A Scient metric Study in Ieee Computer Journals in Artificial Intelligence and Machine Learning in Academic Libraries

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ABSTRACT

In the modern 21st century the development of Information Communication Technology creates an enormous development known as Artificial Intelligence and Machine Learning. These technologies reduce the work of all Human Beings. The growth of these technologies has reached its enormous growth before five to two decades. The need for machine learning is increasing day in nowadays. The father of Artificial Intelligence was John MC Carthy. In modern trends, libraries have converted themselves to Artificial Intelligence to promote their digital knowledge among the people. The term "Scient metric" was introduced in the year 1978. The "Sciento" means Science and "Metric" means quantitate measurement. The systematic study of scientific collection of data using statistical tools. The data collection is taken from Scimago Journal and Country Ranking. The main objective of the study is to analyzethe further growth of the journal in Artificial Intelligence and Machine Learning in Education in IEE journals Publications. The study is made on descriptive research methodology. The study uses a quantitative approach.The growth of journal publications will be increased in a further ten years in the field of artificial intelligence. It helps us to know about the growth of artificial intelligence and machine learning in education.

Introduction:

In this modern world, Artificial Intelligence and Machine learning play a vital role. The impact development of Information Communication and Technology pays a way beyond world development.[1] Artificial Intelligence was founded by Allen Newell and Hebert A. Simon in the year of 1955. Machine Learning was founded by Arthur Samuel in the year of 1952.[2] The scient metric study was used in Russia. It helps the researcher to analyze their data and information by measuring using statistical tools.[3] In this research, we are going to analyze the relative growth of the journal, the doubling time of the journal, and the yearly output of journals in the field of artificial intelligence and machine languages.[4]

Objective of the Study:

o   To know the relative growth of the journal.
o   To know the doubling time of the journal
o   To know the yearly output of the journal.

Research Methodology:

The study is based on descriptive research methodology. The study deals with the quantitative approach of research. The data are collected from the SJR.[5] The collected data are computed in MS Excel and used for the analysis. The analysis of data is changed to the further limit of the study.

Data And Interpretation:

Table 1: Relative Growth Rate Of The Publication 2013-2022

S.no	Year	Records	Cumulative	Log W1	Log W2	RGR
1	2013	226	226	0	5.42	0
2	2014	192	418	5.42	6.03	2.56
3	2015	196	614	6.03	6.41	1.58
4	2016	193	807	6.41	6.69	1.01
5	2017	188	995	6.69	6.9	0.58
6	2018	239	1234	6.9	7.11	0.21
7	2019	209	1443	7.11	7.27	0.21
8	2020	234	1677	7.27	7.42	0.28
9	2021	359	2036	7.42	7.61	0.38
10	2022	907	2943	7.61	7.98	0.61

In Table 1, 192 records are published for the year 2014 and its Relative Growth of publication is calculated as 2.56, but in the year 2015, records of publication increased to 196 but its relative growth of publication has been decreased to 1.58. Hence we concluded that the relative growth rate of the publication is decreasing.[6]

Table 2: Doubling Time Of The Publication 2013 – 2022

Year	Records	Cumulative	Log W1	Log W2	RGR	Doubling time
2013	226	226	0	5.42	0	0
2014	192	418	5.42	6.03	2.56	0.24
2015	196	614	6.03	6.41	1.58	0.39
2016	193	807	6.41	6.69	1.01	0.62
2017	188	995	6.69	6.9	0.58	1.08
2018	239	1234	6.9	7.11	0.21	0.03

2019	209	1443	7.11	7.27	0.21	0.03
2020	234	1677	7.27	7.42	0.28	2.25
2021	359	2036	7.42	7.61	0.38	1.65
2022	907	2943	7.61	7.98	0.61	1.03

Table 2, shows the doubling time of the publication from the year 2013 – 2022. For the year 2014, the doubling time of the publication is calculated as 0.24, followed by the next year 2015 the doubling time of the publication is increased to 0.39. Hence, we concluded that the doubling time of the publication is increased for ten years.[7]

Table 3: Yearly Output Of Journal Publication

S.no	Year	Records	Percentage
1	2013	226	7
2	2014	192	6
3	2015	196	6
4	2016	193	6
5	2017	188	6
6	2018	239	8
7	2019	209	7
8	2020	234	7
9	2021	359	12
10	2022	907	30
	TOTAL	2943	100

Table 3 shows the yearly output of journal publications. In 2013, the journalpublished 226 articles, a percentage of 7% followed by 2022, the journal published 907 articles, which increased by 30% of their publications. Hence we conclude that the yearly publication of the journal is increasing from year to year.[8]

Findings:
- The relative growth of the publications is always stated in an increased state.
- The relative growth of publication is decreased by year by year.
- The doubling time of the publication is increased for ten years.
- The further growth of the publication is increasing for the upcoming years.
- The year publication of the journal is increasing year by year.

Conclusion:
The research analysis tells us the major growth of IEEE Journals in the field of Artificial Intelligence and Machine Learning in education. The publication has reached their tremendous growth in the last year. The trend has increased the growth of the journal publications. It helps further researchers to research the field of artificial intelligence and machine learning in education. It helps the researcher find the research gap to fulfill the research.

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