

# THE UNIVERSAL CURRENCY CONVERTER

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## Introduction

Will we still be discussing the methodological problems of readership research ten years from now? Or could it be that in 2020, measurement of 'media vehicle exposure' will have been replaced by a more relevant type of 'currency'?

With existing methodologies, measuring the number of readers of a publication or the number of viewers of a television commercial is getting more difficult every day. Due to ongoing fragmentation, in ten years' time it might be impossible.

Not only is the difficulty increasing, but the separate counting of readers, viewers and listeners is also coming to be regarded as irrelevant by a growing number of users of media research.

Those separate measurements have always differed too much from one another to be of any use for comparing the number of users of different media, let alone the audiences for a multimedia campaign.

What advertisers are asking for is a holistic research view of consumers, so that they can relate multimedia investments to sales output. And beyond that, they also want the granularity which enables them to distinguish the contribution of advertisement A in publications M, N and O from that of commercial B on channels P, Q and R and from that of banner C on websites X, Y and Z. Average Issue Readership is not really what they want.

Media owners too can no longer do business with mono media currencies. Call it the curse of convergence. For example, websites containing video and interactive applications alongside written editorial content have become an integral part of the newspaper and magazine publishing business.

The research community should start working on a new paradigm for media research. The demands for the measurement system of the future are:

- To maintain a valid measurement of individual currencies, also for small entities.
- To make currencies for different media comparable.
- To integrate currencies into one 'holistic' planning system.
- To relate currencies not only to media reach, but also to advertising reach, effectiveness and sales.

These demands are not entirely new, of course. But the speed of technological development in the past ten years has created a sense of urgency about the need to come up with some answers fast. Solutions thus far have been inadequate.

Media agencies have developed their own proprietary systems for weighing and comparing the value of different media in their plans. The basis for these systems is mostly vague and not open to scientific discussion.

By fusing existing currencies into a multimedia 'hub-survey', the IPA Touchpoints initiative has created a database for multimedia planning. Like earlier initiatives in the field of data fusion, such a system allows planners to calculate net reach and overlap, but does not solve the problem of incomparability.

The Apollo project used a single-source approach in which passive measurement of media exposure was combined with registration of buying behaviour. But the project foundered, not only because of the investments required, but also as a result of the finding that the idiosyncratic behaviour of consumers does not easily translate into everyday applicable knowledge.

How do practitioners in media today see the future of media research? SWOCC, the Dutch Foundation for the Scientific Research of Commercial Communication, set up a project which combines a study of existing literature with a series of interviews with media experts.

In this paper we outline the challenges faced by media research and report the findings of our research. We conclude with a series of recommendations for taking media research 'one step beyond'.

## The challenges

A number of global trends are forcing us to reflect on the way we measure and calculate our media currencies.

### Fragmentation of media

An ever-increasing number of titles, aimed at sometimes very small and specialist audiences, threaten to make our current industry media research if not obsolete, then at least statistically unreliable. The number of vehicles is increasing rapidly. Cheaper and flexible printing techniques make feasible the production of magazines for small and segmented audiences. Magazines and newspapers also produce content for affiliate websites, mobile phone applications and PDAs. In part, this overlaps with the printed medium, but in addition, printed media are making web TV, podcasts and editorial blogs. A newspaper today is a postmodern amalgam of content for niche audiences, seemingly far away from constructs like 'mass media', 'news' or 'paper'. Print titles are each creating their own long tail, where the measuring of audiences is getting to be like looking for the proverbial needle in a haystack.

### Fragmentation of audiences

Audiences too are fragmenting, not only in terms of numbers, but also through shifting their media consumption in both time and space. The same news can be read on computers, on mobile devices, and in print, on a 24/7 basis. For the ARF Audience Measurement Symposium of 2006, Harris and Chasin conducted a survey amongst 53 media professionals in the United States. One of their conclusions was: *Fragmentation and new digital platforms are rendering traditional methods insufficient to capture detail and granularity; traditional measurement is not equipped to measure low-incidence, long tail consumption behaviors* (Harris & Chasin, 2006).

### Multi-media planning

These developments are leading advertisers and planners to select more media and more titles in order to reach their target audiences, thus increasing the need for comparison of currencies across different media. But currencies are far from comparable. The way media vehicle reach is being measured in isolation necessitates the application of weights. A television GRP is not the same thing as a radio GRP or print GRP.

