



What can  
**Artificial Intelligence**  
*(really)* do for your  
video business?

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## Introduction

PwC anticipates that artificial intelligence will contribute \$15.7 trillion to the world economy by 2030.

There is no question that artificial intelligence (AI) currently plays an important role in all aspects of our society; moreover, experts like Andrew Ng, former Chief Scientist at Baidu, a giant Asian web services company and pioneer at putting artificial intelligence to work across its organization, claims that AI will have the same impact on the world as electricity had a hundred years ago.

In this respect, the entertainment industry is no exception; it is expected that AI will have a profound and far-reaching impact in the coming years, and there will be no going back.

Today's entertainment industry technology vendors are reeling off jargon like "AI", "machine learning", and "deep learning", touting the benefits these technologies promise. It can be difficult for video server provider decision makers to discern between the future promise of AI and what is truly feasible and effective today: how can deploying AI in your organization now improve customer acquisition, engagement, and retention and by extension, prove its ROI.

This White paper describes the challenges faced by the entertainment industry – more specifically, the video industry –that can be effectively addressed by state-of-the-art AI today.

You should approach implementing AI in your organization like a journey where each step represents progress with real business benefits. Each step, having delivered satisfaction with incremental positive impacts paves the way for continued progress. Progress, that is demonstrable to senior management and represents a positive ROI for the business.



## First, what is artificial intelligence?

In simple terms, the science of AI studies how to make machines or computational programs intelligent. It has four main objectives:

1. To automate manual production processes: automated intelligence.
2. To assist with making human-performed work fast and more efficient: assisted intelligence.
3. To help in decision-making: augmented intelligence.
4. To automate the decision-making without human intervention: autonomous intelligence.

## How will the entertainment industry be affected by AI?

First of all, it is important to understand the current context of the industry: entertainment video consumption over the Internet is in full disruptive-swing with significant anticipated growth in the next few years

The numbers speak for themselves:

**45 %** of people watch an hour or more of video per day

**1 MM** minutes of video per second to cross the internet by 2020

**63 %** of businesses use video for marketing

**50 %** of web users look for a video before visiting a store

**10 BN** videos watched on snapchat per day

Sources: Hubspot, Wyzowl, Google, Cisco, AdWeek



A perfect storm of innovation, global infrastructure, and device proliferation has created the opportunity for disruption in the global video and entertainment market.

**\$90 BN** video market in 2021

**10 %** global video market distribution, it's just getting started

**DOUBLE DIGIT GROWTH**  
across all markets

**+ 3,000** the estimated number of on-demand video services providers in europe

**\$9 BN** the estimated size of the digital video software market in 2021

**\$90 BN** the estimated size of the AI software market in 2025

*Sources: Strategy OTT Market 2018 market overview , Digital TV Europe, Señal Internacional, Rapid TV News, Digital TV Europe*

In an ecosystem experiencing disruption and growth, such as described above, traditional approaches to managing a video business no longer work. Speed, the ability to make fast decisions with overwhelming volumes of data never before seen – volumes that are still growing – has become a MUST. This is the video industry's point of no return and where AI can have a positive impact.

According to PriceWaterhouseCooper's report "[Sizing the prize. What is the real value of AI for your business and how can you capitalise?](#)" there are three areas of high potential for AI in the entertainment industry:

1. Content search and recommendation.
2. Personalized content creation.
3. Personalized marketing and hyper-segmented advertising.





## What can I expect from AI by using it in my video service today?

Like many other industries, the end goal of AI-powered video businesses is to automate business decisions to deliver superior products and enrich the customer experience.

However, such an ambitious goal frequently falls by the wayside if it is not properly understood. From the very start, the AI-powered activities that are deployed must have a real, positive, and measurable impact for your business.

Before outlining the AI initiatives that can be successfully delivered to video services today, let's take a moment to look back to understand where the video industry has come from, thus better understanding the momentum that is currently driving it.

