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# Journal of Information and Communication Technology (JICT): A Bibliometric Analysis

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## Abstract:

This study focused on the journal productivity by conducting bibliometric analysis on the journal named Journal of Information and Communication Technology during the period from 2011 to 2018. The objectives of this study cover distribution of contribution, length of articles, geographical distribution of articles, number of references per article, institution- wise contribution. The study analyzed and found that 118 articles were published during the period of 2011 to 2018 in JICT. The highest numbers of articles were published in the year 2018 during the period of study with 28 articles in four issues. The result showed that triple authors' contribution is more with 43.33% in authorship pattern. The study exposes that most of the articles contributed by the authors from Malaysia with 72.88% and it is also found that major contribution of articles from universities with 96.61%.

**Keywords:** Bibliometrics, Information and Communication Technology, Authorship Pattern, Length of Articles, Institution-wise Contribution.

## Introduction:

Journal of Information and Communication Technology (JICT) is peer reviewed international journal publishing in quarterly basis by Universiti Utara Malaysia through open access. It is indexed and abstracted in Scopus and Emerging Sources Citation Index databases. This journal covers various aspects in the area of information and communication technology and applicable for its application and theories. The main aim of this journal is to provide access to its users by covering the latest research and development in the field of information and communication

technology. The Journal also got the prestigious award of cream award for the year 2016 and 2017 from Ministry of Higher Education. This study was conducted in order to make the bibliometric analysis on the Journal of Information and Communication Technology. We have collected the data which were available on the JICT website for the period of 2011 to 2018 to make analysis on the various parameters such as distribution of contribution, authorship pattern, length of articles, geographical distribution of articles, number of references per article and institution-wise distribution. This paper focuses on growth of literature and address the effect on the parameters of Journal of Information and Communication Technology for the research purposes.

### **Literature Review:**

There were many studies have been published so far regarding the bibliometric analysis about various journals to analyze the literature growth. Some of the literatures were taken for the review purpose. Velmurugan and Radhakrishnan (2015) have conducted a bibliometric study for the period of 2007 to 2012 on Indian Journal of Biotechnology and found that the majority of articles published during the year 2007 with 19.41% and the more number of articles were contributed by the joint authors with 97.33%. Jayaprakash (2015) have analyzed nearly 781 publications on the cloud computing topic for the period of 2000-2014 and found that majority of the articles were published by single author. Khanna Sunaina et.al (2018) evaluated the publications of the journal of academic librarianship for the period of 2007-16 and revealed that majority.15% of the articles 89.85% were published by United States of America. Abdi Asad et.al (2018) have done bibliometric analysis of IP&M journal for the period of 1980- 2015 and identified that most of the contributions are published as articles with 67.15% which is followed by book reviews with 28.08%, editorial material with 2.54%, review and note were followed with 0.93% and 0.27% respectively. Bansal, Alka. (2013) have done a bibliometric analysis for 391 papers published during the period of 2001 – 2012 and found that 88% of contribution from India and 12% of contribution from other countires and also revealed that maximum number of articles published in the length of 6-10 pages with 65%. Tella and Olabooye (2014) have conducted a study on the African Journal of Library, Archives & Information Science and identified that the major articles were from theoretical papers but the other articles from book reviews, short communications and empirical papers. Rajev M.K.G and Suresh B (2018) have

conducted a study on IJODLS journal and discovered that highest contribution of 162 articles from the authors from universities with 55.86%. Isiakpona (2012) have done a analysis on 550 scholarly articles for the period of 2008 to 2013 for the various parameters like subject-wise distribution , institution-wise and country distribution of articles, length of articles, authorship pattern, degree of collaboration, chronological distribution, prolific authors and cited articles. The author found most of the articles published by the authors from universities. Alagu and Thanuskodi (2018) conducted an analysis on the web of science database and retrieved the records for the period of 1993 to 2017 related to the information literacy research and found that highest number of articles published in the year 2016 and the highest number of articles published by multi-authors with 31.53%.

