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## **Web 2.0 and Commercial Disputes: A Case Study of Information Sharing in e-arbitrations and e-mediations**

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### **Abstract**

Businesses often depend on Mediation and Arbitration as mechanisms to resolve disputes outside of the judicial courts. This paper examines how the Internet is revolutionizing the legal world of dispute resolution. The paper analyzes data from the academic-business interface developed by two universities working together to make openly share information related to Arbitration and Mediation, on the lines of Wikipedia and YouTube. Their initial forays in this field have been a success, encouraging increased funding and further development of their website. This paper analyzes their success, gleaning insights about user behavior and acceptance of such initiatives. The paper also explores the utility of Web 2.0 for arbitrations and its future prospects.

**Keywords:** Arbitrations, Web 2.0, mediation, law, business, management

### **1. Introduction**

The Internet is poised to revolutionize the legal world of dispute resolutions, namely mediation and arbitrations. Arbitration is a legal mechanism for resolving disputes outside the courtrooms, where the parties in the dispute refer the case to one or more "arbitrators" by whose "award" decision they agree to be bound. A vast majority of trade disputes or commercial disputes in the US are resolved through arbitration [7; 26].

Arbitrations are sometimes preceded by Mediation, a process in which an impartial third party facilitates communication and negotiation to promote voluntary decision making by the parties— much like a marriage counselor. Mediations cost less and deliver results faster [10] and are frequently preferred to accepting something imposed by a third party. Arbitration is generally viewed as an efficient manner of resolving a dispute before an impartial panel of arbitrators [12]. The wide spread popularity of arbitration lies in its ability to resolve disputes much faster: just 4 months against 18-36 months for traditional, and much cheaper: 35-60% lower [7] than conventional litigation courts that are not designed to handle global disputes regularly [8; 32]. Other benefits of arbitration include complete privacy [8; 36], as arbitral proceedings and arbitral awards are generally private, allowing organizations to maintain their carefully groomed public image and brand value. As it is arranged through mutual agreement, the arbitral process provides much more flexibility in its operation than a court [38; 8]. Especially when the subject matter of the dispute is highly technical, it allows the parties to customize rules and appoint arbitrators with the appropriate expertise. It also leads to a swifter justice as there are limited avenues for appealing an arbitral award and a smaller chance of a party delaying the matter.

Arbitrations also have a few problems— if a panel of arbitrators is appointed, it can be difficult to juggle around their individual schedules to arrange dates for hearing, leading to delays. Another problem is where large businesses may exert influence in consumer disputes, pressuring arbitrators to decide in their favor or lose future business. And although it is cheaper than a court, it is still an expensive process [8; 32].

The internet has revolutionized Arbitration in two ways: it has created new global disputes, while providing a mechanism for solving them. Earlier the business transactions and therefore the related disputes used to be local, limited within a state or a country. In the last decade, the advent of internet has made global transactions and therefore global disputes common place. Millions of transactions are completely digital: for example e-bay has over 150 million registered users situated worldwide, with more than 24 million items offered everyday amounting to \$60 billion in 2007 (Source: www.ebay.com). Disputes are inevitable and in such disputes it is often impossible for the parties involved to meet in person, face to face. Further, it is difficult to establish the laws of which land would hold, not to mention the challenge of language, the difference in operating norms and the settlement of awards. Dispute resolution mechanisms like online arbitrations can resolve disputes speedily as well as with less expense [11; 26].

The Internet is increasingly being used to augment the benefits and reduce the problems associated with arbitrations. Internet is employed to reduce the expense, the complexity, and the time involved in the process, while allowing parties located globally to effectively use arbitration as a tool to swiftly resolve their disputes. Companies today handle millions of disputes online [26]. As of March 2006, 149 online dispute resolution (ODR) websites were in operation worldwide [39], up from 76 in 2003 and 115 in 2004 [12]. One such website, Cybersettle.com [15], has handled over 200,000 cases online with over 1.5 billion dollars in settlements. ODR websites settle more than three million cases online, helping resolve all kinds of disagreements from online trading like eBay disputes [24] to commercial disputes between multiple businesses [37], employment disputes [9], as well as the Sri Lankan peace process [20]. In the Sri Lankan peace process, it brought together parties that otherwise would never meet. It provides a space for sharing knowledge and information and keeping communication channels open for a possible dialog at any time. In a similar manner, it is used to resolve discord among employees and management to boost employee morale and productivity. Internet is a new channel for the arbitration process, where an array of tools such as email, instant messaging, bulletin boards, teleconferencing, video conferencing, and online discussion groups are used to resolve conflicts [7].

This paper explores the different ways that the field of arbitration is currently using the Internet, especially web 2.0, to revolutionize its operation. The paper then analyzes the data from an arbitration website set up in a web 2.0-style to find trends. In this exploratory study we arrive at conclusions about the utility of Web 2.0 for Arbitration and its future prospects.

In this paper we first discuss how the Arbitration process works and then we review the literature on the application of the Internet technologies and information systems to Arbitrations. After explaining the research methodology and analyzing the data, we discuss the findings and conclude the paper with a summary and postulation of the future trends in the use of information systems in Arbitrations.

## 2. What is Arbitration?

Although the arbitration process has grown over the past fifty years it started with the advent of the labor movement in the United States and most arbitration processes now follow, to a great extent, the labor relations arbitration model. So we will use that model to explain the arbitration process.

Almost all Collective Bargaining Agreements (CBA) or labor contracts between a union and an employer have a grievance procedure for the parties to use if they believe the contract has been violated. A typical grievance procedure is three steps: first, the supervisor and union steward (representative) meet to discuss a potential contract violation and attempt to resolve the problem. The second step occurs if the problem is unresolved so the grieving party (often the union) submits a written grievance to the employer and the employer then sends back a written reply. The third step occurs if the matter is still unresolved. The grieving party requests arbitration so that a third party neutral may decide the issue(s) in dispute.

