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“Valuing the Public Domain”

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World Intellectual Property Organization

16th June 2015



Research and analysis

Copyright and the value of the public domain

From: [Intellectual Property Office](#)
 First published: 24 March 2015
 Part of: [Intellectual property research: Copyright](#)

Research exploring how value is generated from the public domain.

Document



[Copyright and the value of the public domain](#)

PDF, 3.22MB, 81 pages

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Detail

Research between the Intellectual Property Office, University of Glasgow, CREATE Centre and British business explores how value is generated from the public domain.

- the project was to map the size of the public domain and frequency of its use
- to look at the role of public domain works in value creation for UK businesses
- how this would assist creators and entrepreneurs to identify business models that benefit from the public domain

Published:
24 March 2015

From:
[Intellectual Property Office](#)

Part of:
[Intellectual property research: Copyright](#)

Brief:

- Map the public domain and the frequency of its use;
- Analyse the role of the public domain in both direct and indirect value creation for UK firms and the wider economy;
- Assist UK media companies in identifying and developing business models that draw benefit from public domain material.

Definition of public domain for empirical study

Type	Examples (UK)	Included in definition?
Works out of copyright	Term has expired (e.g. literary and artistic work created by authors who died prior to 1944, as beyond life of author plus 70 years term)	Yes
Works that do not qualify for protection	Works never protected (myths, folklore); Ideas, not expression (e.g. facts, inspiration for genre, plots and characters)	Yes, needs specific assessment for individual derivations, but then commercial exploitation is unrestricted
Privileged uses of works (by statute)	Exceptions (e.g. fair dealing for news reporting, review and criticism)	No, since only specific uses are covered (making exploitation of derivative artefacts commercially problematic); Orphan works could be included in future study after implementation of UK legislation (October 2014)
Permitted uses of works (by licence)	Creative Commons and Open Source (e.g. GPL) licences	Yes, if permitting commercial and non-commercial uses, without downstream restrictions
Tolerated uses of works	Some machinima and fan projects (e.g. comics, books, translations, games)	No, since toleration is uncertain, and may be revoked

3 empirical studies

1. SMEs: Understanding decision-making around exploitation of public domain materials in small UK media firms.
2. Crowdfunding: Do public domain materials have an impact on success of Kickstarter media projects?
3. Wikipedia: Assessing the contribution of public domain photographs to the value of individual webpages on Wikipedia

Study I: Uptake of Public Domain Materials by Creative Firms

(lead: Kris Erickson)

Research questions

- What factors prompt decisions by creative managers to use public domain materials in a commercial context?
- What strategies have commercial users of public domain materials adopted in response to specific challenges of working with PD content?

Method

- Build sample list of firms by searching on known public domain works exploited commercially in UK. Sample = 39 responses= 22 rate = 56%)
- Semi-structured interviews with carried out by 4 researchers, lasting approx 1 hour each
- Iterative coding to identify 1) themes and 2) approach taxonomy

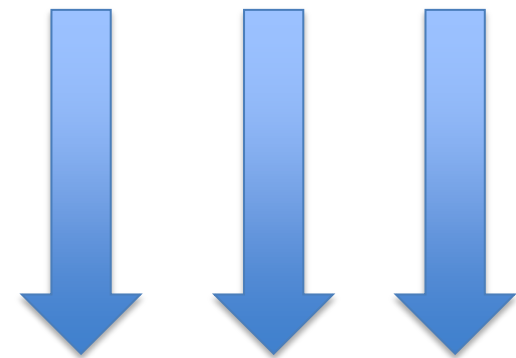
Theoretical context:

Sociology of media work, incentives and risk

(Neff, et al, 2005; Hesmondhalgh, 2002; Deuze, 2007; Hotho & Champion, 2010; Neff, 2012; Schlesinger and Waelde, 2012; Noren, 2014)

- Risk in culture industry work
- Industry churn and failure rate
- Creative satisfaction and incentives
- Attracting and managing creative people

Commercial IP

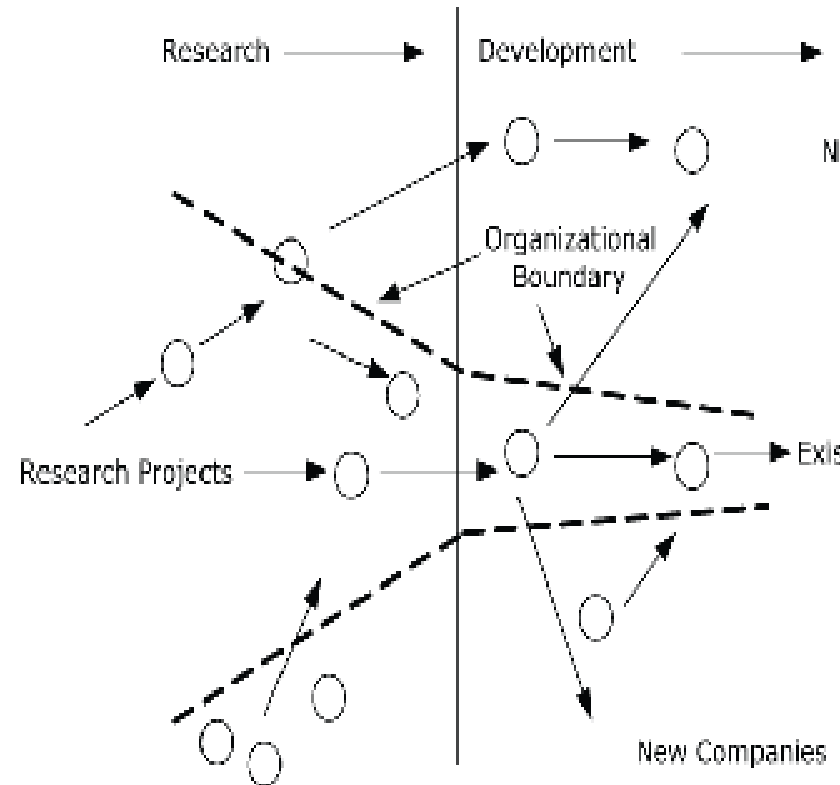


Multiplatform development studios

Theoretical context:

'Private-collective' innovation,
management of commonly-held resources,
(Teece, 1986; Raymond, 1997; Chesborough, 2003; von Hippel and von Krogh, 2003; Fauchart and von Hippel 2006; Haefliger et al 2010; Hill, 2011)

- Motivations and rewards for contribution
- Appropriability and firm behaviour
- Monetising non-proprietary innovation
- Role of user in innovation process



RQ1: Public domain incentives

I read Dracula when I was probably about ten and I've been obsessed with it ever since, as so many people are. I can't actually imagine the world without Dracula, it's so well known. I think it's lodged in our imagination and it connects with our subconscious in all sorts of obscure ways. I've always enjoyed the old movies of it but it was really the original book that inspired me to make the production.

