

Supplementary material: Change detection on JATS academic articles - XML diff comparison study

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Table 1: Text delete

Operation: Delete part of <article-title> and the entire <email> content			
Tool	N. Oper.	Operations	Success
XyDiff	2+1	DELETE text from <email> tag UPDATE <article-title> text by running TEXT DELETE	1
JNDiff	3	DELETE entire <email> tag INSERT <email/> tag DELETE part of the text	1
DiffXML	3	INSERT new text node into <article-title> DELETE text from <email> tag DELETE original <article-title> text node content	0.5
jXyDiff	3	DELETE text from <email> tag DELETE <article-title> content INSERT new <article-title> content <i>INFO: Update flag used for the <article-title></i>	1
fc-XMLDiff		<i>INFO: Annotations on the original XML file with diff:copy actions</i>	0
XCC	3	INSERT <email/> tag DELETE entire <email> tag UPDATE <article-title> with new value <i>INFO: Keeps old values for delete & Fingerprint usage</i>	1
Node-delta	4	DELETE text from <article-title> tag INSERT new text to <article-title> tag DELETE entire <email> tag INSERT <email/> tag <i>INFO: No edits / updates, only full text replace</i>	0.5
XMLDiff	3	DELETE text from <article-title> tag INSERT <email/> tag DELETE entire <email> tag <i>INFO: Annotations on the original XML file with diff:XXX actions</i>	1
XDiff	0	<i>INFO: No change detected</i>	0
XOP		<i>INFO: Computes the subtraction between the original and new XML</i>	0
DiffMK	1	diffmk:change="changed" on the <article-title> <i>INFO: Change annotations on the new XML file, ignoring removals</i>	0
DeltaXML	2	Article title versions shown as different <email> tag content shown as different <i>INFO: Annotations on the new XML with A!=B</i>	1

Table 2: Text delete nasty

Operation: Delete part of section Introduction <p> that has other child elements			
Tool	N. Oper.	Operations	Success
XyDiff	2	DELETE entire text content with no child elements INSERT entire new text	0
JNDiff	1	DELETE the removed portion of text	2
DiffXML	2	DELETE entire text content with no child elements INSERT entire new text	0
jXyDiff	2	DELETE entire text content with no child elements INSERT entire new text	0
fc-XMLDiff	1	<i>INFO: Annotations on the original XML file with diff:copy on the entire text content with no child elements</i>	0
XCC	2	DELETE entire text content with no child elements INSERT entire new text <i>INFO: Keeps old values for delete & Fingerprint usage</i>	0
Node-delta	2	DELETE entire text content with no child elements INSERT entire new text	0
XMLDiff	1	DELETE text from <article-title> <i>INFO: Annotations on the original XML file with diff:delete action</i>	2
XDiff	0	<i>INFO: No change detected</i>	0
XOP		<i>INFO: Computes the subtraction between the original and new XML</i>	0
DiffMK	1	UPDATE entire text content with no child elements <i>INFO: Annotations on the new XML file with diffmk:change</i>	0
DeltaXML	1	Entire text content with no child elements shown as different <i>INFO: Annotations on the new XML with A!=B</i>	0

