Hu Analysis of Tech4Rights Use in the Human Rights Space

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Tech4Rights provides an application posed to produce significant impact in the US social rights space. Focusing chiefly on increasing political interest amongst 18 to 44 year olds, Tech4Rights aims to encourage engagement in a variety of forms. It aims to achieve this by connecting young people with shared common goals through providing guidance to those who wish to start a campaign, doubling as a political education tool and a platform for collecting donations for causes, thus extending participation beyond the ballot box in between elections. The goal, therefore, is to assist with understanding and engagement so that when it does come to election time, the demos can make informed decisions, mindful of the implications on the rights of themselves, those in their community and beyond. The Hu impact evaluation provided is based upon the non-voting public in the US between 18 to 44 and the six million who are said to vote against their interests. It is more than likely that this number is vastly below the real number for the non-politically engaged youth in the US. In addition, the number of those unrepresented by their elected representatives form a group, both intersectionally and within this group must also be given due consideration. With the primary platform in development, this analysis projects its Hu to grow at a rate of 102.2 Hu per 1,000 active users. The validity of this estimate will require use across multiple election cycles, ideally using another country with similar political characteristics and demographics existing without Tech4Rights as a control variable to eliminate unexpected biases in future analyses.

Tech4Rights, an Aventurine company, chiefly aims to energize younger people in the United States through encouraging activism and therefore political engagement.[1] The methods used to do this, is through meeting this younger demographic 'where they are' by employing the use of technology. This is where Tech4Rights comes in; as an application that encourages playing a more active role in the political process. The goal is that by facilitating mobilizing youth engagement, it allows those with similar interests to structure their efforts and fundraise effectively. Although it is not a simple task to quantify these factors as a function of potential ESG success, it can be broken down into three constituent parts: (1) measuring engagement at the ballot box, (2) measure alternative forms of political participation, (3) comparative approaches to determine the potential Hu score.

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[1] As defined by Tech4Rights as those belonging to Gen Z and Millennials

The fundamental idea is that if somebody is willing to donate even a small amount of money towards a political cause, it is indicative of willingness to participate in other political activities, such as direct involvement with campaigns and turning out to vote among others. According to the US Census Bureau, it is estimated that 35.9% of the US population are between 18-44,[2] and as a result, falling within the bracket of Millennial and eligible Gen Z voters. Given that the total population of the USA is 336.3 million,[3] this amounts to 119.7 million that could be directly affected by this effort. However, it is noted, that political engagement is a self-selecting, with those most interested in politics actively seeking out new avenues to enact change. As such, it is important break this number down into those who are disillusioned, and as a result, not directly involved in the political process. Tracking the last four presidential elections, selected as a sample since they receive the most attention at the national level. The mean turnout for 18 to 24 year olds based on the previous four election cycles is 42.43%,[4] while 25 to 44 year olds present a mean turnout of 51.35%,[5] indicating that over half of the demographic is likely a target user.

However, political engagement is not simply electoral behavior; it can range from working for a campaign, attending a political event, or a local government or even expressing support for a campaign on social media. Based on existing data, these varieties of political behaviors are subject to even less engagement, ranging from 5% to 29% over the past year in the data.[6] As such, a very conservative estimate of those who could directly be targeted by the Tech4Rights application, outside the self-selecting already politically engaged group could easily exceed 75% of the target demographics.

As a mechanism of quantification, it is also important to consider the notion of voting against one's own self-interest. The reasons for this can range from myopia, religious fundamentalism, racism and anti-intellectualism among others.[7] It is estimated as a result that six million Americans directly vote against their externally perceived interests. Tech4Rights, also provides an educational function, allowing those who use the app to gain a greater knowledge of pressing political and social issues, thus going some way to bridge the political education gap for users.[8]

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[2] United States Census Bureau, 'Population and Housing Estimates Tables' https://www.census.gov/programs-surveys/popest/data/tables.html (last accessed 15th April 2024)

[3] As of 10:33 BST 15 April 2024, according to: United States Census Bureau, 'U.S. and World Population Clock' https://www.census.gov/popclock/ (last accessed 15th April 2024)

