

Work-to-Rule: The Emergence of Algorithmic Governance in Wikipedia

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January 15th, 2013: 12th anniversary of Wikipedia



Picture: http://commons.wikimedia.org/wiki/File:Wikimedia_Foundation_Sue_Gardner_Sept_2010.jpg

Quote: <http://soc.li/uhtOs4Y>

Data: http://meta.wikimedia.org/wiki/Template:Wikimedia_Growth

January 15th, 2013: 12th anniversary of Wikipedia

“More than 1.5 million people in almost every country have contributed to Wikipedia’s 23 million articles.”

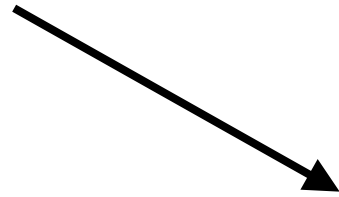


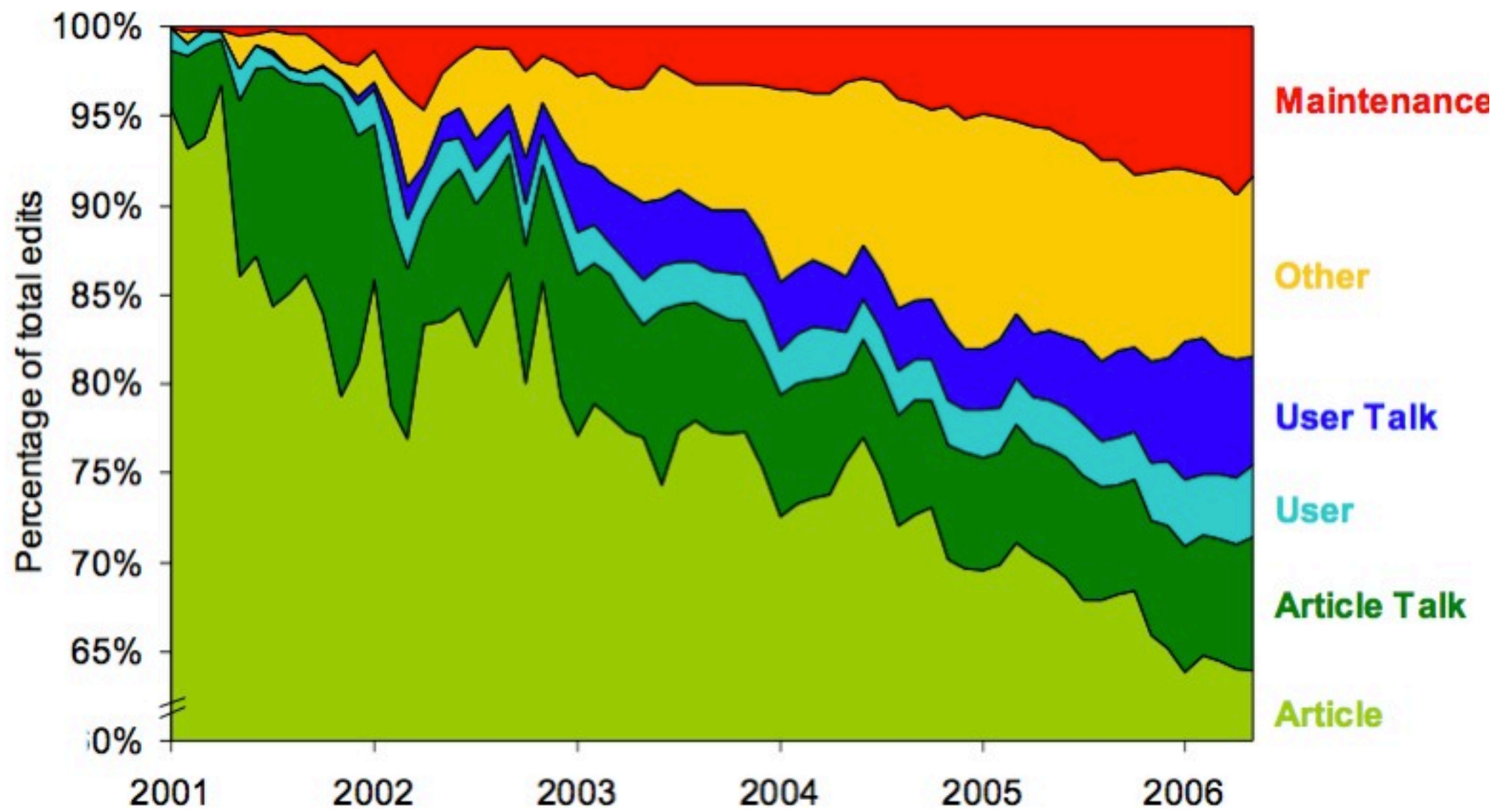
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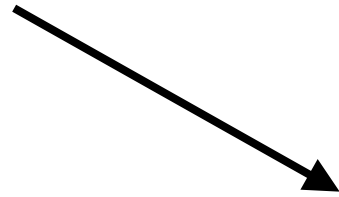
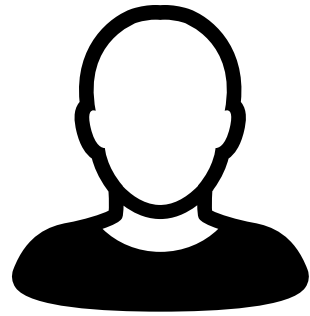
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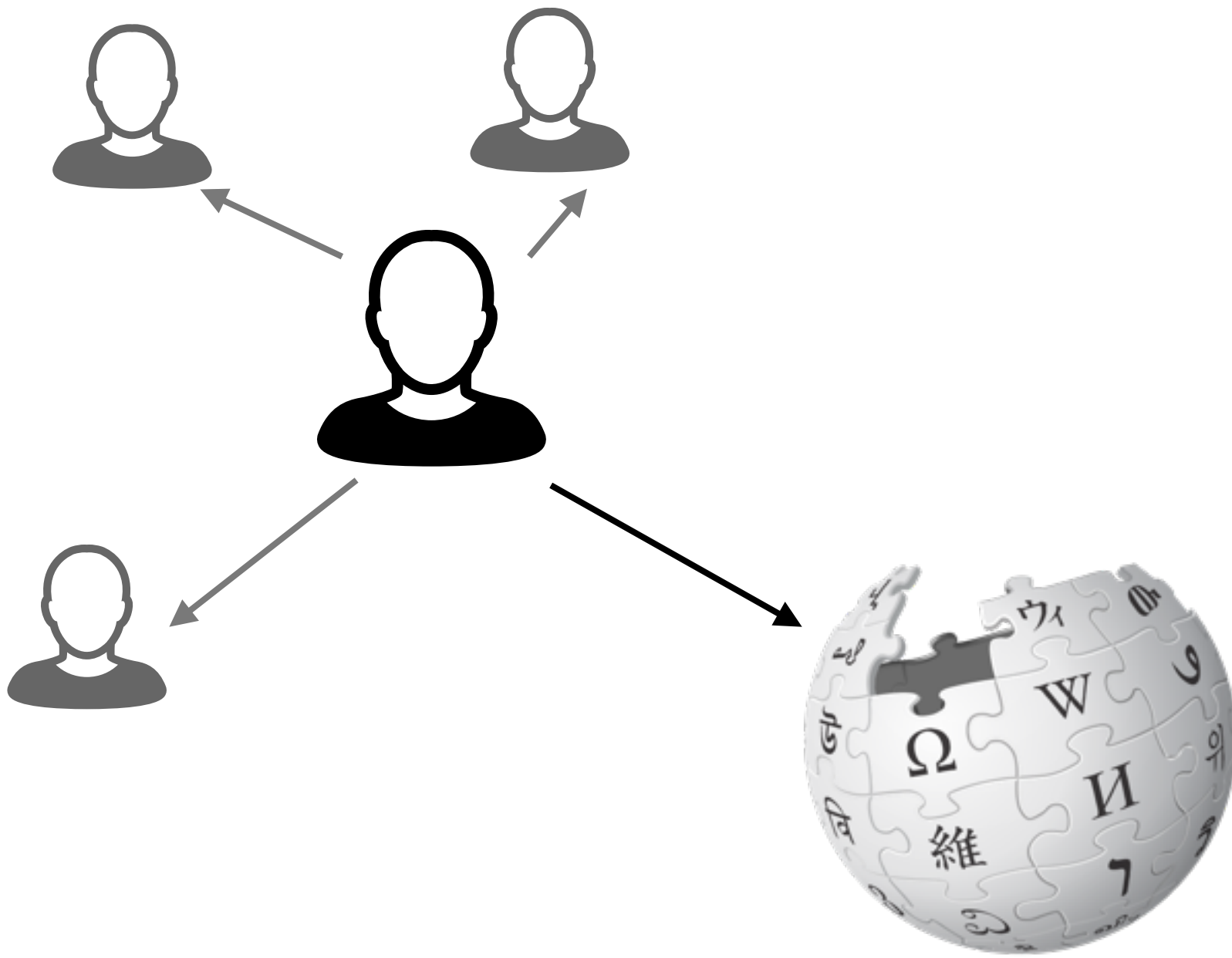
“The more eyes on an article, the better it is. That is the fundamental premise of Wikipedia, and it explains why Wikipedia works.”

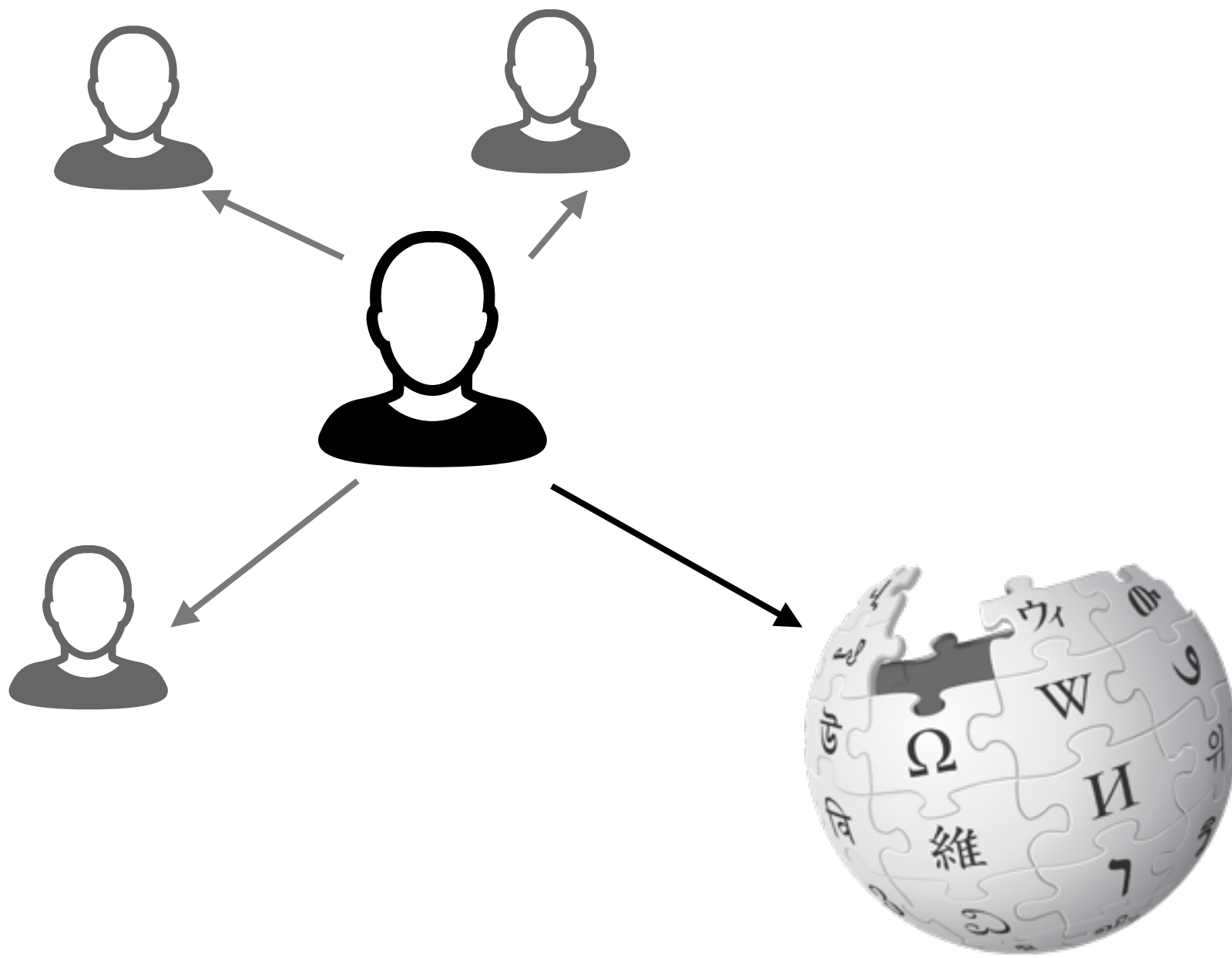








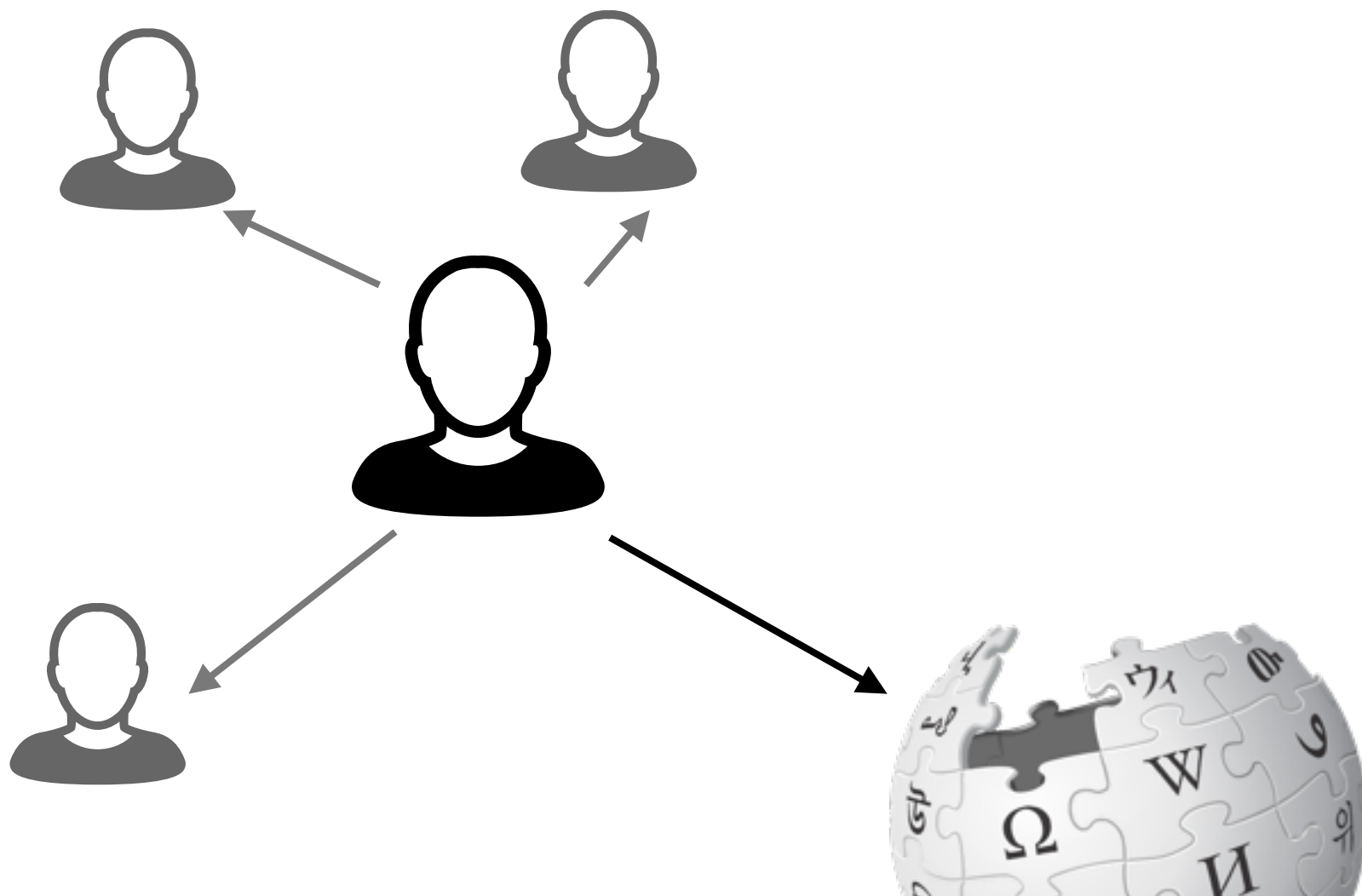




Wikipedia policy
Article standards
Neutral point of view
Verifiability
What Wikipedia is not
No original research
Biographies of living persons
Working with others
Civility
No personal attacks
Resolving disputes

Wikipedia guidelines
Content
Autobiography
Don't copy sources
Disambiguation
Don't create hoaxes
Patent nonsense
User page
Article Inclusion
Notability
Classification
Subpages
Cats, lists, boxes
Lists
Categories
Editing
Be bold
Build the web
Edit summary
Article size
Discussion
Talk page guidelines
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Build consensus
Conflict of interest
Behavior
Etiquette
Do not disrupt Wikipedia to illustrate a point
Don't bite the newcomers
Do not 'game the system'
Style
Manual of Style

Brian Butler, Elisabeth Joyce, and Jacqueline Pike. 2008. Don't look now, but we've created a bureaucracy: the nature and roles of policies and rules in wikipedia. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '08). ACM, New York, NY, USA, 1101-1110.

