The 50/50 norm in a massive online public good: a Wikipedia case study

Godefroy Dang Nguyen,

Telecom Bretagne-UBL, M@rsouin-ICI

Sylvain Dejean

CEREGE, Université de La Rochelle

Nicolas Jullien

Telecom Bretagne-UBL, M@rsouin-ICI

Ali (Aliakbar Akabritabar)

Some intro ☺

- Have you heard these names ?

  - Richard Stallman

  - Linus Torvalds

  - Just for fun

- How many know about Linux movement

  and open source software and how they work ?

- Do you know stackoverflow ? Have you asked a

  question there yourself?!

- What about freedom of knowledge?! Aaron Swartz and news about Russian student about
  papers …
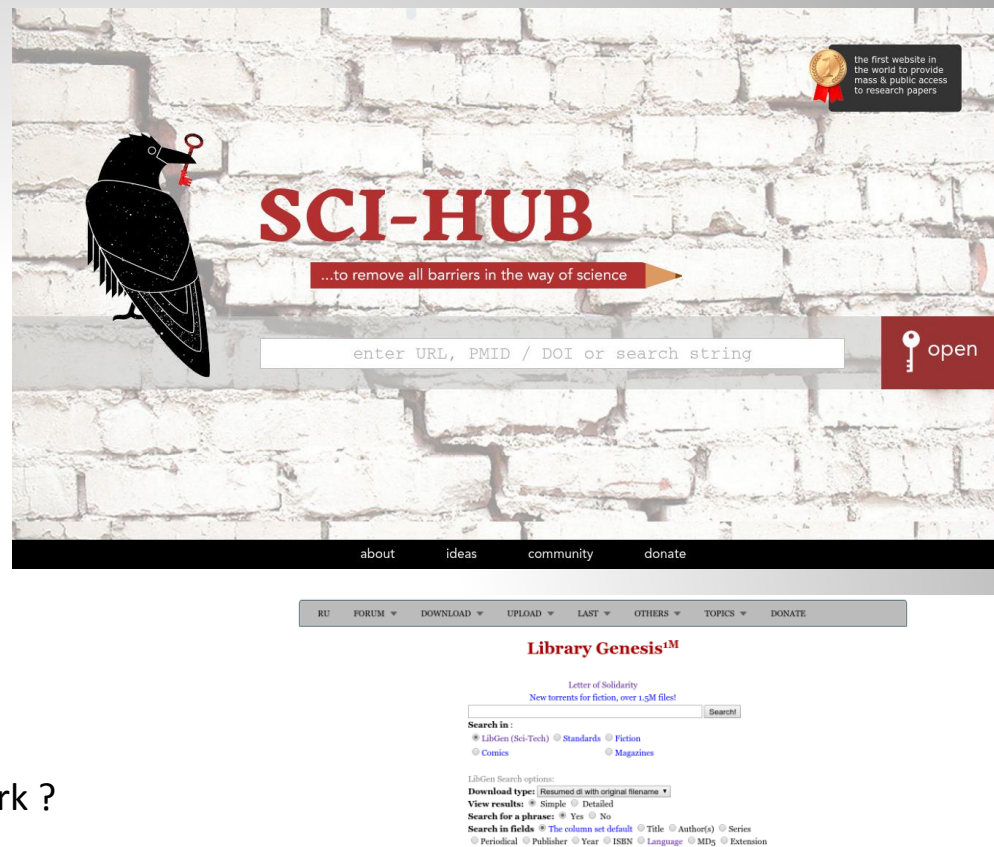
Some quick questions

who has read an article on Wikipedia ?

who has participated in editing an article in Wikipedia ? between your friends?

Who has an editor account on Wikipedia?

who has helped Wikipedia monetarily?

personal use ? Professional (work environment) use?

how long you have been using Wikipedia ? 0-13 years !

is Wikipedia a credible source of information? why?

how many languages you have used in ? any differences?

are u wiling to pay for Wikipedia info ? how much?

subscription for services, instead of advertisement, yes or no?

an exclusive subscription for all your devices for 3.5 euros, yes or no?

have you ever seen wrong information on Wikipedia ?

Edit rules

- Wikipedia is a wiki, meaning that anyone can edit any unprotected page and improve articles immediately for all readers. You do not need to register to do this.

