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# Scaling innovation through partnering

## MANAGEMENT Q&A – CAPITA SCALING PARTNER WITH DRAGONFLY AI

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## TechMarketView Innovation Partner Programme (TIPP)

Launched last year, the [TechMarketView Innovation Partner Programme](#) is the latest addition to the TechMarketView UK Tech SME programme series. The primary aim of the Programme has been to find innovative UK tech SMEs and help them partner with our large enterprise technology clients and, in doing so, help UK tech SMEs reach client markets that would normally be out of their reach.

Like our [Little British Battlers](#) and [Great British Scaleups](#), the Programme also supports UK tech SMEs by helping them refine their business and solution strategies in order to achieve their growth objectives.

We have developed the TechMarketView Innovation Partner Programme in response to requests from many of our larger enterprise technology clients asking us if we could introduce them to small, innovative tech companies that they could partner with in order to bring a greater degree of innovation to their partner ecosystems for the ultimate benefit of their customers.

## Capita Scaling Partner

As part of the TechMarketView Innovation Partner Programme, TechMarketView and Capita's start-up development unit, [Capita Scaling Partner](#) (CSP) have been working together to find digital disruptors across a range of markets including the Customer Management/Customer Experience space.

One of the UK tech SMEs to be shortlisted and subsequently participate in the Capita Scaling Partner Digital Disruptor event was **Dragonfly AI**, a London start-up using AI to help brands optimize content by mimicking the way the brain prioritises visual information, making marketing content more impactful.

Subsequent to the TechMarketView Innovation Partner Programme Capita and Dragonfly have gone on to form a strategic partnership. Capita will provide business development services to Dragonfly AI and becomes a significant shareholder in the business.

## Dragonfly AI

To better understand the ambition and potential of the partnership we recently spent some time with David Mitchell, Co-Founder at Dragonfly AI alongside Matt Bunn, Partner at Capita Scaling Partner.

### What is the problem Dragonfly AI aims to solve?

Dragonfly AI is a tool designed to help brands win the attention of consumers as they interact with marketing materials, ad content, products or even packaging. The particular pain point here is that consumers are becoming increasingly time poor, and with the world moving at an ever-faster pace, and as more and more (digital) content gets generated, it is becoming increasingly difficult for brands to get noticed. At its most extreme this is the need for a brand to make an impression in a matter of just milliseconds whilst consumers scroll on their phones.

In enabling a brand's content to work harder and helping clients get their message across faster, Dragonfly AI is using data science techniques to test and measure the effectiveness of content, helping drive best performance.

Creative teams are able to use Dragonfly AI to run analysis before content is even published to ensure optimum results.

### An origin in academia

Dragonfly AI is a small business with a core team built around co-founders David Mitchell and Mark Bainbridge, Chairman Richard Man and Chief Product Officer James Harvey. However, the business traces its origins back to the Cognitive Sciences Research Group at **Queen Mary University of London (QMUL)**, with whom it has an ongoing relationship. It was here that the original algorithm was invented by Prof. Peter McOwan and Dr Hamit Soyel from the University's School. QMUL remains a partner of the business and Dr Soyel the scientist at large, something that the management team believes is a unique differentiator.

The original project studied the notion that robots were able to see and process images the same way that humans can. Researchers found that they were able to capture the first reaction of a human's brain functions when

processing an image through artificial intelligence and heat mapping. This algorithm was then subsequently showcased at a science trade show coming to the attention of Steve King the CEO of **Black Swan Data**. King could see the potential of applying the tool to the marketing and digital space. Black Swan is a predictive analytics business and King wanted to see if the algorithm could predict what a human sees first when consuming a particular piece of content.

The algorithm was subsequently incubated at Black Swan, going on to be developed into an app on iOS. The technology was then tested and refined with some early stage clients including Pharma giant **GSK**, which undertook some initial Proof of Concept projects. Black Swan was also at that time employing Dragonfly AI co-founders David Mitchell and Mark Bainbridge.

Mitchell and Bainbridge agreed to take the product to market and develop the technology even further. Dragonfly AI launched in January 2019.

