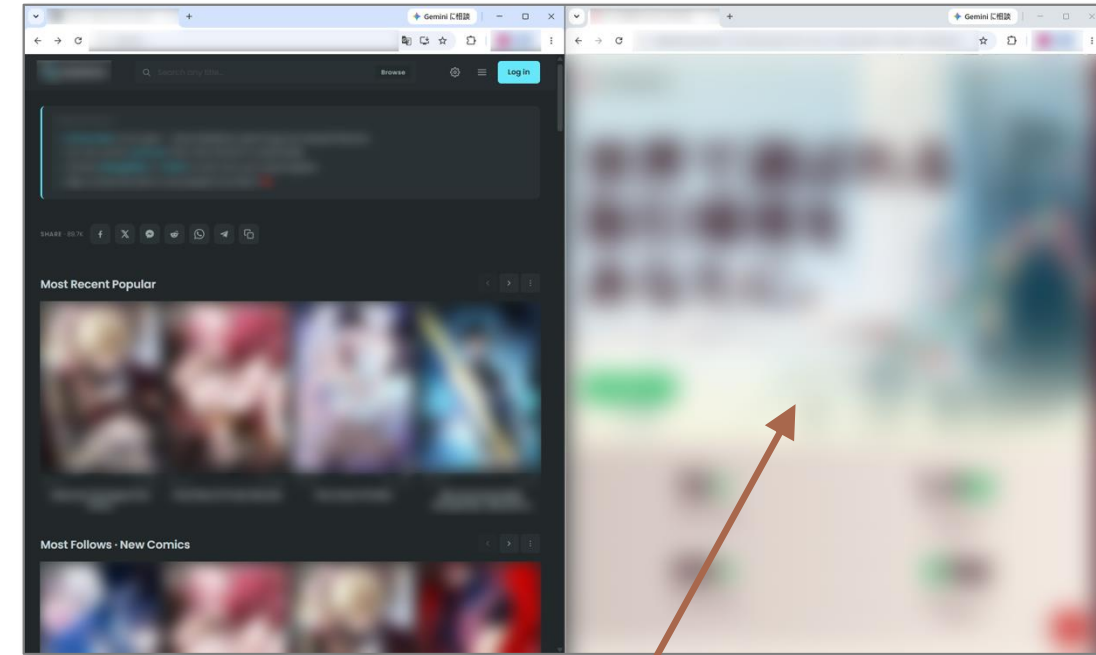
Publishers:

KADOKAWA, Kodansha, Shueisha, Shogakukan, Square Enix

Current State of Manga Piracy

- A huge number of manga are read without permission. Piracy losses for Japanese digital content (music, video, games, publishing): about USD 40.6 billion (METI-commissioned study, PwC Consulting), close to overseas sales of Japanese content (about USD 41.3 billion, 2023, METI)
- Operators hide their identity and keep hopping, so injunctions and criminal enforcement are extremely difficult
- Manga artists and anti-piracy staff are overburdened; honest fans are angry

USD figures converted at the 2023 average rate (USD 1 = JPY 140.51; IRS yearly average)



Clicking on the site
opens ads

Example of a real piracy site
(blurred)

Ads: often sexual, drug, or gambling-related

Our Focus: Piracy, Not Copyright Infringement in General

Target: piracy, meaning unauthorized exact copies

Commercial-scale piracy: 166 WTO members must provide criminal penalties (TRIPS Art. 61)

TRIPS Agreement, Article 61

"Members shall provide for criminal procedures and penalties to be applied at least in cases of wilful trademark counterfeiting or copyright piracy on a commercial scale."

Source: https://www.wto.org/english/docs_e/legal_e/27-trips_01_e.htm

Piracy: unauthorized exact copies, not simple imitation (European Commission)

European Commission MEMO/10/272 https://ec.europa.eu/commission/presscorner/detail/en/memo_10_272



Official (Japanese)

Pirated (official English)