- Anyone who has edited is known as a "Wikipedian" and, no matter how trivial the edit may seem, can be proud that he or she has helped make Wikipedia what it is. All of these edits add up!

- Protected pages; You can still edit these pages indirectly, by submitting an "edit request" – an editor with the ability to edit the protected page will respond to your request.

Wikipedian's life ;)

User page · Talk · Read · Edit · View history · Search

User:*koavf*

From Wikipedia, the free encyclopedia

My WikiPortal
(~325 kb)

αγάπη♥ · מוֹשִׁ⊗ · अहिंसा☺ · 無為❀
Love · Peace · Nonviolence · Intuition
You are far far greater than you know—and All is well
In times of universal deceit, telling the truth becomes a revolutionary act
Christianity is the Holy Spirit, the free egalitarian community of believers united by love

Biography and Contact Information

I am **Justin Anthony Knapp** (*koavf*), a Wikipedian from Indianapolis, Indiana, USA. I'm a life-long Hoosier, and attended Covenant Christian High School; upon graduating, I worked there as a tutor and teachers' assistant for two years. I joined Wikipedia on 2005-03-06, after anonymously editing for months. I worked for Indiana University at Indiana University – Purdue University Indianapolis for several years, where I earned degrees in philosophy and political science.

A chronology

- 2004-06-09 – Met Kurt Vonnegut
- 2004-10-20 – Met R.E.M.
- 2005-03-23 – Met Magnapop
- 2005-05-10 – Got stranded in California; met Mark Oliver Everett and Eels, gave him the Rolling Stones boot *Live'r Than You'll Ever Be*
- 2005-10-05 – Spoke at the United Nations' Fourth Committee on the situation in Western Sahara[1]
- 2005-10-15 – Met Hum
- 2006-06-15 – Graduated from Indiana University, B.A. in political science
- 2006-09-16 – Saw R.E.M. with Bill Berry in Atlanta, Georgia
- 2008-07-31 – Appeared on *Dogma Free America*[2] to discuss the Amazon.com–Scientology controversy.[3]
- 2009-11-28 – Discussed Wikipedia with *The Daily Beast*[4]
- 2009-12-15 – Graduated from Indiana University, B.A. in philosophy

Me

34	This Wikipedian is 34 years old today!
♂	This user is **male**.
nws-0	This user **oldspeaks**, or newspeaks doubleplusungoodwise.
en	This user is a **native** speaker of **English**.
en-us-N	This user is a **native** speaker of **American English**.
es-2	Este usuario puede contribuir con un nivel **intermedio de español**.
de-1	Dieser Benutzer hat **grundlege Deutschkenntnisse**.
	Este usuário/utilizador pode contribuir...

1–1000 [edit]

No.	User	Edit count	User groups
1	Ser Amantio di Nicolao	1,574,762	Ad
2	Koavf	1,495,192	AC, AP, EC, EV, F, Rv, Ro, TE
3	Waacstats	1,203,047	AP, Rv
4	Rich Farmbrough	1,041,849	Ab, AP, F, Rv, Ro, TE
5	Bearcat	836,192	Ad
6	Rjwilmsi	786,308	Rv, Ro
7	BD2412	742,312	Ad
8	Hmains	717,203	AP, Rv
9	Magioladitis	713,613	Ad
10	Materialscientist	691,303	Ab, Ch, Ad
11	Tassedethe	630,032	Ad
12	Woohookitty	609,212	Ad
13	Good Olfactory	599,865	Ad
14	Dr. Blofeld	569,677	AP, Rv, Ro, TE
15	Lugnuts	483,958	AP, Rv
16	Sfan00 IMG	478,124	AP
17	Carlossuarez46	471,997	Ad
18	Bgwhite	470,446	Ad
19	[Placeholder]	457,368	
20	BrownHairedGirl	446,950	Ad
21	WhisperToMe	431,251	Ad
22	Jllm06	423,772	AP, Rv
23	Gene93k	423,427	AP, Rv
24	Alansohn	413,800	AP, EC, Rv, Ro
25	John of Reading	404,931	Rv, TE

Mancur Olson – The Logic of Collective Action (1965)

- He didn't imagined the eventual size of some online public goods.

