

# Package ‘mldr.datasets’

October 13, 2022

**Title** R Ultimate Multilabel Dataset Repository

**Version** 0.4.2

**Date** 2019-01-16

**Description** Large collection of multilabel datasets along with the functions needed to export them to several formats, to make partitions, and to obtain bibliographic information.

**URL** <https://github.com/fcharte/mldr.datasets>

**Depends** R (>= 3.0.0)

**Imports** utils

**License** LGPL (>= 3) | file LICENSE

**LazyData** true

**RoxygenNote** 6.1.0

**Suggests** mldr

**Encoding** UTF-8

**NeedsCompilation** no

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---

available.mldrs	<i>Obtain additional datasets available to download</i>
-----------------	---

---

## Description

available.mldrs retrieves the most up to date list of additional datasets. Those datasets are not included into the package, but can be downloaded and saved locally.

## Usage

```
available.mldrs()
```

## Value

A data.frame with the available multilabel datasets

**Examples**

```
## Not run:
library(mlr.datasets)
names <- available.mldrs()$Name

## End(Not run)
```

---

bibtex

*Dataset with BibTeX entries*

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
bibtex(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mlr object with 7395 instances, 1836 attributes and 159 labels

**Source**

Katakis, I. and Tsoumakas, G. and Vlahavas, I., "Multilabel Text Classification for Automated Tag Suggestion", in Proc. ECML PKDD08 Discovery Challenge, Antwerp, Belgium, pp. 75-83, 2008

**Examples**

```
## Not run:
bibtex <- bibtex() # Check and load the dataset
toBibtex(bibtex)
bibtex$measures

## End(Not run)
```

---

birds	<i>Dataset with sounds produced by birds and the species they belong to</i>
-------	---

---

**Description**

Multilabel dataset from the sound domain.

**Usage**

birds

**Format**

An mldr object with 645 instances, 260 attributes and 19 labels

**Source**

Briggs, F. and Lakshminarayanan, B. and Neal, L. and Fern, X. Z. and Raich, R. and Hadley, S. J. K. and Hadley, A. S. and Betts, M. G., "Acoustic classification of multiple simultaneous bird species: A multi-instance multi-label approach", The Journal of the Acoustical Society of America, (6)131, pp. 4640–4650, 2012

**Examples**

```
## Not run:  
toBibtex(birds)  
birds$measures  
  
## End(Not run)
```

---

bookmarks	<i>Dataset with data from web bookmarks and their categories</i>
-----------	--

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
bookmarks(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 87856 instances, 2150 attributes and 208 labels

**Source**

Katakis, I. and Tsoumakas, G. and Vlahavas, I., "Multilabel Text Classification for Automated Tag Suggestion", in Proc. ECML PKDD08 Discovery Challenge, Antwerp, Belgium, pp. 75-83, 2008

**Examples**

```
## Not run:
bookmarks <- bookmarks() # Check and load the dataset
toBibtex(bookmarks)
bookmarks$measures

## End(Not run)
```

---

cal500	<i>Dataset with music data along with labels for emotions, instruments, genres, etc.</i>
--------	--

---

**Description**

Multilabel dataset from the music domain.

**Usage**

```
cal500
```

**Format**

An mldr object with 502 instances, 68 attributes and 174 labels

**Source**

Turnbull, Douglas and Barrington, Luke and Torres, David and Lanckriet, Gert, "Semantic annotation and retrieval of music and sound effects", Audio, Speech, and Language Processing, IEEE Transactions on, (2)16, pp. 467-476, 2008

**Examples**

```
## Not run:
toBibtex(cal500)
cal500$measures

## End(Not run)
```

---

check_n_load.mldr	<i>(Defunct) Check if an mldr object is locally available and download it if needed</i>
-------------------	---

---

### Description

This function checks if the mldr object whose name is given as input is locally available, loading it in memory. If necessary, the dataset will be downloaded from the GitHub repository and saved locally.

### Usage

```
check_n_load.mldr(mldr.name)
```

### Arguments

mldr.name	Name of the dataset to load
-----------	-----------------------------

### Examples

```
## Not run:  
library(mldr.datasets)  
check_n_load.mldr("bibtex")  
bibtex$measures  
  
## End(Not run)
```

---

core116k001	<i>Datasets with data from the Corel image collection. There are 10 subsets in core116k</i>
-------------	---

---

### Description

Multilabel dataset from the image domain.

### Usage

```
core116k001(...)
```

### Arguments

...	Additional options for the loading function (e.g. download.dir)
-----	---

### Format

An mldr object with 13766 instances, 500 attributes and 153 labels

**Source**

Barnard, K. and Duygulu, P. and Forsyth, D. and de Freitas, N. and Blei, D. M. and Jordan, M. I., "Matching words and pictures", Journal of Machine Learning Research, Vol. 3, pp. 1107–1135, 2003

**Examples**

```
## Not run:
core116k001 <- core116k001() # Check and load the dataset
toBibtex(core116k001)
core116k001$measures

## End(Not run)
```

---

core116k002	<i>Datasets with data from the Corel image collection. There are 10 subsets in core116k</i>
-------------	---

---

**Description**

Multilabel dataset from the image domain.

**Usage**

```
core116k002(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 13761 instances, 500 attributes and 164 labels

**Source**

Barnard, K. and Duygulu, P. and Forsyth, D. and de Freitas, N. and Blei, D. M. and Jordan, M. I., "Matching words and pictures", Journal of Machine Learning Research, Vol. 3, pp. 1107–1135, 2003

**Examples**

```
## Not run:
core116k002 <- core116k002() # Check and load the dataset
toBibtex(core116k002)
core116k002$measures

## End(Not run)
```



---

core116k003	<i>Datasets with data from the Corel image collection. There are 10 subsets in core116k</i>
-------------	---

---

**Description**

Multilabel dataset from the image domain.

**Usage**

```
core116k003(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 13760 instances, 500 attributes and 154 labels

**Source**

Barnard, K. and Duygulu, P. and Forsyth, D. and de Freitas, N. and Blei, D. M. and Jordan, M. I., "Matching words and pictures", Journal of Machine Learning Research, Vol. 3, pp. 1107–1135, 2003

**Examples**

```
## Not run:  
core116k003 <- core116k003() # Check and load the dataset  
toBibtex(core116k003)  
core116k003$measures  
  
## End(Not run)
```

---

core116k004	<i>Datasets with data from the Corel image collection. There are 10 subsets in core116k</i>
-------------	---

---

**Description**

Multilabel dataset from the image domain.

**Usage**

```
core116k004(...)
```

**Arguments**

... Additional options for the loading function (e.g. `download.dir`)

**Format**

An `mldr` object with 13837 instances, 500 attributes and 162 labels

**Source**

Barnard, K. and Duygulu, P. and Forsyth, D. and de Freitas, N. and Blei, D. M. and Jordan, M. I., "Matching words and pictures", *Journal of Machine Learning Research*, Vol. 3, pp. 1107–1135, 2003

**Examples**

```
## Not run:
core116k004 <- core116k004() # Check and load the dataset
toBibtex(core116k004)
core116k004$measures

## End(Not run)
```

---

core116k005                    *Datasets with data from the Corel image collection. There are 10 subsets in corel16k*

---

**Description**

Multilabel dataset from the image domain.

