

COOL VENDOR 2019

Cerebri Al

Corporate Overview Sept 24 / 2019

Is she buying your products & services? - OR looking up info on competitors ?

Is she engaged ? Can engagement metrics help you decide what offer or deal you need for her - right now ?

Cerebri **≥**

Measures engagement Values commitment Scores product "likes"

Timed/sequenced actions increase engagement & sells products

Cerebri 2 Corporate overview

People

Executives: avg. 20+ yrs. enterprise software experience

Staff: 55 total: 23 data science & 22 in Al software orchestration

Patents:

1 approved by PTO 13 in adjudication 6 in process

Cerebri Values CX v2 platform

- CV/CX v2: to be unveiled publicly on Sept 24, 2019, features included:
- new Cerebri Values measure: customer commitment to brands, products
- Next Best Action{set}s for up to 4 actions timed, sequenced, value
- solve customer KPIs concurrently as required for impact of NBA{set}s
- access scores, values via Cerebri Al client UI or via APIs into corporate apps
- heavy automation from data to insights, and explain-ability & audit for banks

Customers

- Customers: large-scale organizations in B2C, B2B in following sectors:
- automotive
- financial services
- telecom & media
- travel & leisure (pending)

Partners

Microsoft **12**



Cerebri Leadership team - Austin | Toronto | Washington DC

Jean Belanger Co-founder & CEO

E&Y Entrepreneur of the Year Finalist - Austin

London School of Economics / MSc

Arun Prakash VP & CFO Virgo Capital, Boeing MIT / MBA, Stanford / MSc





Alain Briançon, PhD **VP & CTO**

InterDigital, Motorola

MIT / PhD





Sumant Kawale **VP** Customer Success SparkCognition, BCG Dartmouth / MBA Drexel / MSc

