

PLOTLY AND DASHBOARDS

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Web-centric tools

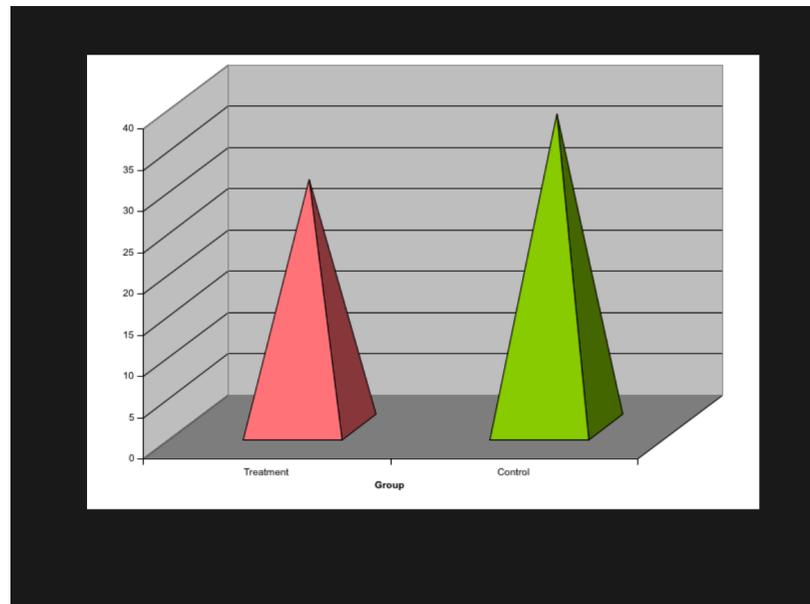
- Plotly provides a platform for online data analytics and visualization;
 - Built on of HTML, CSS, and D3.js
- Dashboards provide a way to summarize complex data in an easy-to-read format
 - Often built using HTML, CSS and other web-friendly platforms.
- Web-based platforms can be used locally or online

Plotly

- `plot_ly` is an R implementation for the general plotly framework
- Interface is different from `ggplot`, but is based on similar ideas
 - Start with a dataset
 - Define mappings from variables to plot features
 - Specify plot type
- This is the “grammar of graphics” in **ggplot**

Using plotly

- Interactivity is neat!
- Don't get carried away



Gratuitous interactivity looks like this

- I use interactive plots in a few contexts:
 - Complicated plots where zooming helps
 - When information (conveyed in a plot element or not) should be shown through hovering
 - When the ability to subset my data matters

Dashboards

- Data dashboards are a whole thing now
 - Often web-based (or at least web-inspired)
 - Contain well-organized plots, tables, etc. with only a little text
- Goal is to convey a lot of information in a easy-to-understand format
 - Typically enable exploration by the user
 - Most useful for large, complex datasets
- More of a “deliverable” than an “exploratory product”
 - The plots embedded in a dashboard are deliberately chosen to be useful