**Usage**

```
core116k005(...)
```

**Arguments**

... Additional options for the loading function (e.g. `download.dir`)

**Format**

An `mldr` object with 13847 instances, 500 attributes and 160 labels

**Source**

Barnard, K. and Duygulu, P. and Forsyth, D. and de Freitas, N. and Blei, D. M. and Jordan, M. I., "Matching words and pictures", *Journal of Machine Learning Research*, Vol. 3, pp. 1107–1135, 2003

**Examples**

```
## Not run:
core116k005 <- core116k005() # Check and load the dataset
toBibtex(core116k005)
core116k005$measures

## End(Not run)
```

---

core116k006	<i>Datasets with data from the Corel image collection. There are 10 subsets in core116k</i>
-------------	---

---

**Description**

Multilabel dataset from the image domain.

**Usage**

```
core116k006(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 13859 instances, 500 attributes and 162 labels

**Source**

Barnard, K. and Duygulu, P. and Forsyth, D. and de Freitas, N. and Blei, D. M. and Jordan, M. I., "Matching words and pictures", Journal of Machine Learning Research, Vol. 3, pp. 1107–1135, 2003

**Examples**

```
## Not run:
core116k006 <- core116k006() # Check and load the dataset
toBibtex(core116k006)
core116k006$measures

## End(Not run)
```

---

core116k007	<i>Datasets with data from the Corel image collection. There are 10 subsets in core116k</i>
-------------	---

---

**Description**

Multilabel dataset from the image domain.

**Usage**

```
core116k007(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 13915 instances, 500 attributes and 174 labels

**Source**

Barnard, K. and Duygulu, P. and Forsyth, D. and de Freitas, N. and Blei, D. M. and Jordan, M. I., "Matching words and pictures", Journal of Machine Learning Research, Vol. 3, pp. 1107–1135, 2003

**Examples**

```
## Not run:  
core116k007 <- core116k007() # Check and load the dataset  
toBibtex(core116k007)  
core116k007$measures  
  
## End(Not run)
```

---

core116k008	<i>Datasets with data from the Corel image collection. There are 10 subsets in core116k</i>
-------------	---

---

**Description**

Multilabel dataset from the image domain.

**Usage**

```
core116k008(...)
```

**Arguments**

... Additional options for the loading function (e.g. `download.dir`)

**Format**

An `mldr` object with 13864 instances, 500 attributes and 168 labels

**Source**

Barnard, K. and Duygulu, P. and Forsyth, D. and de Freitas, N. and Blei, D. M. and Jordan, M. I., "Matching words and pictures", *Journal of Machine Learning Research*, Vol. 3, pp. 1107–1135, 2003

**Examples**

```
## Not run:
core116k008 <- core116k008() # Check and load the dataset
toBibtex(core116k008)
core116k008$measures

## End(Not run)
```

---

core116k009	<i>Datasets with data from the Corel image collection. There are 10 subsets in corel16k</i>
-------------	---

---

**Description**

Multilabel dataset from the image domain.

**Usage**

```
core116k009(...)
```

**Arguments**

... Additional options for the loading function (e.g. `download.dir`)

**Format**

An `mldr` object with 13884 instances, 500 attributes and 173 labels

**Source**

Barnard, K. and Duygulu, P. and Forsyth, D. and de Freitas, N. and Blei, D. M. and Jordan, M. I., "Matching words and pictures", *Journal of Machine Learning Research*, Vol. 3, pp. 1107–1135, 2003

**Examples**

```
## Not run:
core116k009 <- core116k009() # Check and load the dataset
toBibtex(core116k009)
core116k009$measures

## End(Not run)
```

---

core116k010	<i>Datasets with data from the Corel image collection. There are 10 subsets in core116k</i>
-------------	---

---

**Description**

Multilabel dataset from the image domain.

**Usage**

```
core116k010(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 13618 instances, 500 attributes and 144 labels

**Source**

Barnard, K. and Duygulu, P. and Forsyth, D. and de Freitas, N. and Blei, D. M. and Jordan, M. I., "Matching words and pictures", Journal of Machine Learning Research, Vol. 3, pp. 1107–1135, 2003

**Examples**

```
## Not run:
core116k010 <- core116k010() # Check and load the dataset
toBibtex(core116k010)
core116k010$measures

## End(Not run)
```

---

`core15k`*Dataset with data from the Corel image collection*

---

**Description**

Multilabel dataset from the image domain.

**Usage**

```
core15k(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 5000 instances, 499 attributes and 374 labels

**Source**

Duygulu, P. and Barnard, K. and de Freitas, J.F.G. and Forsyth, D.A., "Object Recognition as Machine Translation: Learning a Lexicon for a Fixed Image Vocabulary", Computer Vision, ECCV 2002, pp. 97-112, 2002

**Examples**

```
## Not run:
core15k <- core15k() # Check and load the dataset
toBibtex(core15k)
core15k$measures

## End(Not run)
```

---

`delicious`*Dataset generated from the del.icio.us site bookmarks*

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
delicious(...)
```

**Arguments**

... Additional options for the loading function (e.g. `download.dir`)

**Format**

An `mldr` object with 16105 instances, 500 attributes and 983 labels

**Source**

Tsoumakas, G. and Katakis, I. and Vlahavas, I., "Effective and Efficient Multilabel Classification in Domains with Large Number of Labels", in Proc. ECML/PKDD Workshop on Mining Multidimensional Data, Antwerp, Belgium, MMD08, pp. 30–44, 2008

**Examples**

```
## Not run:
delicious <- delicious() # Check and load the dataset
toBibtex(delicious)
delicious$measures

## End(Not run)
```

---

density

*Calculate the density level of the dataset*

---

**Description**

This function calculates the ratio of nonzero-valued elements over the total of elements.

**Usage**

```
density(mld)
```

**Arguments**

`mld` An "mldr" object

**Examples**

```
library(mldr.datasets)
density(emotions)
```



---

emotions	<i>Dataset with features extracted from music tracks and the emotions they produce</i>
----------	--

---

**Description**

Multilabel dataset from the music domain.

**Usage**

```
emotions
```

**Format**

An mldr object with 593 instances, 72 attributes and 6 labels

**Source**

Wieczorkowska, A. and Synak, P. and Ra's, Z., "Multi-Label Classification of Emotions in Music", Intelligent Information Processing and Web Mining, Vol. 35, Chap. 30, pp. 307-315, 2006

**Examples**

```
## Not run:  
toBibtex(emotions)  
emotions$measures  
  
## End(Not run)
```

---

enron	<i>Dataset with email messages and the folders where the users stored them</i>
-------	--

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
enron(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 1702 instances, 1001 attributes and 53 labels

**Source**

Klimt, B. and Yang, Y., "The Enron Corpus: A New Dataset for Email Classification Research", in Proc. ECML04, Pisa, Italy, pp. 217-226, 2004

**Examples**

```
## Not run:
enron <- enron() # Check and load the dataset
toBibtex(enron)
enron$measures