- Wikipedia is probably the most exemplary, as in only 15 years and solely on the basis of voluntary contributions, has produced the most important corpus of knowledge ever assembled.

- a large body of literature dedicated to understanding the motivations of contributors who **negated Olson's paradox**:

  - size of a team of contributors to a public good is bounded by opportunistic behavior.

Some stats and …

- 700,000 registered contributors (English language version)

- more than 480 million visitors each month

- The English Wikipedia currently has 27,583,889 users who have registered a username. Only a minority of users contribute regularly (133,453 have edited in the last 30 days)

- success of Wikipedia:
  - **voluntary contributions** that take the form of :
    - 'edits' to articles
    - donations to the Wikimedia Foundation

Results of literature review

- For both registered contributors and administrators,

  - Reciprocity

  - Social image (reputation)

- Peer effect provoked by either

  - compliance with a 'social norm'

  - warm glow effect

    - the positive emotional feeling people get from helping others

Interesting literature

- blocking of Wikipedia in Mainland China

  - examined the contributions of non-blocked contributors (living in Taiwan, Singapore or overseas).

  - They reduced their contributions during and after blocking.

  - Their explanation was that contributors perceived that they received fewer social benefits from their work.

  - Less audience

Efforts in explaining prosocial behavior

- People are not equally prosocial, and there are differences in attitudes. They can have different motivations.

- Altruism is the purest form, where utility is derived from the satisfaction of others.

- Less pure forms, such as giving in the presence of others (the so-called 'warm glow' described by Andreoni, 1990)

- "inequality aversion" or "fairness"; Gächter (2014) called "homo reciprocans"

- Akerlof and Kranton (2000); role of identity and social norms

- non-compliance causes dissatisfaction

- Elster (1989), "A more general and more adequate formulation would be that **actions typically are influenced both** by rationality and by norms".

Which social norm?

- One of these social norms is the 50/50 split, which has a special role in the economics literature.

- Andreoni and Bernheim (2009) pointed out the **importance of the equal split in different economic contexts**, and emphasized its social nature. They showed that willingness to be perceived as fair by peers explained the choice of the equal split in the DG.

- Weber (2013) and Eckel et al. (2011); prevalence of this norm in student populations

Review of the literature showed that

- the prosocial motivations of contributors to Wikipedia may be grounded in **individual motives** (fairness, inequality aversion, altruism, warm glow), and compliance with a social norm of sharing.

- However, this may not be true if both contributors and non-contributors exhibit a similar prosocial attitude when exposed to the DG.

- This may reveal compliance with a social norm. The equal split is a good example of this norm.

Methodology + Questionnaire

- cooperation of the **French Wikimédia Foundation** and the Wikipédia

- project, in February 2015 we put a banner on the homepage the French-speaking Wikipédia.

- This gave respondents access to a questionnaire about their habits, contributions to, and perceptions of the platform

Game play (procedures)

- Once the survey was completed,

- play a game to win a voucher.

- standard version of the Dictator Game (DG):

- split €10 between them and another person who was assumed to have completed the survey.

- After the respondents had chosen the amount they wanted to keep, a dialog box informed them of the amount they had kept and their 'gift' to the other person.

- This step was designed to help them to understand the protocol.

- 100 were randomly selected to win a voucher for an amount equal to double the amount won in the DG.

- Respondents were informed about the draw and the number of vouchers available, but were unable to estimate the probability of being picked, as they did not know the number of people who had completed the questionnaire.

Voilà, le questionnaire est presque terminé.

Pour vous remercier du temps que vous nous avez consacré, et pour finir, nous vous proposons de participer à un petit jeu, qui vous permettra, si vous le souhaitez, de gagner un bon d'achat (à valoir sur un site culturel en ligne).

Un tirage au sort sera ensuite effectué pour permettre à une cinquantaine de personnes de gagner un bon d'achat dont le montant sera égal au double de la somme gagnée dans les deux jeux qui vont suivre.

Vous avez été désigné pour être le joueur 2.

Le joueur 1 garde 10 € et vous propose : 0 €

Rappel des règles du jeu: Le joueur 1 a reçu 10 € et devait choisir le partage de cette somme avec le joueur 2 (vous). Si vous acceptez la proposition, les deux joueurs repartent chacun avec le montant du partage, mais si vous refusez, les deux joueurs repartent avec 0 €.