[4] Statista, 'Voter turnout rates among 18 to 24 year olds by ethnicity in U.S. presidential elections from 1964 to 2020' https://www.statista.com/statistics/1096597/voter-turnout-18-24-year-olds-presidential-elections-historical/ (last accessed 15th April 2024)

[5] Statista, 'Voter turnout rates among 25 to 44 year olds by ethnicity in U.S. presidential elections from 1964 to 2020' https://www.statista.com/statistics/1096606/voter-turnout-25-44-year-olds-presidential-elections-historical/ (last accessed 15th April 2024)

[6] Pew Research Center, 'Political engagement, knowledge and the midterms' https://www.pewresearch.org/politics/2018/04/26/10-political-engagement-knowledge-and-the-midterms/ (last accessed 15th April 2024)

[7] M. Jouet, 'Exceptional America: What Divides Americans from the World and from Each Other' (University of California Press, 2024) p. 168

[8] It is also important to note at this point that what constitutes interests for one, may not be the case to another, broadly speaking such prioritization may be subject to our own biases. However, the six million statistic is likely a fair estimate of those voting unequivocally against their fundamental freedoms, such as reproductive rights, or other measures that may oppress minority communities: M. Jouet, 'Exceptional America: What Divides Americans from the World and from Each Other' (University of California Press, 2024) p. 169

Size of Problem

This analysis assumes Tech4Rights is solving the problem of eligible voters or citizens who are not maximizing their political power. If this solution is tracked in terms of number of app users, and the above estimate that if all 75% of the target population using the Tech4Rights app would solve this engagement crisis, this allows for an estimated Size of Problem (SOP), therefore, equal to 95.8M Americans within a community defined as the 258.3M voting aged Americans 2020, or 0.37 users per Hu

However, such an assumption would indicate that just being an app user is guaranteed to solve the identified problem. It is reasonable to argue that no app can truly solve such a significant, societal problem just by signing up as a user, so alternative metrics for modifying our predictions of success are necessary to investigate for appropriate quantification.

For instance, it is also important to note, that the remainder of the turnout do not necessarily get directly involved in politics, nor contribute. As such, 71% of Americans have never donated to a political campaign,[9] with only 9% of 18 to 29 year olds donating.[10] In the United States, where the nature of political campaigns can draw direct correlation between monies donated and campaign success, actions within the app that could include donations are likely a vital additional metric. If app user donations are a metric for engagement, and not all users will be donors, any app user tracking must apply a factor to the Size of Problem that accounts for this relationship. If the Tech4Rights app is effective enough that any donor will be considered a user that meets the criteria for success, it is important to then consider their donation motive. The social nature of the app and its focus on causes would indicate that donations could potentially mimic a donation rate more in line with charitable causes than political campaigns. Given research that shows 84% of Millennials were reported as donating to charity in the year prior to the survey,[11] this analysis assumes a donation rate for Tech4Rights users that is the average of the political and wider charitable donation rate, or 46.5% for Tech4Rights activated causes. Using this elevated donation rate, the Size of Problem would need to be modified by a factor of 2.15 (i.e. the app will need two users for every one that is a donor meeting the criteria of success). This would result in a size of problem equal to 206M (i.e. 2.15 x 95.8M) per 258.3M, or 0.797 users per Hu.

Having an initial modifying measure established as an increase in the economic engagement of the target group, there presents a need for a second measure: that of political influence and representation. From a political science perspective, the perhaps worrying conclusion reached has been that theories of economic-elite domination and biased pluralism predominate.[12] In practice, this means that politics is dominated by a small group of individuals with a large volume of economic resources,[13] while a small

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[9] LendingTree, '71% of Americans have never donated to a political campaign, and most won't in 2022' https://www.lendingtree.com/credit-cards/study/political-donations/ (last accessed 15th April 2024)
[10] Pew Research Centre, '5 facts about U.S. political donations' https://www.pewresearch.org/short-reads/2017/05/17/5-facts-about-u-s-political-donations/ (last accessed 15th April 2024)
[11] 6 Generations of Giving: Who Gives the Most and How They Prefer to Give | Nonprofit Tech for Good (nptechforgood.com)
[12] M. Gilens & B. I. Page, 'Testing theories of American politics: elites, interest groups, and average citizens' (2014) Perspectives on Politics 12(3) p. 564
[13] M. Gilens & B. I. Page, 'Testing theories of American politics: elites, interest groups, and average citizens' (2014) Perspectives on Politics 12(3) p. 566

number of interest groups and businesses are disproportionately overrepresented.[14] As such, economic elites drive policy choices with their preferences on a scale of 0 to 1 having an impact scale of 0.78 compared to the average member of the public at 0.05.[15]