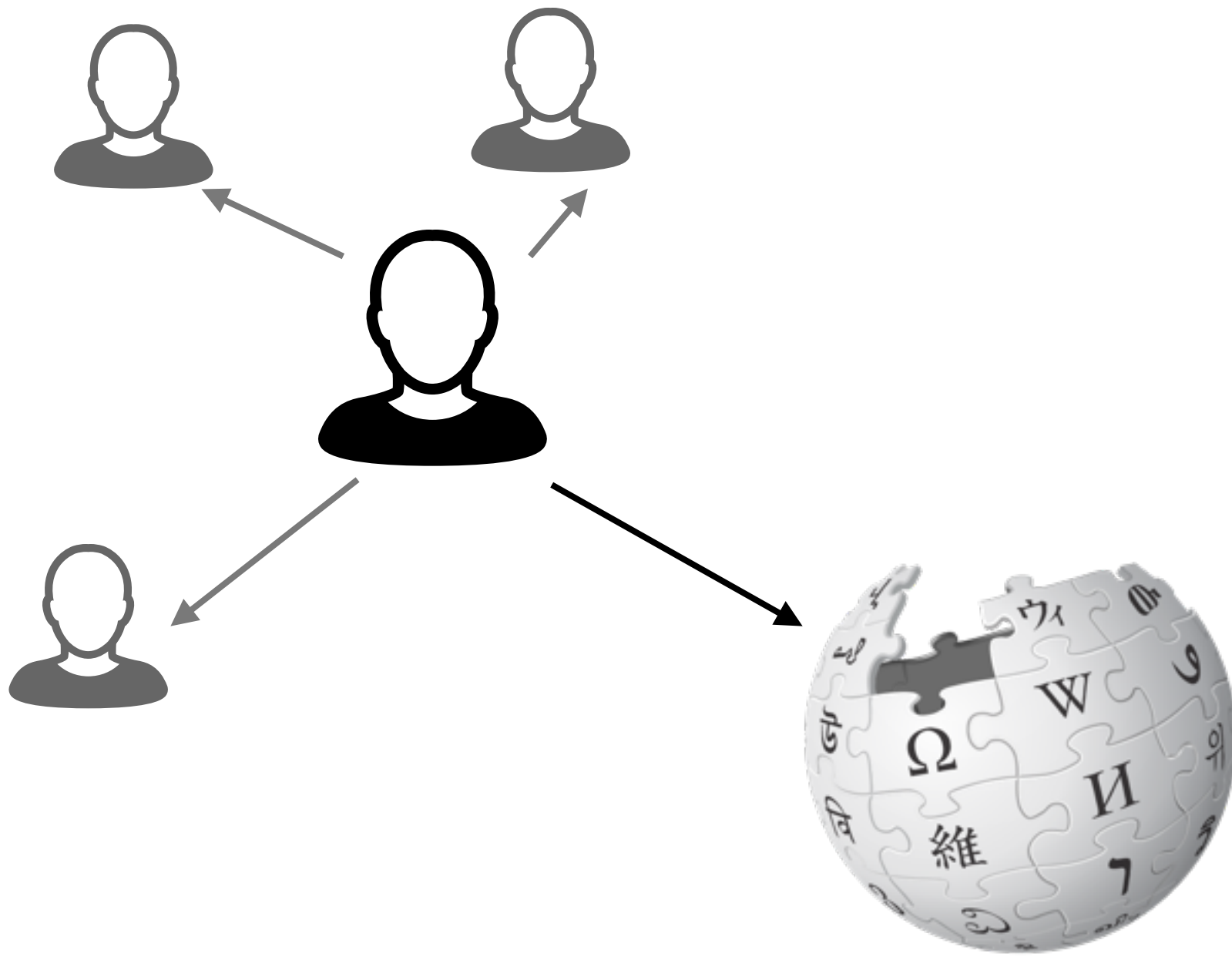


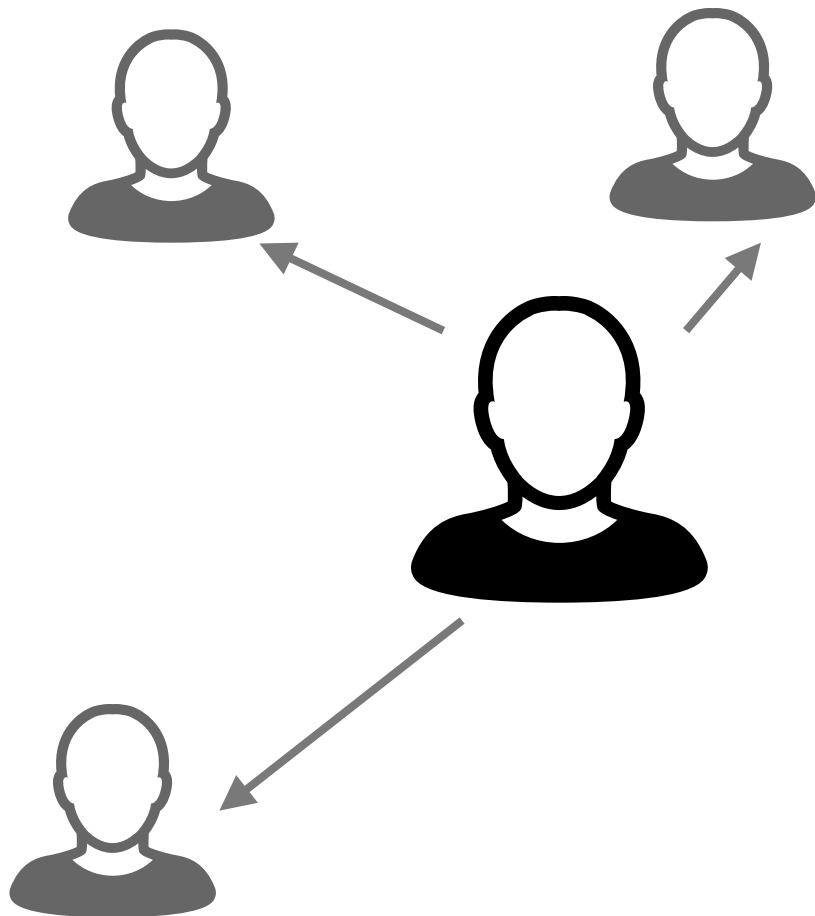
Wikipedia policy
Article standards
Neutral point of view Verifiability What Wikipedia is not No original research Biographies of living persons
Working with others
Civility No personal attacks Resolving disputes

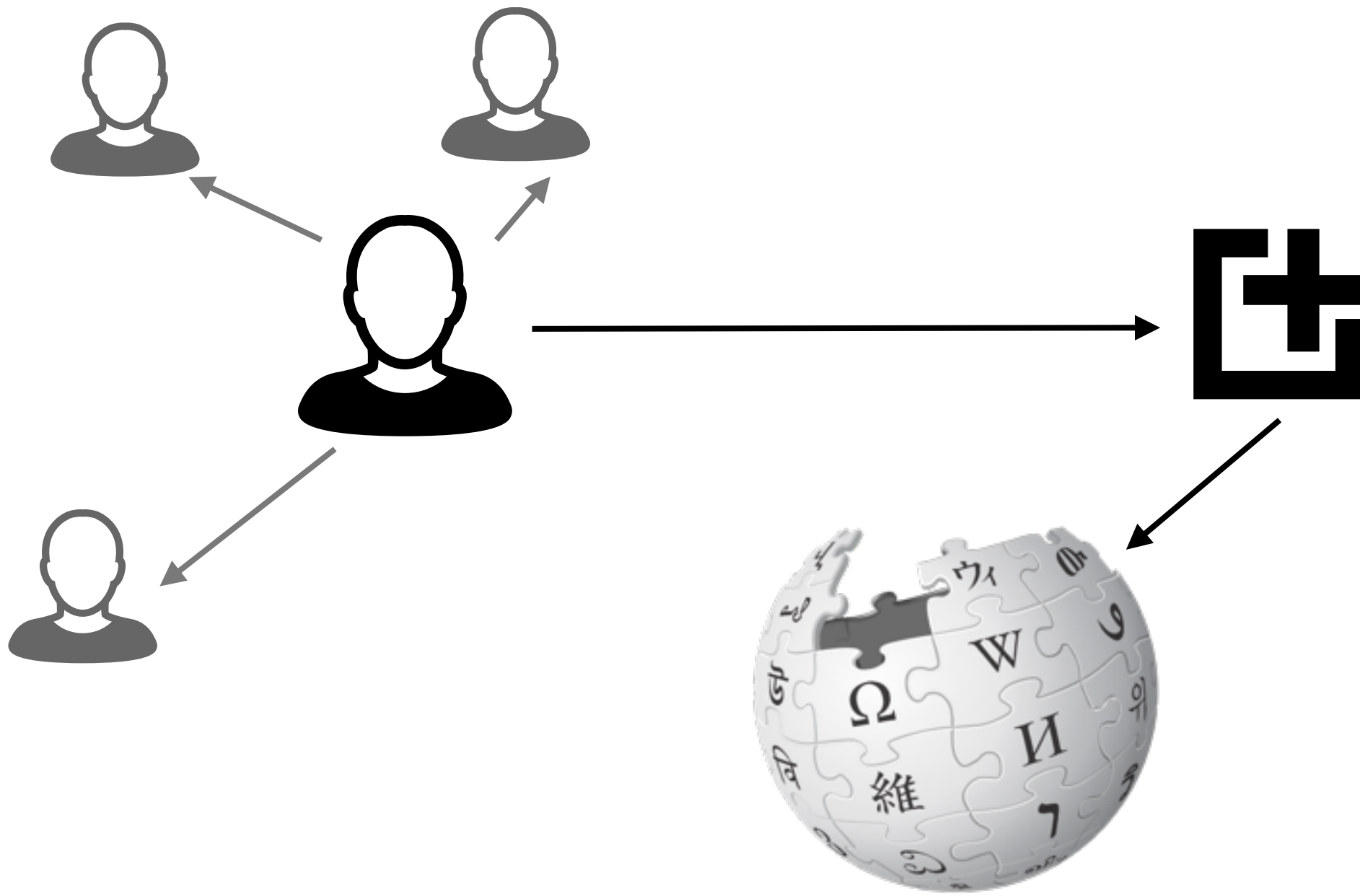
Wikipedia guidelines
Content
Autobiography Don't copy sources Disambiguation Don't create hoaxes Patent nonsense
User page
Article Inclusion
Notability
Classification
Subpages Cats, lists, boxes Lists
Categories
Editing
Be bold Build the web Edit summary

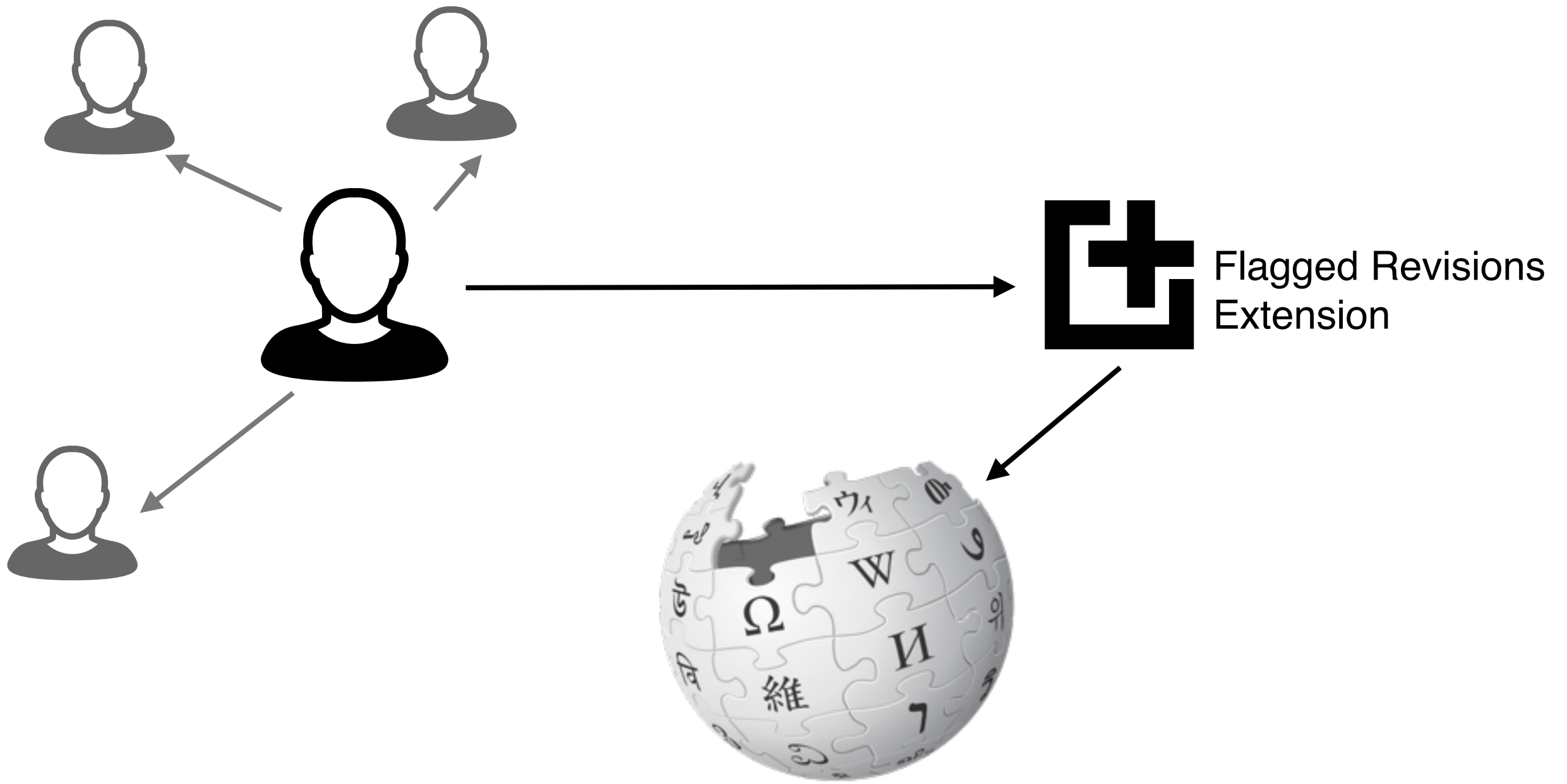
“the “policyless” ideal that wikis represent is a pipedream”

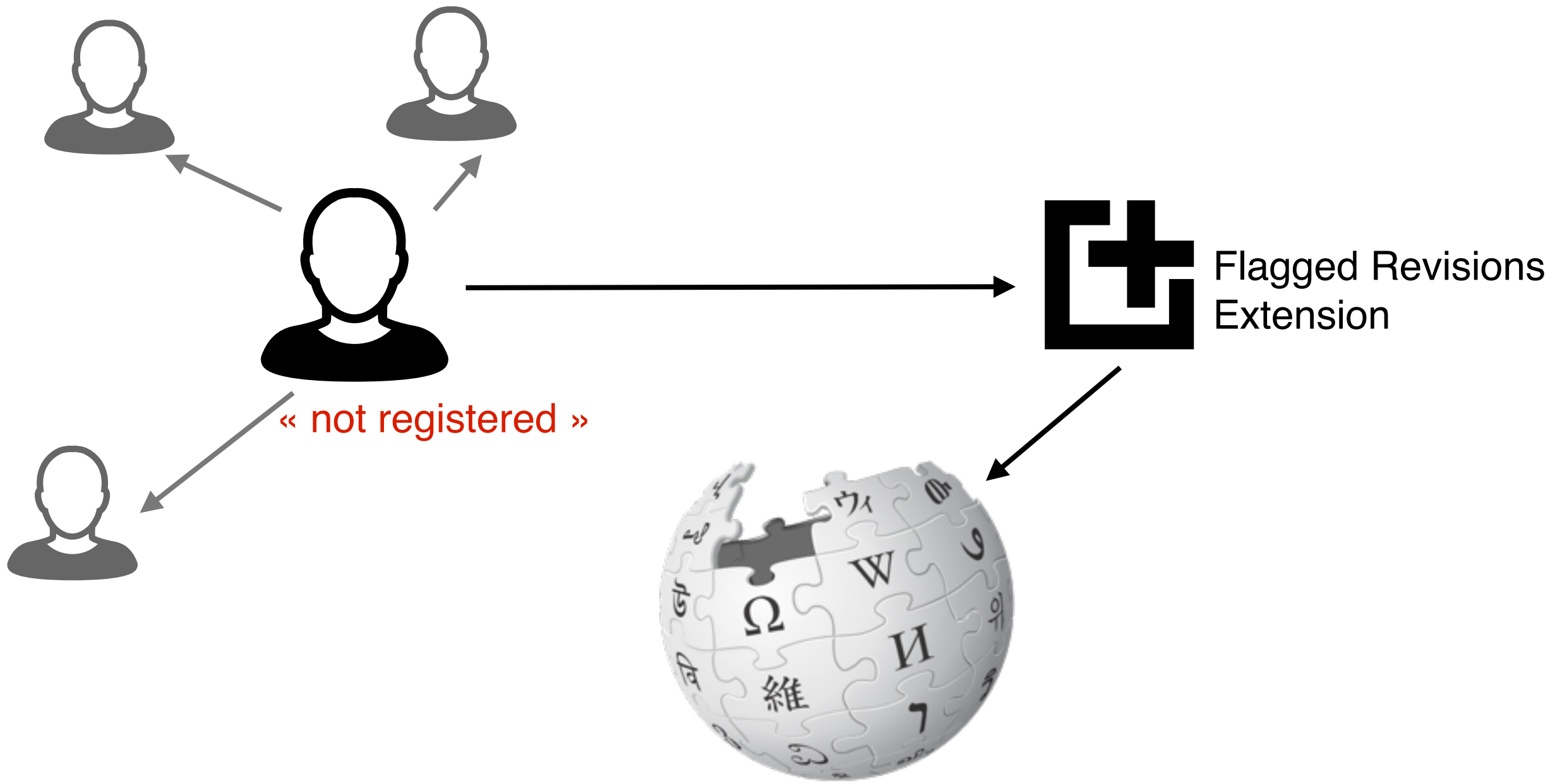
Behavior
Etiquette Do not disrupt Wikipedia to illustrate a point Don't bite the newcomers Do not 'game the system'
Style
Manual of Style