### Incomparability of currencies

What a media vehicle should deliver to an advertiser is "open eyes in front of advertising space". The measurements of different media 'currencies' are not equally close to that ideal.

For example: Most readership research studies use the concept of 'average issue readership', which equals the probability that a reader will see or leaf through an average issue of a publication. This is by no means the same as advertising reach. Television Audience Measurement (TAM) systems, on the other hand, are able to deliver the number of viewers present in the room during the exact minute when a commercial is being broadcast. In the Netherlands, radio audiences are calculated based on the number of listeners to a station ~~in~~ during the quarter of an hour when the advertising pod was aired.

The alleged accuracy of the TAM system can be questioned, though. The Dutch Advertisers Association BVA commissioned a study in which cameras were placed on top of the television set in 100 households. It turned out that during commercial breaks, 80% of the viewers were not watching the screen. The TAM system reported a drop of only 10%-20% in viewing rates during commercial airtime (BVA, 2005).

Even for online display advertising, which claims to be the most accountable advertising medium – "because everything can be measured" – it turns out that less than 50% of reported 'views' or 'impressions' eventually result in "open eyes in front of advertising space". And advertising reach, or the number of unique viewers, is even lower.

So, in order to make an honest comparison between the different media vehicles, weights should be applied in order to estimate how many of the reported GRPs or TRPs in 'currency' research actually represent "open eyes (or ears) in front of advertising space". But what should be the standard for re-weighting our currencies?

## Dissatisfaction

Internationally, both buyers and users of media research have expressed their dissatisfaction with the performance of research suppliers. As far back as January 2005, the Media Committee of the World Federation of Advertisers (WFA) made consumer-centric holistic measurement one of its priorities. They emphasize *the need to ensure next-generation consumer understanding, which links multi-media consumption and product purchasing patterns* (WFA Annual Report 2006). The WFA Blueprint for consumer-centric holistic measurement states it even more poignantly: *current audience measurement systems are unable to measure and track target groups' holistic and synergistic multi-media behavior. New technologies to enable fast and low-cost data collection are not being used.* (WFA Blueprint for consumer-centric holistic measurement, June 2008).

In particular, the users of media research expressed their dissatisfaction with current research: *Almost everyone agreed that ROI data has become critical, that there are important research questions no one is addressing, and that media research methods have not kept pace with changes in audience behaviour and also that traditional research methods are inadequate to deal with the current environment* (Harris & Chasin, 2006).

Media research should provide more detailed insights into the performance of separate media vehicles, should be able to show the added value of combining a large number of different media vehicles for the totality of partially overlapping niche audiences, and is asked to go beyond 'media vehicle exposure', ending somewhere in the field between 'open eyes in front of advertising space' and 'sales'.

### Possible solutions

#### Providing more detail

In his paper 'This could be heaven', Faasse outlined the way in which the research industry is now responding to the demand for more granularity: *One way of coping with the fragmenting audience is to scale up our research. Larger surveys and bigger panels are not the most creative solutions, but could be useful for the time being.*

*This is the strategy of the JICs and research agencies, which are today responsible for our National Readership Surveys or Broadcast Audience Research. It is also the strategy of the large publishing companies and national television networks. Eventually, it will not stop changes either in the media or the research environment, but it will maintain the status quo for the time being.* (Faasse, 2007).

Larger samples are profitable for research companies and ensure stakeholders a relative stability of the currency. But increasing panel size is a temporary and inadequate solution. Soon we will run up against the limit of available respondents who are able and willing to take part in this kind of demanding research.

The other solution is to make the move from active measurement to passive registration: *Passive technologies are very unlikely to fully replace traditional market research but they could make significant inroads into the behavioural side of our business and perhaps a good deal further over time. They are attractive in being relatively inexpensive (...) are interviewer-free, immune to non-response and can instantly gratify with actionable results at the individual customer level as well as aggregated.* (Pring, 2007). For television measurement, reading out return path data from set top boxes is rapidly gaining foothold. For print, the watch meter – already envisioned by Schiller and Schreiber at the Montreal symposium in 1983, and promoted vigorously ever since by Steve Douglas – was killed in the courtrooms (Schiller & Schreiber, 1983; Douglas & Weinblatt, 1988). The development of RFID technology promised new possibilities in the field of passive measurement of print (Mattlin, Galin and McLaren, 2007). In one big sweep, Mattlin and his colleagues tried to take print measurement one step further, by registering advertising page exposure, instead of 'just' vehicle exposure. *So, the point at which it is technologically and economically possible to passively measure exposure to all magazines may arrive while most of us are still working in this field. It may even happen while magazines are still being printed and read on paper!* (Mattlin et al, 2007). Unfortunately the current state of the economy has put those developments on hold for the time being.

