

**CENTRE<sup>FOR</sup>  
AMPLIFIED  
INTELLIGENCE**



THE UNIVERSITY  
*of* ADELAIDE

# NOT ALL REACH IS EQUAL

Professor Karen Nelson-Field

# PhD Trained Marketing Researchers

Media, Content diffusion, Modeling, Consumer Behaviour, Advertising effectiveness, Mathematics



# Computer Science Engineers

Software engineering, Mathematics, Machine Learning, Computer Vision, Product design, App Development, System architecture, VR





# We were commissioned to Re-Establish the Media Baseline.



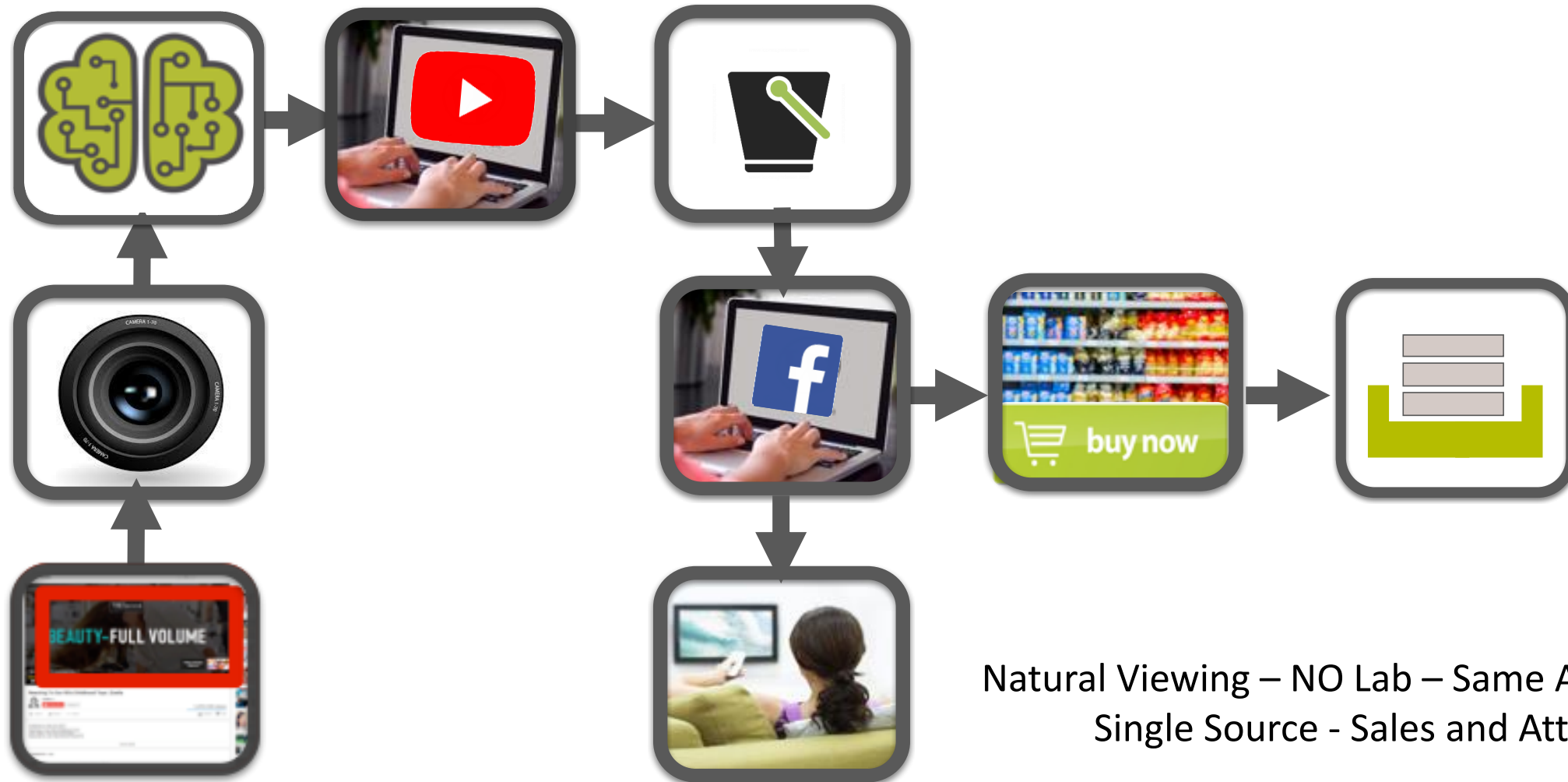
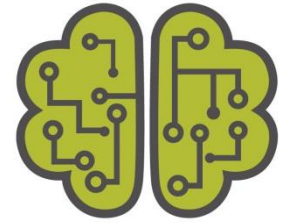
*Underpinned by independence, rigour, credibility, forward thinking.*



# Phase 1: Tested cross platform performance against **ATTRIBUTES** that matter



# TRANCHE 1 -TV on TV, FB on PC, YT on PC



Natural Viewing – NO Lab – Same Ads - Passive –  
Single Source - Sales and Attention.

Why

**ATTENTION**

Because advertising needs to cut through and be remembered to be thought of at the purchase occasion.

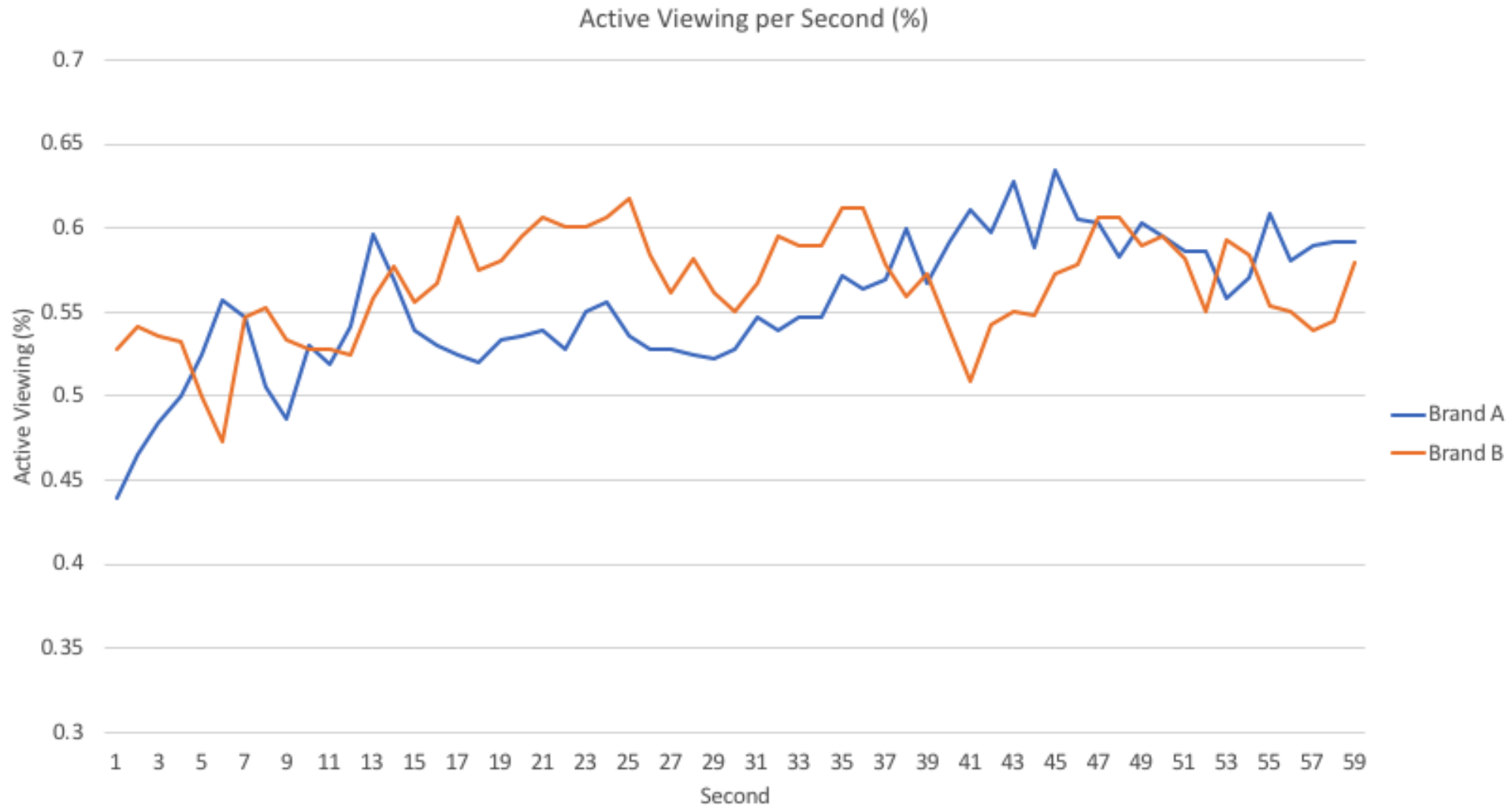
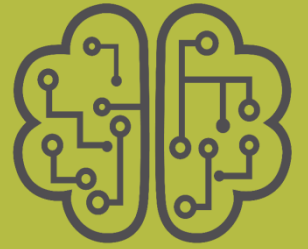
And legacy measures such as recall, unaided awareness, ad recognition are filled with bias.

We wanted a measure that was more granular, (sales sometimes doesn't move) one that measures differences second by second.



*Theoretically, our attention metric negates many biases and errors associated with other conceptualisations of this construct.*

# REAL example of two ads diagnosed by our second by second ATTENTION model.





“

Attention is the allocation of mental resources. Before consumers can be affected by advertising messages, they need to first be paying attention.

Thales Tiexeira  
Professor Marketing Harvard

”

“

Attention let's information in, memory holds it in place. Without the former, the latter doesn't exist.

Dr Jared Cooney-Horvarth  
Cognitive Neuroscientist Uni Melb

”

We also collected

**PRODUCT CHOICE**

After cut through, ads need to be retained in memory to nudge purchase behaviour.

We use DISCRETE CHOICE methods, a modelling technique that is close to in market behaviour.