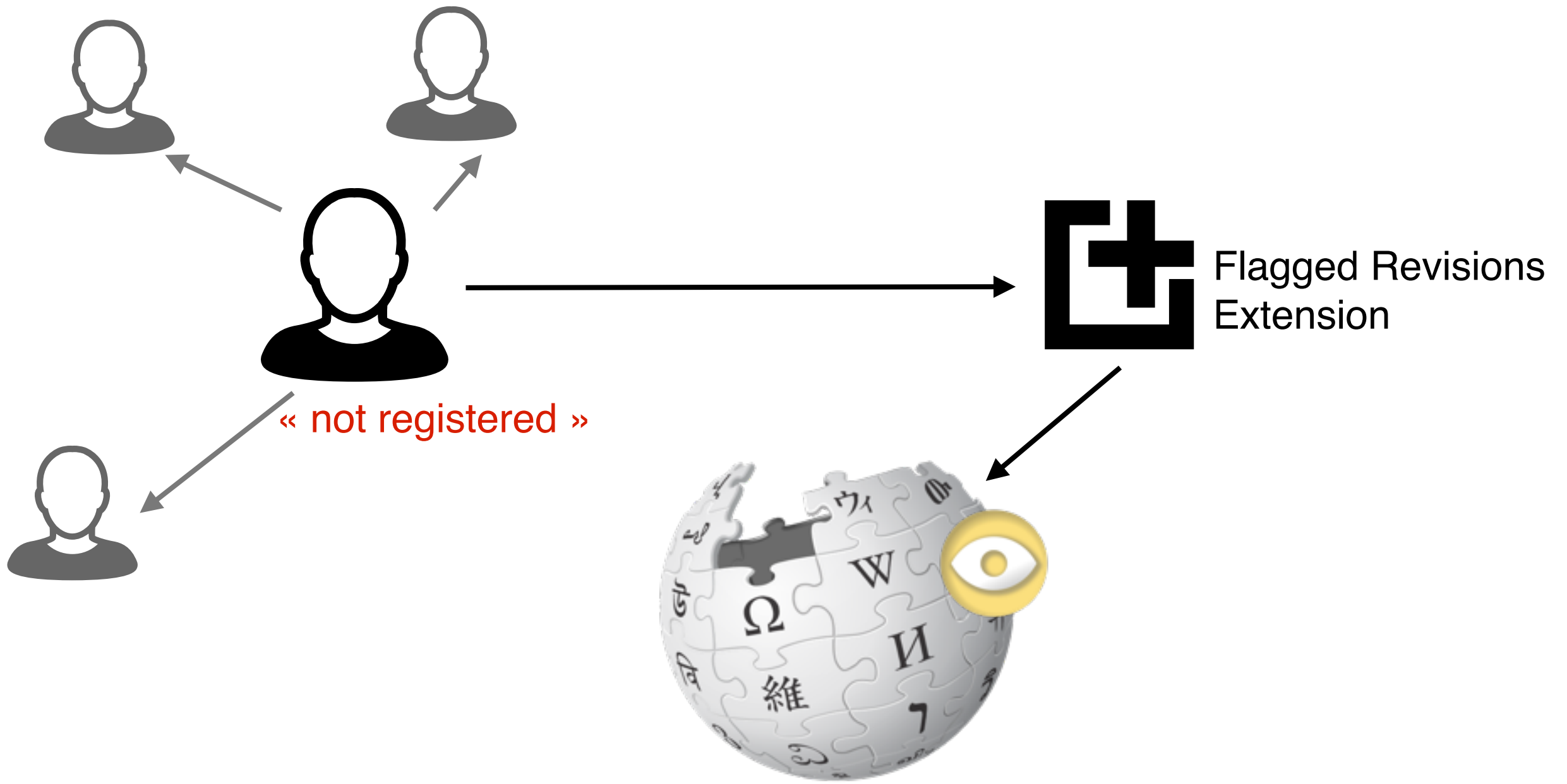


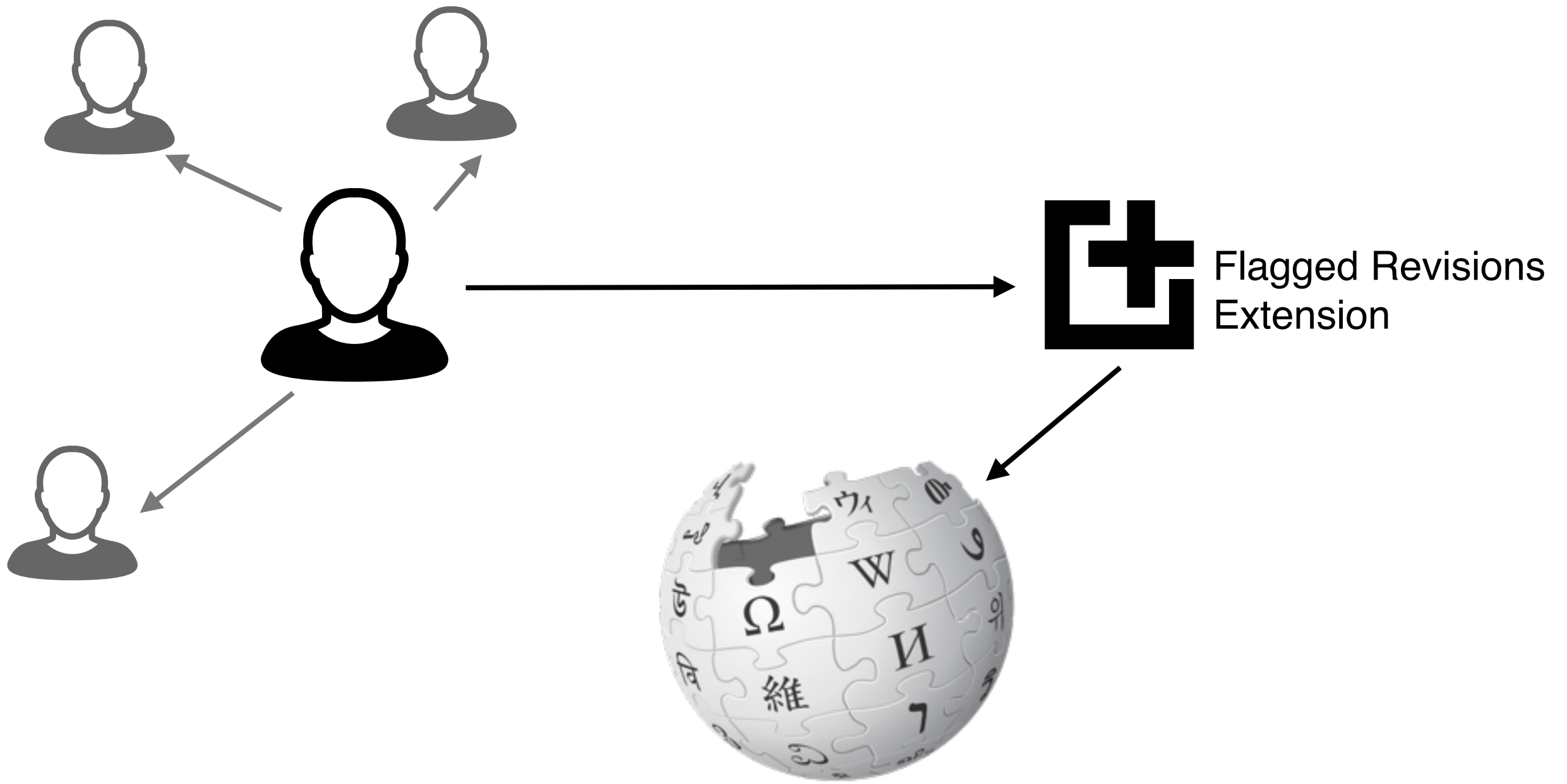


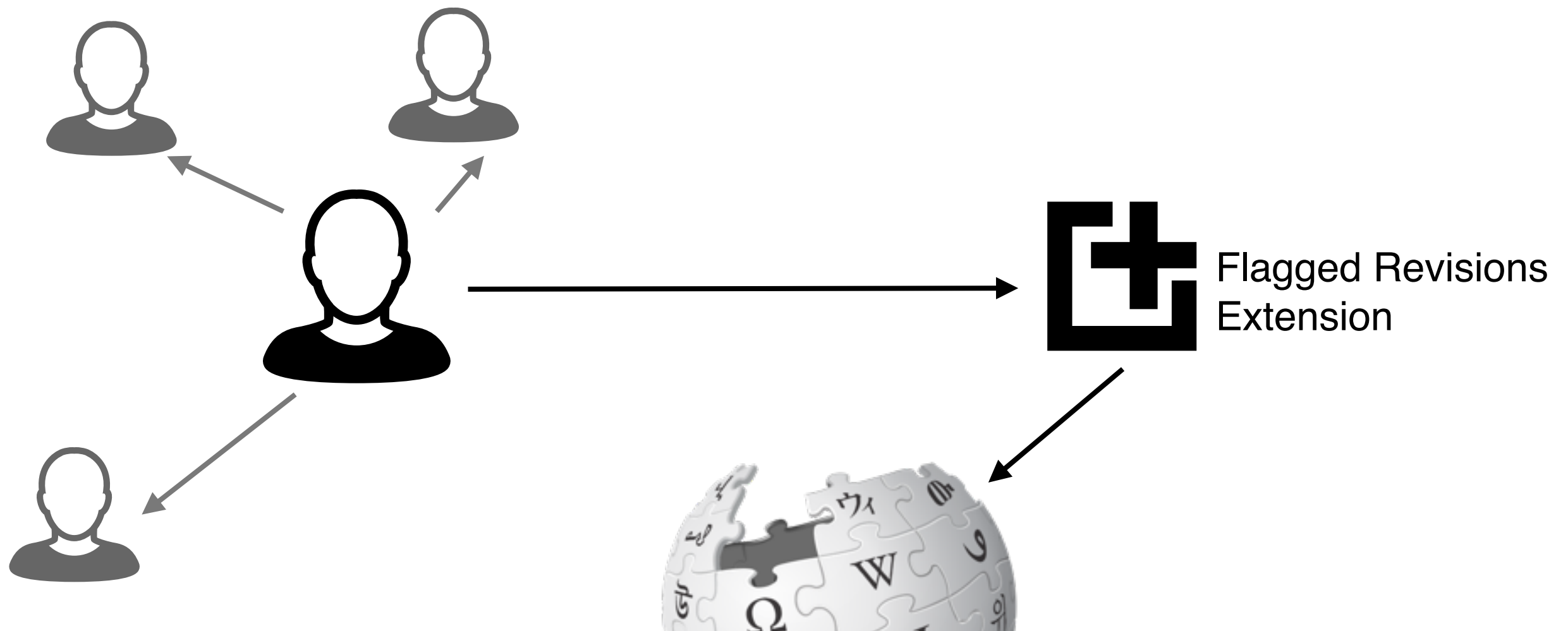




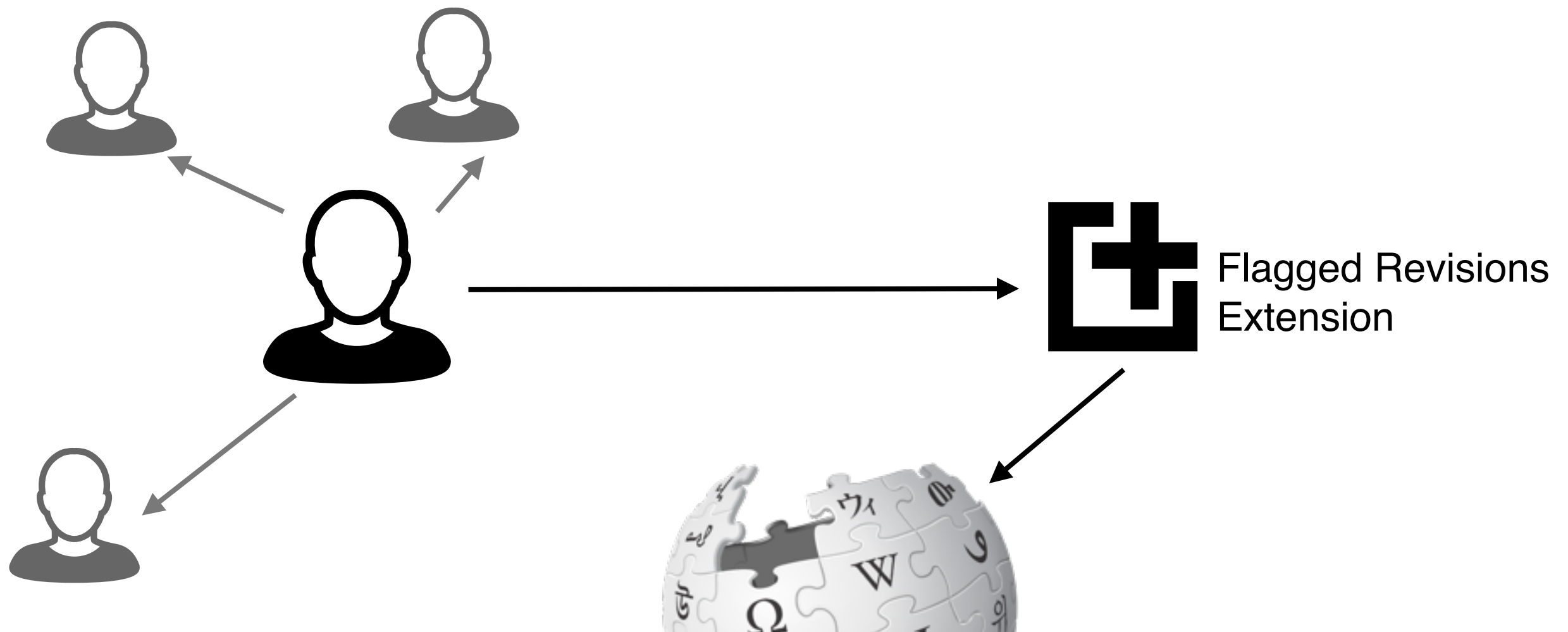




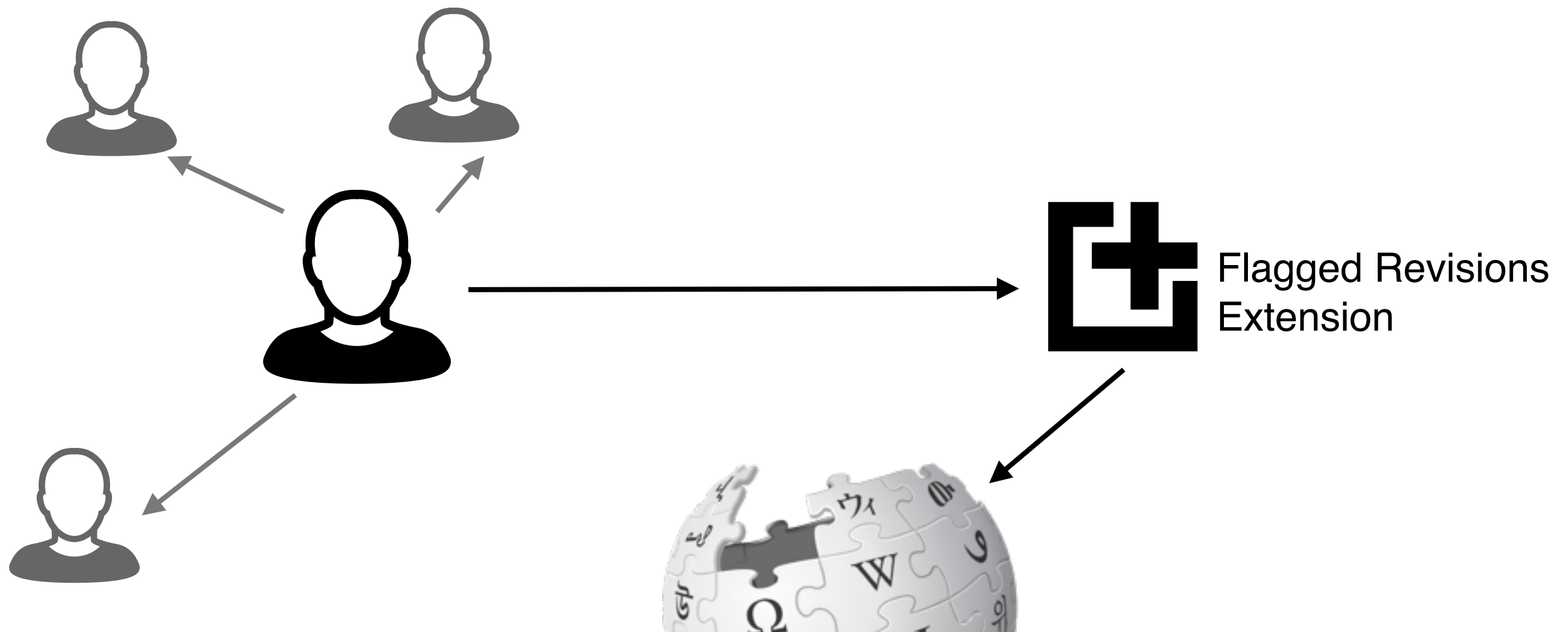




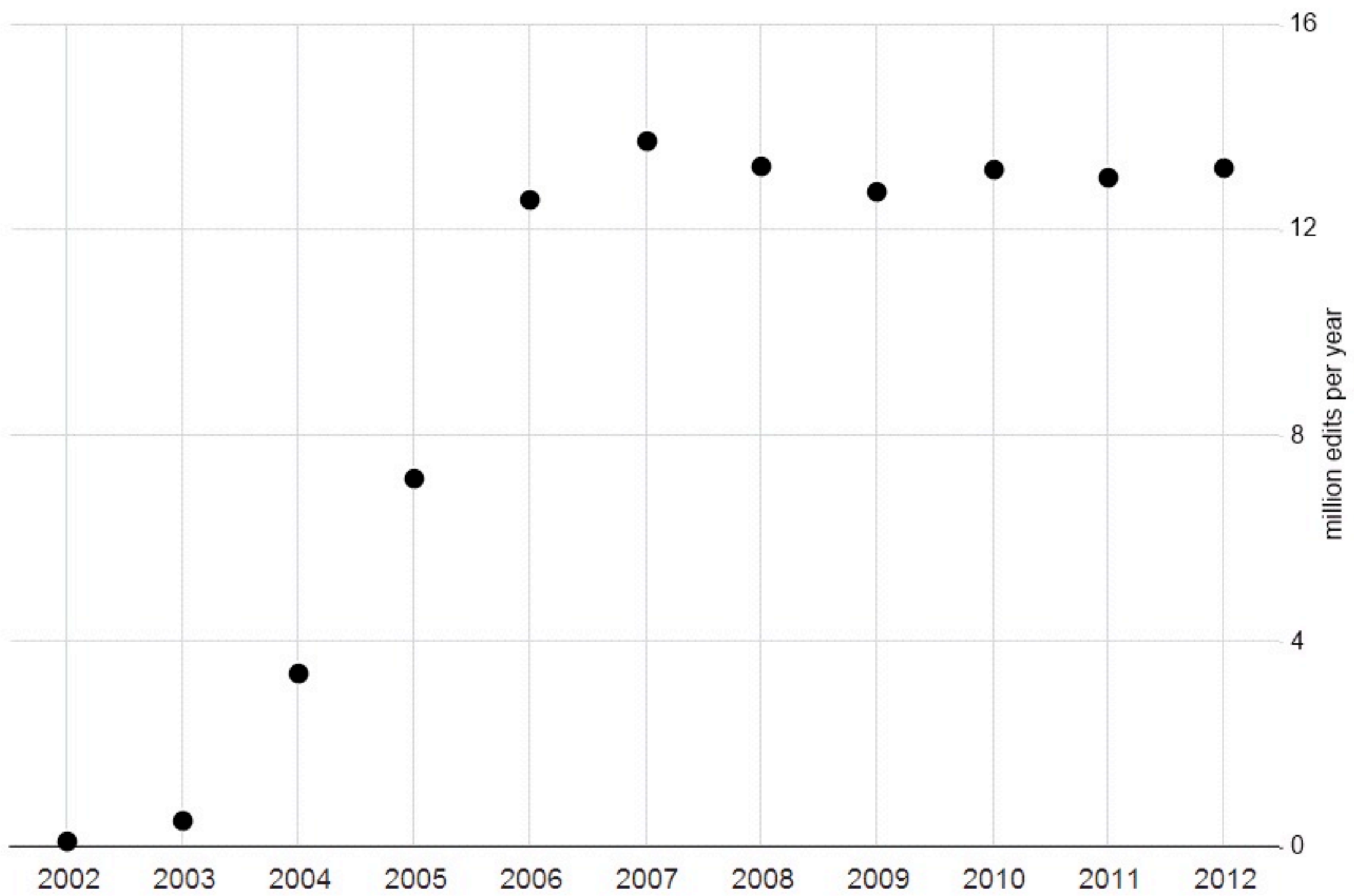
- Not registered editors can only indirectly check their contributions.

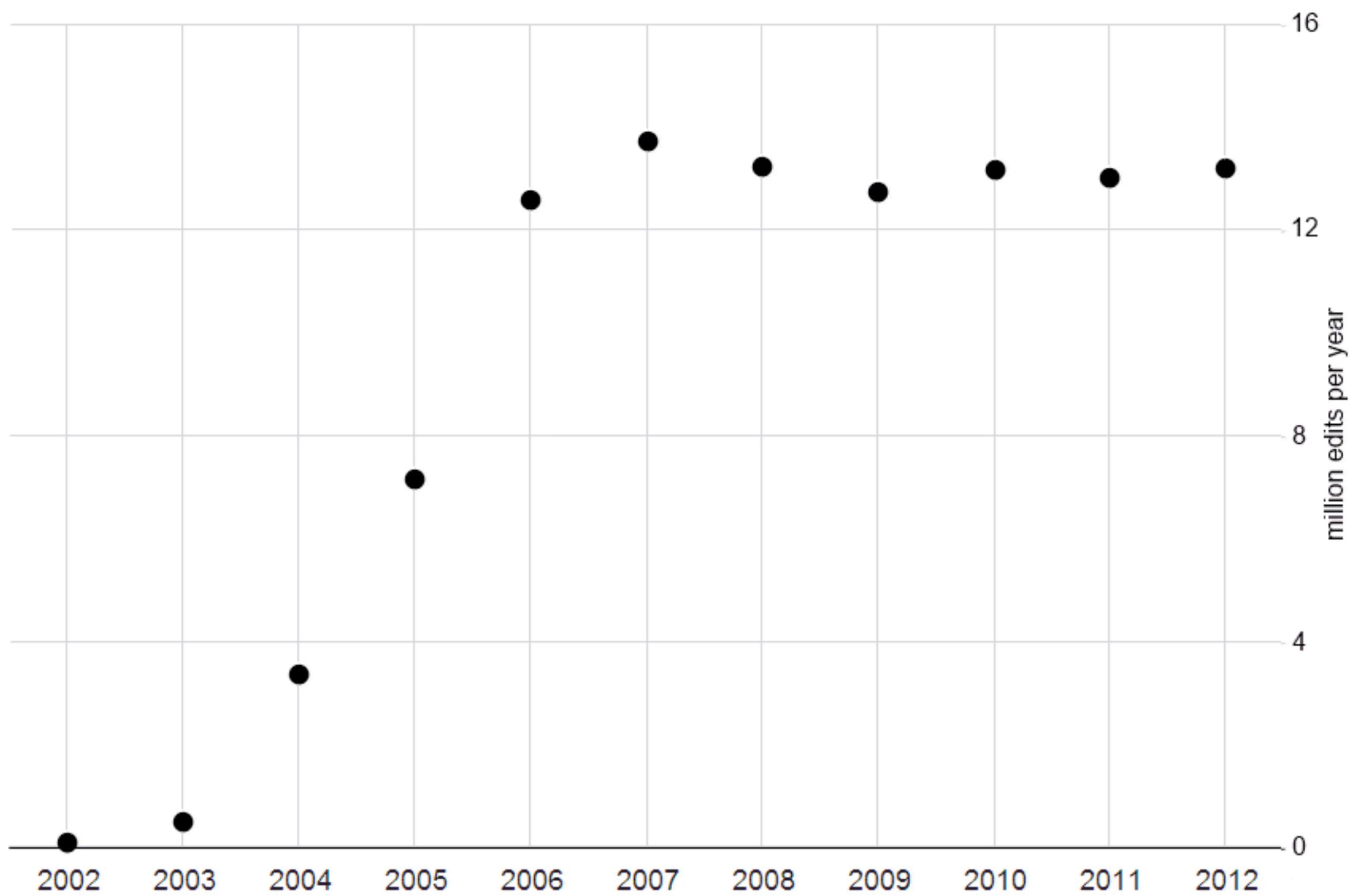


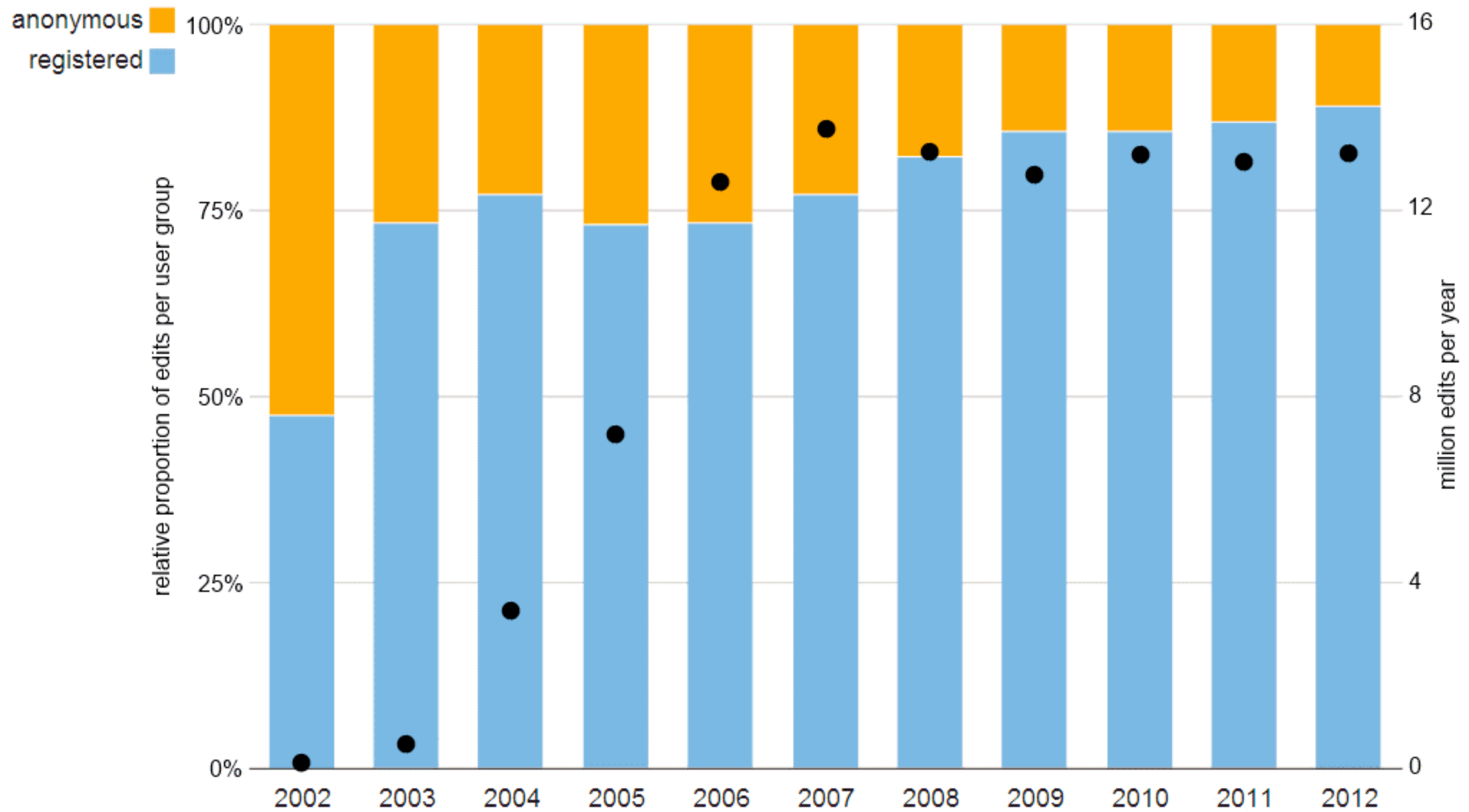
- Not registered editors can only indirectly check their contributions.