Table 3: Text insert

Operation: Add text content into <article-title> and <given-names>			
Tool	N. Oper.	Operations	Success
XyDiff	2x2	UPDATE of <given-names> tag Text insert of "a_test-" Text insert of "uthor_" UPDATE of <article_title> tag Text insert l "-test_tit" Text insert "e-"	0
JNDiff	3	DELETE entire <given_names> INSERT new <given_names> INSERT new text value in the existing <article_title>	1
DiffXML	4	DELETE entire <article_title> INSERT new < article_title> DELETE entire <given_names> INSERT new <given_names>	0.5
jXyDiff	4	DELETE <given_names> text content with update="yes" attribute DELETE <article_title> text content with update="yes" attribute INSERT <given_names> new text content with update="yes" attribute INSERT <given_names> new text content with update="yes" attribute	1
fc-XMLDiff	7	<i>INFO: Annotations on the original XML file with diff:copy</i>	0
XCC	2	UPDATE <article-title> UPDATE <given_names> <i>INFO: Keeps old values for update & Fingerprint usage</i> <i>The entire text nodes are replaced, however with the presence of the old and new values, we could compute the text diff</i>	1
Node-delta	4	DELETE entire <article_title> text content INSERT new <article_title> text content DELETE entire <given_names> text content INSERT new <given_names> text content	0.5
XMLDiff	2	INSERT text in <article-title> INSERT text in <given_names> <i>INFO: Annotations on the original XML file with diff:insert actions</i>	1
XDiff	0	<i>INFO: No change detected</i>	0
XOP		<i>INFO: Computes the subtraction between the original and new XML</i>	0
DiffMK	2	UPDATE <article-title> with the new value UPDATE <given_names> with the new value <i>INFO: Annotations on the new XML file with diffmk:change</i>	0.5
DeltaXML	2	<article-title> versions shown as different <given_names> versions shown as different <i>INFO: Annotations on the new XML with A!=B</i>	1

Table 4: Text insert nasty

Operation: Insert text in section Introduction <p> that has other child elements			
Tool	N. Oper.	Operations	Success
XyDiff	2	DELETE entire text content with no child elements INSERT entire new text	0
JNDiff	1	INSERT new text	2
DiffXML	2	INSERT entire new text DELETE entire text content with no child elements	0
jXyDiff	2	DELETE entire text content with no child elements INSERT entire new text	0
fc-XMLDiff	3	<i>INFO: Annotations on the original XML file with diff:copy The entire text node with no child elements is shown as changed</i>	0
XCC	2	DELETE entire text content with no child elements INSERT entire new text <i>INFO: Keeps old values for update & Fingerprint usage The entire text nodes are replaced, however with the presence of the old and new values, we could compute the text diff</i>	0
Node-delta	2	DELETE entire text content with no child elements INSERT entire new text	0
XMLDiff	1	INSERT new text <i>INFO: Annotations on the original XML file with diff:insert actions</i>	2
XDiff	0	<i>INFO: No change detected</i>	0
XOP		<i>INFO: Computes the subtraction between the original and new XML</i>	0
DiffMK	1	UPDATE the entire text node with no child elements <i>INFO: Annotations on the new XML file with diffmk:change</i>	0
DeltaXML	1	Entire text content with no child elements shown as different <i>INFO: Annotations on the new XML with A!=B</i>	0

Table 5: Text move

Operation: Change order in authors' <surname>			
Tool	N. Oper.	Operations	Success
XyDiff	1x3	UPDATE the text node INSERT "Oscaro " DELETE part of Manfreda //5 chars DELETE part of original Oscaro //2 chars	0
JNDiff	2	DELETE entire <surname> text content INSERT new <surname> text content	0
DiffXML	2	INSERT new <surname> text content DELETE entire <surname> text content	0
jXyDiff	2	DELETE entire <surname> text content INSERT new <surname> text content <i>INFO: Actions performed with update="yes" attribute</i>	0
fc-XMLDiff	6	<i>INFO: Annotations on the original XML file with diff:copy</i> <i>The entire text node is shown as changed</i>	0
XCC	1	UPDATE <surname> <i>INFO: Keeps old values for update & Fingerprint usage</i> <i>The entire text nodes are replaced, however with the presence of the old and new values, we could compute the text diff</i>	0
Node-delta	2	DELETE entire <surname> text content INSERT new <surname> text content	0
XMLDiff	1	INSERT "Oscaro " DELETE "Oscaro" <i>INFO: Annotations on the original XML file with diff:insert and diff:delete actions</i>	0
XDiff	0	<i>INFO: No change detected</i>	0
XOP		<i>INFO: Computes the subtraction between the original and new XML</i>	0
DiffMK	1	UPDATE the entire text node <i>INFO: Annotations on the new XML file with diffmk:change</i>	0
DeltaXML	1	<surname> versions shown as different <i>INFO: Annotations on the new XML with A!=B</i>	0

