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Characterization of the data mining tools used by the artificial intelligence algorithms used by the students of systems engineering career of the Technological Institute of Mexicali

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Survey

Abstract

The data mining tools used by artificial intelligence algorithms, are intended to be a valuable tool in the process of developing artificial intelligence programs, this quantitative research, has the objective of measuring the impact on students of the career of systems engineering of the Technological Institute of Mexicali, and make a diagnosis, based on the results of a survey applied to a sample of Systems Engineering students at the Technological Institute of Mexicali.

Keywords: *data mining, artificial intelligency, Instituto Tecnologico de Mexicali*

Introduction

As research professors of TECNM, and members of the academic body of the ITM systems and computing area, we are committed to transferring the most important knowledge of the area to our students, from the School of Systems Engineering of this school, this process is every time It is more important because it increases the competitiveness of the institutions that use them, in this case the research carried out on the subject of artificial intelligence is based on the KEEL (Knowledge Extraction Evolutionary Learning) data mining algorithm, which is the algorithm with more tools for the different programming languages, and it is a characterization of the different

tools and their application by the students, which will help us to measure the competitiveness of the students in this area.

Methodology

explaining how this research was carried out, based on the conception of the idea, and its problematic, we defined the objectives and formulated the questions, then we defined the study population, indicating the main factors for which it has been delimited, including the formula statistics used to determine the sample, the instrument used for compiling the information was designed, which forms the sample, basically focusing on the survey. And, finally, we will detail the assumptions used in the investigation, as well as the statistical results.

n = 67
N = 395 (3.8416) (0.20) (0.20)
Zα = 1.96 n= ---------- = 67
p = .17 (395-1)(0.0025)+(3.8416)(0.17)(0.17)
q = .17
e = .17

Survey:

1. Data mining tools, used by artificial intelligence algorithms, are recognized by students of the Computer Systems Engineering degree at the Technological Institute of Mexicali.

2. The data mining tools, used by artificial intelligence algorithms, are useful for the student of the Computer Systems Engineering degree at the Technological Institute of Mexicali.

3. The data mining tools used by artificial intelligence algorithms are regularly used in classes by students of the Computer Systems Engineering degree at the Technological Institute of Mexicali.

4. The data mining tools used by artificial intelligence algorithms, which are used in the subjects of the Computer Systems Engineering degree at the Technological Institute of Mexicali, would be recommended to other students.

5. KEEL Knowledge Extraction Evolutionary Learning, is used in the subjects of the Computer Systems Engineering degree at the Technological Institute of Mexicali.

6. KEEL Knowledge Extraction Evolutionary Learning, is a recognized concept in the middle of software development.

7. KEEL Knowledge Extraction Evolutionary Learning, In the last 12 months you have used them in the ITM.

8. KEEL Knowledge Extraction Evolutionary Learning, if you had the opportunity to use this technology you would use it.

9. KEEL Knowledge Extraction Evolutionary Learning, you consider it a reliable technology for use in the classroom.

10. As a student of the subjects of the Computer Systems Engineering degree at the Technological Institute of Mexicali, you consider yourself an Artificial Intelligence enthusiast.

With the following multiple choice answers:

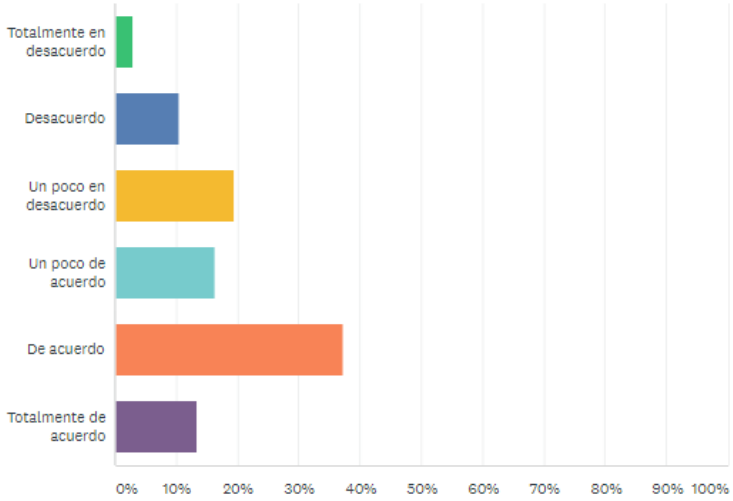
a) Strongly Disagree
b) Disagree
c) I slightly disagree
d) A little agreement
e) Agree
f) Totally agree