- The semi-manual system of detecting malicious contributions has been replaced by an automated workflow.

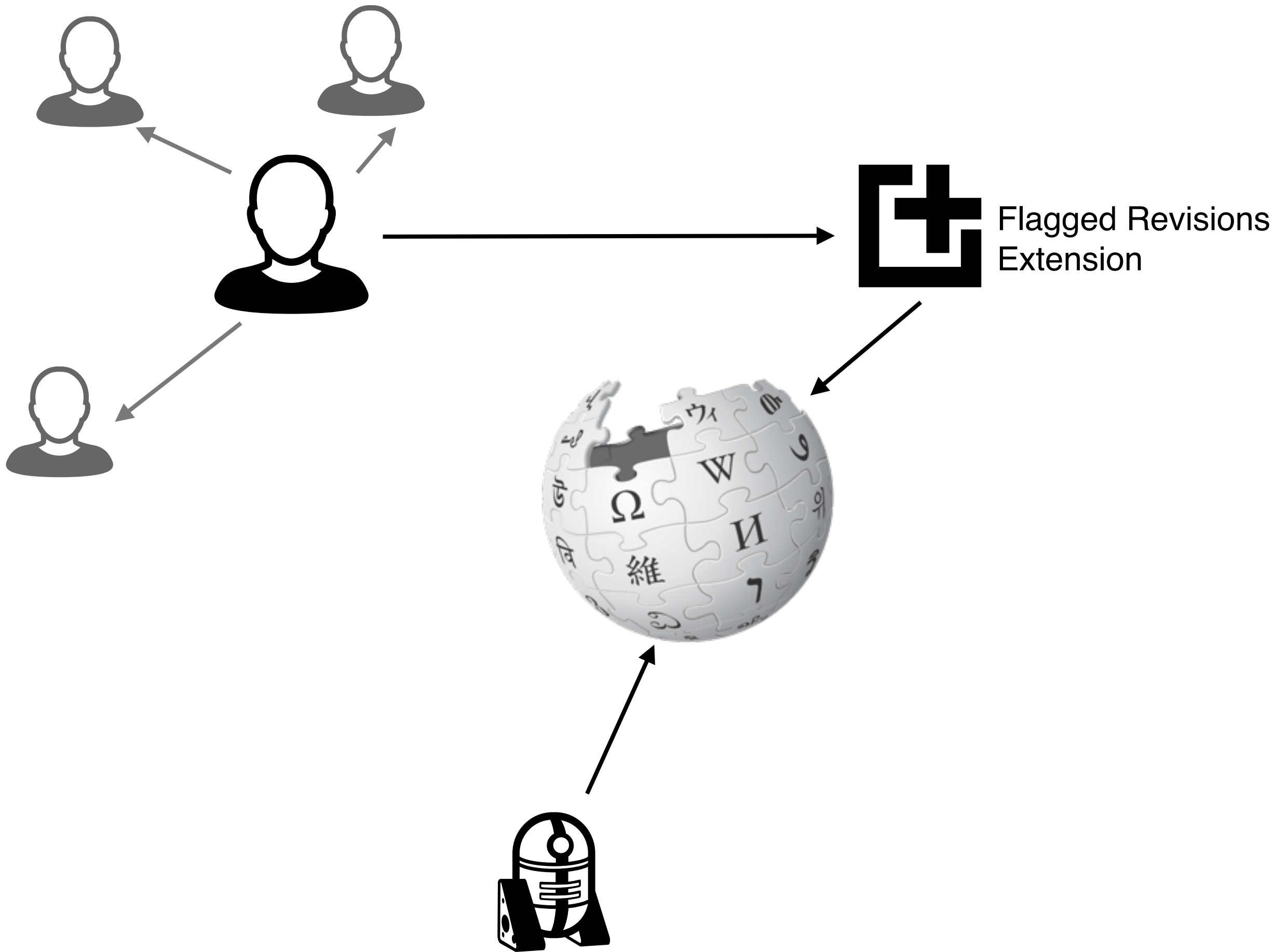


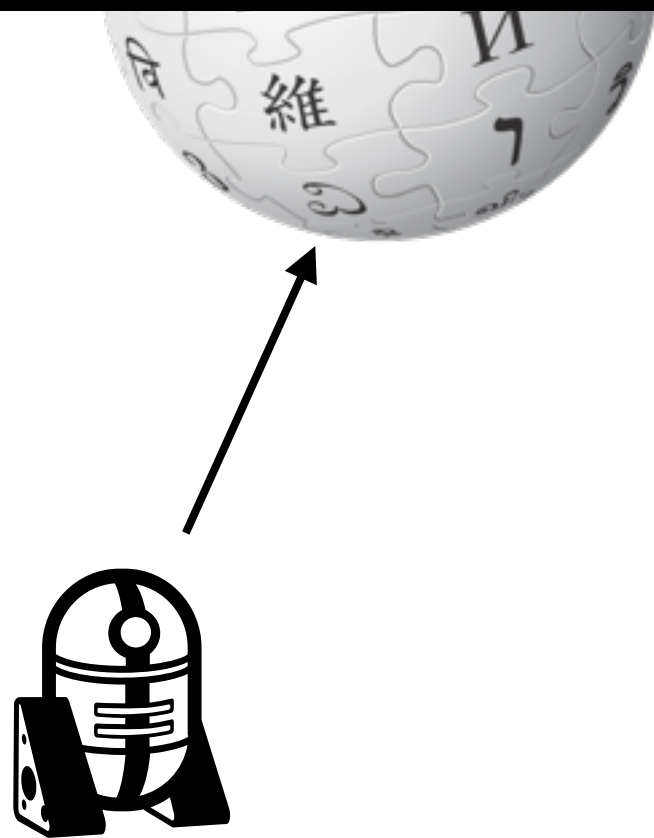
- Not registered editors can only indirectly check their contributions.
- The semi-manual system of detecting malicious contributions has been replaced by an automated workflow.
- Positive faith has been replaced by a negative one.