It's really a love of the book, of the original material. The production seemed to connect with people and it's good to capture the magic of something and share it with people.

Mark Bruce Company



I've worked in the music business for 10 years, so I was very much aware of the songs we were able to have [...] I was completely educated on the complication of using other people's work. So that's it in a nutshell: very complicated, very administratively heavy to the point where you can really curb creativity, at least from a sort of newbie perspective.

MyVox



Protectability

If you like, the wrapping that we create will remain something that is ours. But I think that within the games sector you are in a different position compared to film and tv, in that you can't copyright gameplay ideas, anyway. So really the only IP that we are going to create is the product we make. There's nothing stopping anybody saying 'oh, that did really well, we'd really like to do that and make our own Jack the Ripper documentary' and you know, reusing the materials and heavily taking the gameplay style and things like that

Auroch Digital



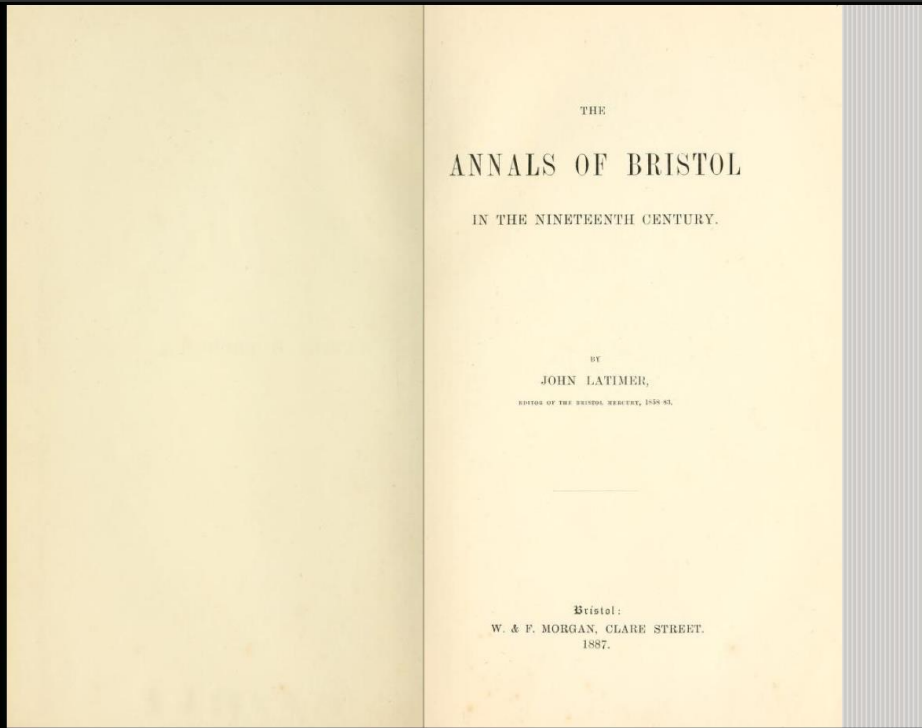
Searchability and Quality

The key text, as it were, for Bristolian history is a three-volume history of the city by a guy called John Latimer. Latimer's Annals of Bristol in the 17th, 18th, and 19th Centuries are sort of the bible of local history. He self-published these over 100 years ago. These are very difficult to get ahold of and very expensive if they do come up at all. Suddenly, they are available online, and they are searchable.

On a couple of occasions, I have actually talked to writers, steampunks for the most part, who are very interested in Bristol's industrial history and creative process and all that. This means talking to a whole group of writers at least some of whom will go out and create stuff on the basis of key texts about Bristol history, being available online.

Author Eugene Byrne





The annals of Bristol in the nineteenth century

by Latimer, John, 1824-1904

DOWNLOAD OPTIONS

[ABBYY GZ](#)

1 file

AIRSHIP SHAPE
&
BRISTOL FASHION



A Generalised Value Chain Model for Creative Businesses



Activities:

Locate and secure
creative inputs (in-
licensing)
Talent acquisition /
development
Idea generation

Production
Manipulation
Coding
Editing

Selection of product
features
Selection of
channels
Packaging
Advertising

Point of Sale
Transmission
Retail
Payment
processing

Usage
Feedback
Data
Remix
Co-production

Adapted from Feller et al (2006), Aris & Bughin (2009) and Wirtz (2011)

RQ2: Public Domain Business Models



1) Portfolio builder



2) Technology platform aggregator



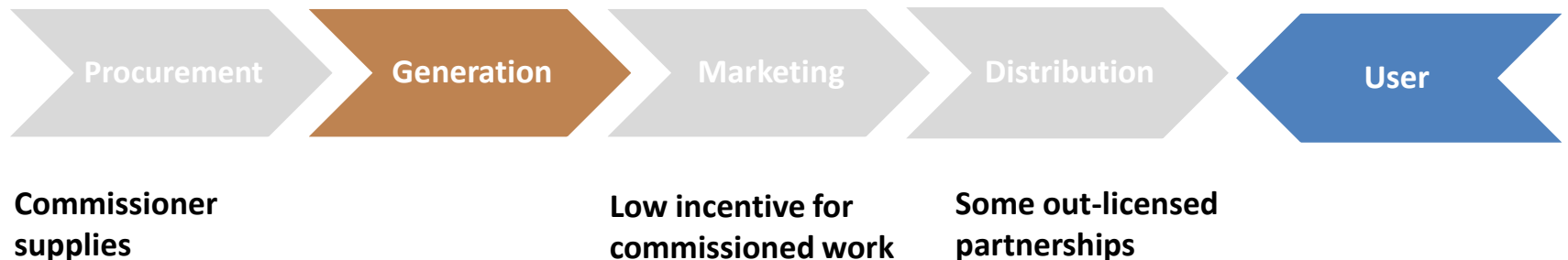
4) Flexible entrepreneur



3) Fan community engager

1) Portfolio builder

- **WFH model**
- **Firm wins commissions from creative capabilities**
- **Investment in creative production**
- **Connect with event of public significance**
- **Value proposition is meeting public demand at appropriate time & place**



2) Technology platform

- Investment in technology ‘wrapper’
- Code intensive – trade secret & copyright assets
- Competitive Product feature innovations include user interface and display devices
- Value capture via subscription product
- Competitive catalogue size and quality
- Responsive to user input in design and offering



Low incentive to invest

3) Fan community engager

- Advantage of high quality & research
- In-licensing of complementary IP (story extensions, frameworks, software, rulesets)
- Large investment in creative production
- Co-production, open model, sharing innovation
- Users co-produce content / story ideas
- Competitive advantage is close, intimate knowledge relationship w/ user groups



Word-of-mouth

Reliant on 3rd party channels

4) Flexible entrepreneur

- Spotting market opportunities
- Knowledge of IP is source of competitive adv.
- Hybrid PD/copyright licensing approach
 - Some in-licensing, some in-house. Advantage is in scale, workflow
 - Larger investment in marketing
 - First-to-market strategy to protect exclusivity



Private-collective creativity?