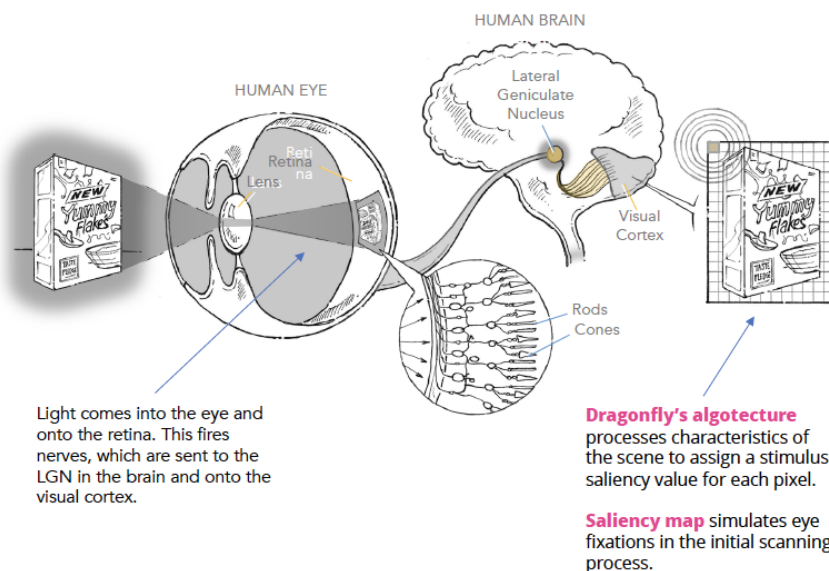
### What is different about Dragonfly AI?

Traditional eye tracking studies have been around for many years and were the subject of the original QMUL research that looked to build 10 years of eye tracking data into an algorithm using modern data science to create a true AI. It's here that the relationship with QMUL acts as a differentiator for the business. Not only does Dragonfly AI still have access to QMUL, but also any upgrades to the algorithm are fed through and incorporated into Dragonfly AI's product suite. The capability to predict the results of eye tracking using a deep understanding of the biological processes in the brain has now been built into the digital environment with cloud infrastructure. The algorithm has also been independently benchmarked against the **Massachusetts Institute of Technology (MIT)** saliency benchmark, with its accuracy stats verses the nearest competitor (an accuracy rate of 89%) being much higher.

#### The Science behind it

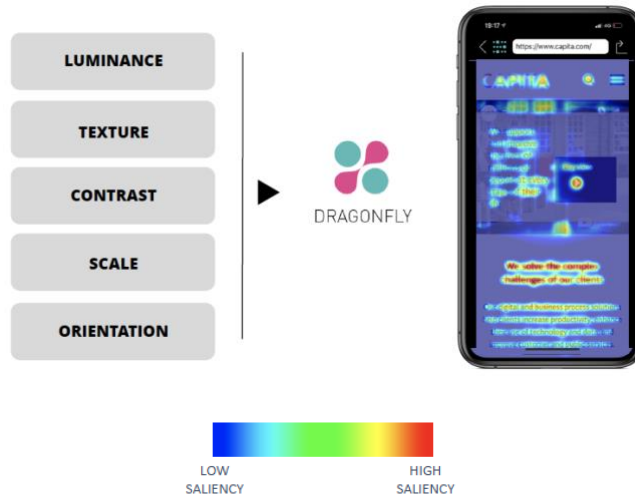
Human brains have a limit on how much visual information can be processed at any one time and because of this we prioritise where to direct our attention.

Figure 1: The Science behind the algorithm

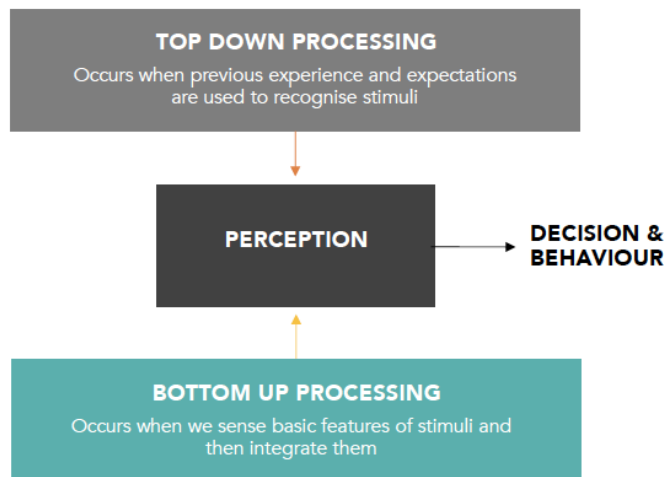


Source: Queen Mary University of London / Dragonfly AI

Dragonfly was created by understanding the neural architectures in the visual cortex that process the 5 low level characteristics of visual information.