Table 6: Text add style

Operation: Bold one part of the <article-title> content			
Tool	N. Oper.	Operations	Success
XyDiff	4	DELETE <article-title> text node INSERT part of the <article-title> text node before the bold node INSERT bold node with the text INSERT part of the <article-title> text node after the bold node	0
JNDiff	2	DELETE entire <title-group>, the parent node of <article-title> INSERT new <title-group> with the bold addition	0
DiffXML	5	4 x INSERT 1 x DELETE	0
jXyDiff	4	DELETE <article-title> text node INSERT part of the <article-title> text node before the bold node INSERT bold node with the text INSERT part of the <article-title> text node after the bold node <i>INFO: Actions performed with update="yes" attribute</i>	0
fc-XMLDiff	3	<i>INFO: Annotations on the original XML file with diff:copy</i>	0
XCC	2	INSERT bold part with the rest of the article title text in the <article-title> UPDATE <article-title> to remove duplicated text <i>INFO: Keeps old values for update & Fingerprint usage</i> <i>The entire text nodes are replaced, however with the presence of the old and new values, we could compute the text diff</i>	0
Node-delta	2	DELETE entire <article-title> text content INSERT new <article-title> text content	0
XMLDiff	4	INSERT initial part of the <article-title> before the bold part INSERT bold part INSERT following part of the <article-title> after the bold part DELETE the initial <article-title> text content <i>INFO: Annotations on the original XML file with diff:insert and diff:delete actions</i>	0
XDiff	2	DELETE "" INSERT b	0
XOP		<i>INFO: Computes the subtraction between the original and new XML</i>	0
DiffMK	4	INSERT initial part of the <article-title> before the bold part INSERT bold node INSERT text in the bold node INSERT following part of the <article-title> after the bold part <i>INFO: No deletes after inserts</i> <i>Annotations on the new XML file with diffmk:change</i>	0
DeltaXML	1	<article-title> versions shown as different Differences on text node before the bold, on bold and after the bold node <i>INFO: Annotations on the new XML with A!=B</i>	0

Table 7: Tree delete

Operation: Remove the first author with all its children			
Tool	N. Oper.	Operations	Success
XyDiff	1	DELETE the <contrib> node with all its children	1
JNDiff	1	DELETE the <contrib> node with all its children	1
DiffXML	36	11 MOVE 24 DELETE	0
jXyDiff	2	DELETE empty line DELETE the <contrib> with all its children	0.5
fc-XMLDiff	7	<i>INFO: Annotations on the original XML file with diff:copy</i>	0
XCC	5	2 x DELETE 3 x UPDATE <i>INFO: Keeps old values for update & Fingerprint usage</i>	0
Node-delta	1	DELETE the <contrib> with all its children	1
XMLDiff	65	Plenty of diff:rename, diff:insert, diff:delete <i>INFO: Annotations on the original XML file with diff:insert and diff:delete actions</i>	0
XDiff	1	DELETE the <contrib> with all its children <i>INFO: The modified XML tree structure is annotated: DELETE node added</i>	1
XOP		<i>INFO: Computes the subtraction between the original and new XML</i>	0
DiffMK	0	<i>INFO: Annotations on the new XML file with diffmk:change</i> <i>No info on the removed node</i>	0
DeltaXML	1	<contrib> with all its children shown as different <i>INFO: Annotations on the new XML with A!=B</i>	1

Table 8: Tree delete nasty

Operation: Remove one <xref> from section Introduction <p> that has other child elements			
Tool	N. Oper.	Operations	Success
XyDiff	6	4 x DELETE 2 x INSERT	0
JNDiff	3	DELETE <xref> node DELETE comma INSERT comma	1
DiffXML	6	1 MOVE 1 INSERT 4 DELETE	0
jXyDiff	6	4 x DELETE 2 x INSERT	0
fc-XMLDiff	3	<i>INFO: Annotations on the original XML file with diff:copy</i>	0
XCC	2	DELETE xref node and comma UPDATE the text to add back the comma <i>INFO: Keeps old values for update & Fingerprint usage</i>	1
Node-delta	2	DELETE text with xref INSERT text without xref	0
XMLDiff	14	6 x INSERT 5 x DELETE 3 x UPDATE ATTRIBUTE <i>INFO: Annotations on the original XML file with diff:insert and diff:delete actions</i>	0
XDiff	1	DELETE the <xref> node <i>INFO: The modified XML tree structure is annotated: DELETE node added</i>	2
XOP		<i>INFO: Computes the subtraction between the original and new XML</i>	0
DiffMK	1	<i>INFO: Annotations on the new XML file with diffmk:change</i> <i>The entire parent text node is shown as changed, no info about the child node removal</i>	0
DeltaXML	1	The entire text node is shown as different <i>INFO: Annotations on the new XML with A!=B</i>	0