Conclusion

In the opinion of the students of the Computer Systems Engineering degree at the Mexicali Campus of TECNM, the following results were obtained:
Data mining tools, used by artificial intelligence algorithms, are recognized, and are considered useful, but they are not used, if they are recommended, they are used very few, but it is a concept that they do know, but in the last 12 They have not used them for months, but they are very interested in using them, and they consider them reliable for use in the classroom, and they are considered artificial intelligence enthusiasts, these give us the conclusion that there is a gap, which is an area of opportunity for the development of new technologies, which is not being exploited to the fullest, and we are losing competitiveness.

las herramientas de minería de datos, utilizadas por los algoritmos de inteligencia artificial, son reconocidas por los estudiantes de la carrera de Ingeniería de Sistemas Computacionales en el Instituto Tecnológico de Mexicali.

Answered: 67 Skipped: 0

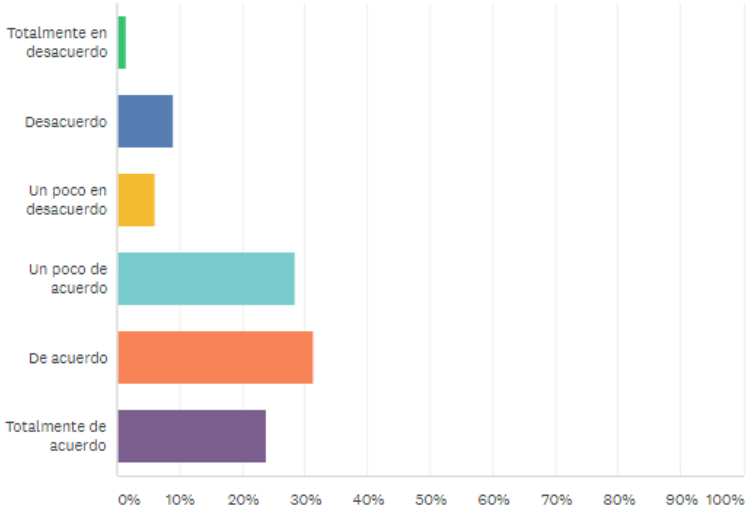


ANSWER CHOICES	RESPONSES	
Totalmente en desacuerdo (1)	2.99%	2
Desacuerdo (2)	10.45%	7
Un poco en desacuerdo (3)	19.40%	13
Un poco de acuerdo (4)	16.42%	11
De acuerdo (5)	37.31%	25
Totalmente de acuerdo (6)	13.43%	9
TOTAL		67

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	6.00	5.00	4.15	1.33

Las herramientas de minería de datos, utilizadas por los algoritmos de inteligencia artificial, son útiles para el estudiante de la carrera de Ingeniería de Sistemas Computacionales en el Instituto Tecnológico de Mexicali.

