CLIPPERTON

FORWARD THINKING INVESTMENT BANKING





CONTENTS

	INTRODUCTION The view from Clipperton	4
l.	CHINESE ROOTS & FUNDAMENTALS Introduction How livestreaming ecommerce works in China The Chinese playground: an ideal candidate for livestreaming	6
II.	THE IMPLICATIONS OF GOING LIVE Building a fun & rewarding online purchasing experience Changing distribution play for brands and retailers Creators and influencers bolstering their position	12
III.	CAN LIVESTREAMING THRIVE IN THE WEST? The rise of social commerce: retail, entertainment & tech becoming one Video as the new fuel of ecommerce	18
IV.	MAIN OPERATIONAL APPROACHES TO VIDEO-BASED ECOMMERCE The new video-based ecommerce & social platforms White-label tools and enablers	24
V.	SUMMARY AND OUTLOOK	32

OUR RETAILTECH & ECOMMERCE PRACTICE



OLIVIER COMBAUDOU

Executive Director | ocombaudou@clipperton.com



GHISLAIN DE BUCHET
Associate | gdebuchet@clipperton.com

SELECTED CLIPPERTON DEALS













PREVIOUS CLIPPERTON RESEARCH PAPERS



The digitization of European grocery shopping

November 2020



DNVBs: Buzz word or a new class of assets?

March 2020

THE VIEW FROM CLIPPERTON

The pandemic has provided strong tailwinds to ecommerce globally, but also highlighted how imperfect the customer experience was compared to traditional mall / store shopping.

Looking back, several tech players have already made inroads into online downward steps of the purchasing process (payment, shipping, returns, etc.). Others have focused on supporting ecommerce players in their operations (product feed management. management. localization, tax management, etc.). However, the browsing and curation experience on the customer end has not dramatically changed in the past 20 years, sticking to the search -> buy scheme

With social media being ubiquitous and online content consumption at an all-time high, it seems inevitable that the future of ecommerce will be more social, frictionless and, of course, a lot more fun. That being said, the modalities of this paradigm shift remain uncertain.

To better understand what is going on, it is worth looking more closely at the boom China livestreaming in Livestreaming ecommerce is a business model in which celebrities - also called KOLs (Key Opinion Leaders, comparable to influencers in the Western framework) sell products and services via online video streaming. These KOLs typically host live shows on the most common national ecommerce platforms such as Taobao, Douyin or Kuaishou and manage to generate thousands of dollars in sales, may it be clothes, electronics, cosmetics or even cars and apartments! Those livestreams have become strategic sales channels for brands and retailers willing to add up volumes or to have their products known from potential new customers.

The livestreaming ecommerce wave is gradually spreading to Asian neighbors and India, in particular via digital leaders such as Lazada or Sea Group. In the US and Europe, promising initiatives have emerged but they remain sub-scaled so far. Could the trend ever take off in the West?

SECTION I

LIVESTREAMING CHINESE ROOTS & FUNDAMENTALS

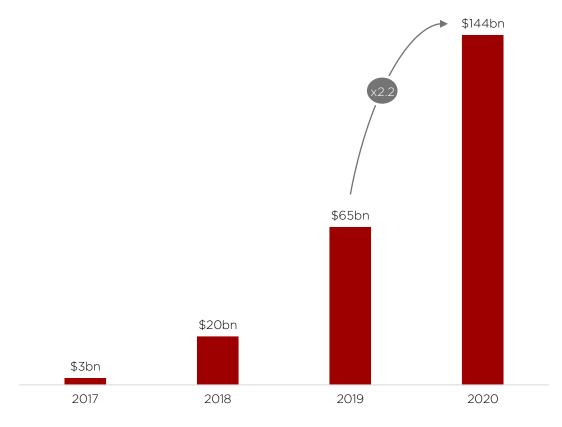
INTRODUCTION

While home shopping or QVC pioneered the "theatrical retailing" approach in the 1980's, livestreaming as we know it today was born in 2014 in China with an experiment from fashion social ecommerce platform Mogujie. 2 years later, Taobao (Alibaba) launched its own service and the model never stopped from developing since then.

In the last 4 years, livestreaming sales in China have exploded, increasing from \$3bn in 2017 to \$144bn in 2020, translating into a massive x45 increase over the period. That same year, livestreaming was used by an estimated 520m Chinese customers, representing close to 50% of the internet population.

LIVESTREAMING ECOMMERCE SALES ARE BOOMING IN CHINA

Sales in \$bn



Source: iMedia research Note: conversion from ¥bn to \$bn at Aug 25th 2021 spot rate

HOW LIVESTREAMING ECOMMERCE WORKS IN CHINA

The livestreaming scheme is now well structured in China, enabling further growth in the upcoming years as people shift from traditional purchases to videobased ones.