Dashboards

- Data dashboards are a whole thing, new

- Often
- Content

- Goal is

- Typi
- Mos

- More of

- The



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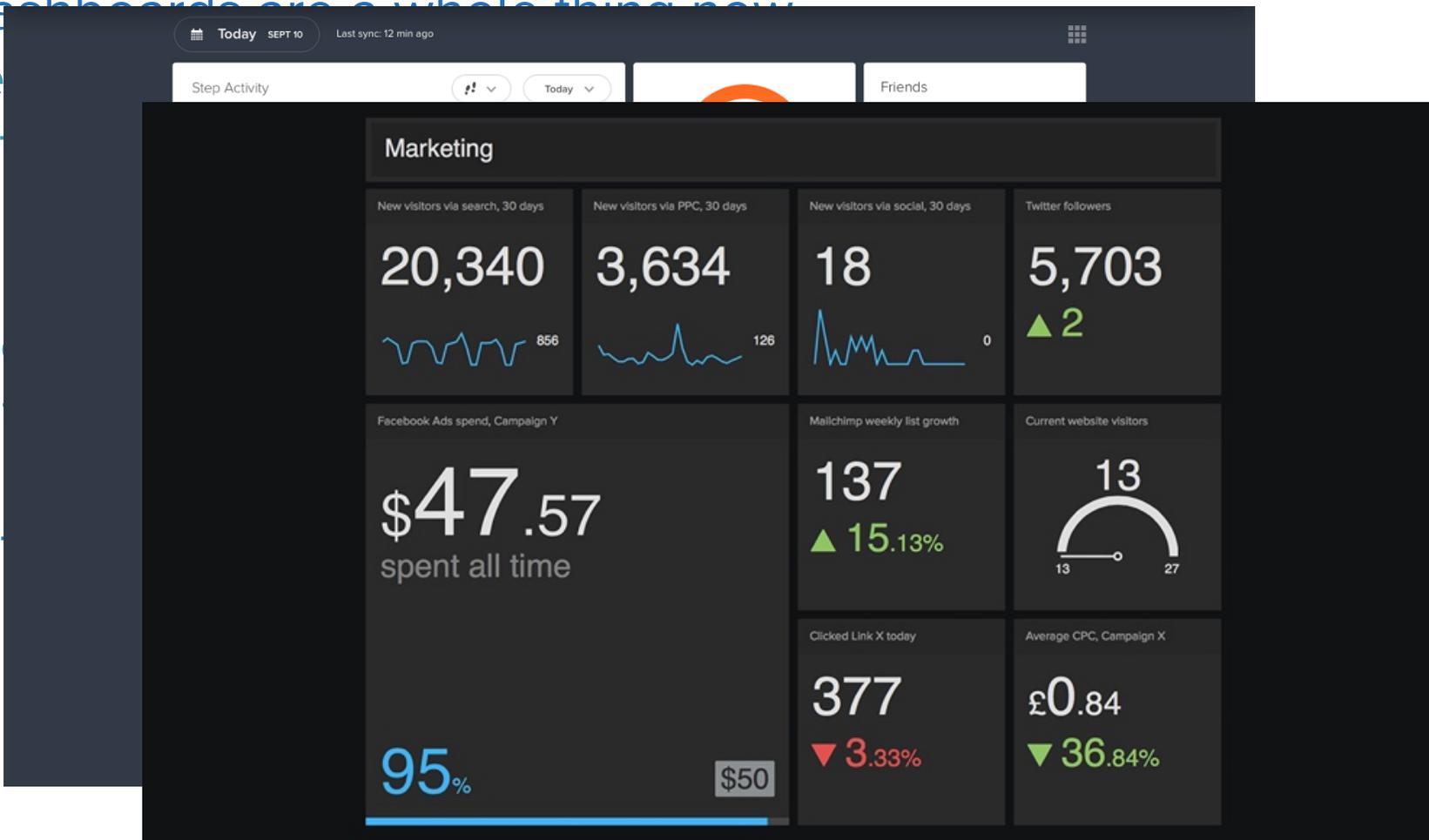
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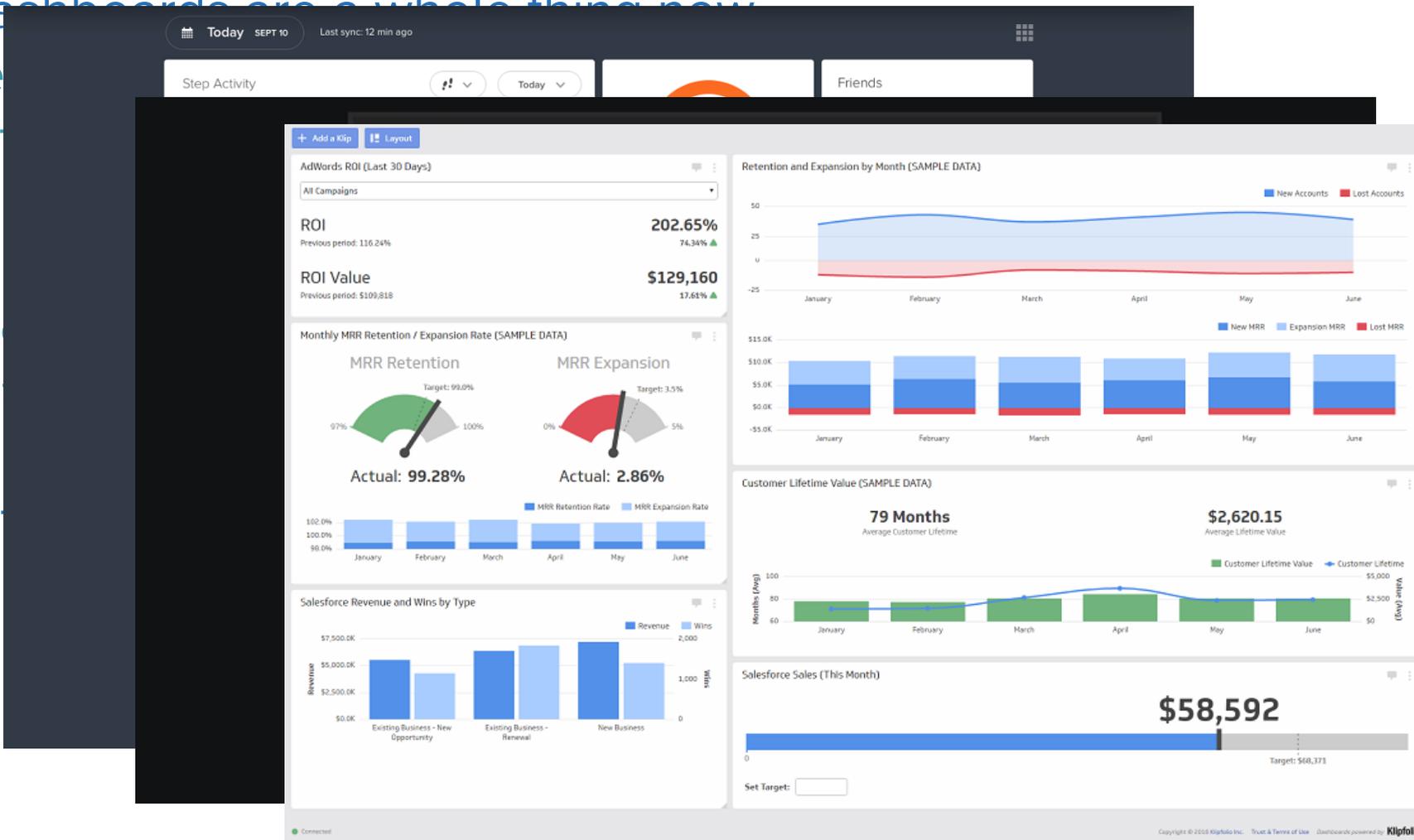
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useful

fLexdashboard

- Sort of like when we talked about web-pages ...
- fLexdashboard allows R Markdown to output a structured HTML file
 - You have to learn (or copy) elements for layout, but otherwise you're writing an RMD file
- Can host online as part of a webpage, just like any other HTML file produced by R Markdown
 - Create a GitHub repo + R Project
 - Put website stuff in it
 - Tell GitHub this is a website
 - ...
 - Profit?