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Making Primarily Professional Terms More Comprehensible to the Lay Audience

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Making Primarily Professional Terms More Comprehensible to the Lay Audience

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Abstract

Certain texts, such as clinical reports and clinical trial records, are written by professionals for professionals while being increasingly accessed by lay people. To improve the comprehensibility of such documents to the lay audience, we conducted a pilot study to analyze terms used primarily by health professionals, and explore ways to make them more comprehensible to lay people.

Introduction

We have been developing a consumer health vocabulary (CHV) to bridge the lay-professional communication gap. In the first step, we focused on texts authored by the lay people, which allowed us to study which terms are used and can be understood by the lay people. Recently, we began to examine texts (e.g. clinical reports and clinical trial records) that are authored by professionals primarily for other professionals but are increasingly accessed by the lay people. Our goal is to identify terms that are used exclusively by the professionals and explore ways to make them more comprehensible to the lay audience.

Methods and Results

We first obtained 1-grams (words) used by clinical trial records in the ClinicalTrials.gov database and documents in the Penn Treebank text corpus. Using the Penn Treebank 1-grams as a proxy for words that lay people might be exposed to, we then removed them from the list of ClinicalTrials.gov 1-grams. In the first round of review, we also excluded 1-grams that appear in UMLS 2004AA or open access collaborative CHV (available from www.consumerhealthvocab.org). The remaining ClinicalTrials.gov 1-grams were ranked by frequency. Group review was conducted on the top 160 1-grams, which we believed were primarily professional terms.

We categorized the ClinicalTrials.gov terms according to the following hierarchy (Figure 1). Most of the terms were indeed difficult. Among these, a small number of terms were ambiguous – most of them are abbreviations that can be mapped to more than 2 concepts. Among the non-ambiguous terms, less than half have easier synonyms. Most of the easier synonyms are likely to be understood by an average consumer, though some would benefit from additional brief explanations. Among the terms that do not have easier synonyms, half would also benefit from additional brief explanations. The rest either require significant domain knowledge to understand, or are names of companies and organizations or word fragments that most likely would not require or benefit from explanations.

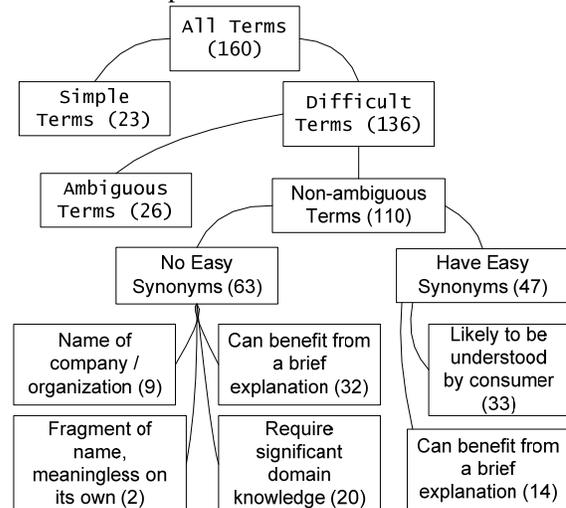


Figure 1: Classification of professional terms.

Conclusion

Providing easier synonyms and brief explanation may be effective strategies for a significant number of the difficult terms primarily used by clinicians. On the other hand, some difficult terms could not be made more comprehensible using these strategies.