## End(Not run)
```

---

eurlexdc_test	<i>List with 10 folds of the test data from the EUR-Lex directory codes dataset</i>
---------------	---

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
eurlexdc_test(...)
```

**Arguments**

... Additional options for the loading function (e.g. download.dir)

**Format**

An mldr object with 1935 instances, 5000 attributes and 412 labels

**Source**

Mencia, E. L. and Furnkranz, J., "Efficient pairwise multilabel classification for large-scale problems in the legal domain", Machine Learning and Knowledge Discovery in Databases, pp. 50–65, 2008

**Examples**

```
## Not run:
eurlexdc_test <- eurlexdc_test() # Check and load the dataset
toBibtex(eurlexdc_test[[1]])
eurlexdc_test[[1]]$measures

## End(Not run)
```

---

eurlexdc_tra	<i>List with 10 folds of the train data from the EUR-Lex directory codes dataset</i>
--------------	--

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
eurlexdc_tra(...)
```

**Arguments**

... Additional options for the loading function (e.g. download.dir)

**Format**

An mldr object with 17413 instances, 5000 attributes and 412 labels

**Source**

Mencia, E. L. and Furnkranz, J., "Efficient pairwise multilabel classification for large-scale problems in the legal domain", Machine Learning and Knowledge Discovery in Databases, pp. 50–65, 2008

**Examples**

```
## Not run:
eurlexdc_tra <- eurlexdc_tra() # Check and load the dataset
toBibtex(eurlexdc_test[[1]])
eurlexdc_test[[1]]$measures

## End(Not run)
```

---

eurlexev_test	<i>List with 10 folds of the test data from the EUR-Lex EUROVOC descriptors dataset</i>
---------------	---

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
eurlexev_test(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 1935 instances, 5000 attributes and 3993 labels

**Source**

Mencia, E. L. and Furnkranz, J., "Efficient pairwise multilabel classification for large-scale problems in the legal domain", Machine Learning and Knowledge Discovery in Databases, pp. 50–65, 2008

**Examples**

```
## Not run:  
eurlexev_test <- eurlexev_test() # Check and load the dataset  
toBibtex(eurlexev_test[[1]])  
eurlexev_test[[1]]$measures  
  
## End(Not run)
```

---

eurlexev_tra	<i>List with 10 folds of the train data from the EUR-Lex EUROVOC descriptors dataset</i>
--------------	--

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
eurlexev_tra(...)
```

**Arguments**

... Additional options for the loading function (e.g. download.dir)

**Format**

An mldr object with 17413 instances, 5000 attributes and 3993 labels

**Source**

Mencia, E. L. and Furnkranz, J., "Efficient pairwise multilabel classification for large-scale problems in the legal domain", *Machine Learning and Knowledge Discovery in Databases*, pp. 50–65, 2008

**Examples**

```
## Not run:
eurlexev_tra <- eurlexev_tra() # Check and load the dataset
toBibtex(eurlexev_tra[[1]])
eurlexev_tra[[1]]$measures

## End(Not run)
```

---

eurlexsm_test	<i>List with 10 folds of the test data from the EUR-Lex subject matters dataset</i>
---------------	---

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
eurlexsm_test(...)
```

**Arguments**

... Additional options for the loading function (e.g. download.dir)

**Format**

An mldr object with 1935 instances, 5000 attributes and 201 labels

**Source**

Mencia, E. L. and Furnkranz, J., "Efficient pairwise multilabel classification for large-scale problems in the legal domain", *Machine Learning and Knowledge Discovery in Databases*, pp. 50–65, 2008

### Examples

```
## Not run:
eurlexsm_test <- eurlexsm_test() # Check and load the dataset
toBibtex(eurlexsm_test[[1]])
eurlexsm_test[[1]]$measures

## End(Not run)
```

---

eurlexsm_tra	<i>List with 10 folds of the train data from the EUR-Lex subject matters dataset</i>
--------------	--

---

### Description

Multilabel dataset from the text domain.

### Usage

```
eurlexsm_tra(...)
```

### Arguments

... Additional options for the loading function (e.g. download.dir)

### Format

An mldr object with 17413 instances, 5000 attributes and 201 labels

### Source

Mencia, E. L. and Furnkranz, J., "Efficient pairwise multilabel classification for large-scale problems in the legal domain", Machine Learning and Knowledge Discovery in Databases, pp. 50–65, 2008

### Examples

```
## Not run:
eurlexsm_tra <- eurlexsm_tra() # Check and load the dataset
toBibtex(eurlexsm_tra[[1]])
eurlexsm_tra[[1]]$measures

## End(Not run)
```

---

flags

*Dataset with features corresponding to world flags*

---

**Description**

Multilabel dataset from the image domain.

**Usage**

flags

**Format**

An mldr object with 194 instances, 19 attributes and 7 labels

**Source**

Goncalves, E. C. and Plastino, A. and Freitas, A. A., "A genetic algorithm for optimizing the label ordering in multi-label classifier chains", Tools with Artificial Intelligence (ICTAI), 2013 IEEE 25th International Conference on, pp. 469-476, 2013

**Examples**

```
## Not run:  
toBibtex(flags)  
flags$measures  
  
## End(Not run)
```

---

genbase

*Dataset with genes data and their functional expression*

---

**Description**

Multilabel dataset from the biology domain.

**Usage**

genbase

**Format**

An mldr object with 662 instances, 1186 attributes and 27 labels

## Source

Diplaris, S. and Tsoumakas, G. and Mitkas, P. and Vlahavas, I., "Protein Classification with Multiple Algorithms", in Proc. 10th Panhellenic Conference on Informatics, Volos, Greece, PCI05, pp. 448–456, 2005

## Examples

```
## Not run:
toBibtex(genbase)
genbase$measures

## End(Not run)
```

---

get.mldr

*Get a multilabel dataset by name*

---

## Description

get.mldr obtains a multilabel dataset, either by finding it inside the package data, in the download directory or by downloading it.

## Usage

```
get.mldr(name, download.dir = if
  (is.null(getOption("mldr.download.dir"))) tempdir() else
  getOption("mldr.download.dir"))
```

## Arguments

name	Name of the dataset to load
download.dir	The path to the download directory, can be also set through options()

## Examples

```
## Not run:
library(mldr.datasets)
# customize the download directory
options(mldr.download.dir = "./datasets")
# retrieve the bibtex dataset, as an mldr object, into a variable
bibtex <- get.mldr("bibtex")
bibtex$measures

## End(Not run)
```



---

`imdb`*Dataset generated from the IMDB film database*

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
imdb(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 120919 instances, 1001 attributes and 28 labels

**Source**

Read, J. and Pfahringer, B. and Holmes, G. and Frank, E., "Classifier chains for multi-label classification", *Machine Learning*, (3)85, pp. 333-359, 2011

**Examples**

```
## Not run:
imdb <- imdb() # Check and load the dataset
toBibtex(imdb)
imdb$measures

## End(Not run)
```

---

`iterative.stratification.holdout`*Hold-out partitioning of an mldr object*

---

**Description**

Iterative stratification

Implemented from the algorithm explained in: Konstantinos Sechidis, Grigorios Tsoumakas, and Ioannis Vlahavas. 2011. On the stratification of multi-label data. In *Proceedings of the 2011 European conference on Machine learning and knowledge discovery in databases - Volume Part III (ECML PKDD'11)*, Dimitrios Gunopulos, Thomas Hofmann, Donato Malerba, and Michalis Vazirgiannis (Eds.), Vol. Part III. Springer-Verlag, Berlin, Heidelberg, 145-158.

**Usage**

