Understanding Dispute Resolution Online: Using Text to Reflect Personal and Substantive Issues in Conflict

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ABSTRACT

Conflict is a natural part of human communication with implications for the work and well-being of a community. It can cause projects to stall or fail. Alternatively new insights can be produced that are valuable to the community, and membership can be strengthened. We describe how Wikipedia mediators create and maintain a 'safe space'. They help conflicting parties to express, recognize and respond positively to their personal and substantive differences. We show how the 'mutability' of wiki text can be used productively by mediators: to legitimize and restructure the personal and substantive issues under dispute; to actively and visibly differentiate personal from substantive elements in the dispute, and to maintain asynchronous engagement by adjusting expectations of timeliness. We argue that online conflicts could be effectively conciliated in other text-based web communities, provided power differences can be controlled, by policies and technical measures for maintaining special 'safe' conflict resolution spaces.

Author Keywords

Computer-mediated communication, virtual communities, conflict, online dispute resolution, Wikipedia.

ACM Classification Keywords

H.5.3. [Information Interfaces and Presentation (e.g. HCI)]: Group and Organization Interfaces: *computer-supported cooperative work* H.4.3. [Information Systems Applications]: Communications Applications: *Computer Conferencing*

General Terms

Human Factors, Theory, Management

INTRODUCTION

Low-level dispute is a familiar part of collective experience: collaboration involves a combination of conflicts and cooperations among group members [11, 24]. For example, people differ on what is currently 'true' about the status of their activities, and the value of investing time and energy in one way of working versus another. These 'breakdowns' can normally be resolved by fixing inadequately grounded communications, or by agreeing to put egos to one side and dispassionately consider the pros and cons of the situation. From time-to-time, more serious conflicts occur in all groups. Typically they happen when personal stakes are high: those involved associate significant costs or gains with the alternative positions in the dispute [22]. When a more serious conflict breaks out, the experience can be deeply frustrating. It can engender bad feeling beyond those in the dispute through to the whole community, leading to hostility, permanently damaged interpersonal relationships, extreme behaviours and 'cognitive rigidity' – an inability to think around the problem [6, 23]. All too often, the result can be a costly loss of members to the group. It is important to understand how conflict can be handled effectively in online communities, given that they involve 'persistent conversations' [12]. In this paper, we show how online conciliators can bring about positive outcomes to text-based conflict by actively working with the medium. We address positive conflict together with the importance of preserving the legitimacy and substance of statements that form the record of the dispute and reflect on the implications of this for existing accounts of Computer-Mediated Communication (CMC).

Feeling safe to articulate concerns

Conflict isn't all bad news for groups [14]. It can foster completely new perspectives on the activities and direction of the group, as the search for a resolution can produce new ways to conceptualize the issues at stake. They may cause communities to question their own understanding of deviant behaviour and tolerance [2]. Conflicts can expose and fix deep-rooted mistrust issues (potentially forestalling even more serious conflicts). Other positive side effects of the process can extend to the formulation of new conflict resolution strategies, to head off future disputes, and

deepened and strengthened relationships within the group that stem from an improved understanding of individual's goals, needs and values. To achieve a positive outcome, it is necessary to create a communication environment that is perceived as safe. The safety of such a space for those in dispute means that they can expose their suspicions and concerns in a free and frank manner, alongside the development of a mutually acceptable position on the nature of the dispute and solutions to it [1]. The emotional component of a dispute is not just an inconvenience, or a cathartic opportunity to 'let off steam': venting is a mechanism through which the intensity of feelings about the dispute in general, and particular sensitivity to certain of its elements, can be exposed and mutually recognized. Thus, it is vital for an effective dispute resolution environment to make possible the mutual recognition of personal investment by conflicting parties.

Considerable work has been invested in the definition of online resolution services for legal and commercial disputes and these are now widely available. For example, Ebay has a defined process for resolving transactional disputes over the sale of items[1]. More sophisticated systems, such as SmartSettle, offer a range of algorithmic decision-making systems, based on optimizing gains from explicit but confidentially revealed positions on a set of defined value dimensions[2]. However, these efforts are not concerned with restoring productive relationships within groups [15]. Kittur et al. [17] examined disputes in Wikipedia in an attempt to characterise the type of article that is likely to foster dispute but without addressing the issue of how such disputes might be resolved. In this paper, we consider both how conflict arises in online communities and how to address it by restoring positive relationships.

Web-based communication tools enable the composition of groups and the formation of relationships between people who have never met face-to-face. Sites can encourage or require collaboration between individuals with similar interests and lead to the creation of on-line communities. Each internet community typically preserves its own history of member-to-member and member-to-group postings, embodying community relationships and norms. In this way, online conversations between members are enacted in the form of persistent documents [12]: communications that are potentially visible to all members in perpetuity.

As communities grow in size and scope, the potential for conflict increases – members can develop and contest different views about the purpose, nature and permissibility of various forms of conduct on the site [21]. Relationships between members are placed under strain, reputations can be put on the line, and continued membership can itself be called into question. The outcome of disagreements depends on the ability of those involved to harness the

potential of the medium to understand one another and define an acceptable solution. Through it, they must articulate their position and, as discussed above, find a way of expressing why it matters to them personally.