*Attention amplifies sales data in terms of measuring propensity to buy.*

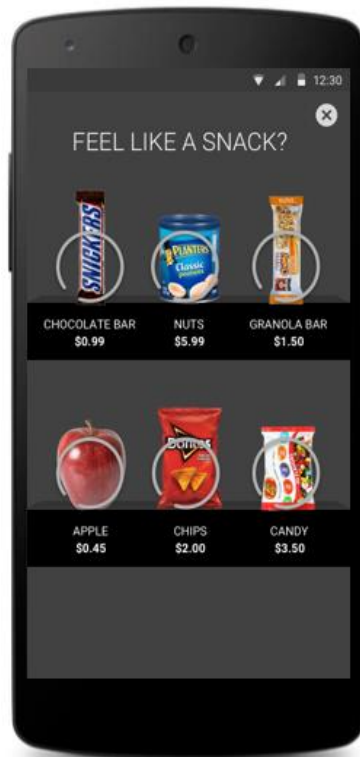


# Discrete Choice and STAS; a powerful combination. Both Gold Standard (empirically) in their own right.



## Discrete Choice Modelling

A choice of competitive products (controlling for price)



## Short. Term. Advertising. Strength

Did Buy and Exposed / Did Buy and Not Exposed




	Not Exposed	Exposed
Did Buy	36%	42%
Did NOT Buy	64%	58%
Total	100%	100%
STAS	$42/36 * 100 = 117$	

*i.e. Exposure to this ad drove 17% more sales, than not seeing the ad at all*

Which platform commands the most  
**ATTENTION**

# In an average ad second, TV commands more ATTENTION

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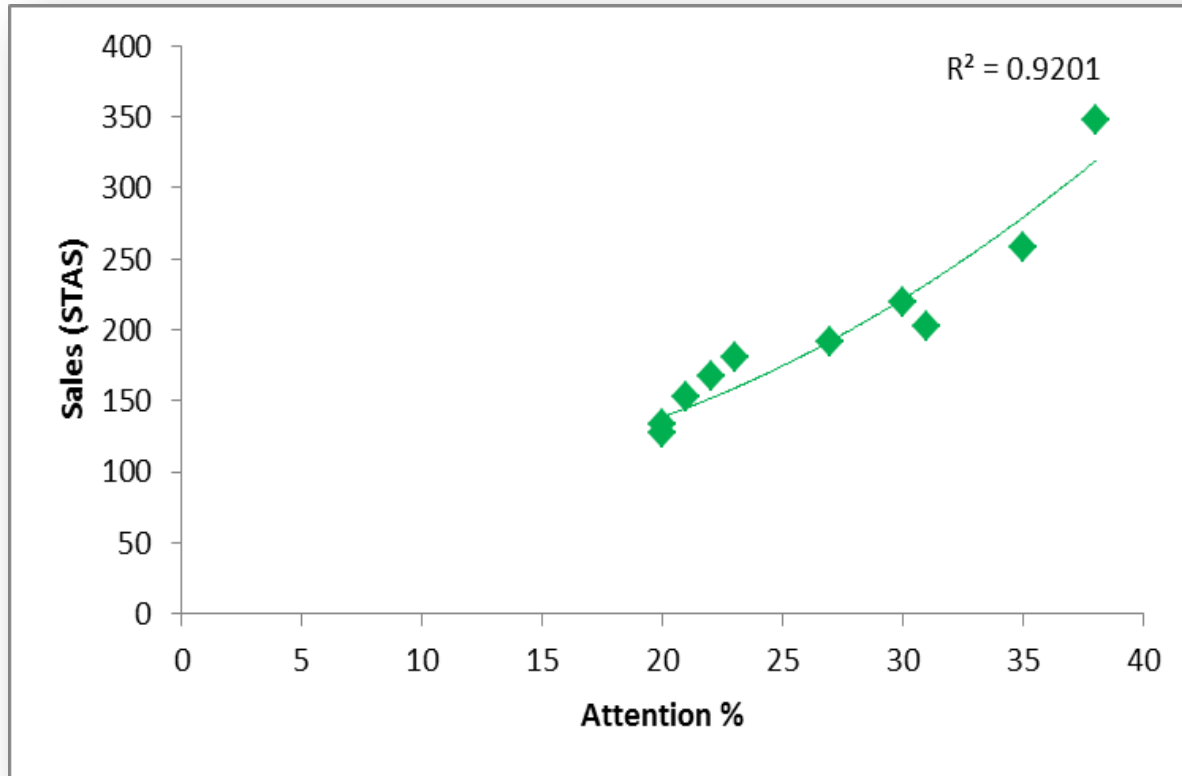
	OVERALL AVERAGE	Active Viewing	Passive Viewing	NON- Viewing
	58%	58%	40%	2%
	45%	31%	37%	32%
	20%	4%	94%	2%

- TV gets twice the active viewing as YouTube and 15x Facebook.
- Passive plays a role, but not as much as active



# Our two measures of impact are very closely related - **ATTENTION & PRODUCT CHOICE**

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Consistent across ALL  
sets of data (8)

Sig. sameness renders  
greater predictive value.

What does this mean for  
**PRODUCT CHOICE**

# No surprises, TV drives more overall attention AND more SALES

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		<b>Product Choice</b> (STAS – index exposed did buy/not exposed did buy)
TV		<b>144</b>
Facebook		118*
YouTube		116

\*Passive attention does nudge sales, but less so than active



Why does **ATTENTION** vary  
between platforms?

Put another way, what is different about FACEBOOK and  
YOUTUBE that drives impact down?



**COVERAGE** – % of screen  
that the ad covers

Via AD TAGGING  
TECHNOLOGY




All devices, all platforms

How does **COVERAGE**, an artefact of clutter, impact **ATTENTION**?



# First, COVERAGE by media type varies – a lot.

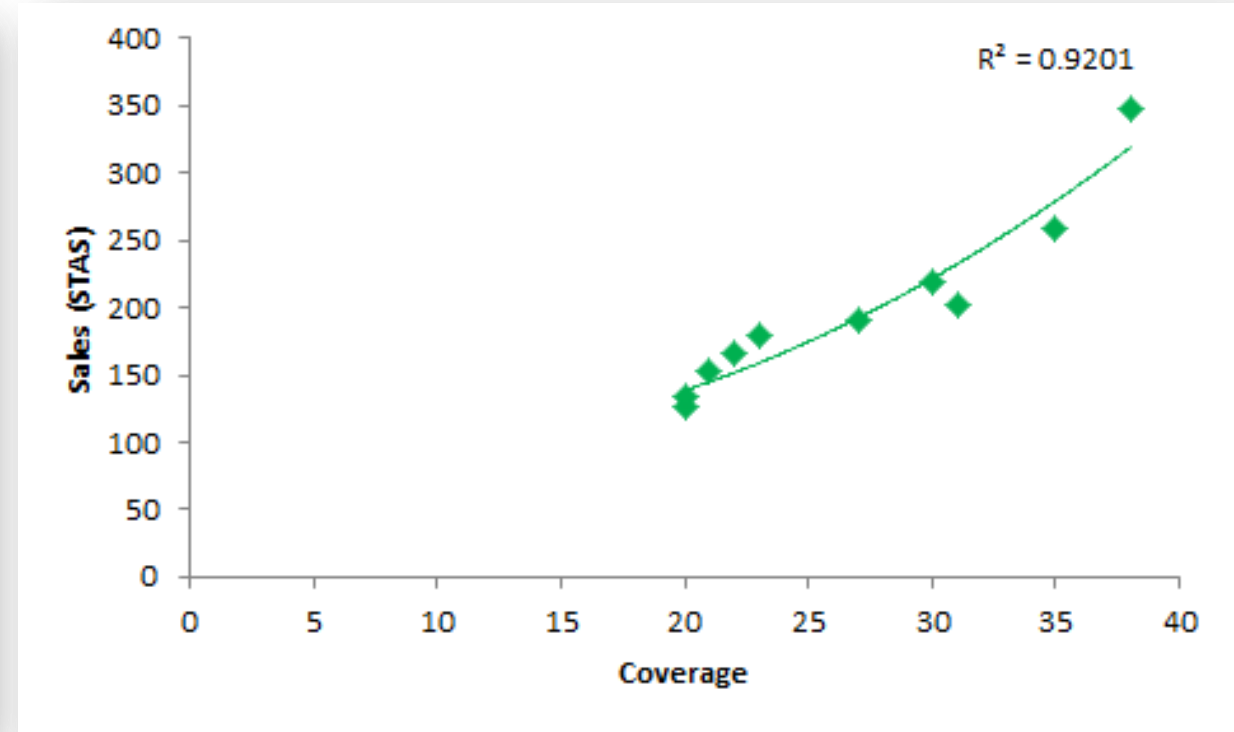
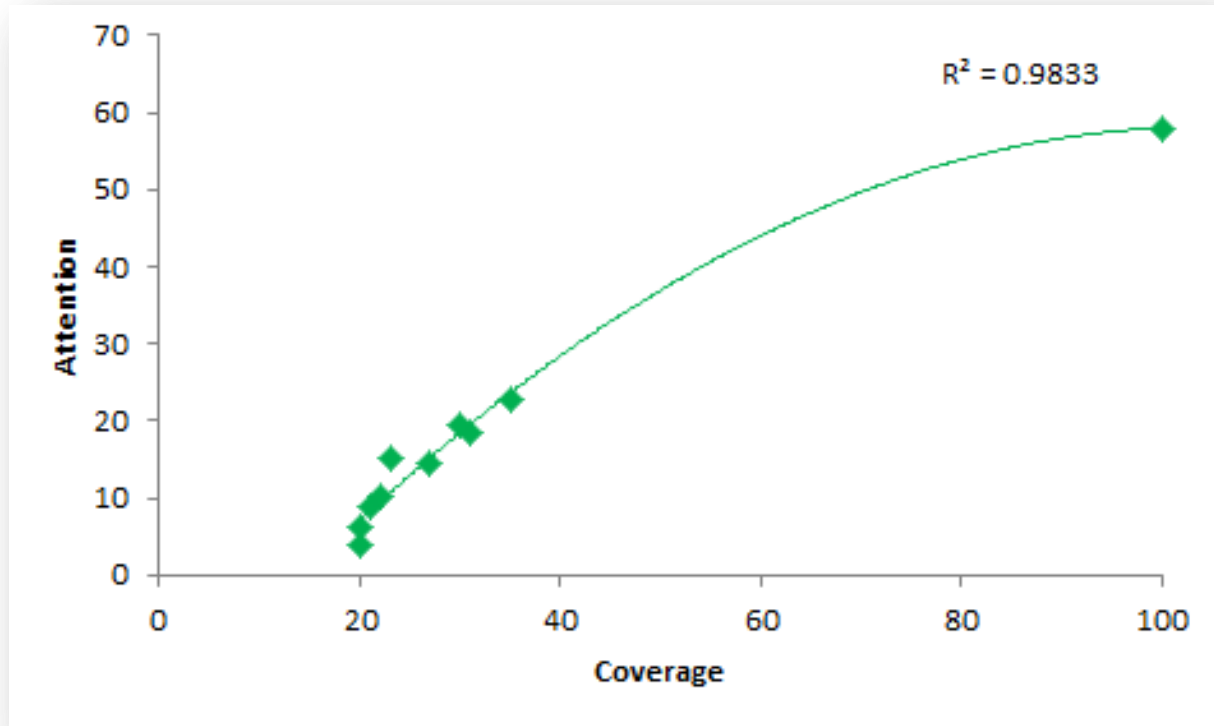
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<b>Avg. Screen Coverage</b>	<b>10%</b>	<b>30%</b>	<b>100%</b>
<b>Maximum Coverage</b> (100% Pixels, Not Scrolling)	<b>14%</b>	<b>32%</b>	<b>100%</b>