### **Objectives of this Study:**

The objectives are taken in the present study through bibliometric analysis on the Journal of Communication and Information Technology for the period of 2011 to 2018 is listed as follows:

- i) To make a analysis on the distribution of contribution
- ii) To observe the authorship pattern
- iii) To study the length of articles
- iv) To determine the geographical distribution of articles
- v) To find out the number of references per article
- vi) To scrutinize the institution-wise contribution

### **Methodology:**

The required bibliographical data were collected from the JICT website in order to analyze the various parameters such as source of documents, author details, publication year and volume details, length of articles page details, institution contribution details and references details for the period of 2011 to 2018 were collected and it is recorded in prompt columns in Microsoft Excel Sheet. All the collected data were analyzed to attain the apparent result to support the research objectives.

## Results and Discussion:

### Distribution of Contribution:

**Table 1: Distribution of Contribution**

Year	Volume	Issues	Articles	Percentage
2011	10	1	8	6.8%
2012	11	1	13	11.0%
2013	12	1	11	9.3%
2014	13	1	8	6.8%
2015	14	1	9	7.6%
2016	15	1	10	8.5%
	15	2	10	8.5%
2017	16	1	10	8.5%
	16	2	11	9.3%
2018	17	1	7	5.9%
	17	2	8	6.8%
	17	3	5	4.2%
	17	4	8	6.8%
<b>Total</b>	<b>8</b>	<b>13</b>	<b>118</b>	<b>100.0%</b>

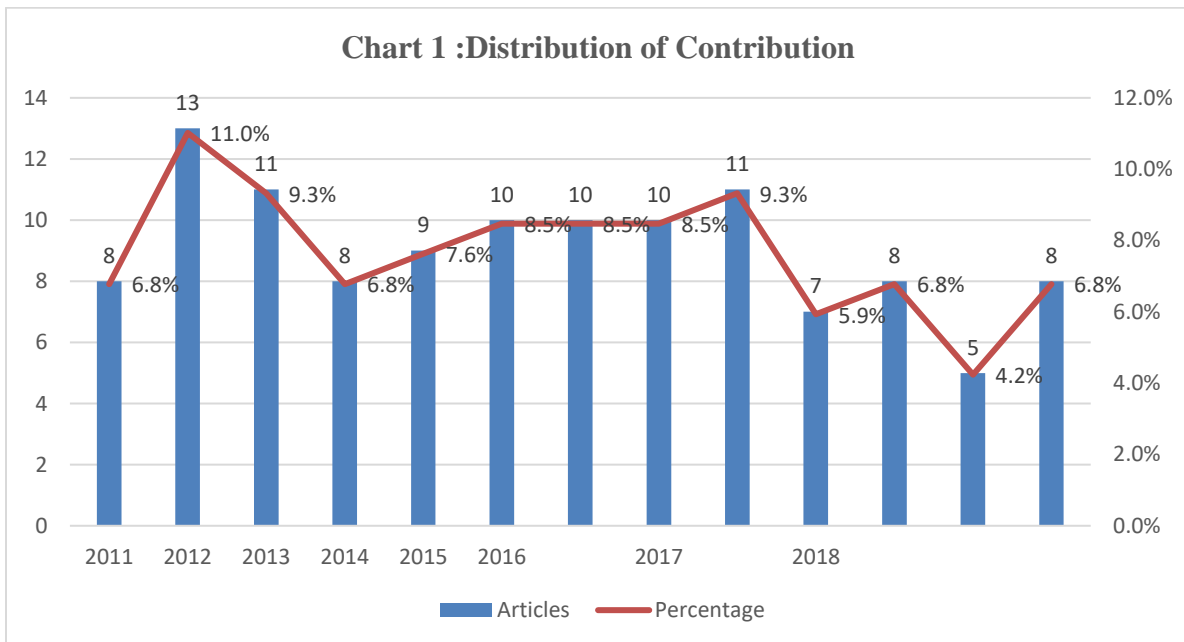


Table 1 and Chart 1 represent the distribution of articles published in the Journal of Communication and Information Technology for the period of 2011 to 2018. The journal has published 118 articles during the period of study and it was found that highest numbers of articles were published during the year 2018 with 4 volumes of 21 articles and the lowest numbers of articles were published in the year 2011 and 2014 with 6.8%.

