A Computational Analysis of Doomerism

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1 Introduction

1.1 The Doomer as the archetype of a generation

Recently, many cultural archetypes have emerged, on the internet, to describe the modern generation and its world. These archetypes are not mere creations for comical purposes. They pose real and deep messages through their lore as much as the legends and archetypes of antiquity. Each character defines an aspect of the young person's existence and his interaction with the external world.

Of these archetypes, often referred to as the Wojack, the Doomer is the one that defines this generation of young people aged about 15 to 25. The doomer, and by extension doomer-girl, is someone who is doomed to live a meaningless life. This is the notion of Doomerism. He is hopeless, dark, and alone. His world is that of the dilapidated post-soviet blocks. He sees no sunlight, no tree, no love.

The use of iconography and specifically the Doomer as a cultural and social icon is studied by Karel Němeček [2]. Karel Němeček identifies powerlessness and meaninglessness as the predominant forces of Doomerism.

The Doomer is left with the problems, of social inequality, pollution, global warming, and everything else. He feels powerless against the world.

Moreover, the doomer feels unquenchable nihilism. His pessimism is inspired by the likes of Schopenhauer. The works of existential thinkers of past generations is reimagined in his new world.

Compared to the generations who endured the hardships, massacres throughout Europe, Asia, and Africa during the 19th and 20th centuries, this generation, at least the western generation, has seen relative peace. The Berlin Wall has collapsed. The Cold War has melted away. Nutrition is readily available [CITATIONS NEEDED]. Meat consumption is at its highest [CITATION NEEDED]. Social media is allowing for easier communication. The best technology is free to use and contribute to. Information, especially first-hand news and journalism, is a given.

Everything seems to be, for the most part, better.

So, why is the doomer doomed? Why is he the loneliest generation? And how is what he is experiencing something new?

1.1.1 Youth Emotional Loneliness

Depression and loneliness are new to this generation, yet the relatability and virality of the Doomer icon seems to suggest that something has changed. This *something* may be in our collective culture, the external world, prospects, relationships, and so on.

Young people are the loneliest demographic ever. This has been proven by multiple sources [CITATIONS NEEDED]. This is true in the eastern countries as well as western ones [CITATION NEEDED]. In particular, Statistics Canada has identified those aged 15-24 as the loneliest demographic in Canada.



Figure 1: The Doomer

1.2 Research Question

Thus, it is important to understand what is Doomerism? This is by itself is rather a trivial question; one can understand the elements of Doomerism by viewing a small subsample of its uses as icons. This project aims to quantify these elements through textual analysis. That is, what

are the exact composition of its themes and elements?

Then, is Doomerism a novel cultural archetype of a different era, or is it a new expression for long-existing phenomenons? How is the composition of themes of Doomerism different from that of loneliness and depression in general?

2 Operationalisation

2.1 On the Shoulder of Giants

This subsection will peruse the existing work to solidify how this project builds on literature in a novel way.

Karel Němeček's work is a theoretical analysis of memes and Doomers as social and cultural icons [2]. This project wishes to quantify the themes and causes in a computational method through textual analysis.

To study the causes of loneliness, Fardghassemi interviewed a group of 48 young adults from London's most deprived boroughs. The interviews were manually analysed for themes and causes of youth loneliness [3]. This work wishes to compete with the interview style analysis of young adults at a higher scale. Scraping the internet, particularly the Reddit's subforum, /r/rdoomer, can produce a higher number of personal accounts of substantial length at a lower cost.

Guntuku has a similar approach, in which she uses NLP to analyse the themes of twitter users posting about loneliness [1]. This work wishes to use her approach to answer a cultural question about the novelty of Doomerism.

2.1.1 Where I Stand and its Significance

There is a problem with the youth becoming more lonely, and depressed. The issue so far has been analysed through a simplistic, traditional view of what the problems may be. Doomerism, has arisen as a cultural form of the problem of the youth. To understand what it is, and if it is different from previously known phenomenon, interventions can be better created.

