

# ROAD Earner (ROD)

## Blockchain- Based Application to Incentivize Safe Driving

### Abstract

We are on a mission to save lives by keeping drivers in speed limits and focused on the roads rather on the mobile phones. Out of 1.25 million deaths and tens of millions more injuries in road accidents each year, a significant number of accidents are associated with the distracted driving, especially the mobile phone related distractions. With ever increasing mobile phone users globally this problem is only going up. Teen drivers are 4x more likely than adults to get into car crashes or near-crashes while talking or texting on a mobile phone, but they are not the only ones to blame, as other age groups are not far behind.

Road Earner is an initiative that will combine mobile technology with blockchain and IoT, and aims to minimize this global destruction. Road Earner mobile app will incentivize drivers with ROD tokens to drive safe.

App users will be then able to use these tokens to redeem offers, posted by the retailers on the Road Earner marketplace. Retailers in return will not only get more customers, thus driving the sales up, but will also receive ROD tokens for the offers that are successfully redeemed. They can then use these tokens to publish more offers on the Road Earner platform or can retain in their accounts.

Parents can set *safe drive* targets for their young children and reward them for driving safe by gifting them the ROD tokens. Parents can receive timely alerts and counsel their children when necessary, thus reducing the chances of mishaps.

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## Introduction

Each year nearly 1.25 million people die in road accidents worldwide, an average of about 3400 people per day. In addition to that, between 20 and 50 million people suffer non-fatal injuries, and many of them incur permanent disabilities a result of their injuries [1].

Road accidents are considered to be the 9th leading cause of death and account for 2.2% of all deaths worldwide[2]. Numbers are even higher for the developing nations, for example, in China, close to 262,000 people die in road accidents every year, and it is the third leading cause of mortality in the country - higher than cancers [3][4].

One of the leading causes of these accidents is mobile phone related distraction. For example, in a number of developed countries, such as, the USA, the UK, New Zealand, Australia and some other European countries, 60–70% of drivers report using a telecommunication device at least a few times while driving[5]. In Canada, about 26% of all car crashes involve phone use, including hands-free phone use[6]. The use of hands-free mobile phones is likely to be higher, but this figure is more difficult to ascertain and therefore isn't even properly accounted for in the statistical analysis[7].

Despite efforts from authorities around the world this problem is only going to go up as the mobile phone usage has exploded in recent years and is only going to go up. Current estimated number of mobile phone subscribers are between 2.5 - 4 billion worldwide [8].

Mobile phone use is greatest among the young, especially the 15–24 age group, for example, in the USA alone, almost 100% young people ages 18 - 29 use mobile phone [9]. Younger mobile users send as many as 50 texts every day [10], which also signals obsessive-compulsive behaviors patterns. Frequency of text messaging is likely to increase as it is cheaper than talking on the phone.

Sad part is that young drivers are already the most vulnerable of all driving groups and with excessive mobile phone usage, especially while driving, puts them at even higher risk of distracted driving. For example, in the USA, drivers under the age of 20, have the highest proportion of distraction-related fatal accidents. Four out of five of the same age groups drivers reported talking on the phone, and about 72.0% reported exchanging a text message at least once a day, while driving [11]. Things are no different in the UK, up to 45% of drivers have reported text messaging while driving[7].

But young drivers are not the only ones to be blamed, at any given moment during the daylight hours, over 650,000 vehicles are being driven by someone using a hand-held cell phone in the USA. In 2015 alone, 3,477 people were killed, and 391,000 were injured in motor vehicle crashes involving distracted drivers[12]. In China, in a recent study, about 60% drivers reported distraction, mainly caused by the mobile phone[13].

While effects of using mobile phone on driving behavior are still being researched worldwide, existing studies indicate that sending and receiving text messages impact the critical driving tasks

because typing and reading messages demand cognitive ability, cause physical distraction as phone is held in hand(s), and cause visual distraction that results from being focused on the phone instead of the road. The amount of time that drivers spent with their eyes off the road increased by up to 400% while exchanging text messages [14].

