

# Plotly

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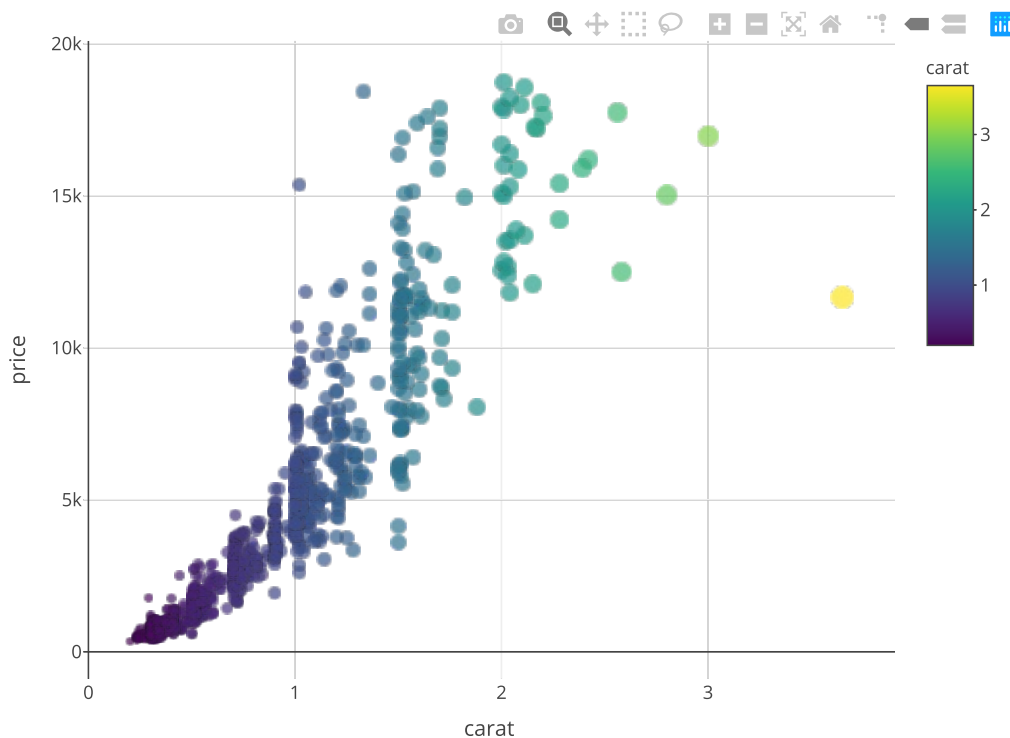
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## Plotly

Plotly es una librería de código abierto en R que conecta con Javascript, esto ayuda a que nuestras gráficas se vuelvan interactivas.

## Diamantes

```
d <- diamonds[sample(nrow(diamonds), 1000), ]
plot_ly(d, x = ~carat, y = ~price, color = ~carat,
        size = ~carat, text = ~paste("Clarity: ", clarity))
```