### Authorship Pattern:

**Table 2 : Authorship Pattern**

Year	Single author	Two authors	Three authors	Four and above authors
2011	3	2	2	1
2012	1	4	7	1
2013	1	2	4	4
2014	0	3	4	1
2015	0	1	7	1
2016	1	8	5	6
2017	2	4	13	2
2018	5	6	10	7
<b>Total</b>	<b>13</b>	<b>30</b>	<b>52</b>	<b>23</b>
<b>Percentage</b>	<b>11.02%</b>	<b>25.42%</b>	<b>44.07%</b>	<b>19.49%</b>

**Chart 2 : Authorship Pattern**

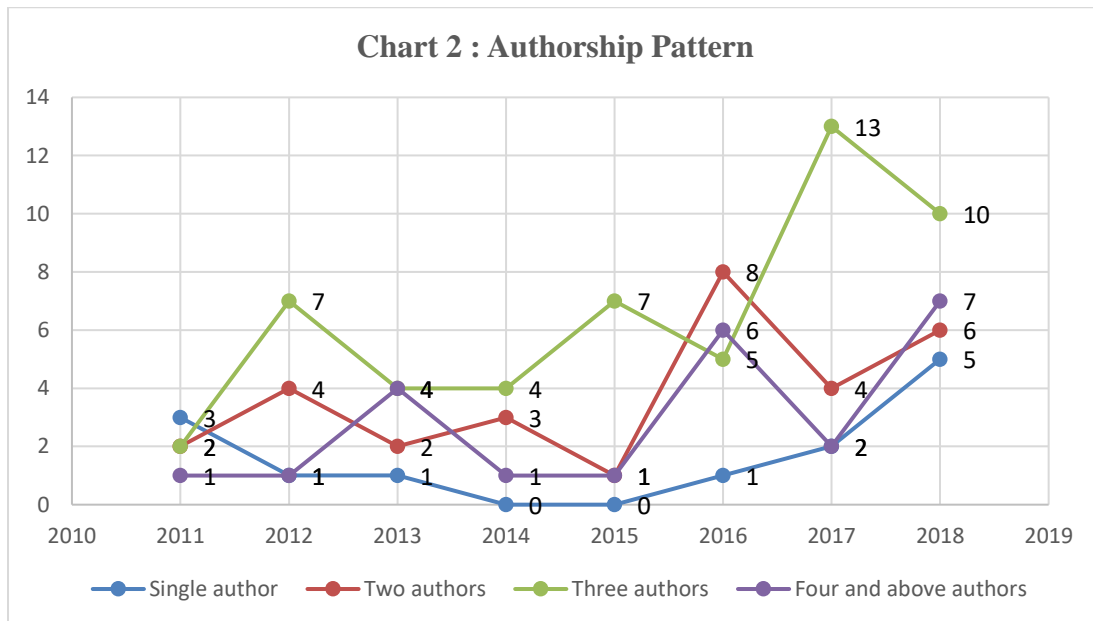


Table 2 and Chart 2 represent the authorship pattern of the Journal of Communication and Information Technology published during the period of 2011 to 2018. The major contribution of articles from three authors with 52 articles (44.07%) and least contribution of articles from with single author with 13 articles (11.02%).

### Length of Articles:

**Table 3 : Length of Papers**

Year	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	Total
2011			3	3	1	1				8
2012			2	11						13
2013			4	5		2				11
2014				6	1		1			8
2015			1	6	1	1				9
2016			2	6	10		2			20
2017			2	12	4	1	2			21
2018			1	7	10	4	4	1	1	28
<b>Total</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>56</b>	<b>27</b>	<b>9</b>	<b>9</b>	<b>1</b>	<b>1</b>	<b>118</b>
<b>Percentage</b>	<b>0.00%</b>	<b>0.00%</b>	<b>12.71%</b>	<b>47.46%</b>	<b>22.88%</b>	<b>7.63%</b>	<b>7.63%</b>	<b>0.85%</b>	<b>0.85%</b>	<b>100.00%</b>

