

The Ultimate Crawl

Creating a tour using web services and
a sprinkling of R code

Lee Hawthorn, Acma, CGMA, Ba(Hons)

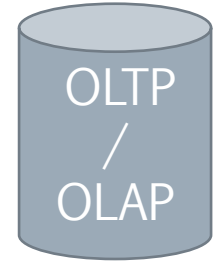
- › Many roles over the years
 - Software engineer
 - Management Accountant
 - Data Analyst
- › Motivated to learn and share, to solve problems
- › Current : Data Analyst @ Payzone UK
- › uk.linkedin.com/in/leehawthorn/
- › @lee_hawthorn
- › Leehbi.com



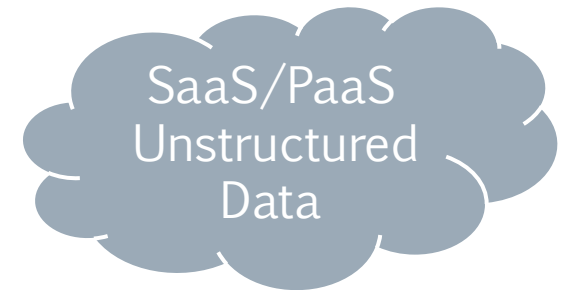
Agenda

- › 1. Setting the stage
- › 2. Plan of action
- › 3. Code walkthrough
- › 4. Conclusion

The data revolution



- › Traditional
- › On premise data held within databases or data-warehouse
 - BI tools, Excel, MDX, SQL, Web reporting
 - Basic queries with a few calculations
- › The future
- › SaaS & PaaS is moving data to the cloud
 - Services & Data delivered over API's
 - Restful, JSON, XML
 - With R & other modern tools we have the power to solve hard problems by consuming services.

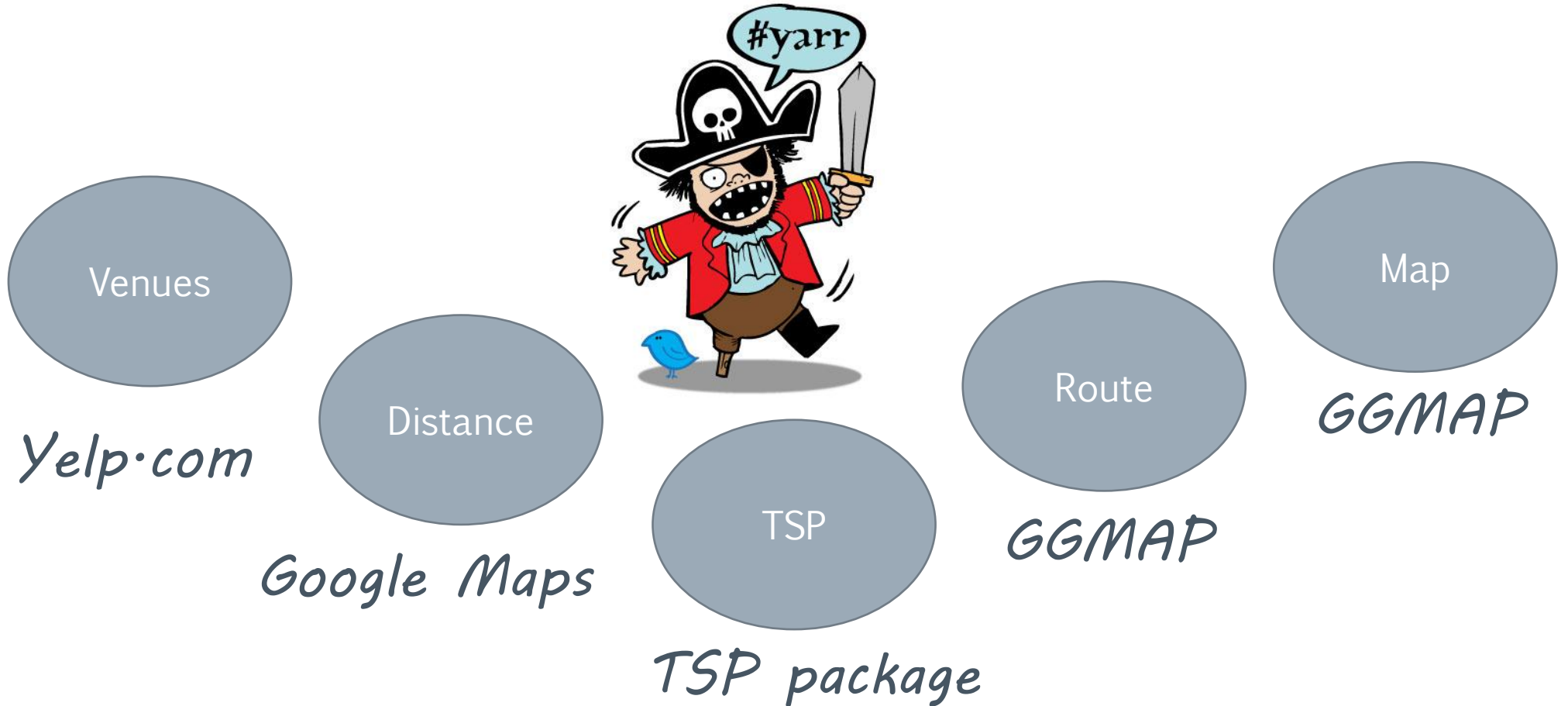


R

Touring around Chester



Fail to plan, plan to fail



Code Walkthrough

- › The code can be found on Rpub
- › <http://rpubs.com/leehbi/tour>



VenueTour.html

Next Steps

- › Refactor - eliminate overlap in data.
- › Add tests (sorry Chris)
- › Add Start position into TSP Route function
- › Explore deployment to Shiny (Coursera – March)
- › Investigate Concorde or some other brute-force algorithm

Key Learning

- › JSON is much easier to work with than XML
- › OAuth lets us authenticate with keys...after coding this up I discovered the ROauth package
- › Still tempted to write For Loops but no need with R
- › Think of GGMAP like a multi-layered photoshop image

R

