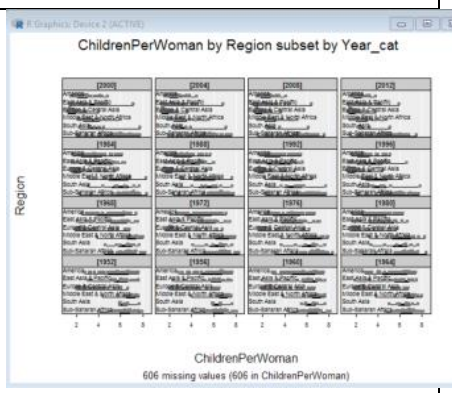
2.15 Exercise: Time travel – *R version*

In this Exercise we are going to use the **gapminder** data set that contains data for all years whereas **gapminder_2008** (that we used in the last Exercise) only had the data for 2008.
We will …

1. Start by looking at the plot of *ChildrenPerWoman* by *Region*
    - This is not sensible as we are getting lots of points for the same country sometimes going as far back as 1952
2. Make a separate graph like this for every year (as a tiled set of plots)
3. See how to look at just one of these plots
4. See how to "play through the years" by displaying the graph for each year in turn

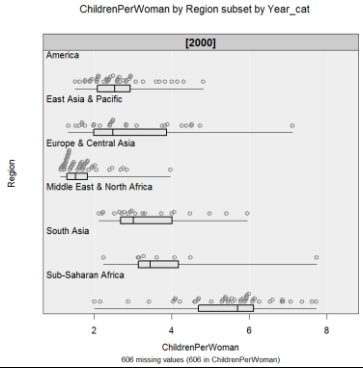
#R Code	Commentary OR Output
# Setup library(iNZightPlots) library(FutureLearnData) **data(gapminder)** names(gapminder) iNZightPlot(ChildrenPerWoman, Region, data=gapminder)	***Commentary*** *Use* ***gapminder NOT gapminder_2008*** *Plot* ***ChildrenPerWoman*** *by* ***Region***
# Plot *ChildrenPerWoman* by Region **subset by Year_cat** iNZightPlot(ChildrenPerWoman, Region, **g1=Year_cat**, data=gapminder)	

```
levels(gapminder$Year_cat)

# Display just the plot for the year 2000

iNZightPlot(ChildrenPerWoman, Region, g1=Year_cat,
      g1.level="[2000]", data=gapminder)

# Do it again for 2004

iNZightPlot(ChildrenPerWoman, Region, g1=Year_cat,
      g1.level="[2004]", data=gapminder)
```

Remind ourselves *how the levels of Year_cat are represented*

[1] "[1952]" "[1956]" "[1960]" …

Choose the level value *corresponding to the year 2000*




```
# Now put it in a loop and do it for every year, i.e. for every level of Year_cat

for (k in levels(gapminder$Year_cat))  iNZightPlot(ChildrenPerWoman,Region, g1=Year_cat,
      g1.level=k, data=gapminder)
```

```
# Do not display a new plot UNTIL you have clicked on the on plot window

old.value = devAskNewPage(TRUE)      # save current plotting behaviour and ask for new behaviour

for (k in levels(gapminder$Year_cat))
      iNZightPlot(ChildrenPerWoman,Region, g1=Year_cat, g1.level=k, data=gapminder)

devAskNewPage(old.value)      #  Reset the plotting behaviour back to the way it was before
```

```
# Play the plots, but with a 2 second delay between plots

for (k in levels(gapminder$Year_cat)) {
      iNZightPlot(ChildrenPerWoman,Region, g1=Year_cat, g1.level=k,
        data=gapminder)
      Sys.sleep(2)
}
```

Commentary

*This time there are **2 lines of code** to be run at each step so we have to put them in "**{ .. }**" brackets so that both lines get run*

To discuss issues related to this Exercise,

go to **https://gitter.im/iNZightVIT/d2i-R-discussion**

*To be able to post to the list you will have to set up a (free) account on **Github***
https://github.com/login

If your question relates to an Exercise, say which one you are talking about!