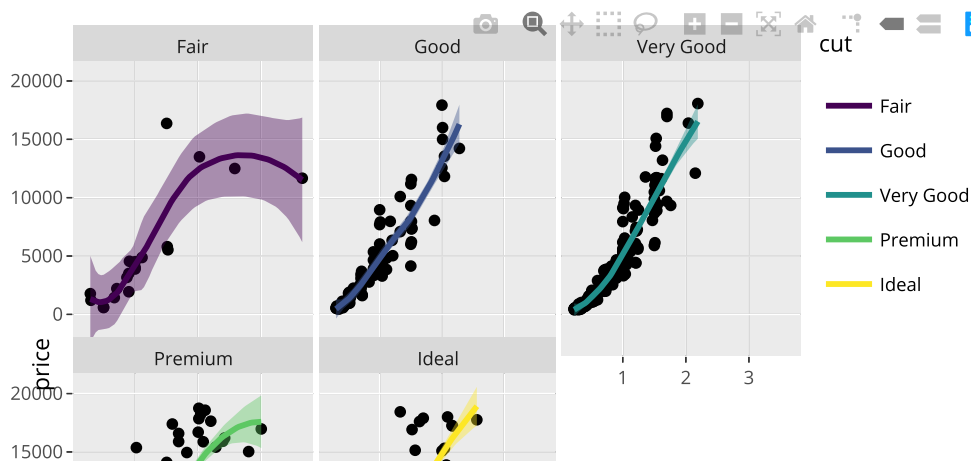


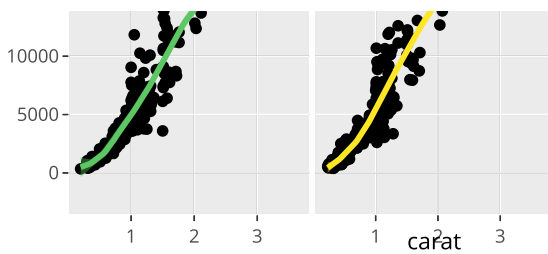
## ggplotly

Se puede hacer una integración entre ggplot2 y plotly, misma que hace los gráficos de ggplot2 interactivos:

```
p <- ggplot(data = d, aes(x = carat, y = price)) +
  geom_point(aes(text = paste("Clarity:", clarity))) +
  geom_smooth(aes(colour = cut, fill = cut)) + facet_wrap(~ cut)
```

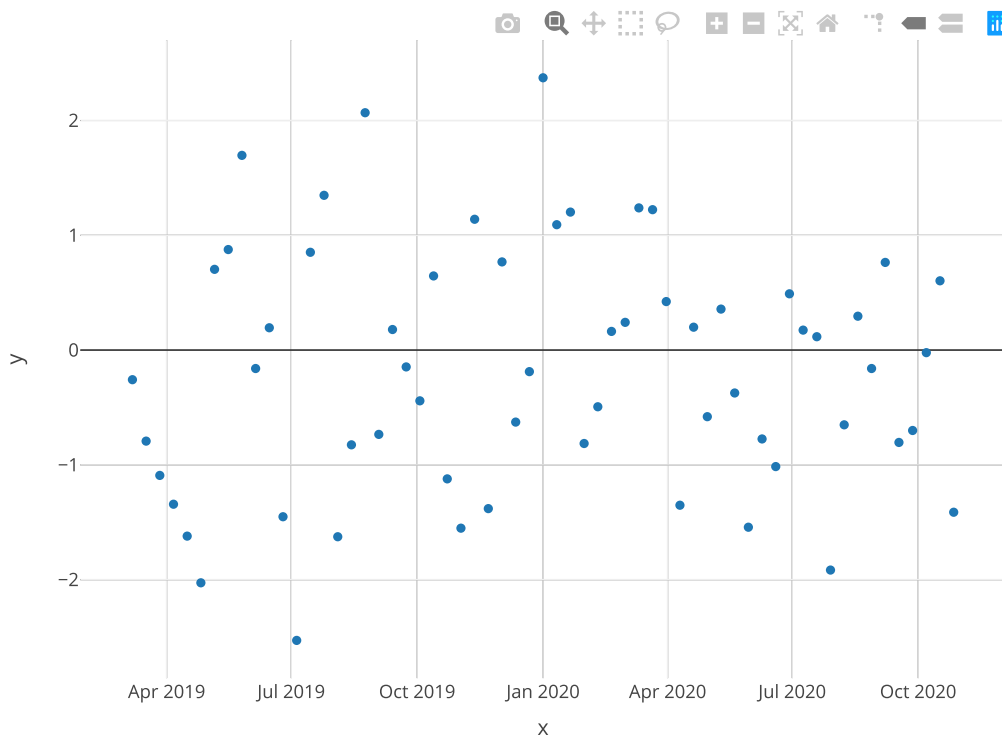
```
ggplotly(p)
```





## Series de Tiempo:

```
library(plotly)
today <- Sys.Date()
tm <- seq(0, 600, by = 10)
x <- today - tm
y <- rnorm(length(x))
plot_ly(x = ~x, y = ~y, text = paste(tm, "days from today"))
```



