

# Does unauthorised digital distribution of comic books displace sales?

Evidence from a survey of comics  
readers

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# Comic books underresearched in the context of digitisation

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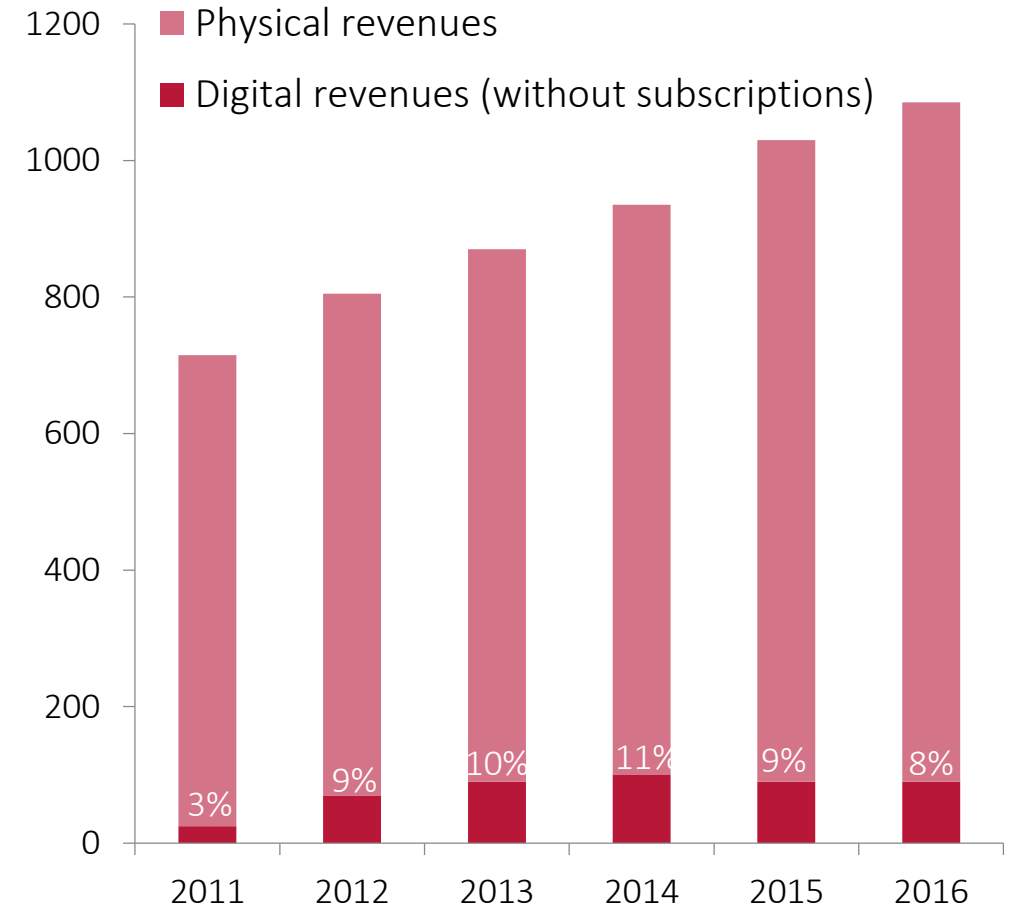


- Most studies on `piracy' about music, film, movies (few on books)
- Effects vary across types of goods and time
- Gaps in research for comics, video games, board games, 3D, etc.

# Digitisation and comics are a timely issue



- A significant share of comics revenue is digital
- And physical revenues are growing



Source: ICV2 & Comichron data

# Digitisation and comics are a timely issue



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- And physical revenues are growing
- Comics were possibly made more mainstream by movies

#1 Box Office  
opening weekend of  
all time



*Avengers: Infinity War (2018) poster*



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# Digitisation and comics are a timely issue

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Source: Ronn Roxx blog ([ronnroxx.blogspot.com](http://ronnroxx.blogspot.com))

# Digitisation and comics are a timely issue



- A significant share of comics revenue is digital
- And physical revenues are growing
- Comics were possibly made more mainstream by movies
- Unique combination: short, episodic, originally in paper
- The access to free copies is extremely easy



Cover of: *Pirate's Booty & The Avengers (2014) #1*

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# I make a twofold contribution

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- 1) Estimate the displacement rate between unpaid and paid comics
- 2) Do incentives to use a legal service affect further choices?
  - an experimental approach.