3 Methodology

3.1 The Data

The best place to study the doomer is its subforum on Reddit, /r/doomer. To compare the doomer with other similar characteristics, the subforums of, /r/lonely, /r/loneliness, and /r/depression were also scraped.

All the data was filtered for posts that were of greater length than 500. The data is described

in table 1. The users of Reddit, and specifically these Subreddits, skew towards young, Englishspeaking, males.

3.2 Approach

To start off, the posts were manually examined by a human to identify some causes and themes from the different Subreddits. This approach is similar to Fardghassemi's analysing of the interviews [3].

When the causes have then been identified from the manual approach, a list of terms will be identified. These terms will be analysed for their frequencies in a similar approach to the work of Guntuku [1]. If terms pertaining to one cause always have a higher frequency than another in one Subreddit over another, it is clear that cause is more prevalent.

Thirdly, a composition of the causes are created for a doomer, lonely person, and depressed person, as the measure of the frequency of the terms in the corpus of posts. This data could be used to train a model to classify a doomer from the other categories. This would answer the research question of the doomer having a distinct and novel identity.

4 Results

4.1 The Commonality of the users

The users of these Subreddits were generally unique. That is, only a few doomers posted in the other similar forums. This is our first evidence for the doomers being a distinct identity.

The number of unique users of each of the Subreddits were greater than a thousand; however, the common users between the doomers and the other Subreddits were very low. There were only 13, 6, 14 common users between /r/doomer, /r/lonely, /r/loneliness, and /r/depression respectively.

The greatest number of common users were actually not between /r/lonely and /r/loneliness, 31: this, I believe, is to the smaller user base of /r/loneliness. The greatest commonality was between /r/depression and /r/lonely, 161, suggesting that lonely people are generally depressed and vice-versa.

There were no common users between all the Subreddits, and only 2 and 1 common users between /r/doomer, /r/depression, /r/lonely, and /r/loneliness.

4.2 Manual Inspection

A sample of these posts were read to identify the themes and causes present in the categories. A sample of 50 posts from both /r/doomer and

Subreddit	$ \begin{array}{c c} \text{Number} & \text{of} \\ \text{Posts} \geq 500 \\ \text{words} \end{array} $	Average Post Length	Earliest Post	Oldest Post	Number of Users
/r/doomer	2921	$1275.15 \\ 1228.02$	2019-04-22	2022-11-15	1764
/r/lonely	4860		2022-09-13	2022-11-17	3759
/r/loneliness	2754	1489.41	2011-11-09	2022-11-15	2252
/r/depression	8811	1336.82	2022-02-28	2022-11-15	8168

Table 1: Metadata

/r/loneliness were read. 20 posts from /r/lonely and /r/depression were read.

4.2.1 Themes of /r/doomer

Doomers are predominantly male, young, and single. There are lots of mentions of school and a lot of accounts of their actual age and gender. In doomer terms, they are plagued by no gf. They have seldom talked to girls, they are worried about their virginity, and they feel utterly helpless. There are lots of mentions of relationship issues and porn addictions.

The largest theme that arose from the sample reading were themes of **nihilism** and **doom**. One can argue that these are not separate entities; nihilism seems to be a subset of doom, and doom seems to be a subset of nihilism. Yet, doom encompasses more than just nihilism. Doom is the notion that the world is hopelessly going to be extinct. Our civilisation is bound to collapse, and the doomers see it clearly. The world is doomed, and the doomers are the outcasts who are first experiencing this. Thus, their nihilism can be seen to arise from this doom. There was a simple poetry to the doom of the doomer; a sample of this is given in section 6.

The second-biggest theme that arose from the manual inspection was loneliness and no gf. I will be using this term to refer to being single (having no girlfriend). This term is not only an abbreviation, it's an esoteric term that signifies the obsessiveness of the doomers towards their being single. This obsession is somewhat close to the ideas of incels (involuntary celibates), a truly toxic subculture arising from the internet. These doomers really blame not having sex as an evidence of them being doomed.

There are two comical tropes that explain this. The first is the doomer finding the doomer girl, the exact female counterpart of the doomer, and them being *doomed* together. The sample of posts inspected did have females, but they are rare. It is an elusive dream or a joke within this community of ever finding the doomer girl. In fact of the top posts of /r/reddit, there is one of a doomer couple holding hands.