Financially, road crashes cost USD \$518 billion globally, costing individual countries from 1-2% of their annual GDP [15]. In UK alone road congestion is estimated to cost the country £22 billion each year. On average serious accidents force closure of motorways for more than three hours [16]. The economic and social consequence of road crashes in Canada is estimated to be \$25 billion per year, including direct and indirect cost, as well as pain and suffering [17]. A significant percentage of that financial, time and emotional loss is associated with the accidents resulting from mobile phone distracted driving.

Despite increasing actions taken by many countries to limit the use of mobile phones in vehicles through legislative measures, there is very little data on the effectiveness of such countermeasures on crash rates [18]. Even though many countries have introduced laws to penalize drivers found using hand-held mobile phones, drivers continue to use phones on hands-free mode, which is as distractive as hand-held, because it is the cognitive ability that is reduced in both cases.

## Blockchain to Rescue

Blockchains are secure by design and are an example of a distributed computing system with high Byzantine fault tolerance. Decentralized consensus has therefore been achieved with a blockchain. This makes blockchains potentially suitable for the recording of events and other records management activities, such as transaction processing, and documenting provenance.

Blockchain is emerging technology and in short span of time, we can see its evolution[].

**Blockchain 1.0** - Focused on the applications of cryptocurrencies, such as cash remittance and digital payment systems, off which Bitcoin is an example

**Blockchain 2.0** - Focused on the smart contracts, such as land purchases, mortgages, bonds, and even livestock

**Blockchain 3.0** - Spreads even further and comes an extra step closer to daily life in the areas like public health, government, culture and art, and even Road Earner

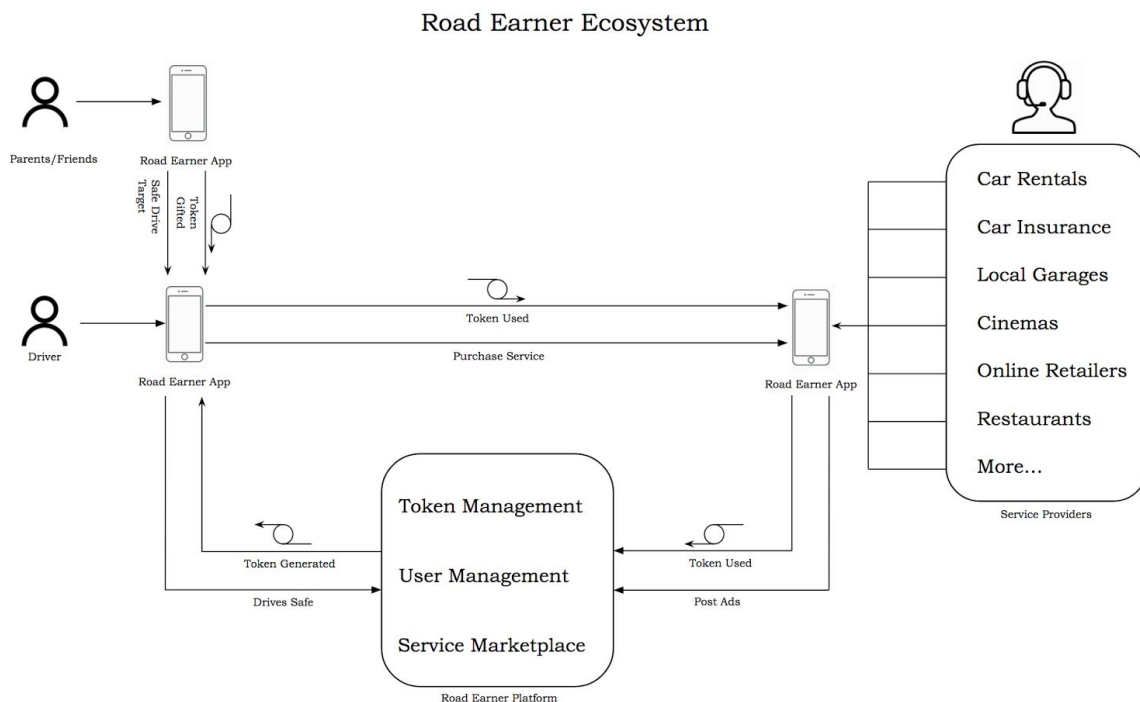
Blockchain 3.0 can be think of as more innovative and more disruptive application.