```
iterative.stratification.holdout(mld, p = 60, seed = 10,
  get.indices = FALSE)
```

**Arguments**

mld	The mldr object to be partitioned
p	The percentage of instances to be selected for the training partition
seed	The seed to initialize the random number generator. By default is 10. Change it if you want to obtain partitions containing different samples, for instance to use a 2x5 fcv strategy
get.indices	A logical value indicating whether to return lists of indices or lists of "mldr" objects

**Value**

An mldr.folds object. This is a list containing k elements, one for each fold. Each element is made up of two mldr objects, called train and test

**Examples**

```
## Not run:
library(mldr.datasets)
library(mldr)
parts.emotions <- iterative.stratification.holdout(emotions, p = 70)
summary(parts.emotions$train)
summary(parts.emotions$test)

## End(Not run)
```

---

```
iterative.stratification.kfolds
```

*Partition an mldr object into k folds*

---

**Description**

Iterative stratification

Implemented from the algorithm explained in: Konstantinos Sechidis, Grigorios Tsoumakas, and Ioannis Vlahavas. 2011. On the stratification of multi-label data. In Proceedings of the 2011 European conference on Machine learning and knowledge discovery in databases - Volume Part III (ECML PKDD'11), Dimitrios Gunopulos, Thomas Hofmann, Donato Malerba, and Michalis Vazirgiannis (Eds.), Vol. Part III. Springer-Verlag, Berlin, Heidelberg, 145-158.

**Usage**

```
iterative.stratification.kfolds(mld, k = 5, seed = 10,
  get.indices = FALSE)
```

**Arguments**

<code>mld</code>	The <code>mldr</code> object to be partitioned
<code>k</code>	The number of folds to be generated. By default is 5
<code>seed</code>	The seed to initialize the random number generator. By default is 10. Change it if you want to obtain partitions containing different samples, for instance to use a 2x5 fcv strategy
<code>get.indices</code>	A logical value indicating whether to return lists of indices or lists of "mldr" objects

**Value**

An `mldr.folds` object. This is a list containing `k` elements, one for each fold. Each element is made up of two `mldr` objects, called `train` and `test`

**Examples**

```
## Not run:
library(mldr.datasets)
library(mldr)
folds.emotions <- iterative.stratification.kfolds(emotions)
summary(folds.emotions[[1]]$train)
summary(folds.emotions[[1]]$test)

## End(Not run)
```

---

`iterative.stratification.partitions`

*Generic partitioning of an mldr object*

---

**Description**

Iterative stratification

Implemented from the algorithm explained in: Konstantinos Sechidis, Grigorios Tsoumakas, and Ioannis Vlahavas. 2011. On the stratification of multi-label data. In Proceedings of the 2011 European conference on Machine learning and knowledge discovery in databases - Volume Part III (ECML PKDD'11), Dimitrios Gunopulos, Thomas Hofmann, Donato Malerba, and Michalis Vazirgiannis (Eds.), Vol. Part III. Springer-Verlag, Berlin, Heidelberg, 145-158.

**Usage**

```
iterative.stratification.partitions(mld, is.cv = FALSE, r, seed = 10,
  get.indices = FALSE)
```

**Arguments**

<code>mldr</code>	The <code>mldr</code> object to be partitioned
<code>is.cv</code>	Option to enable treatment of partitions as cross-validation test folds
<code>r</code>	A vector of percentages of instances to be selected for each partition
<code>seed</code>	The seed to initialize the random number generator. By default is 10. Change it if you want to obtain partitions containing different samples, for instance to use a 2x5 fcv strategy
<code>get.indices</code>	A logical value indicating whether to return lists of indices or lists of "mldr" objects

**Value**

An `mldr.folds` object. This is a list containing `k` elements, one for each fold. Each element is made up of two `mldr` objects, called `train` and `test`

**Examples**

```
## Not run:
library(mldr.datasets)
library(mldr)
parts.emotions <- iterative.stratification.partitions(emotions, r = c(35, 25, 40))
summary(parts.emotions[[2]])

## End(Not run)
```

---

langlog

*Dataset with data from the Language forum discussion*


---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
langlog
```

**Format**

An `mldr` object with 1460 instances, 1004 attributes and 75 labels

**Source**

Read, Jesse, "Scalable multi-label classification", University of Waikato, 2010

**Examples**

```
## Not run:  
toBibtex(langlog)  
langlog$measures  
  
## End(Not run)
```

---

mediamill	<i>Dataset with features extracted from video sequences and semantic concepts assigned as labels</i>
-----------	--

---

**Description**

Multilabel dataset from the video domain.

**Usage**

```
mediamill(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 43907 instances, 120 attributes and 101 labels

**Source**

Snoek, C. G. M. and Worring, M. and van Gemert, J. C. and Geusebroek, J. M. and Smeulders, A. W. M., "The challenge problem for automated detection of 101 semantic concepts in multimedia", in Proc. 14th ACM International Conference on Multimedia, MULTIMEDIA06, pp. 421-430, 2006

**Examples**

```
## Not run:  
mediamill <- mediamill() # Check and load the dataset  
toBibtex(mediamill)  
mediamill$measures  
  
## End(Not run)
```

---

medical

*Dataset generated from medical reports*

---

**Description**

Multilabel dataset from the text domain.

**Usage**

medical

**Format**

An mldr object with 978 instances, 1449 attributes and 45 labels

**Source**

Cramer, K. and Dredze, M. and Ganchev, K. and Talukdar, P. P. and Carroll, S., "Automatic Code Assignment to Medical Text", in Proc. Workshop on Biological, Translational, and Clinical Language Processing, Prague, Czech Republic, BioNLP07, pp. 129-136, 2007

**Examples**

```
## Not run:  
toBibtex(medical)  
medical$measures  
  
## End(Not run)
```

---

mldrs

*(Defunct) Obtain and show a list of additional datasets available to download*

---

**Description**

The function downloads from GitHub the most up to date list of additional datasets. Those datasets are not included into the package, but can be downloaded and saved locally.

**Usage**

mldrs()

**Examples**

```
## Not run:  
library(mldr.datasets)  
mldrs()  
  
## End(Not run)
```

---

`ng20`*Dataset with news messages and the news groups they belong to*

---

**Description**

Multilabel dataset from the text domain. The original name of the dataset is 20ng

**Usage**`ng20`**Format**

An mldr object with 19300 instances, 1006 attributes and 20 labels

**Source**

Ken Lang, "Newsweeder: Learning to filter netnews", in Proc. 12th International Conference on Machine Learning, pp. 331-339, 1995

**Examples**

