Package ‘xkcd’

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Type Package
Title Plotting ggplot2 Graphics in an XKCD Style
Version 0.0.6
Date 2018-07-10
Author Emilio Torres-Manzanera
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Description Plotting ggplot2 graphs using the XKCD style.
License GPL-3
Depends ggplot2 (>= 3.0), extrafont
Imports Hmisc, stats
URL
NeedsCompilation no
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R topics documented:

xkcd-package .................................................. 2
theme_xkcd .................................................... 3
xkcdaxis ....................................................... 3
xkcdline ....................................................... 4
xkcdman ....................................................... 6
xkcdrect ...................................................... 7

Index 9
Description

Plotting ggplot2 graphs using the XKCD style.

Details

The DESCRIPTION file:

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Index of help topics:

theme_xkcd Creates an XKCD theme
xkcd-package Plotting ggplot2 Graphics in an XKCD Style
xkcdaxis Plot the axis
xkcdline Draw lines or circumferences
xkcdman Draw a stick figure
xkcdrect Draw fuzzy rectangles

Further information is available in the following vignettes:

xkcd-intro Using xkcd (source, pdf)

Author(s)

Emilio Torres-Manzanera
**theme_xkcd**

Maintainer: Emilio Torres-Manzanera <torres@uniovi.es>

**Examples**

```r
## Not run: vignette("xkcd-intro")
```

---

**theme_xkcd**  
*Creates an XKCD theme*

**Description**

This function creates an XKCD theme

**Usage**

```r
theme_xkcd()
```

**Value**

A layer with the theme.

**Note**

See the vignette vignette("xkcd-intro")

**Examples**

```r
## Not run:
p <- ggplot() + geom_point(aes(mpg, wt), data=mtcars) + theme_xkcd()
p
```

```r
## End(Not run)
```

---

**xkcdaxis**  
*Plot the axis*

**Description**

This function plots the axis

**Usage**

```r
xkcdaxis(xrange, yrange, ...)
```
Arguments

- `xrange` The range of the X axe.
- `yrange` The range of the Y axe.
- `...` Other arguments.

Details

It plots the axis of the graph.

Value

A layer with the axis.

Examples

```r
## Not run:
xrange <- range(mtcars$mpg)
yrange <- range(mtcars$wt)
p <- ggplot() +
  geom_point(aes(mpg, wt), data=mtcars) +
  xkcdaxis(xrange,yrange)
p
## End(Not run)
```

---

**xkcdline**  
*Draw lines or circunferences*

Description

It draws a handwritten line.

Usage

`xkcdline(mapping, data, typexkcdline = "segment", mask = TRUE, ...)`

Arguments

- `mapping` Mapping between variables and aesthetics generated by `aes`. See Details.
- `data` Dataset used in this layer.
- `typexkcdline` A string value. If it is `segment`, it draws a segment. If it is `circunference`, it plots a circunference.
- `mask` Logical. If it is `TRUE`, it erases the pictures that are under the line.
- `...` Optional arguments.
Details

This function draws handwritten lines or circles.

It draws a segment or a circumference in an XKCD style.

If it is a segment, the following aesthetics are required:

1. xbegin: x position of the point from.
2. ybegin: y position of the point from.
3. xend: x position of the point to.
4. yend: y position of the point to.

If it is a circumference, the following aesthetics are required:

1. x: x position of the center.
2. y: y position of the center.
3. diameter: diameter of the circumference.

Additionally, you can use the aesthetics of `geom_path`.

Value

A layer.

See Also

`aes`, `geom_path`

Examples

data <- data.frame(x1=c(1,2), y1=c(10,20), xend=c(2.5,0.5),
yend=c(20,10), model=c("low","high"))

ggplot() + xkcdline(mapping=aes(x=x1 +y1, y=y1, xend=xend, yend=yend,
color = model), data=data)

ggplot() + xkcdline(mapping=aes(x=x1 +y1, y=y1, xend=xend, yend=yend,
color = model), data=data) + facet_grid(~ model)

ggplot() + xkcdline(mapping=aes(x=x1 +y1, y=y1, diameter=xend), data=data, type="circumference")
xkcdman

**Description**

It draws a stick figure.

**Usage**

```r
xkcdman(mapping, data, ...)```

**Arguments**

- `mapping` Mapping between variables and aesthetics generated by `aes`. See Details.
- `data` Dataset used in this layer.
- `...` Optional arguments.

**Details**

This function draws a stick figure.

The following aesthetics are required:

1. `x`: x position of the center of the head.
2. `y`: y position of the center of the head.
3. `scale`: scale of the man. It is the size of the man (in units of the Y axis).
4. `ratioxy`: Ratio x to y of the graph (Use `ratioxy <- diff(xrange) / diff(yrange)`)
5. `angleofspine`: angle between the spine and a horizontal line that passes by the center of the head.
6. `anglerighthumerus`, `anglelefthumerus`: angle between the right/left humerus and a horizontal line that passes by the top of the spine.
7. `anglerighthradius`, `angleleftradius`: angle between the right/left radius and a horizontal line that passes by the end of the right/left humerus.
8. `anglerightleg`, `angleleftleg`: angle between the right/left leg and a horizontal line that passes by the end of the spine.
9. `angleofneck`: angle between the begin of spine and a horizontal line that passes by the center of the head.

Angles are in radians.

Additionally, you can use the aesthetics of `geom_path`, and `xkcdline`.

**Value**

A layer.
xkcdrect

Draw fuzzy rectangles

Description

It draws fuzzy rectangles.

Usage

xkcdrect(mapping, data, …)
**Arguments**

- **mapping**: Mapping between variables and aesthetics generated by `aes`. See Details.
- **data**: Dataset used in this layer.
- **...**: Optional arguments.

**Details**

This function draws fuzzy rectangles. It plots rectangles. The following aesthetics are required:

1. `xmin`
2. `ymin`
3. `xmax`
4. `ymax`

Additionally, you can use the aesthetics of `geom_path` and `geom_rect`.

**Value**

A layer.

**See Also**

- `aes`, `geom_path`

**Examples**

```r
volunteers <- data.frame(year=c(2007:2011),
                          number=c(56470, 56998, 59686, 61783, 64251))
p <- ggplot() + xkcdrect(aes(xmin = year,
                          xmax= year + 0.3,
                          ymin=number,
                          ymax = number + 3600),
                          volunteers,
                          fill="red", colour="black")
p
```
Index

*Topic manip
  xkcdline, 4
  xkcdman, 6
  xkcdrect, 7

*Topic package
  xkcd-package, 2

aes, 4–8
geom_path, 5–8
geom_rect, 8
theme_xkcd, 3
xkcd(xkcd-package), 2
xkcd-package, 2
xkcdaxis, 3
xkcdline, 4, 7
xkcdman, 6
xkcdrect, 7