

# “What I Know Is...”: Establishing Credibility on Wikipedia Talk Pages

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## ABSTRACT

This poster presents a new theoretical framework and research method for studying the relationship between specific types of authority claims and the attempts of contributors to establish credibility in online, collaborative environments. We describe a content analysis method for coding authority claims based on linguistic and rhetorical cues in naturally occurring, text-based discourse. We present results from a preliminary analysis of a sample of Wikipedia talk page discussions focused on recent news events. This method provides a novel framework for capturing and understanding these persuasion-oriented behaviors, and shows potential as a tool for online communication research, including automated text analysis using trained natural language processing systems.

## Categories and Subject Descriptors

H.5.3 [INFORMATION INTERFACES AND PRESENTATION (e.g., HCI)] Group and Organization Interfaces – Computer-supported cooperative work, Theory and models, Web-based interaction.

## General Terms

Measurement, Experimentation, Languages, Theory.

## Keywords

Computer-supported cooperative work, computer-mediated communication, sociotechnical systems, wikis

## 1. INTRODUCTION

As interlocutors, our determination of whether or not to consider someone’s opinion or follow their advice often hinges less on the content of the assertions they make than on the bases of credibility they provide to back up those assertions. In most of our daily interactions we are able to evaluate the credibility of our interlocutors based on our knowledge of their background, on previous interactions, and on implicit cues in their physical presentation. However, in online environments we often find ourselves interacting with strangers with whom we have no or minimal interaction history and about whom we have little

reliable information with which to make such assessments.

Editors on Wikipedia compensate for these factors in talk page discussions by making explicit claims about how they know what they know. They frequently couch their opinions and suggestions about the shape an article should take or the way other editors should behave in some basis of authority—an appeal to an externally acknowledged source of credibility that they believe will sway their audience. These *authority claims* manifest as recognizable types of discursive moves such as asserting experiential knowledge of the topic at hand (“I was in New York on September 11<sup>th</sup>”), demonstrating relevant professional credentials (“I’m a sociologist...”) or making reference to local norms or rules of conduct (“Wikipedia’s NPOV policy states...”).

We seek to determine whether such authority claims follow meaningful patterns: whether the repetition or combination of certain claim types over the course of a discussion indicate that an editor is trying to inhabit a particular social role or pursue a specific social goal. For instance, an editor who repeatedly claims personal knowledge of an external group or community may be attempting to establish themselves as a spokesperson for that community in order to justify a particular focus for a Wikipedia article. Likewise, an editor who frequently cites Wikipedia policy may be attempting to be perceived as an experienced editor in order to exert influence over the direction of a talk page discussion or the behavior of other editors. This poster takes the first step towards these goals by developing a classification of authority claims on the basis of Wikipedia data.

## 2. SOCIAL ROLES ON WIKIPEDIA

Emergent social roles have been the subject of theory-development and empirical investigation within the social sciences for many decades [3]. More recently, researchers have begun to investigate the emergence of social roles in online communities. Researchers studying Usenet have identified a variety of roles that correspond to particular user behaviors in that community, such as ‘Celebrities’ [4] and ‘Answer People’ [6]. Researchers studying Wikipedia have also identified common user roles such as ‘Vandal Fighters’ [2] and ‘Maintainers’ [5].

However, no researcher has yet undertaken a systematic approach to evaluating the efforts editors invest in self-presentation of credibility as they attempt to influence others in discussions of article content. Our classification of authority claims is meant to begin to fill this gap.

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### 3. METHODOLOGY

#### 3.1 Types of Authority Claims

Based on a qualitative review of Wikipedia talk pages, we have developed a typology consisting of six authority claim categories.

**Credentials** claims refer to an editor’s education, formal training, or history of work in an area.

**Experiential** claims refer to an editor’s personal involvement in or witnessing of an event.

**Institutional** claims refer to an editor’s position within the organizational structure that governs the discussion forum.

**Forum** claims refer to policies, norms, or contextual rules of behavior within the organization or forum where the discussion takes place.

**External** claims draw on some outside authority or source of expertise (such as a book, scientific article or news website).

**Social Expectations** claims are based on the beliefs, intentions or expectations of groups who are not present.

#### 3.2 Data

Our data are drawn from the January 2008 data dump of Wikipedia.<sup>1</sup> To examine the distribution of authority claims, 30 English Wikipedia talk page discussions were coded independently by two of the authors. These talk pages were randomly extracted from a set of articles that were topically related to a set of broadcast news transcripts currently being coded for a related cross-genre analysis of authority claims. The sample included article discussion pages associated with such topics as the Iraq War, John Kerry's military service, and Anna Nicole Smith. Discussions were considered adequate if they contained at least 5 turns from a minimum of 4 editors. One randomly chosen discussion was coded per talk page.

### 4. FINDINGS

Initial Kappa of 0.432 for dual identification of a claim indicated low-moderate agreement, and illustrates the difficulty of identifying authority claims in naturally occurring discourse. However, initial Kappa of 0.837 for claim type identification (for all dual-coded claims) indicates good discriminability between categories. After coding, many disagreements between coders were resolved through discussion, resulting in a set of 376 distinct authority claims (Table 1).

**Table 1: Authority Claims by Type**

Claim Type	Count	% of Total
External	227	60.4%
Forum	70	18.6%
Experiential	44	11.7%
Social Expectations	33	8.8%
Credentials	2	0.05%
Institutional	0	0.0%
<b>Total</b>	<b>376</b>	<b>100%</b>

### 5. DISCUSSION AND FUTURE WORK

The results summarized above indicate that claims of authority are both frequent and widespread in Wikipedia talk pages. However,

we do not claim that these results are representative of all Wikipedia article discussion pages. The strategic selection of discussion pages associated with articles related to recent news topics may account for the frequency of certain claim types in our sample. Some results are surprising: for instance, because Wikipedia guidelines prioritize verifiability and the citation of sources over anecdotal evidence and original research, one might expect that experiential claims would be less valuable and therefore infrequent in Wikipedia talk pages. Contrary to this expectation, experiential claims are fairly frequent in our sample.

A logical next step in our research would be to test whether authority claims vary by editor type; for example, registered versus unregistered editors or established versus new editors.

Previous research has examined the relationship between edit persistence and perceived trustworthiness of content [1]. Claims of authority may also prove to be positively correlated with edit persistence. Characteristic language used in the various types of authority claims suggests the possibility of using machine learning (pattern recognition) methods to automatically detect and classify them. Our future research will apply this analytical method to Mandarin Wikipedia talk pages and to broadcast news transcripts to determine whether claims of authority vary significantly according to language and genre.

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<sup>1</sup> [http://meta.wikimedia.org/wiki/Data\\_dumps](http://meta.wikimedia.org/wiki/Data_dumps)