The parties typically include an arbitrator selection process in the CBA and it always provides that the arbitrator will be mutually selected. The arbitrator receives all of his/her power and authority from the CBA and is strictly bound by the requirements of the CBA. The hearing is informal but oral arguments are made, witnesses are called and evidence is submitted much like a court hearing. Many times briefs are submitted to the arbitrator after the hearing to summarize each party's case and the arbitrator then issues a written decision deciding whether or not the contract has been violated. Both parties are bound by the arbitrator's award and courts rarely overturn the awards.<sup>1</sup>

It should be noted that a new trend in the grievance process is to require that the parties go to mediation before arbitration. Mediation usually does not involve a hearing but rather includes a trained neutral who listens to a summary of the case from both sides and attempts to assist the parties in settling the dispute before going to the expense and time of an arbitration hearing. In Michigan, for instance, the state provides a mediator to the parties for free so it is often used as a step in the grievance process of a CBA.<sup>2</sup>

### Typical Grievance Arbitration Process

<sup>1</sup> Bell v Seabury, 243 Mich. App. 413, 422 (2000).

<sup>2</sup> James Spalding, Michigan Mediation, <http://www.gvsu.edu/arbitrations/index.cfm?id=F264187D-F9C4-C3C7-5988FCE0D5A59AA5> (last visited on March 9, 2008).

The Grievance Process in a CBA:

- **First Step:** Oral conversation between supervisor and union steward (representative) regarding possible CBA violation.
- **Second Step:** If problem is not resolved at the first step then union puts grievance in writing and the employer responds in writing.

An Example:

- The union wrote a grievance stating that the employer violated the CBA because it did not use strict seniority when selecting employees for over time (OT). The union demanded that the employer pay OT to all the more senior employees who were not selected for OT in accordance with the CBA.
- The employer wrote a grievance reply stating that it did not violate the contract because it attempted to use strict seniority but when it made calls to assign OT many of the more senior employees were either not home or did not answer their cell phones. Consequently the employer was forced to use less senior employees for the OT because it was an emergency situation and needed help immediately. The employer therefore denied the grievance stating that it did not violate the CBA.

- **Third Step:** If the problem is not resolved at the second step the parties pick an arbitrator and proceed to arbitration. If a CBA provides for mediation it typically occurs just prior to arbitration

The arbitration process provided by Benyekhlef and Gélinas [7] is shown in Figure 1 and the one provided by www.finra.org is described in Figure 2. Financial Industry Regulatory Authority (FINRA) is the largest non-governmental regulator for all securities firms doing business in the United States. The organization’s arbitration process is a good example of a non labor relations dispute resolution model. The diagram below shows their process for Arbitration with the concomitant fees.

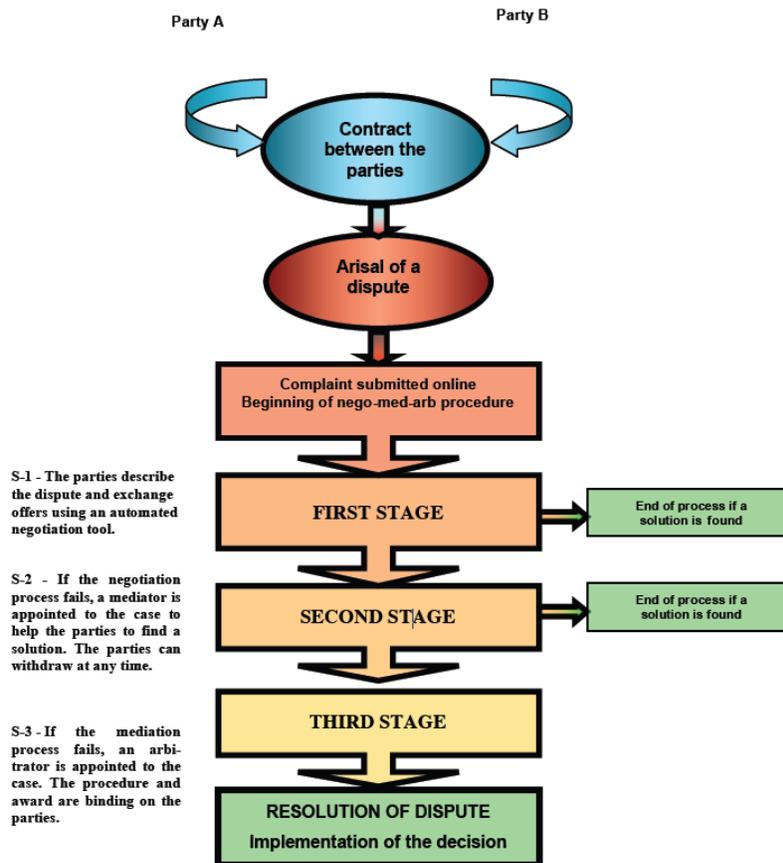


Figure 1. The negotiation → mediation → arbitration process to resolve disputes [7]

