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INNOVATION
**IN CROSS-PLATFORM
MEDIA CONSUMPTION
MEASUREMENT**

Alldience:
a pilot study

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RESEARCH
SOLUTIONS

INNOVATION
IN CROSS-PLATFORM MEDIA CONSUMPTION MEASUREMENT

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CROSS-PLATFORM CONSUMPTION: A REALITY.

The consumption of television and video products is on the rise throughout the world. PricewaterhouseCoopers (PwC) estimates total worldwide entertainment and media (E&M) revenues at USD $2.2trln this year (2019) projecting to $2.4trln in 2022, a 3% compound annual growth rate, faster than that of all but a very few of the world's economies. Excluding access (such as broadband), the respective amounts are $1.5trln and $1.7trln, for a slightly higher CAGR. At around 3% of GDP (including access) and 2% (excluding access) this year, E&M by either definition is among the world's ten largest industries.

Broadband use is projected to grow at 26% CAGR, from 580,000bln MB this year to 1,150,000bln MB in 2022. Next year mobile broadband use, growing at 33%, will for the first time exceed that of fixed broadband, which grows at 19%. The increase in broadband penetration and use, and growth in smartphone and tablet penetration, is directly related to strong development of the Over-The-Top (OTT) market, the delivery of videos over the Internet without the need to subscribe to pay-TV services. Digital TV Research estimates global OTT revenues at USD $69bln in 2018 and projects to $129bln in 2023, a 13% CAGR.

TV is no longer consumed only on sets with over-the-air reception or pay-TV. Indeed, in most countries that undergo transition from analogue to digital terrestrial broadcasting followed by analogue switch-off, pay-TV penetration drops steadily, and particularly steeply in less developed economies which offer the most upside potential. Pay-TV is being replaced with terrestrial (now digital, offering a perfect picture)—and streaming.

Furthermore, while in the higher-income countries the trend is, for now, away from advertising-supported OTT/VOD (SVOD) towards the subscription-based model (AVOD), in lower-income countries the trend is very much the opposite: towards very inexpensive or free content (albeit with advertising) on very inexpensive mobile broadband. The move to AVOD is likely to dominate globally with deployment of the much faster 5G mobile networks in the next few years, the unsustainability of Netflix in its current SVOD model as the financial markets increasingly treat it as a mature company expected to turn a profit instead of its current huge losses, and the worldwide expansion ambitions of SVOD leader Hulu.

These dramatic changes in consumption require commensurate advances in measuring, understanding and analysing this behaviour. Most large content providers and advertisers have already seen the need to innovate for the digital era. One of the fastest-growing segments of the industry is the process of measuring the consumption of TV and advertising content. New and ever-diversified TV and video platforms bring more complex processes for broadcasters and advertisers to obtain relevant data about their audiences and performance of their media campaigns.

That's why eCGlobal Research Solutions, a market research company for more than 15 years, and a specialist in consumer intelligence, in partnership with Immetrica, a specialist in the engineering of audience measurement systems, have put together their expertise to offer to the market an innovative solution capable of measuring the consumption of cross-platform media content. Alldience, an app and backend processing system developed in this partnership, shows a high ability to measure multiplatform content consumption, going well beyond the product on the market today.

A pilot study, conducted between September 2018 and February 2019, revealed to us, among other findings, that the ability to measure media consumption through a mobile application installed on viewers' smartphones offers very reliable data, which resembles conventional measurement results—but measures so much more. The results of this study are here in this eBook with a brief reflection on the reasons that led us to the creation of Alldience.