The second feature that displays the comedy and obsession of the doomers with girls and sex is the idea of a state mandated girlfriend. The doomer is so doomed, that the only plausible intervention by the government issues girlfriends. This second example is a stretch, as it did not come during the inspection, and it may be more attributed the afformentioned incel subculture.

Other causes include suicide, a bad child-hood, a dead end job, and to lesser extents issues of mental health and drugs. The two latter causes were less relevant to the sample doomer posts inspected.

4.2.2 Themes of /r/lonely and /r/loneliness

The sample posts inspected between the two Subreddits were identical in themes.

The lonely uses are an older group. They are more likely to be female, in a relationship, or even married. In the 50 posts in the doomer set, there was not a single post mentioning they were in or ever were in a marriage. The doomer looks up to marriage as perhaps the naive, traditional embodiment of the good life, the *undoomed* life as it were.

The lonely person seems to be dealing with issues that are simpler and more natural to the human condition. Friends are growing distant as the person ages, they cannot find friends, or a romantic partner, they have gone through a break up, and so on. Therefore, the first cause of lonelinessim identified were **relationship issues**.

The other themes identified were issues of **social issues**. The users mentioned their being too shy and introverted to change anything. There were also mentions of **unlovability**. The users could have been in marriages, yet they felt emotionally alone. Their souls and beings were not cared for as they would wish.

The loner posts had more mentions of hope and lights at the end of the tunnel. The loner has some sense of optimism for how they can, or in the least, should change things. The doomer's identity comprises a deep, dark core of nihilism and doom. The doomer is simply not lonely, they are *doomed* to be lonely and unloved.

4.2.3 Themes of /r/depression

The users of this Subreddit were far **medical** than any of the other users. In fact, they seemed to be dealing with these issues but still having some problems. They mentioned medications or therapy, and ways they are trying to remedy their diagnosed problems.

Many of the posts mentioned issues and responsibilities that they were dealing with. A breakup or a death in the family was very commonly mentioned.

There was also an **emotional emptiness**. Many users described their emotions in terms of being sad, having or lacking in pain, energy, or motivation. The theme of **suicide** was mentioned here as well but not to the extent of /r/doomer.

4.2.4 Conclusion of Manual Inspection

Although, all the problems the users of these Subreddits were dealing were serious and need of attention, there were degrees to their *troubles*.

The doomer is, by far, the most dark and nihilistic of the other groups. In this regard he is distinct.

4.3 Frequency Analysis of Themes

The posts were analysed for their frequencies; the word-clouds produced by each of the Subreddits can be seen in section 6.

Motivated by the themes identified in the manual inspection, a list of keywords that would identify these themes were compiled. They can be seen in table 6. These words were then searched through the corpus of posts by using regular expressions.

The number of words found from a given them was then expressed as a percentage of all the keywords matched. In such a way each category received its composition as a percentage of causes, the results of which can be seen in table 2. Other visualisations of these compositions can also be seen in section 6.

The results of these compositions support the findings of the manual inspection. The doomers are much more nihilistic and the users of /r/depression more medical. The theme of doom was only seen, unsurprisingly, by the doomer; although, this was still a low percentage of composition for the doomer. The doomer is more nihilistic than he is obsessed with the doom.

The prevelance of drugs is much less than suggested by [1], only being high as 2.25%. The two loneliness forums were similar in compositions as suggested by the manual inspection. Both have much higher levels of loneliness as compared to the other categories.

In all other themes, the categories were very similar.

4.4 Classification of Individual Posts

The composition of the categories was used as a vector. The same approach of finding the prevalence of keywords by themes were used on individual posts. This prevalence was also used as a vector to measure the similarity of the posts to the average posts of each category.

The similarity function used was a modified version of the euclidean norm: in this function, the components of the vectors that were different across the categories had a higher degree.