Conflict relations are hard to handle in text media

Theoretical accounts of computer-mediated communication suggest that conflict will be hard to handle in online environments, especially where asynchronous text is the primary communication medium. It is important to understand the issues behind this problem, if effective interventions are to be designed. Early accounts focused on the effects of anonymization and lack of non-verbal information. The fundamental paucity of social information was said to make online behavior difficult to regulate and equivocation (tentative positioning) becomes difficult to manage [9, 16]. Disputes are more likely to occur as misunderstandings can easily translate into offence and are then difficult to fix with subsequent online exchanges. Whilst 'cuelessness' does suggest challenges for online conflict resolution, it is not the whole story. The Social Identity Model of Deindividuation Effects (SIDE) addresses the issue of emotional regulation with more sophistication. It suggests that provocative statements are made, not so much because of a paucity of information about interlocutors, but because group and individual identifiers get out of balance [25]. CMC conversations can lead to a sense of personal anonymity, promoting a feeling that individual members are freed from obligations and accountability towards one another, both in terms of posting and response. When disputants lose sight of their accountability to the group, or sense of sharing a common 'super-identity', conflicts are more likely to be initiated and, once they have begun, CMC may promote an escalation of hostilities. So the relative salience of personal statements is critical.

The Social Information Processing (SIP) model is aimed at online relationships [28]. Serious conflicts are entangled with the relationship between those in dispute and echo in their history of communications. They are not just to do with the substance of the case they each wish to promote. SIP suggests that the social nature of online communication is fundamentally dependent on the beliefs parties maintain about one another as social agents. Walther describes mechanisms for generating *hyperpersonal* communication in terms of positive attributions [27]. In the hyperpersonal case, CMC interlocutors can build up exceptionally positive relationships as they receive positive feedback from their presentation of an idealised version of themselves. In other words, the social emptiness of CMC can be compensated for by unusually positive elaborations in the minds of interlocutors. The rarefied text medium presents little evidence to contest the interpersonal warmth of image they generate of one another. In a similar way, exactly the opposite 'accelerator' could apply for negative attributions: a negative feedback loop can generate suspicion with little evidence to the contrary and hypercritical communication is

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[1] http://resolutioncenter.ebay.com/

[2] http://www.smartsettle.com/

the result. SIP suggests that interlocutors use adaptive strategies to make the relatively sparse information they receive work harder. In a conflict setting, relations could spiral out of control unless the 'feedback loop' can be attenuated or its focus redirected.

Measures to cope with dispute in online communities

Many online communities have had to confront dispute and unruly behavior. Site builders and communities themselves have introduced sociotechnical measures (combinations of community rules and technical facilities) to try to forestall and contain disputes between members. These include acceptable use policies (posting rules); special posting areas for newbies (learning norms); posting oversight and rating systems (encouraging positive and discouraging negative contributions); specific markers for offensive posts; active moderation; censorship and kill files; registration requirements (accountability and posting restrictions); through to account deletion [8, 20, 21]. So handling disputatious behaviour is an ordinary part of the online community experience. However, active mechanisms for resolving conflicts are less common. Some sites have explicit ways of handling serious disputes, requiring involvement of one or more senior community members to directly intervene in some way. In this paper, we focus on 'mediation' interventions of this kind.

Mediation: Conciliation

Mediation is recognised as a powerful antidote to poisonous conflict in offline settings. It is intended to create the conditions for disputants to be innovative with respect to the problem and in redefining their attitudes towards one another. It can be defined as *"[the involvement of] a neutral third-party with no power over the parties, who attempts to help them settle their dispute."* [13]. This third-party is normally referred to as a 'mediator'. However, to disambiguate the effects of technological mediation from the role of the third party, we refer to the role as 'conciliator', and the process they use as 'conciliation'.

A number of theories of conciliation exist. Each varies in its conceptualisation of conflict and of the pragmatic effectiveness of communication in dispute resolution. Early models, with their roots in labour union negotiations, focus on identifying and negotiating the value of resources, and developing a mutually agreeable compromise [10]. Contemporary models draw on theory and practice in counselling [4, 29]. They focus on the relationship itself and parties' attempts to construct and explore explanations of one another's behavior. Our approach to conflict draws in particular from Winslade's emphasis on narrative processes in conciliation [29]. Narrative conciliation can be related to the SIP concept of relationship construction, as CMC interlocutors develop and personally elaborate attributions of one another. However, in terms of conflict resolution, we have an additional consideration: interlocutors have the opportunity to elaborate alternative 'stories' about their dispute. We wish to better understand

how sociotechnical environments support or forestall the development of alternative narratives in serious dispute.