Table 9: Tree insert

Operation: Insert an additional author			
Tool	N. Oper.	Operations	Success
XyDiff	1	INSERT <contrib> node with all its children	1
JNDiff	6	EXTRACT <contrib> node ADD <contrib> node INSERT <xref> node ADD <contrib> node INSERT <contrib-id> node INSERT <name> node with its children	0.5
DiffXML	36	13 MOVE 23 INSERT	0
jXyDiff	1	INSERT <contrib> node with all its children	1
fc-XMLDiff	1	diff:copy <contrib> node with all its children <i>INFO: Annotations on the original XML file with diff:copy</i>	1
XCC	1	INSERT <contrib> node with all its children <i>INFO: Fingerprint usage</i>	1
Node-delta	3	REMOVE affiliation number 1 INSERT affiliation number 1 INSERT <contrib> node with all its children	0
XMLDiff	6	6 x diff:insert for every node added <i>INFO: Annotations on the original XML file with diff:insert and diff:delete actions</i>	1
XDiff	1	Add the tree structure of the new <contrib> node with all its children <i>INFO: The modified XML tree structure is annotated, no info about the text nodes</i>	0
XOP		<i>INFO: Computes the subtraction between the original and new XML</i>	0
DiffMK	10	10 x diffmk:change="added" <i>INFO: Annotations on the new XML file with diffmk:change</i>	1
DeltaXML	1	New <contrib> node with all its children shown as modified <i>INFO: Annotations on the new XML with A!=B</i>	1

Table 10: Tree insert nasty

Operation: Insert an additional <xref> into the section Introduction <p> that has other child elements			
Tool	N. Oper.	Operations	Success
XyDiff	6	2 x DELETE 4 x INSERT	0
JNDiff	3	INSERT text node before <xref> INSERT <xref> node DELETE original text before <xref>	0
DiffXML	7	6 x INSERT 1 x DELETE	0
jXyDiff	4	1 x DELETE 3 x INSERT	0
fc-XMLDiff	1	diff:copy of the two text nodes surrounding the inserted <xref> node INFO: Annotations on the original XML file with diff:copy	0
XCC	2	INSERT <xref> followed by its closest text node UPDATE the <xrsf>'s closest text node to remove duplicated text INFO: Fingerprint usage	0
Node-delta	2	REMOVE text nodes surrounding the new <xref> node to insert INSERT new text node with the <xref> node	0
XMLDiff	2	DELETE text node following the new <xref> INSERT text following the new xref INFO: Annotations on the original XML file with diff:insert and diff:delete actions	0
XDiff	1	INSERT <xref> INFO: The modified XML tree structure is annotated, no info about the text node changes	1
XOP		INFO: Computes the subtraction between the original and new XML	0
DiffMK	4	diffmk:change="added" of the text node preceding the new <xref> node diffmk:change="added" of the new <xref> node diffmk:change="added" of the new <xref>'s text node diffmk:change="added" of the text node following the new <xref> node INFO: Annotations on the new XML file with diffmk:change	0
DeltaXML	1	The entire text node surrounding the inserted <xref> is shown as different INFO: Annotations on the new XML with A!=B	0