SCENARIO
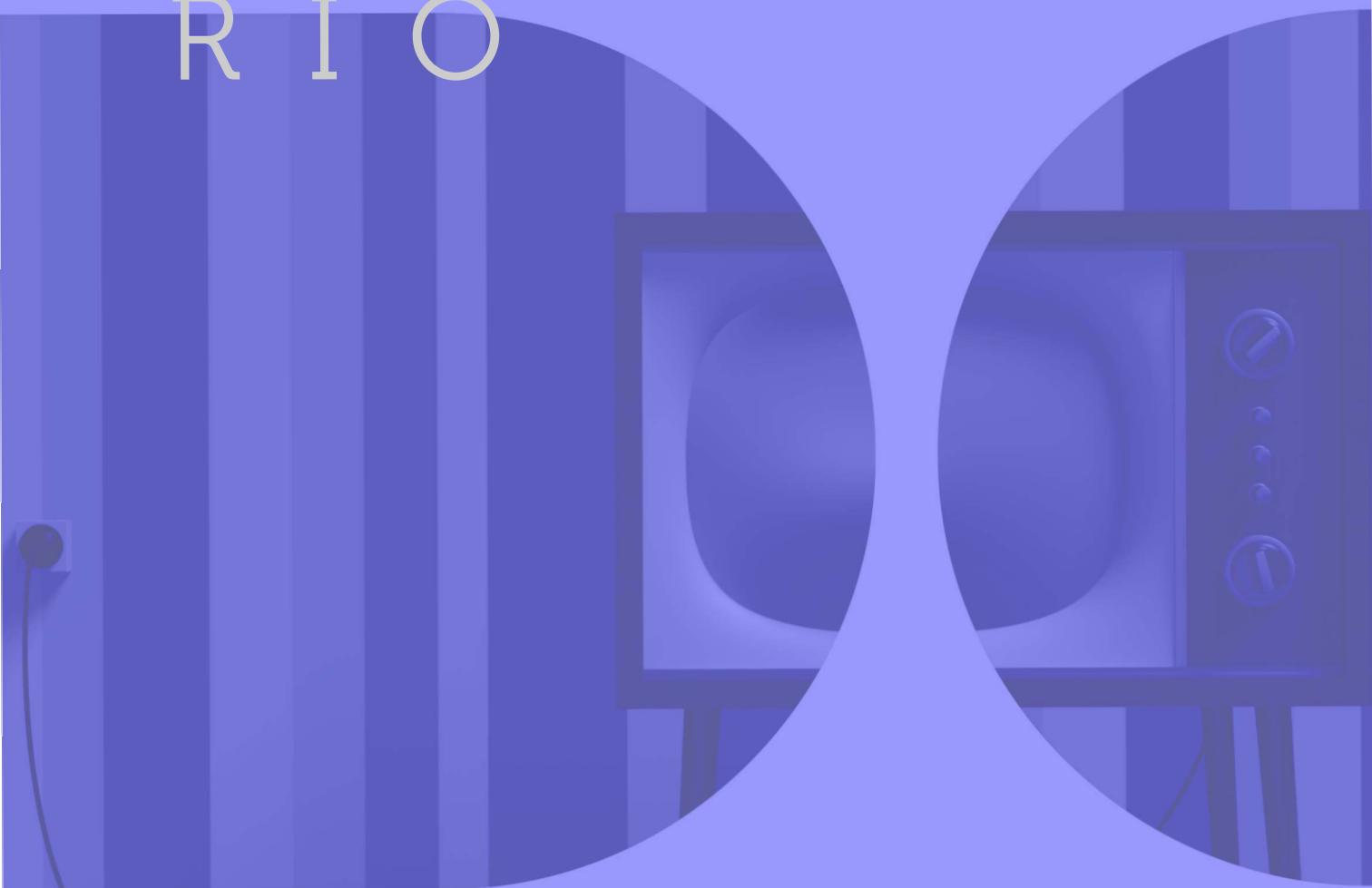
Timeline:
THE EVOLUTION
OF MEDIA

As electronic media evolved, so did measurement of their use and its importance to decision-making processes of companies in the industry, advertisers and agencies. A timeline helps to understand the influence of the media in purchasing decisions. The first electronic medium was radio. **From its emergence in the 1920s and commercialisation in the 1930s**, it became a medium of choice in selling initially to the select audience of early adopters, and then to the general public. The influence of radio was decisive in all fields, be it social, political, economic, religious, cultural and educational, soon becoming as powerful as that of the newspapers.

Initially, television was not universally accessible: the receivers were expensive. Until the late 1950s television was second to radio as an entertainment medium; outside North America, few countries had advertising. From the 1960s, with the arrival of colour and remote control, advertisers started to explore what today is still one of their main vehicles; radio yielded its leading entertainment role, remaining popular for music, news, and, thanks to the transistor, out-of-home use. The companies providing currency ratings services mostly started in radio during the same time, and gradually shifted to television as it displaced radio use, usually leaving radio to other companies. The first to use passive measurement was Nielsen, with the radio Audimeter in 1935 and the TV version (an early set meter) in 1950.

