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# IS LINK ROT DESTROYING STARE DECISIS AS WE KNOW IT? THE INTERNET-CITATION PRACTICE OF THE TEXAS APPELLATE COURTS

**Arturo Torres\*** 

#### I. Introduction

In 1995 the first Internet-based citation was used in a federal court opinion. In 1996, a state appellate court followed suit; one month later, a member of the United States Supreme Court cited to the Internet; finally, in 1998 a Texas appellate court cited to the Internet in one of its opinions. In less than twenty years, it has become common to find appellate courts citing to Internet-based resources in opinions. Because the current extent of Internet-citation practice varies by courts

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<sup>1.</sup> U.S. v. Starzecpyzel, 880 F. Supp. 1027, 1035 n. 7 (S.D.N.Y. 1995) (citing two websites referencing projects in handwriting recognition).

<sup>2.</sup> Wishnatsky v. Bergquist, 550 N.W.2d 394, 404 (N.D. 1996) (Sandstrom, J., dissenting) (citing the North Dakota State University website).

<sup>3.</sup> Denver Area Educ. Telecomm. Consortium, Inc. v. FCC, 518 U.S. 727, 777 n. 4 (1996) (Souter, J., concurring) (citing two websites describing cable and Internet technology).

<sup>4.</sup> In re Jones, 978 S.W.2d 648, 653 n. 3 (Tex. App.-Amarillo 1998) (per curiam) (citing a State Bar of Texas document available only in electronic format).

<sup>5.</sup> Identical searches of "http or https or www & da(after 2007)" in the LexisNexis MEGA and Westlaw ALLCASES databases resulted in results showing just about all—if not all—federal and state courts citing to the Internet. The searches retrieved the maximum number of cases allowed by the systems, over 3,000 and 10,000 hits respectively. Granted, not all citations retrieved referenced the Internet, but a brief random review of the search results revealed a high rate of relevant hits.

across jurisdictions, this paper will examine the Internet-citation practice of the Texas appellate courts since 1998.

Citation-practice research methodology is well established. The method has been used to study and report extensively on citation practices of federal, state, and selected foreign courts. However, studies focused specifically on Internet-citation practice have developed only recently, initially appearing about six years after the federal courts first cited to Internet-based resources in opinions.

One of the first studies to report Internet-citation practice of courts surveyed published and unpublished opinions of the United States Supreme Court and federal Courts of Appeals between 1996 and 2001.<sup>7</sup> At the time not many courts were citing to Internet-based resources, and consequently the resulting data collected were relatively small. For the five-year period, the author found 361 Internet-based citations in 236 opinions. 8 The small amount of data, nevertheless, revealed a considerable increase in Internet-citation practice by federal courts. The two Internet citations identified in 1996 had increased to 361 by 2001. Four years later, a more detailed and longitudinal study appeared that surveyed the Supreme Court's Internet-citation practice, expanding on the variables used in the earlier study. 10 This study isolated and tracked the Internet-citation practice of the Court over a decade, 1996 to 2006, reporting that Internet citations had reached over one-third of the opinions issued in 2005 and 2006 terms, and that most appeared in dissenting

<sup>6.</sup> See e.g. William H. Manz, Citations in Supreme Court Opinions and Briefs: A Comparative Study, 94 Law Libr. J. 267, 299–300 (2002) (including in Appendix B an excellent bibliography of court citation studies published prior to 2000). Citation practice studies are equally recognized in the foreign literature. See e.g. id. at 300 (including Canadian and Australian studies); see also e.g. Dietrich Fausten, Ingrid L. Nielsen & Russell Smyth, A Century of Citation Practice on the Supreme Court of Victoria, 31 Melb. U. L. Rev. 733 (2007).

<sup>7.</sup> Coleen M. Barger, On the Internet, Nobody Knows You're a Judge: Appellate Courts' Use of Internet Materials, 4 J. App. Prac. & Process 417 (2002).

<sup>8.</sup> Id. at 428.

<sup>9.</sup> Id. at 448-49.

<sup>10.</sup> William R. Wilkerson, *The Emergence of Internet Citations in U.S. Supreme Court Opinions*, 27 Just. Sys. J. 323, 323 (2006) (indicating that the Court is a relatively early adopter of citing to Internet resources in opinions).

<sup>11.</sup> Id. at 326.

opinions.<sup>12</sup> A more recent study found a significant increase in the number of opinions from the federal courts of appeals containing Internet citations from 1996 to 2009.<sup>13</sup>

Other studies have focused on the Internet-citation practice of selected state appellate courts. One study reviewed published and unpublished Washington appellate opinions from 1999 to 2005, 14 while a later study recorded and compared Internet citation in published opinions of the Washington and New York state courts from 2000 to 2006. 15 Both studies report overall increases in the use of Internet citations by the state appellate courts, 16 albeit not as extensive as one would suspect. A recent review of Kentucky appellate opinions from 2000 to mid-2011 essentially confirms the prior two state appellate court studies. It is increasingly apparent that citing to Internet resources by courts has solidified and the practice is likely to increase with time.

These Internet-citation-practice studies have reached independent yet similar conclusions. First, even at this relatively nascent stage of Internet-citation practice, it is obvious that the courts are increasingly citing to Internet resources in opinions, <sup>18</sup> and it is likely that this upward trend will continue. Second it appears that a correspondingly high rate of citation link rot<sup>19</sup> is

<sup>12.</sup> Id. at 330.

<sup>13.</sup> Ellie Margolis, Authority without Borders: The World Wide Web and the Delegalization of Law, 41 Seton Hall L. Rev. 909, 938 (2011).

<sup>14.</sup> Tina S. Ching, The Next Generation of Legal Citations: A Survey of Internet Citations in the Opinions of the Washington Supreme Court and Washington Appellate Courts, 1999–2005, 9 J. App. Prac. & Process 387 (2007).

<sup>15.</sup> Kelly C. Aldrich, Web Cites: When Courts Cite to URLs: A Study of Washington and New York Cases, 27 Leg. Ref. Serv. Q. 203 (2008).

<sup>16.</sup> Ching, *supra* n. 14, at 394 (showing increase from four citations in 1999 to forty-seven citations in 2005); Aldrich, *supra* n. 15, at 227 (noting that "courts are increasingly citing to websites").

<sup>17.</sup> Michael Whiteman & Jennifer Frazier, *Internet Citations in Appellate Court Opinions: Something's Rotting in the Commonwealth*, 76 Ky. Bench & Bar 22, 22 (Jan. 2012) (finding a modest increase in the Kentucky appellate courts' use of Internet citations and reporting that many of the Internet resources cited were no longer working).

<sup>18.</sup> Wilkerson, *supra* n. 10, at 327 (fig. 1: "Percentage of Supreme Court Decisions with Internet Citations"); Aldrich, *supra* n. 15 at 204, 227; Ching, *supra* n. 14, at 394.