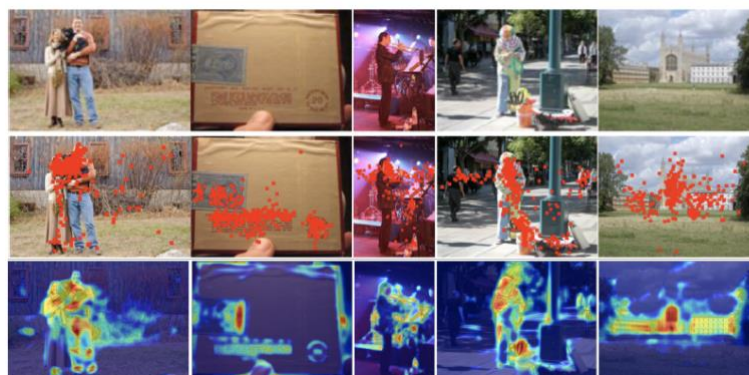


Dragonfly sits firmly as a bottom-up, pre-attentive solution. The algorithm will show what is likely to attract the attention of a viewer but not whether they will like what they see.



## Examples

Dragonfly shows how low-level features influence the way we prioritise visual information. Red represents high saliency regions that are likely to draw a viewer's attention.



## The Product suite

### Mobile app

Dragonfly AI started life as a mobile app on iOS because it provided the ability to use the device's camera. When users launch the app they can immediately gain access to a heat map overlay that illustrates which parts of the image has high or low saliency, with scores rating from zero to 100 (low to high saliency). This tells the user where a consumer is likely to look first in real-time, crucially not requiring content to be scanned or photos to be taken and sent off for analysis, thus saving days or even weeks in development time. It's all analysed and scored for the user instantaneously. This can then allow for decisions to be made before key investment decisions are actioned potentially adding value to a wide range of industries. For example:

- In publishing, book cover designs can be mocked up, tested in store and then measured for effectiveness before hundreds of thousands of copies are printed.
- FMCG companies can test the shelf presence of brands Vs the competition, or whether packaging designs are prioritising the right messaging before creative is even signed off.

The product can also add value to the user experience and digital design industry methodologies by using data science to measure what gets most attention prior to any content being produced or published. Currently, website publishing commonly uses a lot of A/B testing but this is carried out in a post-production environment - i.e. when the content is already live. Dragonfly AI gives designers the ability to predict performance without having to wait for data to be generated or collected. The Dragonfly AI app can be used in a variety of different scenarios such as offline environments, walking around a store or online.

### Web app

Dragonfly AI is launching a web app (in beta) in September 2019 having found that clients want to build Dragonfly AI into their workflow. The web version is designed to provide the same functionality as the mobile app – in being able to import data and images, run analysis and then save outputs into project folders offering a better environment for project work. Users will then be able to run analysis across all channels in a collaborative environment that can provide all of a team and clients access as appropriate.

### Motion

Motion is a Dragonfly AI product being launched to deal with the huge increase in video content currently being produced in the marketplace, taking the functionality beyond static images to cover all rich media content.

### Commercial model

Dragonfly AI is a subscription-based product with an annual license fee, based on how many users or projects a client requires.

## The market potential: Where to target first?

Dragonfly AI is naturally well suited to any consumer-based market, aiming to offer the greatest strategic change where service providers are interacting with consumers over multiple channels. Joining up these often disparate channels is the holy grail for Dragonfly AI – for example, a telecoms provider currently often interacts with the same consumer via a customer app, a paper bill, the in-store shop, social media, branding teams, an online account etc. Dragonfly AI wants to work with clients across all of these channels. Or as Mitchell puts it *“Any brand that is embracing where its content is going and how it is being used or is publishing a lot of content to consumers is going to be a target for us”*.

Markets that are of particular interest to Dragonfly AI include:

- FMCG brands where consumers are interacting with ad content on the high-street or in-store
- Marketing departments – optimise content before it is published
- Media – Analyse any online portal to increase click through or conversion rates
- Retail – analyse in-store shopper trends and products on-shelf.