- Diffuse an innovation which increases innovator's profits through network effects or the sale of complementary goods (Von Hippel & Von Krogh, 2003)
- Incorporating free software may help developers 'fulfill the credible promise' of a prototype, (Von Krogh, 2003; Haefliger et al, 2008: 189)
- Lower cost of IP protection and manufacturing
- Increased speed-to-market (Stuermer et al, 2009)

- Search and Integration costs (Haefliger et al, 2009)
- Difficulty of differentiating from competition
- Need to protect business secrets
- Cost of managing community contributions
- Organisational inertia (Stuermer et al, 2009)

Study II: Measuring Performance of Public Domain Works on Kickstarter

(with Fabian Homberg)

4 entrepreneurial choices:

- Develop and publish **original content**
- Obtain **license** and re-present existing **copyright work**
- Re-use work from the **public domain**
- Significantly remix and **originally transform** any of the above
[Original, third party copyright, public domain]

RQ: To what extent does the IP status of a Kickstarter media project influence its chances of success?

Crowdfunding Theory: Information asymmetry

Potential backers possess less accurate information about sellers' ability to deliver quality product!

(Akerlof, 1970; Kuppuswamy & Bayus, 2013; Agarwal et al 2013; Hsu & Ziedonis, 2013; Zvilichovsky et al. 2013; Ahlers et al 2012)

- Reputation signaling
- Non-repeated transactions
- Crowd due diligence? Low individual incentives
- Non-professional ethos of platforms
- Herding behaviour can override useful signals

Hypotheses 1

IP status of project serves as a quality indicator to potential backers, increasing their confidence in quality.

H1a: Public Domain works are positively associated with funding level.

H1b: Licensed copyright works are positively associated with funding level.

Hypotheses 2

IP status of projects provides some information about price which helps creators (sellers) and backers agree on the value of goods, prompting higher likelihood of a successful transaction.

H2a: Public Domain works are positively associated with success.

H2b: Licensed copyright works are positively associated with success.

Dataset

Computer-assisted human coding with 6 PGR research assistants

Sample all projects (successful, unsuccessful, suspended) from Q1 (Jan-March) 2014. n=1,993

Includes media product categories: Publishing, Video Games, Comics, Theatre

Excludes devices and products where copyright not applicable.

Main Variables

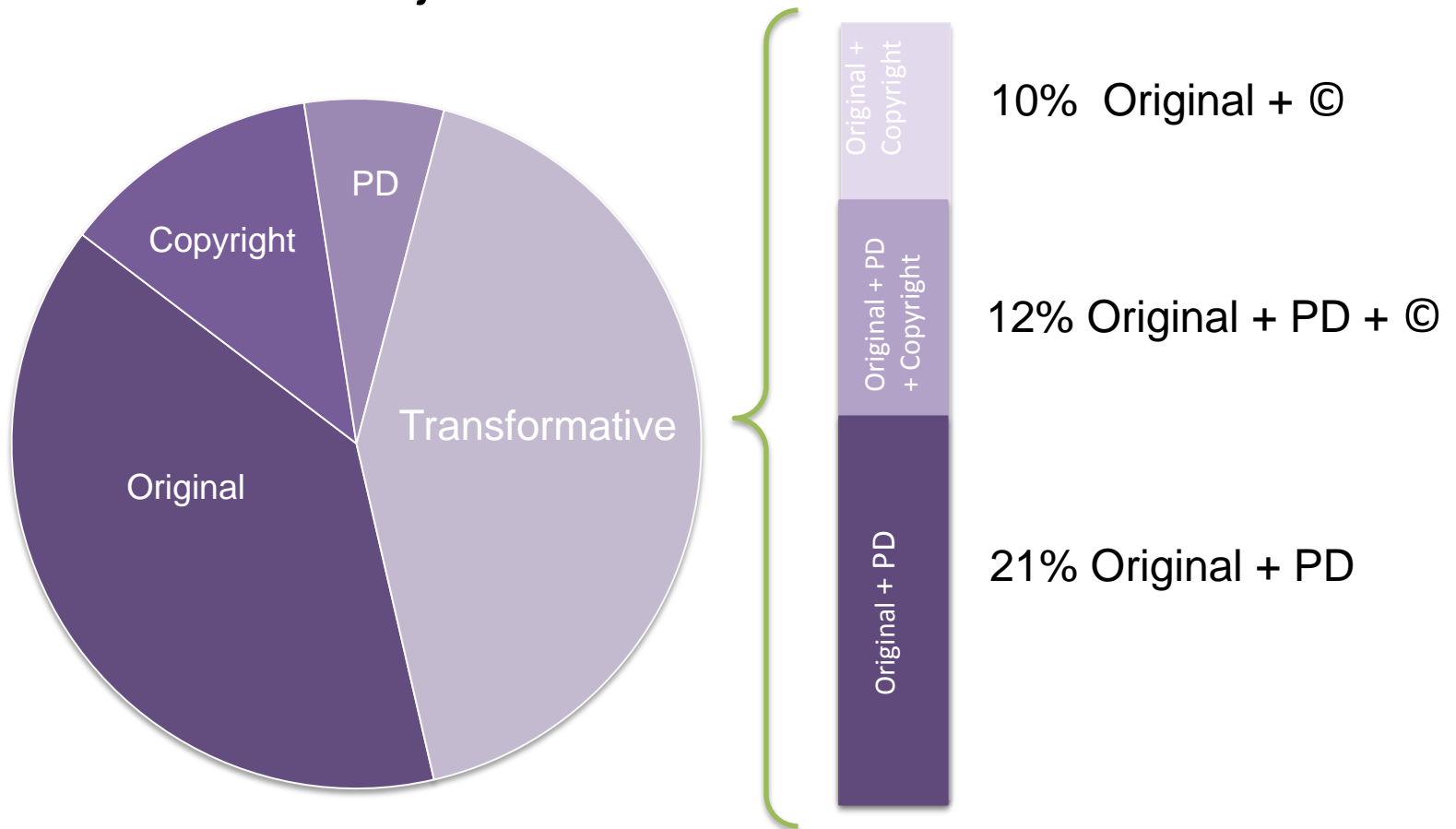
Success?	(0,1)
Funds Raised	(numeric)
Number of Backers	(numeric)
Media type	(categorical)
Main source of IP	(original, PD, copyright, CC)
Inputs Present in transformative work	(original, PD, copyright, CC)
Public domain rationale	(expiry, pre-copyright, below threshold, exceptions)
Type of copyright license	(prior, post, not indicated)
Previous experience of creator	(projects launched, funded)
Status of pitch creator	(obscure, known)
Team Size	(categorical)
Gender	(categorical)
Video?	(0,1)