Table 11: Tree update attribute

Operation: Change contrib-id authenticated attribute from true to false			
Tool	N. Oper.	Operations	Success
XyDiff	1	ATTRIBUTE UPDATE	1
JNDiff	1	ATTRIBUTE UPDATE	1
DiffXML	9	9 x MOVE	0
jXyDiff	1	ATTRIBUTE UPDATE	1
fc-XMLDiff	6	6 x diff:copy <i>INFO: Annotations on the original XML file with diff:copy</i>	0
XCC	1	UPDATE of the node attributes list <i>INFO: Fingerprint usage & keeps old and new values: useful for diff comparisons</i>	1
Node-delta	2	REMOVE <contrib-id> INSERT <contrib-id>	0.5
XMLDiff	5	2 x diff:insert 2 x diff:delete 1 x diff:update-attr <i>INFO: Annotations on the original XML file with diff:insert and diff:delete actions</i>	0
XDiff	1	UPDATE authenticated FROM "true" <i>INFO: The modified XML tree structure is annotated</i>	1
XOP		<i>INFO: Computes the subtraction between the original and new XML</i>	0
DiffMK		<i>INFO: No change detected</i>	0
DeltaXML	1	Attribute value updated <i>INFO: Annotations on the new XML with A!=B</i>	0

Table 12: Tree move

Operation: Changing author positions, second author to first			
Tool	N. Oper.	Operations	Success
XyDiff	2	DELETE with move attribute = yes INSERT with move attribute = yes	1
JNDiff	2	DELETE with move attribute = yes INSERT with move attribute = yes <i>INFO: Details about the entire moved node</i>	1
DiffXML	9	9 x MOVE	0
jXyDiff	4	DELETE with move attribute = yes INSERT with move attribute = yes	1
fc-XMLDiff	11	11 x diff:copy <i>INFO: Annotations on the original XML file with diff:copy</i>	0
XCC	7	2 x INSERT 2 x DELETE 4 x UPDATE <i>INFO: Fingerprint usage & keeps old and new values: useful for diff comparisons</i>	0
Node-delta	10	5 x DELETE 5 x INSERT	0
XMLDiff	6	3 x diff:insert 3 x diff:delete <i>INFO: Annotations on the original XML file with diff:insert and diff:delete actions</i>	0
XDiff		No change detected	0
XOP		<i>INFO: Computes the subtraction between the original and new XML</i>	0
DiffMK	4	2 x diffmk:change="changed" 2 x diffmk:change="added" <i>INFO: Annotations on the new XML file with diffmk:change</i>	0
DeltaXML	1	Differences shown as text node modifications for each author, not tree moves <i>INFO: Annotations on the new XML with A!=B</i>	0

Table 13: Tree move nasty

Operation: Move one <xref> and some text (comma) from the section Introduction <p> to <article-title>			
Tool	N. Oper.	Operations	Success
XyDiff	8	4 x DELETE 4 x INSERT	0
JNDiff	6	3 x DELETE 3 x INSERT	0
DiffXML	10	6 x MOVE 2 x INSERT 2 x DELETE	0
jXyDiff	8	4 x DELETE 4 x INSERT	0
fc-XMLDiff	6	6 x diff:copy <i>INFO: Annotations on the original XML file with diff:copy</i>	0
XCC	5	2 x INSERT 2 x DELETE 1 x UPDATE <i>INFO: Fingerprint usage & keeps old and new values: useful for diff comparisons</i>	0
Node-delta	3	REMOVE <article-title> text content INSERT content of <article-title> with the new xref REMOVE xref and comma from intro <p> node	0.5
XMLDiff	3	diff:insert new <article-title> with new content added diff:delete old <article-title> content diff:delete moved content from intro <p> node <i>INFO: Annotations on the original XML file with diff:insert and diff:delete actions</i>	0.5
XDiff	2	INSERT new xref REMOVE old xref <i>INFO: No info about text node changes</i>	0
XOP		<i>INFO: Computes the subtraction between the original and new XML</i>	0
DiffMK	4	4 x diffmk:change="added" <i>INFO: Additions only, no info about move / delete</i>	0
DeltaXML	2	Difference detected on the article title and Introduction <p> <i>INFO: Annotations on the new XML with A!=B</i>	0.5