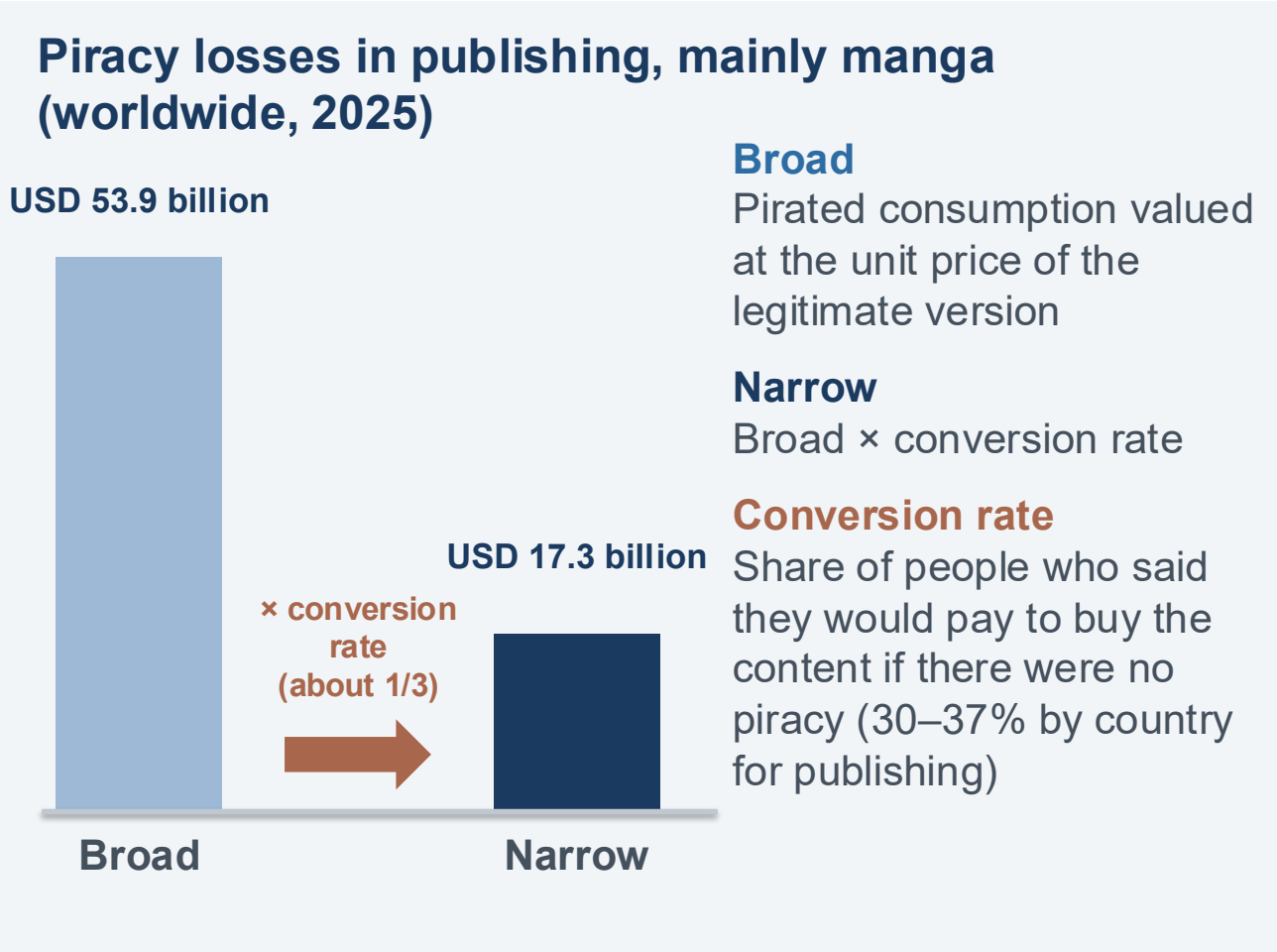
Blue Lock, Chapter 1 (Kodansha)

Pirated versions also often appear before the official English release

Same artwork: easy to check, regardless of language

Commercial-scale piracy is a crime, and rights holders are its victims

Publishing Piracy Losses: About USD 17.3 Billion per Year



English-translation piracy sites Top 5 by monthly visits (August 2026)

	Site name	URL	Monthly visits
1			292.6M
2			44.27M
3			42.39M
4			42.04M
5			33.69M
Total			454.99M

Total number of English-translation sites: 466
Visits: ABJ survey (Japanese only) <https://www.abj.or.jp/data>

Losses: PwC Consulting, "FY2025 Piracy Loss Study, Final Report" (February 2026) (Japanese only)
<https://www.meti.go.jp/press/2025/01/20260126001/20260126001.html>
Consumer surveys in six countries: Japan, China, Vietnam, France, the United States, and Brazil
USD figures converted at the 2025 average rate (USD 1 = JPY 149.63; IRS yearly average)

What Is Domain Hopping?

Domain hopping

- The same operator keeps running the same site while moving from one domain to the next
- Why they hop: (1) fewer visits per domain draw less attention; (2) easier to escape enforcement

Difference from phishing, etc.

- **Phishing, etc.:** domains are used once and then abandoned
- **Piracy sites:** would normally want to keep the same domain for advertising income

Example: hopping of one site (a relatively early case observed by JPMAC)

2022: 10 hops in about 3.5 months (returning to domain A many times)



* A, B, etc. stand for different domains.