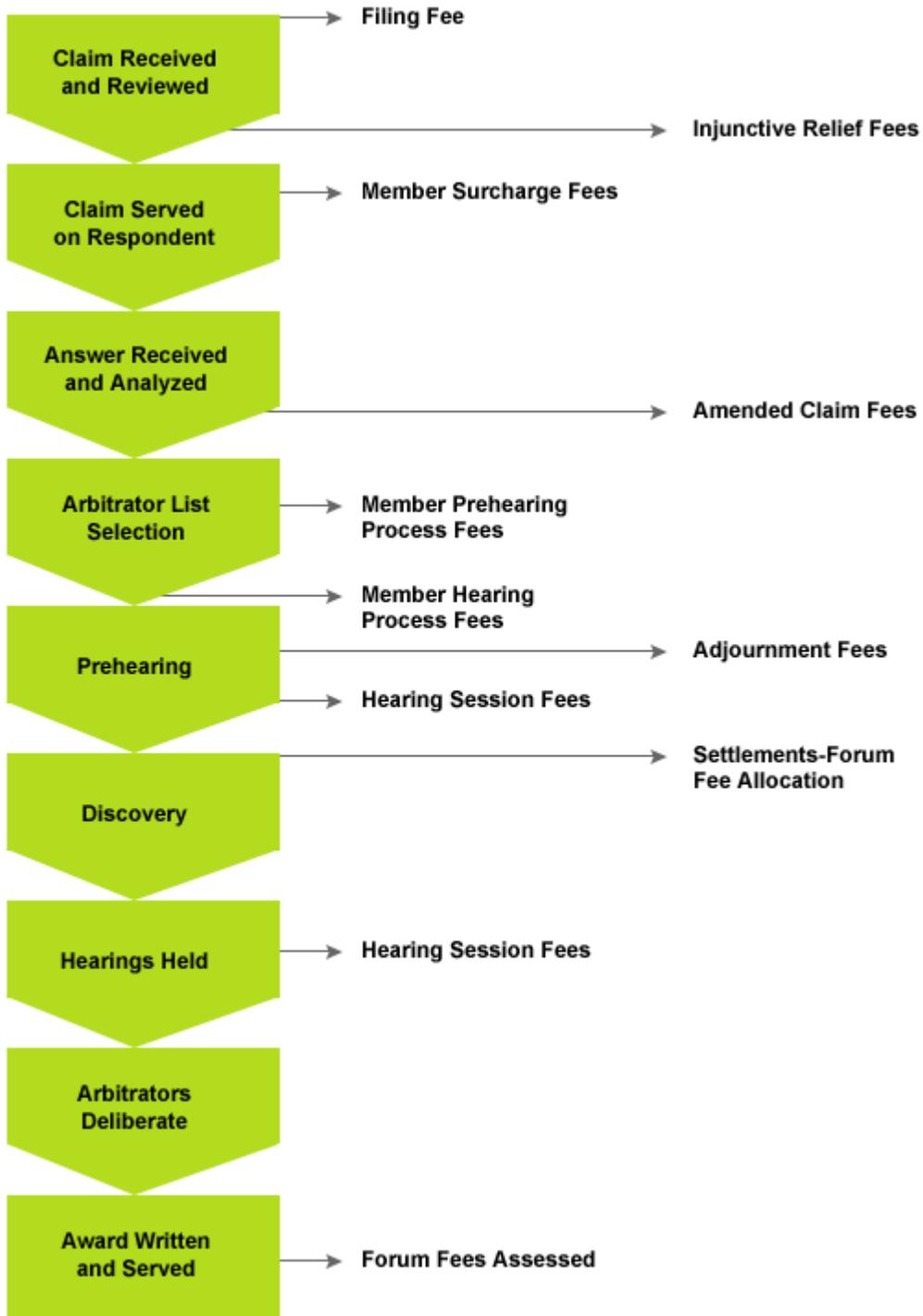


Figure 2. Detailed Arbitration process for firms dealing in securities. Source: [www.finra.org](http://www.finra.org)

## 2.1 Arbitration and the role of the Internet

Even in the slow, lumbering style of the traditional legal world, Internet is fast emerging as a channel to settle commercial disputes [28]. One of the first online arbitration was conducted in 1996 by the University of Massachusetts in their 'Virtual Courtroom' [3]. Richard Hill [21] explains the arbitration process using the Internet as follows: 1. The initial step was to use emails to exchange documents. 2. Then the parties began using the Internet to exchange evidence. 3. The final in the process now is to use electronic means to conduct arbitration proceedings with technologies such as video conferencing.

Online arbitrations seem to have caught on only in the last seven or eight years as the Internet transformed into one of the major channels for commerce as well as conflicts. Most of the research work in this field is therefore recent. The literature on online arbitration reviews various areas such as legal and regulatory issues [such as 18; 22; 29], issues of trust [1; 30] and of communication and culture [17; 4; 27] among others. The literature also shows the application of online dispute resolution to different business situations such as, consumer protection [34; 33], government and public disputes [2; 13], peace and conflict resolution [25; 20], and family disputes [6; 14]. Some of them discuss the technological issues, like problems of hardware, software, authentication, computer literacy, computer accessibility, online communication protocols, and online bidding [5; 7; 19; 16].

Arbitrations have evolved much like the auctions— moving from physical transactions, to online platform like e-bay for accomplishing the transactions. The main advantage of the Internet is the freedom not to be physically present and the use of computer automated tools, such as online document sharing and commenting and the automated bidding tools. As the web evolves from Web 1.0 to Web 2.0, the role of technology changes from just being an enabler of existing processes to being an active disrupter by radically reinventing the existing processes and enabling things that were impractical or impossible earlier [35]. There are not too many that discuss the technological issues, especially the implications of web 2.0 on online dispute resolution. A few researchers discuss the adjudication of disputes and crimes in the virtual worlds and the challenges for the judicial system [23], but there is no discussion on how these recent innovations can also assist online dispute resolution in complete new ways.

Apart from automated transactions of Web 1.0, the need now is for Web 2.0 tools that allow sharing and collaboration in the ways of Youtube, Wikipedia, and Facebook/ Myspace. Youtube and Wikipedia demonstrate the utility of accumulation of small amounts of information from different sources that lead to the creation of a compendium big enough to become a source of frequent reference for anyone and everyone. The Web 2.0 emphasizes user generated information, therefore making information available immediately and free of cost, especially for items that are not copyrighted.