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## Three-wave survey, with a few hundred of responders

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- 1<sup>st</sup> wave, **432** responders mostly from Reddit (420)
- 2<sup>nd</sup> and 3<sup>rd</sup> waves, e-mail invitations
- **228** in at least two rounds, **157** responders in all three
- Median **age: 25-34** (but 24% at least 35 years old)
- **90% male**
- **69% USA**, **19%** from other English-speaking countries
  
- Other info used in the study: frequency of comics reading, interest in comics, comics readership, comics valuation (in one wave), some additional info.



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# Consumption of 150 top comics from Jan-Mar 2018

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In each wave:

- Info on readership of 50 top-selling comics issues from previous month
- Channels: paid print, paid digital, unpaid digital, subscription, borrowed
- 150 to comics in total from 46 comics series, 93% Marvel/DC
  - 9 series in one month, 14 in two, 23 in three

## Correlations between the purchases in the sample and the market sales

Survey round 1 - February	0.77
Survey round 2 - March	0.70
Survey round 3 - April	0.63
Total	0.59

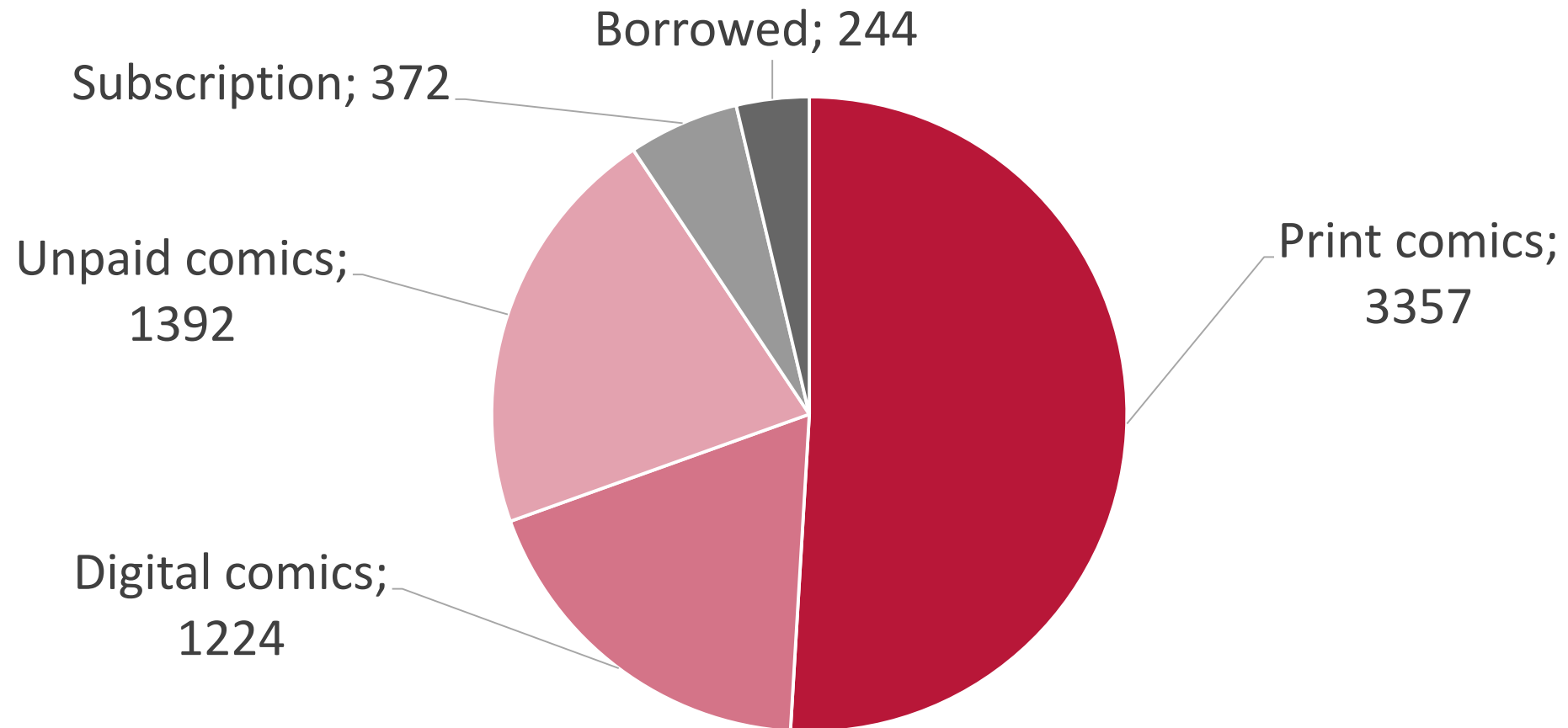
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# Consumption of 150 top comics from Jan-Mar 2018