Then a post would be blindly classified to the category in which its composition was most similar. The results of this classification can be seen in table 3. This approach shows us the individual deviation of the posts and if the doomer can be correctly classified individually against the other categories.

	correct pred.	in- correct pred.	binary accu- racy
/r/doomer	1895	1102	$\begin{array}{c c} 0.632 \\ 0.64 \\ 0.72 \\ 0.71 \end{array}$
/r/lonely	3190	1787	
/r/loneliness	2032	770	
/r/depression	6452	2536	

Table 4: Results of binary prediction based on the composition of themes

	/r/lonely	/r/loneliness	accuracy
/r/lonely	2690	2287	$0.54 \\ 0.53$
/r/loneliness	1315	1487	

Table 5: Results of binary prediction between the loneliness forums

5 Conclusion

5.1 Discussion

5.2 Limitations and Threats to Validity

5.3 Ethics

The issue of ethics was closely guarded for this research. The people in consideration for this research are vulnerable groups; therefore no data created for this research has been shared. Moreover, all notes created for the analysis of these posts have also been made private. For the most

themes	/r/doomer	/r/lonely	/r/loneliness	/r/depression
nihilism	18.90	9.90	9.59	13.07
doom	2.73	0.22	0.13	0.30
alone	17.48	31.13	33.60	15.03
medical	5.97	5.93	5.74	12.39
relationship	12.90	15.20	14.02	10.66
childhood	10.76	8.90	9.40	12.13
job	5.68	4.42	4.26	6.54
mental health	11.25	8.93	8.68	16.88
drugs	2.25	0.76	0.81	1.27
social issues	7.10	11.15	10.30	6.20
responsibilities	4.99	3.47	3.45	5.54

Table 2: Composition of Themes by Percentage

	/r/doomer	/r/lonely	/r/loneliness	/r/depression	no match found
/r/doomer	326	310	466	895	19
/r/lonely	30	848	2287	1012	12
/r/loneliness	77	527	1487	411	3
/r/depression	375	822	1057	4734	15

Table 3: Results of simple prediction based on the composition of themes. The horizontal axis represents the category predicted. The vertical represents the actual category.

part, identifiable features of the posts were hidden and discussed.

All the data, that was used, are made public by the users themselves, and free software and widely available scrapers were used to retrieve that data. Any person could have access to the posts made by these users.

5.4 Acknowledgments

5.5 Software Used

All the software used for this project is available here, and is free to other researchers github. com/aliraeisdanaei/Doomer_Analysis.

References

- [1] Sharath Chandra Guntuku et al. "Studying expressions of loneliness in individuals using Twitter: an observational study". In: *BMJ* 9 (2019).
- [2] Karel Němeček. "Internet memes as reservoirs of meaning: Interpreting the Doomer". Bachelor's Thesis. Masaryk University, 2020.
- [3] Hélène Joffe Sam Fardghassemi. "The causes of loneliness: The perspective of young adults in London's most deprived areas". In: *PLOS ONE* 17.4 (2022). DOI: https://doi.org/10.1371/journal.pone.0264638.

6 Appendix

6.1 Poetical Excerpts from Doomers

The prophetic vision of the holy executioner finally begins to take shape and unfold Nothing remains to view the final breaths of a dying star many eons after all signs of life ceased their existence on the surface of our beautiful planet leaving behind a still silhouette of memory of a once magnificently brilliant world The prophetic vision of the holy executioner finally begins to take shape and unfold where the monochrome deafening silence echoes throughout the remnants of what was our beautiful world.

An exiled hermit These desolate plains I roam From the cosmic infancy I float like a lost comet Drifting through empty space Deprived of self I find solace within painful memory Of my sadistic lover, Life
The ghost of ecstasy
Lurking in the sorrows
Which belong to me alone
To serve as the gate to the firmament
And contain the flames of agony
In which I've forged the poisoned
knife
With which I'll put the suicidal god
Out of its eternal misery
Before abandoning the heavens
Consumed by the flames of my passion