TV screen coverage is about 3x YouTube and about 10x Facebook

# COVERAGE MATTERS A LOT, to attention and sales

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VERY strong relationship - Coverage & Sales, Coverage & Attention

# HANG ON

If **COVERAGE** is so vital, could the viewability standard be fostering underperformance in online?





## Viewability Standard

50% PIXELS and  
2 CONTINUOUS SECONDS OF TIME  
(in that order)

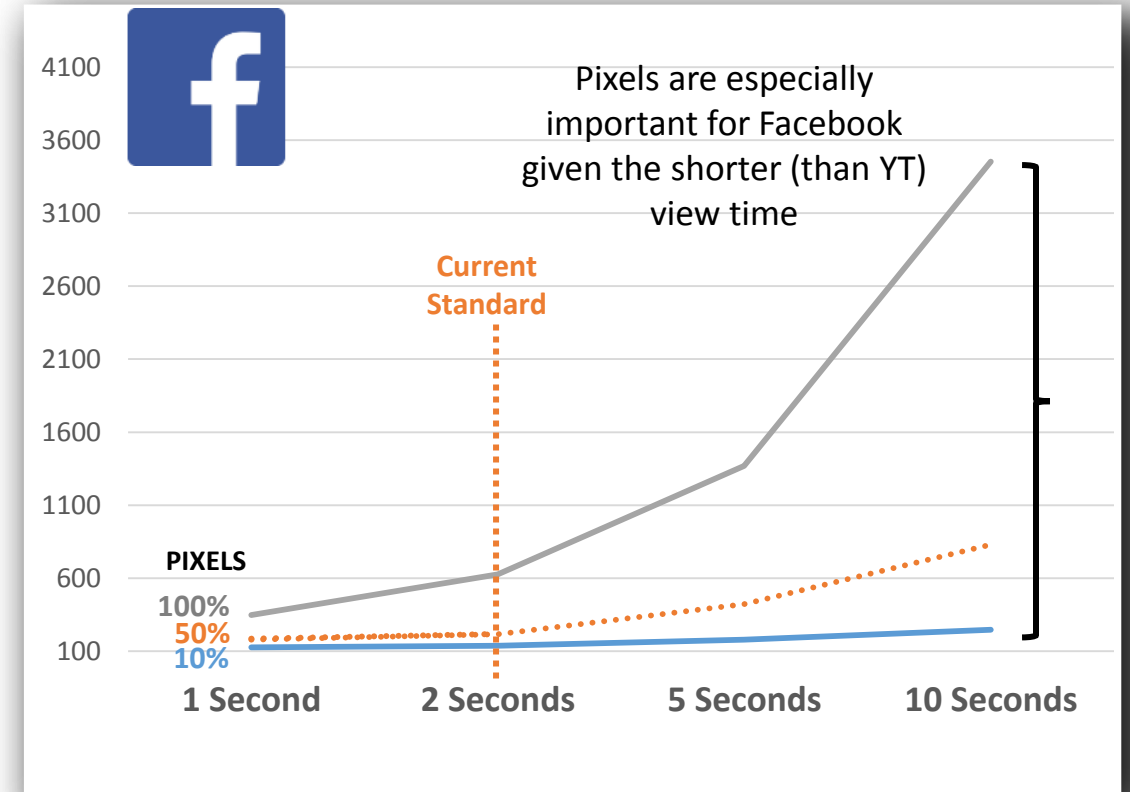
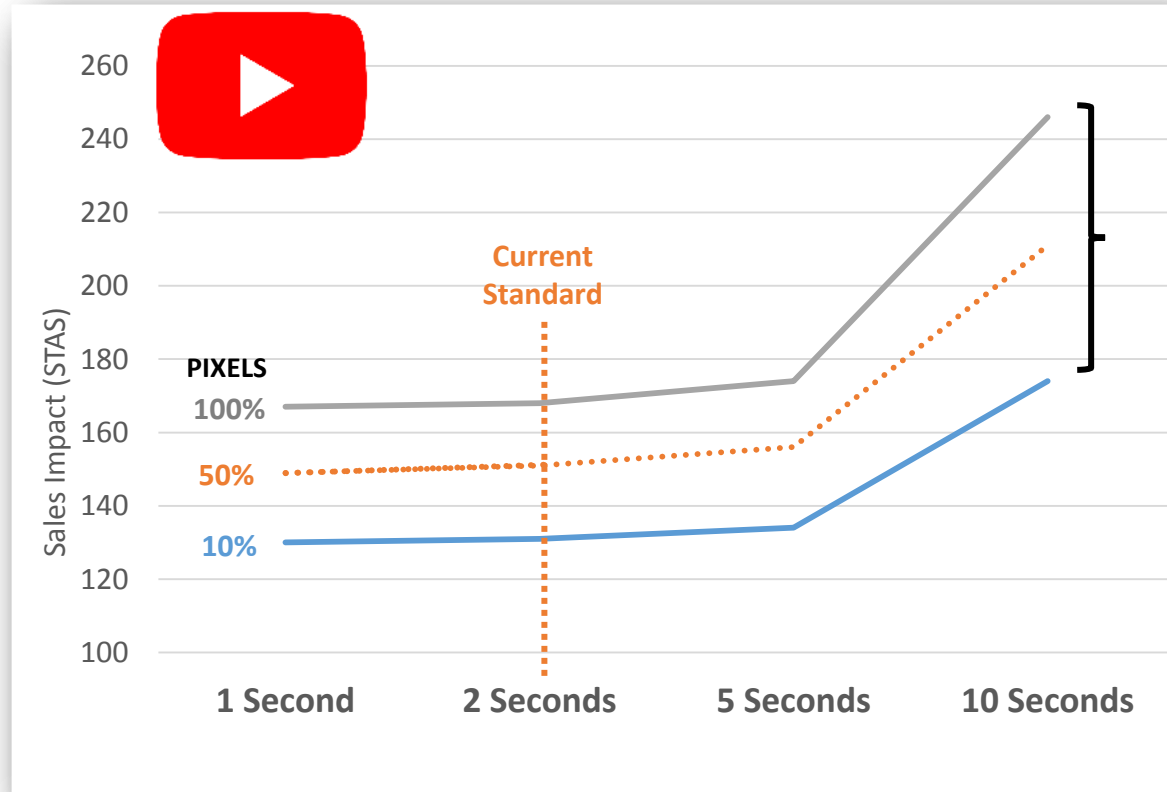




# PIXELS and TIME (and coverage)

We considered relationship  
between pixels, time,  
attention and sales.