In the mid-1970s, cable television was introduced in several countries. Cable systems of that time had the capacity for only several dozen channels, but posed a problem for the ratings currency providers because some of these channels' audiences were too small to be meaningfully measured by their small samples—which, owing to the providers' high costs, could not be increased without undermining the financial model of a syndicated ratings service. The same problem, and technology insufficient to detect the vast variety of VCR prerecorded content, rendered that new technology invisible to the currency providers as well. For the first time, their services were not comprehensive, and the missing share of viewing, initially tiny, was growing rapidly.

The 1980s brought large-scale rebuilds of cable systems that rapidly increased the number of channels into the hundreds in many countries, and vertical integration practices by broadcasters and cable MSOs that encouraged the carriage of their channels for business reasons rather than subscriber demand. This further increased the counts of channels that could not be measured without sample increases.

A further breakthrough came when the NBC series St. Elsewhere (which ran 1982–1988 in the US) was rescued from cancellation by being the first to be sold on its viewers' demographics (young urban professionals —yuppies) rather than its lacklustre overall audience size. Income, education and occupation were not available for Nielsen's TV samples and had to be obtained from other surveys. Nielsen's national sample did replace the combination of set meters and unreliable printed diaries for individual measurement with people meters in 1987–1988, which required every household member to check in and out of viewing and to confirm ongoing viewing every 49 minutes. The ability to "cheat" these requirements part of the time—the fact that it is not passive with respect to its data on individual viewing, now much more important than the passively obtained household data—remains an ongoing weakness of the people meter, still the mainstay of currency providers.

2000

the consumer no longer simply buys the products

The Internet was opened to the wide public in the mid-1980s. Its "killer application" (other than email), the World-Wide Web, arrived in the first half of the 1990s. It was almost immediately used for advertising but for years its ad-carrying capacity remained low and the costs extremely high. High-speed (better than dialup) Internet connectivity reached most areas in the form of DSL in the late 1990s, leading promptly to the start of Netflix in 1997; cable broadband emerged in the first half of the next decade. The first smartphone (the iPhone) was introduced in 2007 with tablets following; mobile phones used for voice and text were replaced by smartphones with Internet access from almost anywhere, and this strong growth continues in much of the world. The first DVR (the original TiVo model) went on sale in 1999 and the technology spread rapidly over the next few years, making timeshifting of television programming easy enough for most users—as it was not on VCRs. Cable operators' VOD systems serve the same purpose starting in the second half of the 2000s. These technologies pose a need for measurement of timeshifted viewing, which is belatedly accommodated by most ratings currency providers, and measurement of content never transmitted on realtime channels, which is not.

The media industry was rewarded by daring tech startups and early adopters; the audience measurement industry focused on the Web and, in the current decade, social media, leaving an increasing percentage of video consumption unmeasured. Although measurement of online use is highly problematic, with inadequate measures and transparency, errors in measurement systems, a lack of balance on many sites between moderately priced but mostly ignored banner and sidebar ads and click-throughs at exorbitant CPMs, and poor targeting despite these very high prices, it attracted sufficient spend (equalling that on TV in the US in 2017) to train advertisers to expect the ability to target and buy, across multiple resources, exactly the audience segments they want. Soon, they started clamouring for the same capability in TV, and measurement firms delivered systems that permit that—usually, however, without real audience measurement data. Thus, paradoxically, programmatic markets for advertising placement served addressable ads, for which there was some information from the set-top box (STB) or smart TV, before ordinary channel which still today carry the bulk of TV advertising

The Internet also brought e-commerce in competition with bricks-and-mortar retail. There, marketing in media is decisive, replacing footfall or point-of-sale engagement. Social networks increasingly monetised the brand-consumer connection, with some of the largest players also seeking to transform their services into digital media platforms (including video) increasingly used by e-commerce vendors and other advertisers. Marketing now is assumed to require online and social-media presence.