Platforms: While Taobao pioneered livestreaming sales in 2016, numerous Chinese online platforms have made inroads into the space since then. May they be social-first (e.g. Douyin) or ecommerce-first (e.g. Taobao), they all developed livestreaming features to benefit from the strong virtuous effect that can arise when merging traffic, engagement and online sales. All of those platforms operate a commission-based business model where they take a cut on each transaction that might occur during live shows, may it be rewards, gifts or purchases.

MCNs: With the incredible rise of social apps amongst the Chinese population over the last decade, digital marketing companies have developed to support brands and retailers to reach this increasing internet population. Aside from traditional performance marketing or web development agencies, MCNs (Multi-Channel Networks) have specialized in finding, training and managing influencers that act as advocates of brands they contract with. In 2020, the number of MCNs in China is

estimated to 28,000 according to iiMedia Research. MCNs rapidly extended their range of services to grasp the emerging livestreaming ecommerce opportunity. They are now at the center of the ecosystem, operating as a link between advertisers, KOLs and ecommerce platforms.

KOLs: Mostly managed by MCNs, KOLs (Key Opinion Leaders) are either professionals or amateurs that tie partnerships with brands or 3rd party retailers to advertise their products as part of one or numerous live shows. They are paid either by the minute or via a commission on products they manage to sell during the show. KOLs are core to the model, playing the role of strong brand advocates that can create FOMO and virality around their shows.

It turns out that the most successful KOLs have become superstars across the country and are increasingly coveted by brands as they can leverage a massive audience.

For instance, Viya Huang aggregates dozens of millions of followers on all of the most well-known Chinese platforms and is said to have generated no less than \$6bn worth of sales in 2019.

Source: (1) iMedia research

HELICOPTER VIEW OF THE CHINESE LIVESTREAMING ECOMMERCE SCHEME

KOLs are at the center of the ecosystem



Source: (1) iMedia research

THE CHINESE PLAYGROUND: AN IDEAL CANDIDATE FOR LIVESTREAMING

While Covid boosted livestreaming sales recently, more fundamental factors favored the rise of livestreaming adoption across China.

From an economic standpoint, China presents unique characteristics that offer a strong edge when it comes to building consumer tech companies:

- Ever-increasing internet population: 990m users in December 2020, 20% increase in 2 years;
- Boom in smartphone equipment rate: 927m users in 2020, expected to reach 1.14bn in 2025:
- Young base of potential customers: 69% of the population between 15 and 64 years old in 2020;
- Rising middle class with significant purchasing power.

On top of those, the omnipresence of super apps with integrated payment features of the likes of WeChat and Alipay has boosted mobile-based usages and developed O2O / intertwined purchasing patterns.

With 1.2bn users on both WeChat and AliPay (Q1 2021), those apps have become the go-to distribution channels for any business willing to reach the mobile-first Chinese population. In addition to their unique proprietary mass

traffic, those platforms have gradually integrated features that enable for the whole transaction process being covered from streaming to payment and delivery. This end-to-end approach is a strong unfair advantage to boost conversion rates as livestreams turn on.

Also, the ecommerce landscape in China was historically hard to navigate with a proliferation of scams, counterfeit goods or ghost merchants. This lack of transparency favored the rise of influencers that act as curators: as advocates of the products they showcase, KOLs reduce uncertainty and bring back trust to the commercial transaction.



 $Sources: \underline{China\ Internet\ Network\ Information\ Center}\ ; \underline{Statista}\ ; \underline{Chinese\ National\ Bureau\ of\ Statistics}$



SECTION II

THE IMPLICATIONS OF GOING LIVE: A NEW ECOMMERCE BUSINESS APPROACH

Livestreaming changes the rules of selling online, requiring brands and retailers to rethink their online marketing strategies and opening fresh opportunities to new players to participate in the value chain.

BUILDING A FUN AND REWARDING ONLINE PURCHASING EXPERIENCE

Despite little improvements in the past years, the Western online purchasing experience remains search-based and desktop-first, reducing the purchase act to its fundamental transactional nature. Livestreaming aims at changing this approach by improving product discovery and bringing back social interactions & fun to better replicate what it means to go shopping offline.

When thinking of the future of ecommerce, it's essential to look at Gen-Z roots and habits.

This upcoming generation of online shoppers has radically different consumption patterns than older generations. Concerning livestreaming, at least 4 of those characteristics are clearly in line:

 <u>Video-first and mobile-first:</u> Gen-Z is well equipped with smartphones and is more likely to consume video content vs. textual.