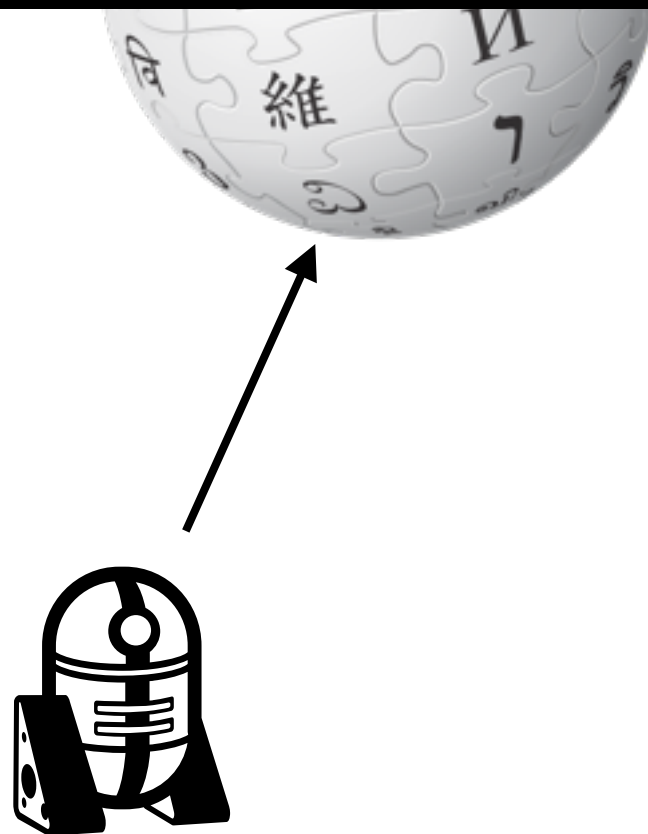




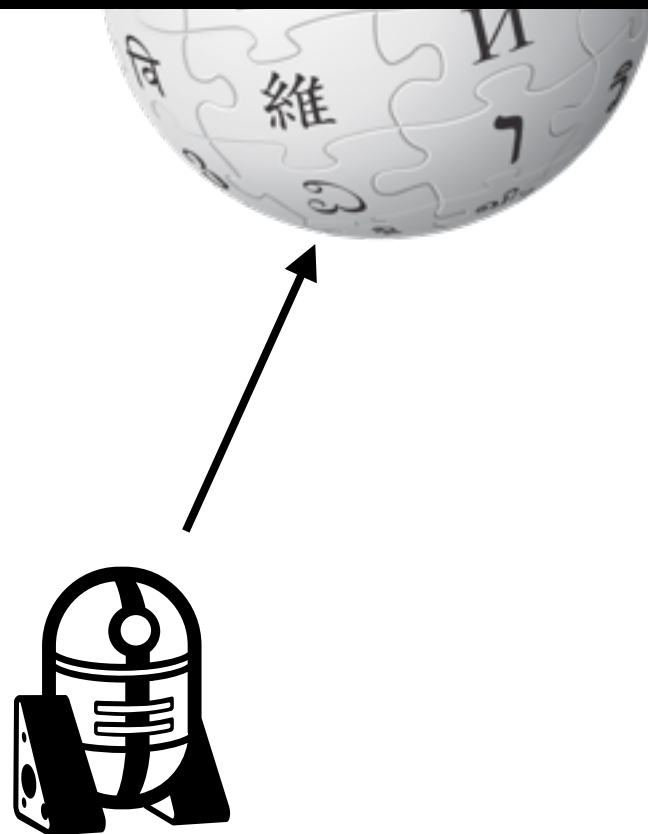




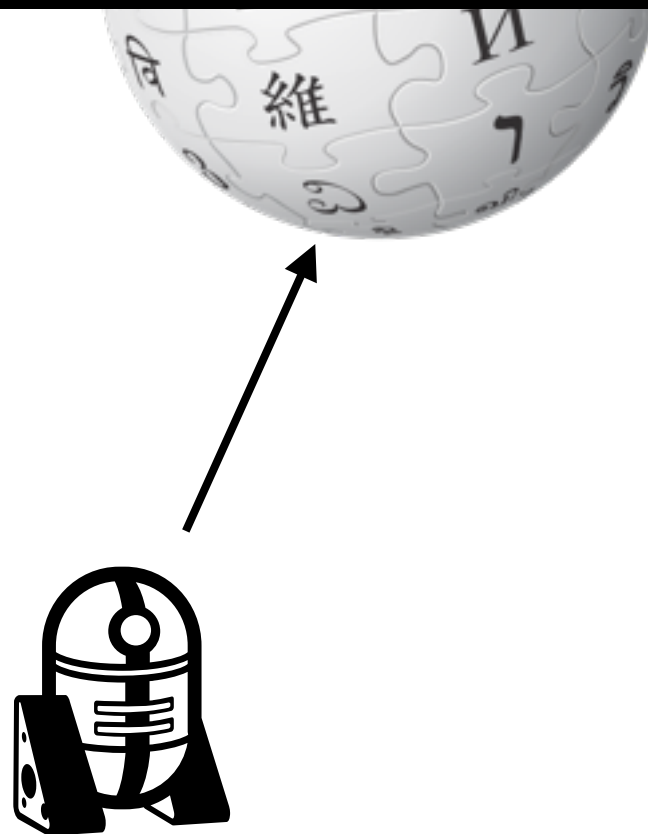
- Bots are autonomous software programs that make edits based on predefined rules



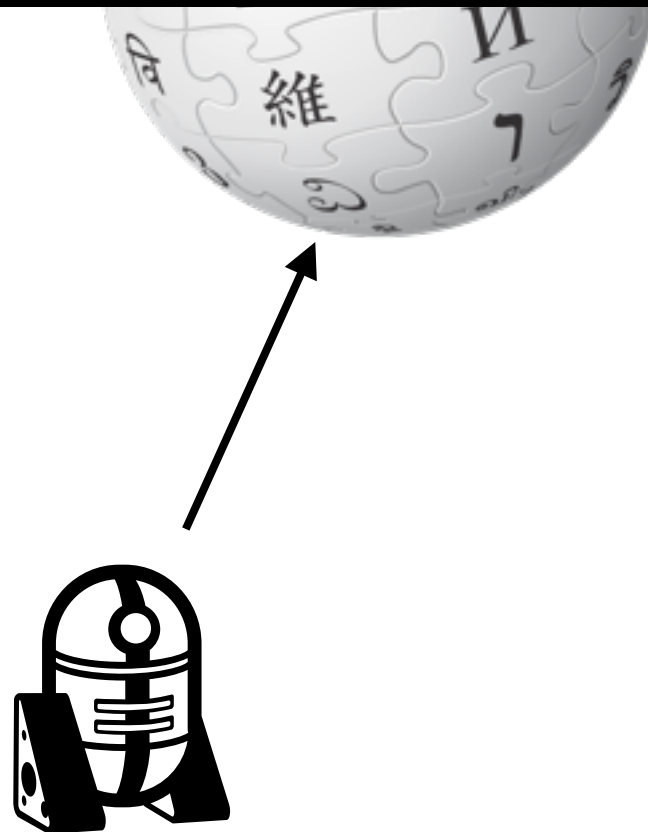
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- Bots help their operators to carry out “mindless, boring and often reoccurring tasks”

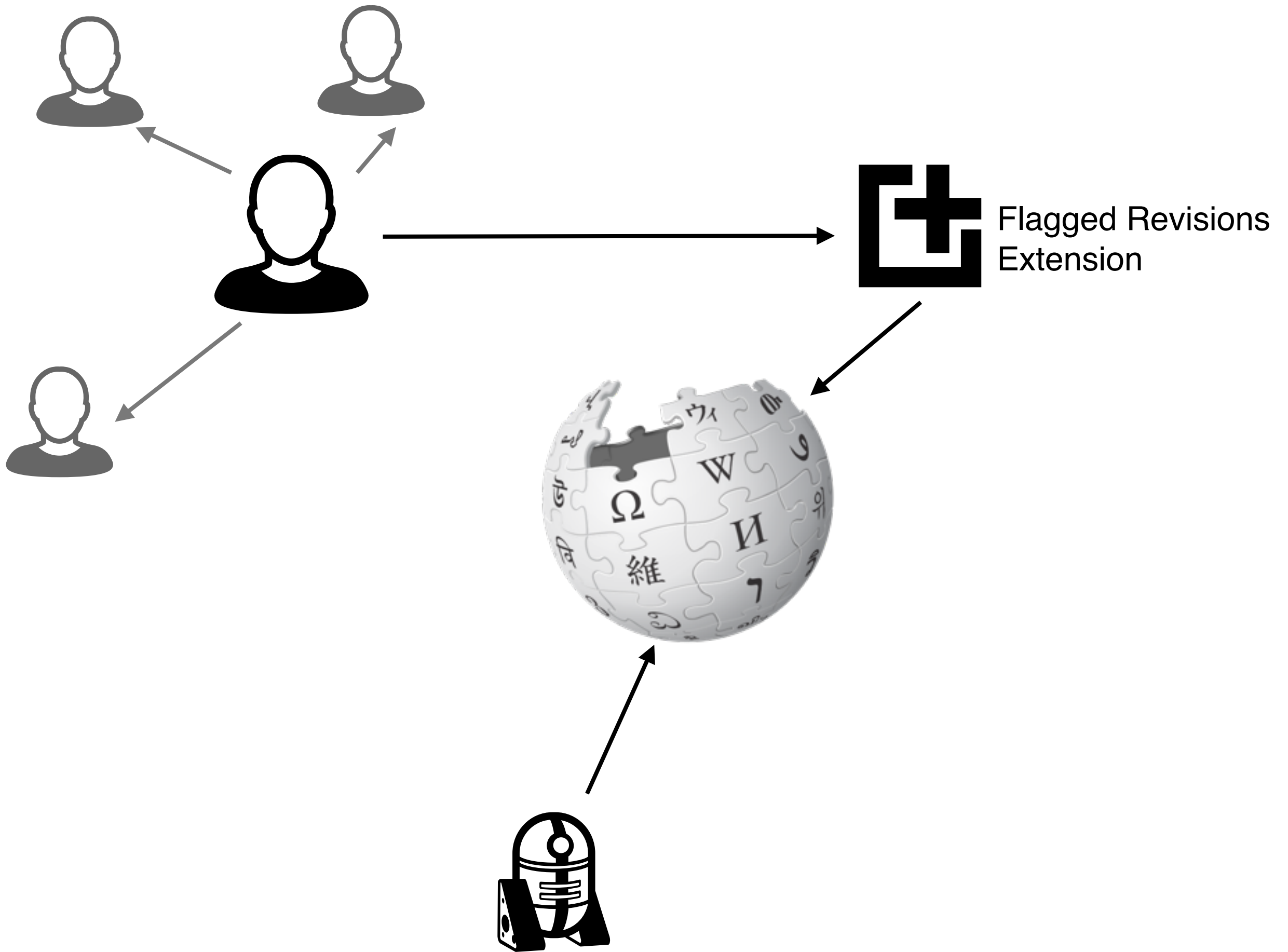


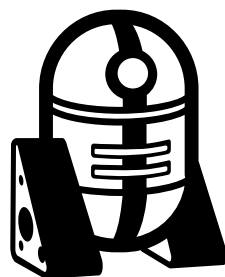
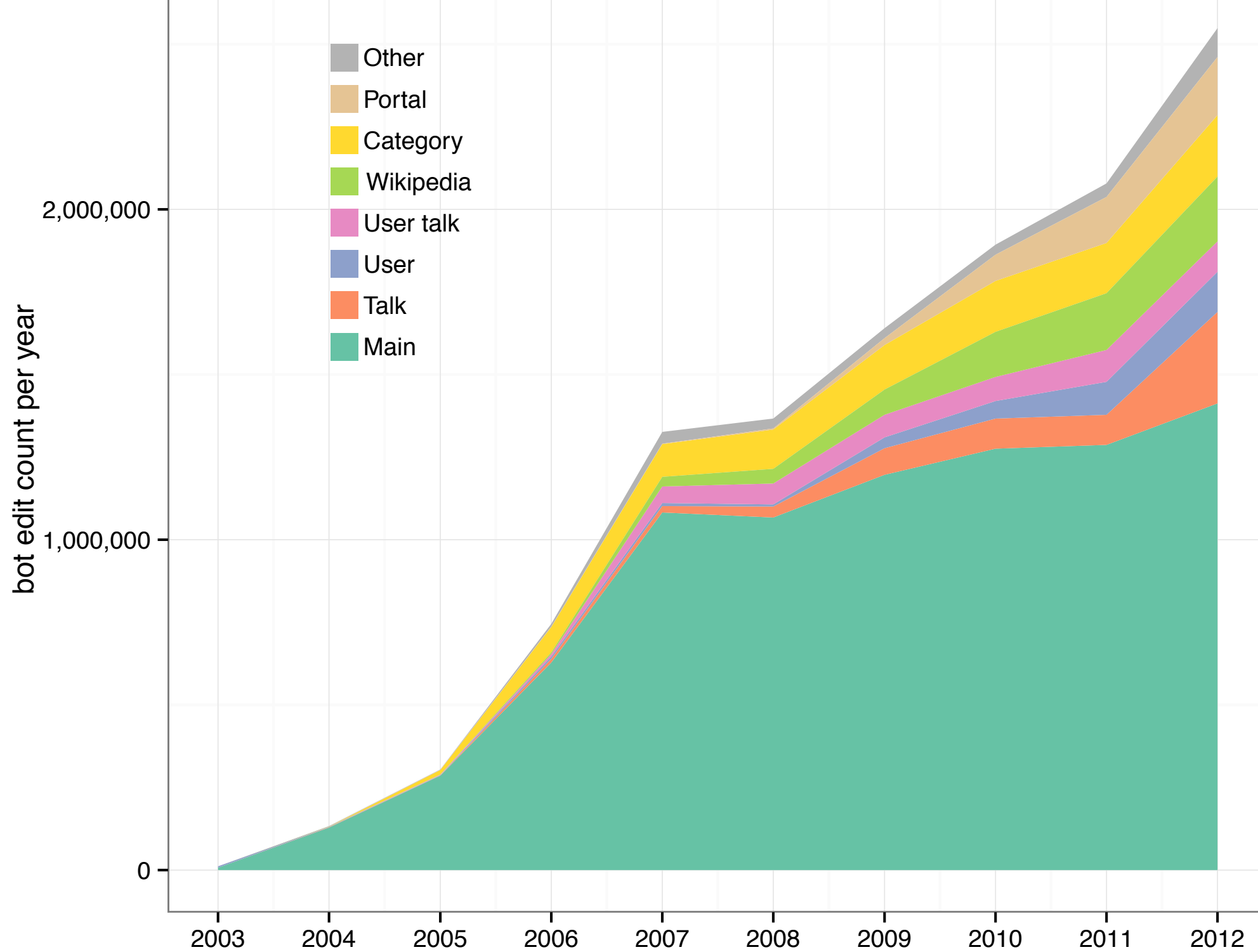
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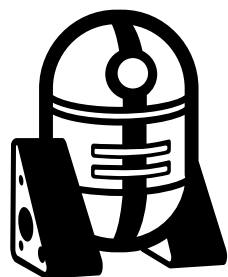
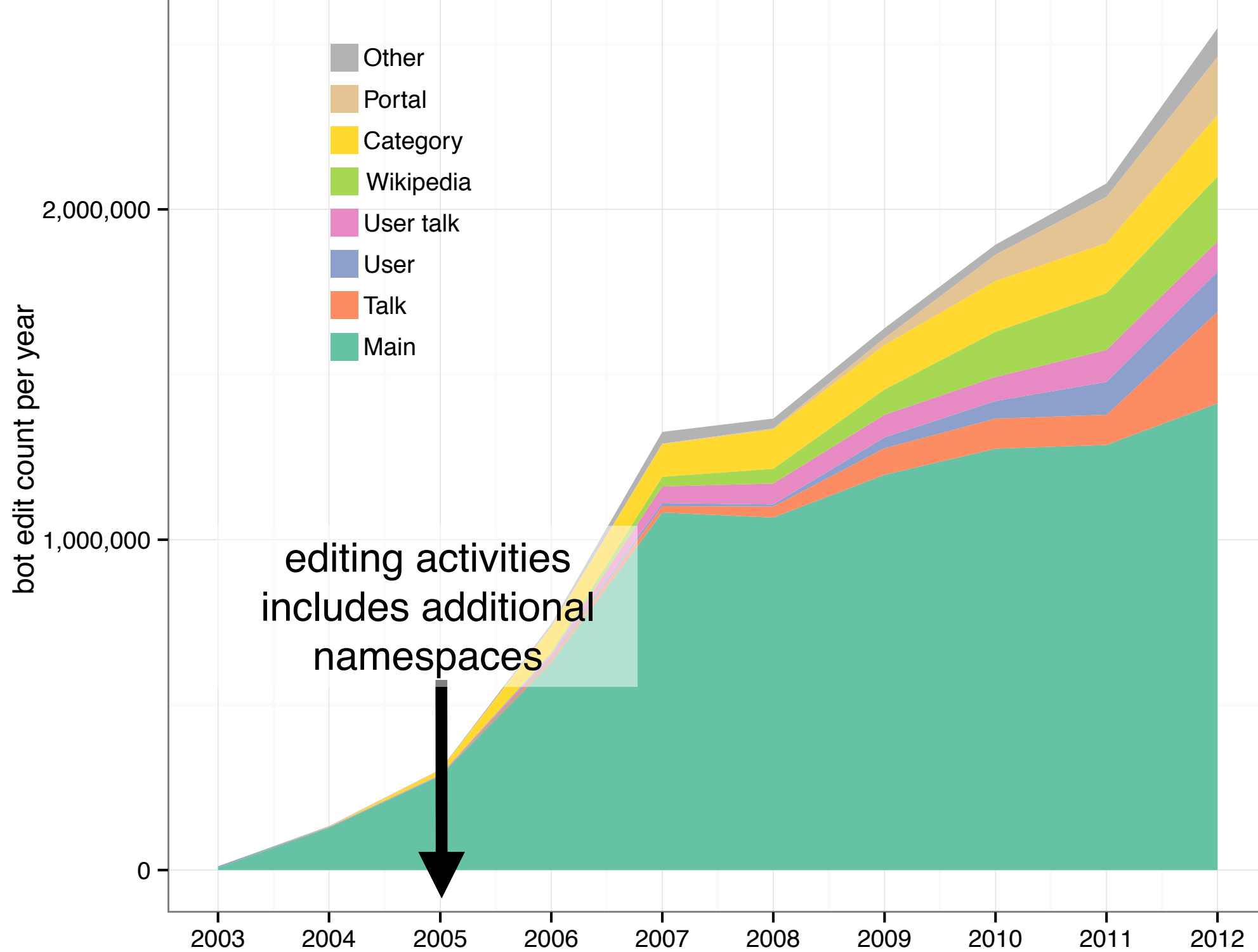


