

First Project
PREDICTING DIVORCE
Data Mining
Fall 2023

The “theme” this semester and an ongoing concern of ours has been the regulatory encroachment of algorithmic prediction models by the GDPR and its relatives. I’ve been “pushing” Gigerenzer’s Fast and Frugal worldview as a possible antidote to calls for interpretability and transparency. In fact, I’m calling this the “Less is More” semester. Before Gigerenzer became hip, there was Malcolm Gladwell’s explanations and illustration of “thin slices.” Fast and Frugal and Thin Slices in my mind, share much. And understanding them – in addition to the LASSO - hone our decision-making skills.

These algos “cut to the chase” and offer actionable criteria for decision-making (or understanding) without getting bogged-down in details.

Read Gigerenzer (posted), Gladwell on John Gottman’s divorce predictions (also posted). Make sure you recognize the key takeaways from both Gigerenzer and Gladwell in your report. Explain how this exercise informs a possible approach to sorting the GDPR’s encroachment.

The Task:

IS THERE ONE OR (A FEW) MORE PHRASES OR SENTENCES – AMONG THOSE LISTED BELOW - THAT IS MORE LIKELY TO PREDICT DIVORCE ALA JOHN GOTTMAN?

USE FAST AND FRUGAL TREES, THE LASSO, AND ONE-R TO INFORM AN INQUIRY INTO APPRAISING THE LIKELY REASONS FOR DIVORCE. THE DATA SET (divorce.csv) WITH THE ATTRIBUTES AND CLASSIFICATION VARIABLE ARE ALSO POSTED.

The Deliverable:

WRITE IN QUARTO PROVIDING COMMENTARY AND ANALYSIS ON THE APPLICABILITY OF THE THREE ALGORITHMS. SHOW YOUR CODE IN THE QUARTO HTML DELIVERABLE.

MAKE SURE YOU ANSWER THE QUESTION; DO NOT BE SUCCINCT.

The Due Date:

Due Friday October 20 11:59pm; upload to canvas.

DIVORCE PREDICTORS

1. If one of us apologizes when our discussion deteriorates, the discussion ends.
2. I know we can ignore our differences, even if things get hard sometimes.
3. When we need it, we can take our discussions with my spouse from the beginning and correct it.
4. When I discuss with my spouse, to contact him will eventually work.
5. The time I spent with my wife is special for us.
6. We don't have time at home as partners.
7. We are like two strangers who share the same environment at home rather than family.
8. I enjoy our holidays with my wife.
9. I enjoy traveling with my wife.
10. Most of our goals are common to my spouse.
11. I think that one day in the future, when I look back, I see that my spouse and I have been in harmony with each other.
12. My spouse and I have similar values in terms of personal freedom.
13. My spouse and I have similar sense of entertainment.
14. Most of our goals for people (children, friends, etc.) are the same.
15. Our dreams with my spouse are similar and harmonious.
16. We're compatible with my spouse about what love should be.
17. We share the same views about being happy in our life with my spouse
18. My spouse and I have similar ideas about how marriage should be
19. My spouse and I have similar ideas about how roles should be in marriage
20. My spouse and I have similar values in trust.
21. I know exactly what my wife likes.
22. I know how my spouse wants to be taken care of when she/he sick.
23. I know my spouse's favorite food.
24. I can tell you what kind of stress my spouse is facing in her/his life.

25. I have knowledge of my spouse's inner world.
26. I know my spouse's basic anxieties.
27. I know what my spouse's current sources of stress are.
28. I know my spouse's hopes and wishes.
29. I know my spouse very well.
30. I know my spouse's friends and their social relationships.
31. I feel aggressive when I argue with my spouse.
32. When discussing with my spouse, I usually use expressions such as 'you always' or 'you never'.
33. I can use negative statements about my spouse's personality during our discussions.
34. I can use offensive expressions during our discussions.
35. I can insult my spouse during our discussions.
36. I can be humiliating when we discussions.
37. My discussion with my spouse is not calm.
38. I hate my spouse's way of open a subject.
39. Our discussions often occur suddenly.
40. We're just starting a discussion before I know what's going on.
41. When I talk to my spouse about something, my calm suddenly breaks.
42. When I argue with my spouse, I only go out and I don't say a word.
43. I mostly stay silent to calm the environment a little bit.
44. Sometimes I think it's good for me to leave home for a while.
45. I'd rather stay silent than discuss with my spouse.
46. Even if I'm right in the discussion, I stay silent to hurt my spouse.
47. When I discuss with my spouse, I stay silent because I am afraid of not being able to control my anger.
48. I feel right in our discussions.
49. I have nothing to do with what I've been accused of.
50. I'm not actually the one who's guilty about what I'm accused of.
51. I'm not the one who's wrong about problems at home.
52. I wouldn't hesitate to tell my spouse about her/his inadequacy.
53. When I discuss, I remind my spouse of her/his inadequacy.

54. I'm not afraid to tell my spouse about her/his incompetence.