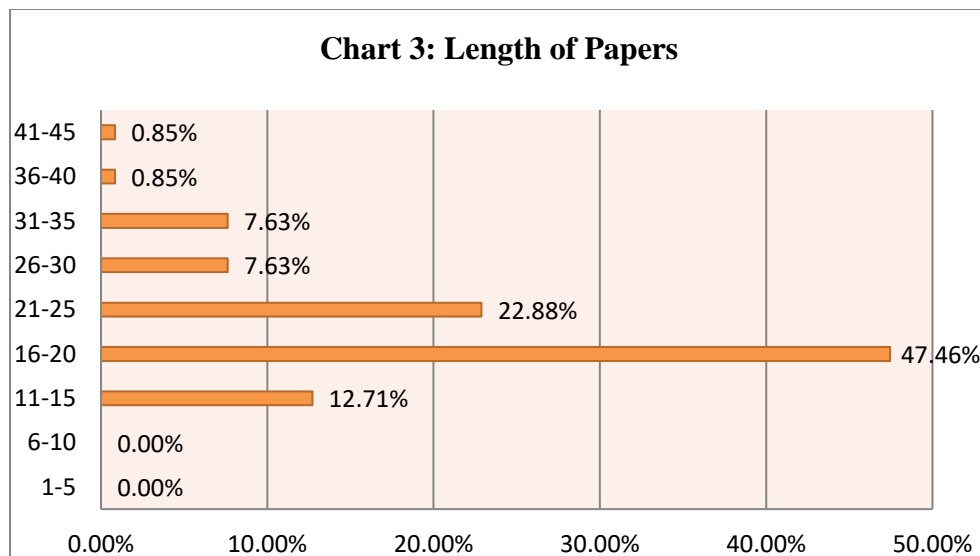


Table 3 and Chart 3 represent the length of papers in terms of number of pages having articles published in the Journal of Communication and Information Technology for the period of 2011 to 2018. The highest number of articles published with the pages from 16 to 20 with 56 articles

(47.46%), the lowest numbers of articles were published with the pages from 36 to 40 and 41 to 45 with one article (0.85%) respectively and there was no article published between 1 to 10 pages.

### Geographical Distribution of Articles:

**Table 4 : Geographical distribution of articles**

Sl. No.	Country	2011	2012	2013	2014	2015	2016	2017	2018	No. of Articles	Percentage
1	Malaysia	6	11	10	8	6	14	13	18	<b>86</b>	<b>72.88%</b>
2	Thailand				1		2	2	1	<b>6</b>	<b>5.08%</b>
3	Nigeria	2	1	1					2	<b>6</b>	<b>5.08%</b>
4	Jordan				1		1		3	<b>5</b>	<b>4.24%</b>
5	Pakistan			1						<b>1</b>	<b>0.85%</b>
6	Japan		1			1	1			<b>3</b>	<b>2.54%</b>
7	Iraq						1			<b>1</b>	<b>0.85%</b>
8	UK								2	<b>2</b>	<b>1.69%</b>
9	Saudi Arabia					2			1	<b>3</b>	<b>2.54%</b>
10	Indonesia		1				2	1	1	<b>5</b>	<b>4.24%</b>
11	New Zealand					1				<b>1</b>	<b>0.85%</b>
12	South Korea					1				<b>1</b>	<b>0.85%</b>
13	Sudan					1				<b>1</b>	<b>0.85%</b>
14	Iran						1			<b>1</b>	<b>0.85%</b>
15	UAE							1		<b>1</b>	<b>0.85%</b>
16	Bangladesh							1	1	<b>2</b>	<b>1.69%</b>
17	Algeria							1	2	<b>3</b>	<b>2.54%</b>
18	Morocco							1		<b>1</b>	<b>0.85%</b>
19	India							1	1	<b>2</b>	<b>1.69%</b>
20	Germany								1	<b>1</b>	<b>0.85%</b>
21	Czech Republic								1	<b>1</b>	<b>0.85%</b>
22	Mauritius								1	<b>1</b>	<b>0.85%</b>
23	France								1	<b>1</b>	<b>0.85%</b>
	<b>Total No. of Articles</b>	<b>8</b>	<b>13</b>	<b>11</b>	<b>8</b>	<b>9</b>	<b>20</b>	<b>21</b>	<b>28</b>	<b>118</b>	