# The minimum standard does render an impact, but..

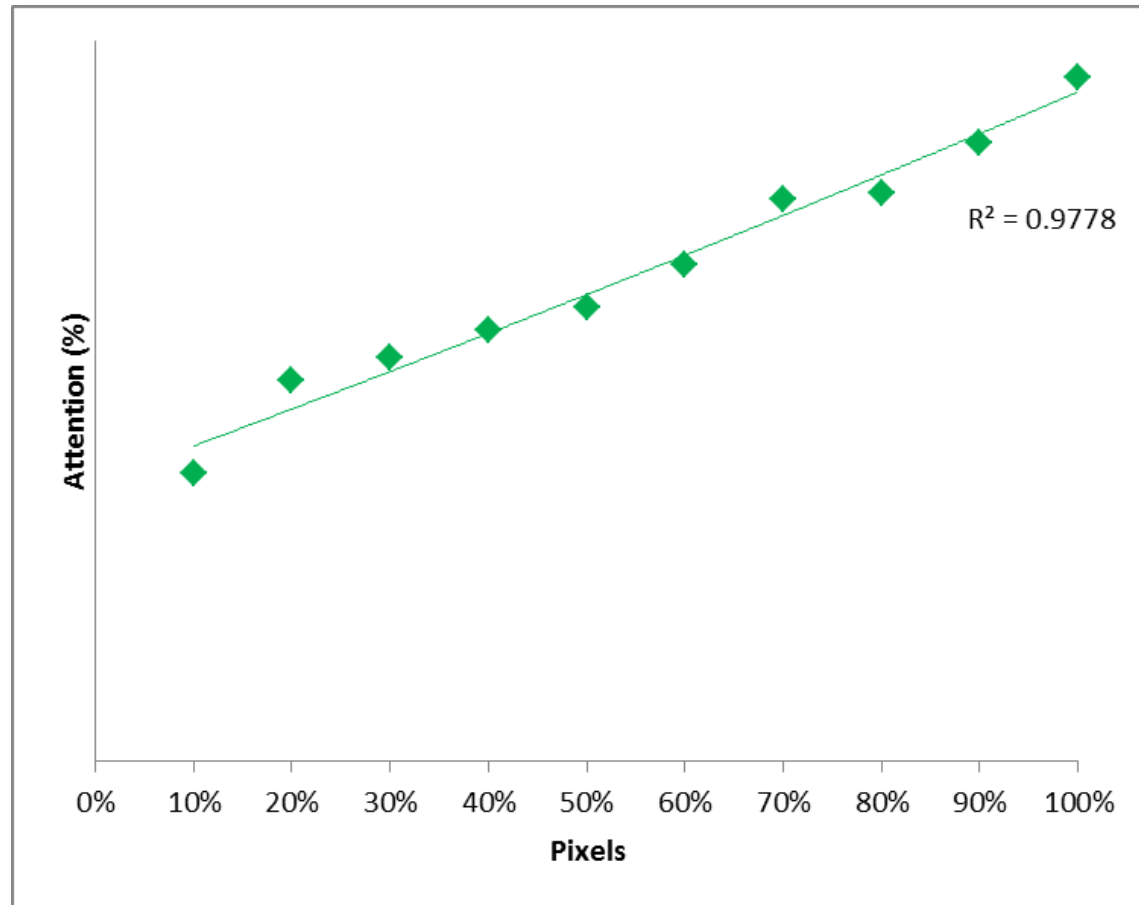


There is material uplift in sales above 50% pixels and 2 seconds  
Pixels matter more. 100% pixels always 2x impact over 50%, regardless of time



# No surprises pixels matter, to attention also

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Attention increases with pixels (like coverage).

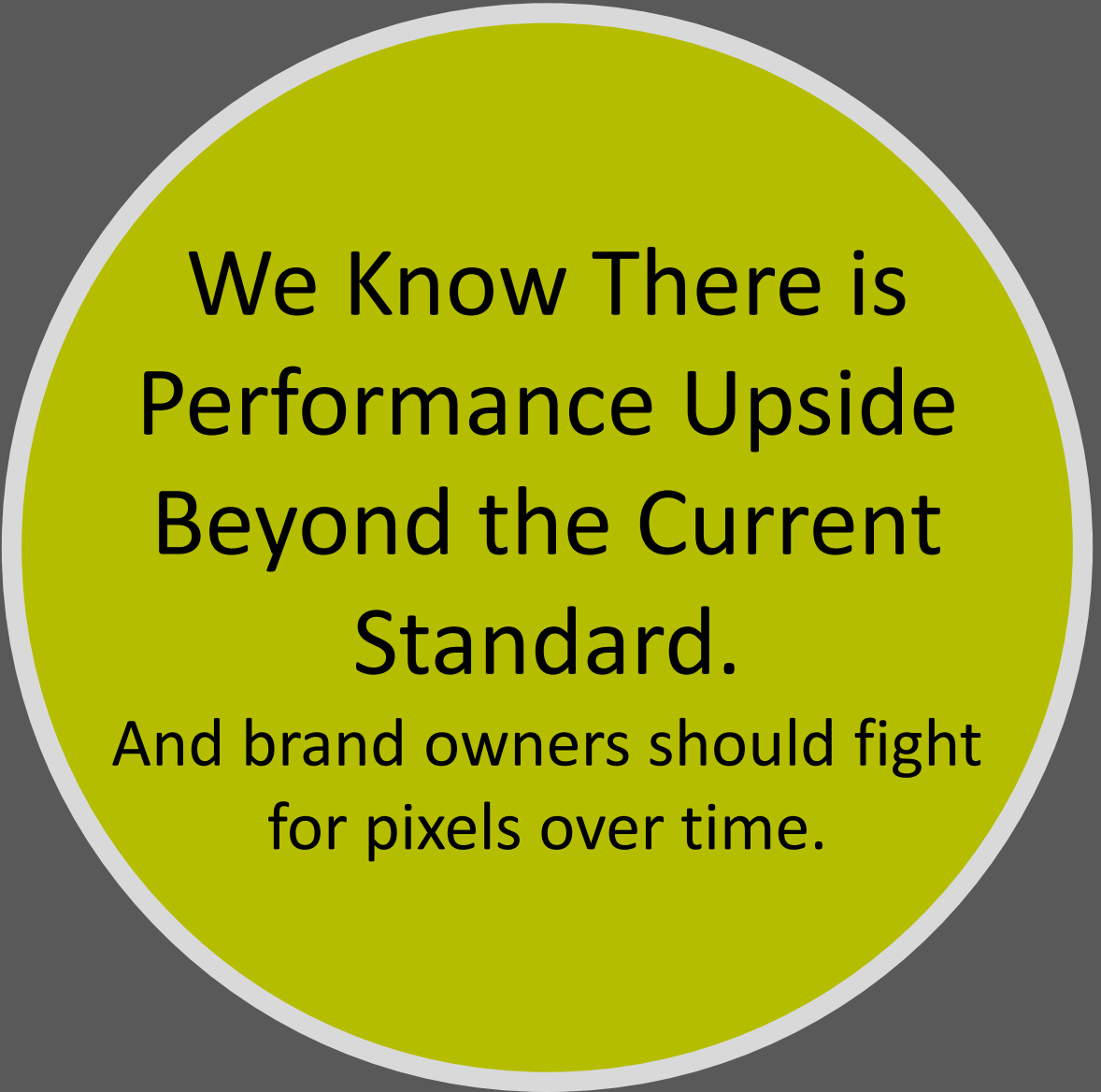
So anything below 100% means diminished attention (and sales).

# PLUS as pixels approach their limit of possibility, coverage becomes more vital.

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100% pixels playing full screen, has a greater impact than 100% pixels covering a smaller proportion of the screen.



We Know There is  
Performance Upside  
Beyond the Current  
Standard.

And brand owners should fight  
for pixels over time.



**VISIBILITY  
is KING**

**2/3<sup>rd</sup>s Impact  
on Sales**



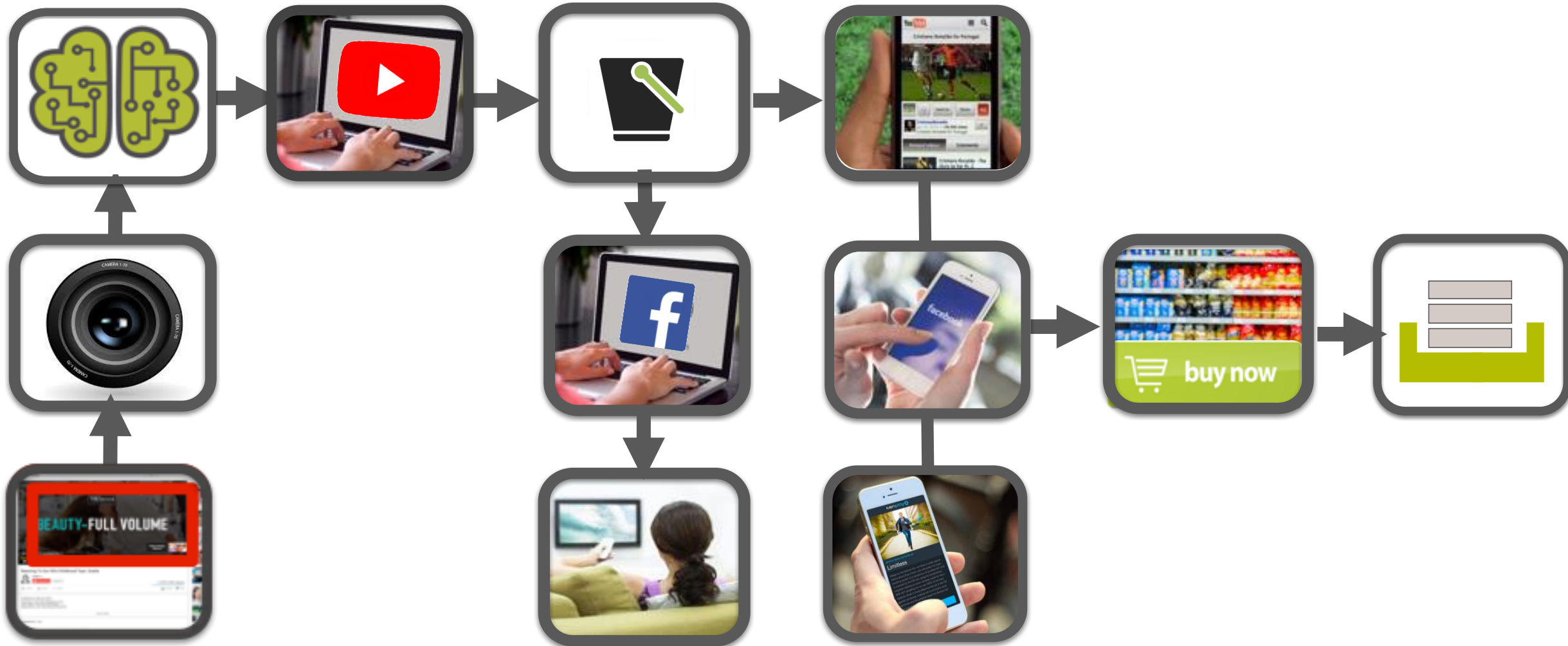
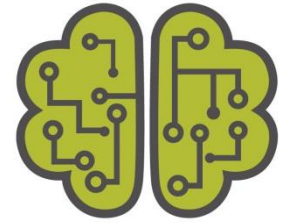
Hang on.....