Data connections have steadily become faster (and continue to do so) and have served more purposes. Smartphone and tablet applications enabled mobile and personal access to user-collected and streaming music, photography, the Web, and increasingly video and television. They did not stop there. The demand for realtime information has resulted in an omnichannel integration of channels (TV, Internet, smartphone, tablet, notebook). What is not seen, is not remembered—the new principle for media strategies, highlighting the importance of integrated communication, multiplicity of access cross-platform and proximity to brands, adapting to the customer's liberated convenience.

The new technology greatly affects the consumer decision process. The variety and the ease of product and price comparison, the ability to refer to experiences of other people known and unknown, and dramatically evolving consumption habits (such as showrooming or even complete deprecation of bricks-and-mortar stores in favour of Internet-order fast delivery), govern the moment of choice. They define the consumer's agency in his own purchasing strategy: the consumer no longer simply buys the products—he is now much more empowered to do so according to his own criteria. Our research efforts focus on him.

THE CONSUMER AND HIS PROMINENT ROLE

Predictions that the Internet would take the place of television are obsolete: rather, the two have merged, and are continuing to merge, into a single, highly personal multiformat tapestry across forms (written word, photographic, video, audio) and devices. When a viewer can watch a movie on her tablet and continue watching it from the same point on her smart TV, it is no longer clear where the boundary between Internet and television is. While the focus has been on cord cutters (those who stop subscribing to pay-TV) and cord nevers (those who never subscribe to it in the first place), almost everyone watches some televisual content—the difference is in what and how.

While in the short term, the greater access to video content enabled by technology increases viewing markedly just as DVRs did, there is a limit in each person's day to how much video he can watch, and for the most tech-enabled people, it is being reached. The nature of the viewing itself changes, however, becoming much more fragmented; more appointment-driven (focused on specific content) rather than passively accepting realtime channels' schedules or even zapping, often for hours on end; and increasingly individual rather than shared with other family members around the only TV set. Fights over the remote control are receding into the past; shared viewing is a matter of choice rather than necessity. Part of the huge growth in appointment viewing as a share of all video consumption is the new ability to binge-watch the entire season of a series in a single day. Nonlinear viewing is rapidly devouring linear to an extent that raises doubt about the continued viability of linear channels, at least for most content other than news and sports.

Opportunities for video advertising display also change, with members of the higher socioeconomic groups often able to buy out of advertising entirely by opting for SVOD instead of AVOD, and many streaming services offering the ability to skip some ads, making their viewing dependent on viewer interest and perceived utility.

The new ways of using video content, which make it possible and encourage it to occur at any time of the viewer's convenience, raise other questions of interest to marketers. Is television viewing still an established practice for many people at mealtime, for example? Does the time spent on viewing have the same meaning compared to the 1980s / 1990s: are the attention, engagement, satisfaction and ad recall levels different?

