

White Paper



Programmatic and artificial intelligence redefining the future of smarter recruitment advertising

Recruitment advertising is going through a period of substantial change. Advertisers who know how to navigate their way round a rapidly evolving pay per click world stand to make enormous savings.

Using the right tools to analyse response patterns against budget use and location, and place bids in direct proportion to likelihood of success, will enable advertisers to fill jobs faster and more cost effectively.

Welcome

Welcome to the emergence of AI and Big Data on the recruitment advertising scene. The purpose of this paper is to explore the changing landscape of recruitment advertising and enable recruiters to prepare for the next stage in its evolution.

The paper discusses how to improve your ROI by using data to make sense of sheer numbers, reduce wasted expenditure and use AI to apply some much needed science to the art of the people business.

Why read this white paper?

By reading this white paper you will gain the insights needed to assess areas of potentially huge improvement to your own ad placement strategies. The paper contains three sections:

- **Section one** provides a brief guide to the evolution of recruitment advertising – from humble beginnings leveraging the reach offered by the Internet, to the impact of job board aggregators, also known as job search engines, and the disruptive approach they introduced.
- **Section two** looks at the practice of programmatic advertising, explaining what it is and why it is so critical to success in light of the pay per click model championed by aggregators.
- **Section three** offers an introduction to the use of Artificial Intelligence (AI) to build upon programmatic to drive smarter decisions and efficiency in recruitment ad spend, to a degree that has never before been possible.

Section one

The evolution of recruitment advertising

A brief guide to the evolution of recruitment advertising – from humble beginnings leveraging the reach offered by the Internet, to the impact of job board aggregators, also known as job search engines, and the disruptive approach they introduced.

New challenges have arrived

While recruitment is a people business, it is also increasingly a numbers game. The Internet has expanded the reach of advertising and intensified the need for diligence in how budgets are used.

Given the variety of payment models and the expanding applicant universe delivered by job aggregators (many of whom offer more than half a million UK jobs at any one time), the efficient deployment and allocation of budgets is becoming an ever-more complex challenge.

The structure of the industry is changing rapidly, led by the way business models are rapidly moving

to pay per click in the USA. This change is about to transform how the UK market works, impacting the way business is done, or rather how and where and against what type of payment models ads are placed, in the UK. Performance-based advertising is a function of the increasing use of job board aggregators, whose success is based on the single-minded but powerful proposition to job seekers that job boards carry more jobs, by miles. There is significant opportunity for efficiency improvements and cost savings for advertisers but a little finesse, or assistance, is required in order to reap the benefits. The benefits are not automatic, but the way to access them depends on smart automation...

Where it all began – Post and Pray

Recruiters who have been around long enough will recall the old days of paying for recruitment advertising on a time basis. In 1994 the birth of the Internet paved the way for the first-ever job board, which introduced the idea of full 'searchability'. The attraction to job seekers, in vast numbers, was instant. For advertisers the medium was faster and more affordable than traditional advertising but still came with the traditional pay for time model. You placed the ad and then just had to hope; an approach best described (or even exposed) as 'post and pray'.

The 'Infinite Monkey Theorem' prevailed with the pay per time model – given enough time hammering away at a keyboard, a monkey would eventually type out the complete works of Shakespeare. It would take a while, goes the theorem, but it would happen.

So, running an ad long enough, on the pay per time basis, would result in the right number of candidates applying. Not a wait as infinitely long as the wait for the Shakespeare text to roll of the typewriter, but comparably frustrating to a recruiter who could do nothing in the interim but look at the results. The forward momentum of organisations of any size would be stymied by such randomness.

More change is coming
From nothing in 2008, aggregators have rapidly become the most popular method used by job seekers looking for their next role.

PROFILE: Job Board Aggregators – the 'one-stop shop' for job seekers

Indeed is the world's largest job board, and by far the most successful of the aggregators:

- Over 200 million unique users every month
- Available in over 60 countries and 28 languages
- 580,000 unique job advertisements in the UK (3.3 million in the U.S)
- Revenues estimated at over \$1 billion and still growing rapidly.

Other aggregators include:

Adzuna

A UK-based job search engine launched in 2011 and offering over 1 million jobs in the UK alone. Adzuna has grown rapidly in the last six years, operating in 11 countries worldwide and featuring in Tech City's 'Future Fifty'; a list of the fastest growing, late stage tech companies.