```
## Not run:  
toBibtex(ng20)  
ng20$measures  
  
## End(Not run)
```

---

`nuswide_BoW`*Dataset obtained from the NUS-WIDE database with BoW representation*

---

**Description**

Multilabel dataset from the image domain.

**Usage**`nuswide_BoW(...)`**Arguments**

... Additional options for the loading function (e.g. `download.dir`)

**Format**

An mldr object with 269648 instances, 501 attributes and 81 labels

**Source**

Chua, Tat-Seng and Tang, Jinhui and Hong, Richang and Li, Haojie and Luo, Zhiping and Zheng, Yantao, "NUS-WIDE: a real-world web image database from National University of Singapore", in Proc. of the ACM international conference on image and video retrieval, pp. 48, 2009

**Examples**

```
## Not run:
nuswide_BoW <- nuswide_BoW() # Check and load the dataset
toBibtex(nuswide_BoW)
nuswide_BoW$measures

## End(Not run)
```

---

nuswide_VLAD	<i>Dataset obtained from the NUS-WIDE database with cVLAD+ representation</i>
--------------	---

---

**Description**

Multilabel dataset from the image domain.

**Usage**

```
nuswide_VLAD(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 269648 instances, 129 attributes and 81 labels

**Source**

Chua, Tat-Seng and Tang, Jinhui and Hong, Richang and Li, Haojie and Luo, Zhiping and Zheng, Yantao, "NUS-WIDE: a real-world web image database from National University of Singapore", in Proc. of the ACM international conference on image and video retrieval, pp. 48, 2009

**Examples**

```
## Not run:
nuswide_VLAD <- nuswide_VLAD() # Check and load the dataset
toBibtex(nuswide_VLAD)
nuswide_VLAD$measures

## End(Not run)
```



---

`ohsumed`*Dataset generated from a subset of the Medline database*

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
ohsumed(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 13929 instances, 1002 attributes and 23 labels

**Source**

Joachims, Thorsten, "Text Categorization with Support Vector Machines: Learning with Many Relevant Features", in Proc. 10th European Conference on Machine Learning, pp. 137-142, 1998

**Examples**

```
## Not run:
ohsumed <- ohsumed() # Check and load the dataset
toBibtex(ohsumed)
ohsumed$measures

## End(Not run)
```

---

`random.holdout`*Hold-out partitioning of an mldr object*

---

**Description**

Random partitioning

**Usage**

```
random.holdout(mld, p = 60, seed = 10, get.indices = FALSE)
```

**Arguments**

mld	The mldr object to be partitioned
p	The percentage of instances to be selected for the training partition
seed	The seed to initialize the random number generator. By default is 10. Change it if you want to obtain partitions containing different samples, for instance to use a 2x5 fcv strategy
get.indices	A logical value indicating whether to return lists of indices or lists of "mldr" objects

**Value**

An mldr.folds object. This is a list containing k elements, one for each fold. Each element is made up of two mldr objects, called train and test

**Examples**

```
## Not run:
library(mldr.datasets)
library(mldr)
parts.emotions <- random.holdout(emotions, p = 70)
summary(parts.emotions$train)
summary(parts.emotions$test)

## End(Not run)
```

---

random.kfolds

*Partition an mldr object into k folds*


---

**Description**

This method randomly partitions the given dataset into k folds, providing training and test partitions for each fold.

**Usage**

```
random.kfolds(mld, k = 5, seed = 10, get.indices = FALSE)
```

**Arguments**

mld	The mldr object to be partitioned
k	The number of folds to be generated. By default is 5
seed	The seed to initialize the random number generator. By default is 10. Change it if you want to obtain partitions containing different samples, for instance to use a 2x5 fcv strategy
get.indices	A logical value indicating whether to return lists of indices or lists of "mldr" objects

**Value**

An `mldr.folds` object. This is a list containing `k` elements, one for each fold. Each element is made up of two `mldr` objects, called `train` and `test`

**Examples**

```
## Not run:
library(mldr.datasets)
library(mldr)
folds.emotions <- random.kfolds(emotions)
summary(folds.emotions[[1]]$train)
summary(folds.emotions[[1]]$test)

## End(Not run)
```

---

random.partitions	<i>Generic partitioning of an mldr object</i>
-------------------	---

---

**Description**

Random partitioning

**Usage**

```
random.partitions(mld, is.cv = FALSE, r, seed = 10,
  get.indices = FALSE)
```

**Arguments**

<code>mld</code>	The <code>mldr</code> object to be partitioned
<code>is.cv</code>	Option to enable treatment of partitions as cross-validation test folds
<code>r</code>	A vector of percentages of instances to be selected for each partition
<code>seed</code>	The seed to initialize the random number generator. By default is 10. Change it if you want to obtain partitions containing different samples, for instance to use a 2x5 fcv strategy
<code>get.indices</code>	A logical value indicating whether to return lists of indices or lists of "mldr" objects

**Value**

An `mldr.folds` object. This is a list containing `k` elements, one for each fold. Each element is made up of two `mldr` objects, called `train` and `test`

**Examples**

```
## Not run:
library(mldr.datasets)
library(mldr)
parts.emotions <- random.partitions(emotions, r = c(35, 25, 40))
summary(parts.emotions[[2]])

## End(Not run)
```

---

rcv1sub1

*Dataset from the Reuters corpus (subset 1)*

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
rcv1sub1(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 6000 instances, 47236 attributes and 101 labels

**Source**

Lewis, D. D. and Yang, Y. and Rose, T. G. and Li, F., "RCV1: A new benchmark collection for text categorization research", The Journal of Machine Learning Research, Vol. 5, pp. 361-397, 2004

**Examples**

```
## Not run:
rcv1sub1 <- rcv1sub1() # Check and load the dataset
toBibtex(rcv1sub1)
rcv1sub1$measures

## End(Not run)
```

---

rcv1sub2	<i>Dataset from the Reuters corpus (subset 2)</i>
----------	---

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
rcv1sub2(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 6000 instances, 47236 attributes and 101 labels

**Source**

Lewis, D. D. and Yang, Y. and Rose, T. G. and Li, F., "RCV1: A new benchmark collection for text categorization research", *The Journal of Machine Learning Research*, Vol. 5, pp. 361-397, 2004

**Examples**

```
## Not run:  
rcv1sub2 <- rcv1sub2() # Check and load the dataset  
toBibtex(rcv1sub2)  
rcv1sub2$measures  
  
## End(Not run)
```

---

rcv1sub3	<i>Dataset from the Reuters corpus (subset 3)</i>
----------	---

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
rcv1sub3(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 6000 instances, 47236 attributes and 101 labels

**Source**

Lewis, D. D. and Yang, Y. and Rose, T. G. and Li, F., "RCV1: A new benchmark collection for text categorization research", The Journal of Machine Learning Research, Vol. 5, pp. 361-397, 2004

**Examples**

```
## Not run:
rcv1sub3 <- rcv1sub3() # Check and load the dataset
toBibtex(rcv1sub3)
rcv1sub3$measures

## End(Not run)
```

---

rcv1sub4

*Dataset from the Reuters corpus (subset 4)*

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
rcv1sub4(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 6000 instances, 47229 attributes and 101 labels

**Source**

Lewis, D. D. and Yang, Y. and Rose, T. G. and Li, F., "RCV1: A new benchmark collection for text categorization research", The Journal of Machine Learning Research, Vol. 5, pp. 361-397, 2004