All parties must believe in the impartiality of the conciliator. They must feel they have an equal opportunity to voice their concerns. Conciliators have no vested interest in outcomes, nor do they have powers to enforce any outcome. Their intervention is limited to influencing the progression of the dispute through their expert use of language and deep understanding of conflict processes [18]. Conciliation is geared around parties' ability to express strength of feeling about underlying issues as well as the substance of argument. Impartiality can extend to 'levelling the playing field': helping low-status or relatively inarticulate parties to have a fair opportunity to contribute.

Conciliators begin by structuring the environment and preparing parties for the conditions they must observe whilst engaging in this special form of communication. In offline contexts, this is usually with all parties co-present and in a carefully arranged and equitable setting. Recording of statements is not normally permitted and ground rules are established to protect the parties from detrimental selective quoting. Conciliators are practiced in the use of techniques and strategies specifically designed to position themselves so that they may most effectively help parties resolve their conflict. The techniques used by conciliators include: (1) reframing - subtle changes in the language used invite parties to view situations and behaviours from a different position; (2) control over the floor or the topic - this ensures that irrelevant power differences between the parties can be mitigated to ensure that any agreement reached is fair; and (3) demonstrating listening behaviour - this encourages parties to be open and honest about their interests, desires and resources. Before deploying these techniques, conciliators reflect on the situation, decide when it is necessary to shift from one technique to another. In terms of strength of personal feeling, 'demonstrating listening' can encourage parties to 'vent', which may help them to feel as though their concerns have been heard. Perhaps surprisingly, hostile talk can help to reduce hostility between the parties, provided the conciliator is both able to moderate it in some way, and it results in visible recognition of strength of feeling by the other party.

Billings & Watts investigated how professional conciliators approach the use of mediating technology to communicate with their clients, looking in particular at video mediation [1]. In this paper, we take forward the 'safe space' proposition in the context of text-based dispute resolution in an online community. In principle, the altered temporal and geographical situation means that parties are unable to address misunderstandings the moment they arise. Furthermore, the persistence of the medium should generate additional tensions in the process, as parties struggle to redefine their conflict relationship. We show how mediation occurs in a particular online environment to inform policies for conflict management by conciliators in other text-based settings. We do so by exploring the interaction between the

conciliator and the medium, demonstrating how the medium can afford and limit conflict resolution strategies.

A STUDY OF CONFLICT AND MEDIATION ONLINE

Wikipedia is an enormous collaborative volunteer effort intended to produce a free, on-line encyclopaedia. The term describes both a community and a resource. The resource is a collection of articles produced with collaborative editing technology. Multiple contributors can work on the same article, logging changes with date, time and some form of identifier for the person who made each change. Whilst the ethos of *Wikipedia* is that anybody may add, delete or edit any article, some contributors are more equal than others. Coping with vandalism and the complexity of the 'architecture of participation' for such a large enterprise has generated community administrative membership structures and governance through systems of policies [3, 5]. These community policies serve to ensure that the articles conform to an objective ideal: they must be written to convey a Neutral Point of View (NPOV), supported by sources that are legitimate and verifiable. However, conflict management is a central problem for *Wikipedia* because of the controversial nature of some topics, especially given the breadth of readership and subjectivity associated with construction of an article overview [17, 19, 26]. To address this issue, *Wikipedia* has put in place a number of mechanisms intended to help resolve specific disputes between conflicting parties. These range from a request for oversight of the dispute, through to binding arbitration[3]. Oversight means that a member in dispute can ask for the dispute to be witnessed. Arbitration means that a senior member will assess the positions of those in dispute, decide on a course of action and then impose it. Wiki:mediation (or conciliation) represents is a middle ground where a senior member will try respond to a request to work with those in dispute to help them find their own solution.

Data

Many hundreds of text-based conciliations of disputes over *Wikipedia* articles have been made publicly accessible. In this paper, we report a qualitative analysis of exemplars of this type of dispute, coupled with interviews we carried out with *Wikipedia* conciliators[4]. The three disputes referred to in this paper are: *Redshift* (shift in color spectrum of stars as a function of heavenly movement); *Christianity* (role of Emperor Constantine in the adoption of the Nicene Creed); and *Zhukov* (military prowess of Marshall Zhukov in the USSR's fight for survival in WWII). Disputes had to satisfy four criteria: 1) they had to be published in *Wikipedia's* conciliation archive (they had participants' explicit consent that the discussion could be made public); 2) the case had to be closed (*i.e.* resolved, escalated or attenuated; 3) the

majority of the discussion had to have taken place on the conciliation section of the site (restricting unsolicited and unanticipated intervention from participants not directly involved in the dispute); 4) the conciliator had to have a regular input in the discussions at each stage of the discussion through to conclusion.

Analysis

The SIDE and SIP concepts of relative salience and interlocutor feedback provide a general frame for our investigation. At a finer level, our analysis draws on Clark and Brennan's approach to examining how the constraints of a 'nonbasic conversational setting' can influence breakdown and repair in conversational grounding [7]. 'Nonbasic' in essence refers to deviations from a set of interactional properties of face-to-face communication that limit the fine-grained timing of contributions, restrict linguistic strategies such as interruption, and reduce interlocutor control over the progression of the conversation. Clark discusses these in terms of a need for specialist skills to compensate for the additional constraints of nonbasic settings: constraints are taken to represent the omission of environmental properties that would otherwise benefit the grounding process [7].

