Using Tensorflow For Audience Measurement

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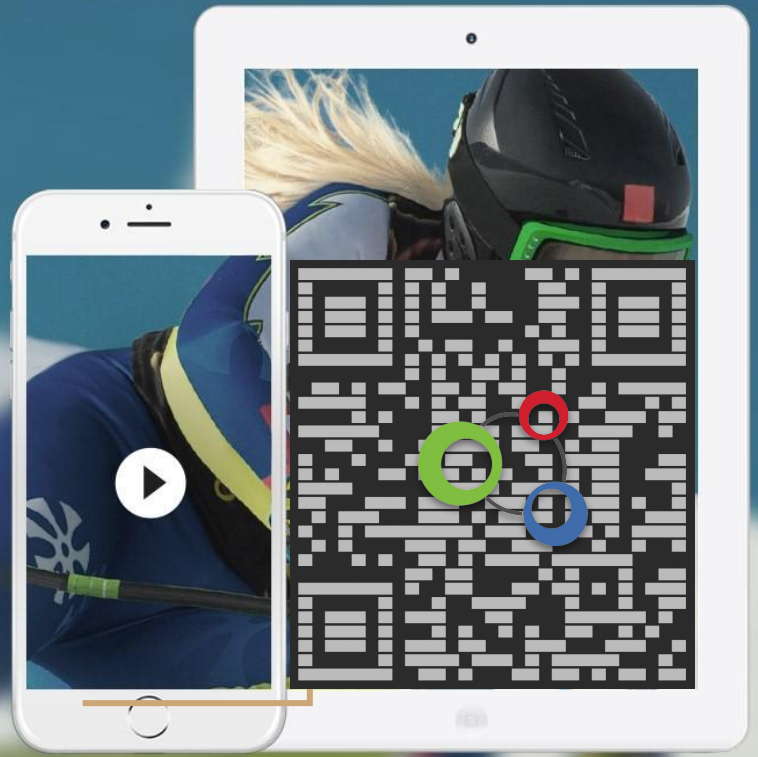

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what is SwitchMedia trying to solve

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Determine what, where and how content is being watched

- Live events
- Recorded / timeshifted live event
- On demand / catch up event

Dealing with large amounts of symbolic data - frequently duplicated - being gathered 24/7 from millions of clients

how Tensorflow helps

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Rather than collecting and immediately sending out disjointed data we instead train a dataset of ‘client behaviour’, sets of weight and biases and send that highly compressed graph periodically for aggregation

Our actual customer (broadcasters and advertisers) instead train an identical model - but have it it **only watch** events they are interested in to see how similar the datasets are

example 1 how well the Rugby was received?

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Client ‘phones / tablets / smart TV / set-top boxes independently classify the programmes being watched by genre (Sports/Rugby Union), a timeslot if they are connected to a real live stream, or flagged as time shifted event names

Client data is aggregated together into a single set, or sets based on common viewer geo/demographic information

example 1 how well the Rugby was received?

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Correlation between the aggregated data vs the trained dataset is then established per game, or over set of games (e.g. how closely ‘only watched England games’ are similar)

From this we can ascertain how many viewers likely watched the game and what teams they were most interested in and how they actually watched it (together as friends, or individually at home)

example 2 how well was GoT received?

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Same applies to other programming styles where aggregated data vs the trained dataset correlation works equally well

- How many people watched final episode of GoT?
- But then also, watched the whole of Season 8?
- Started over and binged the whole thing?!

example 3 how was my Ad campaign received?

