The Impact of Electrification

The Ripple Effect of the Automotive Industry's Transformation

NBCUniversal
“Every once in a while, a revolutionary product comes along that changes everything.”

- STEVE JOBS
Electrification of the Automotive Industry is a Massive Disrupter

IT’S A TIPPING POINT TO SOCIETAL CHANGE

Globally, Electric Vehicles Accounted For Nearly 2.5% Of new cars sold in 2019¹

Nearly 9% Of new cars sold in 2021¹

And Are Estimated To Account For 50% Of sales by 2030²

WE'VE SEEN THIS BEFORE...

The Telephone Changed Our Lives Forever
1st landline call made in 1876 allowing us to communicate with people regardless of distance

35 years to achieve 25% adoption
122 years to achieve ~100% adoption

The Smartphone Took the Evolution Further
1st smartphone released to the public in 1994, starting us down a new path

16 years to achieve 25% adoption
27 years to achieve 85% adoption

Source: Telephone: The Economist, The Conversation, Jay L. Zagorsky, Senior Lecturer, Boston University, Rise and fall of the landline: 143 years of telephones becoming more accessible – and smart, March 2019; eMarketer; Smartphone: Business Insider, The world’s first smartphone, Simon, was created 16 years before the iPhone, June 2015; Pew Research, Mobile Fact Sheet, US
The Adoption of the Smartphone Changed the World Forever

*INFLUENCING EVERY ASPECT OF LIFE*

<table>
<thead>
<tr>
<th>PEOPLE</th>
<th>HOW WE Connect</th>
<th>38% of internet users worldwide use their mobile phone to make video calls¹</th>
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</thead>
<tbody>
<tr>
<td>BUSINESSES</td>
<td>HOW WE Work &amp; Transact</td>
<td>31% of U.S. retail commerce sales happen on mobile²</td>
</tr>
<tr>
<td>COMMUNITIES</td>
<td>OUR Definition of Community</td>
<td>Globally, 4.15B people actively use social media on a smartphone³</td>
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Source: 1. DataReportal, Hootsuite and We Are Social, Digital 2021: October Global Statshot Report, October 2021; 2. comScore, 2020 State of Retail Preview, October 2020; 3. We Are Social, DataReportal, and Hootsuite, January 2021
THE SMARTPHONE WAS A

Catalyst of Influence

... ELECTRIC VEHICLES WILL BE AS WELL

- Evolved individual beliefs and attitudes towards tangible and intangible impact
- Ripple effect on current businesses and prompting new business ventures
- Improved quality of life in communities and gateway to sustainable mobility
THE IMPACT OF ELECTRIFICATION ON

People
Attitudes and Beliefs are Influenced

Businesses

Communities
Consumers Agree, This is an Exciting Time

**THE Environment**

“This will help slow down or hopefully reverse global warming.”
– EV Owner

“I am interested in the opportunity to bring down my own carbon footprint and the world as a whole, and how it could be impacted.”
– Non-EV Owner

**THE Tech**

“I am highly interested in the science, engineering, and the type and model of cars, specifically EVs and batteries.”
– EV Owner

“I am highly interested in EVs because of their technology aspects being much more complex and interesting than traditional cars.”
– EV Owner

**THE Convenience**

“To save money on gas. To have a car that is easy for short commutes and errands.”
– EV Owner

“I have a high level of interest in using an electric car so I don’t need to fill up at gas stations.”
– Non-EV Owner

Source: NBCU Qualitative Research, January 2022
Note: In Winter 2022, NBCU conducted proprietary research to understand American consumers’ perspective of electric vehicles and their influence.
And the Overall Impact of Electrification is Positive
On both the world and their own lives

“I think it is a blossoming technology that has the influence and power to make a major positive difference.”

“For me, [it will have] little impact, other than the fact that I feel like I am embracing the future and contributing positively to the environment.”

“It's had a good solid impact – not life changing, but I didn't expect it to be. I drive more, feel better about doing my part, and have been saving money on 'gas' and insurance.”

“'I think it will go a long way to eliminate carbon emissions from cars and will create a more sustainable future [...] that is safer for us and the environment.”

On the most important factor in choosing an EV brand:
“I do not know really. It comes down to cost, range, look. How does this car make me feel about myself, etc. Ego?”

Source: NBCU Qualitative Research, January 2022
Note: In Winter 2022, NBCU conducted proprietary research to understand American consumers’ perspective of electric vehicles and their influence.
THE IMPACT OF ELECTRIFICATION ON

People

Businesses
Jobs and Business Interactions are Reimagined

Communities
The Shift to Electric WILL LEAD TO A Reimagination of the Auto Ecosystem From production through aftermarket

1. Production
New components (batteries, electric drives) and new workforce skillsets (electric/software engineers) alter entire process

“GM to hire 3,000 engineers, designers, IT workers to speed up electric vehicle production”
*Detroit Free Press*

2. Marketing
New in-car personalization and electrification features need to be communicated

“Experts predict that in-car personalization will become a key differentiator”
*accenture*

3. Dealerships
Maintenance and sales staff need to be retrained for EVs

“Dealers’ front lines lack the expertise to adequately inform EV buyers”
*McKinsey & Company*

4. Aftermarket
Business revenue will shift due to fewer breakdowns, but will require more service hours to fix, requiring new marketing of customer service capabilities

“EVs will generate up to 40 percent less aftermarket spending”
*McKinsey & Company*
Electric Shift Will Also Have a Ripple Effect on Other Industries

From influencing change to current business strategies to prompting entirely new business ventures

**Insurance**
Due to higher maintenance costs, premiums will be increasing for owners of EVs, tightening budgets
*The annual cost for EV premiums range from $1.3K to $3.5K (6%-41% more than gas models)*

