

# The Evolution of Advertising Technology is Primed For Connected TV in 2021

After coming onto the scene a decade ago, adoption of connected TVs over the past year has accelerated and set the stage for a new generation of advertising initiatives enabled by network service providers. Shelter-in-place imperatives associated with COVID-19 have been a major shot in the arm for the adoption of connected TVs, creating an immense opportunity for 2021 to be the year of programmatic advertising.

New technologies are leveraging both client-side ad insertion and service-side ad insertion to create compelling experiences for consumers as well as high-margin revenue streams for network service providers (NSPs). This rising trend is redefining interaction and engagement among advertisers, brands and consumers enjoying new entertainment content via cable, pay TV and over-the-top (OTT) streaming services.

So say Emilia Ong, Chief Revenue Officer for Hoppr and Jason Hewson, Chief Technology Officer for Hoppr, an innovative Australia-based startup that has introduced new interactive, programmatic technologies and business models for advertisers, brands and network service providers (NSPs).

We caught up with both executives to discuss the latest developments in this complex and rapidly evolving market.

Here's what they had to say:

**Q There has been a tremendous amount of change across the advertising ecosystem in the past year or so. What can you tell us about the state of programmatic advertising and how it's changing the advertising and the network service provider landscape?**

**Emilia Ong:** This has definitely been a hot topic. Since we started having conversations with network service providers about programmatic advertising a couple of years ago, we have seen three major areas of progress:

- Digital technologies around advertising have evolved rapidly to better target and engage consumers;
- Consumers are more than willing to accept the kind of targeted and non-intrusive programmatic advertising on TV that they frequently experience on tablets and other mobile devices; and
- There has been a significant penetration of connected TV devices and set-top box (STB) devices that can support the delivery of non-traditional advertising messages.

As a result, we are seeing growing interest from NSPs to explore ways to integrate new advertising initiatives into their revenue generation models.

That is why a lot of people and organizations - including Hoppr - believe that 2021 is emerging as the year of programmatic advertising on TV. This has captured the attention of the entire ecosystem - advertisers, brands and NSPs.

Many of the NSP executives that we've spoken to tell us that they have already developed plans, or are in the process of developing plans, to support this new stream of revenue and bring programmatic advertising opportunities to market. That said, we are still in the early stages of implementation.

NSPs around the world are at different stages of the journey. Hoppr recently commissioned a survey with over one hundred senior level executives of NSPs in Europe. Nearly three quarters (72.8%) of NSP executives indicated that they are planning to invest more resources into developing programmatic advertising programs over the course of 2021 compared to 2020.

## Hoppr



**Emilia Ong**  
Chief Revenue Officer



**Jason Hewson**  
Chief Technology Officer

## Q Jason, what can you tell us about the different types of ad insertion technologies that are available on the market to enable programmatic advertising initiatives across the NSP community?

**Jason Hewson:** NSP are borrowing many of the technologies and strategies that have become popular - and profitable - advertising delivery vehicles in the digital and mobile application environments.

Client Side Ad Insertion (CSAI) is the technology that networks have used to serve targeted digital advertising since the initial emergence of advertising online. This technology offers marketers a way to track return on investment by delivering measurement and analytics capabilities. It also supports a variety of formats including rich media and interactive ads.

CSAI is well established and understood. It is a tried and tested technology solution for advertisers looking to connect with audiences. The ad call originates directly from where the ad will be displayed, making it completely auditable for advertisers worried about fraud. It also provides more insight and flexibility compared to traditional TV advertising, and generates anonymized first party data that adds significant value for advertisers.

In the early days of programmatic advertising on TV, we saw a lot of device fragmentation as more devices, such as game consoles and dongles, were introduced as a means to access entertainment content. Some of these early devices didn't support standard client side ad technology and so SSAI (Server Side Ad Insertion) was developed to address those needs.

Consequently, we have seen growing interest build around Server Side Ad Insertion (SSAI), which is also known as "dynamic insertion" or "ad stitching." This technology combines ad content with video content, typically through proxy servers located in large data centers. SSAI stitches video ads into video content for a relatively seamless user experience. This approach has also helped to reduce pauses caused by latency - especially during live events.

Beyond the benefits, SSAI also has several limitations. It has been subject to tracking, audibility and targeting issues that have been problematic to brand managers and advertisers. In addition, SSAI is constrained to video ad formats.

The good news is that device capabilities on the client-side of the equation have improved dramatically with most platforms now either supporting CSAI via upgrades or natively.

The next evolution of connected TV ad insertion is to deliver rich media experiences that emphasize interactivity, animation - and even virtual reality. This is important as viewers have become less tolerant about commercial breaks that interrupt their experience. This is the primary problem statement on which Hopper has focused.

The key is delivering a consistent experience across the digital landscape. Hopper has developed a user-centric design that ensures a high level of quality when consumers watch TV through an STB or move onto tablets and mobile devices.

The most important thing for NSPs to consider is not which ad technology to choose but what products you are bringing to market in partnership with advertisers and whether or not it is in line with what they want. This is where Hopper has developed solutions that allow NSPs to offer a seamless advertising that leverages the best of SSAI and CSAI capabilities.