Since engaging with Capita, Dragonfly AI is increasingly looking at Government applications and Citizen services, particularly in ways that would help authorities reduce the cost per user associated with failure demand on things like campaign awareness, bill payments or conversation rates. The data driven approach should help Capita (and indeed other service providers) produce business cases for where investment is likely to make a difference to clients.

More broadly Dragonfly AI has ambitions to become a standard signoff procedure within any creative production process. In practice this would allow for content to be benchmarked for saliency and only published when above a certain level on the scoring chart.

## Client Case Study



Dragonfly AI has been working with Mediaset, the Italian mass-media company on its video on demand portal called Infinity (Think an 'Italian Netflix'). Mediaset have been spending millions of Euros promoting their product looking to attract customers to the site. The landing page has been their main KPI to date, measuring click throughs and conversion rates. Dragonfly AI provided testing over a 10-week period that put forward a range of small iterations to the landing page and its font, layout etc. These changes over the project period saw an increase of conversions of 19%.

## The TechMarketView Innovation Partner Programme process

Capita and Dragonfly AI were brought together via the TechMarketView Innovation Partner Programme. Dragonfly AI had been looking to scale the business as quickly as possible and could see the potential value of the programme early on. The initial meeting in Capita's screening room was that first time Dragonfly AI had been able to showcase the technology on a full 6ft high bank of screens and certainly made an impression on the Capita team. The CSP team were attracted by originality of the product offer and could quickly see the potential value that Dragonfly AI could add to Capita's client base.

## Why work with Capita?

The biggest challenge for small start-up businesses like Dragonfly AI, is despite however good your technology is, it can be hugely difficult getting in front of large potential clients at the necessary level of seniority. Capita's client base is a 'who's who' of the largest companies and organisations in the UK and Dragonfly AI has expectations of using CSP as a shortcut to get in front of them. The ability to use Capita and its client base as a springboard should help accelerate Dragonfly AI growth or as Mitchell puts it...

*"The ability to access Capita's client base and big brands at the right stakeholder level very quickly with a product that is very simple and effective will help scale Dragonfly AI faster and take us further than we had planned at this stage."*

Dragonfly AI and the Capita Scaling Partner team are already working closely together and have developed a good relationship quickly, aided by a similar team structure and corporate culture. Dragonfly AI have been pleasantly surprised with the ease of working with the Capita team describing the CSP operation as *"feeling like an agency inside a big corporate with quick decision making, similar cultures and a shared passion for leading edge tech"*.

In addition to access to clients, Dragonfly AI are hoping to use Capita to help with international expansion and specifically crack the US market, where they have already had a positive roadshow and resulting interest in the product.

Capita can also offer Dragonfly AI more than just access to the CMO. As one of the largest Business Services providers it has access to huge amounts of contract data which means that not only can you measure the content, but you can measure the success of the interventions. Directly linking the impact Dragonfly AI is having right through to the ultimate business outcomes such as increased sales or conversion rates. This is a big plus for Dragonfly AI as they can now see how their technology is being used and the difference that it is making. For Capita, it allows for the potential to change its commercial models for example, moving from a per-seat / per-project

license towards a gain share / outcome-based arrangement, which can of course be much more lucrative and higher margin.

## What Dragonfly AI can bring to Capita?

Matt Bunn from Capita Scaling Partner described the level of client interest that Dragonfly AI has already sparked from within Capita...

*"We have already seen the impact – it enables us to bring innovative new solutions to clients and the early response has been very positive."*

The interest from Capita's various divisions and contracts has created a variety of use cases. Enquiries to the CSP and Dragonfly AI teams have included assistance with improving end client communication (one of the largest drivers of both cost and customer satisfaction in any contract. For example, how can Dragonfly AI help create 'the perfect' council tax, utility or telco bill. These are repeatable propositions that can be developed once and then applied to multiple Capita contracts across the business. *"Under Jon Lewis Capita is focused on bringing leading digital solutions to clients. They can combine this with deep operational knowledge to create use cases that deliver tangible benefits to customers".*

For example, Capita has been using Dragonfly AI to engage with its utilities clients, looking at ways in which it might help drive improvements in Customer Satisfaction and specifically in their 'CSAT' scores which are directly linked to revenue and where each percentage point improvement drives compensation from the regulators.

Capita has decided to start using Dragonfly AI on its 'B2B2C' contracts in areas such as retail, telecoms and government.

For Dragonfly AI their technology provides a clear window of opportunity and they must use this opportunity to get and stay ahead.