**Delivery Services**
Fleet purchases will be increasingly EV as companies look to lower costs & achieve environmental goals
*UPS and Amazon each purchased a notable volume of EVs in 2021*

**Oil & Gas**
From the type of oil used to how people charge their vehicles, the industry will transform its B2B & B2C models
*Boeing plans to use 100% biofuel by 2030 & Shell will operate 500K+ charging stations globally by 2025*

**Travel**
Hotels, entertainment parks, rental companies & destinations will adjust infrastructure & pricing to accommodate the need to charge vehicles
*Hotels, like Marriott, have gradually installed charging stations in their parking facilities.*
*Rental companies (e.g., Hertz) are beginning to offer EVs*

**Restaurant & Retail**
The service industry will be forging new partnerships to meet consumer expectations for convenience
*QSRs have partnered with startups, like FreeWire, to install charging stations in parking lots*

Source:
1. NPR, From Amazon To FedEx, The Delivery Truck Is Going Electric, March 2021
3. Bankrate, Everything you need to know about insuring an electric vehicle, January 2022
4. Industry Week, Where Can I Find My Delivery Truck In Delivery Space?, April 2021
5. The Street, What the Growing Ascendance of Electric Vehicles Means for Oil and Gas Stocks, June 2021
6. S&P Global, EV impact: Electric vehicle growth is sexist oil firms key market, February 2022
7. Shell, Electric Vehicle Charging
8. Modern Restaurant Management, Taking Charge of an Electrifying Opportunity, April 2021
9. Marriott, Electric Vehicle-Charging Stations
THE IMPACT OF ELECTRIFICATION ON

Quality of Life is Improved
Electrification Can Positively Impact Communities

**Improved Health & Cleaner Air**
Zero-emission vehicles result in less indoor and outdoor air pollution and can help achieve climate goals.

**Sustainable Mobility**
The normalization of EVs and expansion of charging infrastructure can create a clean transportation network with e-bikes, buses, and more.

**Strong Appeal & Desirability**
Green communities often become preferred places to live, visit, and shop, while residential buildings with EV charging stations have higher appeal.

**A Resilient Local Electrical Grid**
Together, EV charging stations, solar panels, and energy storage units can bolster a community’s energy infrastructure, especially during grid emergencies.

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**People of color are disproportionately affected** by air pollution from traffic.¹

The Bipartisan Infrastructure Deal provides $39B to expand public transit systems and allow local governments to buy zero- and low-emission buses.²

Nearly ¾ of apartment renters are either “interested in or won’t rent without” green amenities.³

About 30% of EV owners in the U.S. also have home solar panels.⁴

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How Electrification Has Already Made an Impact

**NYC Microgrid**
Marcus Garvey Village, a 625-unit apartment complex in Brooklyn, NY, installed a system of energy storage, solar photovoltaics, and a fuel cell to lower energy costs and reduce the impact of energy demand peaks.¹

**LA Metro**
With an $80M investment, the LA Metro announced its first zero-emission bus line. The G (Orange) Line has 40 electric buses that each include public Wi-Fi and USB ports in the seats.²

**Seattle**
Seattle's Woodland Park Zoo installed 20 Light & Charge systems, which turn existing streetlights and parking lot lights into EV charging stations. The program will continue to expand throughout Seattle.³

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¹ Source: Enel X North America
² Source: Mass Transit Magazine
³ Source: Woodland Park Zoo
### Smartphones

**People**

**HOW WE Connect**
38% of internet users worldwide use their mobile phone to make video calls

**How & Where We Live**

**Electric Vehicles**

**How & Where We Live**

Globally, 4.15B people actively use social media on a smartphone

### Electric Vehicles

**How WE Think & Feel**
Consumers “feel like [they are] embracing the future and contributing positively to the environment”

**How WE Work & Travel**
Auto workers need to be retrained, while hotels and gas stations are starting to install charging stations on-premise

**Source:** 1. DataReportal, Hootsuite and We Are Social, Digital 2021: October Global Statshot Report, October 2021; 2. comScore, 2020 State of Retail Preview, October 2020; 3. We Are Social, DataReportal, and Hootsuite, January 2021; 4. NBCU Qualitative Research, January 2022
BRANDS HAVE THE OPPORTUNITY TO
Guide People Through This Evolution
Making the transition easy, seamless, and simply part of the new reality

UNDERSTANDING PEOPLE ARE...

Future Focused
Impact Curious
Eager & Enthusiastic
Seeking Reassurance
**BRANDS NEED TO...**

### Share The Vision
Infusing your future-outlook in all marketing aspects

### Anticipate Consumer Needs
Meeting them with information they may not realize they need

### Tap Into Consumer Excitement
Balancing fun and functional

### Establish The Expertise
Touting your authority

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**WAYS TO PARTNER**

**Recommended Approaches**

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<th>Partner with relevant media properties and talent, reflecting your positioning and innovation.</th>
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<td>Gas stations can demonstrate their future vision of the re-fueling experience.</td>
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<th>Leverage a custom content surround sound approach, educating on benefits to accelerate electrification adoption.</th>
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<td>The tourism industry can create resources to facilitate electrified travel.</td>
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<th>Stand out by identifying Cultural Moments and leveraging ad innovation to make your brand top of mind.</th>
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<td>Auto manufacturers can showcase unique EV model benefits (e.g., charging your home).</td>
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<th>Highlight your strategic alliances across Wall Street, Capitol Hill, or Non-Profits in consumer marketing to bolster your authority.</th>
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<td>Charging networks can highlight their efforts to expand across diverse communities.</td>
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**Engage Key Audiences at Scale**
Main Street, Wall Street, Capitol Hill
Thank You

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