Since approximately 2010, the traditional players in the video and TV industry (TV broadcasters, networks, and media companies) have responded to the threats presented by the market newcomers (Netflix, Amazon, Google, Hulu, Facebook, etc.) by investing time and money rolling-out “over-the-top” (OTT) strategies to bypass the industry’s long-established content distribution structure.

In today’s industry, those traditional players that are still relevant have deployed and actively market, with varying degrees of success, video distribution platforms and content catalogues (either licensed products or developed in-house) along with different business models (subscription, pay-as-you-go, advertising-based, bundled with pay-TV packages, etc.).

These players all face the same goal: to capture, retain, and engage their audience. Ultimately, they compete, not only with direct rivals from other video services, but also with the overwhelming choice offered to consumers by the Internet, all vying for the limited time of their users.





In this new, fast-changing landscape, consumers who are more and more indiscriminate and capricious will abandon your service if it does not wholly satisfy them. In this context, AI becomes an extremely helpful element for a video business.

Netflix, a company that needs no introduction, has understood this from the start. Consequently, it is extremely pragmatic about the ways it applies artificial intelligence across various areas of its business, ways that could undoubtedly be of potential use to other video services, adapted to their business goals.

Some of the real and proven AI-powered techniques that are potentially available to all video services are:

*One of Netflix most valued assets is its recommendation engine.*

*For years, Netflix has been developing its own AI algorithms for content and user experience personalization.*

*As a result, service recommendation, in one form or another, is accredited with driving 75% of the content consumed by Netflix's users.*





Until recently, the integration of a content recommendation engine represented a monumental project with an equally large investment, that would have only been within the reach of the major players like Netflix and Amazon.

In recent years, however, advances in big data and data science have democratized these techniques, making them available to the rest of the industry so that today the market benefits from solutions like Deep Recommender, which enables cost-effective and agile implementations of highly precise personalization and content recommendation solutions, like never before.

It is actually possible to make tailor-made recommendations for each video service customer by using high tech techniques like content image recognition or natural language processing, based on audience behavioral factors. Recommendations can finally be made to each individual customer based on the day of the week, time of day, or the device type that is being used when the recommendation is made.

*Predicting at-risk of leaving customers  
is crucial in order to maximize the  
Customer Lifetime Value of your video service.*





Increasing SVOD competition and slowing OTT market growth is making customer acquisition a more challenging and expensive proposition for OTT services. As it becomes harder to win new customers, it becomes increasingly important to retain those customers who are already on your service.

For some OTT services churn is over 50%, which means it is a considerable impediment to growth and has a significant impact on OTT business profitability.

Obviously, sometimes users have to or want to leave the video service, but it is important to understand when this happens and if there is a trend. More importantly, it predicts at-risk users in advance, so retention campaigns can be launched.

Today there are proven consolidated techniques to make churn management a mandatory activity, especially for video services based on a subscription business model.

There are solutions in the market like JUMP Retention, which are capable of tracking the distribution of users according to their likelihood of leaving the service in the coming months. The main variables that influence near-future churn probability for each user are also provided.

*AI can also be applied to improve content production and acquisition processes, which can then be used to create the content catalogue offered to the customer base or efficiently license sport rights.*





In this area, the applications vary, depending on the video service provider's business model.

For those video service providers that traditionally license content from the major Hollywood studios, it is very important to forecast what type of content will be the most relevant for its customer base for one to two years ahead.

Should I invest more in licenses for series or movies, in action or comedy, etc.

On the other hand, those service providers who produce their own content have to have an even longer forecast window. We all remember Netflix's success with its first in-house production (**House of Cards**), which was the result of using consumption forecasting techniques.

For those operators who license sports rights (TV operators, for example)

being able to predict the fair value of media rights for a certain entertainment or sports property, for a given period and in a given geographic territory, is critical for the rights negotiation because traditionally these represent a massive investment.

By learning customer preferences and determining trends, automated learning solutions exist today that are able to propose a content mix that will maximize the ROI of the content investment. For example, JUMP Prediction today is already building predictive content consumption models that help with these decisions.

