Media Coverage of CRISPR:
Coding Instrument for Content Analysis of Online News Sources

This coding instrument was developed and validated by three undergraduate research assistants. In order to do this, the assistants drafted and revised the instrument based on preliminary research into media representation of emerging technologies in general and CRISPR specifically, with oversight from their research advisors: Patricia Stapleton, PhD in Political Science, and Natalie Farny, PhD in Biology. Once the instrument was fully drafted, the assistants evaluated one selected article as a group in order to clarify any questions on the language and refined the code. Then each assistant independently used the instrument to code the same ten articles. The assistants compared results to confirm consistency within the analysis and to allow for replication of the study using the same coding instrument. This comparison yielded a high percentage of similarity (100% agreement on questions 1- 4, 8, 10, and 12; 90% agreement on questions 5 and 6; 80% agreement on question 7; 90% agreement on question 9 and 11). Thus, the coding instrument was deemed acceptable, and one assistant coded the remaining articles from one set of sources (*CNN*, *The New York Times*, *CBS*, *USA Today*, *Fox News*, and *The National Review*), another assistant completed coding of the remaining *HuffPost* articles, and another assistant completed coding of the remaining *Wall Street Journal* and *Washington Post* articles. Coding for these sources was completed in May 2019.

The coders used this instrument to analyze all online news articles:

1. Is the word CRISPR used in the title?
    a. Yes
    b. No

2. Is the specific CRISPR technique mentioned? (e.g. Cas9, Cas13)
    a. Yes
        i. If yes, write down which one(s).
    b. No

3. Does the article explain what CRISPR is?
    a. It gives a good fundamental explanation (e.g. goes into the steps of the procedure, explains the "cut and paste system" in easy to understand terms).
    b. It gives a vague explanation (e.g. "molecular scissors", "a genetic therapy").
    c. It does not explain what CRISPR is.

4. Does the article mention science fiction works as a comparison?
    a. Yes
        i. If yes, write down which one(s).
    b. No

5. Does the article use any of the identified positive words to describe CRISPR (e.g. groundbreaking, life saving, faster, etc.)?
    a. Yes
    b. No

6. Does the article use any of the identified negative words to describe CRISPR (e.g. problematic, controversial, designer babies, etc.)?
    a. Yes
    b. No

7. Does the article include both positive and negative words?
    a. Yes
    b. No

8. What is the main topic of the article?
    a. Controversy/ethics of CRISPR.
    b. Review of medical trials using CRISPR.
    c. Reporting a new discovery about CRISPR or made using CRISPR.

9. Does the article mention a new discovery, study, or paper?
    a. Yes
    b. No

        9.1.1 Does the article mention a new discovery?
            a. Yes
            b. No
        9.1.2 Were the scientists/groups behind the discovery mentioned?
            a. Yes, the people/groups responsible were mentioned
            b. Only the country/region where the discovery was made was mentioned
            c. No credit was given for the discovery
        9.1.3 Does the article mention a new study or paper?
            a. Yes
            b. No
        9.1.4 Were the scientists/institutions behind the study/paper mentioned?
            a. It mentions the authors (specific people and group) and institutions.
            b. It mentions the authors only.
            c. It mentions only the institution behind it (a university, research group, pharmaceutical company, etc.).
            d. It mentions only the country/region.
            e. It does not mention any of the above.
        9.1.5 Is the paper/study source given?
            a. It mentions where the paper/study was published.
            b. It does not mention where the paper/study was published.

10. Does the article mention “embryos”?
    a. Yes, in the context of research/studies done on embryos.
    b. Yes, in the possibility of editing embryos.
    c. No.

11. Does the story mention future uses of CRISPR?
    a. Yes
    b. No

        11.1 What tense is used when discussing the future uses of CRISPR?
            a. Present
            b. Future
            c. The wording is confusing and/or it is hard to tell if the uses cited in the article are a current reality or if they are a potential, future advancement.

12. Did a journalist employed by the news source write the article, or was the article written by a journalist from another source?
    a. From the source.
    b. Taken from another source .
        i. Write down the source.