*“but mobile is the  
optimal platform for  
Facebook”*

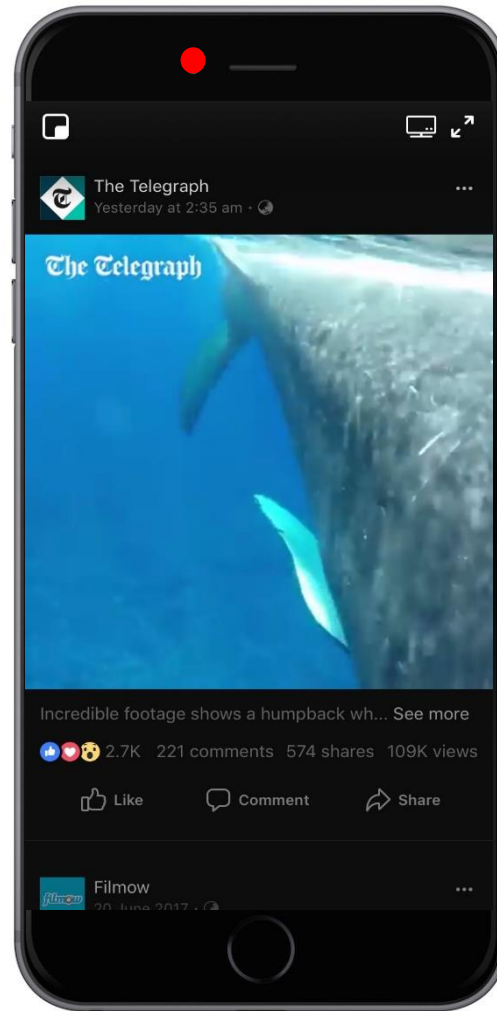
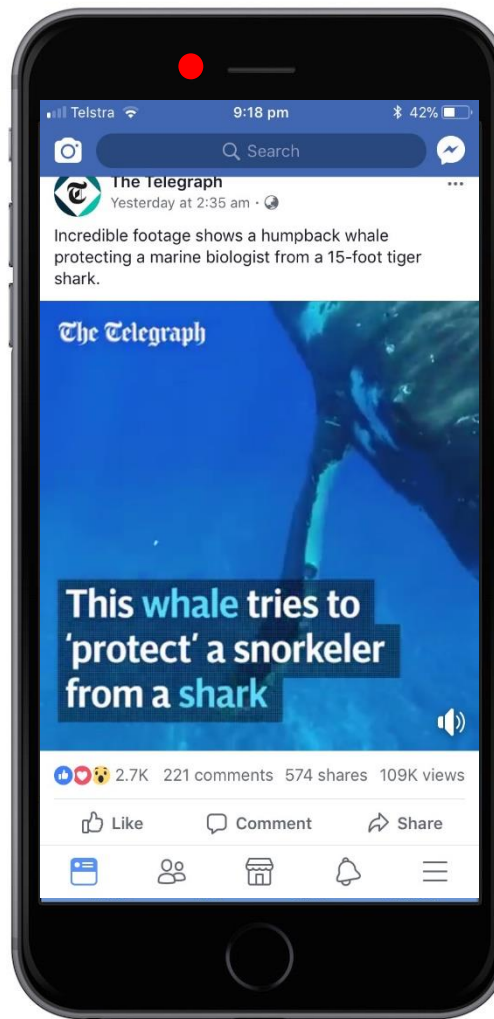
.....we listened



# TRANCHE 2a –TV, FB, YT on MOBILE



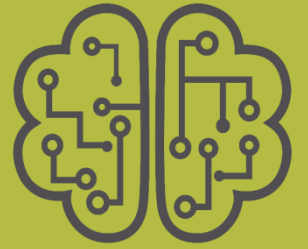



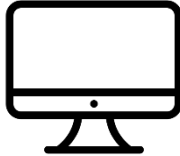






And YES, the viewability software  
**AND** the attention model was  
optimized for viewing orientation.



# First, Avg. COVERAGE by media type and device varies – a lot.


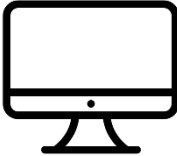






			
	100%	100%	100%
	-	10%	27%
	-	30%	32%

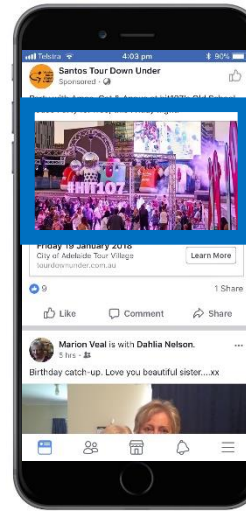
Coverage is better on mobile, in line with attention and STAS  
This means - most online ads are **NOT** viewed in full horizontal screen view

Secondly, Avg. PIXELS by media type and device also varies – a lot.



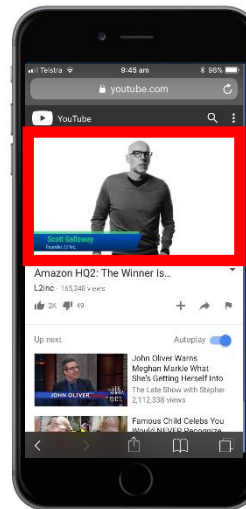
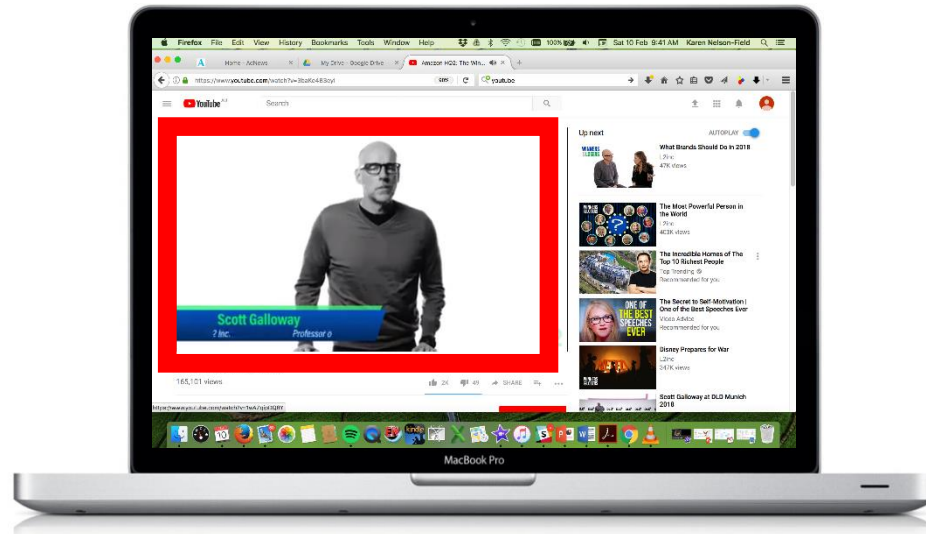
			
	100%	100%	100%
	-	51%	58%
	-	66%	82%

Pixels are also better on mobile, in line with attention and STAS

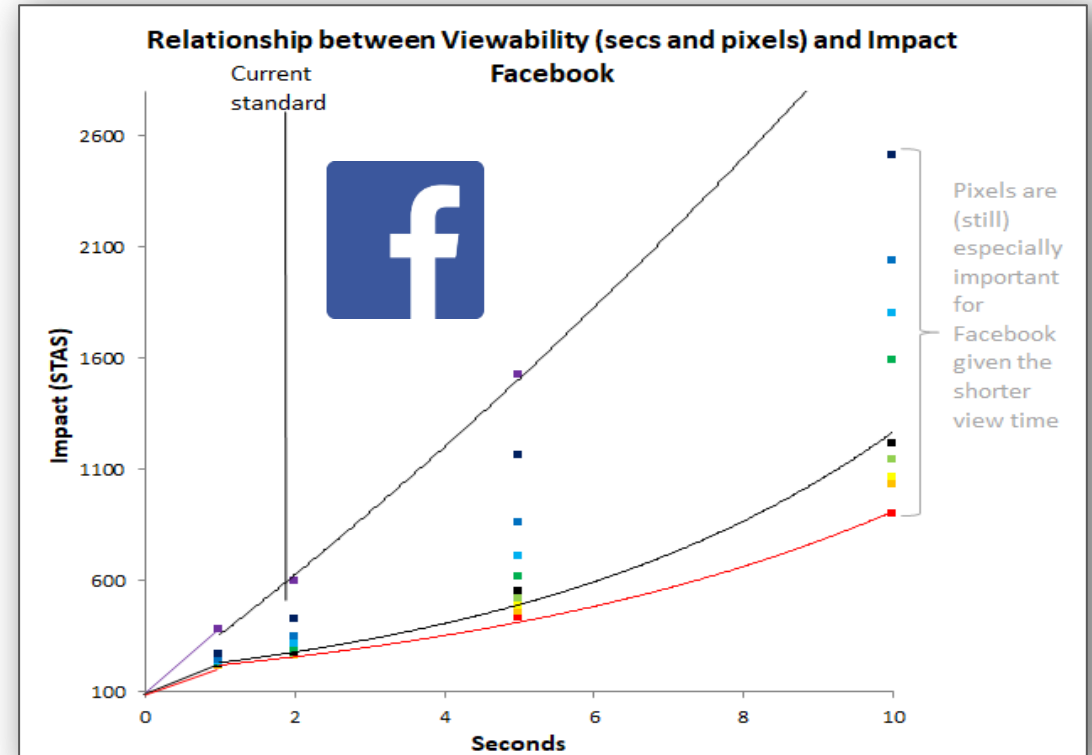
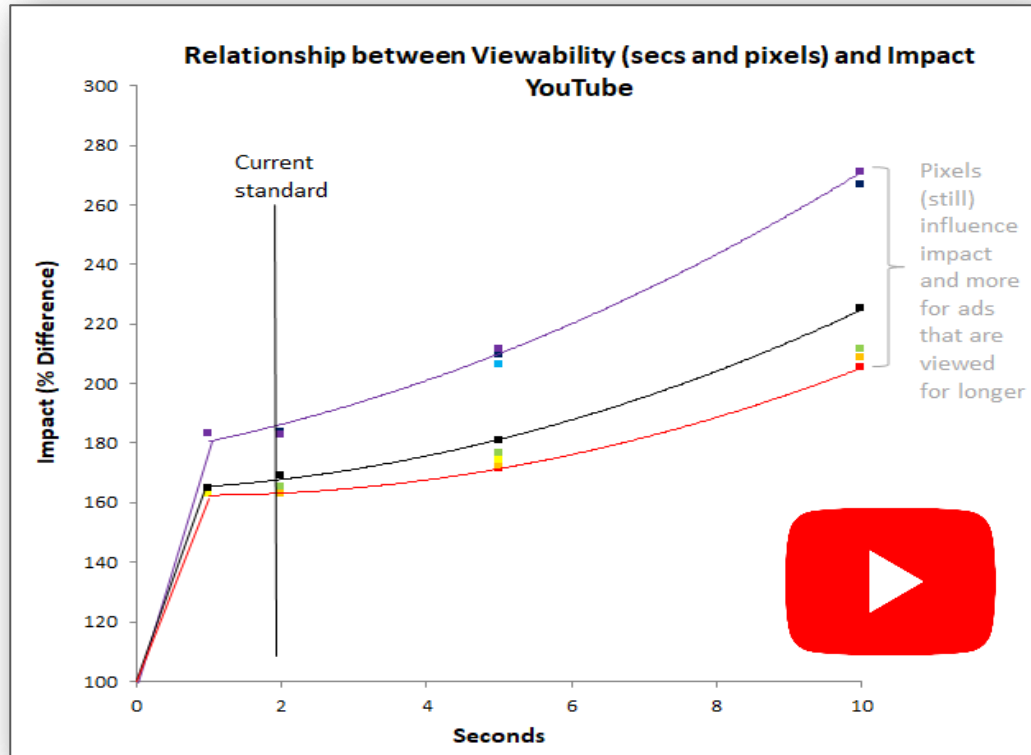


