

ILLUME



MACHINE LEARNING AND ETHNOGRAPHY: AN UNLIKELY PAIR

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PAINT THE PICTURE

22

TWO HOUR
INTERVIEWS
IN EACH PERSON'S
HOME

3

CONVERSATIONAL
FOCUS GROUPS

250k

TRANSCRIBED
WORDS



RONALD, 39

Loves to curate his home to fit his family's needs

Wealthy and has a graduate degree

While he likes technology, he does not self identify as tech-savvy

Has children



RAJ, 32

Will always buy the newest tech gadget

Works in the tech industry

Adds technology to a room in order to optimize his lifestyle

Lives in a modern duplex in the center of the city



BECCA, 39

Recently moved into a new house in a new city to be near family

Proudly calls herself "latchkey kid"

Her favorite store is Home Depot; her favorite channel is HGTV

Loves DIY



DANA, 36

Politically liberal

Husband is active-duty military

She is the primary caretaker of the home and kids

When her husband is away, she handles all maintenance of the house

LAYERS OF RESEARCH

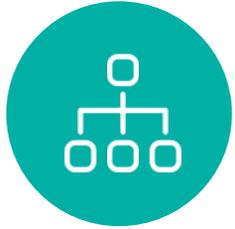
NEW EYES AND NEW PERSPECTIVES

After collecting all of the data and coding the
interviews

**WE HAVE BUILT A STRONG
FOUNDATION.**

What does zooming out, or
BRINGING IN NEW EYES,
add to the research findings?

TOPIC MODELING



CLUSTER

Each word is “read” in context and the probability with which it appears next to that word again is calculated.



ASSIGN

Each word and each document are assigned topics, or themes, based on their likelihood of occurrence.



ITERATE

This process is repeated until the data reach a “stable state.”



“Using contextual clues, topic models can **CONNECT WORDS WITH SIMILAR MEANINGS AND DISTINGUISH BETWEEN USES** of words with multiple meanings.”

DOCUMENT 1

By a former marriage, Mr. Henry Dashwood had one son: by his present lady, three daughters. The son, a steady respectable young man, was amply provided for by the fortune of his mother, which had been large, and half of which devolved on him on his coming of age. By his own marriage, likewise, which happened soon afterwards, he added to his wealth. To him therefore the succession to the Norland estate was not so really important as to his sisters; for their fortune independent of what might arise to them from their father's inheriting that property...

DOCUMENT 2

"Perhaps," said Marianne, "I may consider it with some surprise. Edward is very amiable, and I love him tenderly. But yet—he is not the kind of young man—there is something wanting—his figure is not striking; it has none of that grace which I should expect in the man who could seriously attach my sister. His eyes want all that spirit, that fire, which at once announce virtue and intelligence. And besides all this, I am afraid, Mama, he has no real taste. Music seems scarcely to attract him, and though he admires Elinor's drawings very much, it is not the admiration of a person who can understand their worth. It is evident, in spite of his frequent attention to her while she draws, that in fact he knows nothing of the matter.

DOCUMENT 3

Elinor could not help laughing. "Excuse me," said she; "and be assured that I meant no offence to you, by speaking, in so quiet a way, of my own feelings. Believe them to be stronger than I have declared; believe them, in short, to be such as his merit, and the suspicion—the hope of his affection for me may warrant, without imprudence or folly. But farther than this you must not believe. I am by no means assured of his regard for me. There are moments when the extent of it seems doubtful; and till his sentiments are fully known, you ...

== TOPIC 1



BECCA

Stepan Arkadyevitch was a truthful man in his relations with himself. He was incapable of deceiving himself and persuading himself that he repented of his conduct. He could not at this date repent of the fact that he, a handsome, susceptible man of thirty-four, was not in love with his wife, the mother of five living and two dead children, and only a year younger than himself. All he repented of was that he had not succeeded better in hiding it from his wife. But he felt all the difficulty of his position and was sorry for his wife, his children, and himself.



RONALD

She still continued to tell herself that she should leave him, but she was conscious that this was impossible; it was impossible because she could not get out of the habit of regarding him as her husband and loving him. Besides this, she realized that if even here in her own house she could hardly manage to look after her five children properly, they would be still worse off where she was going with them all. As it was, even in the course of these three days, the youngest was unwell from being given unwholesome soup, and the others had almost gone without their dinner the day before. She was conscious that it was impossible to go away; but, cheating herself, she went on all the same sorting out her things and pretending she was going.



RAJ

Levin had been the friend and companion of his early youth. They were fond of one another in spite of the difference of their characters and tastes, as friends are fond of one another who have been together in early youth. But in spite of this, each of them—as is often the way with men who have selected careers of different kinds—though in discussion he would even justify the other's career, in his heart despised it. It seemed to each of them that the life he led himself was the only real life, and the life led by his friend was a mere phantasm

== TOPIC 1

FAMILY



COMMUNITY



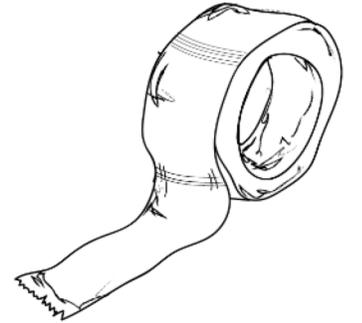
AT HOME



TIME & SPACE



DIY





6%

6%

23%

17%



1%

4%

28%

36%



26%

25%

20%

26%

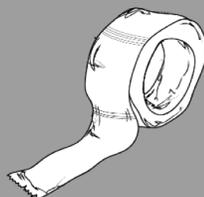


37%

9%

12%

11%

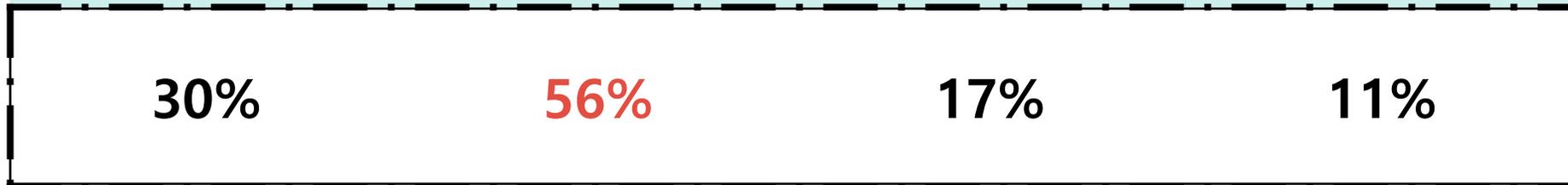


30%

56%

17%

11%



**ARE
THINGS
BECOMING
MORE
CLEAR?**





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CONSIDERATIONS & APPLICATIONS

You need **A LOT OF DATA** to have a statistically significant result. But, this can guide or confirm current findings.

We think that it can be a useful tool in the qualitative toolbox –
NOT A REPLACEMENT, AND NOT TO BE USED IN A VACUUM.

The interview and traditional coding analysis are still integral in analysis.

Any time there are **LARGE AMOUNTS OF TEXT**, a topic model can help frame connections.



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