**Examples**

```
## Not run:
rcv1sub4 <- rcv1sub4() # Check and load the dataset
toBibtex(rcv1sub4)
rcv1sub4$measures

## End(Not run)
```

---

`rcv1sub5`*Dataset from the Reuters corpus (subset 5)*

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
rcv1sub5(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 6000 instances, 47235 attributes and 101 labels

**Source**

Lewis, D. D. and Yang, Y. and Rose, T. G. and Li, F., "RCV1: A new benchmark collection for text categorization research", The Journal of Machine Learning Research, Vol. 5, pp. 361-397, 2004

**Examples**

```
## Not run:  
rcv1sub5 <- rcv1sub5() # Check and load the dataset  
toBibtex(rcv1sub5)  
rcv1sub5$measures  
  
## End(Not run)
```

---

`reutersk500`*Dataset from the Reuters Corpus with the 500 most relevant features selected*

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
reutersk500(...)
```

**Arguments**

... Additional options for the loading function (e.g. download.dir)

**Format**

An mldr object with 6000 instances, 500 attributes and 103 labels

**Source**

Read, Jesse, "Scalable multi-label classification", University of Waikato, 2010

**Examples**

```
## Not run:
reutersk500 <- reutersk500() # Check and load the dataset
toBibtex(reutersk500)
reutersk500$measures

## End(Not run)
```

---

scene

*Dataset from images with different natural scenes*

---

**Description**

Multilabel dataset from the image domain.

**Usage**

```
scene(...)
```

**Arguments**

... Additional options for the loading function (e.g. download.dir)

**Format**

An mldr object with 2407 instances, 294 attributes and 6 labels

**Source**

Boutell, M. and Luo, J. and Shen, X. and Brown, C., "Learning multi-label scene classification", Pattern Recognition, (9)37, pp. 1757–1771, 2004



**Examples**

```
## Not run:
scene <- scene()
toBibtex(scene)
scene$measures

## End(Not run)
```

---

slashdot

*Dataset generated from slashdot.org site entries*

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
slashdot
```

**Format**

An mldr object with 3782 instances, 1079 attributes and 22 labels

**Source**

Read, J. and Pfahringer, B. and Holmes, G. and Frank, E., "Classifier chains for multi-label classification", Machine Learning, (3)85, pp. 333–359, 2011

**Examples**

```
## Not run:
toBibtex(slashdot)
slashdot$measures

## End(Not run)
```

---

sparsity

*Calculate the sparsity level of the dataset*

---

**Description**

This function calculates the ratio of zero-valued elements over the total of elements. It is useful to decide whether to export in a dense or sparse format.

**Usage**

```
sparsity(mld)
```

**Arguments**

mldr            An "mldr" object

**Examples**

```
library(mldr.datasets)
sparsity(emotions)
```

---

stackex\_chemistry      *Dataset from the Stack Exchange's chemistry forum*

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
stackex_chemistry(...)
```

**Arguments**

...            Additional options for the loading function (e.g. download.dir)

**Format**

An mldr object with 6961 instances, 540 attributes and 175 labels

**Source**

Charte, Francisco and Rivera, Antonio J. and del Jesus, Maria J. and Herrera, Francisco, "QUINTA: A question tagging assistant to improve the answering ratio in electronic forums", in EUROCON 2015 - International Conference on Computer as a Tool (EUROCON), IEEE, pp. 1-6, 2015

**Examples**

```
## Not run:
stackex_chemistry <- stackex_chemistry() # Check and load the dataset
toBibtex(stackex_chemistry)
stackex_chemistry$measures

## End(Not run)
```

---

stackex_chess	<i>Dataset from the Stack Exchange's chess forum</i>
---------------	--

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
stackex_chess
```

**Format**

An mldr object with 1675 instances, 585 attributes and 227 labels

**Source**

Charte, Francisco and Rivera, Antonio J. and del Jesus, Maria J. and Herrera, Francisco, "QUINTA: A question tagging assistant to improve the answering ratio in electronic forums", in EUROCON 2015 - International Conference on Computer as a Tool (EUROCON), IEEE, pp. 1-6, 2015

**Examples**

```
## Not run:  
toBibtex(stackex_chess)  
stackex_chess$measures  
  
## End(Not run)
```

---

stackex_coffee	<i>Dataset from the Stack Exchange's coffee forum</i>
----------------	---

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
stackex_coffee(...)
```

**Arguments**

... Additional options for the loading function (e.g. `download.dir`)

**Format**

An mldr object with 225 instances, 1763 attributes and 123 labels

**Source**

Charte, Francisco and Rivera, Antonio J. and del Jesus, Maria J. and Herrera, Francisco, "QUINTA: A question tagging assistant to improve the answering ratio in electronic forums", in EUROCON 2015 - International Conference on Computer as a Tool (EUROCON), IEEE, pp. 1-6, 2015

**Examples**

```
## Not run:
stackex_coffee <- stackex_coffee()
toBibtex(stackex_coffee)
stackex_coffee$measures

## End(Not run)
```

---

stackex_cooking	<i>Dataset from the Stack Exchange's cooking forum</i>
-----------------	--

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
stackex_cooking(...)
```

**Arguments**

... Additional options for the loading function (e.g. `download.dir`)

**Format**

An mldr object with 10491 instances, 577 attributes and 400 labels

**Source**

Charte, Francisco and Rivera, Antonio J. and del Jesus, Maria J. and Herrera, Francisco, "QUINTA: A question tagging assistant to improve the answering ratio in electronic forums", in EUROCON 2015 - International Conference on Computer as a Tool (EUROCON), IEEE, pp. 1-6, 2015

**Examples**

```
## Not run:
stackex_cooking <- stackex_cooking() # Check and load the dataset
toBibtex(stackex_cooking)
stackex_cooking$measures

## End(Not run)
```

---

`stackex_cs`*Dataset from the Stack Exchange's computer science forum*

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
stackex_cs(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 9270 instances, 635 attributes and 274 labels

**Source**

Charte, Francisco and Rivera, Antonio J. and del Jesus, Maria J. and Herrera, Francisco, "QUINTA: A question tagging assistant to improve the answering ratio in electronic forums", in EUROCON 2015 - International Conference on Computer as a Tool (EUROCON), IEEE, pp. 1-6, 2015

**Examples**

```
## Not run:  
stackex_cs <- stackex_cs() # Check and load the dataset  
toBibtex(stackex_cs)  
stackex_cs$measures  
  
## End(Not run)
```

---

`stackex_philosophy`*Dataset from the Stack Exchange's philosophy forum*

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
stackex_philosophy(...)
```

**Arguments**

... Additional options for the loading function (e.g. `download.dir`)

**Format**

An `mldr` object with 3971 instances, 842 attributes and 233 labels

**Source**

Charte, Francisco and Rivera, Antonio J. and del Jesus, Maria J. and Herrera, Francisco, "QUINTA: A question tagging assistant to improve the answering ratio in electronic forums", in EUROCON 2015 - International Conference on Computer as a Tool (EUROCON), IEEE, pp. 1-6, 2015

**Examples**

```
## Not run:
stackex_philosophy <- stackex_philosophy() # Check and load the dataset
toBibtex(stackex_philosophy)
stackex_philosophy$measures