Answered: 67 Skipped: 0



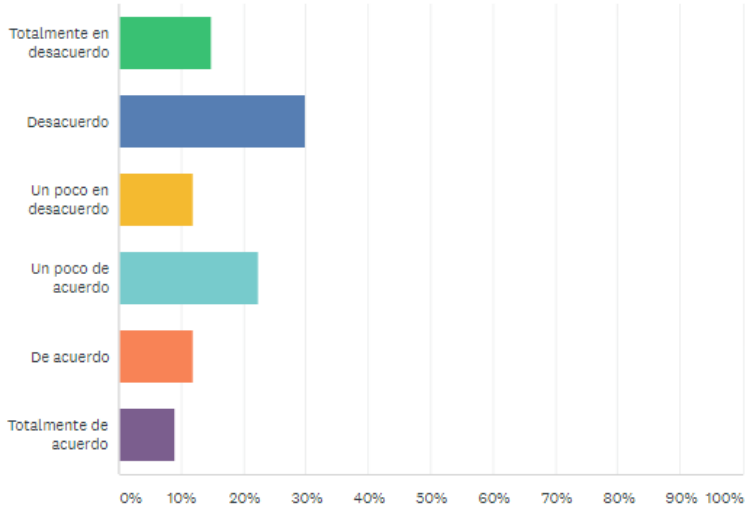
ANSWER CHOICES	RESPONSES	
Totalmente en desacuerdo (1)	1.49%	1
Desacuerdo (2)	8.96%	6
Un poco en desacuerdo (3)	5.97%	4
Un poco de acuerdo (4)	28.36%	19
De acuerdo (5)	31.34%	21
Totalmente de acuerdo (6)	23.88%	16
TOTAL		67

BASIC STATISTICS

Minimum	Maximum	Median	Mean	Standard Deviation
1.00	6.00	5.00	4.51	1.25

Las herramientas de minería de datos utilizadas por los algoritmos de inteligencia artificial, son usados regularmente en clases por los alumnos de la carrera de Ingeniería de Sistemas Computacionales en el Instituto Tecnológico de Mexicali.

Answered: 67 Skipped: 0

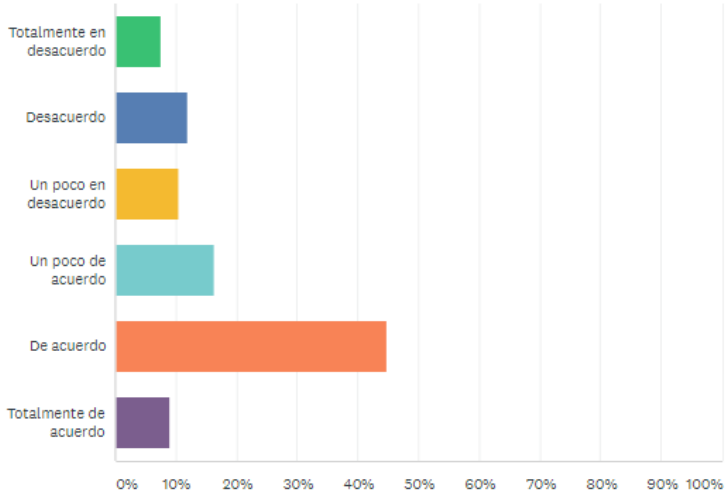


ANSWER CHOICES	RESPONSES	
Totalmente en desacuerdo (1)	14.93%	10
Desacuerdo (2)	29.85%	20
Un poco en desacuerdo (3)	11.94%	8
Un poco de acuerdo (4)	22.39%	15
De acuerdo (5)	11.94%	8
Totalmente de acuerdo (6)	8.96%	6
TOTAL		67

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	6.00	3.00	3.13	1.54

Las herramientas de minería de datos utilizadas por los algoritmos de inteligencia artificial, que se usan en las materias de la carrera de Ingeniería de Sistemas Computacionales en el Instituto Tecnológico de Mexicali, se las recomendarías a otros estudiantes.