From the perspective of Arbitration, it means freely sharing the information about arbitrators and mediators, as well their awards, on the internet. At present this information is not freely available on the Internet: either it is simply not in the digital form, or else it is available at a charge at websites such as AAA (American Arbitration Association). The website in this study is the first step towards a Web 2.0 approach to arbitration where it openly posts resumes and arbitral awards on its websites. Although Arbitration process may be private, the awards may not always be confidential as they have to be shared among large numbers of people directly affected by the awards [36]. In addition arbitrations involving public employees such as police, fire personnel, and teachers are public information in most states.

With Web 2.0, the Internet can play an important role before, during, and after arbitration. Before the arbitration, the Internet can help people connect for the first time across geographical regions, share knowledge and information, explore past arbitration awards and court decisions, and possibly reduce the level of conflict. On the other hand it can increase conflicts as the online channel arms and encourages the employees and employers with the information and the support from others in similar situations. The field needs further exploration by observing the experiences of web 2.0-friendly arbitration websites. This research studies one such website.

## 3. Data Collection and Analysis

A three stage research strategy is employed: first the research design is outlined, followed by data collection, followed by data analysis. Data was mainly collected from the website visitors. A case study methodology was used to conduct this research as it allows the research to ask 'How' and 'Why' questions that help explore issues along

with their context (Yin 2003). Such single case studies are recommended to provide a better understanding of the environmental complexity and an in-depth understanding of the issues (Yin 2003, Galliers 1992).

The validity of the case study was increased by employing multiple sources of data (Yin 2003). Data was collected using observations, interviews, and archival sources. One of the researchers was also actively involved in the project and consequently possesses an intimate, first hand knowledge of the project.

### 3.1 Purpose of the Arbitration Web Site

The project was to create and deploy the arbitration website at [www.gvsu.edu/arbitrations](http://www.gvsu.edu/arbitrations). The web site's primary purpose is to provide students and the public with free access to information about Michigan public sector grievance arbitration<sup>3</sup>, arbitrator's resumes and actual grievance arbitration awards. Typically individuals have to pay for this type of information through such web sites as the American Arbitration Association<sup>4</sup>, Lexis Nexis<sup>5</sup>, and Westlaw<sup>6</sup>. All of these web sites require the user to pay a fee to view the arbitration awards. Yet there are many who are required to present arbitration cases or are simply affected by the outcome of the arbitration awards that are not privy to the awards because they either do not know about them or they do not have access to the previously mentioned web sites. It is interesting to note that the state of Wisconsin places all of its public sector grievance arbitration awards on a web site for free but it is the only state to provide this service.<sup>7</sup> The lack of access to grievance arbitration awards is unfortunate because it is a growing body of law in the United States yet it is typically available only to those that have the means to pay for a web site service.

### 3.2 Web 2.0 and the arbitration website

Although the website was created with the intent of sharing information, initially it was not widely advertised. Advertising was limited to the researchers presenting the website at conferences. For example, the conference visit in October 2007 generated a sporadic interest. The website was generally used by students at the Michigan State University and the Grand Valley State University for their course work. This changed after the website went 'public' on the Wikis. The data from the website visits is provided in Table 1. It shows statistics on the daily averages and the monthly totals as well as the changes over same month last year.

In the table, the 'hits', 'files', and 'pages' denote different information. For example, if a request for an HTML document is made that contains two links to images and one of these images is missing, it is counted as three 'Hits' (one for the HTML document and two for linked image files), two 'Files' (one for the HTML document and one for existing image) and one 'Page' (just the HTML document). For our purposes, 'page' information would give a better view of the change in site usage than other numbers. Therefore the 'Hits' and the 'Files' information is grayed out in Table 1. The 'unique URLs', on the other hand, tell us how many unique page-views were made, i.e. multiple views of the same page by the same visitor or Host, are counted as 1.

The 'Hosts' denote how many different computers or IP Addresses accessed a website. It does not translate into unique individual users, but it is the closest one can get to such a number without a physical count. The 'visits', on the other hand, count visits from the same IP address as different if more than a certain time elapsed between the

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<sup>3</sup> Public sector employees in Michigan are employees who are paid by governmental units such as the state, cities, townships and counties. Public sector grievance arbitration awards are the focus of the web site because they may be obtained through Michigan's Freedom of Information Act, MCL15.231 (Act 4442), see: [http://www.legislature.mi.gov/\(S\(cojprf550assphyj32pbtg45\)\)/mileg.aspx?page=getobject&objectname=mcl-act-442-of-1976](http://www.legislature.mi.gov/(S(cojprf550assphyj32pbtg45))/mileg.aspx?page=getobject&objectname=mcl-act-442-of-1976) (last visited on March 9, 2008). Private sector employers have no obligation to release grievance arbitration awards to the public.

<sup>4</sup> American Arbitration Association, <http://www.adr.org/> (last visited on March 9, 2008).

<sup>5</sup> Lexis Nexis, <http://www.lexis.com/> (last visited on March 9, 2008).

<sup>6</sup> West Law, <http://www.westlaw.com/>

<sup>7</sup> Wisconsin WERC Grievance Awards, State Bar of Wisconsin, <http://www.wisbar.org/AM/CustomSource/ASPCode/caseindex.asp?lap=1&MoreOpener=&ci=1&OrdMode=DESC&Offsethi=20&Lio=1&Area=5&Numlines=20> (last visited on March 9, 2008).

visits. So typically the number of 'visits' would always be more than the number of 'Hosts'. The ratio of visits to host will provide the repeat-rate for an IP Address, approximating it to the actual number of repeat visits from a user. The Kbytes inform us the amount of information downloaded from the website. There is considerable amount of information in downloadable files, information such as Mediator resumes and award decisions. The Kbytes information will allow us an insight into this aspect. The percentage change is calculated only over the same month last year, as the main audience in 2007 was the academia whose demand changes in yearly cycles according to the yearly course schedules.

