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Hint Paper: 3

Title: Enhancing social media influence Prediction accuracy for Marketing strategy Through comparitive Analysis of Random Forest and Artifical Neural Network.

Paragraph 1:

Defination:

* The Machine Learning techniaves to forecast Potential impact or user content may have social media Platform.
* Analysis of Engagement, interactions Predictive models.
* TO Provide insights a user content audience, decision Making for Marketing Purpose.
* The Goal Provide Marketers insights, tailor Marketing strategies for optimal reach impact dynamic landscape of social media.

Importance:

1) Business and Marketing: It serveas a Powerful Platforms for business to reach and target audience. It's cost effective way to Promote Product & services.
2) Awarness and Activism: Plays a crucial role raising awarness about issues, Promoting activism.
3) Global connectivity: Breakdown barries connectivity People diverse backgrounds clusteas globalized digital-community

Applications:

* The network connected with family, friends & collegues.
* TO share information content, videos, pictures and creative expression for brand awarness.
* In Real time news & information dissemination global events and trends.
* customer support through social media channels feedback and resolve issues.

Paragraph 2:-

Number of Aritcles:

* science direct - 501
* Google scholar - 1355

Most cited Articals:

[1] Li, Jingxuan, et al. "social network user influence sense Making and dynamic Prediction." Expert system with applications 41.11 (2014): 5115-5124.

[2] Alizadeh, Meysam, et al. "content-based features Predict social Media influence operations." science advances 6.30 (2020): eabb 5824.

[3] Al Marouf, Hasan (2020): comparitive Analysis feature selection algorithium for computional Personality Prediction for social media. IEEE Transctions on computional social systems, 7(3) 587-599.

[4] Yu, sheng and subhash kak. "A survey of Prediction using social Media" arxiv Preprint arxiv: 1203. 1647 (2012)

Best study:

* Illustrating the latent capacity of Machine learning techiq in anticipation of social media in similar setting.
* Business Promotion Powerful for marketing strategy and advertising are high income.
* They increased demand & supply occurences in future.

Paragraph 3:

Existing Algorithium:

* Existing Algorithium, the accuracy is less because of the comparision of short Period of data.
* The machine trained used existing can Predict the social media influence in marketing strategy.

Aim of the Algorithium:

* utilizing the machine learning Algorithium and social media influence analysis to develop robust models and Predict influence of users on social media content.
* Enhancing market strategies Provide insights, ultimately decision marketing Purpose Process for business and organisations.

Materials And methods:

Paragraph 1:

study setting : SIMATS school of Engineering.

No of Groups : 2

Group 1 : Random Forest

Group 2 : Artifical Neural Network.

Sample size : 5

Dataset : social media influence

G Power : 80.1.

Paragraph 2:

Pata sample Pre Paration

* Group 1 : Random Forest

* Information : Pata set

* APPly Random Forest Algorithium.

* calculate total no of users see in Post

* calculate accuracy of social media influence Prediction

Paragraph 3:-

* Pata sample PreParation

Group 2 : Artifical Neural Network.

* Information : Pataset

* APPly Artifical Neural Network. Algorithium.

* calculate total no of People see in Post
* calculate accuracy of social media influence Prediction.

Paragraph 4:

Testing setup
* Google colab
* in Intel 8th Gen
* 8GB RAM
* windows 10 OS

Paragraph 3:

satistical Analysis:

* utilizing version 26.0 of IBM spss software, computation were Performed
* Provided values are -> Mean
  -> standard deviation
  -> standard Error Mean.
* Independent variable: index, Age, Education, Field, settlement, New vs old User, QOL, IAT.
* Dependent variable: social media time in hours

* Analysis Done: Yes
* Result: Random Forest has better Prediction than Artifical Neural Network.

* Notably independent variable of interest is rough score.
* Dependent variable of Research size and recorded data utilized of T Test outcomes.

Limitations:

* In order to maximize the fetch time and increase the accuracy.
* Bulk Data Analysis is complicated

Future scope:

* Accuracy increased using Random Forest Algorithium

Testing Procedure:

* Preparing the Dataset
* Train 70% of Dataset
* Test 30% of Dataset
* create Embedded model using usRandom Forest Algorithium and Artifical Neural Network.

Results And Discussions:

* Improving Accuracy in Prediction of social Media influence analysis in Marketing strategies by minimizing false datasets.
* using Random Forest Algorithium & Artifical Neural Network Algorithium.

Paragraph 1:

In this study we defined that Random Forest Algorithium has better Prediction than Aritifical Neural Network Algorithium.

Paragraph 2:

Data collection:

* Data is trained
* saved Embedded Model
* Input sample Dataset.

Age : Above 28

Education : Bachelor's Degree

Field : Engineering

settlement : urban

New_Vs_Old_user : 4 years ago or higher.

conclusion:

* The analysis of Random forest and Artifical Neural Network forecasting social medias influence on marketing strategy, both techniques accuroey
* Model enhances Predictive capabilities, empowering marketers with more Preceise insights

Group Statistics

	ALGORITHM	N	Mean	Std. Deviation	Std. Error Mean
ACCURACY	RF	20	93.90	1.744	.390
	ANN	20	64.75	4.822	1.078

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
ACCURACY	Equal variances assumed	11.405	.002	25.424	38	.036	29.150	1.147	26.829	31.471
	Equal variances not assumed			25.424	23.888	.036	29.150	1.147	26.783	31.517