<sup>19. &</sup>quot;Link rot" refers to websites that have disappeared, been removed, been relocated, or been lost and are no longer accessible as originally posted. See Sarah Rhodes, Breaking Down Link Rot: The Chesapeake Project Legal Information Archive's Examination of URL Stability, 102 Law Libr. J. 581 (2010); see also Wilkerson, supra n. 10, at 333 (describing causes and consequences of link rot).

occurring.<sup>20</sup> The Internet-citation-practice studies highlight the permanent loss of legal authority due to the ephemeral nature of many of the Internet sites: Many sites are not timely maintained. or are abandoned, moved, or no longer available.<sup>21</sup> Some commentators have alluded to the possibility that link rot is contributing to the slow erosion of one of common law's most fundamental principles—stare decisis.<sup>22</sup> Can courts "let the decision stand" if the cited authority is no longer available or accessible? Or if accessible, the information on the site may not be identical to when it was originally cited by the court. Consequently, it is important to document how courts are citing to Internet-based resources, perhaps, by doing so we can better determine and understand whether a shift to move away from the traditional notion of *stare decisis* is truly occurring. Perhaps more specifically are the Texas courts contributing to this phenomenon?

At first blush, it appears that the Texas appellate courts have succumbed to the lure of the Internet. To determine the extent, the following selective questions guided this study. To what degree and what Internet-based resources are the courts citing? Is Internet-citation practice limited to a few justices or is it widespread? Which types of Internet sites are being cited? Are certain subject matters more likely to contain Internet-based citations? Are the courts citing to legal or non-legal sources? Specifically, which Texas courts are citing to Internet resources?

<sup>20.</sup> Ching, supra n. 14, at 395–96; Aldrich, supra n. 15, at 228–29; Whiteman & Frazier, supra n. 17, at 22.

<sup>21.</sup> This is abundantly confirmed in the non-legal literature as well. See e.g. Wallace Koehler, An Analysis of Web Page and Web Site Constancy and Permanence, 50 J. Am. Society for Information Sci. 162, 163 (1999) (focusing on "three important questions" that had at the time "not yet been often addressed in the literature": "How permanent are Web pages, Web sites, or server-level domains? . . . How constant are Web pages and sites? . . . Do different types of Web pages, Web sites, and domains behave differently?").

<sup>22.</sup> See e.g. Margolis, supra n. 13, at 915, 945 (describing long-established notion of stare decisis, but concluding that the use of sources to support legal analysis "can no longer be based solely on traditional notions of precedent and stare decisis" and that "[w]e need a new vocabulary for defining authority").

<sup>23.</sup> Some have pointed to a probable relationship between the increased Internet citations by the courts and the increased citations to non-legal sources. See id. at 911, 921; see also Wilkerson, supra n. 10, at 323-24; Frederick Schauer & Virginia J. Wise, Nonlegal Information and the Delegalization of Law, 29 J. Legal Stud. 495, 500-03 (2000); John J. Hasko, Persuasion in the Court: Nonlegal Materials in U.S. Supreme Court Opinions, 94 Law Libr. J. 427, 429-31 (2002).

Finally, are the Texas courts contributing to the loss of legal authority due to link rot, as is the case in other jurisdictions?<sup>24</sup>

This study surveys the 1998 to 2011 published opinions<sup>25</sup> of the Texas appellate courts and describes their Internet-citation practice.<sup>26</sup> Because of its unique nature, and to provide a basis for context, the following section briefly describes the appellate court structure in Texas. Section II discusses the methodology used in this study. Section III presents the data using multiple variables and perspectives. Finally, Section IV summarizes the finding, concludes with general observations and comments, and contemplates the need for further research.

## A. A Brief Description of the Texas Appellate Courts

## 1. Supreme Court of Texas and Texas Court of Criminal Appeals

Because Texas is one of only two states in the country to have dual supreme courts,<sup>27</sup> it is fitting to briefly describe its somewhat unique appellate court system. The Supreme Court of Texas has final appellate jurisdiction in civil and juvenile cases, while the Court of Criminal Appeals has similar jurisdiction as to criminal matters.<sup>28</sup> The justices of both courts are elected to staggered six-year terms in bipartisan statewide elections.<sup>29</sup> When a vacancy arises, the Governor may appoint a justice, subject to Senate confirmation, to serve out the remainder of an

<sup>24.</sup> See supra n. 20.

<sup>25.</sup> For the purposes of this study, "published opinions" means those opinions that have been assigned a South Western Reporter citation. Arguably, certain "unpublished" memorandum opinions in civil cases may carry precedential value; these were nevertheless omitted from this study. For detailed discussion on this topic, see Andrew T. Solomon, Practitioners Beware: Under Amended TRAP 47, "Unpublished" Memorandum Opinions in Civil Cases are Binding and Research on Westlaw and Lexis is a Necessity, 40 St. Mary's L.J. 693 (2009).

<sup>26.</sup> For the purpose of this paper, "Internet-citation practice" will be generally defined as Internet sites cited to by using a Uniform Resources Locator (URL)—generally preceded by http—or a unique address where the information may be found on the Internet.

<sup>27.</sup> Oklahoma is the only other state in the country with a similar dual supreme court system. See Okla. Const. art. VII,  $\S$  1.

<sup>28.</sup> Tex. Const. art. V, §§ 1, 3, 5 (establishing Supreme Court and Court of Criminal Appeals and describing jurisdiction of each).

<sup>29.</sup> Id. at  $\S$  2, 4 (providing six-year terms for members of Supreme Court and Court of Criminal Appeals).

unexpired term until the next general election.<sup>30</sup> In the years between 1998 and 2011, a total of twenty-four different justices have sat on the Texas Supreme Court, sixteen of whom (or 66.6 percent) have cited to Internet-based resources.<sup>31</sup> During the same time, sixteen different justices sat on the Texas Court of Criminal Appeals, nine of whom (or 56.3 percent) have cited to Internet-based resources.<sup>32</sup>

# 2. Texas Courts of Appeals

The fourteen Courts of Appeals have intermediate appellate jurisdiction in both civil and criminal cases appealed from district or county courts. Each Court of Appeals has jurisdiction in a specific geographical region of the State. Each court is presided over by a chief justice and has at least two other justices. The specific number of justices on each court is set by statute and ranges from three to thirteen. Presently there are eighty justices authorized for these courts. Appeals in the Courts of Appeals are usually heard by a panel of three justices, unless in a particular case an en banc hearing is ordered, in which instance all the justices of that court hear and consider the case. Since 2008, justices sitting on the Courts of Appeals have cited to over a hundred Internet-based resources.

#### II. STUDY BACKGROUND: THE METHODS

The data collected for this study are derived from all officially published opinions of the Texas Courts of Appeals, Texas Court of Criminal Appeals, and the Texas Supreme

<sup>30.</sup> Id. at § 28.

<sup>31.</sup> See Supreme Court of Texas, Line of Succession of Supreme Court of Texas Justices from 1945, http://www.supreme.courts.state.tx.us/court/sc-justices-1945-present.pdf (accessed Feb. 11, 2013; copy on file with Journal of Appellate Practice and Process); Table 17, infra p. 298.