Victor Potapov VP Software

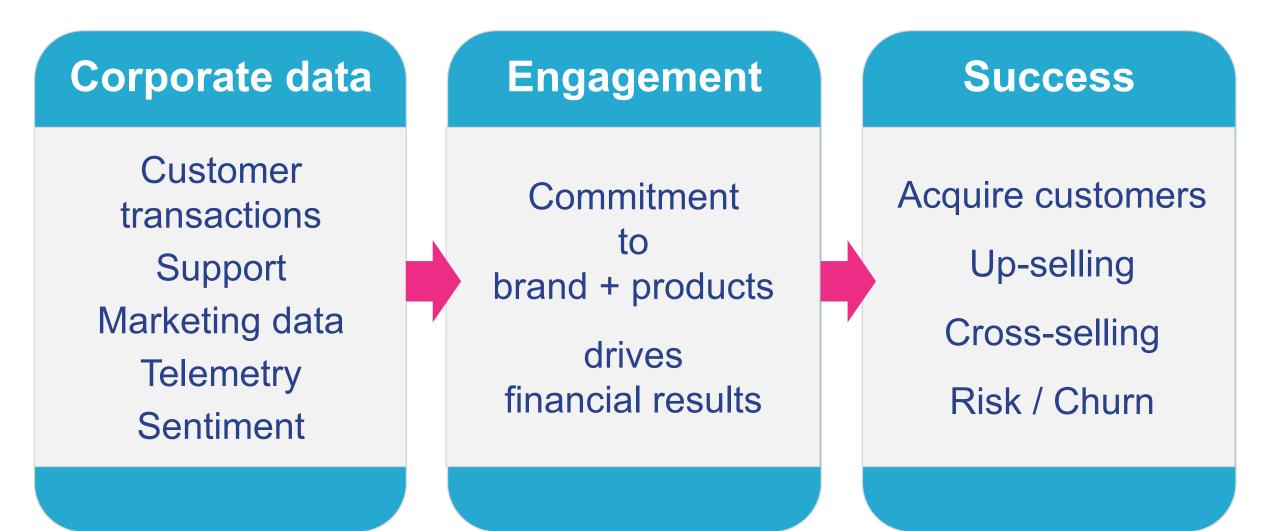
Ernst & Young, Rogers, Motricity

U. Missouri / MA Econometrics



James Stojanov VP & GM **Consumer Group** Accenture, Sapient U. Toronto / BSc

Cerebri Product Strategy





Credibility through solid results

Top 10 global automaker

= 7x lift in sales for email campaigns

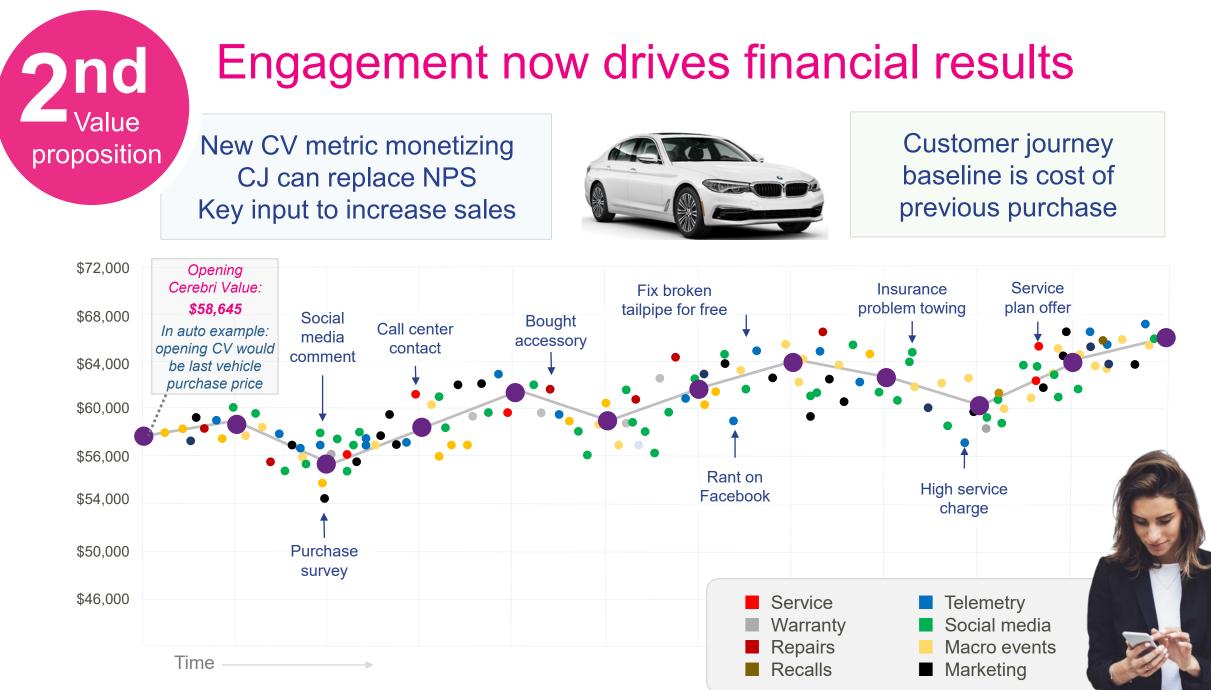
= \$25M in product sales

Top 10 global automaker

= 7x lift in sales for email campaigns

= 30% lift in call center campaigns Top 50 global bank

- = up to \$1B new loan originations / year
 - = 17% less manual processing



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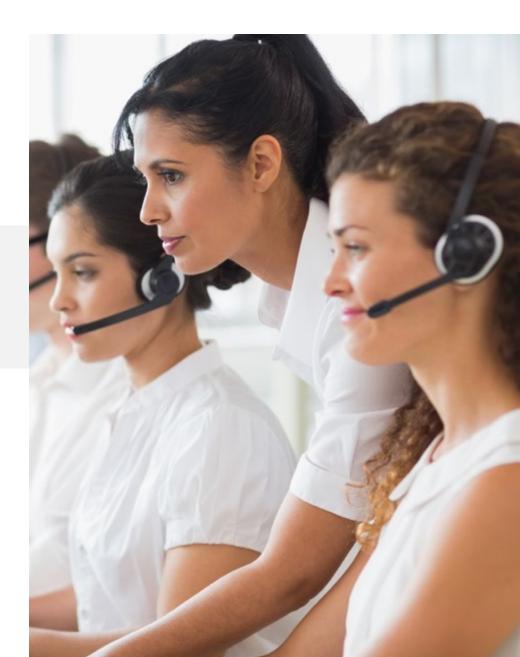