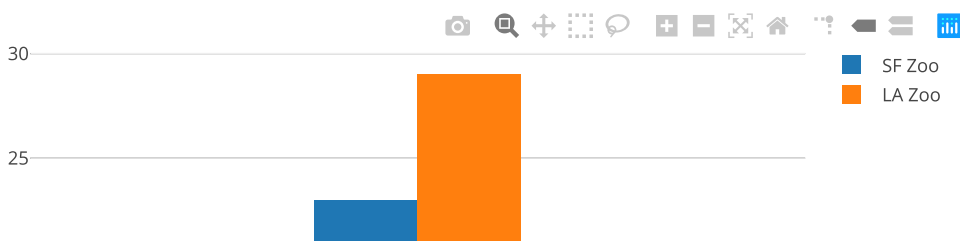
## Gráficos de barras

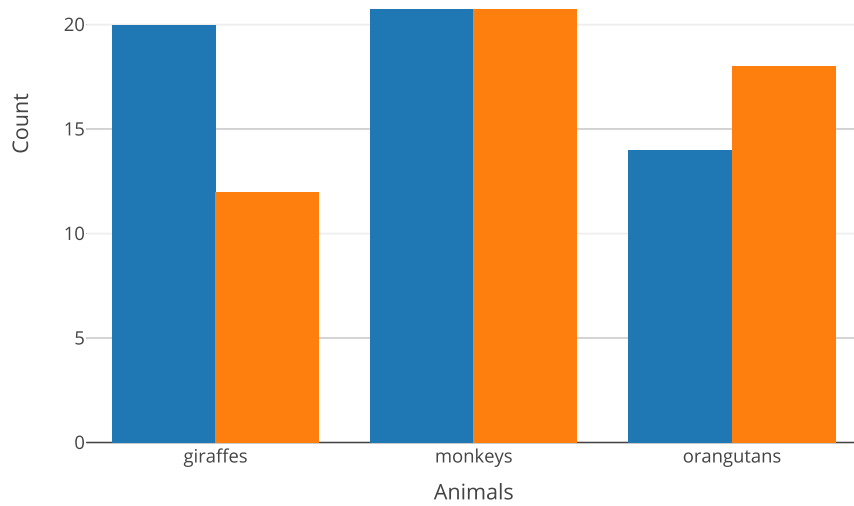
```
p <- plot_ly(
  x = c("giraffes", "orangutans", "monkeys"),
  y = c(20, 14, 23),
  name = "SF Zoo",
  type = "bar"
)
```

Ahora varios zoológicos:

```
Animals <- c("giraffes", "orangutans", "monkeys")
SF_Zoo <- c(20, 14, 23)
LA_Zoo <- c(12, 18, 29)
data <- data.frame(Animals, SF_Zoo, LA_Zoo)

plot_ly(data, x = ~Animals, y = ~SF_Zoo, type = 'bar', name = 'SF Zoo') %>%
  add_trace(y = ~LA_Zoo, name = 'LA Zoo') %>%
  layout(yaxis = list(title = 'Count'), barmode = 'group')
```





Otra forma:

```
Animals <- c("giraffes", "orangutans", "monkeys")
SF_Zoo <- c(20, 14, 23)
LA_Zoo <- c(12, 18, 29)
data <- data.frame(Animals, SF_Zoo, LA_Zoo)

plot_ly(data, x = ~Animals, y = ~SF_Zoo, type = 'bar', name = 'SF Zoo') %>%
  add_trace(y = ~LA_Zoo, name = 'LA Zoo') %>%
  layout(yaxis = list(title = 'Count'), barmode = 'stack')
```