Descriptive results

	All categories	Comics	Theatre	Video Games	Publishing
Original	1657 (83%)	242 (79%)	144 (59%)	215 (91%)	1056 (87.5%)
Copyright	220 (11%)	22 (7%)	67 (27%)	12 (5.5%)	119 (10%)
Public Domain	116 (6%)	44 (18%)	33 (14%)	8 (3.5%)	31 (2.5%)
Total	1993	308	244	235	1206

Descriptive results 2

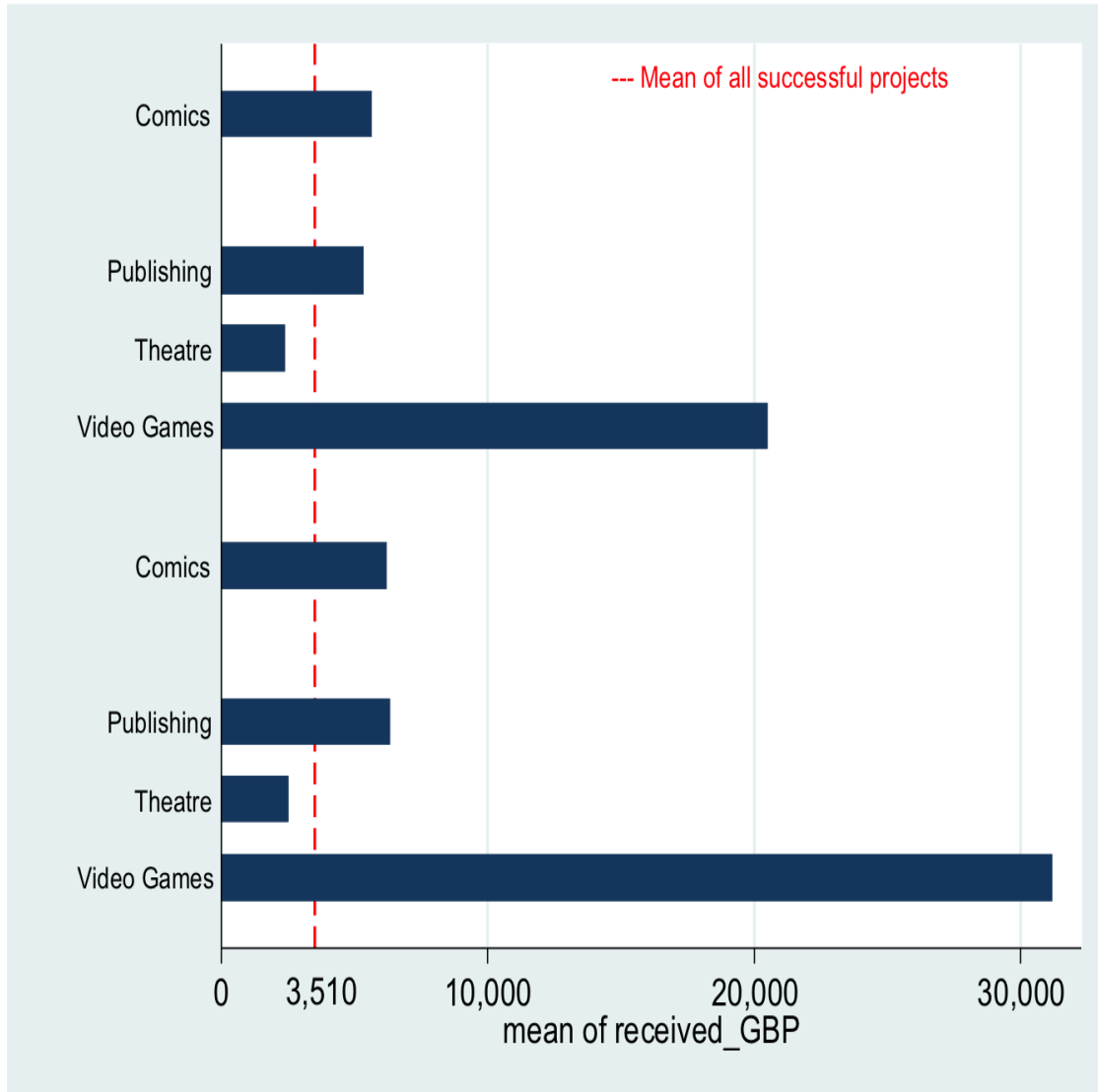
Copyright Status of Media Projects



Descriptive results 3

All project types

Containing public domain work



Model: Funding level

VARIABLES	(1) log_GBprec	(2) log_GBprec	(3) log_GBprec
PD	0.804*** (0.217)	0.412 (0.378)	0.450*** (0.169)
ThirdPCR	0.514*** (0.168)	-0.350** (0.171)	-0.0382 (0.148)
Permission sought		0.569*** (0.195)	
Cstat: Obscure		-0.650 (0.723)	-0.330 (0.256)
Cstat: Community		-0.205 (0.734)	0.482* (0.273)
Cstat: Beyond		0.279 (0.768)	1.122*** (0.311)
Cstat: recognisable		0.339 (1.444)	2.070 (1.283)
No experience		-1.149*** (0.378)	-1.121*** (0.187)
Some experience		-0.384 (0.399)	-0.362* (0.197)
Successful exp.		1.412*** (0.475)	0.915*** (0.258)
Male		-1.002*** (0.161)	-0.724*** (0.0972)
Constant	6.066*** (0.0580)	7.671*** (0.703)	7.010*** (0.237)
Observations	1,878	652	1,878
R-squared	0.011	0.234	0.199
Adj.-R-squared	0.010	0.217	0.195