#### Comparability of currencies

"Target audience reach is the most important criterion in media vehicle selection, but it might not be the only one. (...) we can make further adjustments based on "qualitative" considerations concerning each vehicle." (Rossiter and Percy, 1998).

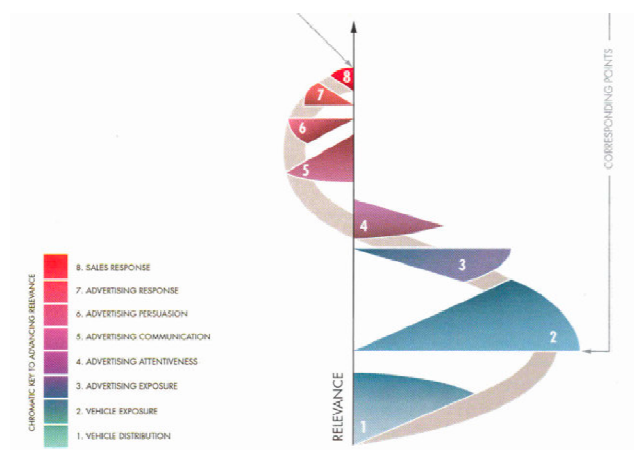
Taking into account the findings of the Dutch Advertisers Association, should we weigh down television GRPs for commercial airtime by 80% so as to arrive at a valid estimate of the number of viewers in front of the television set during commercial airtime? And should we correct online display advertising results by 50%-60%? And what about print GRPs? Or radio or out-of-home advertising?

Media planners have long wrestled with this problem. One of the first to come up with a solution was the French media researcher Armand Morgensztern. As far back as 1975 he calculated his famous Bèta coefficients for different media. The Morgensztern Bètas were based on advertising recognition after the first contact. His initial research was done in a laboratory setting.. Meticulously, he tried to establish the probability of the media-vehicle user's eyes or ears coming to rest on the advertising.

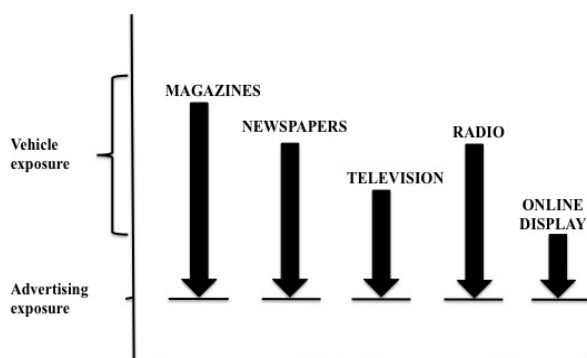
I do not know how much of a foothold the work of Morgensztern gained in English-speaking countries (most of his research was published in French). In France and Belgium, many studies into the Bèta values of different media have appeared over the years. To check for different quality of creative material, in most studies a large number of ads or commercials of similar size or length are being tested, and the recognition scores are averaged. Sometimes as in a study by the VAR (Society of Radio Broadcasting station in Belgium), 'proven recognition' is used to calculate a Bèta value (VAR, 2004). Here, 'proven recognition' stands for recognition of a commercial where the brand has been left out, followed by correct brand attribution.

The Bèta is the percentage of the sample which remembered (recognized) the advertising after one contact. Thanks to the formula of Armand Morgensztern, the Bèta can be used to calculate the 'memory coverage' of an advertising campaign, which is to say: the percentage of people who remember (or recognize) the message after a number ("n") of contacts with the message.