- Community-driven: The next generation is in constant search for safe havens on the internet where they can interact with people that share common interests and values without any fear of judgement.
- Authentic: Gen-Z has a highly contrasted approach to social validation vs. millennials. While the latter grew up with the rise of Facebook and Instagram, Gen-Z is deeply authentic like a response to the past deviations towards a fake-it culture.
- Playful and creative: Echoing the first point on video, Gen-Z is deeply creative and wants to make everything fun. The global boom of UGC and the success of TikTok is the perfect illustration.

That being said, it seems that there is a clear opportunity to adapt the way we buy things online to fit the needs of a developing next generation of customers. Social commerce features dramatically reduce frictions and transform the whole buying experience.

CHANGING DISTRIBUTION PLAY FOR BRANDS AND RETAILERS

Contrary to traditional advertising, livestreaming requires brands to interact directly with their customers, may they broadcast themselves or via influencers. This set-up has an immediate impact on the relationship brands might nurture with their customers, breaking the ice and adding authenticity at scale. In the tough context of ecommerce competition, livestreaming ecommerce might be an efficient way to build customer loyalty and to create a strong community of customers. The downside being the risks attached to live broadcasting, may it be product demo fails, brand bashing, etc.

Livestreaming is also an efficient way for brands and retailers to diversify acquisition channels.

As online acquisition becomes more and more challenging, livestreaming enables advertisers to partially reduce their reliance on Google and Facebook.

However, with the ecommerce landscape being more crowded than ever, companies will need to find ways to differentiate themselves to attract viewers. To that extent, innovative content will be key to stand out.

That being said, livestreaming has proven to be an effective way to promote one's products at lower costs. Video reduces the asymmetry of information between parties via more detailed product demonstrations and therefore contributes to higher conversion rates and lower return rates. For certain use cases such as geographical expansion, livestreaming is an efficient way to A/B test at low upfront costs and collect feedback rapidly before deploying larger resources.

CREATORS AND INFLUENCERS BOLSTERING THEIR POSITION



The rise of content-led communication provides additional tailwinds to the emerging class of creators. As it already happens on social media, influencers take advantage of their public figure to become strong promoters of brands that match their respective communities. To that extent, they play a crucial role in the digital marketing strategy as they become a bridge between advertisers and a pool of potential customers.

The new wave of video-led ecommerce better aligns interests, improves revenue distribution and empowers anyone willing to sell online. Though, power laws remain present: only top creators might manage to make a living from their

content while a long tail struggle to earn a compensation.

Also, the emergence of this new brick in the value chain still needs to be further professionalized. We expect a range of tools and players to emerge to support the increasing presence of creators and influencers, may it be on curating and training influencers (e.g., Brand And Celebrities, And Luxe), content production (e.g., TubeScience), monetization (e.g., Patreon), etc.

Photos: VCG

Livestreaming ecommerce has boomed in China and neighboring geographies in the past years, becoming an obvious distribution channel for most brands and retailers. This new form of 'retailtainment' is particularly well-suited to Asian markets characteristics and offers numerous advantages for the different counterparts that may take part in the model.

However, does the model make sense in noticeably different ecosystems such as the US and Europe?

SECTION III

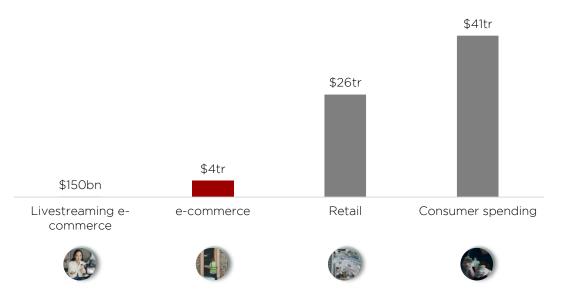
CAN LIVESTREAMING THRIVE IN THE WEST?

More segmented than China, the Western digital landscape is changing fast. As a common thread among consumer tech ventures, we observe the gamification and ever-enhancing user experience for all services available. However, while interest has been strong in the past months, the case for livestreaming as an ecommerce game changer remains to be proven.

THE RISE OF SOCIAL COMMERCE

A HUGE MARKET OPPORTUNITY AHEAD

Global market sizes, 2020E



Both ecommerce penetration and media consumption are at all-time high in Europe and the US. The retail digitization trend not being expected to change course, the largest players are gradually building intertwined models to benefit from the virtuous effect of gamified commerce.