<sup>32.</sup> See Annual Reports—Office of Court Administration, Annual Statistical Reports [OCA & Texas Judicial Council], Fiscal Year, http://www.courts.state.tx.us/pubs/annual-reports.asp [hereinafter "Annual Reports"] (accessed Dec. 7, 2012; copy of main page on file with Journal of Appellate Practice and Process) (click each year from 1998 to 2012 to see that year's report, each containing the judges of the Court of Criminal Appeals for that fiscal year); Table 16, infra p. 298.

<sup>33.</sup> Tex. Const. art. V, § 6.

<sup>34.</sup> See Table 15, infra p. 297.

Court.<sup>35</sup> Multiple searches of the LexisNexis and Westlaw databases were conducted to compile the dataset. The search query for both systems was identical, "http or https or www" (without the quotes). The searches were restricted to and conducted in the respective Texas appellate court decisions database.<sup>36</sup> For the purpose of this study, the data was collected using multiple variables, including case name, reporter citation if available, Westlaw and LexisNexis citations, date of opinion, court, websites cited, location in the opinion where the Internet citation was cited, justice writing the opinion, issue of law, opinion type, root domain of Internet citation, type of document cited, and several other variables.

The results of the Westlaw and LexisNexis searches were recorded in separate spreadsheets respectively along with information related to multiple variables. Ultimately the two spreadsheets were combined to make one and the "Remove Duplicates" function in Microsoft Excel was used to remove all duplicates. To safeguard data validity, the combined information was examined by two independent sources. The results of each review were then compared against the other manually to account for replication and omissions of data not reflected in the other's list. Finally, the two reconciled lists were combined to create a "master" unique database, minimizing duplicative opinions or omissions. Next, all non-published opinions, 2012 decided cases, and citations made by special courts<sup>37</sup> were removed from the dataset. This process netted the total number of published opinions that cited to Internet resources by Texas courts from 1998 to December 31, 2011.

In order to reduce the number of source groupings within certain variables, it was necessary to combine the data into more general categories. For example, in the "Domain" variable there were eight citations from five different foreign-country domains,

<sup>35.</sup> For the purpose of this study, a "published opinion" is defined as one that has been assigned a South Western Reporter citation or its apparent citation is pending. The data contain four opinions for which the South Western Reporter citation had not yet been assigned as of July 31, 2012. Cases officially designated as "not reported," "unpublished," or otherwise not routinely to be assigned a South Western Reporter citation were omitted from the study.

<sup>36.</sup> The databases used were the TX-CS (Texas State Cases) in Westlaw and its equivalent, TXCTS (Texas State Cases Combined), in LexisNexis.

<sup>37.</sup> See infra n. 41.

six U.S. states, two .mil, and four .net domains. All twenty citations were grouped into the "Other" category.

An Internet citation referenced multiple times was counted only the first time that it appeared in the opinion. Citations located in either the text of opinions or footnotes were included and designated as such in the dataset. For opinions with multiple sections having several justices participating therein, only the lead justice was recorded, not the other participating or joining justices.

Collecting the Internet-citation information consisted of highlighting and copying the URL from the online opinion found in Westlaw and/or LexisNexis into the spreadsheet cell corresponding to the case information. After compiling the URLs, each Internet citation copied into the spreadsheet was first searched by using Internet Explorer and then by using Firefox to verify whether the link was still valid. When copied from the opinion to the spreadsheet, most URLs retained the hyperlink. For those that did not, we reviewed the citation and deleted apparent unnecessary spaces or other obvious typographical errors. 38

#### III. INTERNET-CITATION PRACTICE

The combined total number of opinions issued by the three Texas appellate courts from 1998<sup>39</sup> to 2011 was 67,212.<sup>40</sup> Of

<sup>38.</sup> There were a few instances in which typographical errors in the URL were apparent, such as omission of the colon or double forward slashes (http://) or of the dot after www. In these cases the obvious error was corrected.

<sup>39.</sup> See note 4, *supra*, indicating that the first instance of Texas appellate courts citing to the Internet was in 1998.

<sup>40.</sup> Deriving the total number of opinions was accomplished by using two methods. The Office of Court Administration's annual statistical reports were used for the Courts of Appeals and the Supreme Court. These reports collect statistical court activity, including the total number of published opinions for each term, and can be found online. See Annual Reports, supra n. 32 (click each year from 1998 to 2012 to see that year's report, keeping in mind that the information is compiled on a fiscal-year basis, with each fiscal year ending on August 31). Obtaining the number of published opinions for the Criminal Court of Appeals was problematic because its reports do not readily provide this information. After conducting Westlaw and LexisNexis searches, the results were narrowed by year and by court and then further narrowed by conducting respective "Focus" and "Locate" searches for "do not publish" and subsequently subtracting this number from the total initial result.

these, a total of 1,064 opinions<sup>41</sup> cited to Internet resources at least once. On average, this equates to seventy-six Internet-based citations in each of the fourteen years by the three Texas appellate courts. Of the 1,064 opinions citing to Internet-based resources, only 672 were published opinions,<sup>42</sup> which is around one percent of the total. Even considering the combined total number of published and unpublished opinions (1,064) produces only a slightly higher fraction—1.58 percent of all opinions issued by Texas appellate courts from 1998 to 2011. Of the cases citing Internet resources, almost two-thirds were published, while over a third fell in the unpublished category. The Courts of Appeals accounted for 383 of the 392, or almost ninety-eight percent, of all unpublished opinions containing citations to Internet-based resources.

As pointed out by other Internet-citation studies,<sup>43</sup> the practice of citing to Internet resources is climbing upward. Table 2 illustrates that since 2007, the combined Texas appellate courts have registered yearly double-digit citation percentages.<sup>44</sup> Clearly, 2008 was a banner year for the Texas appellate courts, in which they cited to a combined 107 different Internet-citation resources, or close to sixteen percent of all Internet citations made to date.

The Texas Court of Criminal Appeals is least likely to cite to Internet resources, citing to just below ten percent of the total cited by the appellate courts. During the fourteen-year period, the Court of Criminal Appeals' highest number of Internet citations in any term is eleven, occurring in 2009, translating into just 1.64 percent of the total citations made by the appellate courts. Conversely, in eleven of the fourteen years the Courts of Appeals have recorded the highest number of Internet citations and account for almost exactly sixty percent of all Internet citations made to date. These numbers are probably reflective of the fact that there are over four times more Courts of Appeals

<sup>41.</sup> Thirteen Internet citations were located in three separate opinions written by special courts but were excluded and are therefore not a part of this study; otherwise the total count would have been 1,077. These special courts included the Judicial Panel on Multidistrict Litigation (one citation); Special Court of Review (two citations); and Review Tribunal (ten citations).

<sup>42.</sup> See Table 1, infra p. 288.

<sup>43.</sup> See supra nn. 10-17, and accompanying text.

<sup>44.</sup> See infra p. 288 (Table 2).

justices than justices of the other two upper appellate courts combined, 45 not to mention that the Courts of Appeals have issued over fifteen times more opinions than the collective total of the other two courts. 46 The Texas Supreme Court accounts for essentially thirty percent of the Internet resources cited. Its highest citing year was 2008, when Internet citations appeared in forty-nine of its 202 published opinions. Because the three courts are so different, it is understandable that there has been no instance in which all three Texas appellate courts have registered their highest Internet citations during the same term.