Casting a shadow to eclipse the sun Burning brighter than the morning star At the edges of the dawn To break free from the chains of blind devotion devouring the minds of man That shall signal the inevitable col-

lapse of tyranny Of paradise and hell Born out our asymmetry In ascendancy

6.2 Charts Regarding the Results

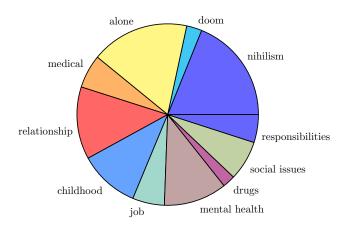


Figure 2: Composition of /r/doomer

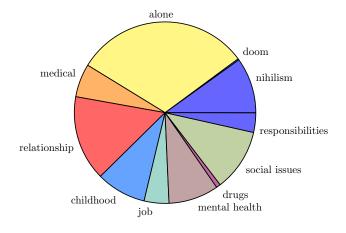


Figure 3: Composition of /r/lonely

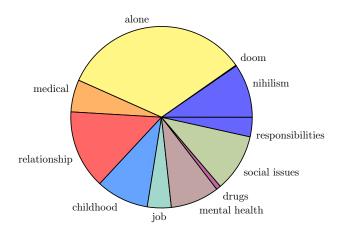


Figure 4: Composition of /r/loneliness

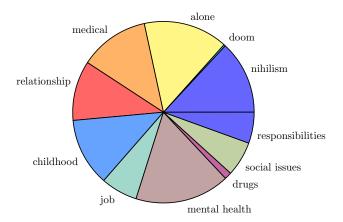


Figure 5: Composition of /r/depression

6.3 Frequency Word Clouds



Figure 6: Frequency Wordcloud /r/doomer



Figure 7: frequency wordcloud /r/lonely

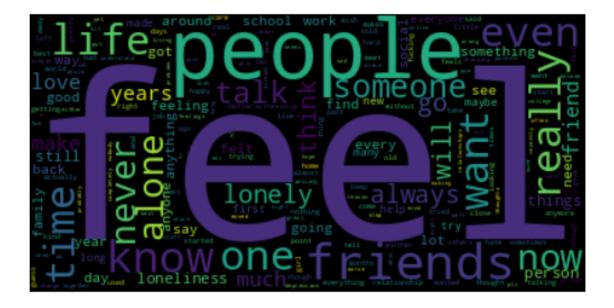


Figure 8: Frequency Wordcloud /r/loneliness



Figure 9: frequency wordcloud /r/depression

6.4 Themes and Keywords

themes	keywords
nihilism	nihil, dark, hopeless, meaning, nothing, empty, death, life, nonesense, bleak,
	reason, pessimis, worth
doom	doom, collapse, brutal, survive, consciousness, conscience, extinction, clown, climate, ecology, destitute
alone	lone, friend, isolated, island, people, presence, nobody, social, bore, boring
medical	medical, mental, health, issue, diagnos, medication, pills, anxiety, psycholog,
inedicai	help, therap, disorder, episode, gender, dysphoria, surgery, mg, lexapro, doctor,
	neurology
relationship	gf, sex, coom, wank, porn, girl, slut, hore, kiss, edging, virgin, love, mastur-
	bat, simp, woman, women, relationship, hug, dating, date, intimacy, girlfriend,
	fiance, husband, wife, breakup, marriage, divorce, responsibil, understanding,
	parent, cheated
childhood	child, abuse, neglect, mom, parents, dad, mother, father, mum, school, course,
	college, university, grade, teacher, professor, youth, young, recess, class
job	job, work, occupation, career
mental health	mental, depress, diagnos, anxiety, anxious, harm, smile, happy, happi, toxic,
	emotion, emotion, energy, sad, pain, ache, happy, happiness, motivat, unlove,
	uncared
drugs	drug cig, drunk, drink, smoke, weed, alcohol, booze, crack, coke, cocaine, hemp,
_	marijuana, cannabis, intox
social issues	social, shy, talk, support, insecure, rejection, awkward, fit, society, conversa-
	tion, abandon, extroverted, introverted, unattractive, ugly
responsibilities	responsibl, death, family, pass, job, miscarriage, victim

Table 6: Table of the Keywords that identify a given theme