One of the objections that might be raised against the methodology is that the concept of 'recognition' goes beyond 'open eyes in front of advertising space'. (Figure 1). Recognition of an advertisement is more than mere exposure; it implies some form of attention, engagement perhaps – some communication has taken place. 'Recognition' is an advertising effect. If a person recognises an ad, there must have been 'open eyes and/or ears in front of advertising space' at some point. To measure 'recognition', advertising exposure in terms of 'open eyes' is a necessary, but not sufficient condition.

**Figure 1 ARF Research model**

In favour of Morgenstern and his followers, it must be said that the method is fairly straightforward and open, and therefore subject to scientific debate. Which is more than can be said for most of the 'weighting' systems applied by the various media-buying agency chains all over the world.

**Figure 2 Reweighting currencies based on media-vehicle exposure to 'open eyes'**

One can use other criteria to adjust media currencies for reasons of comparison. Erwin Ephron has suggested the following:

- Probability of exposure
- Ad exposure weight
- Communication weight
- Frequency weights
- Synergy weights

(Ephron, 2000).

Unfortunately, media agencies are not very talkative when it comes to disclosing the grounds on which they determine the prior reduction of the 'impact' of a print insertion by a factor of 2.3. Also, the term 'impact' usually remains undefined.

*Valuing media contacts is the game media strategists and planners play every day. In the Matrix software we have set benchmarks for different situations, based on the expert knowledge of our specialists all over the world. They can be used as a starting point for consideration if no further information is available.* (Faasse and Hiddleston, 2002).

*By combining innovative consumer research with planner insight, key industry data and intelligent analytics, KMR in partnership with the software specialists Pointlogic have developed Compose – a unique and reliable technique that can be used to compare all of the different media available, in terms of their ability to deliver on specific campaign goals.* (Wicken and Cook, 2005).

'Expert knowledge' and 'planner insight', like gut feeling, can be of great value, but unless based on a publicly available system of careful and systematic consideration, they do not stand up to scientific scrutiny.

### Holistic approaches

The holistic approach called for by advertisers does already exist. It is called time budget research (Faasse, 1993). By asking people what they do all day, and observing how they spend their time, we can create the holistic picture of media consumption so sought after. Nowadays, time budget surveys, like the one which has been held in the Netherlands consistently every five years since 1975, are in fashion once more as 'Touchpoints'.

The 'hub survey', which is the basis of the IPA Touchpoints initiative, also collects data on how people spend their time with media and advertising over a seven-day interval. *Each respondent also completed a seven-day PDA-based diary in which they recorded where they were, who they were with, their main activities, media usage and mood each half hour* (Beefink, 2007).

Though giving a 'holistic' overview of media consumption, the hub survey is too small and misses the 'granularity' for media-planning purposes. By means of data fusion, the hub survey was connected to most of the existing media surveys in the UK, in order to create an Integrated Planning Database.

*In this case the end objective is to create a multi-media schedule planning tool across TV, national and regional press, radio, outdoor (posters), cinema, internet, direct mail and SMS text. (...) The user defined input for each media event is the number of times it is used in an advertising schedule or the required audience size or GRPs (gross rating [percentage] points). The output is a multi-media reach and frequency analysis, showing the unique contribution of each component media and their combined effect. The marginal reach and frequency analysis for each media must be comparable with results obtained from planning applications of the respective currency database.* (Wilcox and O'Sullivan, 2007).

Users of Touchpoints in the UK especially applaud the consumer insights brought to them by the hub survey. The Integrated Planning Database is less of a success, mainly due to the complexity of handling the software. Of course, the multi-media reach and frequency output of the Integrated Planning Database would still be based on the same incomparable-currency data described above.

The alternative to data fusion is a single-source approach, the most notorious example being the Apollo project. In theory, the combination of partly-passive measurement of media behaviour by Arbitron with household scanning data by Nielsen had everything advertisers and planners could ever ask for. But alas, the combination of TV, radio and print schedules, in-store advertising and promotions, together with the media behaviour of the respondents and their choice of buying or not buying tens of thousands of different products and product varieties leaves one with hundreds of thousands of unique events. Apart from a lack of fuel, Apollo crashed because of a data overload.

The Apollo methodology also results in recreating or 'redoing' the existing media currencies: measuring TV and radio GRPs and Average Issue Readership. Here too, multi-media reach and frequency of different media are not the same entities.