As Table 3 shows, 47 the Fort Worth Court of Appeals has outpaced other Texas Courts of Appeals, accounting for 19.60 percent of all Internet citations made by these courts. The Fort Worth court cited to Internet resources in seventy-nine opinions during the fourteen-year period. It was followed by the Austin, Houston (Fourteenth), Houston (First), and Waco districts, respectively having 13.90 percent, 10.92 percent, 10.17 percent, and 10.17 percent of the Internet citations made by the Courts of Appeals. Together, these five districts account for 64.76 percent of all Courts of Appeals Internet citations to date, and Houston alone accounts for roughly twenty-one percent. Ironically, the Amarillo district, which was the first appellate court in Texas to cite Internet resources, is one of the courts least likely to cite to the Internet, accounting for only nine, or 2.23 percent, of the Internet citations made by the Courts of Appeals. The Beaumont court is even lower with six citations—or 1.49 percent of all Internet citations—during the fourteen-year period. districts, San Antonio and Dallas, had a combined total of only about nine and a half percent of all Internet citation by the Courts of Appeals. One might expect higher percentages from these two large metropolitan districts, perhaps in a range similar to that in the Fort Worth and Houston districts.

Nearly sixty-three percent of all published opinions citing to Internet resources by the Courts of Appeals have occurred since 2007, averaging 12.51 percent in each of those five years (about fifty citations each year), reaching an all-time high of

<sup>45.</sup> See supra nn. 33-34.

<sup>46.</sup> See supra n. 40. (The Courts of Appeals issued 63,110 opinions while the Supreme Court and Court of Criminal Appeals issued 2,229 and 1,873 opinions, respectively.)

<sup>47.</sup> See infra p. 289 (Table 3).

fifty-seven citations in 2009.<sup>48</sup> No term has averaged more than one opinion per justice per term. During the fourteen-year period, these courts issued a total of 63,110 opinions, <sup>49</sup> averaging 4,508 opinions each term. In the context of that total number of opinions, the number of opinions citing to Internet resources (403) is well under one percent. Similarly, when we compare these courts' annual production to the corresponding number of opinions containing citations to Internet resources, the yearly percentages are less than one percent, except for 2001, when the percentage barely exceeded the one percent mark.

The Court of Criminal Appeals issued sixty-seven opinions citing to the Internet out of a total 1,873 reported opinions during the fourteen years studied,<sup>50</sup> or 3.58 percent of the 1,873 opinions issued by the court contain citations referencing Internet-based resources. The last five years account for 53.73 percent of all opinions containing Internet citations. The most citations made in any term were in 2009, accounting for eleven opinions or 16.42 percent of the opinions citing to Internet-based resources. During the fourteen-year period, the court averaged almost 134 opinions each term. The court issued no opinions containing Internet citations in three of those years: 1998, 2001. and 2003. When we examine the total number of opinions per term against the number of opinions containing Internet citations, the two years with the highest percentages were 2006 and 2009. These two years account for almost thirty percent of all opinions with Internet citations. The nine justices have averaged at least one citation per term only twice in the study period, in 2006 and 2009. For all other years, the justices have averaged less than one citation per justice.

<sup>48.</sup> See infra p. 290 (Table 4).

<sup>49.</sup> See Annual Reports, supra n. 32. The total number of published opinions by the Courts of Appeals was calculated after consulting these spreadsheets to glean the total number of published opinions by the Courts of Appeals in each year studied. Printouts of relevant report sections for each year are on file with the author.

<sup>50.</sup> Because annually reported or published cases for the Court of Criminal Appeals were not readily available at *Annual Reports*, *supra* n. 32, the total number of reported opinions was derived by searching the WestlawNext Texas Court of Criminal Appeals cases database. Searches were done by restricting date to each one of the fourteen years in the study. This limited the search to retrieve only reported cases; the resulting numbers for each year are shown in Table 5. *See infra* p. 291. Printouts of the initial Westlaw Next pages indicating the number of reported cased for each year are on file with the author.

From 1998 to 2011, the Texas Supreme Court issued 2,229 opinions. Of these, 202—or 9.06 percent—of the opinions contained references to Internet resources. Since 2007, the court's annual average of around thirty-one percent of its opinions containing Internet citations is higher per justice than the total for any other Texas appellate court. During the same five years, the court has cited to 75.74 percent of all opinions. The court's high-water mark occurred in 2008, when it cited to forty-nine Internet-based resources, which is also the highest percent of opinions in any term at 24.26 percent. As a whole the nine Supreme Court justices have averaged over one Internet citation in six of the fourteen years studied. During the fourteen-year study period, the justices have cited no Internet resources in only one year, 1998.

What domains<sup>53</sup> are the justices citing? Understandably, all three appellate courts most often cited to Texas state domains (.tx.us) more than any other, with these sites accounting for 36.76 percent of all domains cited. Perhaps unexpectedly, the commercial sites (.com) accounted for 26.64 percent, while federal government sites (.gov) contributed 15.63 percent of the domains cited. The least cited were the educational sites with 3.72 percent. Thus, three types of domains accounted for nearly eighty percent of all domain types cited by the Texas appellate courts during the study.<sup>54</sup>

The courts have also cited to eight foreign Internet resources, seven states other than Texas, and six additional resources from two other domain types (.mil and .net). Together, this last group of citations accounts for a total of twenty citations. Due to the small number of citations attributed to these

<sup>51.</sup> See Annual Reports, supra n. 32. Printouts of the relevant report sections are on file with the author.

<sup>52.</sup> The Courts of Appeals averaged 50.4 percent in each of the last five years studied (2007–11), but these courts together have eighty sitting justices compared to only nine on the Supreme Court. See Table 4, infra p. 290. The Court of Criminal Appeals averaged 7.2 citations per term during the same five years. See Table 5, infra p. 291.

<sup>53. &</sup>quot;Domain" is defined as referring to "the so-called top-level domain, which is the last part of the address. This may indicate the type of site; for example, .com for a commercial organization, [or] .gov for a US government agency." Oxford Dictionary of Computing 156 (John Daintith & Edmund Wright eds., 6th ed., Oxford U. Press 2008).

<sup>54.</sup> See Table 7, infra p. 293.

domains, they were grouped into the "Other" category in Table 7.55

Closely related to the information about domain types shown in Table 7, information about the types of documents being referenced by each citation is shown in Table 8.<sup>56</sup> Understandably state documents make up about one-third of the documents being cited. Although this study did not distinguish whether the document being cited was referencing primary or secondary authority, we can hypothesize that many of the state documents are secondary in nature.<sup>57</sup> Likewise, many of the documents found in the cited commercial domains appear to be related to definitional, terminology, encyclopedic references, or other secondary sources, but no further classification as to the type was made. The state, commercial, and federal documents account for 68.61 percent of all document types being cited by the Texas courts.<sup>58</sup>

Over one-third of the hyperlinks cited in the opinions of each of the three appellate courts is no longer working. <sup>59</sup> The Court of Criminal Appeals had the largest rate of link rot, <sup>60</sup> with nearly half of its citations no longer valid. <sup>61</sup> The Courts of Appeals has the least link rot with 36.97 percent. <sup>62</sup> Virtually forty percent of the Supreme Court's citation links no longer work. <sup>63</sup> The overall link rot for all courts during the fourteen-year period is 38.69 percent, <sup>64</sup> which puts the percentages of link

<sup>55.</sup> See id.