Model: Success

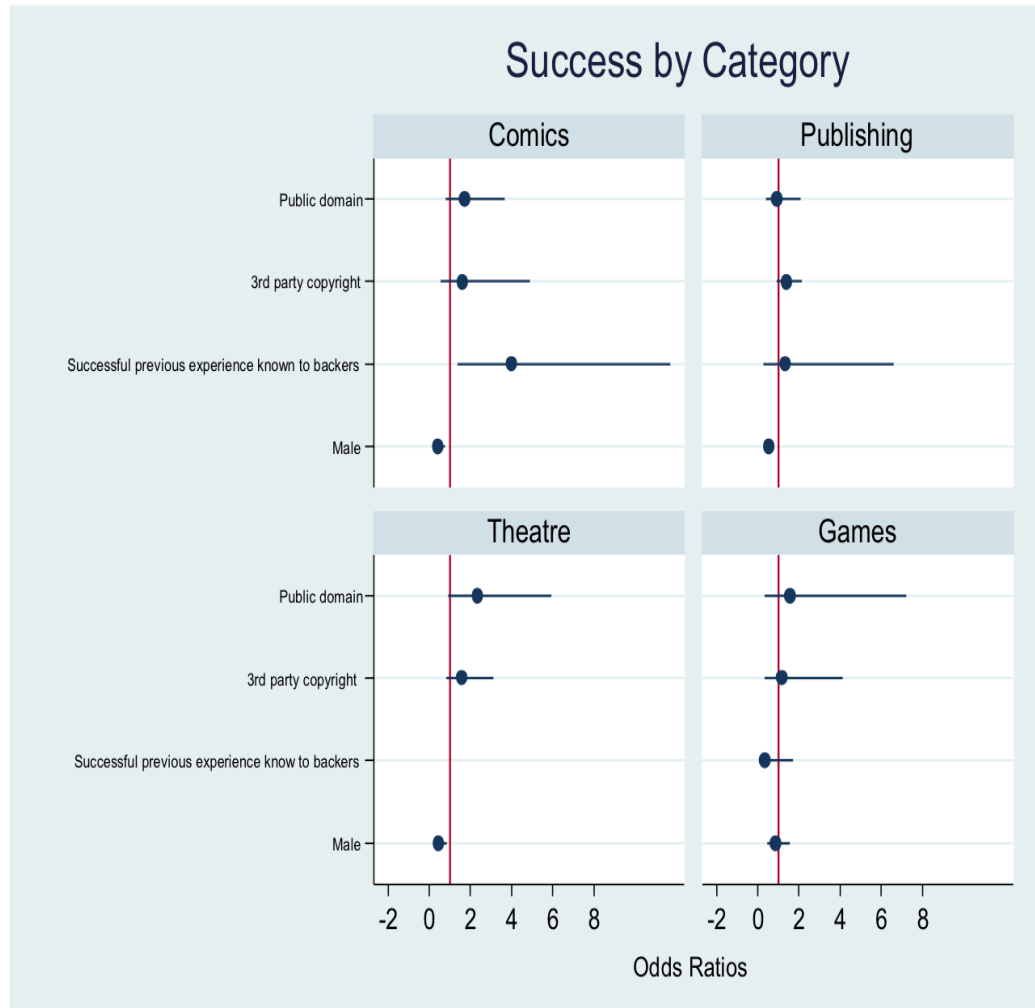
	(1)	(2)	(3)	(4)	(5)
suc_dum1	Success	Success	Success	Success	Success
VARIABLES	odds ratio	odds ratio	odds ratio	odds ratio	odds ratio
PD	2.786*** (0.532)	2.990** (1.479)	3.082** (1.602)	2.820** (1.440)	2.321*** (0.470)
ThirdPCR	2.353*** (0.343)	2.268*** (0.391)	1.798*** (0.329)	1.741*** (0.316)	1.705*** (0.267)
Fiction		1.018 (0.305)	1.115 (0.351)		1.193 (0.239)
Permission sought		2.076*** (0.454)	2.184*** (0.507)	2.217*** (0.512)	
Sought after funds		1.044 (0.185)	1.262 (0.241)	1.270 (0.242)	
Cstat: Obscure			0.472 (0.327)	0.482 (0.333)	0.464*** (0.118)
Cstat: Community			0.729 (0.517)	0.713 (0.504)	0.970 (0.265)
Cstat: Beyond			0.945 (0.731)	0.879 (0.676)	1.990** (0.688)
No experience			0.364** (0.156)	0.337** (0.143)	0.536*** (0.109)
Some experience			0.566 (0.248)	0.539 (0.235)	0.889 (0.184)
Male			0.555*** (0.0926)	0.554*** (0.0919)	0.587*** (0.0575)
Constant	0.640*** (0.0319)	0.645 (0.194)	2.471 (1.729)	2.618 (1.659)	1.595 (0.468)
Observations	2,040	696	696	696	2,040
McFadden R2	0,022	0,044	0,105	0,100	0,108

Model: Success by category

	(1)	(2)	(3)	(4)
	Comics	Publishing	Theatre	Video Games
VARIABLES	odds ratio	odds ratio	odds ratio	odds ratio
PD	1.707 (0.665)	0.904 (0.381)	2.353* (1.111)	1.543 (1.214)
ThirdPCR	1.634 (0.915)	1.405 (0.301)	1.604 (0.544)	1.160 (0.750)
fiction_dum1	1.240 (0.649)	1.183 (0.159)	1.082 (0.400)	1.695 (0.948)
cstat2	0.808 (0.271)	0.584 (0.405)	1.117 (0.472)	0.189 (0.222)
cstat3	1.410 (0.678)	1.834 (1.275)		0.801 (0.858)
cstat4	4.209 (3.918)	2.602 (1.945)		
cstat5	0.185 (0.295)	-		
prev_dum2	1.852 (0.821)	0.454 (0.334)	0.770 (1.069)	0.595 (0.256)
prev_dum3	2.331** (0.767)	0.566 (0.417)	1.248 (1.637)	1.177 (0.535)
prev_dum4	4.015** (2.193)	1.335 (1.088)		0.348 (0.282)
male	0.426*** (0.124)	0.564*** (0.0745)	0.475** (0.144)	0.850 (0.262)
Constant	0.995 (0.559)	1.170 (0.861)	1.630 (2.207)	1.691 (2.138)
Observations	308	1,205	244	235
McFadden R2	0,122	0,109	0,046	0,054

Findings: medium-specific

Odds Plot: Main variables by category of medium



Conclusions

- Use of both public domain and third party licensed material were significantly associated with higher likelihood of project success.
- Influence of public domain status on success rate was most pronounced in Comics and Theatre, compared with Publishing and Video Games. Suggests that role of PD materials differs across mediums.
- Explicitly obtaining copyright permission to use a third party work in a Kickstarter pitch was significantly associated with higher funding levels achieved.
- Previous experience and status of pitch creator was also significant to project success, suggesting that familiarity of both underlying work and its creator is important to Kickstarter funders.