In the second week of January 2008, this website was registered on Wikifoia and Wikipedia. In Wikipedia it appears under Arbitration, Mediation, and other related pages, located under 'External references'. Wikifoia is a wiki to help people use the Freedom of Information Act at the state and local level. On Wikifoia a new page was created labeled "Michigan Public Sector Arbitrations and Collective Bargaining Agreements" and referenced on other Wikifoia pages on arbitrations and mediation. These wikis created a significant increase in the amount of interest in the arbitration website.

**Table 1. Website access information before and after registering at Web 2.0 sites**

	Daily Average				Monthly totals				Uniqu e URLs	% Δ													
	Hits	% Δ	Files	% Δ	Pages	% Δ	Visits	% Δ			Files	% Δ	Hits	% Δ									
Jul-08	141	117	131	212	101	135	54	184	393	89	31685	-28	1033	75	1924	44	2493	88	2688	32	246	-35	
Jun-08	114	44	105	163	63	58	35	75	447	41	59122	57	1076	75	1903	58	3151	157	3423	43	459	74	
May-08	117	41	101	146	72	57	33	65	532	67	82180	97	1028	64	2237	54	3148	146	3655	41	449	248	
Apr-08	97	-5	87	55	60	2	32	45	652	78	59319	12	984	44	1817	2	2635	57	2915	-5	235	10	
Mar-08	106	10	98	100	58	14	30	76	558	92	62405	-10	933	73	1805	12	3060	98	3288	10	333	4	
Feb-08	222	141	168	143	169	191	33	57	522	73	80402	97	970	58	4904	201	4890	153	6450	150	1941	966	
Jan-08	109	-5	82	-11	63	-18	26	4	447	31	64785	33	829	27	1981	-2	2569	6	3405	13	291	93	
Dec-07	62		45		38		19		354		41510		614		1183		1399		1923		161		
Nov-07	89		56		57		22		410		47503		678		1723		1696		2680		264		
Oct-07	135		105		101		23		331		72606		735		3141		3262		4214		1708		
Sep-07	30		21		19		6		116		13850		183		570		657		923		155		
Aug-07	64		30		30		10		176		34356		333		954		933		1994		88		
Jul-07	65		42		43		19		208		44263		589		1337		1329		2036		377		
Jun-07	79		40		40		20		317		37579		616		1208		1227		2386		264		
May-07	83		41		46		20		318		41659		627		1453		1282		2585		129		
Apr-07	102		56		59		22		367		53145		684		1779		1681		3071		213		
Mar-07	96		49		51		17		290		69363		540		1609		1543		2976		321		
Feb-07	92		69		58		21		302		40743		615		1631		1935		2584		182		
Jan-07	115		92		77		25		342		48762		655		2024		2417		3012		151		
Avg: Feb-Jul		58%		137%		76%		84%		73%		38%		65%		62%		116%		45%			211%

**Legend:**

Hits Any request made to the server which is logged, is considered a 'hit'.

Files Successful requests served by the server are counted as files.

Pages Any HTML document is considered a page.

Unique URLs The # of unique pages viewed, i.e. multiple views of the same page by the same visitor are counted as 1.

Visits # of requests made to the server.

Hosts Each request made to the server comes from a unique 'host', referenced by a name/ IP address. 'Hosts' number shows how many unique IP addresses made requests to the server during the reporting time period.

Kbytes The kilobytes value shows the amount of data, in KB, that was sent out by the server in the specified reporting period.

% Δ Change in the parameter compared to the same month last year.