Table 14: Tree merge

Operation: Merge two paragraphs into one			
Tool	N. Oper.	Operations	Success
XyDiff	3	DELETE 1st <p> node DELETE 2nd <p> node INSERT new merged <p> node	0.5
JNDiff	2	DELETE 2nd <p> node INSERT text from 2nd <p> node into the 1st <p> node	0.5
DiffXML	150	145 MOVE 1 INSERT 4 DELETE	0
jXyDiff	16	3 x DELETE 6 x DELETE MOVE 1 INSERT 6 INSERT MOVE	0
fc-XMLDiff	5	5 x diff:copy <i>INFO: Annotations on the original XML file with diff:copy</i>	0
XCC	2	DELETE 2nd <p> node INSERT text from 2nd <p> node into the 1st <p> node <i>INFO: Fingerprint usage & keeps old and new values: useful for diff comparisons</i>	0.5
Node-delta	3	REMOVE 1st <p> node INSERT 1st <p> node with extended text REMOVE 2nd <p> node	0.5
XMLDiff	24	13 x diff:delete 11 x diff:insert <i>INFO: Annotations on the original XML file with diff:insert and diff:delete actions</i>	0
XDiff	1	DELETE <p> node <i>INFO: No info about text node changes</i>	0
XOP		<i>INFO: Computes the subtraction between the original and new XML</i>	0
DiffMK	4	diffmk:change="changed <i>INFO: No info about the merge</i>	0
DeltaXML		Difference on both paragraphs detected <i>INFO: Annotations on the new XML with A!=B</i>	0

Table 15: Tree merge nasty

Operation: Merge two paragraphs containing other child elements into one			
Tool	N. Oper.	Operations	Success
XyDiff	7	2 x DELETE MOVE 2 x DELETE INSERT 2 x INSERT MOVE	0
JNDiff	3	DELETE one text node before the <p> opening tag to delete ADD <p xmlns=""/> INSERT the initially removed text node	1
DiffXML	154	149 x MOVE 1 x INSERT 4 x DELETE	0
jXyDiff	20	3 x DELETE 8 x DELETE MOVE 1 x INSERT 8 x INSERT MOVE	0
fc-XMLDiff	7	7 x diff:copy <i>INFO: Annotations on the original XML file with diff:copy</i>	0
XCC	3	INSERT of the <xref> and text node preceding the removed <p> tag DELETE of the entire 2nd <p> tag UPDATE the new merged <p> tag with the remaining difference <i>INFO: Fingerprint usage & keeps old and new values: useful for diff comparisons</i>	0.5
Node-delta	3	REMOVE one text node before the <p> opening tag to delete INSERT the removed text node plus the rest of the <p> node text REMOVE the entire <p> node with its content	0.5
XMLDiff	4	diff:insert new text content into first paragraph diff:insert <xref> node into first paragraph diff:delete <xref> node into second paragraph diff:delete <xref> node from second paragraph <i>INFO: Annotations on the original XML file with diff:insert and diff:delete actions</i>	0
XDiff	2	INSERT new xref REMOVE old xref <i>INFO: No info about text node changes</i>	0
XOP		<i>INFO: Computes the subtraction between the original and new XML</i>	0
DiffMK	1	diffmk:change="added" on the first paragraph <i>INFO: Removals on the second paragraph not detected</i>	0
DeltaXML		Difference detected On both paragraphs <i>INFO: Annotations on the new XML with A!=B</i>	0