					10 euros
euros	4 euros	5 euros	6 euros	7 euros	8 euros	9 euros	
○	○	●	○	○	○	○	○

Acceptez-vous ?

○ Oui   ○ Non

Quelle aurait été votre proposition par rapport aux offres suivantes ?

	Vous acceptez	Vous refusez
Montant gardé par le joueur 1: 5 € / Montant pour vous : 5 €	○	○
Montant gardé par le joueur 1: 6 € / Montant pour vous : 4 €	○	○
Montant gardé par le joueur 1: 7 € / Montant pour vous : 3 €	○	○
Montant gardé par le joueur 1: 8 € / Montant pour vous : 2 €	○	○
Montant gardé par le joueur 1: 9 € / Montant pour vous : 1 €	○	○
Montant gardé par le joueur 1: 10 € / Montant pour vous : 0 €	○	○

s associera à un autre répondant au questionnaire. Un t le joueur 2.

ne avec le joueur 2.

osition. S'il accepte les deux joueurs repartent chacun repartent avec 0 €.

Vous avez gagné 5 € à notre jeu.

Si vous souhaitez participer au tirage au sort, pour gagner un bon d'achat de 10 € sur une plateforme de vente de biens culturels en ligne, n'oubliez pas de nous laisser une adresse de courriel valide!

s tard   ‹ Précédent   Suivant ›

- This protocol does not claim to provide controlled conditions. On the contrary, it tests prosocial motivations in context, those of Wikipedia users who volunteered to complete a questionnaire. Almost 30,000 Wikipedia users started the survey and 16,879 finished it. Of those who completed it, 13,528 played the DG.

- only a few papers have reported results based on such a large DG experiment, a fortiori in the context of the use of a public good.

- The counterpart to this massive participation was our inability to control for the impact of the survey on the choice of the respondent. (questions effect)

- A second issue was how a game with a potential monetary reward was perceived by Wikipédia users, who were assumed to be driven by non-monetary incentives.

Figure 1a: Distribution of individual giving among Wikipédia users (N= 13528)
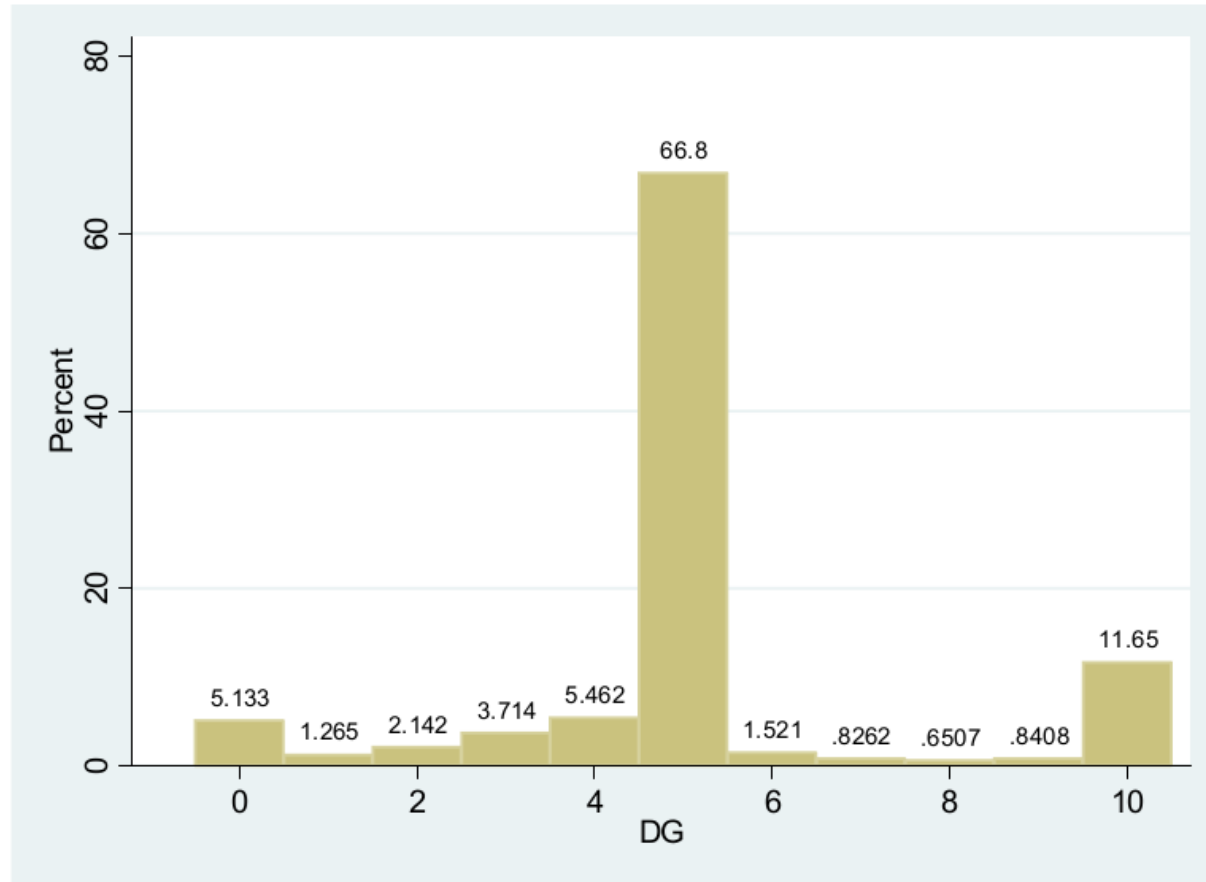
- Figure 1a shows the result of the DG and puts it into perspective. Figure 1b (next slide) shows the result of the meta-analysis provided by Engel (2011), based on 335 laboratory treatments and more than 20,000 individual decisions.