Answered: 67 Skipped: 0

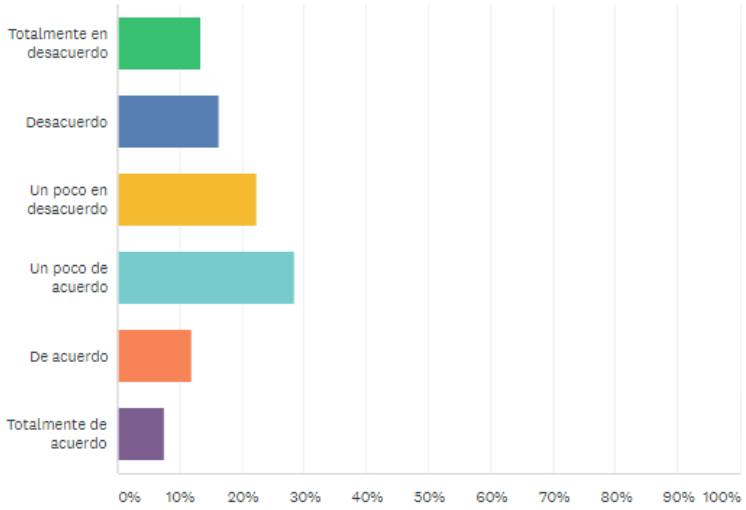


ANSWER CHOICES	RESPONSES	
Totalmente en desacuerdo (1)	7.46%	5
Desacuerdo (2)	11.94%	8
Un poco en desacuerdo (3)	10.45%	7
Un poco de acuerdo (4)	16.42%	11
De acuerdo (5)	44.78%	30
Totalmente de acuerdo (6)	8.96%	6
TOTAL		67

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	6.00	5.00	4.06	1.43

KEEL Knowledge Extraction Evolutionary Learning, se usa en las materias de la carrera de Ingeniería de Sistemas Computacionales en el Instituto Tecnológico de Mexicali.

Answered: 67 Skipped: 0

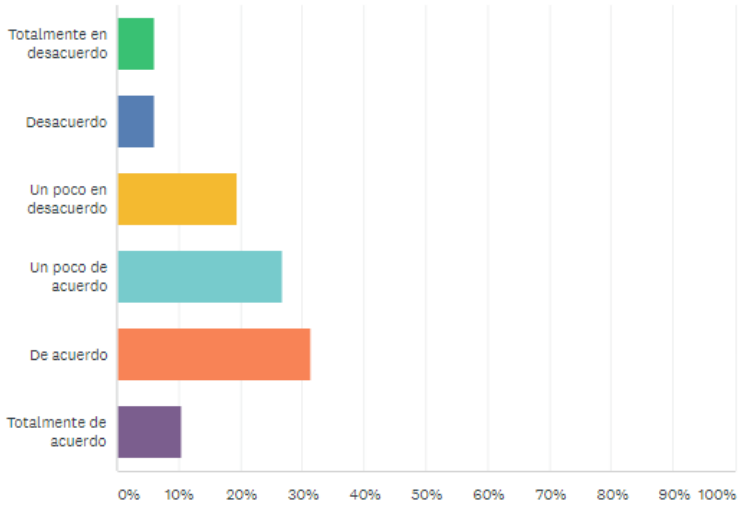


ANSWER CHOICES	RESPONSES	
Totalmente en desacuerdo (1)	13.43%	9
Desacuerdo (2)	16.42%	11
Un poco en desacuerdo (3)	22.39%	15
Un poco de acuerdo (4)	28.36%	19
De acuerdo (5)	11.94%	8
Totalmente de acuerdo (6)	7.46%	5
TOTAL		67

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	6.00	3.00	3.31	1.43

KEEL Knowledge Extraction Evolutionary Learning, es un concepto reconocido en el medio de desarrollo de software.