### *AI applied to product development.*

*Product development based on empirical experimentation: using A/B testing algorithms, different product alternatives can be evaluated prior to launch allowing the product with the greatest positive impact on business objectives to be the one eventually rolled-out.*

*Every detail, down to the creative work that accompanies each piece of content, is tested with different alternatives, resulting in an uptake increase of up to 20%.*





*Also related to the product,  
offering a voice-enabled UX  
is unquestionably a growing trend  
in video services.*

With voice commands in the video-on-demand service, viewers can now launch and control their viewing experience giving voice commands to devices that support technologies like Alexa, Google Assistant, or Siri.

As an example, Accedo and Channel 4 have been working together to allow all Channel 4 viewers in the UK to start viewing content from All 4 simply by saying, “OK Google, play Gogglebox”. Once the content is playing, they can then control the viewing experience by simply asking Google to pause, seek, stop, play the next episode, and so on.





### *Audience Clustering*

Understanding user behavior relationships related to engagement levels across the user base and clustering them for segmentation purposes is key to effectively reach your audience with the right message, at the right time, across the right channel

Identifying relevant user engagement clusters (loyal users, sleeping users, frozen users, inactive users) and targeting marketing activities for each of them can have a significant impact on business outcomes for video services.

Additionally, to understand user behavior relationships related to the content type watched across the user base and clustering them for segmentation purposes is a key element for your content personalization. In this sense also identifying relevant genre consumption clusters and using different targeted marketing activities and service personalization can have a significant impact on video services' business outcomes.

JUMP Similarity is one of the advanced analytics solutions supporting this level of automatic clustering for your entire audience.

### *Marketing campaigns*

In this domain, there is infinite potential to use AI based on automatic-learning to automatically launch campaigns personalized to each user.

Currently, it's possible to launch automatic, personalized campaigns that optimize impact depending on the audience type (specific clusters of users, with a particular churn risk, etc.), the time of day, the campaign type (engagement, retention, recapture, etc.), channel (email, push notification, social media, etc.). We can put machines to work, as they learn about the effectiveness of previous campaigns.



Automated personalized marketing systems for video are able to recommend and automate positively impacting actions for a video service's business.

As an example of these type of solutions JUMP Impact can automatically suggest marketing actions based on business performance KPIs. Some examples available today are:

Some examples:

### Acquisition

New user acquisition has slowed by X% in the last week.

 Launch an **activation** campaign

### Engagement

Last week, user activity decreased by X%.

 Launch an **activation** campaign

Yesterday sleeping users increased by X%.

 Send push notification  
**content recommendations**

### Retention

There are Y # users that are about to leave your service for the following main reasons.  
Act or lose them!

 Service issues

 **Don't find content**  
they might like

 **In trial period with**  
**no activity**

### Re-Capture

Z # of lost users are now more willing to come back to your service.

 Launch an **win back** campaign

There are many other use cases available today that you wouldn't have imagined were AI-powered, and that can certainly be useful in helping you effectively manage your video service.