Whilst conversational breakdowns are distinct from breakdowns in relations, attempts at recovery from both kinds of failure are subject to the same basic communication constraints. Based on our approach to conciliation, we anticipated that omission of the following constraints in wiki/text-based interactions should interact with a conciliators' ability to bring about a satisfactory resolution: 1) self-determination (control over what action is taken and when it happens); 2) self-expression (freedom for participants to present themselves as themselves); 3) evanescence and recordlessness (persistence of messages and accountability); 4) extemporaneity (ability to reflect on and revise a message before contributing it to an ongoing conversation), and 5) the combined constraints of simultaneity and instantaneity (managing asynchrony, time delay and ordering of contributions). We approach the interaction between mediation constraints and conciliator strategies with an open agenda: we wish to understand what text-based mediation might represent in terms of conciliators' ability to take positive action in conflicts (i.e. constraints might serve as 'additions' rather than necessarily as 'omissions'), following conflict research practice and building on our earlier study of video-mediated conciliation [1, 23]. We examined conciliation records for evidence of how conciliators' use of the medium enables them to carry out dispute resolution strategies. Examples were most clearly manifest in edits of previously posted comments and attempts to restructure the debate.

We report our findings in terms of four research questions, each following on from the foregoing discussion. How can conciliators: 1) reduce ambiguity to restructure substantive positions without marginalizing personal feelings; 2)

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[3] http://en.wikipedia.org/wiki/Wikipedia:Dispute_resolution

[4] Original usernames are preserved from `dispute records` because they are public domain. `Interview quotations` are anonymised.

impartially manipulate the salience of personal and substantive issues; 3) manage temporal discontinuities to maintain engagement, and 4) make use of their sociotechnical skills in case-building to maintain the general impartiality of the environment?

1) Reducing ambiguity to legitimize expression

At first sight, the most obvious response to breakdown is to assume that it is all just a misunderstanding and that disambiguation will bring about a resolution. Indeed, Conciliator F describes their approach to helping parties to identify breakdowns in *Wikipedia* as:

> *Make statements as clear as possible and encourage parties to restate ambiguous utterances (Conciliator F).*

They see part of their role as making explicit references to reduce ambiguity or uncertainty, to foster clarifications and reformulations and thereby reduce potential misunderstanding. After disambiguation, common sense might lead one to believe that eliminating emotional outbursts and regulating turns would be a positive step. Conciliator H feels that the asynchronous properties of the medium could productively the 'cool' or reduce the emotional intensity of exchange.

> *[The] medium encourages more reflection, which can moderate behaviour. Time lag makes it difficult for parties to talk over one another, - keeps things cooler. (Conciliator H).*

Asynchrony restricts floor monopolization and could encourage parties to reflect before commiting a detrimental act. Equally, parties have the opportunity to emotionally compose themselves before replying. In this way, the emotional climate is shaped by the communication medium and this could serve to inhibit flooding behaviors (such as rapid tit-for-tat conflict escalation).

However, as discussed in the introduction, a certain level of emotional engagement is not only desirable: it is necessary to tackle the underlying conflict. The counterpart to eliminating hot-headedness can be an unwillingness to disclose. Interviews with *Wikipedia* conciliators expressed their concerns about retribution and commitment in this environment. For example:

> *Pages of edit histories make it very easy to build up a case against the other person, making ad hominem attacks appear more convincing. (Conciliator I)*

Conciliator I has found that the permanence of the medium can detrimentally alter the salience of *ad hominem* statements (personal attacks). They indicate that the nature of the *Wikipedia* environment (with its ability to store information about edits) means that parties can exploit the record of how one another have behaved prior to and during the conflict. This can be used to develop a case against the other party, grounded in objective statements (although the interpretation and context of these statements may alter).

Thus, the other side of the 'cooling' influence of the medium is that the persistence of the text can reduce parties' perception of freedom to express themselves as themselves (self-expression). It can lead to parties avoiding certain statements for fear of some form of retribution, such as public defamation, censorship or banning.

In Example 1, Grafikm directly copies and pastes statements that other parties have made, emboldening elements that they feel are inappropriate or offensive, and asks the conciliator take action.

```
Oh, btw, how about that wonderfully polite
quote: "Look you trolls, none of pages
quoted says that Zhukov was good strategist,
except of quote of Vasilevsky. Why you keep
pushing this crap?" [6] If this is a way of
reaching consensus... BrownHornet21, if you
say that personal attacks are not allowed,
maybe you should warn Legionas against
making them. -- Grafikm (AutoGRAF) 17:05, 25
July 2006 (UTC)
```

Example 1. Highlighted *ad hominem* complaint in *Zhukov*.