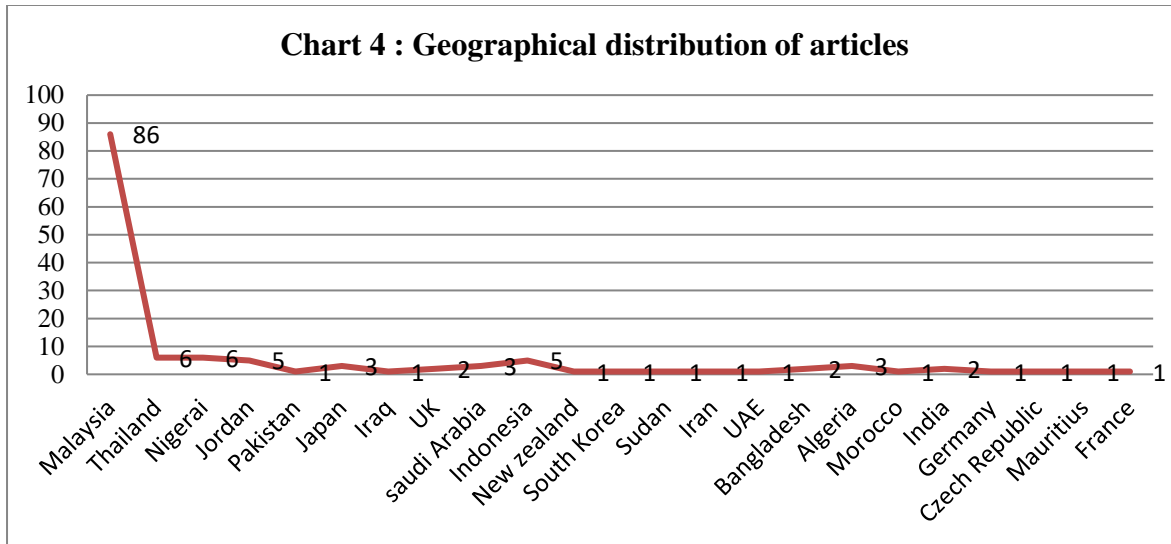


Table 5 and Chart 5 represent the geographical distribution of articles published in the Journal of Communication and Information Technology for the period of 2011 to 2018. The authors from Malaysia have contributed the highest number of articles of 86 (72.88%) and the authors from France, Mauritius, Czech Republic, Morocco, Germany, Iran, UAE, Sudan, South Korea, Iraq, Pakistan and New Zealand have contributed one article with 0.85% respectively.

### Number of References per Article:

**Table 5 : Number of References per article**

Year	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	Above 50	Total
2011				4	1	1	1	1			8
2012				5	2		2	2	2		13
2013			2	2		3		2		2	11
2014						5	1	2			8
2015					3	1	2			3	9
2016			1	3	4	4	2		3	3	20
2017				3	5	6	1	3	1	2	21
2018			1	5	2	3	4	2	3	8	28
<b>Total</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>22</b>	<b>17</b>	<b>23</b>	<b>13</b>	<b>12</b>	<b>9</b>	<b>18</b>	<b>118</b>
<b>Percentage</b>	<b>0.00%</b>	<b>0.00%</b>	<b>3.39%</b>	<b>18.64%</b>	<b>14.41%</b>	<b>19.49%</b>	<b>11.02%</b>	<b>10.17%</b>	<b>7.63%</b>	<b>15.25%</b>	<b>100%</b>