Allthetopbananas

Launched in 2006 Allthetopbananas is the only job search engine in this list that is focused entirely on the UK job market, advertising more than 800,000 vacancies. It also offers an extensive recruitment

market research for job seekers and employers, including availability and demand trends for a wide range of UK sectors.

Glassdoor

One of the fastest growing recruitment sites in the world. Whilst offering a job search engine service, Glassdoor ensures that it is unique in the market by developing an extensive employee led database of company reviews, CEO approval ratings, salaries, office photos and more.

Jobrapido

Created in 2006 and based in Milan, Jobrapido is firmly established as the second largest job aggregator in the world. Jobrapido lists over 20 million jobs and 35 million users, from 58 different countries, every month.

JobisJob

Established in 2007, JobisJob has since expanded to 28 different countries throughout Europe, Africa, Asia/Pacific and the Americas. In the UK alone, JobisJob displays over 1.4 million vacancies at any one time. JobisJob sets itself apart from the aggregator crowd by offering a wide range of additional features, such as social searching and job market insights.

Paying for results: Per Click/ Per Application

The odds shifted favourably around 2008 when job board aggregators hit the market with a fresh approach. Until this point they had had little to no presence in the market. They then shook it up with a change that was little short of disruptive. By gathering in jobs in their hundreds of thousands, aggregator job boards have become the prime location for job seekers to visit when on the hunt for employment.

The virtuous circle effect kicked in. By featuring exceptionally large numbers of jobs, job boards improved their Google rankings, which in turn attracted increasing numbers of job seekers. From a standing start in 2008, these job search engines are now used by more job seekers than any other method. A 2016 Global Job Seeker Survey¹ found that 57% of UK job seekers relied on job search engines as their primary method for finding jobs. Despite this clear popularity with job seekers, we estimate less than 10% of UK recruitment advertising is allocated to these job search engines².

Recruiters need to acknowledge this and adapt their ad placement strategies to optimise performance. A large number of job ads are getting in front of the people actively looking for jobs but the money has not yet caught up with the enormous opportunity.

The decisive payment factor for recruiters is no longer time, with its open-ended framework and consequent budgetary imprecision. The new payment factor is focused on actual results, either cost per click or cost per application.

¹ 2016 Global Job Seeker Survey;
[The Job Board Doctor](#)

² ClickIQ Internal Research

The impact of new payment models

The old pay per time model involved a degree of risk, the most extreme example being that if no applicants appeared then the investment was completely wasted. The cost per applicant bore a direct relationship to the numbers of applicants.

Simply replicating identical campaigns with the same levels of responses has shown using sites with a pay per click model can typically produce saving of around 50% of the budget.

Whilst savings are good and desirable, there is a downside. Suddenly the spend graph is all wrong, in fact it is upside down, with larger budgets being spent on higher responding, easier to fill roles, and less being apportioned to hard to fill ones. This is where programmatic platforms come to the fore.

A word on quality

Ensuring the right quality of applicant is a responsibility that falls to the recruiter. It's currently outside the capabilities of machines although that is a situation that will no doubt change in the not-too-distant future. Quality relates very closely to content. The more precise, descriptive, accurate and enticing the copy of your ad is, the more it is likely to appeal to the best people able to fulfil the role. A well-crafted ad message can also clarify the actual 'type' of person sought, from qualifications and competencies right down to their inter-personal skills.

Section two

Programmatic advertising

The practice of programmatic advertising, explaining what it is and why it is so critical to success in light of the pay per click model championed by aggregators.

New techniques to meet new challenges

Programmatic advertising is a concept that is frequently misunderstood. It does not solve every concern. It should be viewed simply as a computer programme that automatically manages your online

job advertising in accordance with a set of rules that you establish, such as how many applicants are required per ad, for example.

To optimise an ad campaign, programmatic techniques need to be augmented to allow responsiveness to results intelligently.

Automation in recruitment advertising

With the advent of programmatic advertising it appeared to many that budget worries were over. The logic is infallible. If an automated process – the simple way of defining ‘programmatic’ – could register applicant numbers as they came in and adjust the per click bid automatically to increase numbers when they were falling short against pre-established targets, what’s not to like?

Automation certainly alleviates the pressure on the recruiter to keep track of ad performance, especially

when the numbers involved are often in their thousands. The problem is, regardless of the growing popularity of the programmatic approach – for the reasons just mentioned – automation does what it’s told to do. The parameters to vary responses in accordance with real-time results are finite, and they need to be precisely identified as in “If this happens, do this. If this doesn’t happen by this time, do this”. Automation is a very hard worker, but not a very smart one.