Figure 1b: Distribution of individual giving in the meta-analysis of Engel (2011) (N=20613)

data only from 328 treatments with full range information, N = 20813
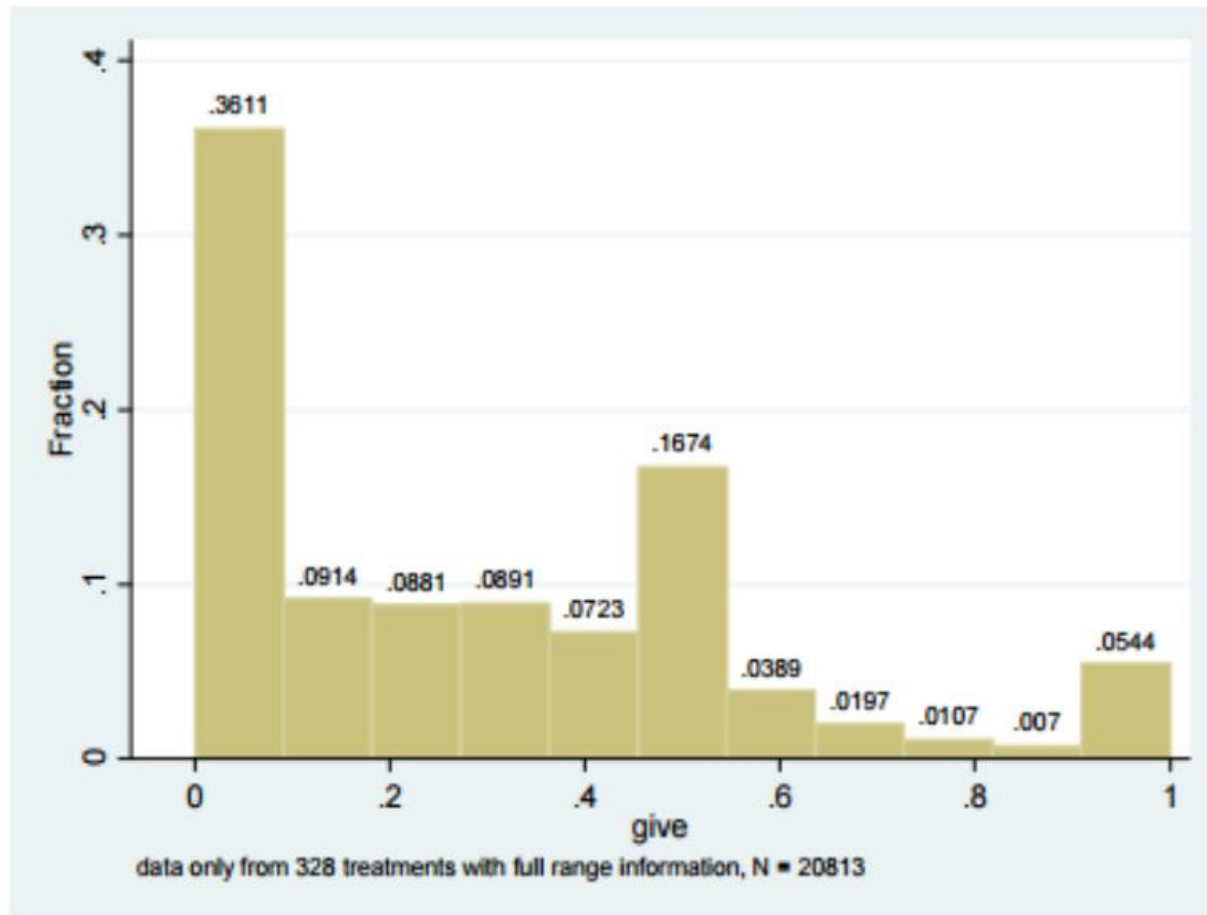
- This difference is striking and suggests a large deviation from the standard result in thelaboratory context. Unlike Engel's meta-analysis, where the amount usually given is 0 (36% of participants), only 5% of our sample behaved similarly.