If "the elite" is assumed to be the nation's 1% economic earners as per Barons,[16] or using a slightly different methodology or reaching the same 1% access as per the Washington Times,[17] it could be assumed that the increased visibility these demographics are receiving on the app as economically engaged voters would be able to shift the frame of "elite" from the general populus and provided the same proportion of the population on the app the same outsized influence observed in society. This would indicate that 1% of the app users are capable of driving change 78% of the time. If this assumption can be considered valid, this would require inclusion of an additional factor equal to one over one-hundred multiplied by 0.78, or 128.2. Including this factor as an SOP modifier produces an estimate of 26.4B (i.e. 128.2 x 2.15 x 95.8M) per 258.3M, or 102.2 users per Hu.

Although the wealthiest in the US are usually incapable of reaching engaged, elite status of this variety until after the age of 50, with average net worth peaking substantially in one's 60s,[18] the technology underpinning Tech4Rights argues that the app can empower elite levels of influence in the broadly under-represented silent majority consisting of Gen Z and Millennials. If true that the preventative forces resulting in this broadly unrepresented silent majority exhibiting low turnout and low engagement is the prioritization of economic elites, a rebalancing of this power dynamic will be vital for society. Given the large volume of the population they represent by this silent majority, there is a large opportunity for the youth to position themselves at the forefront of meaningful change for every young voice that can be brought to parity with our standard elites, as identified by Tech4Rights.

A final factor that is often debated yet likely most accessible by the design intended in Tech4Rights is a compounding nature of the normal network effect seen in social media. By deploying the technology in a manner that generates a higher likelihood of emotional versus intellectual engagement, the influence per user can become reasonably outsized. For instance, studies of voter mobilization found friend engagement four times more effective than informational engagement[19] (i.e. a factor of 0.25 since what would traditionally mobilize one person would be capable of mobilizing four). Moreover, it can be argued that the Tech4Rights app design including communication linkages into traditional social networks will allow it to gain value from those connections in those networks even if they are not users of the Tech4Rights app themselves. This effective expansion of the Tech4Rights platform, if exhibiting qualities akin to Facebook seamlessly incorporating Instagram content and visa versa, should allow one active user

[14] M. Gilens & B. I. Page, 'Testing theories of American politics: elites, interest groups, and average citizens' (2014) Perspectives on Politics 12(3) p. 568

[15] M. Gilens & B. I. Page, 'Testing theories of American politics: elites, interest groups, and average citizens' (2014) Perspectives on Politics 12(3) p. 575

[16] Brookings, 'Make elites compete: Why the 1% earn so much and what to do about it' https://www.brookings.edu/articles/make-elites-compete-why-the-1-earn-so-much-and-what-to-do-about-it/ (last accessed 15th April 2024)

[17] The Washington Times, 'U.S. elites trust government more, like freedom less than average Americans: poll' https://www.washingtontimes.com/news/2024/jan/25/us-elites-trust-government-more-freedom-less-avera/ (last accessed 15th April 2024)

[18] The Currency, 'The average net worth by age in America' https://www.empower.com/the-currency/life/average-net-worth-by-age (last accessed 16th April 2024)

[19] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7343248/

to impact a significant portion of their broader social network even if they are not directly users of the app. Since the target demographic is likely to have a larger number of social media connections than the average American, using the average number of connections for a technology using American of 669 per user should provide a reasonable multiplier that could predict the impact of seamless integration.[20] Taken together, these factors would produce a modifying factor of 1 over 2,676 or 3.7 10^{-4}. Fully adopting these network effect factors would produce a modified SOP estimate of 9.87M (i.e. 0.00037 x 128.2 x 2.15 x 95.8M) per 258.3M, or 3.82 10^{-2} users per Hu