Programme management tools rectify the situation

Combining programmatic techniques with the cost per click/application payment model has a certain flaw, even though advertisers generate significant cost savings, typically in the region of 40%. The flaw is that with a macro budget to take care of a mix of jobs, a skew takes place. The easier to fill jobs, which generate more applicants, generate more clicks.

Example:

- **Establishes a rule** of, say, maximum 20 applications or 300 clicks for each individual role, to stop easy to fill roles taking the entire budget away from

harder to fill ones. This rule has the biggest effect on budgets since it cuts down the numbers of applicants, from an overwhelming to a manageable amount, saving the time-wasting process of having to respond to limitless numbers of applicants.

- **Reduces cost per click on easy to fill roles** given that there is no need to have a high cost per click for a role that will naturally generate heaps of responses.
- **Increases cost per click on hard to fill roles** to generate more responses by giving more visibility than lower CPC roles.

The ad optimisation conundrum

Programmatic rules optimise budget use by spending where the need is greatest and eases workload since recruiters are no longer deluged with applications for the easy roles. Programmatic advertising is serving to make recruitment ad spend more effective, driving efficiencies by optimising ad placement as it goes.

The problem is, it does not know how to move forward until it has a grasp of where it has been. Only once ads are effective or otherwise can it realign the bid price, increasing the bid to improve rankings if results fall short of targets. The 'bidding' process works as it does with Google AdWords – the more you pay, the higher your rankings become. It has to be considered that 'trying' is not good enough; the essence of optimisation needs to be hitting as close to the mark as possible first time, every time.

Missing the mark is simply inefficient use of funds

Responding to events after they have happened is a process that can take days. Those days cost money; spent purely to create a base point. So, while the programmatic technique optimises spend, and the savings are impressive, it effectively has to spend some time 'speculating', before it gets into the business of 'accumulating' applications in desired numbers.

There is a smarter way to ensure that all spend is progressive from the moment it is committed, augmenting the capabilities of the programmatic approach. It's time for recruiters to get real benefit from Artificial Intelligence.

Section three

Artificial Intelligence

An introduction to the use of Artificial Intelligence (AI) to build upon programmatic to drive smarter decisions and efficiency in recruitment ad spend, to a degree that has never before been possible.

The formula for more intelligent recruitment, or more efficient use of budgets, builds on the benefits of programmatic and adds greater precision in the pay per click environment.

Context: A complex environment demands a simple approach

Putting people and numbers together is creating a Big Data environment for efficient recruitment. The sophisticated use of data in recruitment is set to replicate the same fundamental critical role it now performs in all areas of business, industry, commerce and public services. Smarter use of information will drive more efficient advertising tactics, smarter spending, and swifter outcomes.

In a pay per click world precision is a decisive factor in weighting the budget according to the overall goals and requirements of the recruiting process: keeping all the people happy all the time by ensuring that roles across the spectrum are treated in accordance with their importance to fill.

Good money, to coin a phrase, is no longer thrown after bad: 'bad money' being those funds that were offered up like cannon fodder to draw fire from the enemy's guns, pinpoint their position, and only then launch a full-on frontal attack. If the flaw behind an exclusively programmatic approach lies in the early, potentially misplaced, disbursement of budgets it follows that a need exists to fix it.

AI analyses all past campaigns

Historic analyses are critically important. Here's why:

The responsive bid adjustments afforded by programmatic are just that: responsive. They are not proactive or predictive. By evaluating best placement locations for ads based on widely observed market characteristics and site behaviour – analysing every job on every site every day – AI kicks programmatic up to a higher level with predictive analytics. Put another way, AI 'knows' what the perfect campaign should look like before it even starts.

AI sets the right parameters to drive efficiency

This approach is about using Big Data to significantly enhance return on investment by saving an additional 35% of the recruitment budget simply by starting at the right bid level in the right place for each job.