Conciliators work to acknowledge those feelings whilst focusing disputants' minds on redefining the underlying nature of their conflict. Conciliator F emphasizes that parties must feel that they have been listened to:

> *[It is] Important to acknowledge the emotions that parties are experiencing. (Conciliator F)*

Explicitly naming emotions can show that the intentions of the party have been understood. The conciliator fills in the gaps. As discussed in the introduction, mutual recognition of strength of feeling is vital to effective conflict resolution. Personal elements thus potentially have a legitimate role to play and are necessary in dispute, in so far as they reflect strength of feeling, so parties must feel free to include them.

```
Either agree or respectively disagree. Again
you may correct word choice etc. but please
try to agree as much as you can. I'm
interested in your input too Flying Jazz.
* Ian feels that there is a double standard
regarding the "verifiablity to inclusion
ratio" between mainstream and minority views
     agree --ScienceApologist 19:41, 8
May 2006 (UTC)
* SA feels that he is defending the
integrity of articles from disproportionate
and misleading representation of minority or
fringe viewpoints.
     agree --ScienceApologist 19:41, 8 May
2006 (UTC)
* Ian is easily baited into an argument
which is often tangential (not reader or
article focused)
     disagree --ScienceApologist 19:41, 8
May 2006 (UTC)
* SA is sometimes baited in the same way but
sometimes is not but can also propogate  the
argument with few words or even stoicism.
     disagree --ScienceApologist 19:41, 8 May
2006 (UTC)
```

```
I  concur  with  ScienceApologist  on  each
statement  --Iantresman  21:05,  8  May  2006
(UTC)
```

Example 2. Summarization of issues in *Redshift*.

In Example 2, the conciliator identifies a number of issues in the dispute and asks parties to comment on them. The conciliator makes clear that this is to uncover the areas of disagreement. These statements help to identify substantive and personal issues which are crucial in the dispute.

Parties directly add to the text to say whether they agree with the conciliator's synopsis of the core issues, and whether they share that agreement with one another. The conciliator uses this technique to make explicit that each party observes the other and explains their actions. This technique for restructuring the argument represents a new opportunity to define what matters to all parties. The properties of the medium allow the scope of the dispute to be established through systematic, mutually observable and mutually ratified or contested evaluations.

The use of a bulleted list to identify the breakdowns serves at least two purposes. First it provides a structure for the discussions. Each point can be agreed with or disagreed with by each party, those issues in which there is disparity can be identified separately from other issues. Second, the asynchronous nature of the medium provides each party with the opportunity to reflect on each point and give a considered answer, rather than reacting to the comments as a criticism and entrenching them further in a position. Parties are given time to understand and reflect upon the differences between them.

```
Conciliator H:

Summarising and extending a viewpoint
are best ways to demonstrate listening
```

Conciliator H has found that rephrasing and summarising points are effective tools for demonstrating listening in an asynchronous text-based environment. The absence of paralanguage or other cues that can be used to quickly demonstrate that a point has been acknowledged or understood, means that a conciliator needs to make explicit that shared understanding has been achieved. They cannot assume that any agreement has been reached. Once made explicit, there is a permanent record of the agreement that can be used to form part of the common ground.

2) Impartial manipulation of salience of contributions to differentiate the personal and substantive

The following excerpts show evidence of the conciliator and participants editing previously posted comments in order to contribute to the dispute.

Example 3 is taken from *Redshift*. In this dispute, the conflicting parties are Iantresman and ScienceApologist, and the conciliator is NickY. It illustrates the challenges to conciliation arising from asynchronicity and persistence. Iantresman details their concerns with the article (note the timestamp); ScienceApologist takes issue with some of the

statements and places comments, in bold and directly in the article at the position where they have disagreement (both about 6 hours after the original posting). SA's response is to 'correct' elements of the argument but does so in a patronising manner ('Ian means…', 'Ian fails …'). The problem for the conciliator is that the substantive and personal elements of the dispute are fused together in the text and that the persistence of the text could lock-in the dispute forever.

```
...For example, the Wolf effect is described
as    a    Doppler-like  redshift  (not  a
reddening). Not only is this peer-reviewed,
it  is  apparently  demonstrated  in  the
laboratory,  and  there  are  reportedly  over
100  papers  on  the  subject.  This  is  not
trivial. And there are many other examples.
How  about  theoretical  (Here,  Ian  means
"hypothetical".--ScienceApologist  05:59,  15
April  2006  (UTC))  redshifts,  such  as
Intrinsic    redshift,    or    "Redshift
quantization"? Again, all peer-reviewed with
more  than  one  article  and  more  than  one
researcher.
Jimbo  Wales  himself  said  that  "Usually,
mainstream and minority views are treated in
the  main  article,  with  the  mainstream  view
typically  getting  a  bit  more  ink,  but  the
minority  view  presented  in  such  a  fashion
that  both  sides  could  agree  to  it."[1].( Ian
fails  to  include  the  next  part  of  the  quote
becuase   it  contradicts  the  very  next  thing
he  writes.  After  this  "Jimbo  Wales  himself"
wrote:  "Singular  views  can  be  moved  to  a
separate  page  and  identified  (disclaimed)  as
such,  or  in  some  cases  omitted  altogether."-
-ScienceApologist  05:59,  15  April  2006
(UTC))  But  in  some  cases,  we  have  NO  view,
and  in  other  cases  minority  views  are
represented  inaccurately,  or  reduced  to  a
link.  --Iantresman  23:35,  14  April  2006
(UTC)
```

Example 3. Temporal and rhetorical structure in *Redshift*.