Various hopping patterns

- Often only the TLD changes (e.g., abcde.com → abcde.top); sometimes the name also changes
- Some operators change registrars; others keep the same registrar
- Old sites may show the new domain, or the new domain may be announced on social media
- **Recently:** most operators redirect old domains to the current domain

Recent Trends: Frequent Hopping and Redirects

Hops within 15 days

82.4%

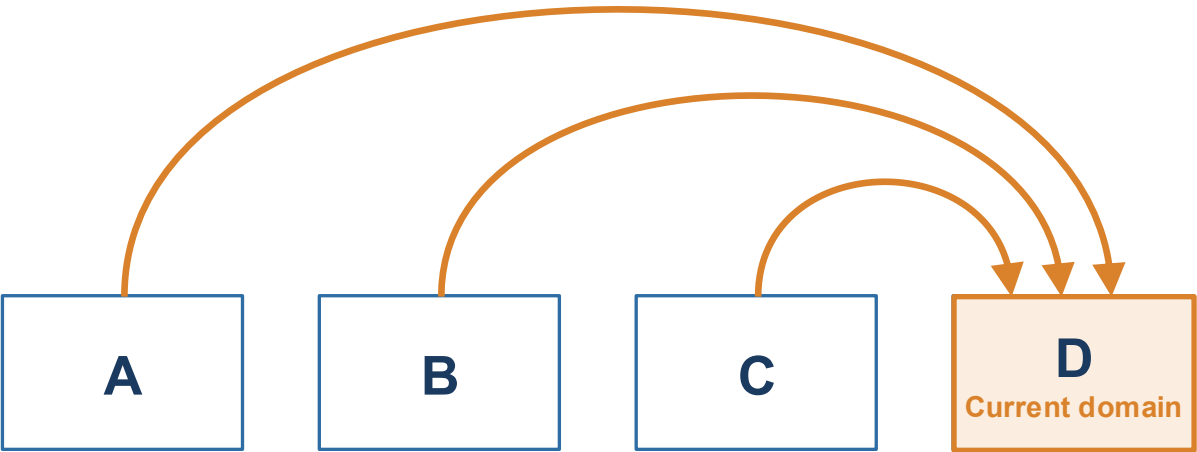
15 days = the verification period now under discussion at ICANN

Share of over 450 observed redirects that moved to the next domain within 15 days
(November 2024 – September 2026)

Intervals became shorter after removal from search results started (since fall 2022, JPMAC–Google agreement)

All old domains are redirected to the current domain at once

Recent hops often follow countermeasures (search result removal)



After action against the current domain, all old domains are redirected to a new domain at once

Number of TLD types used

Type	TLD types
gTLD	106
ccTLD	52
Total	158

The same TLD may be used more than once.

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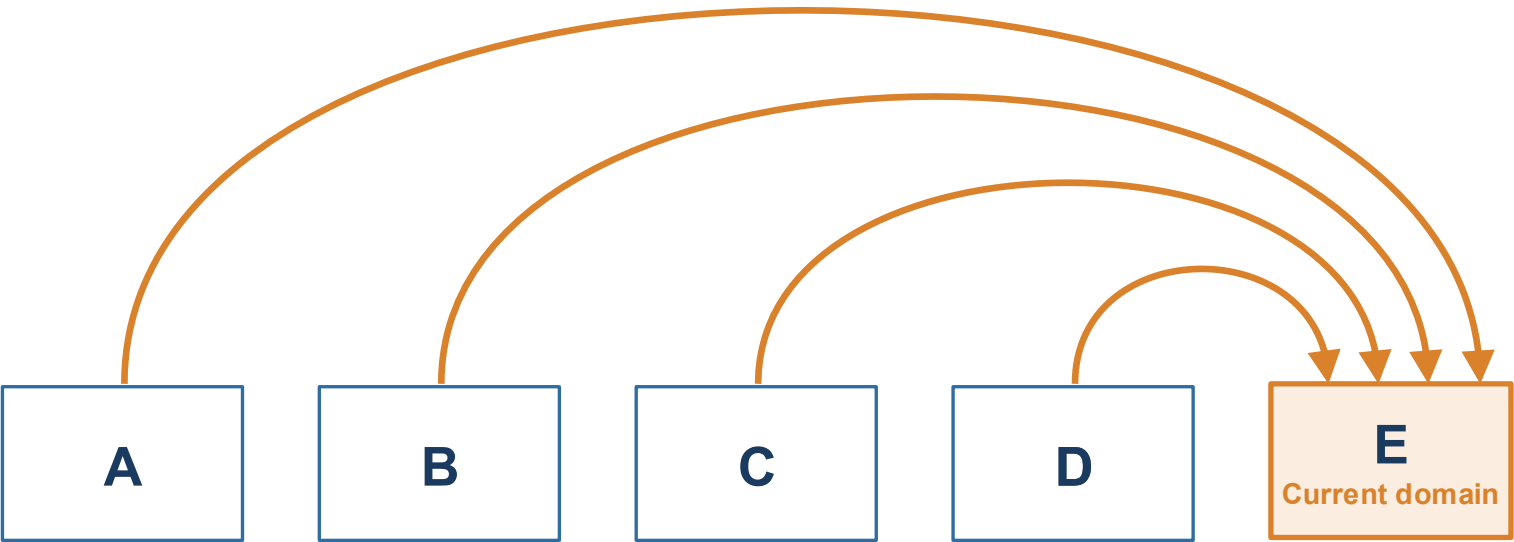
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Domain Hopping as Seen by Each Stakeholder