<sup>56.</sup> See infra p. 293.

<sup>57.</sup> See e.g. In re United Servs. Auto. Assn., 37 S.W.3d 299 (Tex. 2010) (citing four unique Internet-based resources, all of which are secondary in nature), Robinson v. Crown Cork & Seal Co., Inc., 335 S.W.3d 126 (Tex. 2010) (referencing seven Internet-based secondary resources).

<sup>58.</sup> See infra p. 293 (Table 8).

<sup>59.</sup> See Table 9, infra p. 294. Except as discussed earlier, each of the 672 citations to Internet resources was checked exactly as it appeared in the opinion in which it was cited. See supra n. 38 (describing correction of obvious typographical errors).

<sup>60.</sup> See supra n. 19 (defining "link rot").

<sup>61.</sup> See Table 9, infra p. 294 (showing a link-rot rate of 46.27 percent for the Court of Criminal Appeals).

<sup>62.</sup> Id.

<sup>63.</sup> Id. (showing a link-rot rate of 39.60 percent for the Supreme Court).

<sup>64.</sup> Id.

rot in Texas within the ranges of link failure typically found in other state appellate courts. 65

Only one of the eight citations made in pre-2000 opinions is now working. As a whole, the data show an upward trajectory of link rot with the passage of time. We can hypothesize that—with enough time—most, if not all, of the hyperlinks identified in this study will no longer be functional and that link rot will only increase. In fact, only ninety-nine of the 231 hyperlinks cited by the Texas courts prior to 2007 are working today, over a fifty percent failure rate for citations made more than five years ago. Albeit not to the degree of older citations, link rot has averaged around thirty percent in each of the last five years. In fact, in even the most current year of the study, 2011, link rot had already taken hold in nearly twenty-five percent of the citations.

When we examine the link-rot phenomenon more closely, the Courts of Appeals experienced higher rates of hyperlink failures in older opinions. For instance, only one of the original eleven Internet citations from the 1998 to 2000 opinions is still working. The year with the least amount of link failure occurred in 2008 with 20.37 percent of the links not working, and since 2007, the annual rate of links no longer working averaged 27.73 percent. During the most current year, 2011, the courts experienced a 27.27 percent rate of failure. This means that more than one of every four Internet links cited by a Texas Court of Appeals in a 2011 opinion no longer worked roughly a year later.

The Texas Court of Criminal Appeals experienced similar rates of failure in older opinions.<sup>71</sup> Ironically, however, in 2002

<sup>65.</sup> Ching, *supra* n. 14, at 395–96 (showing, in Table 7, that thirty-five percent of the Internet citations recorded were obviously invalid and, in Table 8, that only thirty-six percent of Internet citations actually led to the material that the author of the citing opinion intended the reader to find); Aldrich, *supra* n. 15, at 218, 224 (finding forty percent and twenty-seven percent of citations not working in the Washington and New York courts, respectively).

<sup>66.</sup> See Table 10, infra p. 294.

<sup>67.</sup> *Id* 

<sup>68.</sup> *Id*.

<sup>69.</sup> Id.

<sup>70.</sup> See Table 11, infra p. 295.

<sup>71.</sup> See Table 12, infra p. 296. All data cited in this paragraph appear in Table 12.

the rate of failure is one of the court's lowest at twenty-five percent. Since 2007, the court's annual rate of link failure has averaged close to thirty percent. Even for opinions written in 2011, the most current year studied, the research revealed a 28.57 percent rate of link failure.

Finally, the Supreme Court's pattern of link failure is consistent with that of the other courts: typically the older the opinion, the higher the rate of link rot. For example, only one of the thirteen citations made prior to 2002 is still working, while for the last five years of the study, 30.70 percent of the court's citations no longer work. Unlike the other two Texas appellate courts, the Supreme Court had the lowest percentage of link failures in 2011, with 19.44 percent of its links still working. Nevertheless, this accounts for nearly one failure in every five citations.

The most dependable domain type with the least link rot was the commercial sites, with 25.70 percent of these links not working. In contrast, the .org sites, typically non-profits, experienced the most link rot at 53.13 percent. Perhaps unexpected were the .tx.us and similar state sites, with 44.94 percent of those links no longer working. One would expect more stability from the state sites, especially those citied as authority by the courts. The three domain types that experienced the most link rot—.org, tx.us, and .gov—are responsible for a combined average failure rate of 44.75 percent. Except for the .com sites, all other domain types experienced near or above one-third failure rates. Perhaps worth noting is research that found the major domains (i.e., .gov, .org, .com, and state government sites) cited by the United States Supreme Court to be much more stable to the state of the total court of the total co

<sup>72.</sup> See Table 13, infra p. 296.

<sup>73.</sup> Id.

<sup>74.</sup> See Table 14, infra p. 297.

<sup>75.</sup> Id.

<sup>76.</sup> Id.

<sup>77.</sup> Wilkerson, *supra* n. 10, at 331 (tbl. 5: "Internet Citations by Domain Name and by whether Currently Live"—showing that 85.5 percent of Internet sources cited in Supreme Court opinions remained live years after the opinions were written), 334 (suggesting that the high rate of active links may be attributable to the Supreme Court's frequent citation of Internet sites maintained by the federal government, "which may value Web-site stability more than other information providers").

courts. Nevertheless, evidence of link rot was present in the United States Supreme Court's Internet citations.<sup>78</sup>

Since 1998, a hundred Courts of Appeals justices have referenced Internet-based citations at least once in their published opinions. Table 15 represents the twelve justices who have cited to Internet-based resources in the double digits. The dozen justices have cited to 160 out of the 402 total Internet-based resources by the court, accounting for forty percent of the citations. No single justice has truly dominated the Courts of Appeals Internet-citation practice. The justice with the most Internet-based citations accounted for only 5.47 percent of all citations made. These low percentages are consistent with the fact that 72 of the 100 justices citing to the Internet did so less than five times during the fourteen-year period.

Since 1998, nine Criminal Court of Appeals justices have cited to the Internet at least one time. Unlike in the Courts of Appeals, one justice in the Court of Criminal Appeals accounts for nearly one third (32.84 percent) of the Internet citations made. This justice and three others account for over three-quarters (76.12 percent) of all citations made by the Court. Excluding the four citations found in *per curiam* decisions, the remaining six justices have an average total of just over three citations each.

A total of seventeen Supreme Court justices have cited to the Internet at least once since 1998. Three justices appear to be setting the pace, combining for 70.79 percent of all Internet-based citations made by the court. The remaining fourteen justices have a combined total average of about four citations each between 1998 and 2011.