- Furthermore, the 50/50 rate was chosen by 66% of our sample, while it is **never above 25% in the literature**.

- The exception is Eckel et al. (2011), where 45% of a sample of teenagers attending high school chose an equal split.

- In our sample, 12% of respondents decided to give €10 (the entire amount available), which is indicative of purely altruistic behavior.

- Altogether, more than 80%, of the approximately 13,000 respondents, decided to share at least half of their reward with someone else.

- How can such huge differences between our sample and the meta-analysis of Engel can be explained?

- The **large sample size** means that **we can ignore random fluctuations**

Explaining the difference with previous literature

- compared the reaction of contributors and non-contributors to the DG. As there was no difference, we hypothesized that the similar attitudes found in both groups come from a shared norm.

- controlled for type of Wikipedia usage (personal/ professional)

- Cultural differences (location: France or elsewhere), which did not invalidate the relationship.

individual involvement in Wikipédia; proxy for the intensity of usage (Wikiuse)

- In the context of your personal activities (talking with friends, hobbies, etc.) do you use Wikipedia to:

    1) Check information

    2) Look for a definition

    3) Discover something

    4) Deepen your knowledge

second variable was a proxy for attachment to Wikipédia (Wikipref)

- If Wikipedia disappeared, would it be:

  1) A disaster   (33 %)

  2) A significant loss   (55%)

  3) Somewhat harmful   (12%)

  4) A 'non-event' (no impact)

  5) A good thing

seniority in the community (Wikitime), proxy for involvement in Wikipédia, and the progressive integration of the norms and prosocial behavior of the community.

- For how long have you used Wikipedia?

    1) Less than a year

    2) Between 2 and 4 years

    3) Between 5 and 8 years

    4) Between 9 and 12 years

    5) More than 12 years

The main result is that

- commitment to Wikipedia is associated with equal giving.

- Similarly, intensity of use and a declared attachment to the platform are both associated with an increase in the likelihood of choosing the equal split.

- Seniority is only associated with an equal split when it is the only independent variable. This means that it is probably covariate (e.g. with age), and other measures of involvement (Wikipref and Wikiuse).

- Both the level of attachment and the propensity of use in different contexts are likely to increase with time spent on the platform.

- However, the most striking result is that attachment to Wikipedia **is not linked** to altruistic behavior (giving €10 and keeping 0), as those who consider that its disappearance would be a major loss (Wikipref1 = 1) are less likely to give €10 in the DG; less surprisingly, the same result occurs for more **selfish behavior**.

- In the DG, the equal split choice was only strongly associated with involvement in Wikipedia, suggesting that social norms were a potential explanation for the success of the platform.

- Beyond prosocial attitudes, regression coefficients associated with socio-demographic characteristics are in line with the DG literature.

- Older and retired respondents are more altruistic.

- Students and educated respondents are associated with more **opportunist behavior**.