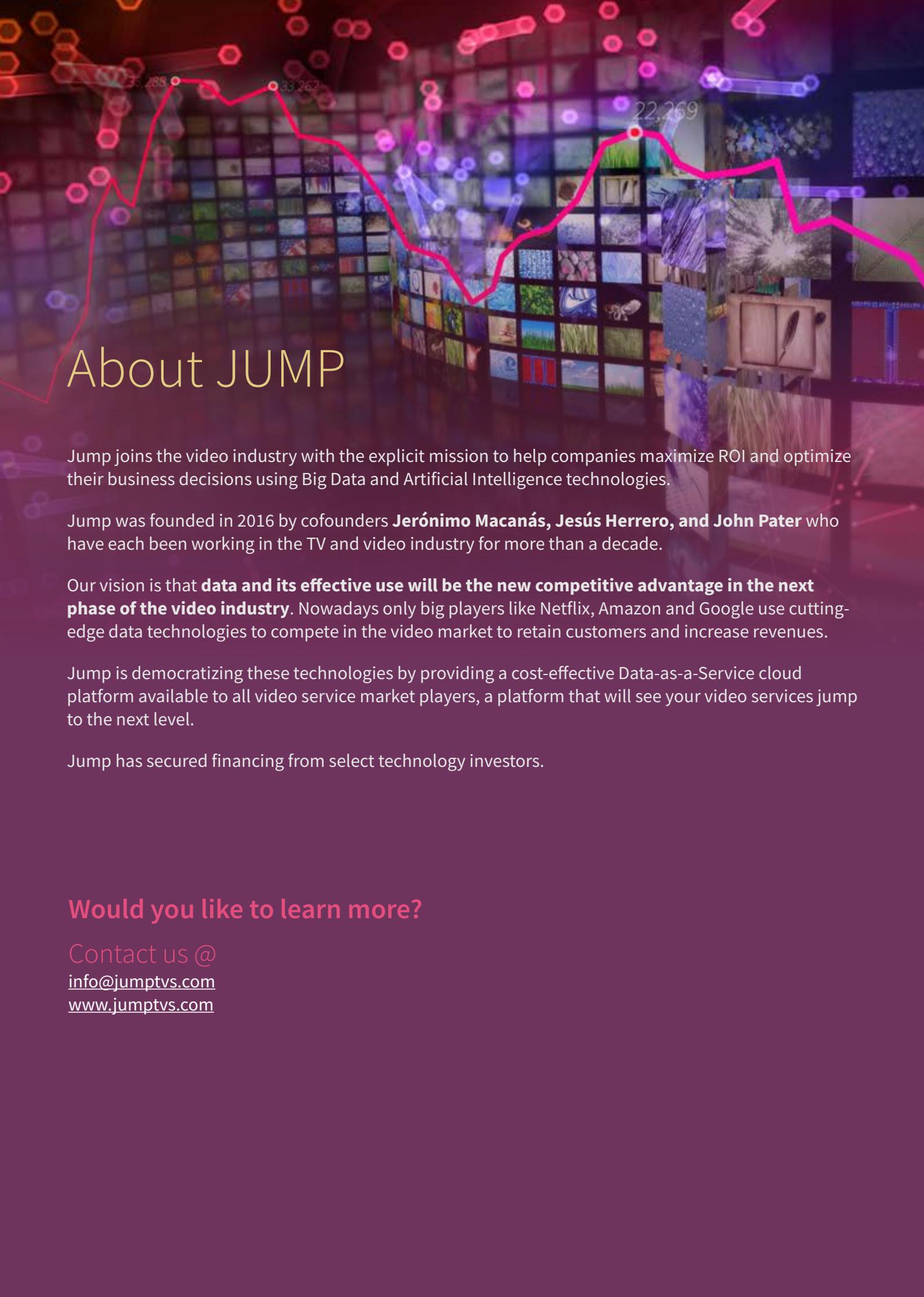
## Final Conclusions

In short, AI is not an option; it's a must. To successfully compete in an ever-increasing competitive market, the only options are when and how much to invest in AI. The sooner you start down the path, the sooner you will be able to identify which areas of your business are the ripest for an investment in AI-powered processes. You will then start to see the positive impact on your business.

Artificial intelligence permeates almost every aspect of our lives; it certainly affects the way we enjoy entertainment.

Don't wait. Power your video business with AI enabled capabilities. Start TODAY!





# About JUMP

Jump joins the video industry with the explicit mission to help companies maximize ROI and optimize their business decisions using Big Data and Artificial Intelligence technologies.

Jump was founded in 2016 by cofounders **Jerónimo Macanás, Jesús Herrero, and John Pater** who have each been working in the TV and video industry for more than a decade.

Our vision is that **data and its effective use will be the new competitive advantage in the next phase of the video industry**. Nowadays only big players like Netflix, Amazon and Google use cutting-edge data technologies to compete in the video market to retain customers and increase revenues.

Jump is democratizing these technologies by providing a cost-effective Data-as-a-Service cloud platform available to all video service market players, a platform that will see your video services jump to the next level.

Jump has secured financing from select technology investors.

**Would you like to learn more?**

Contact us @  
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