The investigator of video consumption faces a much more complex task in this new environment. New methodologies commensurate with all these changes are needed. Classic television audience measurement by the ratings currency providers is incomplete: unable to see the new means of content delivery, in particular any mobile device and thus most personal screens; unable to deploy sufficient samples to measure any but the largest channels' realtime and DVR-timeshifted, TV-set-only, viewing—still fighting a rearguard battle against the fragmentation levels of three decades ago, completely unprepared for the era of on-demand nonlinear viewing; equipped with only the most banal age and gender demographics; and devoid of consumer, social-media-use or nonvideo Web use data. On the other hand, marketing surveys, which could fill this need, still use data parameters that stratify consumers into categories of "choices" as to specific products, crossing sociodemographic data and leaving aside the motivations, attitudes and behaviors of these choices.
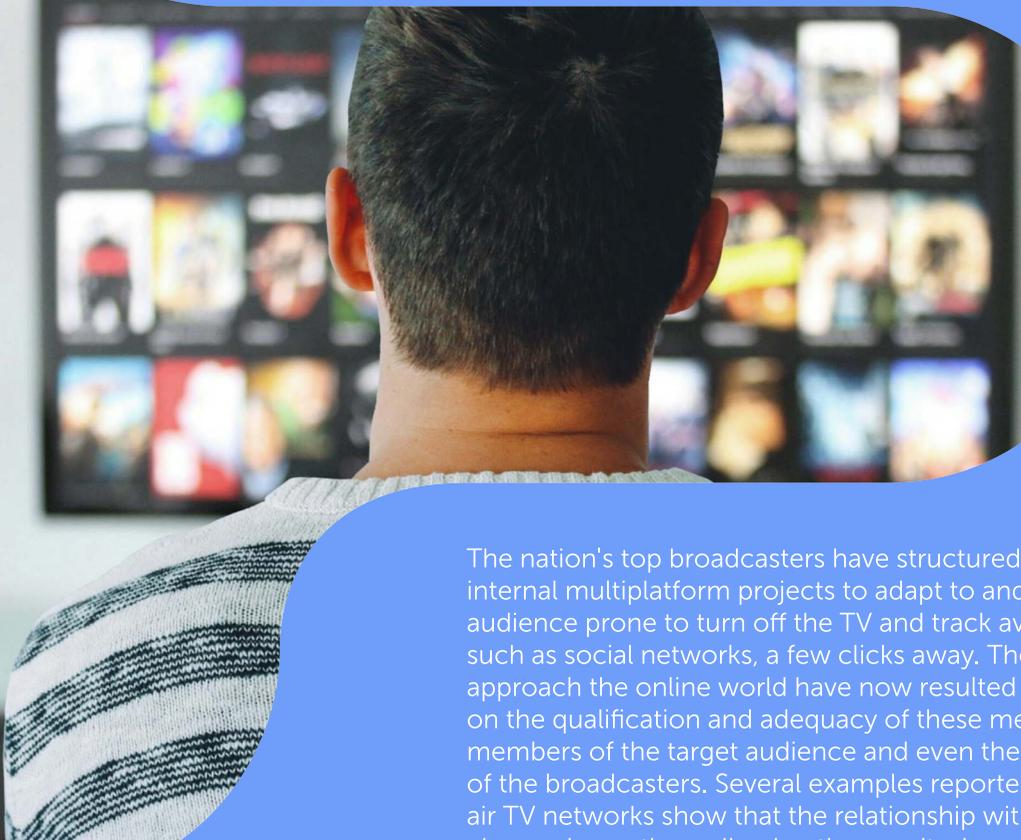
The nation's top broadcasters have structured and conducted internal multiplatform projects to adapt to and rescue access to an audience prone to turn off the TV and track available online media, such as social networks, a few clicks away. These initiatives to approach the online world have now resulted in positive impacts on the qualification and adequacy of these media, the users as members of the target audience and even the commercial results of the broadcasters. Several examples reported by the big free-to-air TV networks show that the relationship with social networks has changed over time, allowing the monitoring of public conversations, memes and trending topics to inform programming and business strategies.

In this context, it is critical to understand consumer behavior to understand how potential customers will respond to a new product or service and identify new demands that are not being met right now, or to realize the need for innovation. Everything changes when this behavior becomes completely different, including how to measure audience.

HOW ARE THE EXISTING MEDIA CONSUMPTION STUDIES, THEN?

That is the question that motivates our innovation—the development of ideas to measure media consumption today. The ratings currency providers realized the need to expand their sample sizes with the arrival of pay-TV, by enlarging their samples to measure the less popular channels that it brought, and DVRs, by enabling the reporting of timeshifted viewing. However, that's where their achievements have generally stayed, and even their ability to measure smaller channels is questionable. The problem there is that conventional measurement techniques are very expensive per sample member, so samples cannot grow adequately to compensate for the fragmentation.

DVR and pay-TV VOD offered viewers freedom from a preset schedule. Connectivity and media convergence extends this freedom to new places, new times of day, new sources, and new individual viewing capability. It also brings a new challenge to measuring this audience. Pay-TV operators are threatened by the steep drop, in progress in Brazil, in pay-TV subscriptions; free-to-air broadcasters might benefit from it in the near term but the continuing personalization and diversification of content will undoubtedly, to a large extent, be at their expense. Advertisers stand to lose their ability to speak to their target audiences through the one true mass medium of the past several decades as that medium disintegrates into a vast variety of content delivery opportunities, many unmeasured or not easily bookable. A new way of measuring and analyzing the audience of television content is desperately needed, one based on parameters that continue to change rapidly, one that would keep up with the speed of that change, and with the diversity of taste and preference of those who watch the contents scattered throughout this universe.

