

# TOAD IN THE HOLE OR MAPO TOFU? COMPARATIVE ANALYSIS OF ENGLISH AND CHINESE DARKNET MARKETS

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## Motivation

The development and acceleration of economic globalisation have also made it necessary to study the diversity and impact of darknet markets in different regions of the world.

## Research Aims

- To investigate, analyse and compare popular English and Chinese darknet markets
- To find out key differences between markets
- To find out whether these differences influence the behaviour of vendors, the market policies, and the characteristics of cross-market actors

## Methodology

- Data collection from three English and two Chinese darknet markets (Table 1)
- Six main aspects for describing, comparing, and analysing the data:
  - Operation model and structures
  - Product categories
  - Market policies
  - Payment methods
  - Security mechanisms
  - Vendors' characteristics

## Key Findings

- The ecosystem in Chinese darknet markets remains incomplete and less developed, but the *request-to-buy* selling mode stands out
- Chinese darknet markets have more liberal policies than their English counterparts (Table 2)
- Most listed product in English markets is drugs, in Chinese markets is leaked data (Fig. 1, Fig. 2, Fig. 3)
- Cross-market actors are active in all major English darknet markets (Table 3)

Table 1: Comparison of the Indicators and Features of the Collected Markets

	Dark0de Reborn	White House Market	Cartel Marketplace	Chinese Exchange Market	Tea Horse Road
Vendor Characteristics	Username / ID	✓	✓	✓	✓
	Profile	✓	✓	✓	✓
	Member Since	✓	✓	✓	✓
	Last Seen	✓	✓	✓	✓
	Total #Sales	✓	✓	✓	✓
	Rating	✓	✓	✓	✓
	Disputes	✓	✓	✓	✓
	Feedback	✓	✓	✓	✓
	PGP	✓	✓	✓	✓
	#Listing	✓	✓	✓	✓
Product	Title	✓	✓	✓	✓
	Price	✓	✓	✓	✓
	Category*	✓	✓	✓	✓
	Sales	✓	✓	✓	✓
	Shipping From	✓	✓	✓	✓
Market	Shipping To	✓	✓	✓	✓
	Total #Vendors	✓	✓†	✓	✓
	Total #Products	✓	✓	✓	✓
	BTC	✓	✓	✓	✓
	XMR	✓	✓	✓	✓
Fiat Currency	✓	✓	✓	✓	
CAPTCHA	✓	✓	✓	✓	

\* This is not for each product, but as an overall number. † Shown only in real-time

Table 2: Comparison of the Policies in Darknet Markets

English Darknet Markets	Chinese Darknet Markets
Child Abuse	Child Abuse (?)
Arms	Unethical Resources (?)
Animal Abuse	Politically Related (X)
Chemical/Biological Weapons	Fake Listing (?)
Murder for Hire	Online Payment (✓)
Terrorism Related	

Table 3: Comparison of the Behaviour of Vendors in Darknet Markets

English Darknet Markets	Chinese Darknet Markets
Pay more attention to building their own brands	Focus on the description of the products
Use their vendor profile or description section to promote themselves	Use their own language style
Claim and show their sales numbers and ratings in other well-known darknet markets	
Explain the return policy	
Update new products or their status	

