

Package ‘mpa’

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Type Package

Title CoWords Method

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Description CoWords Method

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diagram.mpa

Strategic diagram

Description

Draws the strategic diagram starting from the classification of key words done in the mpa function.

Usage

```
diagram.mpa(mpa, tmin=3, tit= NULL, pos=1)
```

Arguments

mpa	Resulting object of the mpa function.
tmin	Minimum group size for showing on the chart.
tit	Title.
pos	Position of the groups names in the chart.

Details

The X-axis of the diagram is the centrality of groups, the Y-axis is the density.

Value

A two-dimensional plane in which are positioned groups created by the mpa function.

Author(s)

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References

Charum, J. y Meyer, J. (1998), Hacer ciencia en un mundo globalizado. TM editores en coedici n con Colciencias y la Facultad de Ciencias de la Universidad Nacional de Colombia.

Examples

```
data(revista)
mat <- matriz.mpa(revista, fmin=3, cmin=1)
clas <- mpa(mat$Matriza,10,mat$Palabras)
diagram.mpa(clas,tmin=3)
```

leer.mpa	<i>Reading corpus</i>
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Description

Reads lines of text files in R.

Usage

```
leer.mpa(textfile = "", encoding = "unknown")
```

Arguments

textfile	The file path where the corpus is located
encoding	encoding to be assumed for input strings

Details

The corpus file must be a standard text file, which generally uses "/" to separate each letter and "ind0" to separate individuals, however, these parameters can be different.

Value

A vector containing the text lines "textfile".

Note

This function is an adaptation of the ttda.get.text function from de ttda library.

Author(s)

Daniel Rodr guez <dhrodriguez@unal.edu.co>

Examples

```
#revista <- leer.mpa("revista.txt", encoding="latin1")
data(revista)
revista
```

matriz.mpa

*Calculation of co-occurrences matrix and matrix associations***Description**

Calculates the co-occurrences matrix and the matrix associations from the resulting object of the leer.mpa function.

Usage

```
matriz.mpa(leer.mpa, sep.ind="ind0", sep.pal="/", fmin=3, cmin=3)
```

Arguments

leer.mpa	Resulting vector from the leer.mpa function.
sep.ind	Individuals separator by default is "ind0".
sep.pal	Word separator by default is "/"
fmin	Minimal appearance frequency of key words inside the corpus.
cmin	Minimal co-occurrence between words.

Details

Individuals separator sep.ind must be the same for all individuals in the corpus, just like the sep.pal. The function eliminates key words with lower frequency than fmin and eliminates co-occurrences under cmin.

Value

A list that contains:

Matriza	Associations matrix.
Matrizc	Co-occurrence matrix.
Palabras	Vector from the different words that appears in the corpus (dictionary).
tl	Lexical table

Note

This function uses created steps inside the ttda.segmentation y ttda.forms.frame functions, of the ttda library.

Author(s)

Daniel Rodr guez <dhrodriguez@unal.edu.co>

References

Courtial, J.P. (1990), Introduction a la Scientom etrie, Anthropos - Econ mica, Paris.

Examples

```

data(revista)
mat <- matriz.mpa(revista, fmin=3, cmin=1)
mat$MatrizA
mat$MatrizC
diag(mat$MatrizC)

```

mpa

*CoWords method***Description**

Performs the CoWords Method

Usage

```

mpa(E, tmax=7, palabras=NULL)
contar.si(x,n)
reemplazar.si(x, n, p)

```

Arguments

E	The matrix of associations between the keywords.
tmax	Maximum size of each group.
palabras	Vector containing the names of each of your keywords.
x	Numeric vector.
n	Scalar.
p	Scalar.

Details

mpa function executes the associated words method from the association matrix E, and the maximum group size, tmax. Function contar.si counts the number of times the scalar n appears in a vector n. The function reemplazar.si searches for values equal to n and replaces them with p in a vector x.

Value

Function mpa creates a list with the next components:

Clases	A vector that identifies the group of which every key word is associated. If a value of 0 drops out means that the keyword in the particular position was not classified
Nombres	The vector which specifies the names of each of the groups.
Resumen	Matrix that contains the size, density and centrality of each group.

Author(s)

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References

Courtial, J.P. (1990), Introduction a la scientom\`etrie, Anthropos - Econ\`omica, Paris.

Examples

```
#revista <- leer.mpa("revista.txt",encoding="latin1")
data(revista)
mat <- matriz.mpa(revista, fmin=3, cmin=1)
clas <- mpa(mat$Matriza,10,mat$Palabras)
clas
```

plotmpa

Network group's internal associations

Description

Draws the association's network within the words belonging to a group.

Usage

```
plotmpa(clase, E, mpa, fpond= 10, tit= NULL, tam.fuente=1)
```

Arguments

clase	The number of the type or group from which you want to see the network.
E	Matrix of associations between the keywords.
mpa	Resulting object of the mpa function.
fpond	Weighting for the links between network nodes.
tit	Title
tam.fuente	Size font.

Details

The keywords are represented in nodes. The joints between them are the level of association between the keywords. The red node is the word whose sum of internal associations is greater.

Value

A graph network that shows the structure of association between the words that belong to a given group.

Note

This function is an adaptation of the previous function `plot.network` from the package `network`.

Author(s)

Daniel Rodr'iguez <dhrodriguez@unal.edu.co>

References

Charum, J. y Meyer, J. (1998), Hacer ciencia en un mundo globalizado. TM editores en coedici3n con Colciencias y la Facultad de Ciencias de la Universidad Nacional de Colombia.

Examples

```
data(revista)
mat <- matriz.mpa(revista, fmin=3, cmin=1)
clas <- mpa(mat$Matriza,10,mat$Palabras)
clas
plotmpa(1,mat$Matriza,clas)
plotmpa(6,mat$Matriza,clas)
```

revista

Keywords of papers

Description

Keywords of papers

Usage

```
data(revista)
```

Format

Object whit text data was reading with `leer.mpa("revista.txt",encoding="latin1")`

Source

Data from Revista Colombiana de Estadistica

References

D. Rodriguez. Trabajo de Grado

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