Makes Sense.

Ad real estate differs significantly by device



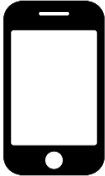





# VIEWABILITY patterns hold (curve same shape)



We STILL see a material uplift after 50% pixels and 2 seconds.  
Means anything less than 100%, 100% of the time diminishes return.







**More ATTENTION still delivers more STAS, but total viewing experience moderates the relationship** (i.e. coverage, pixels & device proximity).

			
	58	39	63
	-	20	54
	-	45	44

All of the smaller screens get more passive attention, which is worth more to sales on smaller devices.



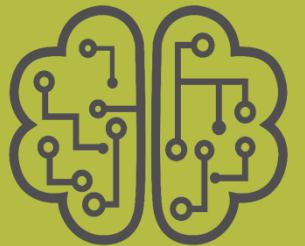
Yes STAS increases on mobile, but for ALL platforms.

			
	144	153	161
		118	121
		116	137

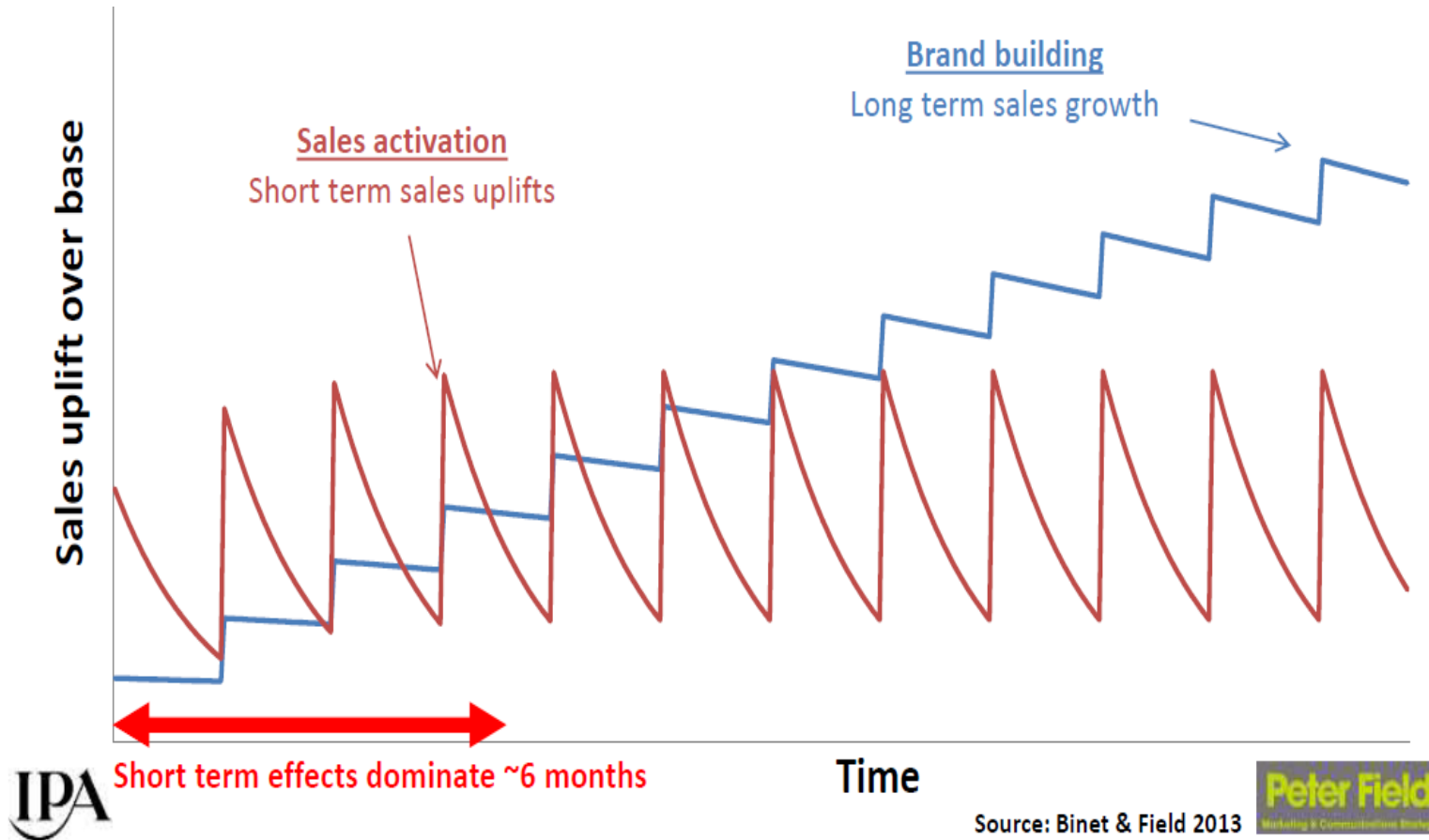
Small screens deliver more sales for all platforms, **INCLUDING** TV.  
TVs lowest STAS device still outperforms the best of online (YT mobile 137).

**But short term memory is one thing,  
does this translate to the long term?**

*The degree to which impact erodes with time.*



# Field and Binet report long term effects are important for BRAND GROWTH.

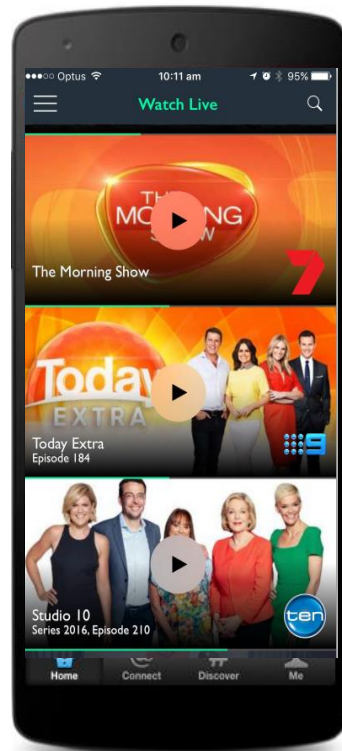
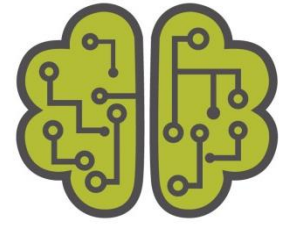


Long term impact builds a brand's **MENTAL AVAILABILITY.**

Retaining a brand in memory, for retrieval at point of purchase, is crucial to impacting long term growth.

STAS is built to capture short term effects, but is noted as capable of capturing impact up to a month after exposure.