- All other things being equal, the likelihood of choosing the 50/50 split in the DG increases for females and users aged between 20 and 50.

- This result differs from Ecker et al. (2011) who found that the 50/50 norm is common among students (high school and university), and that there was no gender difference. However, it should be noted that in their study, students were playing against each other, and conformity with the reference group may play a role.

Contributors are not more pro-social

- There was no significant difference between the two populations (contributors, users): in both cases usage and attachment were associated with an **increasing probability of choosing an equal split in the DG**.

- To the best of our knowledge this is a new result. It emphasizes the **role of non-contributors to a massive public good such as Wikipedia**, in particular the role of a subset of 'prosocial users' – those who responded to our questionnaire. It seems that **even if a prosocial motivation may be a necessary condition for making a contribution, it is a not sufficient**. Knowledge, time, self-confidence, the ability to use a wiki and learning processes (Dejean & Jullien, 2015) are other determinants. However, it appears that it is not only contributors to the Wikipedia community who are driven by social motivations.

social norms can have a cultural origin

- As our survey was promoted on the homepage of the Francophone Wikipédia, all respondents were French speakers. It is thus possible that the equal split norm is driven (at least partially) by shared values or culture associated with the French language. To control for this potential in-group bias, we exploited the fact that not all respondents lived in France (**23% lived abroad: 5% in Belgium, 6% in Canada, 3% in Switzerland, 1% in Africa**, etc.) As expected, living in the same country increased the propensity to choose the same social norm. However it **did not alter the previous result** concerning the relationship between involvement in Wikipedia and the equal split choice, which remains equally strong. Fewer people living outside France chose the 50/50 split as they felt less committed to the French cultural community. This reinforces the explanatory value of the social norm.

- Our result calls for the consideration of **reciprocity in an extended context** that includes both contributors and users. The **former give their time to write and discuss articles** that readers read, while **readers give their attention and provide an audience**. Attention formed the foundation for the social benefits found by Zhang & Zhu (2011) and highlights the importance of non-contributors in the dynamic that leads to the provision of a public good

- Our results confirm the special role of the 50/50 norm in social science, and especially in an experimental game such as the DG

- Another explanation may be that being involved in Wikipedia, either as a contributor or a committed user provides a **feeling of belonging to a community**, in the spirit of Akerlof and Kramton (2000). **This feeling, or 'identity', may lead to considering others as peers**. It may thus be natural to share half of a gift with a peer when possible. This attitude is reinforced by the fact that the community is large and anonymous, and there is no way to distinguish individuals or to personally tailor a gift. The only common point is their attachment to Wikipedia, which makes them worthy recipients of half of the pie.

limitations

- **inability to estimate the impact of the experimental context**. Before playing the DG, people had to complete a survey about their usage and attachment to Wikipédia. The flipside of this methodology is that we were unable to evaluate how answers were influenced by the survey. The **protocol itself created a bias**: people had already given 20 minutes of their time to complete the questionnaire, and this alone demonstrates a prosocial attitude. **Our sample is thus unrepresentative of the entire Wikipedia community.**

- Although the pro-social norm has been widely studied in the literature, it remains difficult to clearly understand the behavior that is favored or promoted by adhesion to it. Especially in the case of Wikipedia, but also in any other massive online contributive community, further research should confirm the existence of this norm and its role in the provision of a shared resource. Finally, the consequences of the fact that both contributors and non-contributors share common social motivations merits further investigation.

Is Wikipedia full of piece ?!

- Wikipedia editor wars and OII study …

- What are Social benefits to Wikipedia editors work ?

- My country's special editors   ;)

- Exchange theory + indirect exchange… (suicide vest …)

Oxford Internet Institute
Understanding life online

UNIVERSITY OF OXFORD

Armies in the lab: Studying conflicts and opinion clashes in Wikipedia

Dr Taha Yasseri

Taha Yasseri: Armies in the lab: Studying conflicts and opinion clashes in …

Home
Research
Graduate Study
Summer Doctoral Programme
People
News
Events
About us
Support us
Contact us
Alumni
Blogs
Webcasts
Mailing list

Interested? watch here:
http://www.oii.ox.ac.uk/webcasts/?id=651

Thanks for your attention ☺

Questions ?
Ideas and suggestions for further analysis of data ?