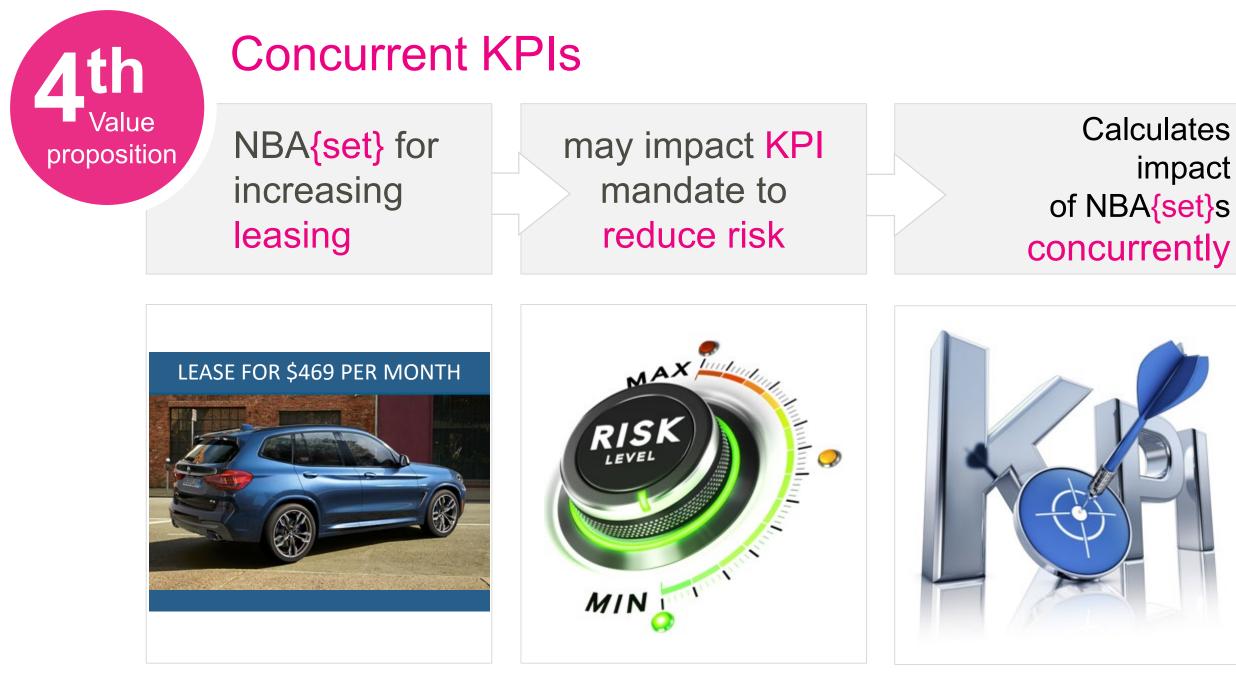
Compound campaigns

Cerebri≥ NBA{sets}s

Email + call center

Actions timed & sequenced





E th		VBA{set	t}s at you	r fingertip	S				
Valu	Je Autor	motive Group	Customer Name, E	mail, Client ID, Segment	Q	Last Data Update: Au	ig 13, 2019		
proposition Wynne Gray wynne.gray@gmail.com +1 920 819 5039			Cerebri Value Cerebri Value S58.6 \$47.2k Baseline Today	80 New vehicle index	70 Service Index	85 "M" index	85		
☞	Profile	Products	1/3 NBA{Set}s	1/3 NBA{Set}s	1/3 NBA{Set}s	1/3 NBA{Set}s			
	Personal details:		Free annual service	0% APR Financing	\$100 coupon	3-year service package	No actio		
	Customer ID: Gender: Tenure:	WyGn394384RT325S Male 11.2 years	Lift +\$2,200 ↑ Aug 02, 2019 - Sep 02, 2019 💥 🗸	Lift +4 ↑ Aug 02, 2019 - Sep 02, 2019 🔀 🗸	Lift +6 ↑ Aug 02, 2019 - Sep 02, 2019 🕱 🗸	Lift +3 ↑ Aug 02, 2019 - Sep 02, 2019 🕱 🗸	at		
	Customer Type: Exclusions: Marketable:	Coupe Email Direct mail, SMS	Timeline 1W 3M 6M 1 [°] Feb 28, 2019 - May 31, 2019	Y 5Y MAX Aggregations Auto	o Fixed Event Day Week	Month Quarter Year Alert Level	No Alert		
	City: State: Postal Code:	Casper Wyoming 82605	110	May					
	Lifetime spend:			+38 2019	~				
	Purchase: Service:	\$154,375 \$12,654	80	+18 - -34 - Aug		▲ 1/3 >			
	Total: Last contact:	\$167,029	70	-34 -34	0% APR financing	Call center interaction			
	Marketing:	June 4, 2019	60		New Vehicle Purchase +4 个	New Vehicle Purchase +7 个			
	Service:	Aug 12, 2018	Mar 2	019	Service Booking +6 ↑	Service Booking Oct 2+6:1			
	Other:	Jan 19, 2019	2013 - - 2014 -	. 2015 . .	2016 2017	2018 . 2019	I. Tuur		
2	Purchase:	Dec 17, 2015	Purchase A Service		Other All				