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Channels of acquisition from all three waves



# 'Unpaid' consumption hurts physical sales but not digital



*Regressions on a reduced sample (only responders and comics series in three rounds)*

	OLS regressions		Panel regressions with FE	
	(1) Print purchases	(2) Digital purchases	(3) Print purchases	(4) Digital purchases
Unpaid reads	-0.32* (0.06)	-0.03 (0.05)	-0.40* (0.14)	-0.15 (0.10)
Frequency of reading	Included		Fixed effects	
Interest in comics				
Other controls	Age, gender, survey rounds		Survey rounds	
Observations	468			
Responders	156			
R-squared	0.24	0.07	0.20	0.02

Robust standard errors in parentheses. \* p<0.01.

# A comics perspective confirms the results



*Panel: comic series x issues. Regressions on comic sales on restricted sample.*

	(1) Print purchases	(2) Digital purchases
Unpaid reads	-0.32** (0.16)	-0.02 (0.10)
Controls	Issue, survey rounds, sales, price + Fixed Effects	
Observations	108	
Comics series	22	
R-squared	0.10	0.13
Robust standard errors in parentheses. ** p<0.05.		

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# Treatment = digital comics prizes from a top service

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## Two types:

- 1) 10€ sets of digital comics of own choice (40 in Feb, 50 in Mar, 90 in Apr)
- 2) A comic issue not previously read (50 in Mar)

## Procedure for type 1:

- a) E-mails sent about the prizes
- b) Winners go to ComiXology, browse the catalogue, check prices, construct a bundle, send it to me via e-mail
- c) They get the bundle as a gift purchase
- d) They have to register (if they weren't) to redeem it.

**Should overcome: uncertainty, learning, setup costs.**



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# Treatment = digital comics prizes from a top service

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## Two types:

- 1) 10€ sets of digital comics of own choice (40 in Feb, 50 in Mar, 90 in Apr)
- 2) A comic issue not previously read (50 in Mar)

## Procedure for type 2:

- a) For each winner I check comics not marked as read
- b) When possible, only from the sample with valuations and issue #1s
- c) I pick one and buy it as a gift

**Question: did they read the next issues of the series?**

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# The prizes changed NOTHING