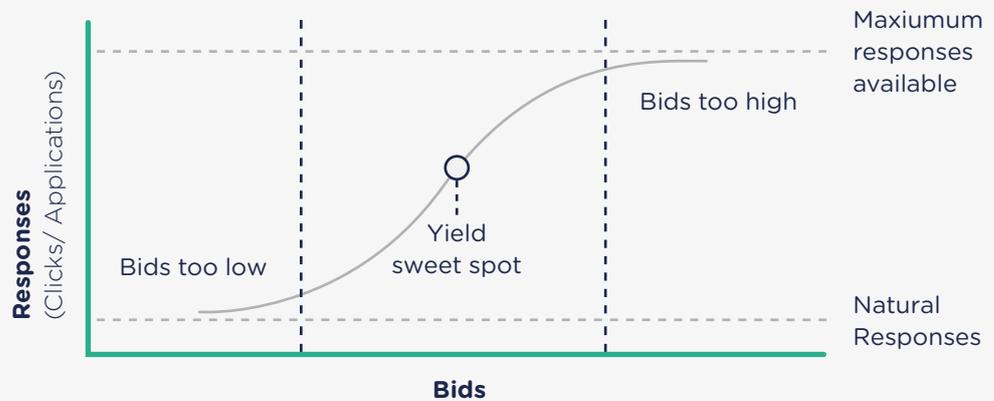
Over time, AI learns to set the optimum bid level per job board, per location, per job, thereby eliminating the tedious time- and money-wasting process of starting

with low bids and augmenting them in response to responses...and ending up spending more than was actually needed had the correct parameters been set from the beginning.

The logic is impossible to fault. Whilst still in the early stages, programmatic will change how recruitment advertising is carried out across all employers. Without AI to enrich its capabilities, however, it is simply a useful but blunt tool; only ever retrospective in its actions.

AI bid management

- Algorithm optimises bids based on the yield curve and campaign objectives
- AI learns over time where the optimum starting bids are by job type and by media.



AI supplies the complete toolbox for driving more intelligent recruitment

It is humanly impossible to keep track of thousands of jobs across a diversity of locations in varying stages of their lifecycle and make sure that the right price is always paid to get the best responses; can't be done, not by people anyway. This is where the people business needs machines, or rather, technology;

taking the effort and complexity out of potentially overwhelmingly impossible tasks.

Using Big Data Analysis, AI constantly learns from every job to continuously improve advertising performance. Sophisticated campaign management tools are now allowing recruiters to set up multiple campaigns, automatically allocate jobs and set performance targets. These tools automatically optimise performance and spend to achieve campaign goals, focusing advertising on where it's needed most.

Summary

Complexity is manageable with the right tools

Analytics demands top drawer position in any recruiter's tool-box. There are simply too many sites now available to advertisers. They offer perhaps too much choice. Making strategic ad placement decisions can only be a reliable process if it's based on solid information about site performance, reach, success, likely response rates and demonstrable user numbers, among other factors. Such a process is much needed given that competition for candidates is fierce. 22% of all jobs are in skills shortage occupations, for example.³

One thing's for sure, pay per click will dominate the recruitment advertising environment. The programmatic approach is a catalyst to the changes occurring within the job board industry structure, set to fundamentally change how online recruitment advertising is bought - in the same way as programmatic advertising in the digital media space has grown within 10 years to a value of \$64billion a year.

AI occupies the next logical place in the evolution of efficient recruitment advertising, and is itself in a constant state of evolution. HR professionals and recruiters are increasingly called on to demonstrate financial management skills, but the challenge is potentially overwhelming. AI is poised to make the complex simple and deliver exceptional savings together with a far higher degree of effectiveness than has ever before been possible. It will bring average per hire prices paid down to extremely attractive levels.

Consider the numbers: Buying advertising on a pay per performance basis typically reduces spend by 50% compared to the paying for time method, for the same levels of responses. Combined with programmatic management this typically drops a further 40% and using AI will enable recruiters to gain an average 35% efficiency reduction on even this lower figure.

³ [UKCES Employer Skills Survey 2015: UK Report](#)

Huge leaps forward

There is one final caveat. HR professionals are assuming growing responsibility for safeguarding, enhancing, and promoting corporate and/or brand values. Marketing skills are required to ensure that any advertising for new hires is consistent with employer branding. Tone of voice within social media environments has to resonate with potential employees while remaining entirely consistent with the corporate ethos, philosophy and desired persona.

In short, the right ads in the right place at the right time will only ever be truly effective in quality terms if they convey the right message. AI will offer solutions for elevating quality of applicant in the very near future and will deliver huge improvements in ad effectiveness. For the time being, suffice to say, we are at the dawn of a huge leap forward in ad efficiency - the real advantage of Artificial Intelligence for ever-more intelligent recruitment.

About ClickIQ

ClickIQ is the first intelligent recruitment marketing and analytics platform that uses programmatic bid management, integrated AI and sophisticated campaign management tools to effortlessly optimise the performance of your online recruitment advertising.

Find out more at www.ClickIQ.co.uk or call 0203 858 0383 for more information.