The currency measurement of home conventional-TV-set audiences by people-meter devices in 15 narrowly defined metro areas in Brazil has been questioned. Viewers have become content consumers with voices and attitudes, more able to decide how they watch (including a bewildering array of devices that people-meters don't measure) and whether or not to see ads, and whether to see a particular ad. This change keeps consumers in many situations from watching advertiser content, especially among the generations that use multiple screens. The needed technology must therefore be able to collect different types of information that, upon analysis, expands the available metrics, opening to advertisers new opportunities for investment in and reach of the modern consumer.

To make more confident decisions in this highly complex market, content owners, publishers, advertisers, and their agencies need a trusted solution that can address those challenges. They need a complete view of ads and content consumption, bringing together all devices and distribution channels to produce a total audience measurement solution. And that's why eCGlobal Solutions, in partnership with Immetrica, created Alldience—an audience measurement application and backend system that measures video and audio content cross-platform, is always active when the mobile device is powered, and tracks the media consumption of individuals on all screens, social networks, as well as their habits and a wealth of demographic data. It is what we now present, as well as the first study to test its efficiency.

ALLDIENCE

MEET ALLDIENCE

Alldience uses a mobile application that measures, in a continuous and passive way, the integrated consumption of TV and multiplatform advertising on any device — OTA and pay-TV, analog and digital, DVR, streaming / VOD / OTT services (both independent and channel-related), mobile, YouTube, social media, other websites, at-home and out-of-home, etc.

The solution turns an ordinary smartphone into a "Smart People Meter", identifying the consumption of audiovisual content, anywhere, anytime. Using advanced Automated Content Recognition (ACR) technology, the app uses fingerprinting and watermarking to recognize content and identify the content, whether it was timeshifted, and optionally (with client cooperation) the means by which it reached the viewer.

In this way, Alldience identifies and analyses the viewing of a specific channel, TV show or advertisement impacted by the consumer. This system is integrated into a more holistic solution by capturing opinions and feelings about the content consumed, such as recall, knowledge, brand affinity, prestige and purchase intent, delivering complete audience profile information.
Alldience's unique proposition is to be able to measure the consumption of content — TV programming, videos and ads — on various platforms, quickly and efficiently, in the home, and outside the home, in addition to cross-referencing consumer profiles, by habits, attitudes, product ownership, interests and other segments that go far beyond sociodemographic data. "Alldience enables you to calculate ROI for investment in audio or video advertising, which can be refined thanks to the wealth of media usage, social media, and consumer data available regarding sample members. New campaigns can be planned more effectively by identifying media with greater affinity and better CPM for the target audience", said Boris Levitan, CEO of Immetrica.

Alldience measures all platforms, and produces individual results, unlike the smart TV and RPD data sources that have appeared in some countries, which measure only some devices (usually a minority), are projectable only to a flat universe of these devices and not to individuals or even households, and are at best equipped with only tenuously attributed household-level demographics.

ABOUT THE PILOT STUDY

Between September 2018 and February 2019, more than 1,400 users invited to install Alldience on their smartphones and their viewing of monitored 27 channels, representing around 60% of viewing in the country, as well as more than 100 ads (creatives), was collected and processed. The sample was recruited from eCGlobal's digital panel, one of the largest and most qualified consumer panels in Latin America, with more than 1 million opt-in members. The sample consisted of people between the ages of 24 and 44, Brazilians belonging to generation X and Y — the range of individuals with a strong relationship with digital and with a strong connection with technology, belonging to the economic class A / B / C (the three wealthiest of the five classes in Brazil's classification, the ones of interest to most advertisers), residing mostly in cities (mostly capitals and metropolitan areas). 81% had pay-TV subscriptions.

The app generated data for ACR matching even when the smartphone was in standby mode and as soon as the smartphone was reactivated, the data was sent to our servers, where the content was identified. The app also returned test data on the platform on which the content was consumed, permitting us to ensure that the two data streams worked well with each other, and that we could identify even platforms using degraded audio and low-pass filters, such as YouTube. When the phone restarted for any reason, the app automatically relaunched. The app's resilience has permitted us to reach a very high cooperation rate, in which most sample devices returned data for 20 or more hours per day.

KEY FINDINGS

The pilot study has shown that data captured through Alldience over six months are consistent and robust, producing audience curves very similar to those provided by the currency ratings source in the country — where direct comparison is possible.

