If Eleanor Rigby Had Met ChatGPT: A Study on Loneliness in a Post-LLM World

Content notice: violence, suicide







¹Microsoft and The University of York

1 Problem

Adrian de Wynter¹

- Loneliness is a world-wide epidemic.
- It could have <u>lasting consequences</u> on physical and mental health, including <u>elevated mortality rate</u>.
- ChatGPT (and others) are not designed (or meant) for companionship.
- They also pose risks like swaying and sycophancy, forming **echo chambers**.
- Some have suggested they can mitigate loneliness

How will lonely people use ChatGPT?
What are the **consequences** of this use?

2 Methodology

Data

- •~80k ChatGPT interactions from Wildchat, filtered by intent (conversation, inquiry...)
- Multi-label: Lonely/not lonely, reasons for the intent, target of the intent.

Annotations

- LLM-annotated + t-test to back findings
- $86 \pm 5\%$ accuracy for intents; $99 \pm 1\%$ for reasons/targets (95% CI)

3 What Users Say

'Look at this... I am talking with a computer program because I have nobody else'

'I don't need a counsellor, I need someone to listen to me'

'I am upset that the next time we speak, I will be a stranger to you'

'Nice! More self-insertion and virtual signaling!'
'you help with nothing, except making people even sadder'

4 Interactions (Findings)

Out of the **lonely** (2k) **dialogues**:

- Longer interactions (2x)
- Most (37%) looked for advice / reaching out / validation in all age ranges
- More toxic content (+35%); aimed at women (+38%) and minors (+23%)
- Confrontations had longer dialogues
- ChatGPT rarely provided disclaimers, but gave advice (12%)

RTA on 500 dialogues:

- 35% seeking advice treated it as a therapist.
- Often empathetic, sometimes rootcausing user's issues (e.g. 'perceived as an emotional vampire')
- Five dialogues dealt with suicidal ideation.
 ChatGPT recommended (once) physical activity.

5 Observations

- Lonely people needing to talk could find an **empathetic interlocutor;** and its responses were pragmatically acceptable
- For complex issues (trauma, suicidal ideation) the responses were not pragmatically acceptable.
- Non-committal responses were ineffective in confrontation
- They will be used as mental health aides regardless
- This could have **serious consequences**, including loss of life

Addressing loneliness needs a shift: less stigma, relationships over work

6 Recommendations

- Adhere to standards related to mental health applications—transparency!
- **Develop** and enforce **aligned responses** that encourage growth over avoiding conflict
- Research loneliness + LLMs: we do not know the long-term impact of this tech.
- Effective legislation: the risks are very real.





Paper

Code

- Microsoft