However, Example 4 from *Zhukov* shows that a conciliator can address the language used by disputants by working directly with the persistent record. In this way comments can also be beneficial to the relationship. Grafikm and Sigitas are venting about the way that they feel the other party is behaving and BrownHornet21 is conciliating. The language is becoming heated in a way that could be damaging. The conciliator chooses to 'strike-through' some of the statements made by both Sigitas and Grafikm, to demonstrate how their exchange could be made more constructive.

```
Yes, the problem is that you never bother
presenting other opinions. You only quote
Suvorov  and  Sokolov  (whose  works,
incidentally,  are  not  recognized  by  most
Western  researchers)  and  don't  provide  an
alternate opinion. This is a kind of anti-
Zhukov crusade you're leading, and that's
why I filed this medcab in the first place.
-- Grafikm (AutoGRAF) 11:21, 27 July 2006 (UTC)
Other opinions are already over represented
thanks  to  the  decades  of  Zhukov's
```

~~personality cult building by soviet propagandists. And I'm not quoting Suvorov in the article.~~ Sigitas 11:52, 27 July 2006 (UTC)

~~"Other opinions are already over-represented thanks to the decades of Zhukov's personality cult building by soviet propagandists." To the mediator: do you see what I mean now?~~ -- **Grafikm** ^(AutoGRAF) 12:09, 27 July 2006 (UTC)

...

~~It is not my fault that documents and facts show incompetence and sadistic nature of Zhukov.~~ I do not invent anything. I'm not against consensus building. ~~Quite contratry, it is Zhukov's fans who are pushing controversial claims, like that "brilliant strategist" thing.~~ There is no consensus on strategy skills of Zhukov, so why push it? Sigitas 14:30, 27 July 2006 (UTC)

Example 4. Personal and substantive statements in *Zhukov*.

Note that this is not the same as simply eliminating the personal and retaining the substantive. It is the result of a design decision to include this 'formatting option' and the conciliator's decision to integrate the feature into their practice. The benefit of strikethroughs compared to other alternatives (e.g. selective deletion, or adding a 'rational summary'), is that parties are also encouraged to reflect on how they are expressing themselves. They are shown how to distinguish their personal and substantive differences. Furthermore, in Example 4 the conciliator actively demonstrates impartiality by visibly altering contributions from both parties. When the debate is denuded of its *ad hominem* elements, the positions of both parties become reasonable and clear. In other words, it becomes possible for all parties to see the basis of one another's claims.

3) Managing temporal discontinuities and demonstrating ongoing commitment to the process

Asynchrony can be a good thing, especially in terms of permitting flexible engagement with others, as they cope with other constraints on their time (timezones, work, family, biobreaks, travel), as indicated by this statement from Conciliator G:

> *People can reply when convenient – when dealing with multiple parties can receive information simultaneously. (Conciliator G)*

Conflicts can escalate out of control if emotional flooding occurs. But the hostile and mistrustful nature of conflict relationships mean that conciliators must also maintain a certain momentum to the exchange; maintain engagement between parties, and contain negative attributions.

> *Unexplained absences by parties cause a high degree of frustration and annoyance. (Conciliator I)*

Example 2 also shows how discussion momentum has been maintained. Note the time stamp on each posting as the conciliator tries to encourage the parties to move forward in their conceptualization of the dispute. ScienceApologist

first expressed a view on each of the conciliator's statements about 35 minutes after they were posted. Iantresman agreed with ScienceApologist's responses about 25 minutes after that. This is only possible if all are online and available, however; conflicts can last for weeks: periods of unavailability are likely to occur in the on-going dispute. The conciliator needs to be able to anticipate the effect that these periods of absence may cause, and take steps to remedy this.

```
Str is on a wikibreak so won't contribute
here for a bit. Let's put this on hold until
Str can respond to this proposal (which I
will copy up to the compromise section). --
Joebeone (Talk) 18:14, 23 May 2006 (UTC)
```

Example 5. Explicit adjustment of 'timeliness' in *Christianity*

In Example 5, the conciliator (Joebeone) has identified that one of the parties (KV) is eager to move the debate forward. However, one of the other parties (Str1977) will not be able to participate for a period. The conciliator anticipates that the asynchronous nature of the medium might lead to a breakdown in understanding between the parties. The emptiness of silent periods is prone to being filled with suspicions or false inferences. Consequently, the conciliator explicitly draws attention to this to ensure that KV does not misattribute Str1997's lack of response withdrawal from the argument or lack of engagement.