In this regard, social giants have paved the way. With large audiences and/or pools of users, those players have gradually expanded their initial offering to upsell their customer base. May it be through M&A or organic developments, most of them are piling up services to become the go-to destination for anything online. In recent years, this play

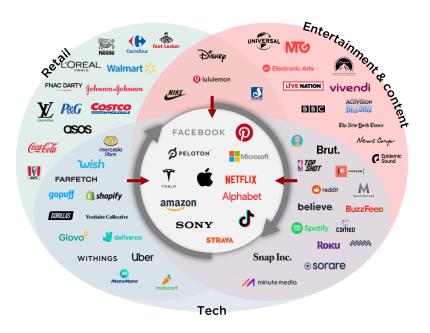
has mostly been geared towards social commerce.

For Facebook instance, launched Facebook Shops in early 2020, enabling brands and retailers to build a storefront directly on the platform. In parallel, Instagram is gradually implementing shoppable posts, turning the social platform into a powerful ecommerce with little rivaled discovery experience. On the video side, YouTube added different shoppable advertising tools to boost sales from the people watching content. All those initiatives have a common ground: they aim at making the experience purchasing fun rewarding, leveraging social media codes and mechanisms.

Sources: Goldman Sachs, World Bank, Benedict Evans Note: pre-Covid metrics

RETAIL, ENTERTAINMENT AND TECH ARE BECOMING ONE

Lines are blurring between the 3 worlds, gradually creating a powerful type of players





On the merchant side, leading retailer Walmart has been partnering with TikTok since late 2020 to conduct different livestreaming sessions which have proven to be successful. In France, different large retailers of the likes of Fnac and Leroy Merlin tried the format, leveraging white-label livestreaming tools to broadcast directly on their website. Those attempts seemed to be positive as Fnac announced the roll-out of livestreaming sessions at scale and the installation of mini-studios within its stores.

Emerging from an entertainment-first player, Netflix launched its own merch ecommerce platform Netflix.shop in June 2021, to make the most of the impact some shows can generate at the global scale.

The MGM / Amazon \$8.5bn marquee transaction is a compelling example of how tech and Hollywood are getting closer and closer. However, entertainment, tech and retail being historically not intertwined, a very short number of players have managed to benefit from the virtuous effect of merging those highly synergetic worlds at scale so far.

Note: selection of Western players for illustration purposes (1): pending transactions

VIDEO AS THE NEW FUEL OF ECOMMERCE

Video content consumption keeps going up and to the right: in 2020, the average viewing time amounted to 9.3 hours per week in the US, an 8% increase over 2019 according to Limelight. While Covid strongly supported the increase this year, we do not expect the trend to flatten in the upcoming years. Combined with the mobile share in digital commerce spending that keeps growing (c. 30% in the US in 2020, vs. 20% in 2016), video content could dramatically change the way we're incentivized to buy things online.

As well <u>depicted by Connie Chan of a16z</u>, video is already a cardinal driver of the Chinese retail landscape. Contrary to the Western search-based ecommerce approach, China is historically well advanced on the discovery and curation side. The integration of both didactic and entertaining video content is well suited to bridge the gap in the West.

That is when livestreaming comes into play. More immersive than traditional advertising, livestreaming ecommerce can be leveraged for selling most products and services and is well suited to mobile commerce. In a context of increasingly hard customer acquisition, livestreams constitute alternative ways for retailers and brands to reach their customer base and maximize value.

In Europe and the US, some players have emerged but the space still appears to be relatively open to new entrants.

Investors have been pouring money into the trend, including most renowned ones such as Andreessen Horowitz (Whatnot), Benchmark (PopShop Live, Supergreat), Lakestar (AGORA), Lightspeed (PopShop Live) or USV (ShopShops) among others. Though, the amount of money deployed remains contained when comparing to the size and growth of the ecommerce market opportunity.

Click below to access and download our Airtable database of livestreaming startups and funding rounds.



LIVESTREAMING PLAYERS ARE EMERGING IN NORTH AMERICA AND EUROPE

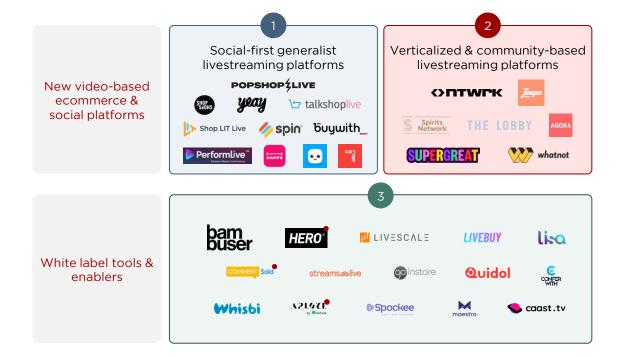


As ecommerce and entertainment come closer together, livestreaming ecommerce is an obvious pathway, but it remains unclear how the model could integrate into the Western digital stack.