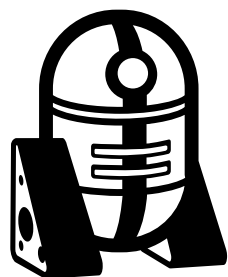
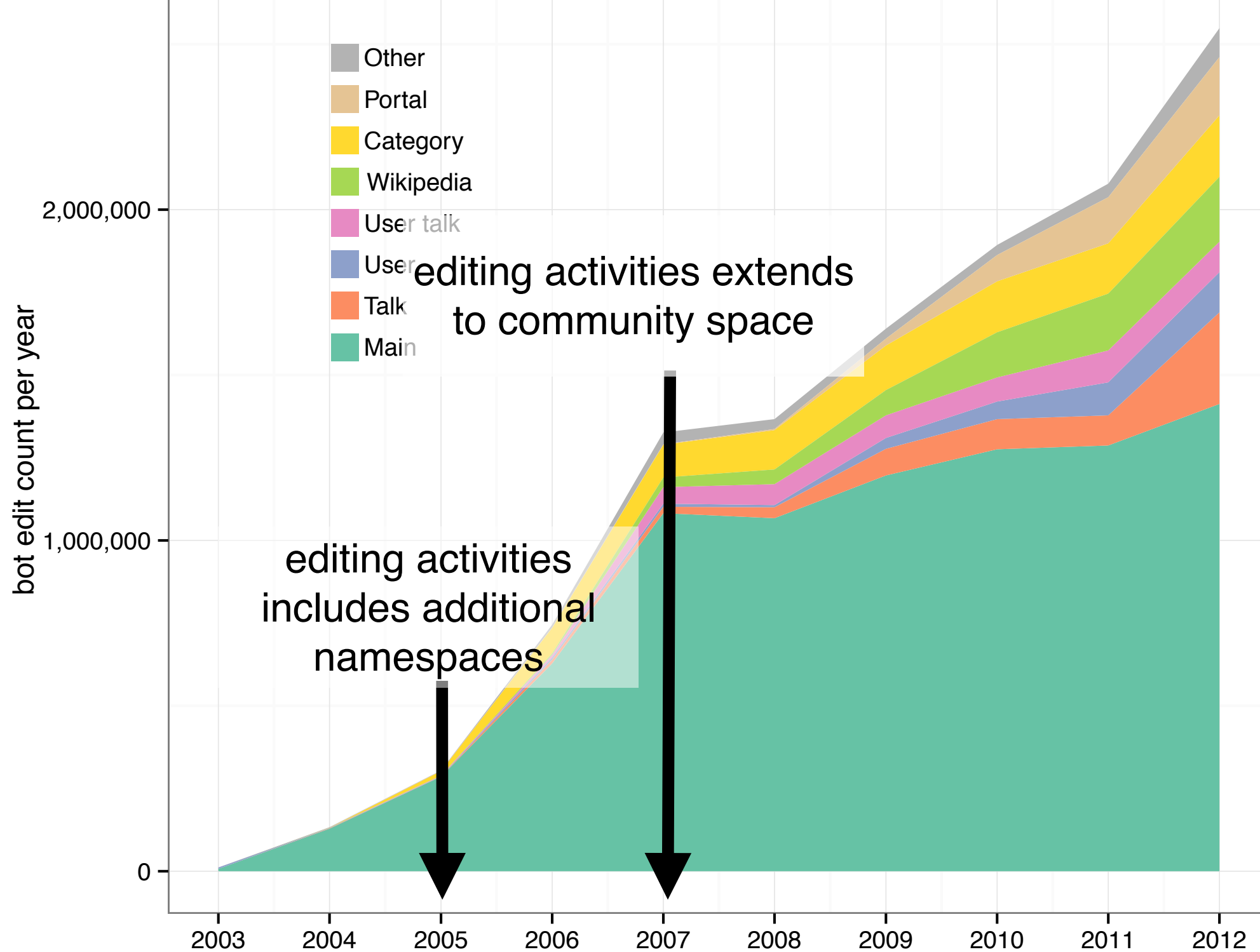
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- Bots should avoid editing activities outside the article namespace

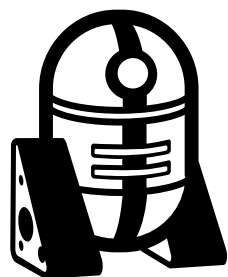
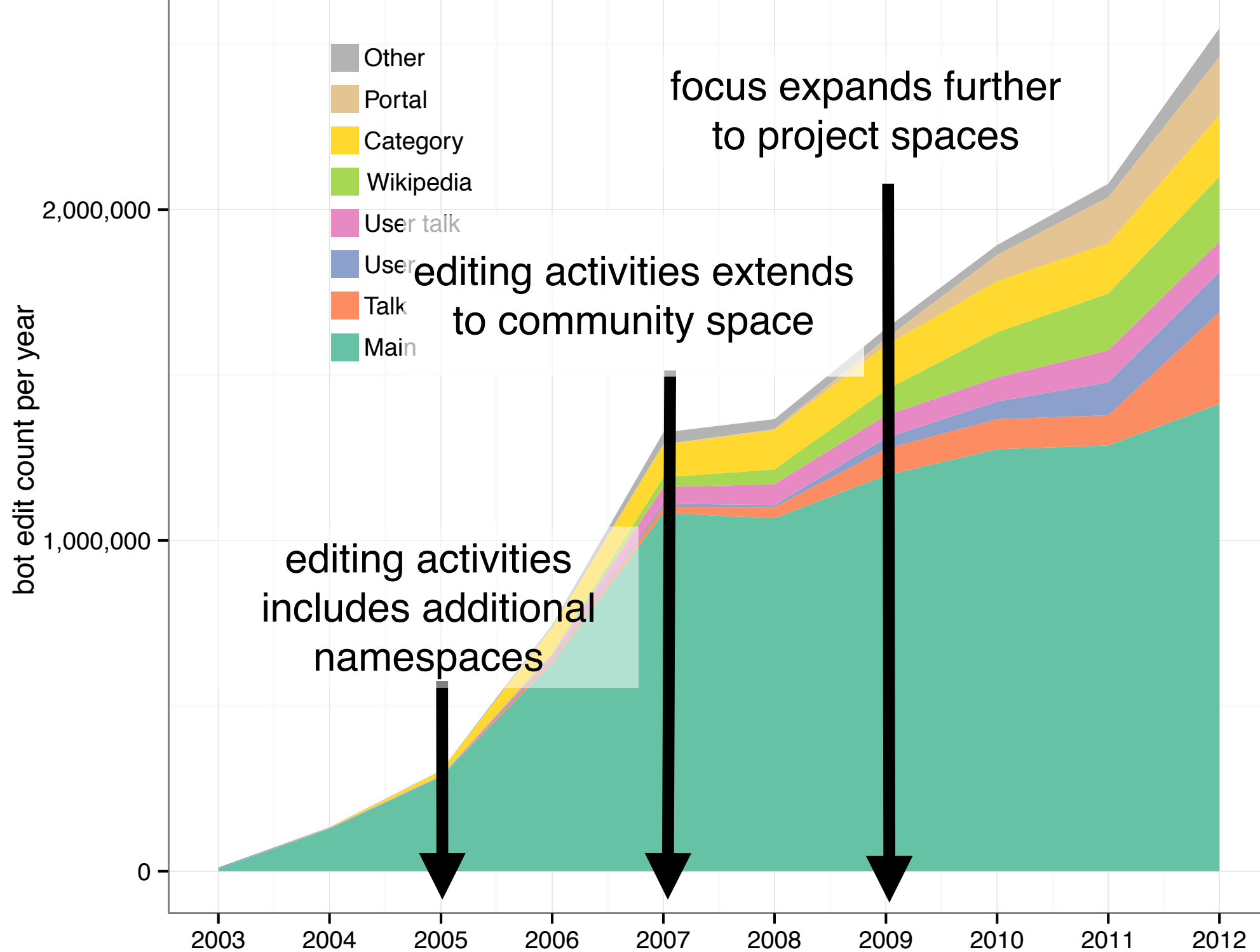


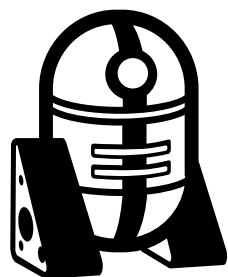
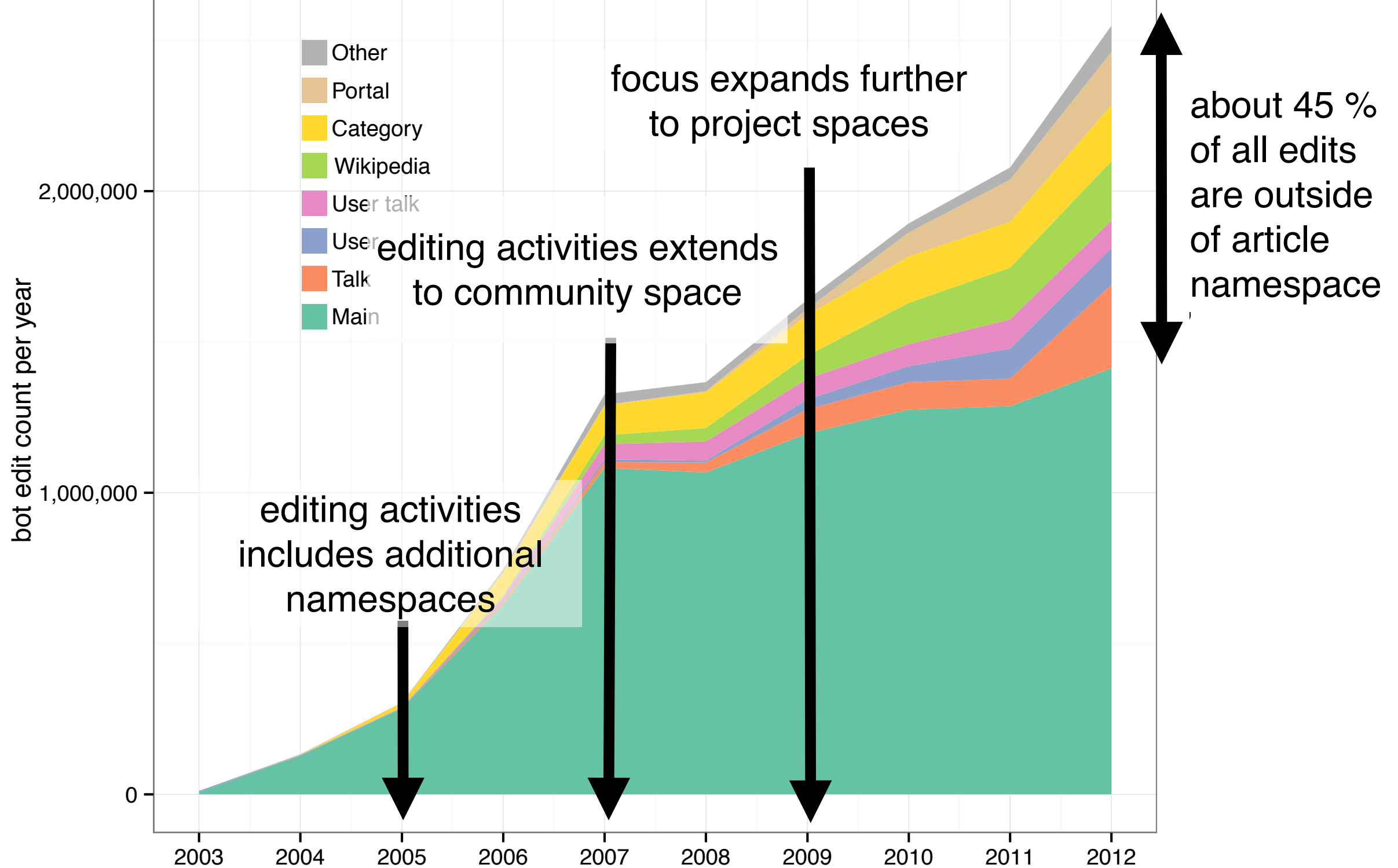












set interwiki-link

update template

link disambiguation

update data

edit language

archive article

check for spam

add data

inter-bot-cooperation

check syntax

send to-do alert

add template

create content list

enforce rule

create to-do list

compile statistic

welcome user

support election

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- Content-oriented focus
- Almost 97% of all analyzed bots take over tasks in this area

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- Task-oriented focus
- 6% of all analyzed bots take over tasks in this area

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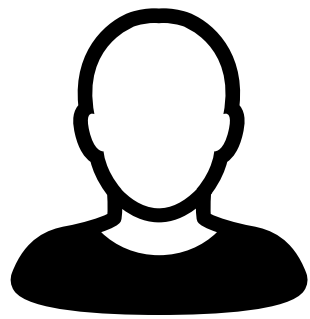
welcome user

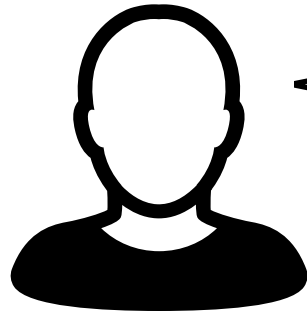
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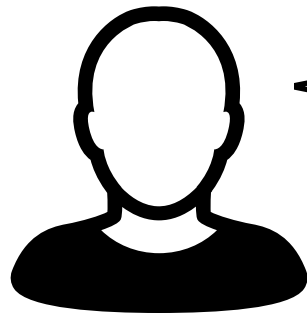
- Community-oriented focus
- 1% of all analyzed bots take over tasks in this area

support election



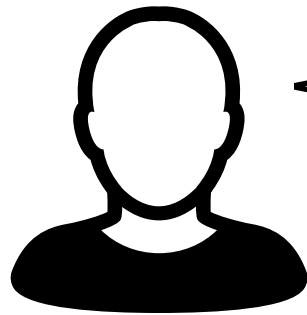


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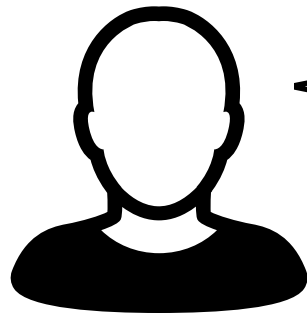
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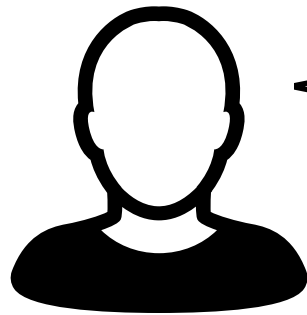
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- An administrator is automatically re-elected if users with voting rights support this re-election request.
- Either 25 votes within one month or 50 within six months are needed.

