bluemango® INTERACTIVE

Conversion Attribution

Ruben Mak

ABOUT US

GREENHOUSE GROUP

Successful companies are created by people with dreams, ambition and vision. Greenhouse Group invests in these people and offers them the means and knowledge to realise those dreams.

By investing in talent and good ideas, Greenhouse Group has grown into the umbrella organisation for six innovative and trend-setting companies in the digital marketing field. Innovation, Dedication and Fun are the core values which are carried out daily by us and our 150+ dedicated experts.

AGENCIES

bluemango INTERACTIVE

fresh fruit digital

Blossom

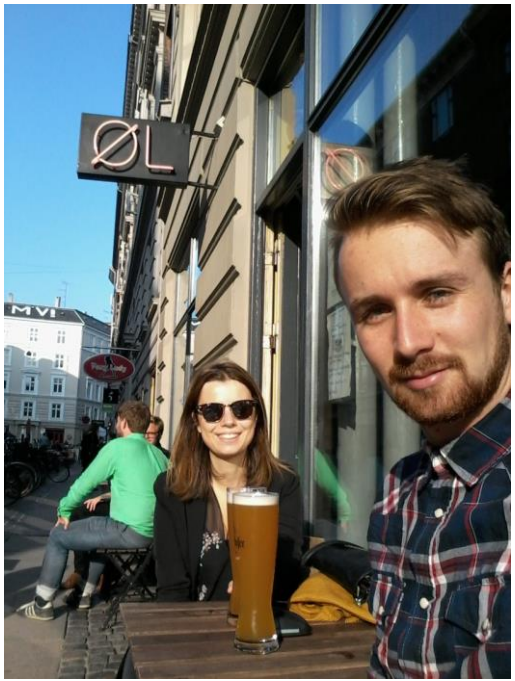
sourcerepublic

ACCELERATOR

FLXONE

Withlocals

Ruben Mak

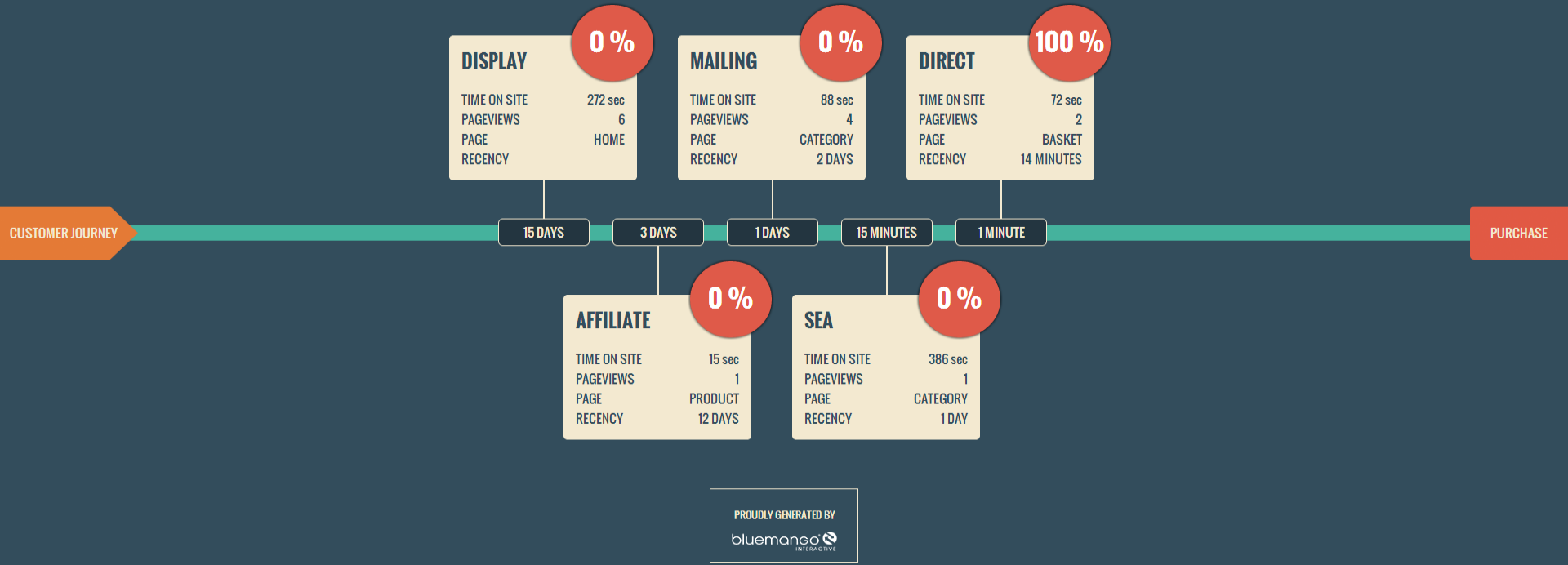


- Bachelor thesis on conversion attribution 3,5 years ago
- Msc Econometrics
- 3,5 years data scientist @ Blue Mango
- Product owner campaign valuation tool
- Copenhagen & Eindhoven
- ruben.mak@bluemango.nl