SECTION IV

MAIN OPERATIONAL APPROACHES TO VIDEO-BASED ECOMMERCE

THREE MAIN APPROACHES TO VIDEO-BASED ECOMMERCE

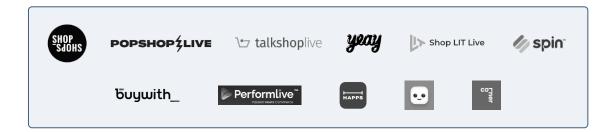


As US and Europe do not have their own WeChat -which would make the go-to-market obvious for livestreaming ecommerce-, alternative approaches to bridge the gap between video and online commerce are being tested.

In short, 3 main types of players have emerged in addition to legacy social media. On one hand, there are new integrated platforms dedicated to livestreaming purchasing which are either 1) generalist or 2) verticalized; on the other hand, some companies focus on providing 3) white-label tools and enablers.

THE NEW VIDEO-BASED ECOMMERCE & SOCIAL PLATFORMS

1 - SOCIAL-FIRST GENERALIST LIVESTREAMING PLATFORMS



Drawing from the Chinese platforms, a range of players has developed livestreaming destinations where influencers and potential customers meet. Those platforms combine strong social media DNA and ecommerce logic with ambitions to get to the powerful network effect that may arise when the critical size hurdle is overpassed.

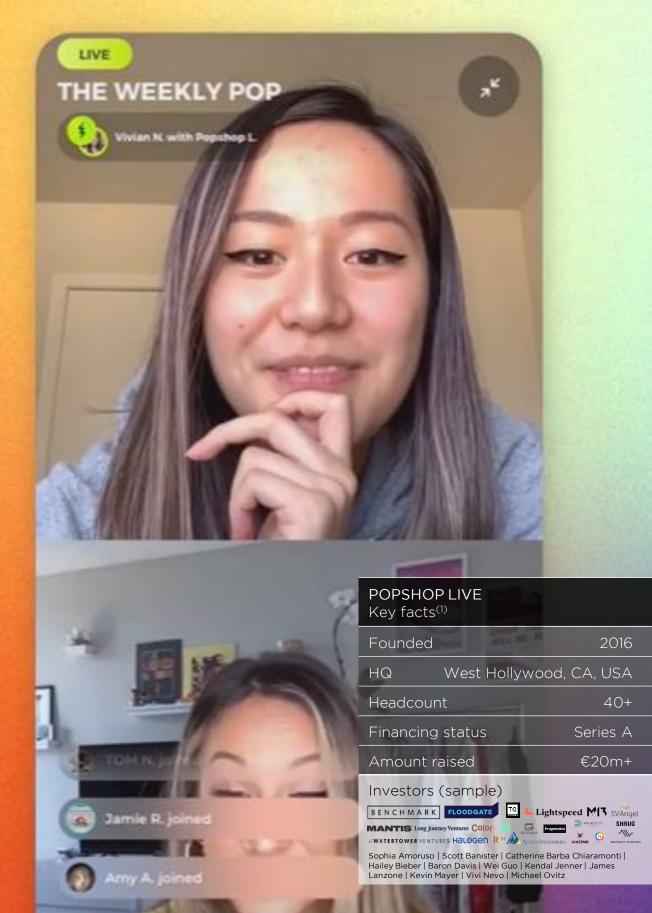
Rather focused on enabling discovery than boostina conversion. those platforms mix the codes of traditional new-gen Chinese-like platforms: the art of pitching, fire sales, social media mechanisms, etc. Products can be anything but are likely to be in the lower range in terms of price. Hosts are in charge of generating virality via a combination of funny moments and promos. This FOMO approach enables for large volumes sold in a short amount of time but needs to be carefully contained to limit returns that would follow a potential deceptive experience when viewers receive the products.

In the US, ShopShops and Popshop Live have pioneered the approach and collected significant attention from investors. In July 2021, Benchmark invested in LA-based Popshop Live Series A at a c. \$100m said valuation.

While those platforms could become viral as they did in China, it remains unclear how brands can build customer loyalty as sales are mostly price-driven. Also, remaining generalists implies a winner-takes-all logic à la social networks where a very limited number of bestperforming players could reach massive scale while others would struggle to attract and retain users. The competition well-established and pocketed social platforms could require players adopting this approach to raise and spend substantially more than their counterparts cited below.