Answered: 67 Skipped: 0

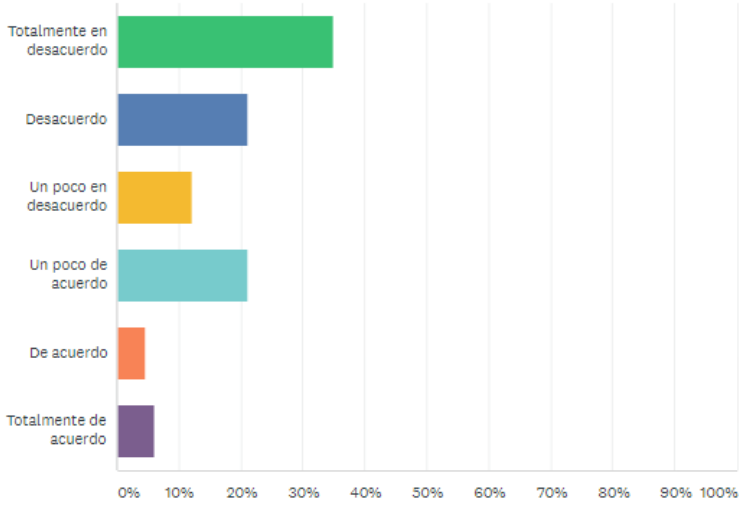


ANSWER CHOICES	RESPONSES	
Totalmente en desacuerdo (1)	5.97%	4
Desacuerdo (2)	5.97%	4
Un poco en desacuerdo (3)	19.40%	13
Un poco de acuerdo (4)	26.87%	18
De acuerdo (5)	31.34%	21
Totalmente de acuerdo (6)	10.45%	7
TOTAL		67

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	6.00	4.00	4.03	1.30

KEEL Knowledge Extraction Evolutionary Learning, En los ultimos 12 meses los has usado en el ITM.

Answered: 66 Skipped: 1

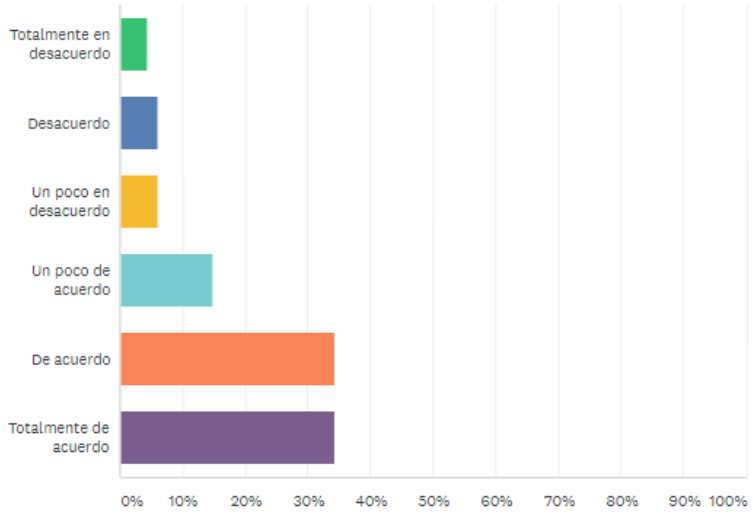


ANSWER CHOICES	RESPONSES	
Totalmente en desacuerdo (1)	34.85%	23
Desacuerdo (2)	21.21%	14
Un poco en desacuerdo (3)	12.12%	8
Un poco de acuerdo (4)	21.21%	14
De acuerdo (5)	4.55%	3
Totalmente de acuerdo (6)	6.06%	4
TOTAL		66

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	6.00	2.00	2.58	1.54

KEEL Knowledge Extraction Evolutionary Learning, Si tuvieras la oportunidad de usar esta tecnología la usarias.