Internet citations by Texas courts are likely to be found in footnotes in the analysis of the opinion, 83 which is consistent

<sup>78.</sup> Id.

<sup>79.</sup> See Table 16, infra p. 298.

<sup>80.</sup> See Table 17, infra p. 298.

<sup>81.</sup> Id. (indicating that Justices Hecht, Jefferson, and Willett cite to Internet resources most often).

<sup>82.</sup> Id.

<sup>83.</sup> See Tables 18 and 19, infra p. 299. In general, citations located between the first and last headnote were assigned to the analysis variable, while citations found preceding the first headnote were designated to the introduction category and citations following the last headnote section were classified in the conclusion group.

with the citation practice of other states' appellate courts.<sup>84</sup> Internet citations within the opinions' analyses outdistanced the other two locations, amounting to 71.28 percent of all citations.<sup>85</sup> Similarly, most citations were by far also found in footnotes,<sup>86</sup> footnote citations comprising 71.58 percent of total Internet citations.<sup>87</sup> Very few Internet-based resources are referenced in the conclusions of any opinions.

Unlike earlier research finding most Internet citations in United States Supreme Court opinions in the dissents, 88 the vast number of Internet citations made by the Texas courts was found in majority opinions.<sup>89</sup> The Courts of Appeals had the highest rate with 84.62 percent of the citations found in the majority opinions. 90 The Court of Criminal Appeals has the lowest with 58.21 percent of the citations found in majority opinions.<sup>91</sup> All three courts registered over half their Internet citations in majority opinions. The combined citations of 23.81 percent found in other than majority opinions were a distant second. Conceivably, we can postulate that the Internet citations found in the Texas majority opinion are not outlier sources, but are (or are on their way to becoming) mainstream authority. As one commentator noted, "(t)hese nontraditional sources have become a new form of authority and are changing the face of judicial opinions and possibly the law itself."92

<sup>84.</sup> See Aldrich, supra n. 15, at 216, 218, 221 (noting that the majority of citations by both Washington state and New York courts are found in the analysis sections of their opinions).

<sup>85.</sup> See Table 18, infra p. 299.

<sup>86.</sup> See Table 19, infra p. 299; cf. Ching, supra n. 14, at 397 (showing, in Table 9, that the most Internet citations made by Washington state appellate courts were found in footnotes).

<sup>87.</sup> See Table 19, infra p. 299.

<sup>88.</sup> Wilkerson, *supra* n. 10, at 330 (tbl. 4, "Internet Citations by Type of Opinion"—showing that forty-four percent of the Court's Internet citations were found in dissenting opinions).

<sup>89.</sup> See Table 20, infra p. 299. This is consistent with at least one other state appellate court's Internet-citation practice. See Ching, supra n. 14, at 397 (showing, in Table 9, that concurring and dissenting opinions accounted for only twenty percent of Internet citations by Washington appellate courts).

<sup>90.</sup> See Table 20, infra p. 299.

<sup>91.</sup> Id

<sup>92.</sup> Margolis, supra n. 13, at 910-11.

#### IV. SUMMARY OF FINDINGS AND CONCLUSION

The Texas appellate courts are not unlike other state courts, ever-increasingly citing to Internet resources. However, the amount of Internet citation by the Texas courts is very small when compared to its overall combined opinion production—around one percent for published opinions and 1.5 percent for the combined published and unpublished opinions containing Internet citations. As Internet citation is such a small fraction of all citation by Texas appellate courts, we might wonder whether it matters. Should we be concerned about, or even considering, the fact that courts are citing to Internet-based resources? The short answer is yes. Unfortunately, many of the Internet resources cited are disappearing at an alarming rate. Link rot has been a concern and point of discussion of commentators who have studied Internet-citation practice of courts, and this study indicates that the Texas appellate courts are no exception.

The Texas appellate courts have a healthy Internet-citation practice. Even though the Courts of Appeals were the first to cite to the Internet in Texas opinions, the Supreme Court of Texas is leading the way, especially since 2008. However, three Supreme Court justices appear to be doing most of the citing. On the other hand, the Court of Criminal Appeals is the least active court when it comes to Internet-citation practice. A future study might consider why this may be the case. What variables might be at play to cause such a low citation rate for one court and not the others? Is it the type of cases? Is it the background or the makeup of the justices? Is this due to court rules and practice of the courts? Or perhaps the differences can be attributed to custom or culture of the courts. Is it due to the high stakes involved in the cases that come before the Texas Court of Criminal Appeals, especially in death-penalty cases? How are the justices (or perhaps the clerks) determining the selection of cites and websites? Is the court's Internet-citation practice primarily driven by the citations made in submitted briefs?

By and large the rural districts are citing less to the Internet than are urban districts. One may conjecture that the rural districts have smaller case loads and the legal issues involved may not lend themselves to Internet-citation practice. On the other hand, one might also think that the rural districts may not have similar access to legal resources that are typically found in most urban centers, and might therefore have a need to rely more heavily on online resources for authority.

Internet citations made by the Texas courts are typically found in footnotes that appear in the analysis of the opinion. Although this study did not classify whether the sources being cited are to primary or secondary authority, a subsequent study might reveal that the cited references tend to fall within one or the other type of authority. If so, it may make a difference how we approach an assessment of this practice.

Naturally, the Texas courts are more likely to cite to documents located within the state government domains (i.e., .tx.us). Unfortunately, this study found that .tx.us sites have the highest failure rate of any domain type used by the Texas courts. This is an ominous sign that suggests a need for improvement in state entities' maintenance of their websites.

Further research is needed to determine whether the Texas courts are citing to primary or secondary Internet-based resources and whether they are citing to binding or persuasive authority. Anecdotally, it appears that courts are more inclined to cite to Internet resources for secondary authority, and if that is the case, perhaps link rot is not such a large issue. However, if even a small percentage of citations to Internet-based resources is to binding authority that may evaporate through link rot, this is a serious issue that affects the traditional role of *stare decisis*. Not only are reliable citations necessary for the traditional sense of *stare decisis*, but they are equally critical to the work of scholarship in all disciplines.<sup>93</sup>

Yet despite the important role played by stare decisis, many of the Internet-based resources cited by the Texas courts are disappearing at an alarming rate. Link rot has been a concern and point of discussion for authors who have studied the Internet-citation practice of other courts, and this study indicates that similar concern is appropriate in Texas. We cannot stop the practice, and so must continue to struggle with this issue in the foreseeable future.

<sup>93.</sup> Wilkerson, supra n. 10, at 333.