Table 16: Tree split

Operation: Split one into two paragraphs			
Tool	N. Oper.	Operations	Success
XyDiff	3	DELETE entire paragraph 2 x INSERT new paragraphs	0.5
JNDiff	2	INSERT new paragraph DELETE text content from original paragraph	0.5
DiffXML	313	308 x MOVE 4 x INSERT 1 x DELETE	0
jXyDiff	18	7 x DELETE MOVE 7 x INSERT MOVE 1 x DELETE 3 x INSERT	0
fc-XMLDiff	5	5 x diff:copy <i>INFO: Annotations on the original XML file with diff:copy</i>	0
XCC	2	INSERT of the new paragraph UPDATE the current paragraph with new value <i>INFO: Fingerprint usage & keeps old and new values: useful for diff comparisons</i>	0.5
Node-delta	3	INSERT new paragraph REMOVE entire text node from old paragraph INSERT new text node to the old paragraph	0.5
XMLDiff	5	2 x INSERT and 1 x DELETE for the split paragraph INSERT and DELETE for another unmodified paragraph <i>INFO: Annotations on the original XML file with diff:insert and diff:delete actions</i>	0
XDiff	1	INSERT new paragraph <i>INFO: No info about text node changes</i>	0
XOP		<i>INFO: Computes the subtraction between the original and new XML</i>	0
DiffMK	3	diffmk:change="changed" of the 1st paragraph diffmk:change="added" of the new paragraphs diffmk:change="added" of the following paragraphs - wrong	0
DeltaXML	2	Difference detected on two paragraphs <i>INFO: Annotations on the new XML with A!=B</i>	0.5

Table 17: Tree upgrade

Operation: Change one subsection into section			
Tool	N. Oper.	Operations	Success
XyDiff	3	ATTRIBUTE UPDATE DELETE MOVE INSERT MOVE	0.5
JNDiff	3	EXTRACT section ADD section ATTCHANGE	0.5
DiffXML	967	959 x MOVE 5 x INSERT 3 x DELETE	0
jXyDiff	18	3 x DELETE MOVE 3 x INSERT MOVE 1 x DELETE 2 x INSERT	0
fc-XMLDiff	6	6 x diff:copy <i>INFO: Annotations on the original XML file with diff:copy</i>	0
XCC	5	2 x INSERT 2 x DELETE 1 x UPDATE <i>INFO: Fingerprint usage & keeps old and new values: useful for diff comparisons</i>	0
Node-delta	2	REMOVE section INSERT section	0.5
XMLDiff	2	diff:delete section diff:insert section <i>INFO: Annotations on the original XML file with diff:insert and diff:delete actions</i>	0.5
XDiff	2	DELETE section INSERT section Attribute change not detected <i>INFO: No info about text node changes</i>	0
XOP		<i>INFO: Computes the subtraction between the original and new XML</i>	0
DiffMK	3	diffmk:change="added" of the new section, no info about the deleted subsection <i>INFO: he first <p> node has a large part of the content lost</i>	0
DeltaXML	2	Difference detected on the subsection to section upgrade <i>INFO: Annotations on the new XML with A!=B</i>	0.5

Table 18: Tree downgrade

Operation: Change one section into subsection			
Tool	N. Oper.	Operations	Success
XyDiff	5	ATTRIBUTE UPDATE 2 x DELETE MOVE 2 x INSERT MOVE	0
JNDiff	4	EXTRACT section3 EXTRACT section4 ADD section3 ADD section3.3	0.5
DiffXML	770	763 x MOVE 4 x INSERT 3 x DELETE	0
jXyDiff	9	3 x DELETE MOVE 3 x INSERT MOVE 2 x DELETE 1 x INSERT	0
fc-XMLDiff	7	7 x diff:copy <i>INFO: Annotations on the original XML file with diff:copy</i>	0
XCC	5	2 x INSERT 2 x DELETE 1 x UPDATE <i>INFO: Fingerprint usage & keeps old and new values: useful for diff comparisons</i>	0
Node-delta	2	INSERT two sections REMOVE two sections	0
XMLDiff	4	diff:insert two section diff:delete two section <i>INFO: Annotations on the original XML file with diff:insert and diff:delete actions</i>	0
XDiff	3	2 x INSERT section DELETE section Attribute change not detected <i>INFO: No info about text node changes</i>	0
XOP		<i>INFO: Computes the subtraction between the original and new XML</i>	0
DiffMK	1	diffmk:change="added" of the new section, no info about the deleted subsection <i>INFO: he first <p> node has a large part of the content lost</i>	0
DeltaXML		Difference detected on the section to subsection downgrade <i>INFO: Annotations on the new XML with A!=B</i>	0.5