Study III: Valuing Public Domain Photographs on Wikipedia (lead: Paul Heald)

Harvard Journal of Law & Technology,
Volume 29 (forthcoming Fall 2015)
Paul J. Heald (University of Illinois), Kris
Erickson, Martin Kretschmer

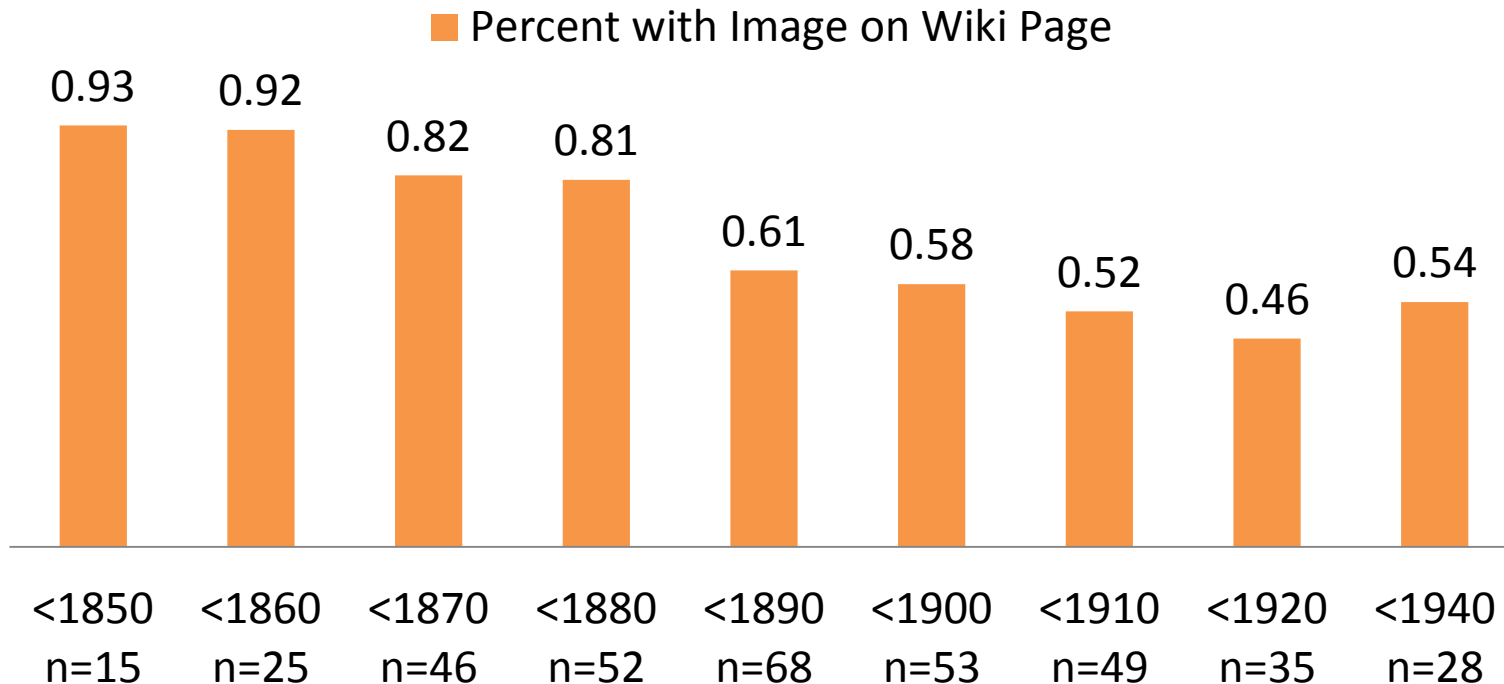
Part I: Bestselling Authors

- Identify **362 authors** with *New York Times* year-end **bestselling novels** in the United States from **1895 to 1965** and collect data for each author:
- Number of bestsellers, date of first bestseller, **birth and death date of author**;
- **Wikipedia URL** of author page **and date image** of author (if any) **added**;
- **Copyright status** of any author image and legal justification for any **image** in the public domain;
- Number of page views 90 days before and after image added;
- Number of Amazon reviews of most popular book for each author;
- Number of **page views** in March, April, and May of **2009** and **2014**.
- **Word count** on author page as of June **2009** and June **2014**

Older Authors = More Images

- Public domain effect means that older authors (counter-intuitively) have more images:

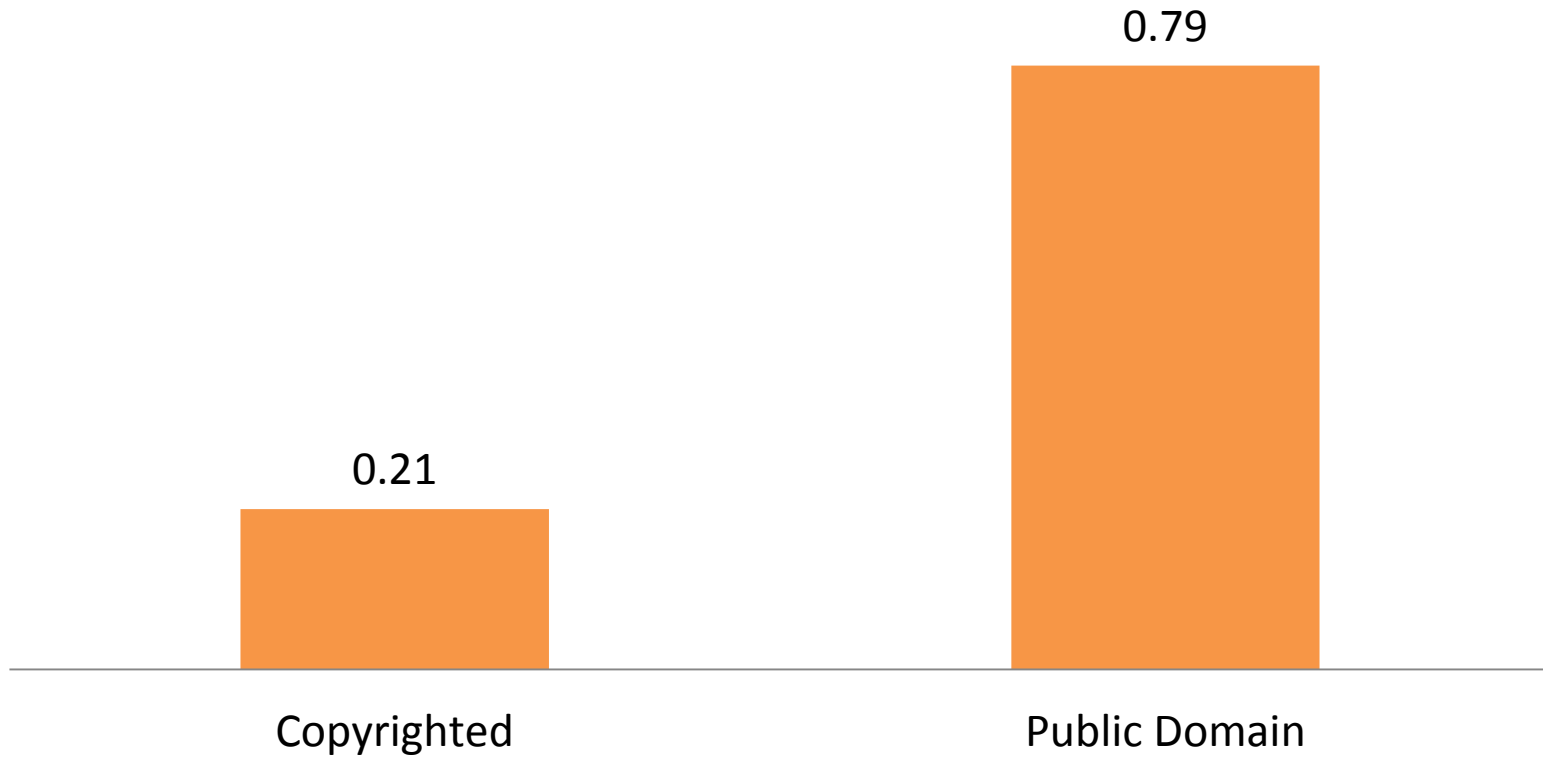
362 Bestselling Authors by Date of Birth



Source of Images?