### **APPENDIX**

Table 1
Internet Citations in Texas Opinions, 1998–2011,
Aggregated Totals

Opinions	Courts of Appeals	Court of Criminal Appeals	Supreme Court	Total	Percent of Total
Published	403	67	202	672	63.16%
Unpublished	383	6	3	392	36.84%
Total	786	73	205	1,064	100%

Table 2
Internet Citations in Texas Opinions, 1998–2001, by Year

Year	Courts of Appeals	Court of Criminal Appeals	Supreme Court	Total Internet Citations by Year	Percent Total by Year
1998	3	0_	0	3	0.45
1999	2	2	1	5	0.74
2000	6	4	7	17	2.53
2001	23	0	5	28	4.17
2002	11	4	4	19	2.83
2003	21	0	5	26	3.87
2004	35	7	8	50	7.44
2005	18	5	12	35	5.21
2006	32	9	7	48	7.14
2007	51	6	13	70	10.42
2008	54	4	49	107	15.92
2009	57	11	16	84	12.50
2010	35	8	39	82	12.20
2011	55	7	36	98	14.58
Total	403	67	202	672	100%
Percent	59.97	9.97	30.06	100	

Table 3					T	Table 3	7,7				\ \frac{1}{2}			
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~		4	s	9	7	×	9	10	=	12	13	4		
Austin	`	San Antonio	Dallas	Texarkana	Amarillo	El Paso	Beaumont	Waco	Eastland	Tyler	Corpus Christi	Houston	Total	Percent
0		0	0	0	1	0	0	0	0	0	0	0	3	0.74%
0		0	1	0	0	0	0	0	0	0	0	0	2	0.50%
0		2	0	0	0	1	0	1	0	0	1	0	9	1.49%
0		0	0	1	0	0	0	3	0	0	-	3	23	5.71%
1		3	0	1	0		0	0	0	0	0	0	=	2.73%
4		3	0	2	0	0	0	0	2	0	0	4	21	5.21%
6		_	0	0	0	0	0	13	0	0	0	3	35	8.68%
2		2	-	2	0	0	1	2	1	0	0	3	18	4.47%
5		2	3	4	0	1	0	9	0	-	0	2	32	7.94%
2		2	3	6	0	2	0	9	3	1	2	9	51	12.66%
20		3	3	0	1	1	0	10	0	1	3	5	54	13.40%
9	1	0	_	0	4	1	5	0	2	3	11	3	57	14.14%
2	ļ		2	2	-	1	0	0	0	0	8	4	35	8.68%
5		2	-	9	2	5	0	0	2	3	4	11	55	13.65%
99		23	15	72	6	13	9	41	10	6	30	44	403	100%
10.17% 19.60% 13.90% 5.71%	٠, ١		3.72%	6.70%	2.23%	3.23%	1.49%	2.23% 3.23% 1.49% 10.17% 2.48%	2.48%	2.23%	7.44%	2.23% 7.44% 10.92% 100%	100%	

	Texas Cou	Tab	le 4 Internet Citations	bv Term
Term	Published Opinions	Published Opinions with Internet Citations	Percent of All Opinions Published This Term	Percent of All Opinions with Internet Citations Published during Study Period
1998	1,986	3	0.15%	0.74%
1999	2,092	2	0.10%	0.50%
2000	1,935	6	0.31%	1.49%
2001	2,187	23	1.05%	5.71%
2002	2,977	11	0.37%	2.73%
2003	4,286	21	0.49%	5.21%
2004	6,040	35	0.58%	8.68%
2005	6,341	18	0.28%	4.47%
2006	5,987	32	0.53%	7.94%
2007	5,771	51	0.88%	12.66%
2008	5,699	54	0.95%	13.40%
2009	5,971	57	0.95%	14.14%
2010	5,852	35	0.60%	8.68%
2011	5,986	55	0.92%	13.65%
Total	63,110	403	N/A	100%

ı	Toxas Court		<b>ble 5</b> cals—Internet Citat	ions by Tarm
Term	Published Opinions	Published Opinions with Internet Citations	Percent of All Opinions Published This Term	Percent of All Opinions with Internet Citations Published during Study Period
1998	160	0	0.00%	0.00%
1999	135	_2	1.48%	2.99%
2000	109	4	3.67%	5.97%
2001	104	0	0.00%	0.00%
2002	136	4	2.94%	5.97%
2003	133	0	0.00%	0.00%
2004	115	7	6.09%	10.45%
2005	135	5	3.70%	7.46%
2006	141	9	6.38%	13.43%
2007	145	6	4.14%	8.96%
2008	99	4	4.04%	5.97%
2009	102	11	10.78%	16.42%
2010	83	8	9.64%	11.94%
2011	102	7	6.86%	10.45%
Total	1,699	67	N/A	100%

	-		ble 6	
Term	Published Opinions	Supreme Court—  Published  Opinions with  Internet  Citations	Percent of All Opinions Published This Term	Percent of All Opinions with Internet Citations Published during Study Period
1998	222	0	0.00%	0.00%
1999	165	1	0.61%	0.50%
2000	180	7	3.89%	3.47%
2001	139	5	3.60%	2.48%
2002	165	4	2.42%	1.98%
2003	128	5	3.91%	2.48%
2004	122	8	6.56%	3.96%
2005	136	12	8.82%	5.94%
2006	149	7	4.70%	3.47%
2007	170	13	7.65%	6.44%
2008	212	49	23.11%	24.26%
2009	165	16	9.70%	7.92%
2010	118	39	33.05%	19.31%
2011	162	36	22.22%	17.82%
Total	2,233	202	N/A	100.00%

Table 7

Domains Cited in Texas Opinions, 1998-2011

Domain Type	Courts of Appeals	Court of Criminal Appeals	Supreme Court	Total	Percent of Total
.tx.us	145	17	85	247	36.76%
.com	124	16	39	179	26.64%
.gov	49	16	40	105	15.63%
.org	58	10	28	96	14.29%
.edu	14	3	8	25	3.72%
other	13	5	2	20*	2.98%
Total	403	67	202	672	100%

\*Includes citations to materials from Belgium (1), Bulgaria (1), the Netherlands (1), Samoa (1), and the United Kingdom (4); materials from Connecticut (1), Delaware (1), Georgia (1), Louisiana (1), New Mexico (1), and Wyoming (1); and materials from .mil (2) and .net (4) domains.

Table 8

Internet Citations in Opinions of Texas Appellate Courts,
by Document Type, 1998–2011

Reference	Citations	Percent of Citations
State government document	219	32.59%
Commercial information	146	21.73%
Federal government document	96	14.29%
Non-profit (legal)	49	7.29%
Non-profit (non-legal)	50	7.44%
Case citation	29	4.32%
News Information	22	3.27%
Statute citation	16	2.38%
Academic (non-legal)	12	1.79%
Court document	10	1.49%
State bar information	8	1.19%
Local or municipal information	8	1.19%
Academic (legal)	6	0.89%
Case brief information	1	0.15%
Total	672	100%

Table 9

Total Working and Non-Working Internet Citations in Opinions of Texas Courts, 1998–2011, by Court

Citations	Courts of Appeals	Court of Criminal Appeals	Supreme Court	Total
Working	254	36	122	412
Non-working	149	31	80	260
Total	403	67	202	672
Percent Non-Working	36.97%	46.27%	39.60%	38.69%

Table 10

Total Working and Non-Working Internet Citations in Opinions of All Texas Appellate Courts, 1998–2011, by Year