Re-use, reliability in object-oriented AI

Data to objects Transform data to labelled journeys

Value

proposition

Business classes Ontologies & data models KPI class:

Subscription

Assignment

Acquisition

Customer class

Purchase

Churn

Sources: Internal Transactions Marketing Telemetry External

Publishers: GDP

Transformers: Streamset

Data -

Atlas

Models Options

All

New

At risk

Lifetime Time window Calendar window

Product class:



Compositions Set by business rules and goals

Method:

Sequence Feature engineering Horses for courses Layering Ensembling

Communication: Message passing API Publish-subscribe

Governance:

Operational criteria Actions allowed Action density Applications Use composition < on customer data

Preparation:

Binning Winnowing Select data sources Imputation

Dataset split: Training sets Test sets Validation sets

Application sets

AI -

Atlas

Output: Score List NBA{set}s

UX -

APIs

KPI: Cerebri Value Primary KPI Other KPIs

Quality (QM): Data

Model Score Label Bias

7th Value	N					nated							
propositio	1.	2.	3.		4.	ning softw 5.	6.		7.	8.	9.		
Data	Ingesting of data	Landing of data	Curation of data		alytical ehouse	Feature engineering	Pillar selection		Composition validation	Deploy- ment	Projections / APIs		Users
Batch		Modeling CV CX pillar Increase confidence with CX insights & NBA{set}s						· · · · · · · · · · · · · · · · · · ·	,	UX			
Files	ML ß	designs & experiments to ML production seamlessly, at scale on the cloud						in real time at the moment of interaction via UX/APIs			ction	Platform	External Platforms (via API)
Data feeds Via internal & external APIs	Containerized infrastructure Distributed							Object- AF			Pls micro- services		DS notebooks workbench
AFIS	Multip	le clouds	orchestration Scales w/ demand				design		Scalable,		Quality mgt.		
Streeming	Scales	Scales w/ demand		Batch, streaming Fully orchestrated				Modeling pillars & objects			esilient, vailable:		Power BI
Streaming data Q2/2020		effective	ML / Ops monitored				M	IL orchestration components			e, when needed		Ad-hoc SQL query
												Monitoring / alerting	

Q th	IP strategy: heavy focus on auditability									
Value proposition	Patent filings 1. 15/456,059	2. 15/595,220	3. 15/647,338	4. 15/723,346	5. 16/510,840					
	Business and data science AI management engine	Detect, reduce bias in automated decision-making process	Predict effectiveness of marketing campaign prior to deployment	Distributed logging for securing multi- party transactions	Monitoring and controlling continuous stochastic processes based on events in time series data					
6. 62714252P	7. 10,402,723	8. 16/151,136	9. 62740858P	10. 62748287P	11. 62844338P					
Multi-party & privacy-enabled scalable ML system & tokens	Multi-stage ML Models: predict Interaction efficiency	Privacy & proprietary information preserving collaborative multi-party machine learning	Collaborative multi-party / multi-source ML: affinity assessment, scoring & recommendations	Customer journey management platform	Predictive, machine- learning, time-series aware computer models suitable: sparse sets (Té)					
12. 62847274P	13. 6285613P	14. 16/408,404	15. In process	16. In design	17. In design					
Predictive, machine- learning, locale-aware computer models suitable for location and trajectory	Object Oriented Modeling (OOM) for Al	Multi-stage ML models to predict evolution for customer and score journeys	Adaptive affinity methodology for sparse data set(CAFÉ)	State the space for Cerebri Value and utility	Policy / rules aware (risk, GDPR) recommendation engine (RL +OR)					
18. In design	19 In design	20 In design	21 In design							
Imputation and support for cold start based on customer journeys	Publish/subscribe architecture of data, features, models applied to OOM	Online self-learning and optimization applied to OOM	Next best action{set}s with synthesized actions and rewards							

Cerebri Gartner Research focused on CJ analytics

Gartner highlighted customer journey analytics & Cerebri AI in 6 sector reports