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**Day 1 View  
and Choice**



**Same People  
14 Day Choice**

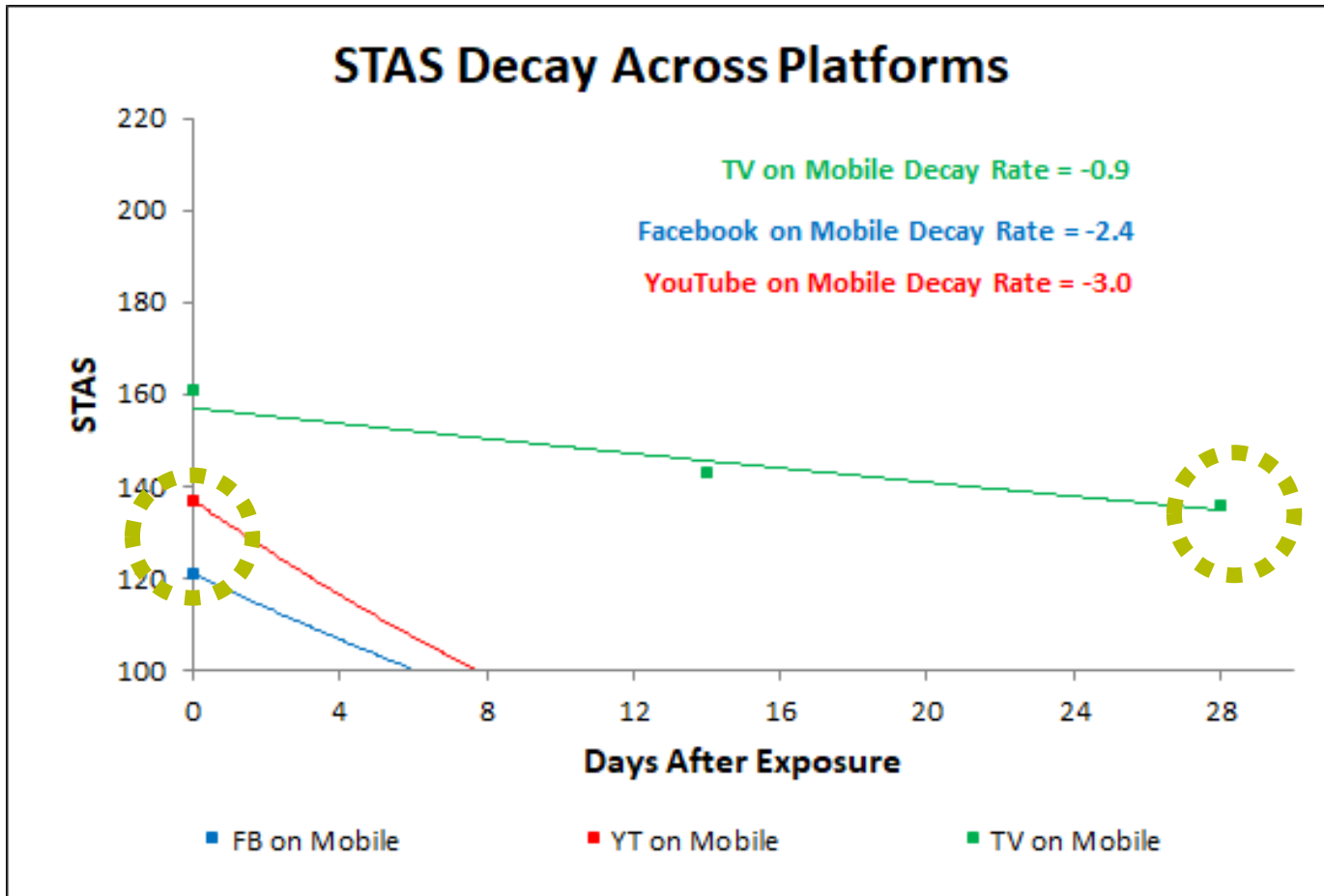


**Same People  
28 Day Choice**

TV on TV \_ TV on Mobile \_ BVOD on Mobile \_ TV on PC \_ FB on Mobile \_ YT on Mobile

Which platform offers advertisers  
the slowest rate of **DECAY**?

# The length of time that an ad on TV continues to impact sales, far exceeds that of either Facebook or YouTube.



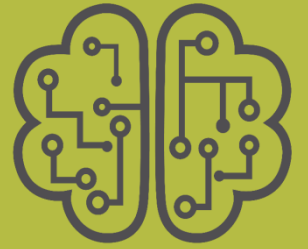
Impact is greatest immediately after exposure, but then declines as time passes. A steeper slope (bigger number) shows a more rapid loss of impact.

FB decays **2.5x** and YT decays **3x** faster than TV.

*TV ad retention is so strong that it generates a greater impact at 28 days than FB and YT do immediately after exposure.*



# TV on Mobile stays in memory for longer (consistent with Field and Binet).

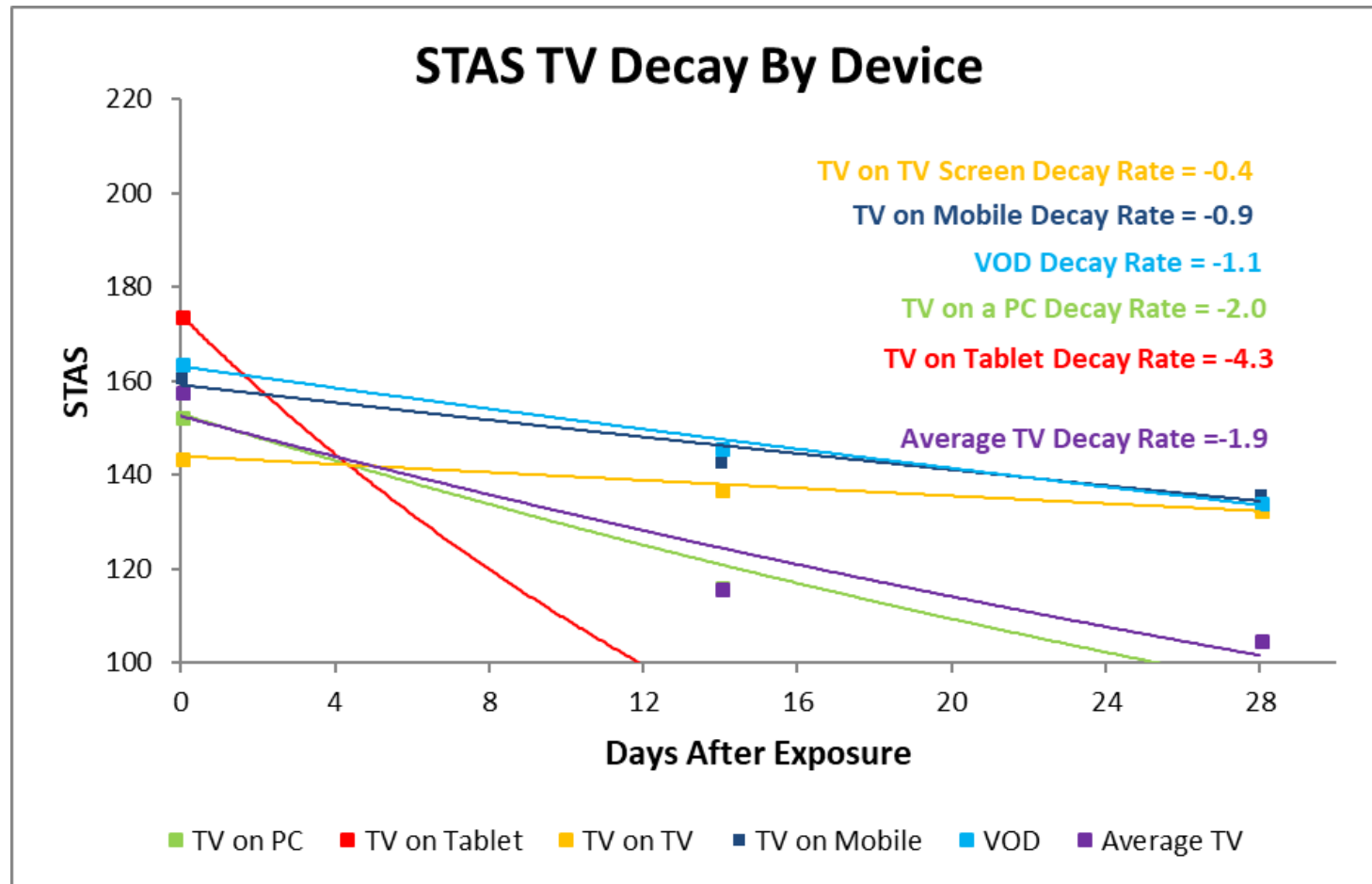
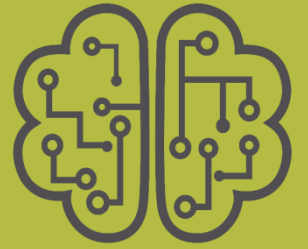


Group	Initial STAS	Zero impact point (# days)	Decay Rate (slope)
TV on Mobile (OTT)	161	66	-0.9
Facebook Mobile	121	6	-2.4
YouTube Mobile	137	8	-3.0
Online :TV	1 : 2.1	1 day : 9 days	1 : 0.4



For every 1 Online STAS point (above baseline), TV delivers 2.1  
TV takes 9 times longer to decay to zero impact point than Online  
(66 days *cf* 7days)

Also device does play a role.  
TV screen is the best device for impact longevity.



More variation in device than platforms.

Mobile (for all platforms) might get more STAS upfront, but it seems to decay quicker.

TV on TV screen doesn't start from the highest point compared to mobile, it decays slower.

Put another way, the TV Screen remains the strongest in memory.



Group	Initial STAS	# days until no more impact	Decay Rate (slope)
TV on TV Screen	144	109	-0.4
TV Mobile	161	66	-0.9
Facebook Mobile	121	6	-2.4
YouTube Mobile	137	8	-3.0



TV on TV takes 109 days to have no impact.  
That's 103 days longer in memory than Facebook on Mobile  
and 99 days longer than YouTube on Mobile.

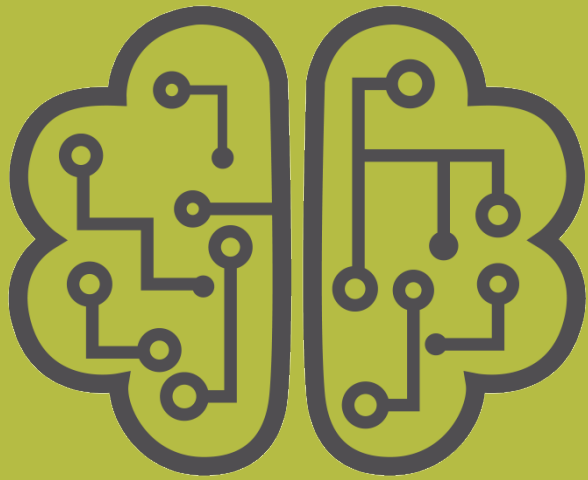
## **The DOUBLE JEOPARDY in decay**

Overall TV gains in two ways.  
It starts from a higher STAS  
and it decays slower.

High STAS upfront is at least as  
important as the decay rate.



Remember  
**VISIBILITY** is  
**KING**  
for getting higher  
upfront STAS (and  
attention)



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**“Yes, but Fb and YT advertising is perceived to be cheaper, so in terms of ROI could it be better than TV (or at least cost comparative)?”**



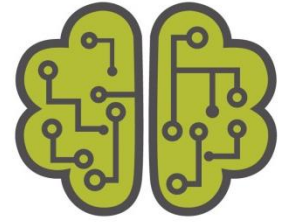
**Are the performance differences  
between platforms accounted for  
by cost.**

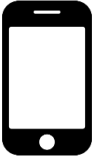





**Put another way, are the CPM's of poorer performing platforms  
low enough for the platform to be considered better value**



STAS inherently reflects differences across platforms, and it's stable. Making it a universal baseline for ROI analysis.