Note: non-exhaustive list of Western players

POPSHOPZLIVE



THE NEW VIDEO-BASED ECOMMERCE & SOCIAL PLATFORMS

2 - VERTICALIZED & COMMUNITY-BASED LIVESTREAMING PLATFORMS



While ShopShops and Popshop Live are building platforms for the mainstream, other players have adopted a niche play to target a very qualified audience. Those platforms are focused on building strong communities of people that share common interests, which aims at further driving engagement and sales.

In the US, NTWRK is building the go-to video-based destination for everything street culture. Once logged in, people have access to shoppable content but also access to exclusive drops and coveted drawings. The company brought Drake, Jimmy lovine and Foot Locker on the capitalization table. demonstrating the ambivalent the positioning at frontier entertainment and ecommerce.

In a context of both ever-increasing ecommerce offering and constant rise of online communities, the verticalized livestreaming platform seems to be a highly promising approach.

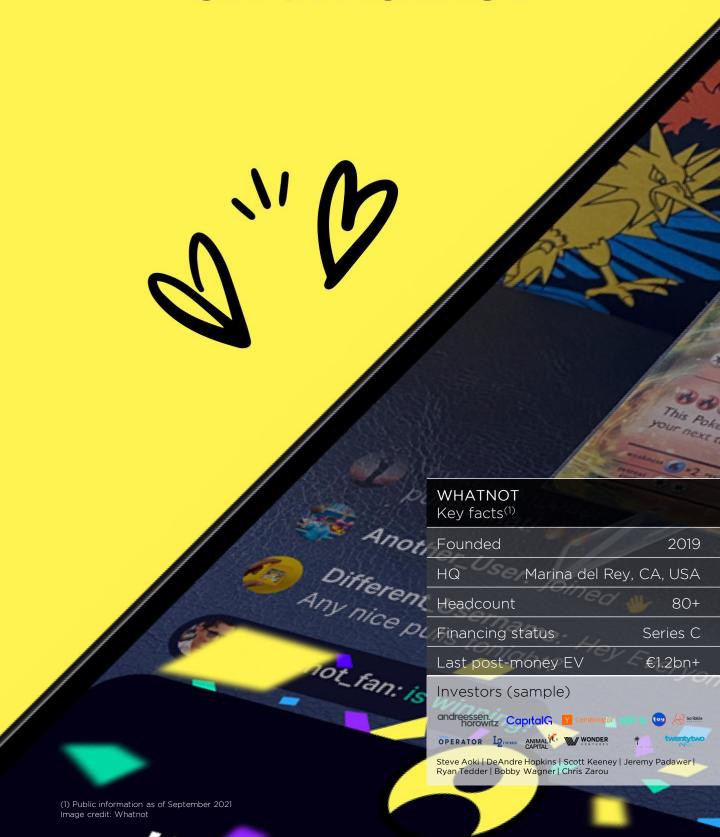
Most "niches" in ecommerce are not so niche and can become global multibillion-dollar opportunities: take sneakers, collectibles, baby food, cars, etc.

Those platforms are highly community-driven and culture-centric, which matches the increasing Gen-Z' needs and characteristics. The combination of educated and passionate users, selected brands and content in one place creates a unique flywheel that platforms can ride without needing to spend outrageous amounts in user acquisition and retention.

Being differentiated, those players could integrate alternative business models such as subscription to escape the social inspired advertisement-based ones.

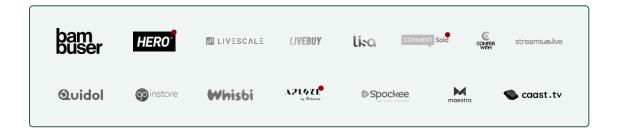
Note: non-exhaustive list of Western players

Collect together on Whatnot



WHITE LABEL TOOLS & ENABLERS

3 - BUILDING THE MISSING BRICK OF THE EXISTING INFRASTRUCTURE



Some brands and retailers have made the choice to implement livestreaming features directly on their website. This decision is an orthogonal approach to the "platform play" which aggregates a wide range of offerings in a single place. "siloed" distribution strategy. enables ecommerce players to transform their website into an entertaining and pleasant destination while keeping control of the overall purchasing process and retaining customer data. As a downside, players operating their own livestreaming operations will not benefit from the network effects that can arise on platforms and they will still need to generate traffic as they used to.

To enable this use case, a range of startups has developed tools that can be easily integrated on ecommerce websites and plugged to the existing infrastructure.

The video feature is then either used for live shows hosted by trained salespersons and/or influencers or for digitized personal shoppers that can assist the customer in its purchase.

In Europe, Bambuser has been a historical social commerce player. While founded in 2007, the company recently entered a high-growth phase with the scale of livestreaming features. Revenues increased tenfold between 2019 and 2020 and are expected to 2.5x in 2021. Hero, another livestreaming enabler from the UK, was acquired by BNPL leading player Klarna in July 2021, further demonstrating the momentum in the space. Other startups have emerged in the past years but remain in their early stages: LiveBuy, Corner, Whisbi, Caast.tv or Spockee among others.