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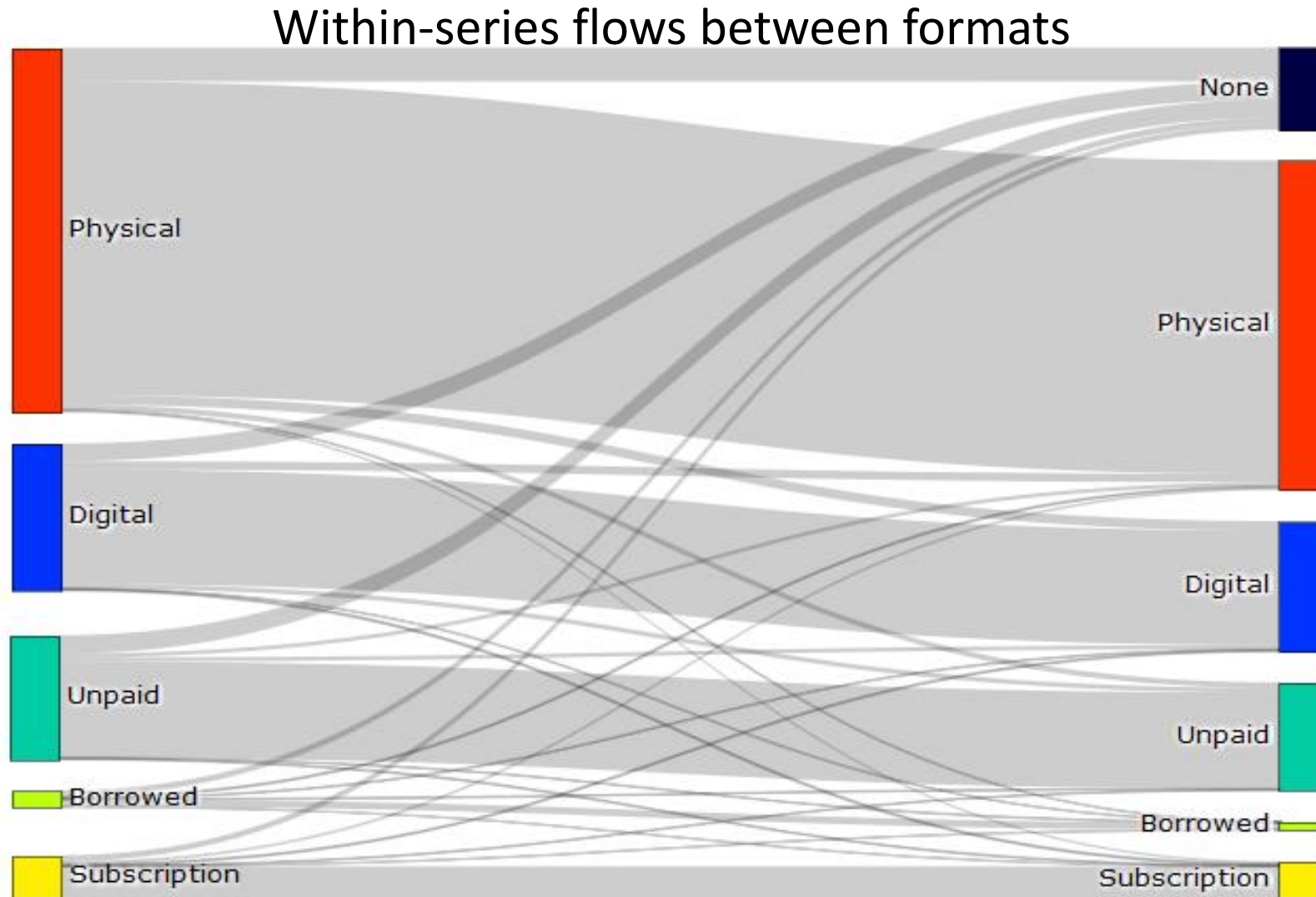


- No change in unpaid consumption
- No change in paid consumption (physical or digital)
- No difference in valuations of digital versions
- No change in probability of buying the follow-up

Does not help to:

- Use (non-)parametric tests of equality, fixed effects, seemingly unrelated regressions
- Control for / interact with whether ComiXology ever used before the survey
- Only look at acquisition of #1 issues
- Control for / interact with whether ever read without paying
- Control for / interact with the valuation of the assigned prizes

# Not much format switching within-series



*Note: flows from „none” excluded for clarity.*

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## Possible reason 2: the pirated comics were low-valued

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	Value to price ratio		Value > Price	N
	Mean	Median		
Not acquired	0.65	0.58	21%	1701
All acquired	0.82	0.75	38%	289
Physical	0.71	0.75	25%	159
Digital	1	1	62%	68
Unpaid	0.67	0.6	27%	41
Borrowed	1.3	1.3	57%	7
Subscription	1	1	74%	23

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Print readers also attach a low value to the digital

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# Piracy is problematic for comic book industry

- Piracy displaces print sales in my sample (not digital)
- Very 'sticky' channels
- Piracy is a go-to channel for low-valued content
- Difficult to convert the pirates to buyers instead
- Limitations: subscription, graphic novels, trade paperbacks (collections), non-major titles

Cover of: *Pirate's Booty & The Avengers* (2014) #1



Thank you!  
Wojciech Hardy

IBS project 2017-2020: Funded by National Science Centre.

*„There but not back again. A Pirate’s tale.*

*Switching between the authorised and unauthorised source of cultural goods”*

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