Road Earner is a blockchain based solution to the distracted driving problem. Respect and fear are the two deterrents to keep human behavior in check. Respect is a virtue that is hard to come by, and fear of punishment alone is not enough to overcome this problem as people find clever ways to escape the law. Road Earner aims to introduce the third motivation: Incentivization.

By combining Mobile App Technology with Blockchain, driving can be tracked and incentivized, in the form of ROD token and ratings on the platform, for driving safe.

Road Earner platform will build an ecosystem which will reward drivers for driving safe, drivers will then be able to use those tokens to buy discounted products/services from the marketplace. On the other hand retailers will be able to post offers/coupons on the marketplace using the tokens.

## Road Earner ecosystem



Road Earner platform aims to create an ecosystem based on the ROD token, backed by the blockchain technology. Drivers who will use the Road Earner app, and will drive safe, will be rewarded in the form of ROD token. They then can use these tokens to redeem offers made by the retailers on the Road Earner platform. Retailers, thus not only attract more customers, but also get ROD tokens in return. They then can use these tokens to publish more offers on the Road Earner platform.

### For drivers

Once downloaded and set-up, the Road Earner app will turn on automatically once the vehicle starts moving 10 miles per hour, if auto mode is turned on, otherwise user can manually start the app. **Then text messages will be auto replied** and phone calls will be sent to voicemail; however, the driver can identify three numbers that can always be called, and emergency calls

are always allowed. Depending on the device used, the app will also stop incoming sounds for texts, emails and voice calls so the drivers are less tempted to grab their phones.

When setting up the app, the driver would have the option to select one navigation and one music app that could be accessed while the Drive Mode is turned on. The app can instantly stream live video, audio and GPS location and movements to pre-selected contacts.

Drivers will have options to Start, Pause and Stop a journey. When a journey is successfully completed i.e. the driver didn't use the phone while driving, the app will send that information to Road Earner blockchain platform and generate a ROD token and add it to the user's token balance as a reward. In addition to the token, platform will also rate the user based on their previous driving history and the current journey. These rankings, backed by blockchain, could be used as credibility scores, for example, to negotiate car insurance premiums.

Later versions of the app will enable app to track how well a driver respects the speed limits, and change the driver's rating on the platform and in turn the number of tokens generated per journey. Higher ranked drivers will be incentivized by being rewarding more number of tokens per mile, and if their ranking dips in the following journeys then number of tokens generated will go to the basic rate.

Tokens will be generated once a driver completes 100 miles safely, thus encouraging drivers to continue driving safe, **though app will display how many tokens they have gathered so far in the current 100 miles block.**

### **For parents**

As described earlier in this document, young drivers, especially under the age group of 25 are most vulnerable on the road. Therefore, the Road Earner app will allow parents to set Safe Drive targets for their children.

Parents need to have the ROD tokens in their own accounts to be able to set the target. Driver can then accept the target set by parents using the app. Once the driver completes the target successfully, the app will notify the parents and transfer the tokens from parents account to the driver's account. These tokens represent additional incentivization for the young drivers to encourage them drive safely, and are in addition to the regular tokens that will be generated by the platform for them.

Parents will be notified if the driver doesn't accept the target or fails to complete it.