## End(Not run)
```

---

`stratified.holdout`      *Hold-out partitioning of an mldr object*

---

**Description**

Stratified partitioning

Implementation of the algorithm defined in: Charte, F., Rivera, A., del Jesus, M. J., & Herrera, F. (2016, April). On the impact of dataset complexity and sampling strategy in multilabel classifiers performance. In International Conference on Hybrid Artificial Intelligence Systems (pp. 500-511). Springer, Cham.

**Usage**

```
stratified.holdout(mld, p = 60, seed = 10, get.indices = FALSE)
```

**Arguments**

<code>mld</code>	The <code>mldr</code> object to be partitioned
<code>p</code>	The percentage of instances to be selected for the training partition
<code>seed</code>	The seed to initialize the random number generator. By default is 10. Change it if you want to obtain partitions containing different samples, for instance to use a 2x5 fcv strategy
<code>get.indices</code>	A logical value indicating whether to return lists of indices or lists of "mldr" objects

**Value**

An `mldr.folds` object. This is a list containing `k` elements, one for each fold. Each element is made up of two `mldr` objects, called `train` and `test`

**Examples**

```
## Not run:
library(mldr.datasets)
library(mldr)
parts.emotions <- stratified.holdout(emotions, p = 70)
summary(parts.emotions$train)
summary(parts.emotions$test)

## End(Not run)
```

---

`stratified.kfolds`      *Partition an mldr object into k folds*

---

**Description**

This method partitions the given dataset into `k` folds using a stratified strategy, providing training and test partitions for each fold.

Implementation of the algorithm defined in: Charte, F., Rivera, A., del Jesus, M. J., & Herrera, F. (2016, April). On the impact of dataset complexity and sampling strategy in multilabel classifiers performance. In International Conference on Hybrid Artificial Intelligence Systems (pp. 500-511). Springer, Cham.

**Usage**

```
stratified.kfolds(mld, k = 5, seed = 10, get.indices = FALSE)
```

**Arguments**

<code>mld</code>	The <code>mldr</code> object to be partitioned
<code>k</code>	The number of folds to be generated. By default is 5
<code>seed</code>	The seed to initialize the random number generator. By default is 10. Change it if you want to obtain partitions containing different samples, for instance to use a 2x5 fcv strategy
<code>get.indices</code>	A logical value indicating whether to return lists of indices or lists of "mldr" objects

**Value**

An `mldr.folds` object. This is a list containing `k` elements, one for each fold. Each element is made up of two `mldr` objects, called `train` and `test`

**Examples**

```
## Not run:
library(mlr.datasets)
library(mlr)
folds.emotions <- stratified.kfolds(emotions)
summary(folds.emotions[[1]]$train)
summary(folds.emotions[[1]]$test)

## End(Not run)
```

---

stratified.partitions *Generic partitioning of an mlr object*

---

**Description**

Stratified partitioning

Generalization of the algorithm defined in: Charte, F., Rivera, A., del Jesus, M. J., & Herrera, F. (2016, April). On the impact of dataset complexity and sampling strategy in multilabel classifiers performance. In International Conference on Hybrid Artificial Intelligence Systems (pp. 500-511). Springer, Cham.

**Usage**

```
stratified.partitions(ml, is.cv = FALSE, r, seed = 10,
  get.indices = FALSE)
```

**Arguments**

<code>ml</code>	The mlr object to be partitioned
<code>is.cv</code>	Option to enable treatment of partitions as cross-validation test folds
<code>r</code>	A vector of percentages of instances to be selected for each partition
<code>seed</code>	The seed to initialize the random number generator. By default is 10. Change it if you want to obtain partitions containing different samples, for instance to use a 2x5 fcv strategy
<code>get.indices</code>	A logical value indicating whether to return lists of indices or lists of "mlr" objects

**Value**

An `mlr.folds` object. This is a list containing `k` elements, one for each fold. Each element is made up of two mlr objects, called `train` and `test`



**Examples**

```
## Not run:
library(mldr.datasets)
library(mldr)
parts.emotions <- stratified.partitions(emotions, r = c(35, 25, 40))
summary(parts.emotions[[2]])

## End(Not run)
```

---

tmc2007

*Dataset from airplanes failures reports*

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
tmc2007(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 28596 instances, 49060 attributes and 22 labels

**Source**

Srivastava, A. N. and Zane-Ulman, B., "Discovering recurring anomalies in text reports regarding complex space systems", Aerospace Conference, pp. 3853-3862, 2005

**Examples**

```
## Not run:
tmc2007 <- tmc2007() # Check and load the dataset
toBibtex(tmc2007)
tmc2007$measures

## End(Not run)
```

---

tmc2007_500	<i>Dataset from airplanes failures reports (500 most relevant features extracted)</i>
-------------	---

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
tmc2007_500(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 28596 instances, 500 attributes and 22 labels

**Source**

Srivastava, A. N. and Zane-Ulman, B., "Discovering recurring anomalies in text reports regarding complex space systems", Aerospace Conference, pp. 3853-3862, 2005

**Examples**

```
## Not run:
tmc2007_500 <- tmc2007_500() # Check and load the dataset
toBibtex(tmc2007_500)
tmc2007_500$measures

## End(Not run)
```

---

toBibtex.mldr	<i>BibTeX entry associated to an mldr object</i>
---------------	--

---

**Description**

Gets the content of the bibtex member of the mldr object and returns it

**Usage**

```
## S3 method for class 'mldr'
toBibtex(object, ...)
```

**Arguments**

object	The mldr object whose BibTeX entry is needed
...	Additional parameters from the generic toBibtex function not used by toBibtex.mldr

**Value**

A string with the BibTeX entry

**Examples**

```
## Not run:
library(mldr.datasets)
cat(toBibtex(emotions))

## End(Not run)
```

---

write.mldr

---

*Export an mldr object or set of mldr objects to different file formats*


---

**Description**

Writes one or more files in the specified formats with the content of the mldr or mldr.folds given as parameter

**Usage**

```
write.mldr(mldr, format = c("MULAN", "MEKA"), sparse = FALSE,
  basename = ifelse(!is.null(mldr$name) && nchar(mldr$name) > 0,
    regmatches(mldr$name, regexpr("(\\w)+", mldr$name)), "unnamed_mldr"),
  noconfirm = FALSE, ...)
```

**Arguments**

mldr	The mldr/mldr.folds object to be exported
format	A vector of strings stating the desired file formats. It can contain the values 'MULAN', 'MEKA', 'KEEL', 'CSV' and 'LIBSVM'
sparse	Boolean value indicating if sparse representation has to be used for ARFF-based file formats
basename	Base name for the files. 'unnamed_mldr' is used by default
noconfirm	Use TRUE to skip confirmation of file writing
...	Additional options for the exporting functions (e.g. chunk_size, the number of instances to write at a time)

**Examples**

```
## Not run:  
library(mldr.datasets)  
write.mldr(emotions, format = c('CSV', 'KEEL'))  
  
## End(Not run)
```

---

yahoo\_arts

*Dataset generated from the Yahoo! web site index (arts category)*

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
yahoo_arts(...)
```