Hu Estimation

Tech4Rights has yet to undergo field testing, so the following Hu valuation is based upon a range of hypothetical numbers of users served in a given year. Using the number of people per Hu estimate equal to 3.82 10^{-2} users per Hu as presented above, the following table provides the estimated Hu generated by Tech4Rights as a function of active users:

Number of Active Users	Hu per year	Hu Value Low [1]	Hu Value High [2]
1,000	26,177	$1,753,854	$39,055,962
3,000	78,531	$5,261,561	$117,167,887
10,000	261,769	$17,538,535	$390,559,624
30,000	785,308	$52,615,606	$1,171,678,873
60,000	1,570,615	$105,231,212	$2,343,357,745
100,000	2,617,692	$175,385,354	$3,905,596,242
300,000	7,853,076	$526,156,062	$11,716,788,727
1,000,000	26,176,919	$1,753,853,540	$39,055,962,423

[1] Low value is based on the EGDM auction data from 2023, resulting in a Hu valuation of $67 per Hu

[2] High value is based on a 2024 Q1 EU ETS carbon pricing estimate of $1492 per Hu

Estimation Valuation and Uncertainties

On the face of it, the above results could lead one to argue that a significant multiplying factor may be missing. It is not normal to see a consumer app with only 60,000 users proposing a valuation on the order of $100M to $2B. However, it is important to reframe the above valuation in the context of what

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[20] https://www.pewresearch.org/internet/2011/06/16/part-3-social-networking-site-users-have-more-friends-and-more-close-friends/

Tech4Rights proposes it is capable of achieving: delivering equitable political influence to the Gen Z and Millennial generations.

If Tech4Rights is successful in delivering political parity, it would likely result in massive shifts in budgetary priorities, at a minimum. It would likely see the political will found to shift trillions of dollars into infrastructure and education. It would likely see universal childcare enacted in the United States, which when paired with reproductive freedom and bodily autonomy, could unleash unprecedented growth in female labor participation and wealth generation. When looking at the potential impact of Tech4Rights success being the reallocation of trillions of dollars from traditional elites to a truly democratized system of engagement and representation, estimating the value of the potential Tech4Rights impact in the billions seems like a significant discount.

It is important to also note a few other contextual qualifiers. First, this analysis is constrained to the US as a result of the initial coverage of Tech4Rights being within the US. Elsewhere, political engagement tends to be higher, on some issues surpassing that of even the over 50s.[21] For instance, on the matter of freedom of speech, 18 to 29 year olds in the 14 countries polled were significantly more likely to take political action.[22] Second, these valuation estimates are uniform across all years, when conventional wisdom would indicate that the impact of the app will likely follow traditional variations in political access or influence as a function of election cycle. Third, this analysis assumes success of the Tech4Rights platform will not produce changes that could be able to reduce the influence and impact of money on our politics. These are the types of issues that were considered second order effect or impacts, yet should be more significantly considered in any deeper analysis. The most important qualifier that must be truly tested is the impact and seamlessness of the planned Tech4Rights integration throughout a broader social network. Testing loss rates across platforms and the effectiveness of mobilization throughout that broader network will have significant implications for the valuation estimate.

Opportunities for Refinement

Given Tech4Rights is in its early stages, its progress will be significantly easier to quantify in the future after election cycles have taken place, noting also the shifts in policy making priorities to see if elite economic interests continue to predominate. In order to refine the process further, it would be necessary to find another country, similar in political constitution, for instance, variety of capitalism, demographics and societal values in order to compare this with the US, post Tech4Rights. This would constitute the most accurate way to calculate the impact of Tech4Rights going forward.

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[21] Pew Research Centre, 'Many around the world are disengaged from politics' https://www.pewresearch.org/global/2018/10/17/international-political-engagement/ (last accessed 15th April 2024)

[22] Pew Research Centre, 'Many around the world are disengaged from politics' https://www.pewresearch.org/global/2018/10/17/international-political-engagement/ (last accessed 15th April 2024) In Brazil, for instance, only 39% of over 50s were willing to take political action on this matter compared to 73% of 18-29 year olds, showing youth disengagement is not necessarily a problem globally, but rather there requires an a matter or mechanism that mobilizes the youth.