4) Reducing the impact of organisational and technical articulacy ('case-building') as a threat to impartiality

Power differences are critical in conciliation. Parties will have invested resources in the outcome of the conflict and will be reluctant to forfeit these should they be unsuccessful. Parties often adopt strategies to frame the terms of the debate in ways that maximise the effect of their resources and/or minimise the efficacy their opponent's. A conciliator must take steps to prevent these power differences from hindering resolution, yet must also not be seen to be favour one party, thus jeopardizing their impartiality: their mandate for controlling the exchange. Example 6 shows how one party's technical skill with the medium interacts with the design decision to make *Wikipedia* policies and procedures permanent and accessible. They attempt to bolster the substantive aspects of their case by using these policies as a power resource.

```
I've taken the liberty of reading through
the Wikipedia policy pages on Verifiability
and Neutral Point of View, and summarised
those statements that appear to support the
inclusion of minority views in an article on
a majority view.
From Verifiability
* The threshold for inclusion in Wikipedia
is verifiability, not truth.[60]
...
{links 61 – 106}
```
Example 6. Appropriation of policy in *Christianity*

In Example 6, the dispute is about including an alternative explanation of the relationship between the Nicene Creed

and the development of early Christianity. Here, a disputant makes use of a very large number of policy statements to lend credibility to their argument as a permissible minority viewpoint. The wording of *Wikipedia* policy has been copied and pasted, together with links to the source policy statements. The links are numbered from 60 – 106, demonstrating that this party wants to appropriate many different policies in support of their argument. This can then allow one party to fashion a *de facto* framework for debating the way in which discussions should proceed. Not all disputants are equally familiar with organisational policy or techniques for appropriating it to their own advantage. Organisational and technical knowledge are combined to create an impression of general authority. In this sense, it can be seen as a power display intended to legitimize the argument. The sheer number of policy links are deployed to imply that the user's position is closest to that of *Wikipedia* policy on minority views and is thus entirely legitimate.

The above demonstrates how the persistence of the medium allows parties to build up intricate and sophisticated direct connections to their case. Parties are able to copy and paste explicit norms of behaviour into the article and use these to claim 'objective' support for their position. If unaddressed, this can result in the dispute degenerating into a debate about the legitimacy of various policies, on the one hand, or their connection to the article on the other. The party who is best able to argue that their view is legitimate in terms of these policies may be able to dominate the other without substantively addressing the underlying issues.

DISCUSSION

Our analysis shows how the technical constraints of a text-based medium can be co-opted to help resolve conflicts. Our findings depend on (a) a narrative approach to conciliation that defines a positive outcome in terms of relational benefits and (b) archived evidence of conciliation practices as enacted in settled disputes in a particular online community. We now consider the place of these findings more broadly.

Persistently mutable texts

The persistence of the medium is perhaps the most significant constraint in a conciliation context. It has a vital impact on the relational exchanges between antagonists. It alters parties' ability to express their emotions. The persistence of the text causes parties consider how they wish to appear to the other, and use this to selectively self-present. Parties are reluctant to express their true emotions for fear of retribution: as we have shown, statements made without consideration can be copy-and-pasted into the discussions at a later date. The opportunity to reflect provides conciliators with a mechanism to encourage parties to consider their personal responses in a specific manner. We found that conciliators were able to mitigate against entrenchments, and over-cooling, by encouraging parties to express themselves freely and explicitly legitimizing their freedom to explore without retribution.

Given persistence, Clark's Common Ground [7] would suggest that breakdowns in understanding at the utterance level should be less likely – there is a permanent record of what has been stated and to which subsequent statements may be directly related. But on the other hand, if all statements are permanently recorded, entrenchment will be hard to avoid. Narrative perspectives on conciliation [28] would argue that narrative issues would be likely to continue to arise because the protagonists' systems of values are tied into the stories they tell across statements and edits they make. The temporal information in the edited record seems to some extent to be used to track the development of the evolving dispute. In particular, persistence seems to work differently in a wiki-based exchange than in a linear forum or blog. Certainly, whilst persistent visibility of comments/edits means those in conflict cannot escape entirely from their past, the immediate juxtaposition of new and old timestamps provides an important narrative context to statements in the dispute. Evidence of historical change in viewpoints, through extensions and qualifications, turns persistence into a mutable concept; a critical matter in our study.

Restructuring

The conciliator may aid in the development of alternative narratives, if they are able to seed a restructuring of positions. Our study showed this in the form of creating new synopses of the argument in text. Ordered points could seed a new narrative if they are seen, understood and incrementally responded to by all parties. We showed how this helped by scoping out the main areas of remaining contention. Parties can then easily identify areas of agreement and disagreement. Areas of agreement can be put aside and resources can be expended on addressing the remaining issues. In extreme examples, parties could migrate aspects of the dispute to an entirely different forum.

In a related manner, the use of strikethroughs seems to have helped to address the problem of textual fixedness. They show how text can be actively co-opted (in this case by conciliators) to express, reflect on and revise their own and others' arguments, and the tone in which they are presented. In other words, the lack of 'recordlessness' need not leave interlocutors stuck in a frozen conversation. Persistent text can be used as additional expressive material that can be remoulded in the ongoing relational exchange. For the conciliator, mutated text could encourage reflection among disputants, informing their behavior in future conflicts. It is difficult to imagine similar value in a face-to-face context.