	Average CPM \$	STAS 
	\$24	161
	\$12	121
	\$28	137

Uplift in baseline STAS divided by the CPM provides a comparative measure of ROI for every \$1 spent on each platform.

# Of the three mobile platforms, TV produces the best ROI for each dollar spent.



Platform	STAS	Average CPM	STAS uplift for \$1 spend
TV Mobile	161	\$24	2.5
Facebook Mobile	121	\$12	1.8
YouTube Mobile	137	\$28	1.3

Sources – Digital Media Planning and Buying Agency, Independent Media Agency, Creative Agency, Australia Free TV ACCC Submission. Based on average CPM for Facebook (sponsored video ad), YouTube (pre-roll), TV (normal placement 5 city metro). Audiences: 18-65. Country: Australia.

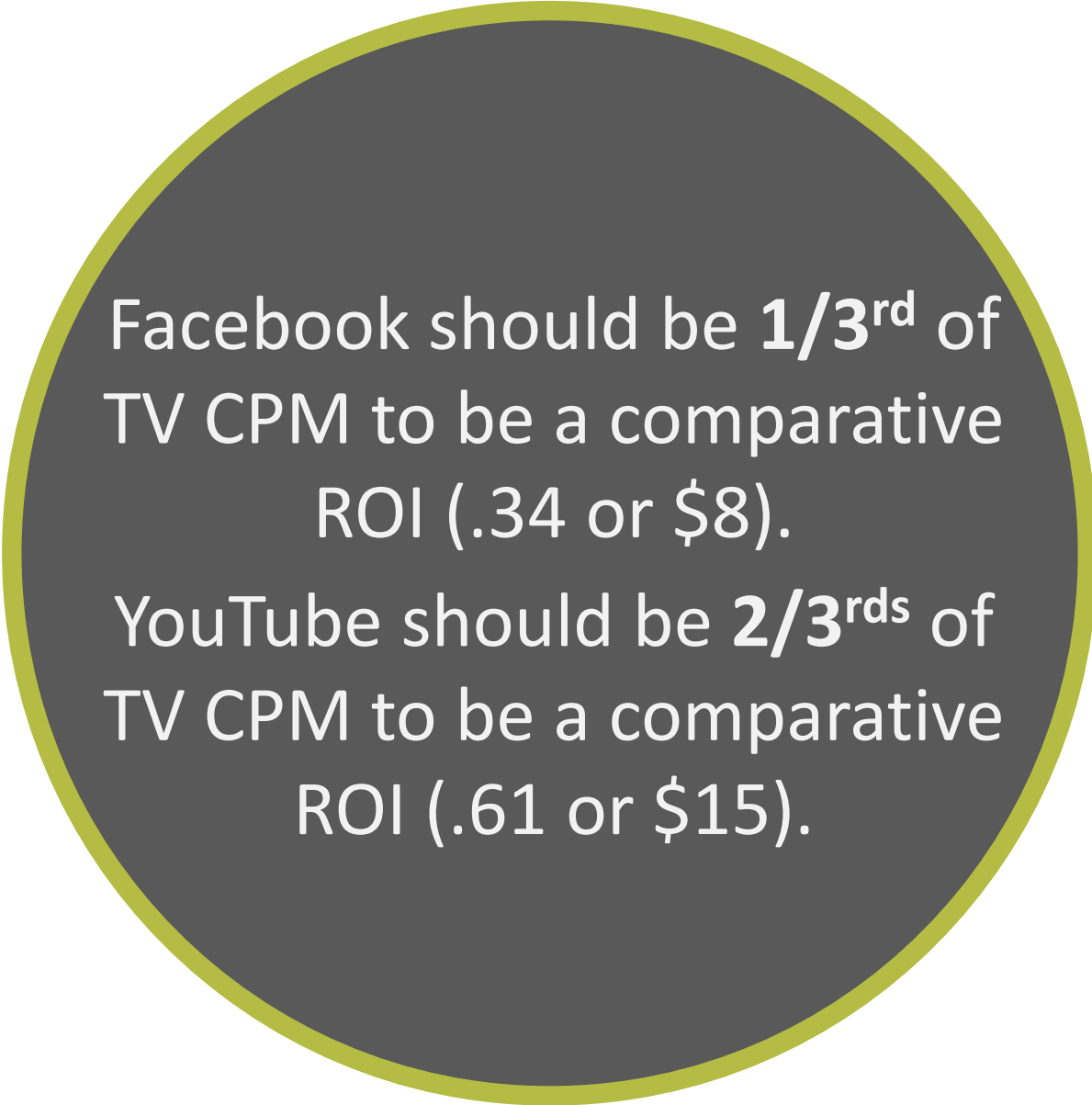
TV gains almost 1.5x times more sales per dollar than Facebook.

And about 2 x more sales per dollar than YouTube.

# THINKING <sup>about it</sup> DIFFERENTLY

How much should FB/YT cost to be 'cost comparative'?

Where the % difference in price should be the SAME as the % difference between platforms.



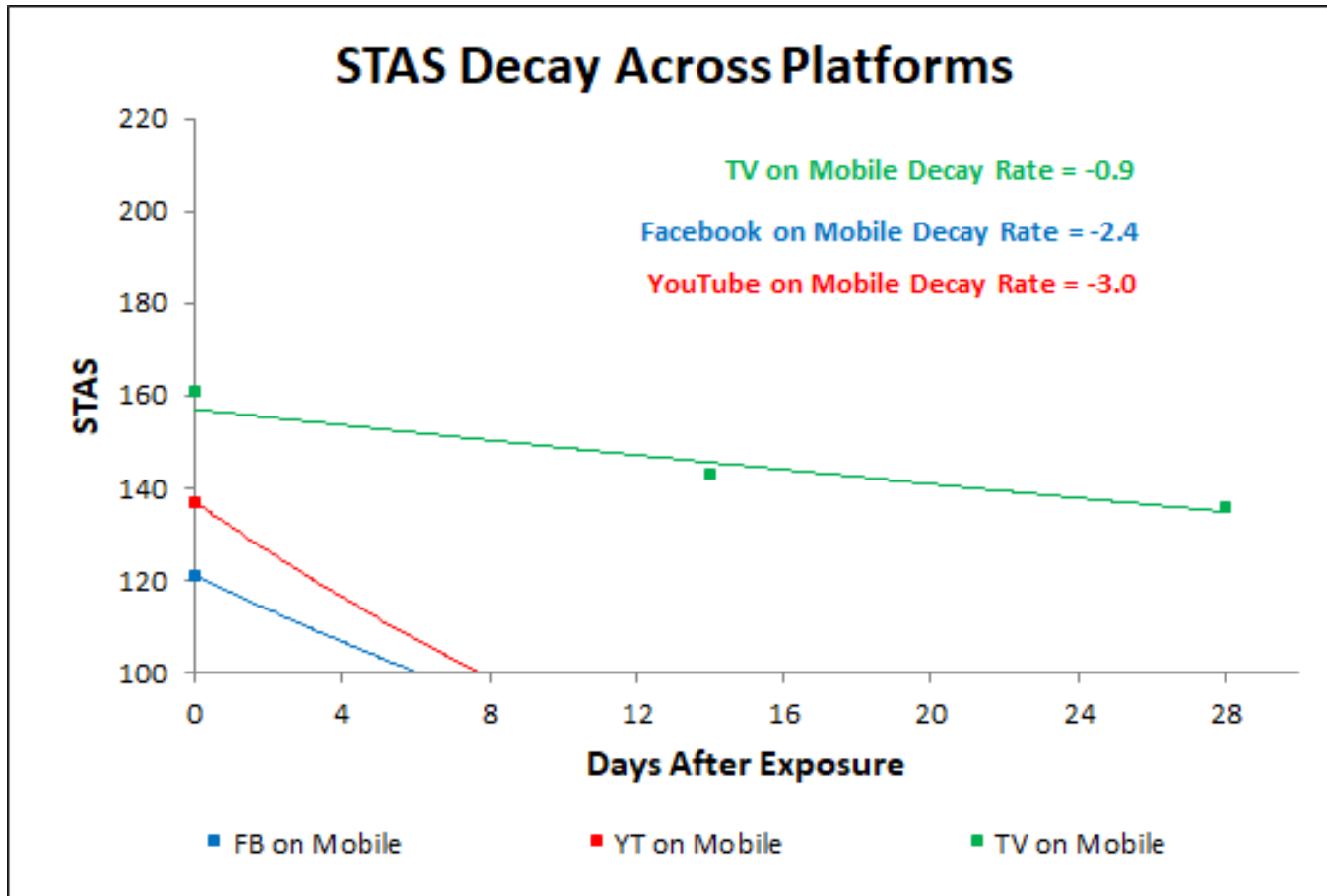
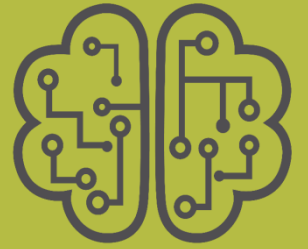
Facebook should be **1/3<sup>rd</sup>** of  
TV CPM to be a comparative  
ROI (.34 or \$8).

YouTube should be **2/3<sup>rd</sup>s** of  
TV CPM to be a comparative  
ROI (.61 or \$15).

But cost comparative and  
value comparative are  
**NOT** the same.



# Cost parity doesn't address the immediate sales opportunity lost (from lower STAS).

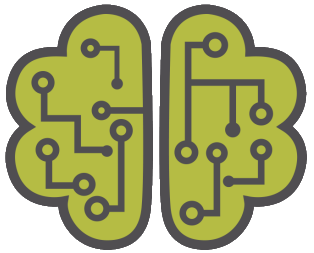


Even with relative CPM, 50% of sales at EACH impression is sacrificed (avg. sales difference TV to online).

**BUT NOT AS SIMPLE AS  
ADD MORE FREQUENCY**

Adding more ads means opportunity loss is compounded with time. PLUS subsequent impressions give diminished returns. WORSE for ROI/Value.

**In summary, GOOD MEDIA offer both short and long term impact and foster high visibility (cost efficiently).**



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**Which is why not all reach is equal.**