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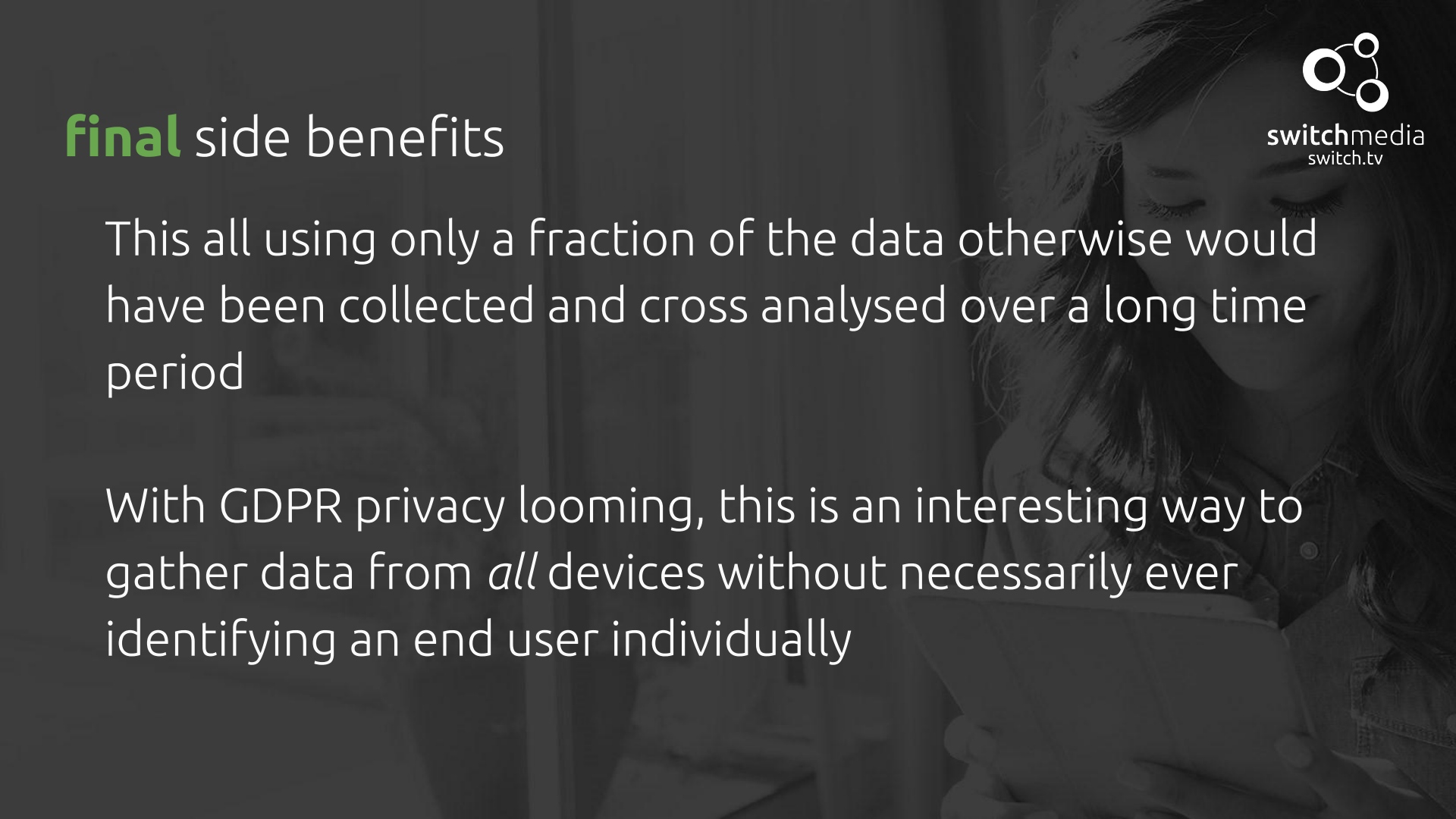
Advertisers can judge *for themselves* how many of the impressions were *likely* served vs the true number of beacons actually reported by each ad agency server

From this broadcasters can better pitch ad slots and the advertiser can work out what is the best outcome for each slot + better determine levels of ad fraud and blocker use

final side benefits



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This all using only a fraction of the data otherwise would have been collected and cross analysed over a long time period

With GDPR privacy looming, this is an interesting way to gather data from *all* devices without necessarily ever identifying an end user individually

Come chat to us on Jones Bay Wharf, Pyrmont!

Slides are here:

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