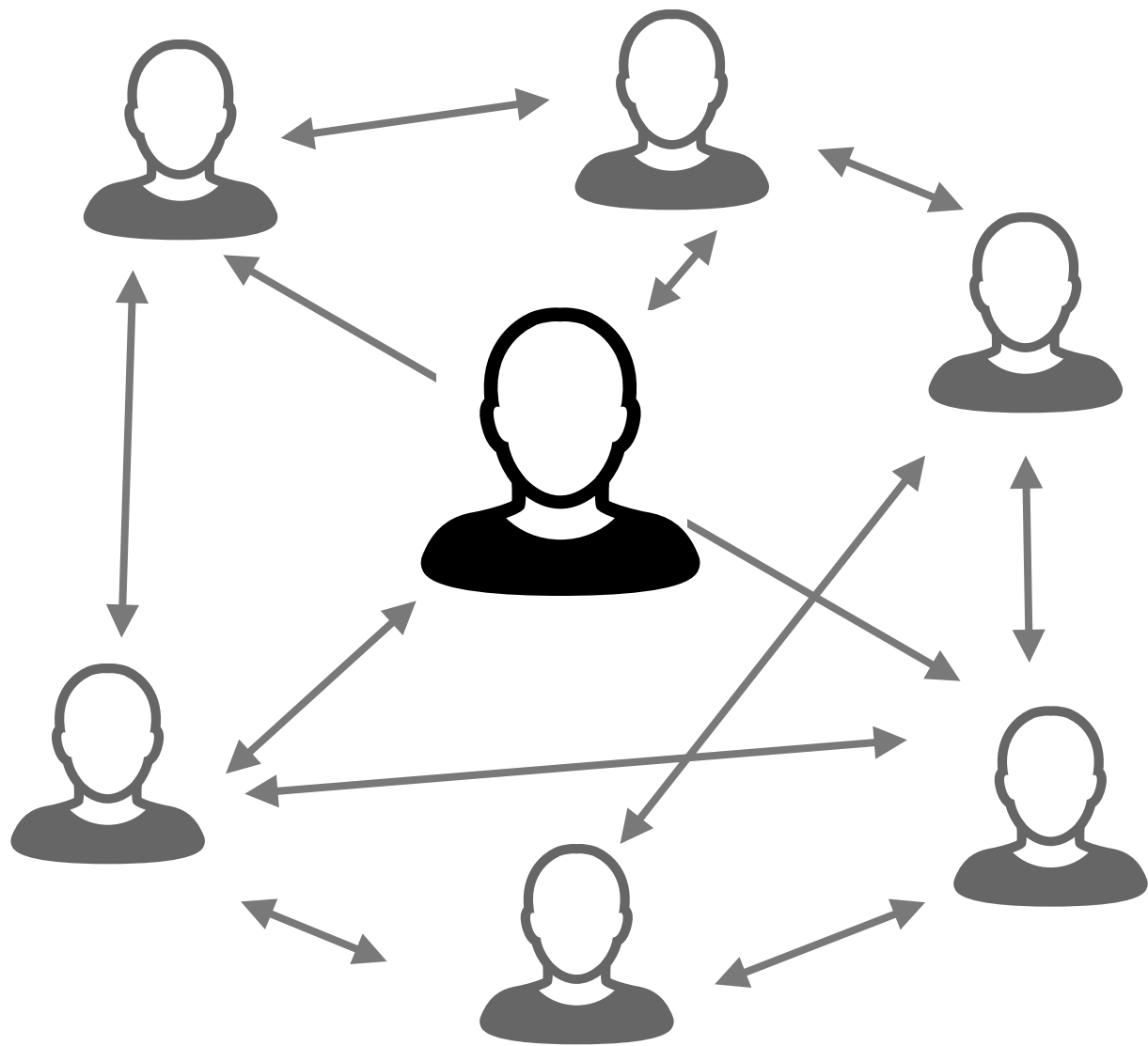


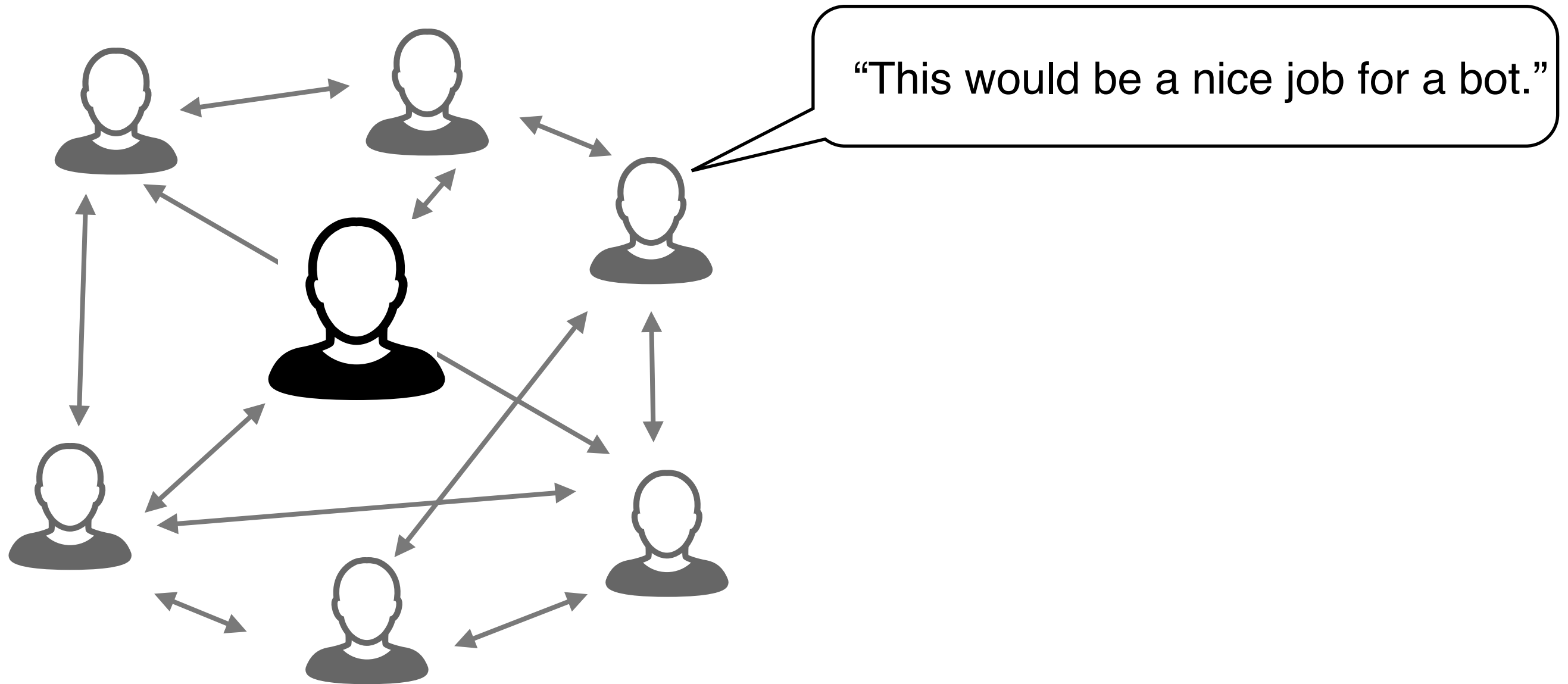
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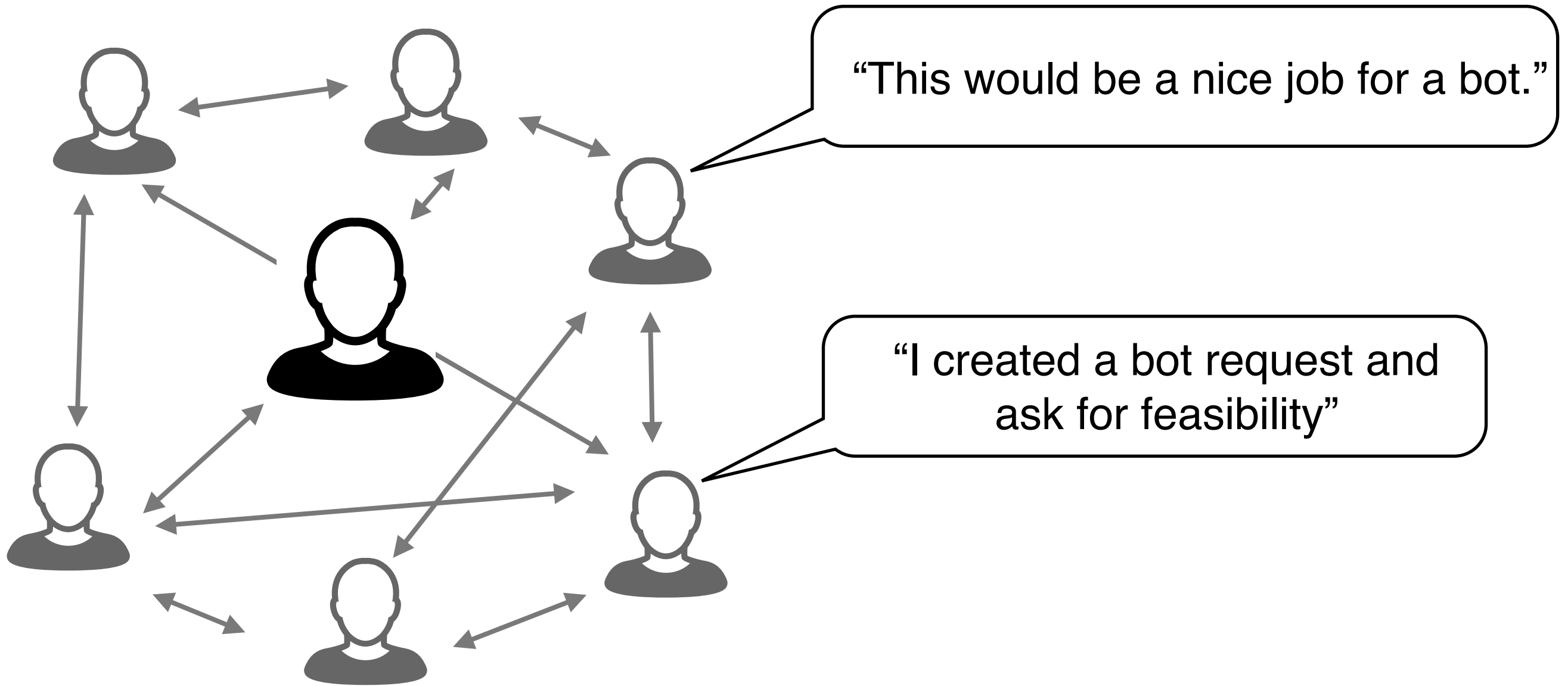
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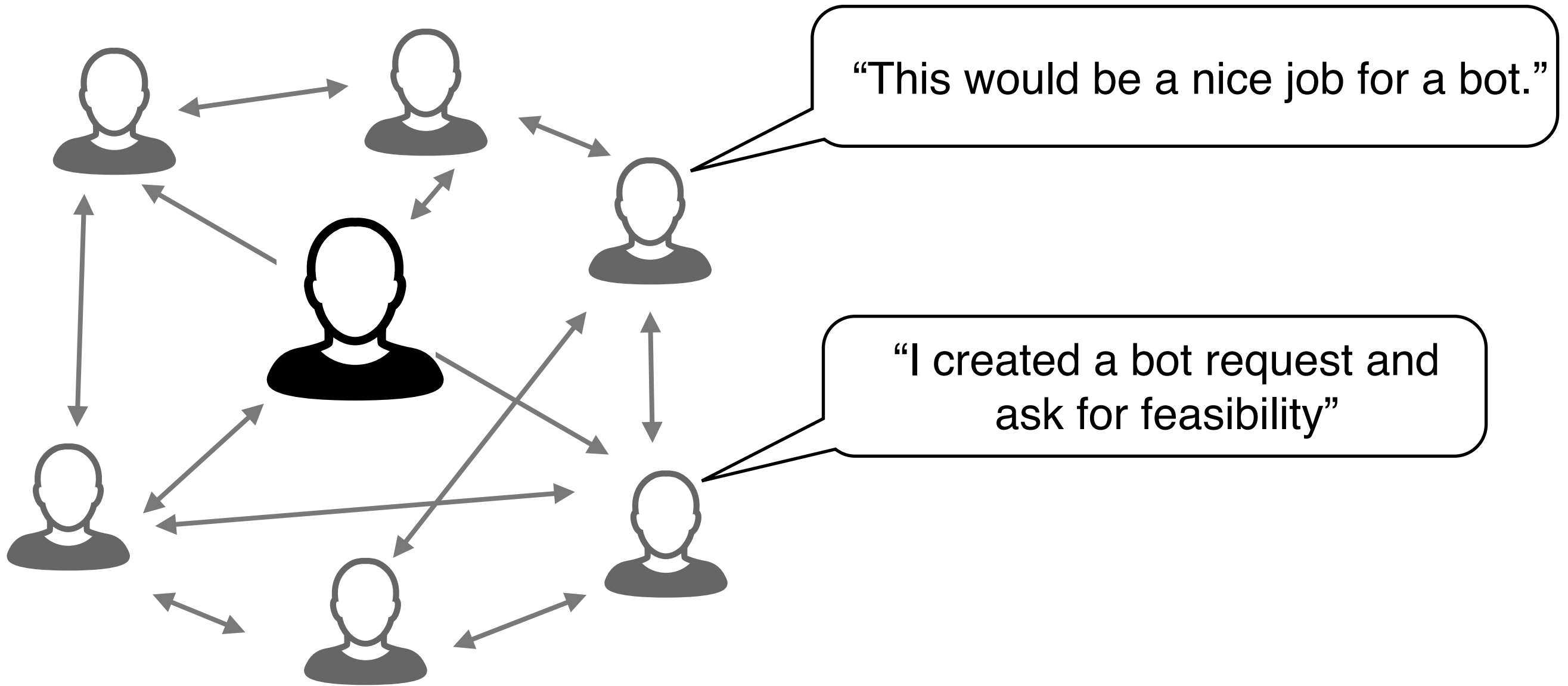
- An administrator is automatically re-elected if users with voting rights support this re-election request.
- Either 25 votes within one month or 50 within six months are needed.
- Votes are only valid if they are submitted (by signing a page) in one of the two possible periods of time .