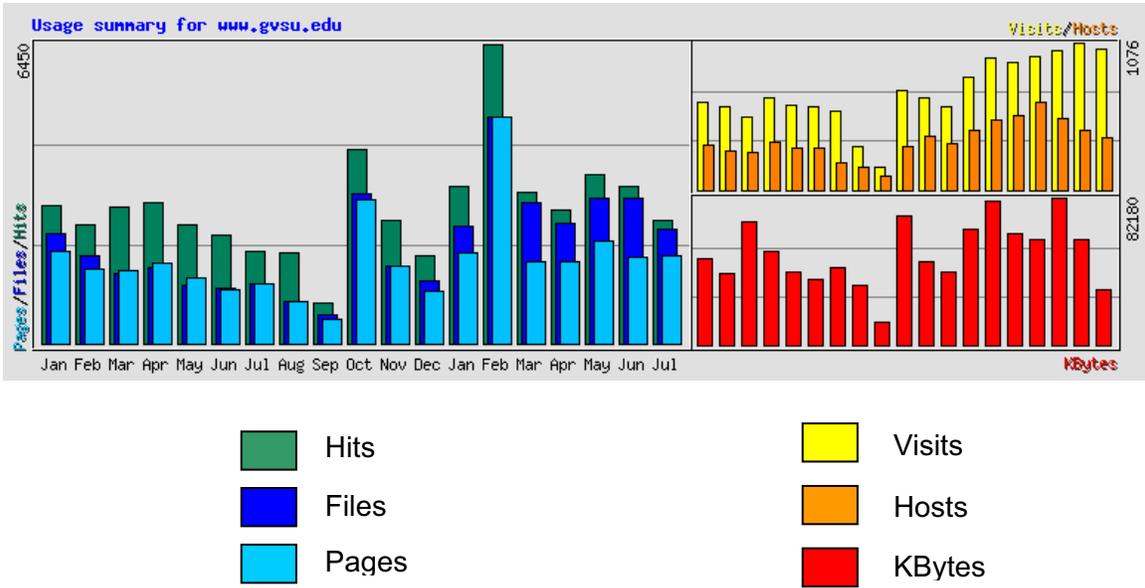


Figure 3. Graphic depiction of some of the data in Table 1

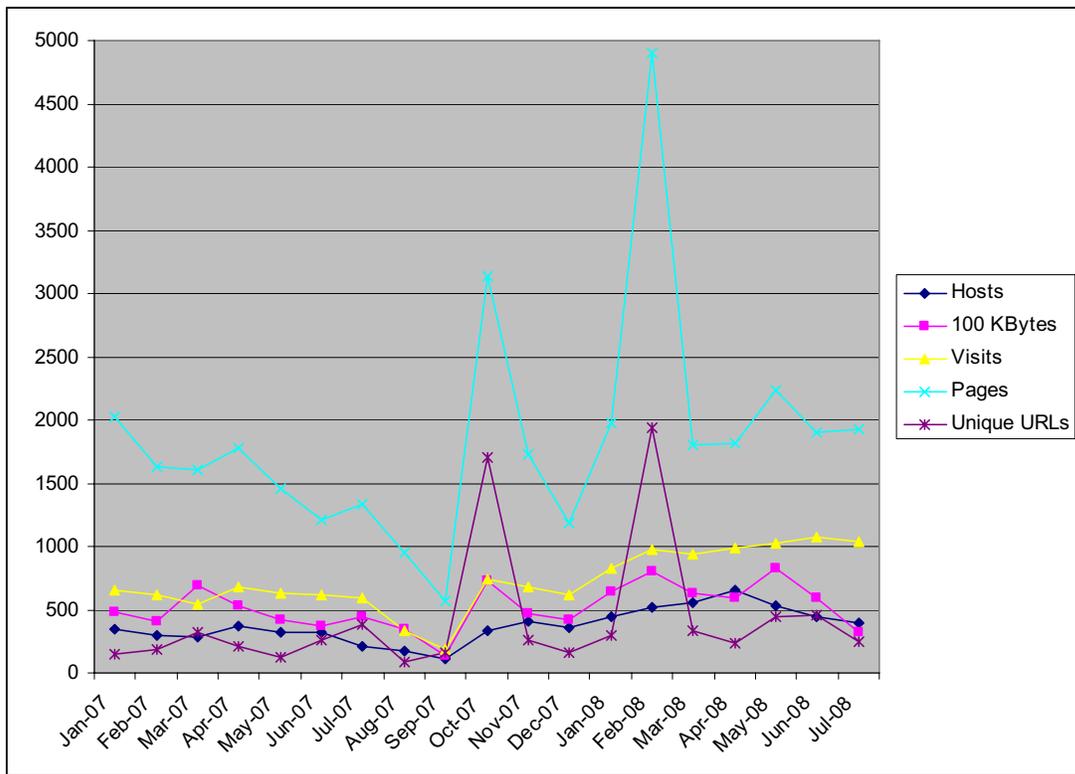


Figure 4. The trend-view in keys statistics: Hosts, Kbytes, Visits, Pages, and Unique URLs. KBytes is converted to '100 Kbytes' for better visibility.

The detailed web statistics of the month of January 2008 indicates that a rapidly increasing surge of interest

began from the third week of January. By February, it was a massive torrent. It is interesting to analyze the behavior of the new audience created using the Web 2.0 media by comparing the numbers in February 2008 the February of the earlier year. The biggest change has been in the ‘Unique URLs’ accessed, which increased over 200% overall and almost 10 times in February. After February it drops down considerably. The unique URLs inform us how many unique page-views were made, i.e. multiple views of the same page by the same visitor or Host, are counted as 1. A much greater increase in this number compared to other numbers, signifies a greater level of exploration from the visitors in February than any other month. As the number of users (hosts) increased 73%, it would be safe to assume that the number of unique URLs per user/ host increased at  $(9.66+1)/(0.73+1) = 6.16$  times. This means the new visitors were probably 6 times more prolific in their explorations than the regular visitors. The ‘Unique URLs/ host’ ratios given in Table 2 below also demonstrates this effect. Further, it is seen that such an exploration was also in effect when the website was advertised in a conference in October 2007. The effect is seen in Figure 2, with two spikes in the ‘Unique URLs’ and ‘Pages’ around October and February. Further, as the ‘visits/ host’ ratio in Table 2 remains almost the same while the ‘Pages/host’ increases, it again indicates that the visitors in February and October on an average explored more pages on the website than in any other months. The ratio is probably more pronounced in October, meaning the conference audience was much more interested than the Wiki audience. However the Wikis appear to have provided many more new hosts or users.

The number of users (Hosts) appears to be slightly declining, even while the number of visits is on an increase. This probably means a ‘skake-out’ where the low-intensity/ one-time users are giving way to heavy users.

**Table 2. Ratio Analysis of the numbers in Table 1**

	<b>Visits/ host</b>	<b>Unique URLs/ Host</b>	<b>KBytes/ host</b>	<b>Pages/ host</b>
Jul-08	2.6	0.63	80.62	4.90
Jun-08	2.4	1.03	132.26	4.26
May-08	1.9	0.84	154.47	4.20
Apr-08	1.5	0.36	90.98	2.79
Mar-08	1.7	0.60	111.84	3.23
Feb-08	1.9	3.72	154.03	9.39
Jan-08	1.9	0.65	144.93	4.43
Dec-07	1.7	0.45	117.26	3.34
Nov-07	1.7	0.64	115.86	4.20
Oct-07	2.2	5.16	219.35	9.49
Sep-07	1.6	1.34	119.40	4.91
Aug-07	1.9	0.50	195.20	5.42
Jul-07	2.8	1.81	212.80	6.43
Jun-07	1.9	0.83	118.55	3.81
May-07	2.0	0.41	131.00	4.57
Apr-07	1.9	0.58	144.81	4.85
Mar-07	1.9	1.11	239.18	5.55
Feb-07	2.0	0.60	134.91	5.40
Jan-07	1.9	0.44	142.58	5.92
Average: All	1.97	1.14	145.27	5.11
Feb-Jul 2008	2.00	1.20	120.70	4.80

In the two months following February 2008, the ‘unique URLs’ decrease considerably and so do the ‘pages’, even while there is an increase in the number of hosts. This shows a dramatic drop in explorations per user. So it probably signifies the end of the ‘exploration’ phase by the new audience drawn by the web 2.0 media. Possibly now they come back for specific information only.