Note: non-exhaustive list of Western players

• Acquired companies



SECTION V

SUMMARY AND OUTLOOK

AT THE CUSP OF CONTENT-LED & VIDEO-FIRST ECOMMERCE

Livestreaming ecommerce is already a strong success in Asia and is spreading to other emerging markets where mobile is the historical and preferred channel for online shopping (e.g. Mimo Live Sales in Brazil; Kuick in Chile; SimSim -acquired by YouTube-, BulBul or Baaz in India, etc.).

In Europe and the US, the size of the total retail market combined with a still low ecommerce penetration in some verticals, the rise of mobile commerce and content consumption amongst new generations, open great opportunities for video-first and livestreaming digital commerce in the coming years. As the overall ecommerce experience constantly upgraded, it is now with no doubt that video content will become a cornerstone of the online buying process to provide an immersive experience and emotion-led purchasing enabler.

However, the existing ecommerce stack being highly fragmented and diverse, the modalities of the imbrication of video, social and commerce will be plural. We consider major social players well-positioned to grab a significant share of the opportunity as they have reached a hard-to-compete scale and can leverage years of customer data to add and run commerce features efficiently.

Though, innovators have room to build. The different models unfolded before may coexist as they do not necessarily overlap between each other:

 New social platforms of the likes of PopShop Live can rapidly aggregate a generalist and extensive demand but

- are best-suited for product discovery. Reaching scale and competing with installed social platforms will be their tough challenge:
- Community-driven platforms of the likes of NTWRK are highly powerful as they bring together strong network effects and are focused on becoming a gateway for their underlying topic. Limited to one or a handful of verticals, they cap by design the potential audience for brands / advertisers. However, the potential for a mixed business model integrating subscription or commission could help building sustainable and highperforming players. We expect some non-video-based platforms culture and strona identity (sneakerheads, collectibles, crypto etc.) to gradually adopt livestreaming features for community building:
- White-label tools / enablers could be leveraged at scale by branded websites to help consumers better understand the product offering, increase conversion rates and boost the overall customer satisfaction. However, those video enablers do not allow for network effects that can arise with the platform approach.

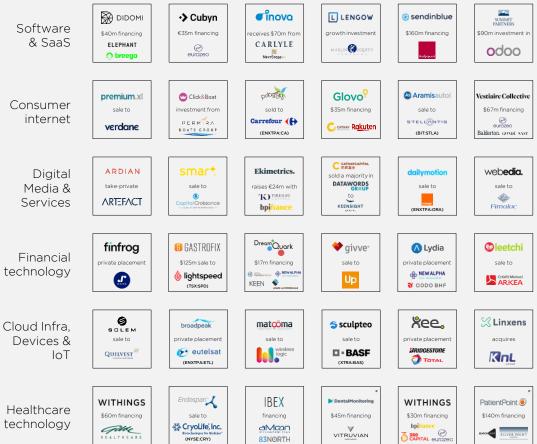
We expect social commerce and especially the video-based one to develop sharply in the near future to become a major driver of growth. Given the prominence of generalist social networks in the Western landscape, players that manage to build differentiated offerings and/or embrace an alternative way to integrate video into the fragmented ecommerce scene should be closely watched.

ABOUT CLIPPERTON

Clipperton is a global investment banking platform advising high-growth innovative businesses, their founders and shareholders on strategic transactions. We focus exclusively on digital and technology-driven sectors and have forged personal relationships with decision-makers amongst leading global corporates and investors worldwide.

Since inception, Clipperton has successfully advised on more than 350 transactions, often for repeat clients.

SELECTED TRACK RECORD



* Transaction managed either in co-mandate with or by one affiliate of the Natixis global M&A Alliance

Paris | Berlin | Munich | London | New York | Beijing

METHODOLOGY AND SOURCES

We conducted numerous interviews with knowledgeable people about the industry to issue this article. Special thanks to the entrepreneurs, investors and experts who took part in the discussions related to this research.

The report is based on aggregated data from transactional databases including CapitallQ, Pitchbook, Mergermarket, Crunchbase and supported by public news and company press releases.

Our sources only include public data (e.g., press articles, public databases and websites). The accuracy of the data sets underlying our analyses is therefore limited to disclosed data only.