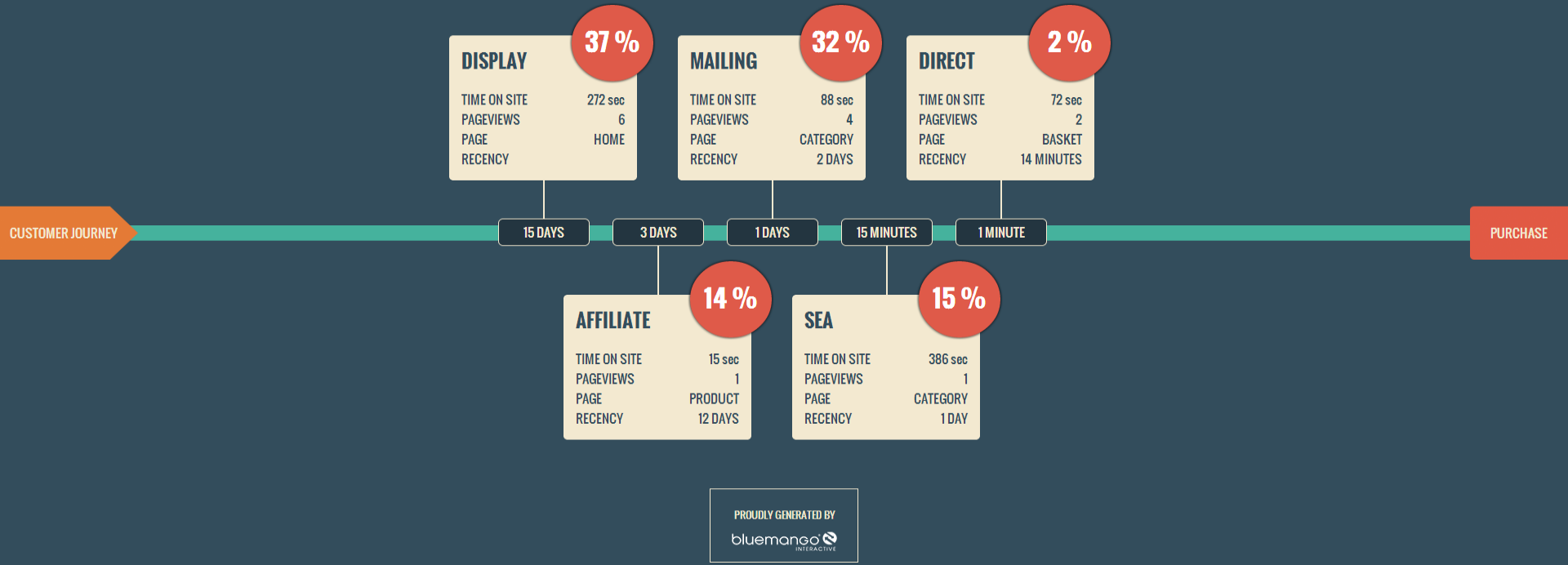
Conversion Attribution

- Let's bust some 'sales myths': 3 statements
- Share CA modelling experiences
- Demo

LAST CLICK ATTRIBUTION

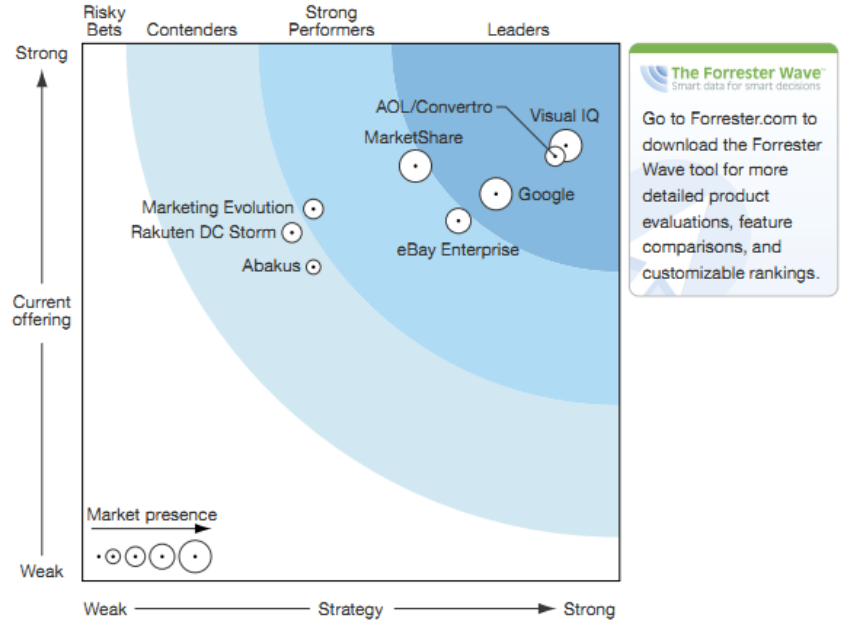


CONVERSION ATTRIBUTION



CA providers

Figure 2 Forrester Wave™: Cross-Channel Attribution, Q4 '14



Source: Forrester Research, Inc. Unauthorized reproduction or distribution prohibited.