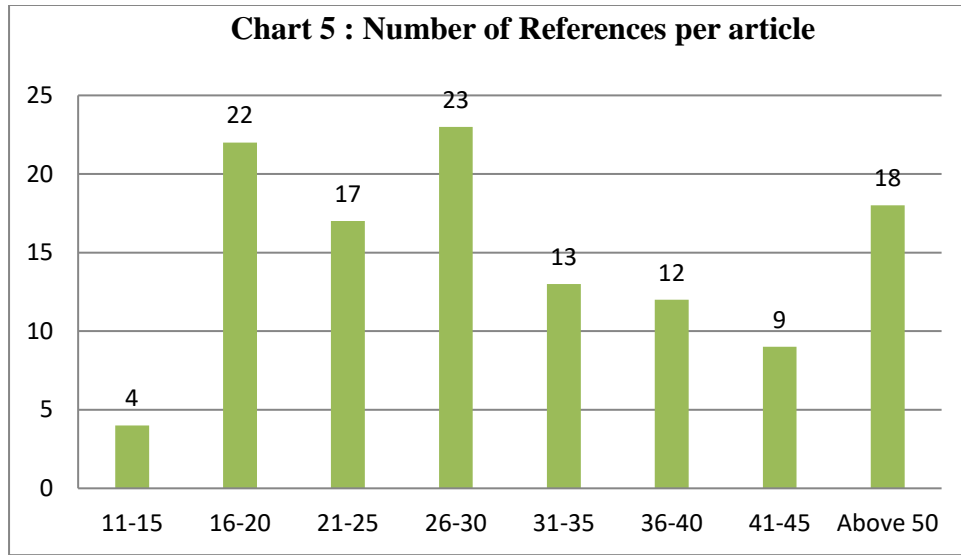


Table 6 and Chart 6 represent the range of references for the articles published in the Journal of Communication and Information Technology for the period of 2011 to 2018. The highest range of references having 26 to 30 were published with 23 articles (19.30 %), the lowest ranges of references having 11 to 15 were published with 4 articles (3.39%) respectively and there were no other articles published having the range of 1 to 10 references.

### **Institution-wise Contribution:**

**Institution-wise distribution of articles**

Sl. No.	Name of the Institution	2011	2012	2013	2014	2015	2016	2017	2018	Articles	%
1	University	8	12	11	8	9	18	20	28	114	96.61%
2	College		1				2	1		4	3.39%
3	School									0	0.00%
4	Government Departments									0	0.00%
5	Societies									0	0.00%
	Total	8	13	11	8	9	20	21	28	118	100.00%

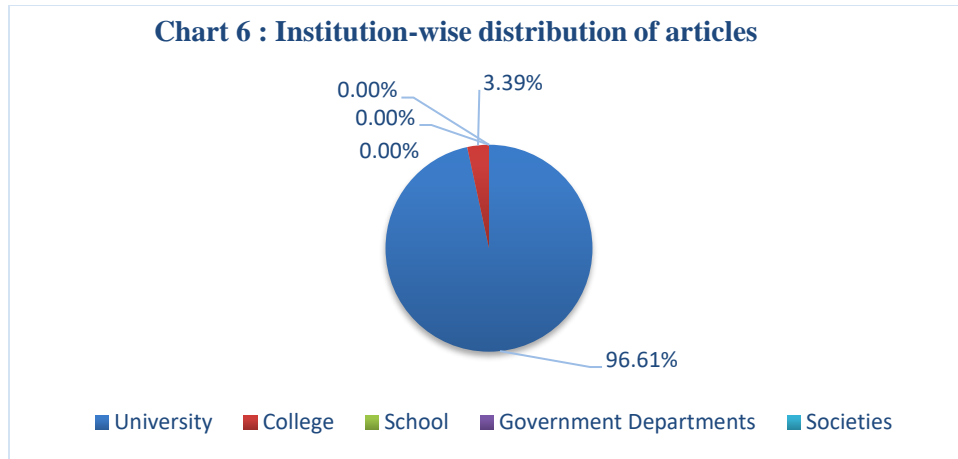


Table 6 and Chart 6 represent the institution wise distribution of articles published in the Journal of Communication and Information Technology for the period of 2011 to 2018. The authors from universities have contributed the highest number of articles of 114 with 96.61% and the authors from school have contributed the least number of articles of 4 with 3.39% respectively.

### **Conclusion:**

Bibliometrics is a tool to analyze the output of the research through various scientific parameters. It is also used as a statistical technique to make analysis on the publications output to evaluate the literature growth. It is used recurrently in the library and information science field. The Journal of Information and Communication Technology is one of the valuable open access journal indexed and abstracted in Scopus and Emerging Sources Citation Index databases in the area of information and communication technology. This journal has published 118 articles during the period of study and it was found that highest numbers of articles were published during the year 2018 with 4 volumes of 21 articles. Majority of the articles were published by three authors with 52 articles (44.07%). Authors from Malaysia have contributed highest number of articles of 86 (72.88%). The highest ranges of references having 26 to 30 were published with 23 articles (19.30 %). The authors from universities have contributed the highest number of articles of 114 with 96.61%.

### **Acknowledgement:**

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