Answered: 67 Skipped: 0

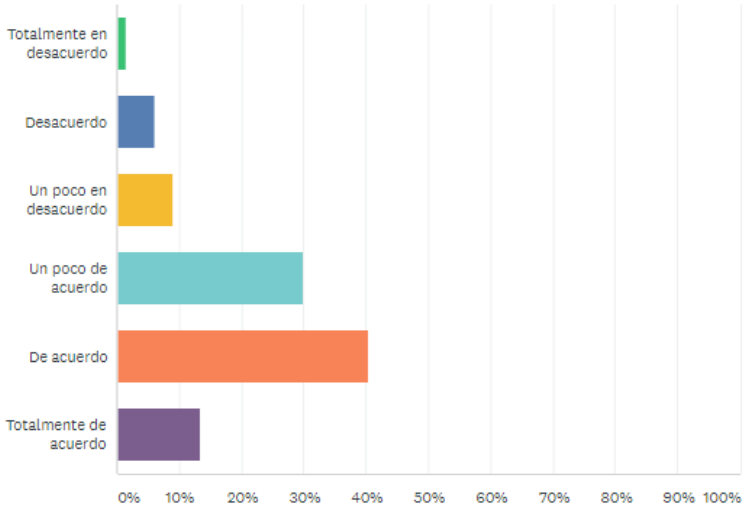


ANSWER CHOICES	RESPONSES	
Totalmente en desacuerdo (1)	4.48%	3
Desacuerdo (2)	5.97%	4
Un poco en desacuerdo (3)	5.97%	4
Un poco de acuerdo (4)	14.93%	10
De acuerdo (5)	34.33%	23
Totalmente de acuerdo (6)	34.33%	23
TOTAL		67

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	6.00	5.00	4.72	1.38

KEEL Knowledge Extraction Evolutionary Learning, la consideras una tecnología confiable para su uso en el aula.

Answered: 67 Skipped: 0

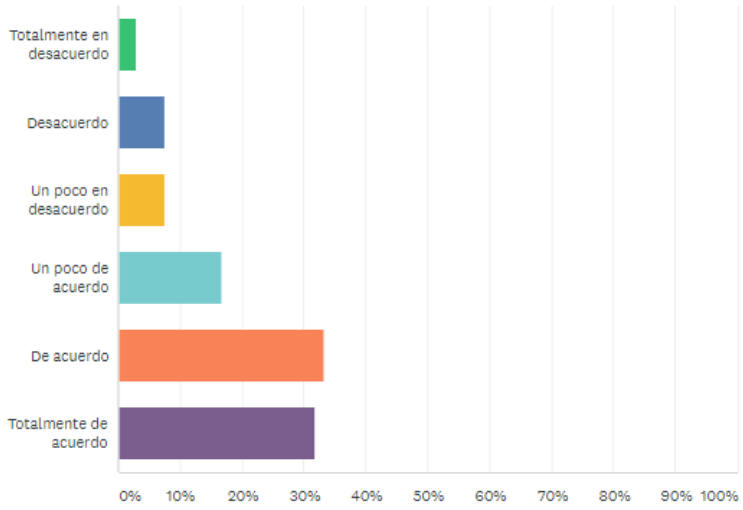


ANSWER CHOICES	RESPONSES	
Totalmente en desacuerdo (1)	1.49%	1
Desacuerdo (2)	5.97%	4
Un poco en desacuerdo (3)	8.96%	6
Un poco de acuerdo (4)	29.85%	20
De acuerdo (5)	40.30%	27
Totalmente de acuerdo (6)	13.43%	9
TOTAL		67

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	6.00	5.00	4.42	1.11

Como estudiante de las materias de la carrera de Ingeniería de Sistemas Computacionales en el Instituto Tecnológico de Mexicali, Te consideras un entusiasta de Inteligencia Artificial.

Answered: 66 Skipped: 1



ANSWER CHOICES	RESPONSES	
Totalmente en desacuerdo (1)	3.03%	2
Desacuerdo (2)	7.58%	5
Un poco en desacuerdo (3)	7.58%	5
Un poco de acuerdo (4)	16.67%	11
De acuerdo (5)	33.33%	22
Totalmente de acuerdo (6)	31.82%	21
TOTAL		66

BASIC STATISTICS				
Minimum	Maximum	Median	Mean	Standard Deviation
1.00	6.00	5.00	4.65	1.35

References

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