What does visual IQ say?

Multi-Dimensional

Multi-dimensional is the most accurate of the algorithmic modeling approaches. It uses the full dataset of both converters and non-converters to perform billions of A/B comparisons between those exposed and those not exposed to different dimensions (attributes) of media. The result is a breakdown of every single touchpoint at the most granular level (ad size, placement, publisher, creative, offer, etc.).

- Sounds very similar to the model of my bachelor thesis
- Still we do things very differently now…

Statement 1)

Be extremely critical about ‘A/B tests’, that are not actual ‘tests’

What an A/B test truly is…

- Random experiment: 100% randomly distribute individuals in a treatment and no treatment group
- Gives the pure effect, but:
- You need to define an experiment beforehand
- Costs
- You can't test everything against everything all the time
- For most mediums: Not possible to track control group without treatment ('No treatment' different from 'version A / version B')

What's the difference?

- Visitor's visits the website is interested but needs some time to think about it
- Forgets about buying
- Sees display ad a week later
- Remembers and purchases

- Visitor's visits the website is interested but needs some time to think about it
- Decides to buy a week later
- Google's 'I want to buy product X at company Y know'
- Purchases

What if…

- What if the user did not click/view the advertisement?
- Vs.
- What if you decided not to advertise?

Core of the problem ("Correlation vs. causality")

- The ratio between 'purchase decision' or just 'purchase execution' differs strongly amongst campaigns
  - Display vs. search
  - Product search vs. brand search
  - Prospecting vs. retargeting
- Some campaigns are more present later on in conversion paths, 'stealing' from campaigns that are more present in the beginning of the path

Data science methods

Method	Goal	Advantage	Disadvantages
Marketing Mix Model	Optimize high level marketing mix	No individual data needed	1) Very limited in number of parameters 2) Not pure effect
Random Experiment	Isolate pure effect	Pure effect	1) Costly 2) Not possible for all mediums
Counterfactual modelling (Google)	Approach isolate pure effect	Pure effect for more mediums	1) Needs control group (costs) or very good proxies **2) Minimum +10% uplift**
Conversion attribution	Day to day campaign optimization	Exploiting individual data, you have exteremly much less restructions on drill down	1) Not pure effect 2) Limited by cookies

Our house rules of CA modelling

- Exclude campaign specific parameters (no campaign discrimination)
- Exclude mandatory steps
- The model should capture the effect on purchase decision (not purchase execution)
- The model uses cumulative metrics of engagement (page views, events, time on site) estimating the probability of conversion in the end. (Note: *not* in the visit itself)
- Attribute according to increase in conversion probability in each visit

What does visual IQ say?

While algorithmic attribution offers a sophisticated approach to measuring marketing performance, the accuracy of the results it provides will vary depending on the model behind it. Understanding these caveats will not only help you select the right solution, but will also ensure you're getting the complete, granular insight you need to maximize your marketing ROI.

Statement 2)

Your algorithm is only as good as the quality of your conversion paths

Details in algorithm often limited impact

- Exact model and parameters often have very limited impact on actual business decisions
- Making small steps in generating cross cookie and device conversion paths already can have a much bigger impact
- Example: 1600 sales, 1000 of those have only unpaid campaigns in conversion path, 300 are paid but have a single campaign in path
- It's the combination of CA and cross device conversion paths (LC doesn't change with better paths)

Privacy

- We work 100% behind opt-in

Conversion Attribution

- Let nobody convince you CA is giving you ‘the true effect’
  - No pure effect (no ‘A/B tests’ or random experiment)
  - Limited to cookies
  - Only behind opt-in
- It’s the best we can get for day-to-day optimization
  - Drilldown not possible in other methods
  - (Shift over time)
  - Simply can’t run experiments on everything all the time

Statement 3)

Costs vs. Benefits

CA = campaign performance?

- CA gives an approximation of the benefits
- But to measure performance, it needs to be matched with costs for the core of campaign optimization
- Big blocker of fully exploiting CA
  - Terrible underestimation of complexity / effort of matching
  - For daily optimization, it should take absolute minimal effort

Demo

Summary

- Let nobody convince you CA is ‘the true effect’
  - No random experiment / ‘A/B tests’
  - Limited by cookies
  - Behind opt-in
- Your algorithm is only as good as the quality of your conversion paths
  - Exact model and parameters often limited impact
  - Simple steps in generating ‘cross device’ conversion paths can have much bigger impact
- Always remember: ‘costs vs. benefits’