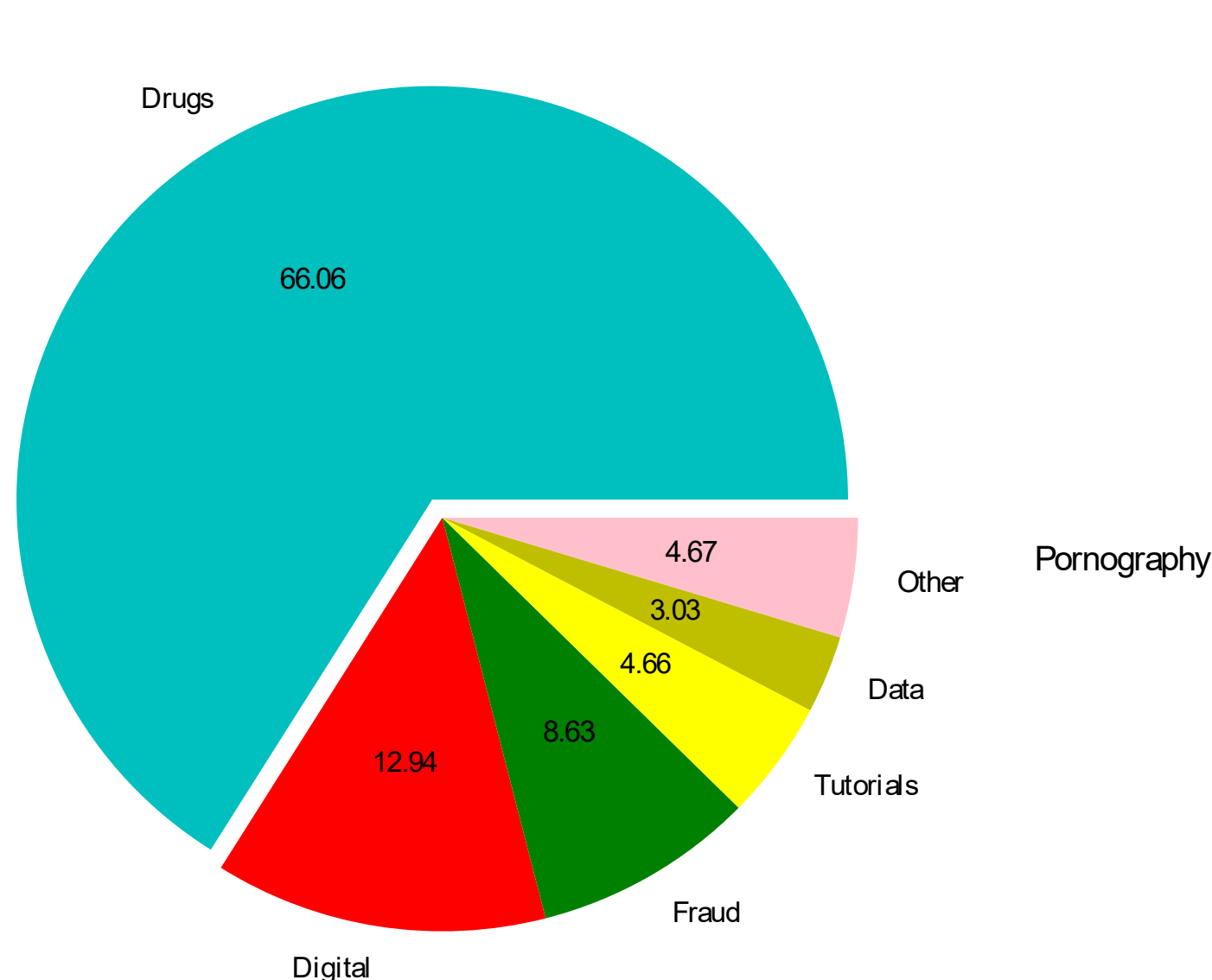


Fig 1: Categories Breakdown in English Darknet Markets

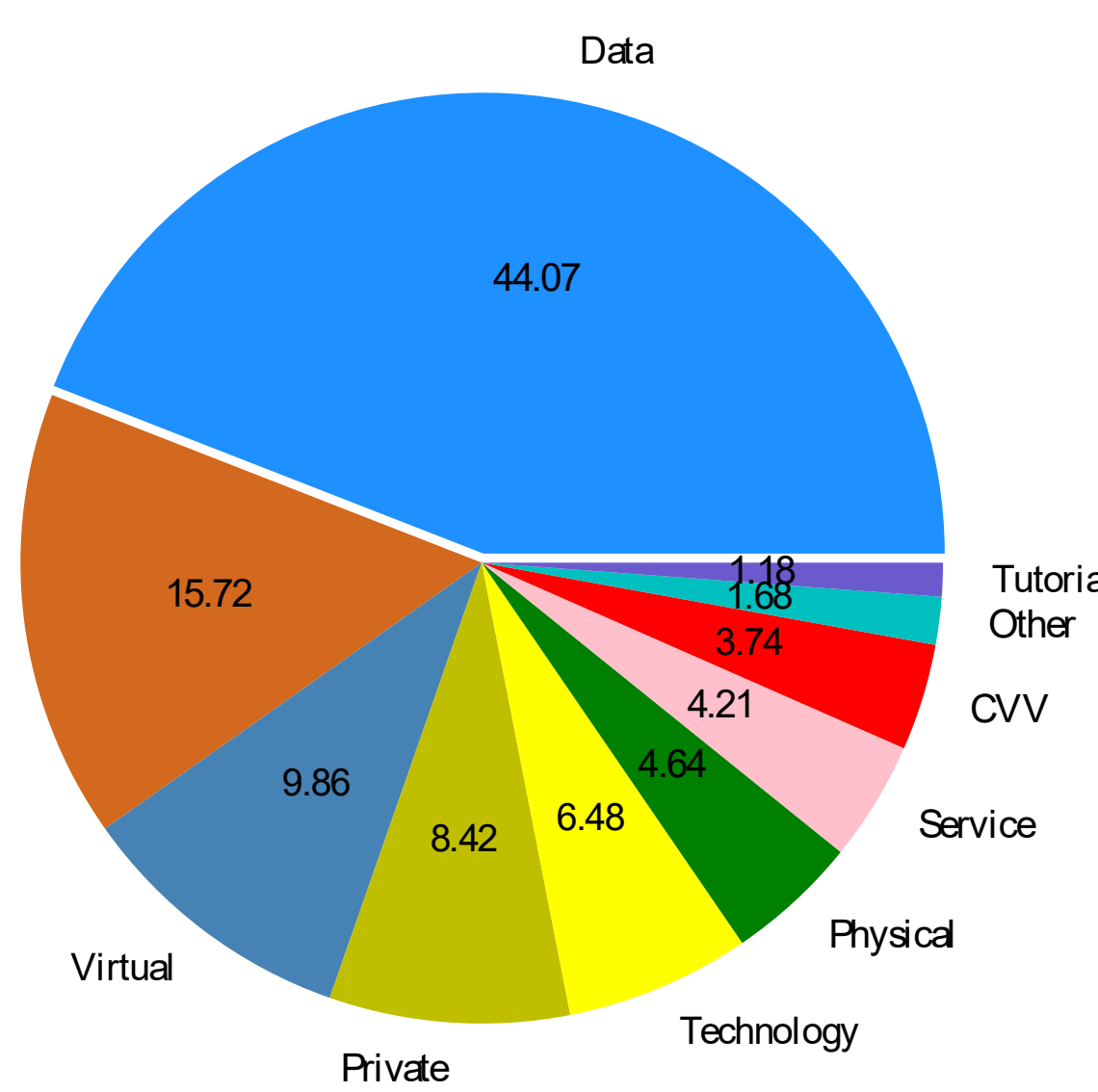


Fig 2: Categories Breakdown in Chinese Exchange Market

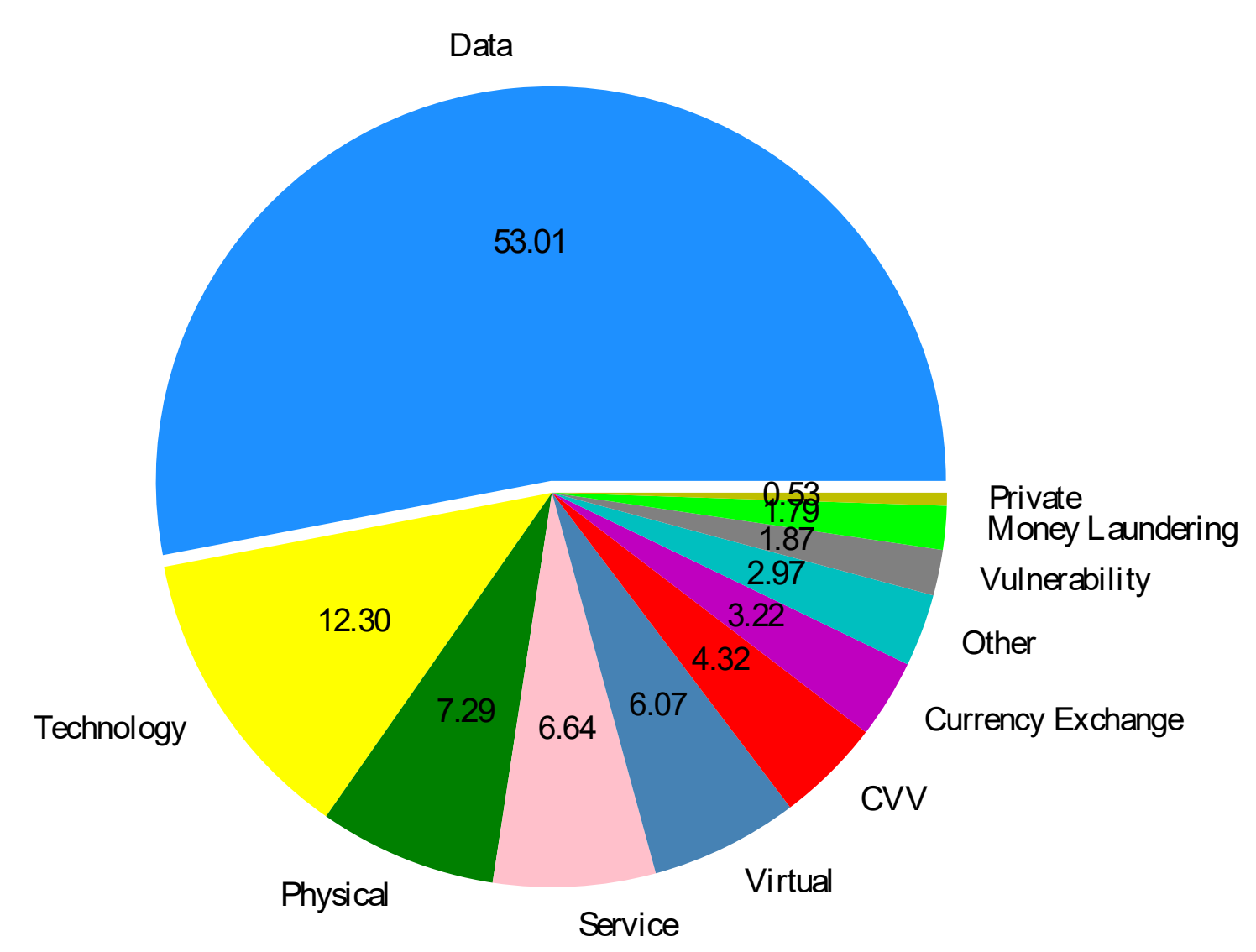


Fig 3: Categories Breakdown in Tea Horse Road with Request-to-Buy Mode

## Conclusion

- Datasets from five darknet markets
- Insights into market development and vendors' behaviour, which are helpful for future investigations
- At times, the differences found have a basis that is not only linguistic but also cultural

## Future Work

- More in-depth vendor behaviour
- Cross-market operations
- Tracking of payment methods and profits
- Sting operations

QR Code for the Paper



Adapted from a published paper:

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