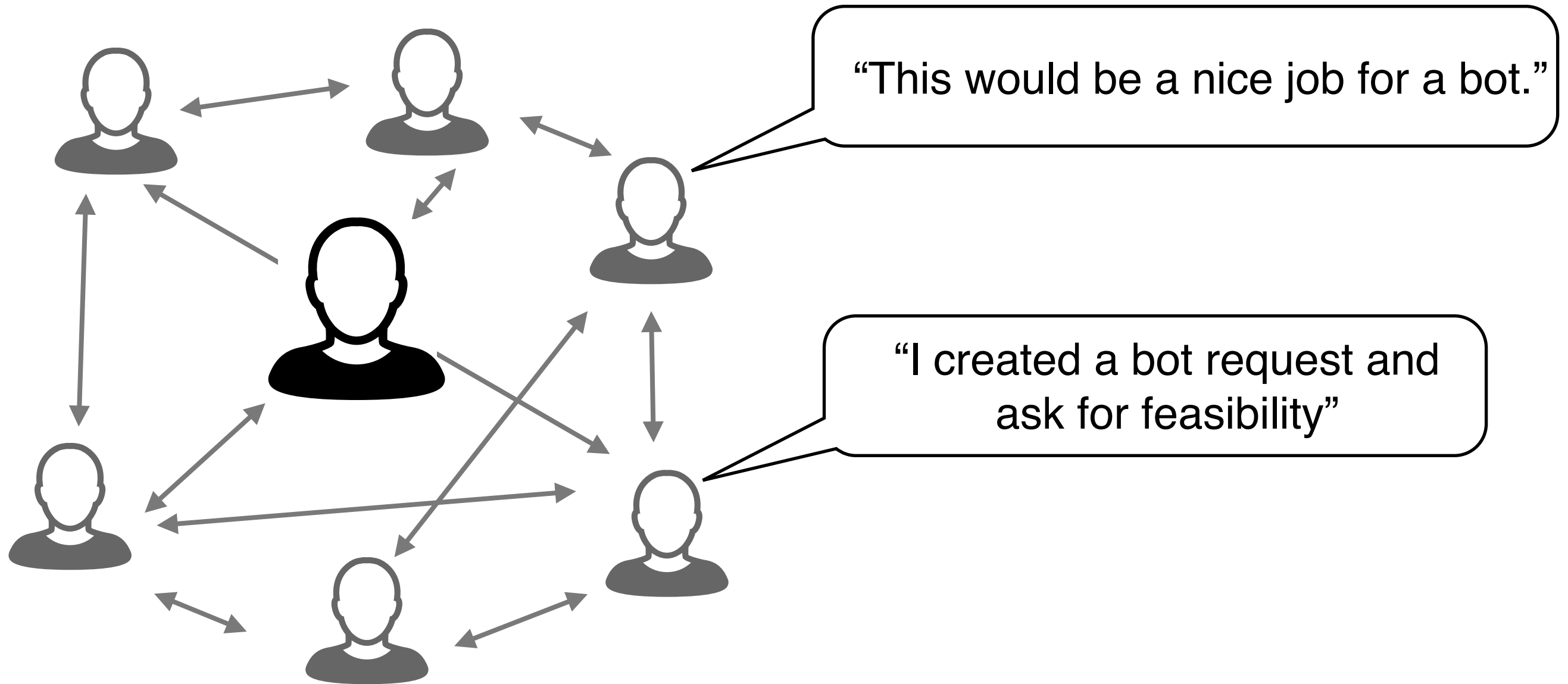




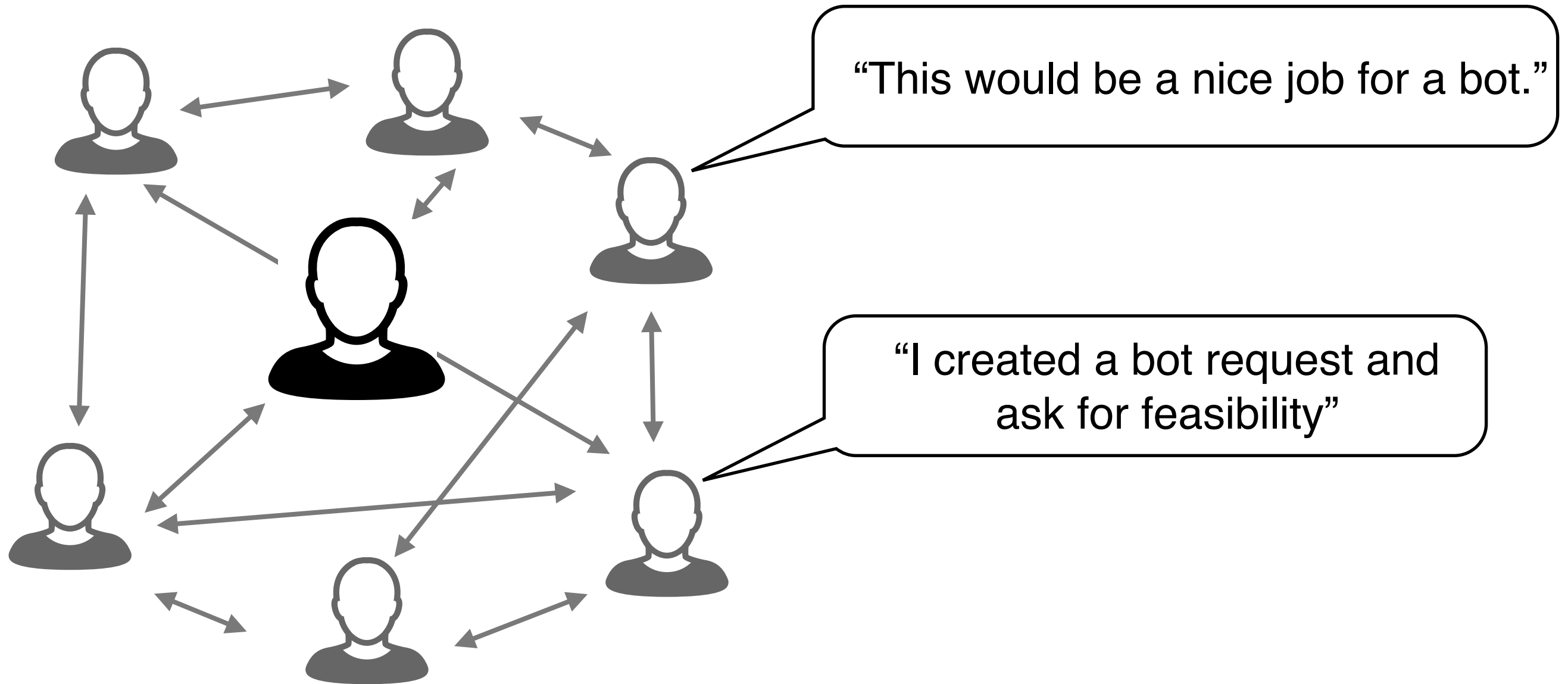




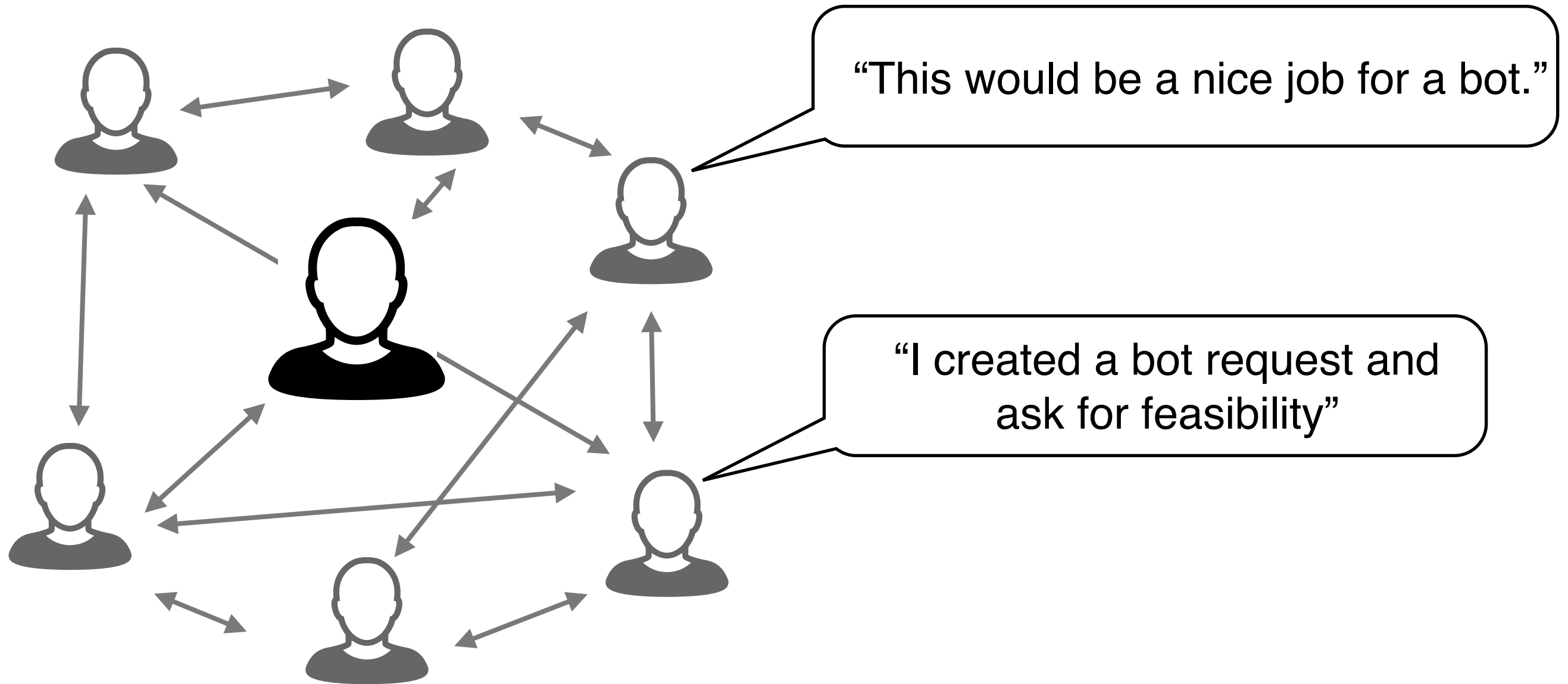




- The final community consensus was to delete these obsolete votes and one bot operator agreed to incorporate this task into her software.

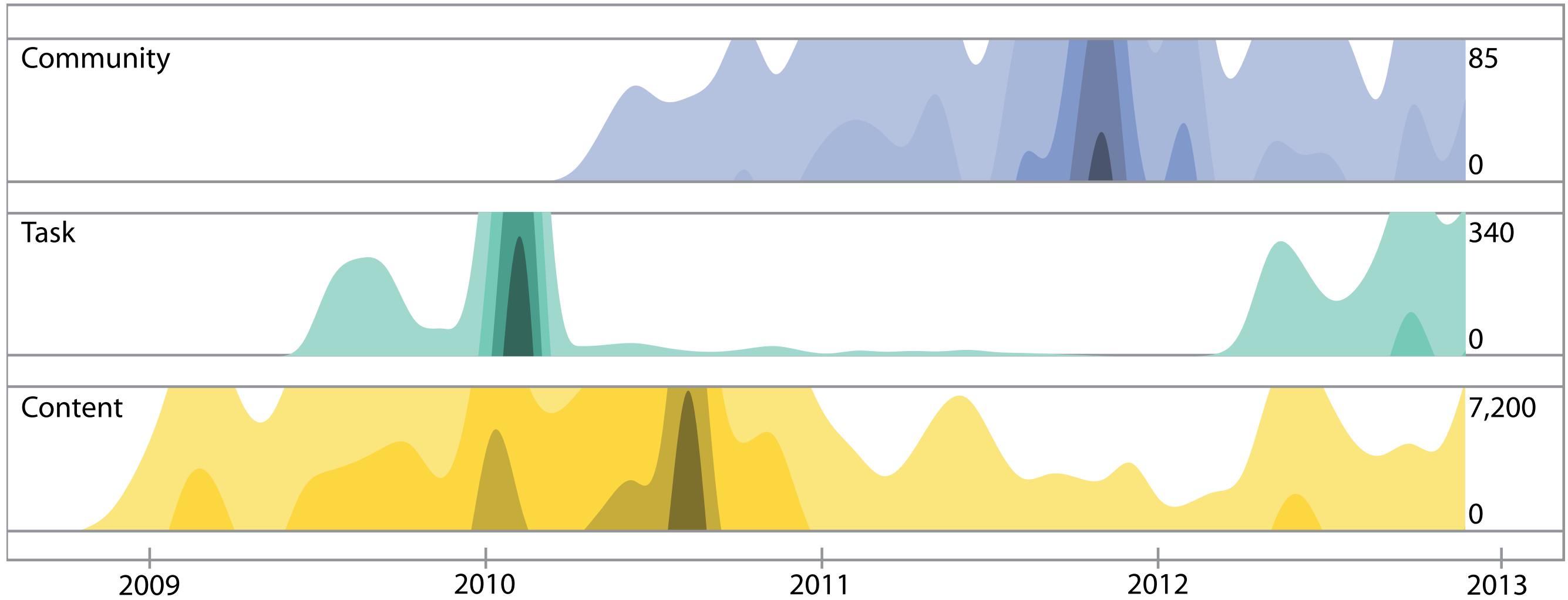


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- The requirements of how to implement the bot have not been discussed - the bot operator just “extended” an existing program.
- A rule is algorithmically translated but its realization is invisible because the source code is not publicly available.

xqbot's extending activity focus over time



Let's summaries

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- Software features and bots make guidelines and rules part of the infrastructure and to a certain extent, makes them harder to change and easier to enforce.
- The conversion of socially developed rules into algorithmic ones makes these rules less transparent.
- Algorithmically translated rules are more scalable but they do not handle exceptions well.
- The extent and kind of algorithmic governance depends on the cultural background of a community.

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- We might investigate existing cultural differences in adapting algorithmic governance mechanisms.
- We might design new features that make the algorithms in the source code visible and understandable by non-programmers.

One example for stepping in the right direction

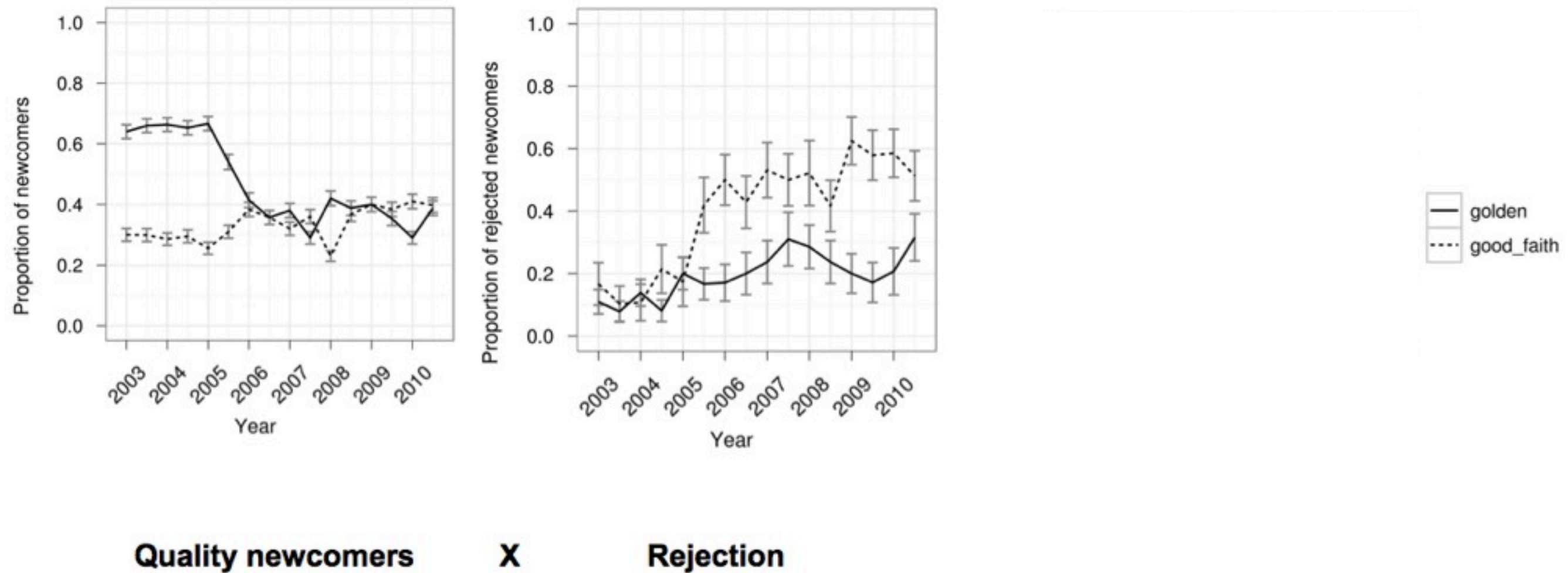
One example for stepping in the right direction



Quality newcomers

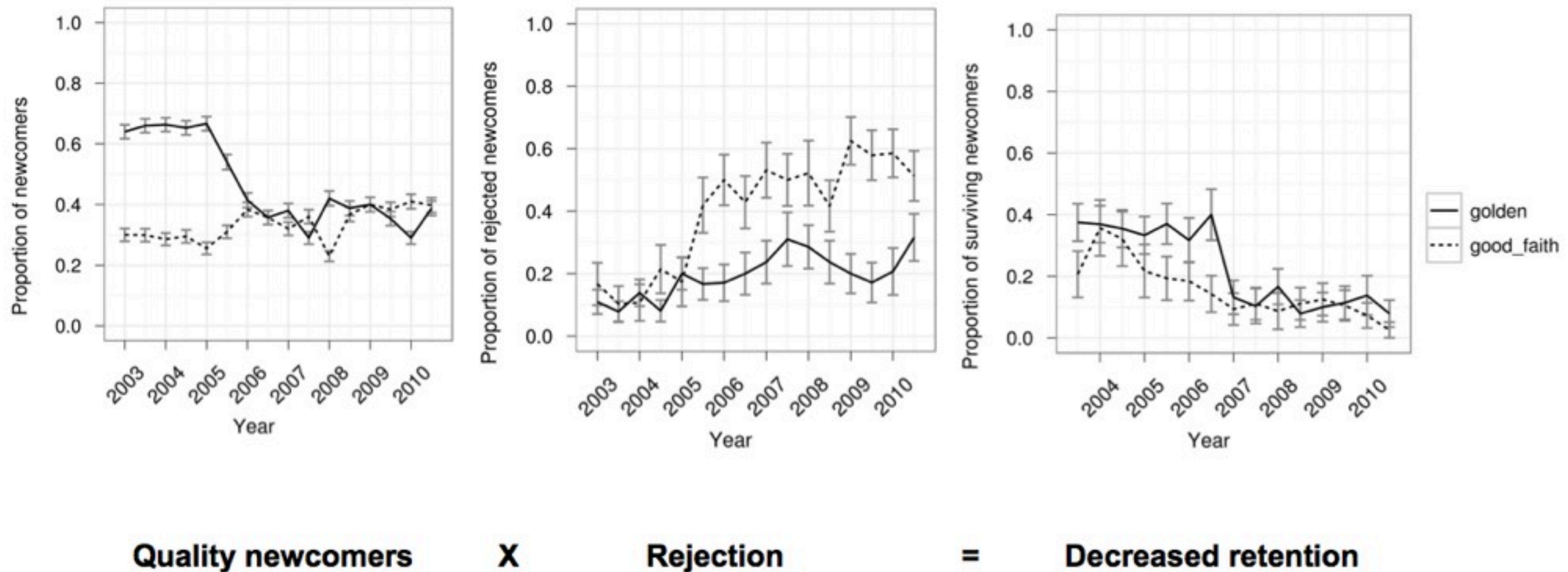
Aaron Halfaker, R. Stuart Gieger, Jonathan Morgan & John Riedl. (2013). The Rise and Decline of an Open Collaboration System: How Wikipedia's reaction to sudden popularity is causing its decline. *American Behavioral Scientist*, 57(5), 664-688.

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Thank you for your attention.

Questions?