		Non -		Percent of Non-
Year	Working Citations	Working Citations	Total Citations	Working Citations
1998	0	3	3	0.00%
1999	1	4	5	80.00%
2000	2	15	17	88.24%
2001	12	16	28	57.14%
2002	7	12	19	63.16%
2003	12	14	26	53.85%
2004	21	29	50	58.00%
2005	16	19	35	54.29%
2006	28	20	48	41.67%
2007	44	26	70	37.14%
2008	78	29	107	27.10%
2009	60	24	84	28.57%
2010	57	25	82	30.49%
2011	74	24	98	24.49%
Total	256	260	672	38.69%

Table 11

Working and Non-Working Citations in Opinions of Texas Courts of Appeals, by Year

Term	Working Citations	Non -Working Citations	Total Citations	Percent Non- Working
1998	O	3		100%
	<del>                                       </del>		3	
1999	0	2	2	100%
2000	1	5	6	83.33%
2001	12	11	23	47.83%
2002	3	8	11	72.73%
2003	10	11	21	52.38%
2004	16	19	35	54.29%
2005	10	8	18	44.44%
2006	20	12	32	37.50%
2007	32	19	51	37.25%
2008	43	11	54	20.37%
2009	41	16	57	28.07%
2010	26	9	35	25.71%
2011	40	15	55	27.27%
Total	254	149	403	36.97%

Table 12

Working and Non-Working Citations in Opinions of Texas Court of Criminal Appeals,
by Year

Term	Working Citations	Non - Working Citations	Total Citations	Percent Non-Working
1998	0	0	0	0.00%
1999	0	2	2	100%
2000	1	3	4	75.00%
2001	0	0	0	0.00%
2002	3	1	4	25.00%
2003	0	0	0	0.00%
2004	0	7	7	100%
2005	1	4	5	80.00%
2006	6	3	9	33.33%
2007	4	2	6	33.33%
2008	3	1	4	25.00%
2009	7	4	11	36.36%
2010	6	2	8	25.00%
2011	5	2	7	28.57%
Total	36	31	67	46.27%

Table 13

Working and Non-Working Citations in Opinions of Texas Supreme Court,
by Year

Term	Working Citations	Non - Working Citations	Total Citations	Percent Non-Working
1998	0	0	0	0.00%
1999	1	0	1	0.00%
2000	0	7	7	100%
2001	0	5	5	100%
2002	1	3	4	75.00%
2003	2	3	5	60.00%
2004	5	3	8	37.50%
2005	5	7	12	58.33%
2006	2	5	7	71.43%
2007	8	5	13	38.46%
2008	32	17	49	34.69%
2009	12	4	16	25.00%
2010	25	14	39	35.90%
2011	29	7	36	19.44%
Total	122	80	202	39.60%

Table 14

Working and Non-Working Citations in Opinions of All Texas Appellate Courts,

by Domain Type

Domain Type	Working	Non- Working	Total Cited	Percent Non-Working
.org	45	51	96	53.13%
.tx.us	136	111	247	44.94%
.gov	67	38	105	36.19%
other	13	7	20*	35.00%
.edu	17	8	25	32.00%
.com	133	46	179	25.70%
Total	411	261	672	38.84%
Percent	61.16%	38.84%	100%	

<sup>\*</sup>Includes citations to materials from Belgium (1), Bulgaria (1), the Netherlands (1), Samoa (1), and the United Kingdom (4); materials from Connecticut (1), Delaware (1), Georgia

Table 15

Citations to Internet Resources Justices of the Texas Courts of Appeals 1998-2011

Justice	Total Citations	Percent of Total Citations
Gardner, Anne L.	22	5.47%
Pemberton, Robert H.	19	4.73%
Reyna, Felipe	_ 15	3.73%
Dauphinot, Lee A.	14	3.48%
Gray, Thomas W.	14	3.48%
Patterson, Jan P.	13	3.23%
Carter, Jack E.	12	2.99%
Puryear, David E.	11	2.74%
Hudson, J. Harvey	10	2.49%
Livingston, Terrie	10	2.49%
Rodriguez, Nelda V.	10	2.49%
Seymore, Charles W.	10	2.49%
Total	160	40%

<sup>(1),</sup> Louisiana (1), New Mexico (1), and Wyoming (1); and materials from .mil (2) and .net

<sup>(4)</sup> domains.

Table 16
Citations to Internet Resources
Justices of the Texas Court of Criminal Appeals
1998–2011

Justice	Total Citations	Percent of Total Citations		
Cochran, Cathy	22	32.84%		
Johnson, Cheryl A.	12	17.91%		
Hervey, Barbara P.	10	14.93%		
Keasler, Michael E.	7	10.45%		
Keller, Sharon F.	4	5.97%		
per curiam	4	5.97%		
Meyers, Lawrence E.	3	4.48%		
Price, Tom	3	4.48%		
Holland, Sue	1	1.49%		
Womack, Paul	1	1.49%		
Total	67	100%		

# Table 17 Citation to Internet Resources Justices of the Texas Supreme Court 1998–2011

Justice	Total Citations	<b>Percent of Total Citations</b>	
Hecht, Nathan L.	55	27.23%	
Jefferson, Wallace B.	45	22.28%	
Willett, Don R.	43	21.29%	
O'Neill, Harriet	14	6.93%	
Wainwright, Dale	9	4.46%	
per curiam	8	3.96%	
Brister, Scott A.	6	2.97%	
Owen, Priscilla R.	5	2.48%	
Green, Paul W.	4	1.98%	
Johnson, Philip W.	4	1.98%	
Enoch, Craig T.	2	0.99%	
Medina, David M.	2	0.99%	
Baker, James A.	1	0.50%	
Gonzales, Raul A. Jr.	1	0.50%	
Lehrmann, Debra H.	1	0.50%	
Phillips, Thomas R.	1	0.50%	
Schneider, Michael H. Sr.	1	0.50%	
Total	202	100%	

Table 18
Location of Internet Citations in Texas Opinions,
by Court. 1998–2011

Citation Location	Courts of Appeals	Criminal Court of Appeals	Supreme Court	Total	Percent
Introduction	99	7	79	185	27.53%
Analysis	302	60	117	479	71.28%
Conclusion	2	0	6	8	1.19%
Total	403	67	202	672	100%

Table 19
Location of Internet Citations in Footnotes or in Texas Opinions,
by Court, 1998–2011

Citation Location	Courts of Appeals	Criminal Court of Appeals	Supreme Court	Total	Percent
Footnote	257	63	161	481	71.58%
Text	146	4	41	191	28.42%
Total	403	67	202	672	100%

Table 20
Types of Decisions Containing Internet Citations,
by Court, 1998–2011

Type of Decision	Courts of Appeals	Criminal Court of Appeals	Supreme Court	Total	Percent of Total
Majority	341	39	132	512	76.19%
Dissenting	40	12	39	91	13.54%
Concurring	13	15	31	59	8.78%
Other*	9	1	0	10	1.49%
Total	403	67	202	672	100%

<sup>\*</sup>The "Other" category consists of the following opinion types: memorandum (2); substitute (3); abatement (4); and order (1), for a total of ten decisions.