Also, as the number of hosts or users increase, the Kbytes of data also increases but not dramatically. In Table 2 the Kbytes/ host column shows there is not much difference among the months. This signifies that the users repose trust in the information being available at a later date also. There is no panic downloading of all the free information. This is significant, given that there are few online sources of data provided by this website, and commercial websites such as AAA (American Arbitrators Association) charges users for similar information. It appears the users are now used to important information being and remaining available online.

The next step planned for the website is to allow users to become a ‘prosumer’ (Producer as well as Consumer of the information) by uploading any arbitration related content on their own, like the Wikis and the Youtube, and allow users to comment and exchange thoughts using the website. However Web 2.0 is not just about user-generated content. It is also about mashups, about desktop-like applications in web browsers, and about rich user experience. A mashup is where a website combines services from many different websites. For example travel websites like Expedia combine mapping information from google, address data from hotels and availability data from airlines to create a travel plan on the fly. Similarly, now there can be a website that combines information from the above discussed arbitration websites, with tools like Google docs and google calendar for joint formulation of disputes and for scheduling, use discussion forum and project management tools from 37signals, video conferencing from skype, bidding services from e-bay, polling tool from quimble, and virtual visualization from second life, to generate on-the-fly, configurable, customizable arbitration processes to suit the specific needs of the user. Such a service will provide different tools at every stage of the dispute, while allowing the users the best-of-the-breed web 2.0 tools available in the market. It might seem like a big effort to create such a website, but last year JackBe, Microsoft’s Popfly, and IBM’s QEDWiki, and a few others have come with browser-based mashup-makers that help users to quickly and easily create such mashup websites on the fly, in minutes. As these services as well as the mashup makers themselves behave more like desktop tools rather than web browsers, they provide a rich user experience by placing many more facilities at the finger tips of the users. This is what this website is planning for in the immediate future.

Such a Web 2.0 implementation can radically change the dispute resolution process. Imagine a probable dispute that comes up as a simple comment from a user, becomes ‘viral’, i.e. rapidly garners wide spread support from other users, like certain youtube videos do. Users discuss virtually, with inputs from legal experts as well as inputs from their adversaries. Labor union--management discussions can now be in the open for all workers to participate at every stage. Ideas may be generated using brainstorming tools from mindmeister and filtered out using polled tools from quimble. The negotiation process will blur into higher level discussions on discussion boards. Higher levels of complexity and a great amount of information may be processed in a 3-dimensional space of virtual worlds in a manner reminiscent of science fiction works like ‘Minority report’. Mediators will emerge on the fly and so will the arbitrators. With enough inputs and discussions from all possible sides, there is a greater chance that the disputes will have higher levels of context and get resolved faster and amicably. Due to the open nature of such forums, disputes that are inherently biased will get discouraged by the fear of public ridicule. But on the same note, some valid disputes may not surface due to fear of public ridicule, especially those relating to issues like gay relationships and child abortion.

Web 2.0 has already led arbitrations into new directions and opened up new issues that are difficult to understand, leave alone adjudicate [23]. However, it has also opened up door to new solutions that were unimaginable or impossible a few years ago.

#### **4. Conclusion, and Future research**

The paper began with the aim of exploring the application of Web 2.0 to the field of arbitrations. The paper reviewed the relevant literature and concluded there is not enough discussion on this issue. The researchers then explored the progress of one arbitration website closest to the application of web 2.0 to arbitrations and evaluated its success and its acceptance among users. Even while the website is a small starting step towards the application of web 2.0 to arbitrations, it is a great success, leading to increase in funding,

paving the way towards a greater level of web 2.0 features.

Apparently web 2.0 was first coined in 2004 to describe the new stream of websites with revolutionary, mindset-breaking ideas [31]. Although it is rapidly growing, Web 2.0 is still a very new realm and it is difficult to extrapolate what new path breaking ideas may come up tomorrow and take us in a completely new direction. The paper shed some light on how today's web 2.0 may be used to conduct arbitrations in the future. However this area needs to be further explored.