Legal Status of Author Images

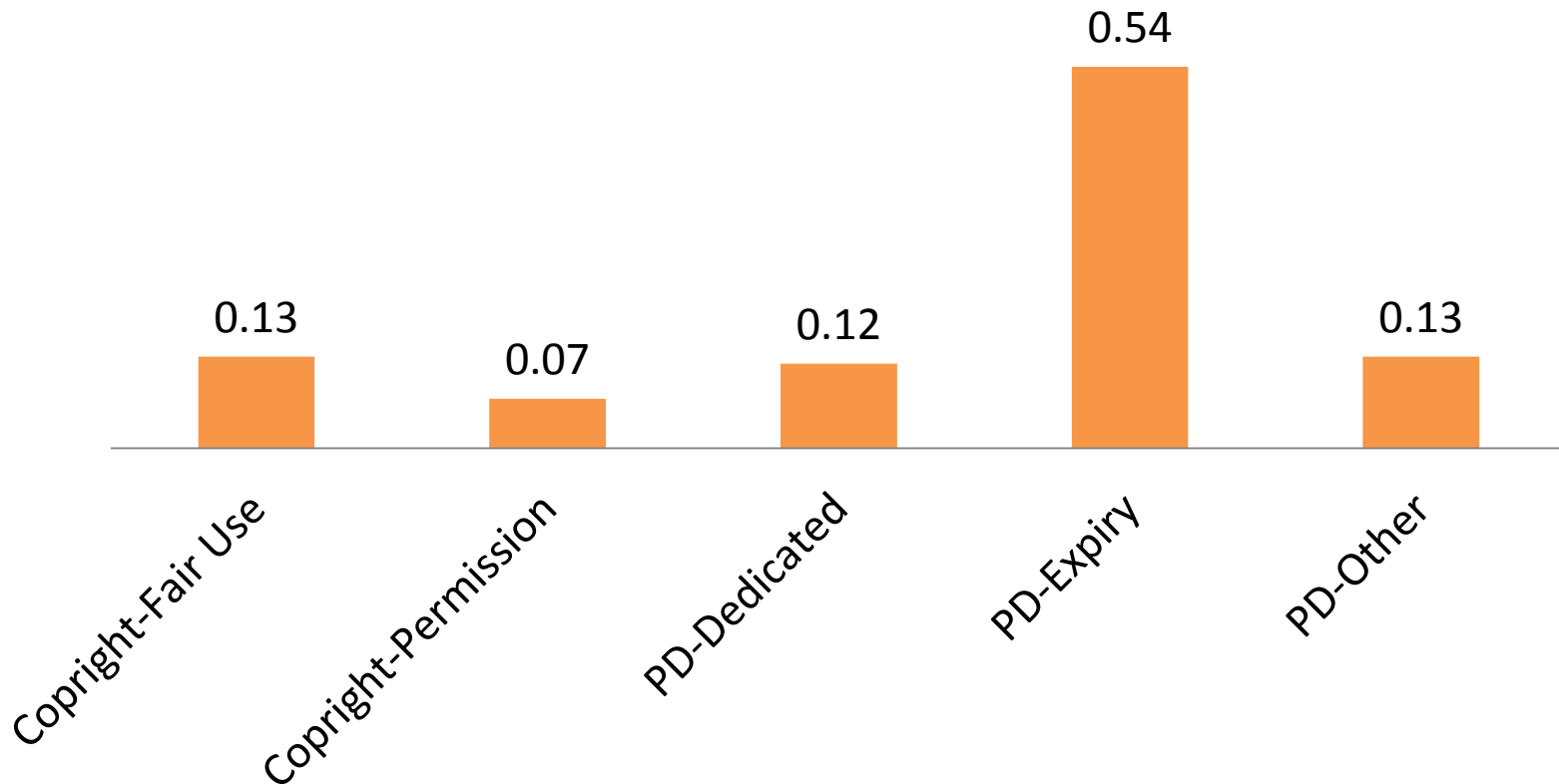
■ Percent



Justification of Wiki Image Usage

Justification for Image Use

■ Percent



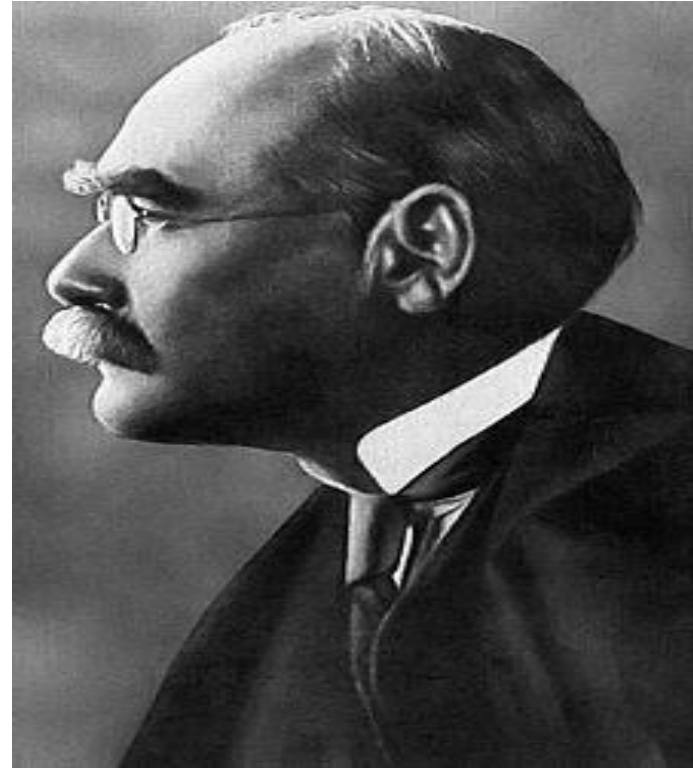
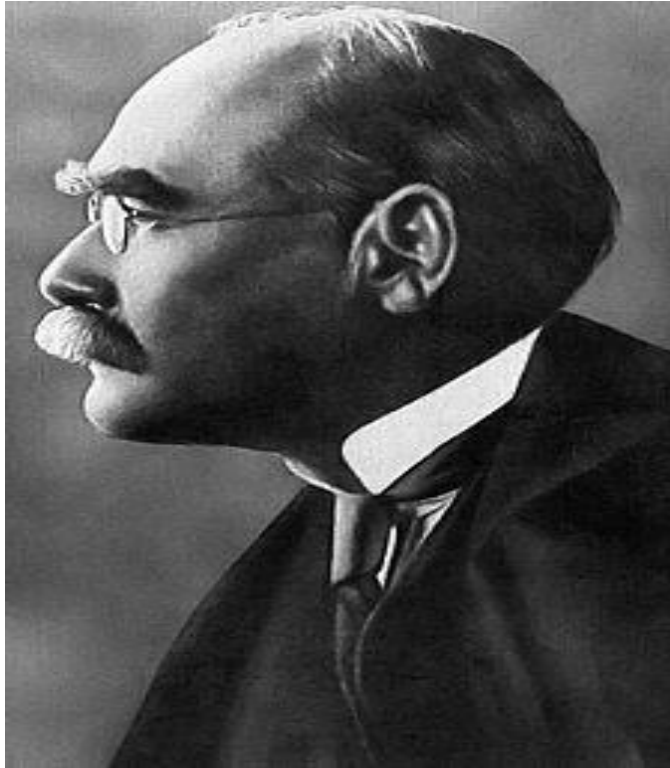
Interim Findings