Data analysis, whose main objective was to evaluate the potential of the platform, has shown us that the major Brazilian television broadcasters' share of the market varies as expected by platform. Rede Globo de Televisão, for example, is an audience leader, especially in primetime (7:00pm—midnight in Brazil), and of course does substantially better with viewers without pay-TV. SBT and TV Record alternate in second and third place by daypart.

For pay-TV, Alldience indicated a higher overall consumption from morning to late afternoon, with variations depending on the channel genre and daypart. Films and series, for example, have larger audiences on weekends, while other channels such as GNT, Multishow, AXN vary throughout the week (the study performed a comparative analysis among channels devoted to variety, movies, documentaries, sports, home).

Alldience also identified the high consumption of streaming services. With digital transition complete in Mexico and Brazil, pay-TV penetration has dropped markedly (more than in the US and much more than in Europe), and is being replaced with terrestrial and streaming. With Netflix alone, we identified that 38% of participants consume streaming content on primetime over the weekend with more than 1,000 interviews conducted. Even among the ads we studied in detail — creatives developed mainly for conventional TV playout — some 12% of viewings appear to have come from new-technology platforms.

Other more detailed and comparative results were drawn from this pilot study. One of the main suggestions, however, is what has been shown by indirect data, such as penetration rates and time spent: that there is an already sizable and growing audience that is not yet measured and that is extremely relevant in the current market scenario.

IN SHORT • • •

The comparative data of free-to-air TV and pay-TV brings us two important lessons in this pilot.

1

Remarkable achievement by alldience, despite the small sample.

- Real-time AA ratings (+ timeshift within 10 minutes of air) very close to people-meter comparable sub-sample AA ratings for real-time;

- For open channels, PM is slightly higher than Alldience (both for the fourth quarter of 2018) from morning to late afternoon;

- For pay-TV channels, Alldience a little higher from morning until late afternoon;

- Very close in prime time and late at night for the two types of channels.

2

Combining the correct technology with data science expertise for audience measurement, it is possible to use smartphones as a new "smart people meter", creating a new inexpensive and scalable platform to measure audience confidently and understand multiplatform media consumption, linear and nonlinear, on any screen, anywhere, and at any time.

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- Globo remains the leader in both measurements;

- SBT changes position in the ranking with prime time record and full day;

- Globo, record a little lower in Alldience (but still comparable) than in PM subsample in prime time and full day;

- SBT, Band, RedeTV! a little higher in Alldience (but still comparable) than in primetime PM s subsamples, RedeTV! also in full day;

- SBT, Band, RedeTV! a little higher in Alldience (but still comparable) than in primetime PM subsamples, RedeTV! also in full day;

- SBT, Band at almost the same level as PM all day.

We know that the study is a pilot that does not conduct an in-depth study on audience, but certainly, this objective efficiency test was satisfactory for the proposal presented. It demonstrates a real capacity to use this technology as a great ally for broadcasters, advertisers, marketing departments, and media buyers.

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ABOUT ECGLOBAL RESEARCH SOLUTIONS

Founded in 2005, eCGlobal Research Solutions is a company with expertise over 14 years, developing solutions for online market research, driven by innovation, and pioneering in the use of interactive technologies and online panels in Latin America and the USA. It aims to provide an innovative service, helping our clients to develop better, faster and more cost-effective research, by combining technology, marketing, graphic design and promoting the best experiences for the user. The eCGlobal team is spread out in our offices in Brazil, Mexico and the United States. Our company and directors are active members of the largest and most respected research associations in the world, such as ESOMAR, CASRO, ABEP, among others.

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ABOUT IMMETRICA

Immetrica, Inc. and its founder and CEO have been building audience research systems for three decades, serving household-name players in television, radio, pay-TV and DVR around the world. For 17 years, the company's founder developed downstream processing and was responsible for interpretation of audience measurement data for one of the largest producers and program presenters in the US, acquiring the customer's view of audience measurement during a time of massive upheaval in the field. Immetrica staff have substantial experience in the technical aspects of audience measurement systems, including thirteen years of direct participation in the design and development of such systems based on return path data (RPD) and in the construction of entire systems between data collection and customer delivery components. They have also performed end-to-end audits of audience measurement systems, both in combination with design and development and as a standalone service.

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