## References

- [1] Aresty, J."Digital Identity and the Lawyer's Role In Furthering Trusted Online Communities," *The University Of Toledo Law Review*, 2006, 38(1), 137-162.
- [2] Aresty, J. and M. Conley Tyler."Civil Society's Right to Privacy in Cyberspace," *Internet Law Bulletin*, 2004, 7(8), 111-114.
- [3] Arsic, J."International commercial arbitration on the internet: Has the future come too early?," *Journal of International Arbitration*, 1997, 14(3), 209-221.
- [4] Balvin, N. and M. Conley Tyler."More Effective Than Face to Face? The Pros and Cons of Online Negotiation," *Internet Law Bulletin*, 2005, 7(10), 142-145.
- [5] Bellucci, E. and J. Zeleznikow "Trade-off Manipulations in the Development of Negotiation Decision Support Systems" *Conference Proceedings of Third Annual Forum on Online Dispute Resolution*, 2005.
- [6] Bellucci, E. and J. Zeleznikow."Developing Negotiation Decision Support Systems that Support Mediators: A Case Study of the Family\_Winner System," *Journal of Artificial Intelligence and Law*, 2006, 13, 233 - 271.
- [7] Benyekhlef, K. and F. Gélinas."Online Dispute Resolution," *Lex Electronica*, 2005, 10(2), 1-131.
- [8] Biukovic, L."International commercial arbitration in cyberspace: Recent developments," *Northwestern Journal of International Law & Business*, 2002, 22, 319-352.
- [9] Bloch, H. P."ODR and DSS initiatives for reliability-focused plants," *Hydrocarbon Processing*, 2003, 13-14.
- [10] Brett, J. M., Z. I. Barsness, et al."The effectiveness of mediation: An independent analysis of cases handled by four major service providers," *Negotiation journal*, 1996, 12 (3), 259-269.
- [11] Cole, S. R. and K. M. Blankley."Online Mediation: Where We Have Been, Where We Are Now, and Where We Should Be," *The University Of Toledo Law Review*, 2006, 38(1), 193-212.
- [12] Conley Tyler, M. "One Hundred and Fifteen and Counting: The State of Online Dispute Resolution 2004" *Proceedings of the Third Annual Forum on Online Dispute Resolution.*, 2004, Melbourne.
- [13] Conley Tyler, M."Internet Frontiers: Law, Government and Inter-Faith Dialogue," *Internet Law Bulletin*, 2005, 7(9), 130.
- [14] Conley Tyler, M. and M. McPherson."Online Dispute Resolution and Family Disputes," *Journal of Family Studies*, 2006, 12(2), 165-183.
- [15] Cybersettle. (2008). "Fact Sheet." 2008, from <http://www.cybersettle.com/info/about/factsheet.aspx>.
- [16] Evans, F. G., Bruce Wettman, et al."Enhancing Worldwide Understanding Through ODR: Designing Effective Protocols For Online Communications," *The University Of Toledo Law Review*, 2006, 38(1), 423-434.
- [17] Friedman, R. A. and S. C. Currall."E-Mail Escalation: Dispute Exacerbating Elements of Electronic Communication," *MIT Sloan Management Review*, 2002, 44(1), 14.
- [18] Ghoshray, S."Charting the Future of Online Dispute Resolution: An Analysis of the Constitutional and Jurisdictional Quandary," *The University Of Toledo Law Review*, 2006, 38(1), 317-350.
- [19] Hattotuwa, S. and M. Conley Tyler."Online Dispute Resolution: An Asia Pacific Perspective," *Asian Journal on Mediation*, 2005, 1, 13-24.
- [20] Hattotuwa, S. Y. (2005). Untying the Gordian Knot: ICT for Conflict Transformation and Peacebuilding. Proceedings of the Third Annual Forum on Online Dispute Resolution.
- [21] Hill, R."Online Arbitration: Issues and Solutions," *Arbitration International*, 1999, 15(2), 199.
- [22] Katsh, E."Online Dispute Resolution: Some Implications for the Emergence of Law in Cyberspace," *Lex Electronica*, 2006, 10(3 ).

- [23] Katsh, E. (2007). "Can Avatars Lead Us to a New Model of Dispute Resolution." Centre for Information Technology and Dispute Resolution, Working Papers., from Available at <http://www.odr.info/papers.php>. Also available at [http://www.nyls.edu/docs/katsh\(2\).pdf](http://www.nyls.edu/docs/katsh(2).pdf).
- [24] Keane, J. and D. Miller-Moore. "Linking Information Technology and Dispute Resolution," *Dispute Resolution Journal*, 2004, 59(1), 58.
- [25] Klein, H. "Online Social Movements and Internet Governance," *Peace Review*, 2001, 13(3), 403-410.
- [26] Krause, J. "Settling it on the web," *ABA Journal*, 2007, 93, 43-45.
- [27] Law, S. F. and D. Leonard "Language, Culture and ODR" *Proceedings of the Third Annual Forum on Online Dispute Resolution.*, 2005.
- [28] Miller-Moore, D., M. Jennings, et al. "At the forefront of ODR: Recent developments at the AAA," *Dispute Resolution Journal*, 2007, 62(1), 35.
- [29] Mommers, L. "Legitimacy and the Virtualization of Dispute Resolution," *Journal of Artificial Intelligence and Law*, 2006, 13, 207-232.
- [30] Mommers, L. "Virtualization of dispute resolution. Establishing trust by recycling reputation," *Information & Communications Technology Law*, 2006, 15, 175.
- [31] Oreilly, T. "What is Web 2.0: Design Patterns and Business Models for the Next Generation of Software," *Communications & Strategies*, 2007, 1(First Quarter), 17, Available at SSRN: <http://ssrn.com/abstract=1008839>.
- [32] Patrikiosa, A. "The role of transnational online arbitration in regulating cross-border e-business - Part I," *Computer Law & Security Report*, 2008, 24(1), 66-76.
- [33] Pierani, M. "ODR Developments Under a Consumer's Perspective: The Italian Case" *Proceedings of the Second International ODR Workshop*, 2005.
- [34] Prins, J. E. J. "Consumers, liability, and the online world," *Information & Communications Technology Law*, 2003, 12(2), 143 - 164.
- [35] Rule, C. (2006). "ework-out Business Processes." Retrieved August 2008, from <http://www.ework-out.co.uk/library/crule.pdf>.
- [36] Schmitz, A. J. "Untangling the Privacy Paradox in Arbitration," *University of Kansas law review*, 2006, 54 (5), 1211.
- [37] Slate, W. K. I. "Online dispute resolution: Click here to settle your dispute.," *Dispute Resolution Journal*, 2001, 56(4), 8-14.
- [38] Sturner, J. W. "Arbitration, Labor Contracts, and the ADA: The Benefits of Pre-Dispute Arbitration Agreements and an Update on the Conflict between the Duty to Accommodate and Seniority Rights," *University of Arkansas at Little Rock law review*, 1998, 21, 455.
- [39] Tyler, M. "Online Dispute Resolution and Family Disputes," *Journal of family studies*, 2006, 12 (2).