DISCLAIMER

The information contained in this research report has been prepared in good faith, nevertheless, no representation or warranty, express or implied, is or will be made and no responsibility or liability is or will be accepted by Clipperton Finance. In particular, but without prejudice to the generality of the foregoing, no representation or warranty is given as to the accuracy, completeness or reasonableness of any projections, targets, estimates or forecasts contained in this research report or in such other written or oral information that may be provided by Clipperton Finance. The information in this research report may be subject to change at any time without notice. Clipperton Finance is under no obligation to provide you with any such updated information. All liability is expressly excluded to the fullest extent permitted by law. The information contained in this research report should not be relied upon as being an independent or impartial view of the subject matter and for the purposes of the rules and guidance of the Financial Conduct Authority ("the FCA") this research report is a marketing communication and a financial promotion. Accordingly, its contents have not been prepared in accordance with legal requirements designed to promote the independence of investment research and it is not subject to any prohibition on dealing ahead of the dissemination of investment research. The issue of this research report shall not be deemed to be any form of binding offer or commitment on the part of Clipperton Finance. No information set out or referred to in this research report shall form the basis of any contract. This research report is provided for use by the intended recipient for information purposes only. It is prepared on the basis that the recipients are sophisticated investors with a high degree of financial sophistication and knowledge. This research report and any of its information is not intended for use by private or retail investors. You, as the recipient of this research report, acknowledge and agree that no person has nor is held out as having any authority to give any statement, warranty, representation, or undertaking on behalf of Clipperton Finance in connection with the contents of this research report. Without prejudice to the generality of the foregoing, no party shall have any claim for innocent or negligent misrepresentation based upon any statement in this research report or any representation made in relation thereto. The information contained in this research report is based on materials and sources that are believed to be reliable; however, they have not been independently verified and are not guaranteed as being accurate. The information contained in this research report is not intended to be a complete statement or summary of any securities, markets, reports or developments referred to herein. No representation or warranty, either express or implied, is made or accepted by Clipperton Finance, its members, directors, officers, employees, agents or associated undertakings in relation to the accuracy, completeness or reliability of the information in this research report nor should it be relied upon as such. This research report should not be construed in any circumstances as an offer to sell or solicitation of any offer to buy any security or other financial instrument, nor shall they, or the fact of the distribution, form the basis of, or be relied upon in connection with, any contract relating to such action. The information contained in this research report has no regard for the specific investment objectives, financial situation or needs of any specific entity and is not a personal recommendation to anyone. Persons reading this research report should make their own investment decisions based upon their own financial objectives and financial resources and, if in any doubt, should seek advice from an investment advisor. Past performance of securities is not necessarily a guide to future performance and the value of securities may fall as well as rise. This research report may contain forward-looking statements, which involve risks and uncertainties. Forward-looking information is provided for illustrative purposes only and is not intended to serve as, and must not be relied upon as a guarantee, an assurance, a prediction or a definitive statement of fact or probability. Actual events and circumstances are difficult or impossible to predict and may differ from assumptions. Any and all opinions expressed are current opinions as of the date appearing on the documents included in this research report. Any and all opinions expressed are subject to change without notice and Clipperton Finance is under no obligation to update the information contained in this research report. The individuals who prepared the information contained in this research report may be involved in providing other financial services to the company or companies referenced in this research report or to other companies who might be said to be competitors of the company or companies referenced in this research report. As a result, both Clipperton Finance and the individual members, directors, officers and/ or employees who prepared the information contained in this research report may have responsibilities that conflict with the interests of the persons who access this research report. Clipperton Finance and/or connected persons may, from time to time, have positions in, make a market in and/or effect transactions in any investment or related investment mentioned in this research report and may provide financial services to the issuers of such investments. The information contained in this research report or any copy of part thereof should not be accessed by a person in any jurisdictions where its access may be restricted by law and persons into whose possession the information in this research report comes should inform themselves about, and observe, any such restrictions. Access of the information contained in this research report in any such jurisdictions may constitute a violation of UK or US securities law, or the law of any such other jurisdictions. Neither the whole nor any part of the information contained in this research report may be duplicated in any form or by any means. Neither should the information contained in this research report, or any part thereof, be redistributed or disclosed to anyone without the prior consent of Clipperton Finance. Clipperton Finance and/or its associated undertakings may from time-to-time provide investment advice or other services to, or solicit such business from, any of the companies referred to in the information contained in this research report. Accordingly, information may be available to Clipperton Finance that is not reflected in this material and Clipperton Finance may have acted upon or used the information prior to or immediately following its publication.

Registered UK office: 31-35 Kirby Street, ECIN 8TE London, United Kingdom. Registered in England and Wales No. 07088791. Clipperton Finance Limited an Appointed Representative of Brooklands Fund Management Ltd which is authorized and regulated by the FCA. Reference number: 808351