**Q So, Emilia, how do you avoid interrupting the experience with the next generation of programmatic advertising?**

**Emilia Ong:** New technological advances entering the market, along with dramatic shifts in consumer behavior, have enabled telecommunications, cable and other pay TV providers to tap into digital advertising methodologies that were once only viable on the web.

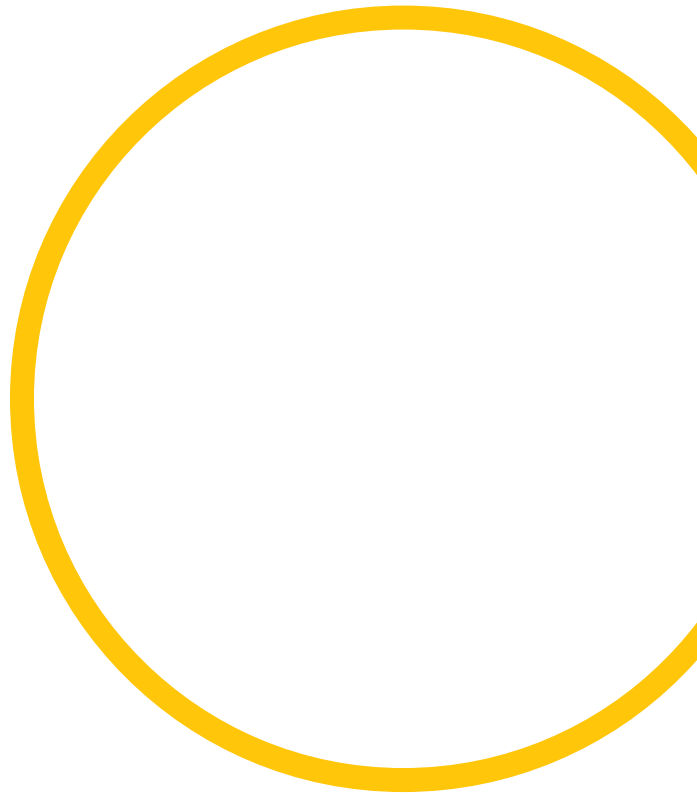
Programmatic ads on the web introduced the process of purchasing and delivering digital advertising in real time. The rise of OTT services as a way to deliver information and entertainment to consumers - along with the growing adoption of connected TVs - is driving the expansion of programmatic TV advertising to connected homes.

For instance, the average household now subscribes to anywhere between six and a dozen OTT entertainment services. As a result, consumers now spend a lot of time navigating through menus and pages before they play a game, view an episodic series or a movie. It is in these "in-between" spaces of time that Hoppr can help NSPs create ad spots to provide very targeted advertising messages via menus and navigation pages, without interrupting the core entertainment experience.

This enables highly customized and tightly targeted advertising opportunities by delivering advertising content directly to STBs, while providing rich, real-time reporting and analytics that sharpen the effectiveness - and accountability - of brands' marketing strategies.

At Hoppr, we have developed AI-powered, automated processes associated with delivering this category of programmatic advertising to the home. It is an area of opportunity that is already large and projected to explode.

Advertising on top of OTT platforms and devices has emerged as a significant revenue generating opportunity for service providers. Analysts at [Juniper Research](#) project that AI-based targeted advertising will reach \$520 billion by 2023.



**Q What role do emerging technologies - like big data analytics and artificial intelligence and machine learning - play into the delivery of the right messages at the right time, in a manner that is actually appreciated by audiences?**

**Jason Hewson:** AI and machine learning have taken great leaps in recent times, but looking ahead it's not purely about technology. The goal of any technology company is to find use cases that suit the application of the solution.

In particular, we have found that the application of analytics and AI/ML for audience segmentation has allowed us to make great leaps in identifying what groups of users belong in which clusters or segments. This greatly enhances our ability to target different users within the overall view of customers.

Also with new users, advertisers can quickly identify which clusters they belong to and start providing meaningful messages almost immediately. Moreover, the AI algorithms can be fine-tuned in real time to generate even greater benefits. Comparative A/B testing by the AI agents provide powerful and immediate feedback to models that organically adjust performance to address the needs and desires of specific clusters.

Our research clearly shows that when customers engage with messages that are relevant, satisfaction levels soar. So AI/ML is an important tool for us and the industry as a whole to make messages meaningful to the user.

**Q What does this mean for pay TV and network service providers? To what extent is this revenue stream important enough to NSPs and pay TV operators to integrate this new business model?**

**Emilia Ong:** Traditionally pay TV operators and NSPs main revenue generators have been limited to transport and content. Neither operators nor NSPs have been in a position to take up ad revenue. This programmatic advertising opportunity is a new development for the industry.

Having said that, more NSPs have started along this journey.

In the survey Hopper commissioned, over 70% of NSP executives reported that their organizations are already on this journey in one form or another. This is definitely an area of opportunity that has been identified and is being actively pursued.

Moreover, the legal and regulatory framework appears to be supporting this shift. In France, for instance, new laws have enabled NSPs to include advertising as a part of their service.

On the other side of the equation, there is an increasing sophistication on the part of marketers about how they want to connect with consumers. This makes the new inventory of space NSPs are making available for advertising extremely compelling.

Going forward it will be critical to continue developing solutions that support advertisers and enable NSPs to deliver an optimal customer experience to subscribers.