The last variant one could group under 'holistic' approaches is econometric modelling of sales data. In these models, net investments in media, in store promotions, the price of our brands and those of the competition form the input for explaining sales output. *The problem with most models is that they are fairly abstract and short-sighted. The short-term return on media investments in terms of sales or profit is often found to be negative. This might well be a valid conclusion, but the choice of putting all one's money into sales promotions from that point on might be devastating from the long-term brand perspective. Also, conclusions of the type "TV gives you the highest ROI" are not easily translated into tangible multimedia plans. We need to know how and why things are (not) working.* (Faasse, 2007).

### **The survey**

How do media professionals view these problems? Do they worry? Do they have sleepless nights? Do we have to create a paradigm shift or can we continue discussing Average Issue Readership for the next 10 or 20 years? We conducted a face-to-face qualitative survey in the Netherlands. Single-person interviews were conducted with 31 senior media-research professionals. Respondents occupy senior positions with (large) advertisers, media-buying agencies, media owners, and research suppliers, (research agencies and also Joint Industry Committees responsible for the different national media surveys). The average interview length was a little over 2 hours.

In addition to the Dutch survey, we conducted a number of telephone and Skype interviews with media-research professionals in the USA, Europe and Asia to see whether the findings for the Dutch market are comparable with the ideas of our colleagues abroad. As the number of respondents is far too small to be representative for those markets, we will only use a number of anonymous quotes for purposes of illustration.

The interviews were structured along the lines of the following topic list:

#### Existing research into the measurement of media vehicle exposure

- Definition of media (vehicle) exposure
- Quality of current research

#### Fragmentation

- Perceived changes in the media landscape due to fragmentation
- Impact on research into media (vehicle) exposure 'currencies'

#### Convergence

- Perceived changes in the media landscape due to media convergence
- Consequences for cross-media measurement
- Difficulties with cross-media measurement
- Possible future solutions for cross-media measurement

#### Paradigm shift

- From media (vehicle) reach towards effectiveness
- The usefulness of the 'engagement' concept
- How to measure 'engagement'?
- How to measure 'ROI'?

#### Future of the measurement of media (vehicle) exposure

### **Results**

#### Quality

In discussing the quality of existing research, there is a clear awareness of the difference between the existing currencies. Nearly all respondents mentioned the subject. Though all respondents do realize that the existing currencies are very different, they all more or less seem to have accepted the fact.

The next step, however, should be the measurement of advertising reach: *I think advertising reach should be the big next step for all media types* (Advertiser).

Print research is considered to be the most distanced from the ideal of measuring advertising reach or 'open eyes', whereas television is regarded as being quite close.

*Look, with television, you can really see if someone has had an advertising break or commercial in front of him. Alright, you still don't know whether that person is drinking coffee or looking the other way, but he is in front of the set, and the set is playing that commercial at that very moment. But in print, say a magazine ad, we talk about 'reach' if someone has seen a certain title. But the issue is 50 pages, so the opportunity to see your ad is of course rather small.* (Research Director). The non-measurement of advertising page exposure is the main reason for criticism of print research.

The BVA survey, in which people could actually see what happens in households when the commercial break starts, has fuelled criticism as regards the measurement of TV. The lack of a recent survey into the reach of out-of-home media, and the fact that radio still has not switched to passive metering is also reason for criticism. The organisation of most currency research into JICs creates a sense of control and is in itself a reason for credibility.

#### Fragmentation

Not every respondent thinks fragmentation is an issue. Some of them say fragmentation has always been there. Titles too small to measure reliably are part of the history of media measurement.

How to cope with fragmentation in the future? One answer is larger samples. Applying the 80/20 rule is another. Buy the 80% of media that are the foundation for reaching your target audience on the basis of media research. Buy the other 20% on the basis of circulation, with qualitative considerations in mind, or use modelling software.

#### Convergence

Convergence is being recognized by nearly all respondents. They also see initiatives in the market for producing integrated or add-on figures. For example, in the Netherlands the data of the NOM National Readership Survey have been fused with the data of the STIR online survey. The SKO, responsible for Television Audience Measurement, also counts the number of video streams of television programs. Other possible solutions include the use of passive metering systems. But integration and cooperation seem to be the magic words.

*I am convinced all media reach surveys have to cooperate. NOM and STIR are working on a combined database and several media reach surveys have agreed to set up a common establishment survey. That is a step in the right direction. Next is the fusion of all media reach surveys. That would be really good.* (Media owner).