**Arguments**

... Additional options for the loading function (e.g. `download.dir`)

**Format**

An mldr object with 7484 instances, 23146 attributes and 26 labels

**Source**

Ueda, N. and Saito, K., "Parametric mixture models for multi-labeled text", Advances in neural information processing systems, pp. 721–728, 2002

**Examples**

```
## Not run:  
yahoo_arts <- yahoo_arts() # Check and load the dataset  
toBibtex(yahoo_arts)  
yahoo_arts$measures  
  
## End(Not run)
```

---

yahoo_business	<i>Dataset generated from the Yahoo! web site index (business category)</i>
----------------	---

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
yahoo_business(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 11214 instances, 21924 attributes and 30 labels

**Source**

Ueda, N. and Saito, K., "Parametric mixture models for multi-labeled text", Advances in neural information processing systems, pp. 721–728, 2002

**Examples**

```
## Not run:  
yahoo_business <- yahoo_business() # Check and load the dataset  
toBibtex(yahoo_business)  
yahoo_business$measures  
  
## End(Not run)
```

---

yahoo_computers	<i>Dataset generated from the Yahoo! web site index (computers category)</i>
-----------------	--

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
yahoo_computers(...)
```

**Arguments**

... Additional options for the loading function (e.g. download.dir)

**Format**

An mldr object with 12444 instances, 34096 attributes and 33 labels

**Source**

Ueda, N. and Saito, K., "Parametric mixture models for multi-labeled text", Advances in neural information processing systems, pp. 721–728, 2002

**Examples**

```
## Not run:
yahoo_computers <- yahoo_computers() # Check and load the dataset
toBibtex(yahoo_computers)
yahoo_computers$measures

## End(Not run)
```

---

yahoo\_education      *Dataset generated from the Yahoo! web site index (arts education)*

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
yahoo_education(...)
```

**Arguments**

... Additional options for the loading function (e.g. download.dir)

**Format**

An mldr object with 12030 instances, 27534 attributes and 33 labels

**Source**

Ueda, N. and Saito, K., "Parametric mixture models for multi-labeled text", Advances in neural information processing systems, pp. 721–728, 2002

**Examples**

```
## Not run:
yahoo_education <- yahoo_education() # Check and load the dataset
toBibtex(yahoo_education)
yahoo_education$measures

## End(Not run)
```

---

yahoo\_entertainment     *Dataset generated from the Yahoo! web site index (arts entertainment)*

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
yahoo_entertainment(...)
```

**Arguments**

...                    Additional options for the loading function (e.g. download.dir)

**Format**

An mldr object with 12730 instances, 32001 attributes and 21 labels

**Source**

Ueda, N. and Saito, K., "Parametric mixture models for multi-labeled text", Advances in neural information processing systems, pp. 721–728, 2002

**Examples**

```
## Not run:
yahoo_entertainment <- yahoo_entertainment() # Check and load the dataset
toBibtex(yahoo_entertainment)
yahoo_entertainment$measures

## End(Not run)
```

---

yahoo_health	<i>Dataset generated from the Yahoo! web site index (health category)</i>
--------------	---

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
yahoo_health(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 8205 instances, 30605 attributes and 32 labels

**Source**

Ueda, N. and Saito, K., "Parametric mixture models for multi-labeled text", Advances in neural information processing systems, pp. 721–728, 2002

**Examples**

```
## Not run:  
yahoo_health <- yahoo_health() # Check and load the dataset  
toBibtex(yahoo_health)  
yahoo_health$measures  
  
## End(Not run)
```

---

yahoo_recreation	<i>Dataset generated from the Yahoo! web site index (recreation category)</i>
------------------	---

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
yahoo_recreation(...)
```



**Arguments**

... Additional options for the loading function (e.g. download.dir)

**Format**

An mldr object with 12828 instances, 30324 attributes and 22 labels

**Source**

Ueda, N. and Saito, K., "Parametric mixture models for multi-labeled text", Advances in neural information processing systems, pp. 721–728, 2002

**Examples**

```
## Not run:
yahoo_recreation <- yahoo_recreation() # Check and load the dataset
toBibtex(yahoo_recreation)
yahoo_recreation$measures

## End(Not run)
```

---

yahoo_reference	<i>Dataset generated from the Yahoo! web site index (reference category)</i>
-----------------	--

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
yahoo_reference(...)
```

**Arguments**

... Additional options for the loading function (e.g. download.dir)

**Format**

An mldr object with 8027 instances, 39679 attributes and 33 labels

**Source**

Ueda, N. and Saito, K., "Parametric mixture models for multi-labeled text", Advances in neural information processing systems, pp. 721–728, 2002

**Examples**

```
## Not run:
yahoo_reference <- yahoo_reference() # Check and load the dataset
toBibtex(yahoo_reference)
yahoo_reference$measures

## End(Not run)
```

---

yahoo_science	<i>Dataset generated from the Yahoo! web site index (science category)</i>
---------------	--

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
yahoo_science(...)
```

**Arguments**

... Additional options for the loading function (e.g. download.dir)

**Format**

An mldr object with 6428 instances, 37187 attributes and 40 labels

**Source**

Ueda, N. and Saito, K., "Parametric mixture models for multi-labeled text", Advances in neural information processing systems, pp. 721–728, 2002

**Examples**

```
## Not run:
yahoo_science <- yahoo_science() # Check and load the dataset
toBibtex(yahoo_science)
yahoo_science$measures

## End(Not run)
```

---

yahoo_social	<i>Dataset generated from the Yahoo! web site index (social category)</i>
--------------	---

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
yahoo_social(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 12111 instances, 52350 attributes and 39 labels

**Source**

Ueda, N. and Saito, K., "Parametric mixture models for multi-labeled text", Advances in neural information processing systems, pp. 721–728, 2002

**Examples**

```
## Not run:  
yahoo_social <- yahoo_social() # Check and load the dataset  
toBibtex(yahoo_social)  
yahoo_social$measures  
  
## End(Not run)
```

---

yahoo_society	<i>Dataset generated from the Yahoo! web site index (society category)</i>
---------------	--

---

**Description**

Multilabel dataset from the text domain.

**Usage**

```
yahoo_society(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 14512 instances, 31802 attributes and 27 labels

**Source**

Ueda, N. and Saito, K., "Parametric mixture models for multi-labeled text", Advances in neural information processing systems, pp. 721–728, 2002

**Examples**

```
## Not run:
yahoo_society <- yahoo_society() # Check and load the dataset
toBibtex(yahoo_society)
yahoo_society$measures

## End(Not run)
```

---

yeast

*Dataset with protein profiles and their categories*

---

**Description**

Multilabel dataset from the biology domain.

**Usage**

```
yeast(...)
```

**Arguments**

```
... Additional options for the loading function (e.g. download.dir)
```

**Format**

An mldr object with 2417 instances, 103 attributes and 14 labels

**Source**

Elisseeff, A. and Weston, J., "A Kernel Method for Multi-Labelled Classification", Advances in Neural Information Processing Systems, Vol. 14, pp. 681–687, 2001

**Examples**

```
## Not run:
yeast <- yeast() # Check and load the dataset
toBibtex(yeast)
yeast$measures

## End(Not run)
```

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