Site operators

- Early on, spread traffic over a group of domains to stay less visible as an enforcement target
- Hop to escape countermeasures, such as legal action and removal from search results
- Keep their users through redirects or announcements on the old site or social media

Users

- With redirects: they hardly notice domain changes
- With announcements of the new domain (on the old site or social media): used to hopping, they follow it

Rights holders

- Countermeasures, including legal action, target a specific domain or URL, so action against an old domain has no effect on the new one
- Must start again with each hop

Registrars

- A new domain may look like an unrelated new registration, even when the same operator registered it
- When an operator returns to an old domain (e.g., $A \rightarrow B \rightarrow A$), the registration stays the same, so no new verification takes place

Why Domain Hopping Happens

Benefits of moving to a new domain

- Escape countermeasures, including legal action
- Reappear in search results with a new domain after removal



Benefits of keeping the same domain

- Ad-based model: the same domain helps attract users continuously

Background: registering domains with false data is cheap and easy (also noted in the INFERMAL study)

Actual registrations with false data (disclosed via RDRS)

No. 2 manga piracy site by visits (Feb. 2025)		Shared by 10 piracy sites (disclosed Aug. 2024)	
Name	David Beckham	Name	view senven
Street Address	----, ----, CA David Beckham	Street Address	zimmmm
City	CA	Address 2	zimmmm
Zip/Postal Code	CA, -----	City	zimmmm
Phone Number	+1 1123456789	State, Zip	zimmmm, 0010000
Tech Name	David Beckham	Country	Zimbabwe
Tech Phone	+1 1123456789	Phone Number	+84 3123124123
		Fax Number	+1 5555555555

After our notices to the registrars: one domain moved to another registrar; the other changed its data to entries that look fine at first glance

Harm from Leaving the Problem Unaddressed

Those who act illegally hide their identity

Common to DNS Abuse and to other illegal acts such as piracy



Stronger verification is costly



Registrars that bear this cost are put at a competitive disadvantage

→ **A common baseline is needed for a level playing field**

Verification practices differ

ICANN79 registrar survey (15 responses)

- Verification method: email (all), phone (1), SMS (2)
- 40% go beyond the RAA (ID check: 1; manual check after a notice of inaccuracy: 4)
- Point raised: an ID check costs about USD 18 each and would more than double the registration fee

EU: NIS2 Directive, Article 28

- Requires registrars, etc. serving the EU to verify registration data for accuracy

Source: ICANN79 session (March 6, 2024)

"Registrars and ICANN: Validation, Verification, and Accuracy – Oh My!"

<https://icann79.sched.com/event/1a1DL/gnso-registrars-and-icann-validation-verification-and-accuracy-oh-my>

Expectations for ICANN

Internet intermediaries

Hosting

CDN

Advertising

- No global governance system
- Located in different countries (jurisdictions), each with different rules

Domain names

**Coordinated by ICANN:
a common global system**



Among the third parties that bad actors must rely on, only domain names are subject to common global rules through ICANN's agreements

We have high expectations that ICANN will do what it can within its existing mission

Two-Step Verification Also Useful Against DNS Abuse

Step 1: At the time of registration

- **Strengthen verification at registration**
- Current practice: mainly an email address check, which is weak by itself



Step 2: On receiving a notice with evidence

- **Verify more strictly than at registration (e.g., postal address)**
- Only for notices with evidence

No extra burden on ordinary registrants; stricter verification only after a notice with evidence

Reference: 2023 ICANN Public Comment by the Technology Verification Team, Working-Level Forum for Anti-Piracy of Japan (we support this approach)

- Verifying postal addresses takes cost and time; requiring it at every registration is unreasonable
- Overly strict verification may limit freedom of expression in countries with low press freedom
- Proposes additional verification of postal address, etc. when abuse is reported

Comment submitted to the ICANN Public Comment proceeding "Amendments to the Base gTLD RA and RAA to Modify DNS Abuse Contract Obligations" (July 20, 2023)

<https://www.icann.org/en/public-comment/proceeding/amendments-to-the-base-gtld-ra-and-raa-to-modify-dns-abuse-contract-obligations-29-05-2023/submissions/technology-verification-team-working-level-forum-for-anti-piracy-of-japan-20-07-2023>

In addition: a broader survey on how registrars verify data (the ICANN79 survey had only 15 responses)