*What will be very important is that it gets almost additive, that somewhere in that fruit basket you can turn pears and bananas into apples. So you can add it all. (Advertiser).*

*Come out of your silos for once, try to add something for the long term which we do not know yet. Now is the time! (Advertiser).*

*Yes, cross-media research is very important, I totally agree. But I wonder if it has to be media-reach research. I think I would be better served with a cross-media effect survey. Of course, it is interesting to know how much reach is necessary to obtain a certain effect, but it is that effect that counts. (Managing Director Media Buying Agency).*

*When choosing between different media, you might have more use for qualitative information about those media. So you will end up with effectiveness research. That will probably help you more than a very specific media-reach survey. (Media Owner).*

*I don't believe in that at all. My vision is to keep media surveys separate. You have to measure each medium as well as possible, to do it justice. You have to measure the internet in a different way from print. You could not measure print in the way you measure the internet. So you have to choose the best method for each medium, that which comes closest to the truth. But what you can do next is see how you can fuse them together. I myself am very charmed by the UK approach. (Research Director).*

*I would not be against it. The Netherlands is a magazine country par excellence. It is also a daily newspaper country. For magazines we have the highest ratings in the world, along with some Scandinavian countries. So that should show and maybe result in a higher share of market within the media expenditures. I would say, let's have that kind of nonsense. I would like to see it. (Media owner).*

#### Paradigm shift

Do the respondents feel the necessity for a paradigm shift in media research?

The majority of respondents are not ready to throw media-vehicle reach overboard. They want to keep reach and add effectiveness. The importance of measuring effectiveness is stressed by advertisers in particular.

*We will always want to know advertising reach, effectiveness we also want to know, always! (Advertiser).*

*What matters most is the output you get. That is far more important than reaching 40% of the market. No, if my brand awareness has gone up this much, or whatever I want to measure, that is more relevant than reaching 40% of the market (Advertiser).*

*You have to make a clear distinction between the two. I see media reach as a requisite for effect. If you were to completely throw media vehicle reach overboard, and you were to steer only by certain targets for effectiveness, like recall or sales, I don't believe in that. (Media Director).*

There are some sceptics who state that effectiveness is so crucial to advertisers that they will want to keep results to themselves. One researcher warns media owners not to fall for the demands of advertisers:

*A media owner would be nuts if he agreed to get paid for the effectiveness of a campaign. He has no influence over the quality of the advertising. (Research director).*

Engagement is not seen as a new concept. It reminds people of earlier concepts like attention, involvement or 'umfeld'. Most think it might be interesting to add engagement or some other measure of attention to existing currency research. Measuring Return On Investment is important, especially in tough economic times. The instruments used are based on tracking research.

#### The future of the measurement of media-vehicle exposure

When asked what the future looks like, there is a tendency to opt for integrated measurement of media-vehicle and/or advertising reach. Both fusion and single-source have their protagonists. Some foresee more 'passive' measurement.

*Just one instrument for measuring media vehicle reach. It will be a long time before we will have just one survey, if it ever happens. With a scientifically developed questionnaire which takes care of the comparability. So we get closer, step by step, to evaluating the ideal campaign. It will be hard to account for everything. Or measuring what happens inside the retail outlet is one step further. I think we can be glad if we can make a simple comparison between a number of mass media. (Research Director).*

#### **Discussion**

The external factors that threaten media research as we know it are recognized by practically every media professional we spoke to. Fragmentation is happening. Surprisingly enough, not everybody sees it as a problem. There have always been titles or channels too small to measure. Concentrate on those you can measure; probably they are not interesting to advertise in anyway. Those who do see fragmentation as a problem see a partial solution in larger sample sizes. Mass registration techniques are seldom referred to.

The subject of convergence brings forward an unprecedented willingness to cooperate, to fuse data or do multimedia research. But time for a paradigm shift? No, not really. We should keep measuring media-vehicle exposure and maybe in the long run add things like advertising exposure, engagement and advertising recognition.

From a scientific point of view, the universal currency converter will most likely be based on a measure of advertising exposure, determined by a passive metering system. Advertisers might opt for a currency converter based on a large advertising recognition database.

In the future, the different silos will be integrated – but how...? That remains to be seen.

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