- The Public Domain clearly increases the number of photos on Wiki web pages.
- This adds value, but how much?
- 1) Value might be measured in costs saved to page builders
- 2) Value might be measured in term of increased traffic to web sites with images.

Costs Saved: Commercial license equivalent

Free on Wikimedia Commons

**License for 1 Year: \$105 USD on
Corbis and \$117 on Getty Images**



Cost saving?

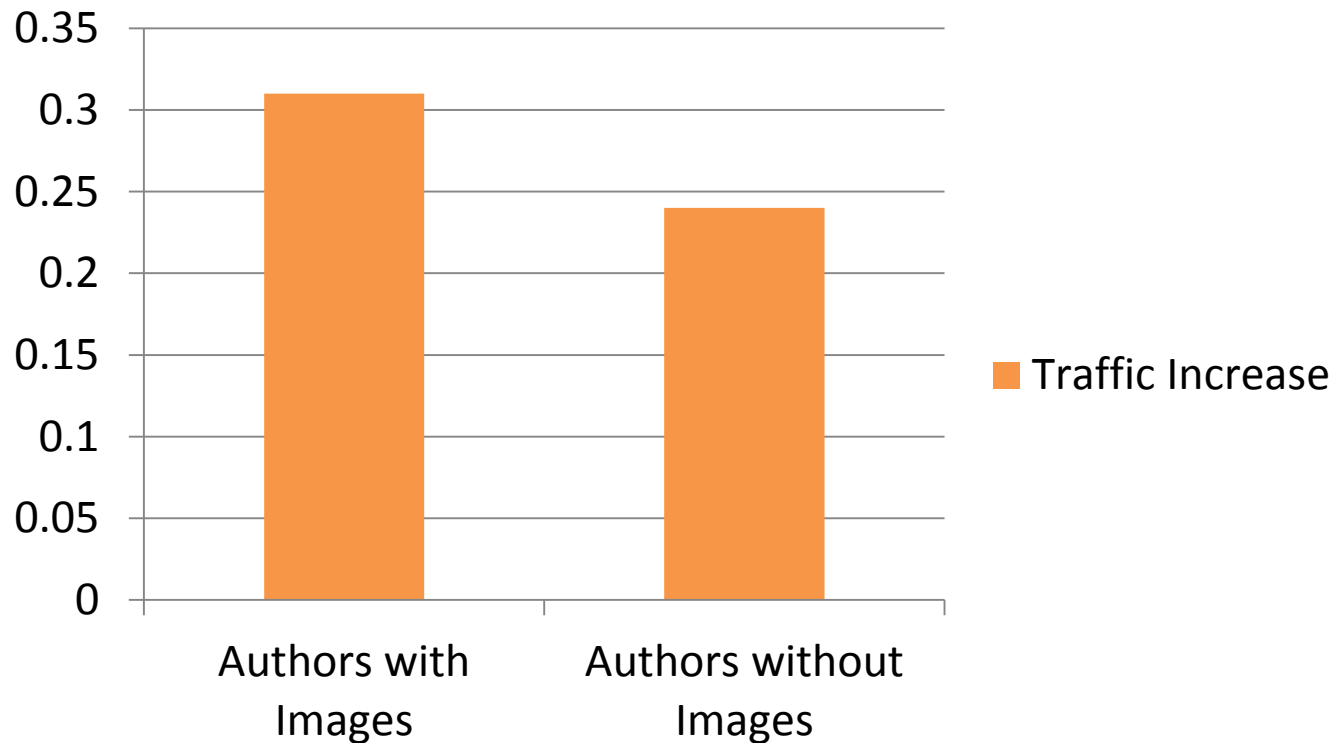
- Is there a Corbis/Getty image available?
- How much does Corbis and/or Getty charge for the exact image or a reasonable substitute?
- How frequently is the copyright public domain the only source of an author photo (compared to CC)?
- A random sample of 300 Wikipedia pages shows that 50% contain images, and 87% cite the public domain as the source of the image.
- Using licence fees obtained from Corbis and Getty for images relating to the biographical sample, we estimate a total value of USD \$208 million (GBP £138 million) per year for the 1,983,609 English-language Wikipedia pages which contain public domain images.

Adjusting for Popularity

- 43 pairs of authors without images on June 1, 2009 were matched together based on similar or exact number page views counted during the months of March, April, and May 2009.
- This created a set of pairs of authors of similar popularity at a time when none of them had images on their web pages.
- Half of the authors received an image before March 1, 2014, and one-half did not.

Increased Traffic?

Percent Traffic Increase from June 2009 to June 2014



17-19% increase across sample of authors, composers & lyricists

Estimating PD Value for Wikipedia

After a confident figure has been put on the increase in traffic, random sampling of Wikipedia pages can be used to:

- Estimate the percentage of Wiki pages that are biographical;
- Estimate the percentage of biographical pages of figures from the era parallel to the authors;
- Estimate the number of those pages containing images;
- and calculate the total value of biographical images on Wikipedia.

4,560,021 [total English-language Wiki pages as of July 18, 2014] x .5 [percentage of pages with images] x .87 [percentage of pages with public domain images] x 18,966 [average page views per year] x .0053 [average value of a Wikipedia page view] x .17 [percent of traffic due to public domain image] = \$33,896,638

Overall findings from Studies I, II, III

- PD is important; there is uptake and innovative potential;
- There is a lack of knowledge among practitioners as well as a gap in terms of information services (archives, searchability, metadata);
- Same skills appear needed for sourcing copyright materials as for identifying and exploiting PD;
- GDP accounting for the size of the 'copyright industries' should be supplemented by quantification of alternative inputs (such as PD derived economic activities).



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Thank you

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