Openly addressing power differences

Conciliators must be able to contain power displays if they are to maintain a level playing field. In an evanescent environment, the conciliator is able to head off threats in advance by rephrasing or reframing to eliminate power elements while preserving substantive information. However, in an environment that has a persistent record of all interaction, opportunities for the conciliator to do this

are limited. Conciliators must openly address power displays, showing how and why they are doing so, or risk losing their reputation of impartiality.

One may consider power displays in terms of social identity: a party could try to use membership of a powerful social group to reinforce their position. The SIDE account of CMC [24] would argue that text media tend to alter the balance of cues for group vs. individual identity and control over such cues could be used to exert control over influence of external group memberships. However, the situation is complex in online conflicts. Members have reputations and their own userpages linked to all postings. They can create, manipulate and present their preferred identities to the dispute in the absence of other cues [27]. Reputation (e.g. as a valued community member) can have significant currency as a power resource. It is not simply a matter of promoting or attenuating the power of individuating cues within the confines of that particular conversation. The construction of a text-based environment for handling conflict must be shadowed by the inauguration of a set of policies for its use: a conciliator's edits and treatment of reputation during a dispute must be allowed and impartial.

Managing conversational increments

In communication environments that support extemporaneity, instantaneity and simultaneity, the construction of contributions can be observed and interpreted by all parties at the same time as they compose their responses. The conciliator is able to interrupt, or otherwise modify a contribution as a party is uttering. This can be used to preserve the safety of the space and ensure that discussions remain on-track. However, in an asynchronous environment, parties are able to prepare a lengthy contribution without the conciliator's supervision, before adding it to the discussion. One impact of the medium on conciliator practice is the loss of shared understanding being built in successively managed increments. This alters the way in which parties are able to vent. The conciliator is unable to pre-empt venting or flooding behaviour, but must take steps to retrospectively address this when it occurs. The examples above show that conciliators are able to manage this when it occurs through the 'special skills or procedures' [7] such as strike-throughs, interposition of comments and recapping. However, the effect appears to be very positive, so that describing it as an necessary reaction to an unwelcome constraint seems to misrepresent how valuable it might be.

Encouraging contributions

It is hard for text-based conciliators to maintain engagement with conflicting parties: the lack of instantaneity and simultaneity limit their ability to draw out contributions. This means that the conciliator has to reassess the way in which they demonstrate listening. In a synchronous environment, the conciliator can use non-verbal continuers to encourage a party to keep talking. If an individual begins to open up about a difficult issue, the conciliator can

actively encourage them to get beyond their reticence. In asynchronous text, the conciliator is unaware of any aborted attempts to communicate. Parties may have begun to raise a topic, and then on reflection, have decided that it is not something they are comfortable discussing. The conciliator has no way of gaining awareness of these issues, and so is unable to address any deep-seated reticences.

Another way to consider the conciliator's ability to engage with parties is in terms of a more generalized loss of presence. Being present to all parties means that the conciliator is able to encourage participation or maintain attention. It influences how well they are able to appreciate how parties are elaborating their positions in the argument and the extent to which their antipathy may be developing. Conciliators must keep parties focussed throughout the delays imposed by the medium. In addition, parties are able to draw on resources from beyond the current conciliation environment and the conciliator may be unaware of these. The conciliator must engage parties in the dispute, through encouragement and remaining enthusiastic, or explicit requests for participation. Lampe & Resnick identified timeliness and fairness (in terms of alignment with community norms) as a critical issue in the success of moderation in *SlashDot* [21]; we find the same for conciliation in *Wikipedia*. Engagement and the norms of interaction are different in conflict relations: policy and technical support both need to be adapted accordingly.

CONCLUSIONS

In this paper, we have shown a positive benefit for technical mechanisms that make text 'mutable'. That is, earlier statements in a dispute can be preserved but also actively and visibly altered. As they are remoulded, they are able to reflect the narrative that participants are creating whilst preserving evidence of the path they have taken to accomplish it. Mutable texts offer a real opportunity for parties to innovatively explore alternative narratives. *Wikipedia*, as with the great majority of established online communities with large memberships, has rules and policies for good behaviour. Participants are aware of these rules and may draw attention to any behavior that violates these policies. The conciliator must establish a resolution environment as a special space in which these policies are not as important as behaviors appropriate for the construction of new narratives. This can be achieved by setting special ground rules and de-emphasizing group norms. The safety of a space is as much to do with altering perceptions of acceptable conduct as technical isolation or 'recordlessness' of heated, disputatious conversations. Migrating a dispute to a unique environment can be very helpful in altering perceptions of norms. Accountability is very important but it must be understood in the context of changing attitudes, and the temporary disharmony that goes with remediating relationships. Nevertheless, it may be difficult to carry a resolution achieved within this special environment back to the community, if its 'rule breaches' are not ratified as legitimate in the context of dispute.

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