Not All Mementos Are Created Equal: Measuring The Impact Of Missing Resources

Section	DL2014 IJDL Special Issue Proceeding			
Abstract	Added results of the additional experiments and investigations			
Conclusion	Added outcomes and impacts of the additional experiments and investigations			
Dataset				
Archives	Internet Archive	To complement our discussion of the damage in the Internet Archive, we measured a page-at-a-time archiver, WebCite. We also included a discussion of archive.today and compared the three archives.		
Mementos	45,341 URI-Ms	WebCite had 992 mementos to add to the measurements, as we submitted the URI-Rs in our dataset to Archive.today and Webcite and created two additional sets of 1,861 mementos to evaluate.		
Measurements				
Damage over time	Measurement and discussion of damage in the Internet Archive	Comparison of memento damage and missing resources over time for WebCite, and compared the archive performance to that of the Internet Archive		
Collection Damage	Measurement and discussion of damage in the Internet Archive	Discussion of the impact of missing embedded resources on the overall damage of WebCite		
Number of missing resources	Measurement and discussion of missing embedded resources in the Internet Archive	Discussion of the number of missing embedded resources, their impact on damage, a comparison to the Internet Archive, and a discussion of what we can deduce from missing resources and damage		
Missing File types	Measurement and discussion of missing file types in the Internet Archive	Comparison of the differences in archiving successes in the Internet Archive and WebCite, as well as the impact this may have on future damage measurements		

Additional Discussion					
Impact of JavaScript	No discussion of JavaScript and the impact on damage	A discussion of how the ability or inability to execute JavaScript during archiving can impact the damage of mementos			
Page-at-a-time archivers	No discussion of page-at-a-time archivers	Discussion of page-at-a-time archivers (WebCite and Archive.today) and how they differ from traditional crawler-based archivers			
PhantomJS	No discussion of JavaScript and the impact on Damage	Included an experiment to measure the impact that JavaScript has on damage, and how Archive.today provides an improvement to WebCite, presumably due to its ability to handle JavaScript			
	Document Statistics				
Words	7,275	9,909	+36%		
Figures	7	14	+100%		
Sections & subsections	11	16	+45%		
Evaluations	Archives: 1 Mementos: 45,341	Archives: 3 Mementos: +992 + 2 * 1,861 = 4,714 new mementos 45,341 + 4,714 = 50,055	+200% +10%		
Pages	10	17	+70%		
Tables	10	10	+0%		
References	28	36	+29%		