Parents can buy ROD tokens from Road Earner app or the website. Parents should have tokens in their accounts before they can set the target.

### **For Goods and Service Providers (No more Pay and Pray Advertising)**

Estimated total coupons distributed worldwide is somewhere between 160 billion and 200 billion [19] and is expected to reach 360 billion by 2021. eCoupon or digital coupon redemption value is expected to reach \$81 billion by 2021 [20]. Global mobile coupon users in 2019 are expected to be 1.05 billion, with expected 31 billion coupons to be redeemed digitally [21]. Some parts of the world are embracing the digital coupons faster than others, for example, China and India are the two top countries in terms of mobile advertising responsiveness by consumers with click rates of 78% in China and 58% in India [22].

Though future seems very promising, problem with current coupon marketing is that it is scattered, underused and is very costly, especially if the cost of printing and distribution of the unused coupons is taken into account. Digital coupons based marketing, in particular mobile phone based, is still in its early phase of adoption and holds a huge potential for all the actors involved: the publishers, the marketplace, and the users.

The Road Earner app will feature a marketplace where retailers can post mobile coupons/offers.

They do this effectively by reaching out to **Road App users** where they are - on their mobile phones.

Drivers will be able to see the current offers made by the retailers. These offers will be similar to traditional loyalty points offers, where different retailers value the same number of RODs differently, for example one Service Provider may offer 50% off on oil change for 100 RODs while another for 110 RODs.

There is potentially no limit to what kind of retailers can join the platform, typical examples can be: food places, auto repair businesses, car insurers, car rental companies, car wash businesses, big supermarket brands and mom & pop shops like ironing services to local flower shops.

Drivers will be able to show QR codes to instantly redeem the offers (or another similar mechanism) in return for their ROD tokens. Once the offer is redeemed, equivalent amount of ROD tokens will be transferred to the retailer's account. Drivers will be able to set their preferences in the app, to receive the offers that are most relevant to them, a win-win synergy for the consumers and retailers both.

Retailers can post new offers on the marketplace using the ROD tokens. The platform will keep a percentage of the tokens received from the retailers and add the rest to the token pool, which will be used by the platform to reward the drivers.

**The Road Earner platform will bring the transparency for the retailers.** When fully developed, the app will offer comprehensive dashboard, where retailers will be able to see how well their offers have been received, how well an offer was redeemed by a given age group, how much sales were generated by an offer, cost of all the offers posted on the platform, and more.

There are about 214,000,000 drivers in the USA, 39,000,000 in the UK, 21,000,000 in Canada and about 5,000,000 or more in Australia. Total drivers from these four countries alone is 279,000,000. If the Road Earner focuses on these countries alone in the early phases, and attracts 0.5% drivers then that makes 1,395,000 app users, which is a significant number of potential customers for the retailers in these countries.

Once a retailer posts a coupon/offer on the platform, it will be made available to the entire drivers (app users) community instantly – based on the chosen demographics. Thus, accelerating the process of reaching out to the target market by an order of magnitude, and saving significant amount of Time and Money, and not to mention the significant amount of paper saved in the process thus being the Green option.

Retailers will be able to adjust their offers based on the current economic environment, demographics, and demand of their products and services. For example, a local pub or food chain can send an instant offer to all the app users who turned out for a baseball or a football game, thus targeting the right consumers at the right time. **This will be made possible by the Road Earner platform ecosystem.**

Most importantly, when a consumer comes to redeem a voucher, unlike traditional coupons, retailer gets tokens in addition to the regular sale. Retailer can either use some of those tokens to publish more ads or keep those tokens in their account.

**Cost matrix for retailers:**

Definition	First year of the Launch	After first year
Quarterly Subscription	Complimentary	\$100
Advertisement Cost	Up to 3 Ads Complimentary	20 RODs/ad per week (may change to auction based pricing)
Charge on successful offer redemption	5% of RODs on the offer*	5% of RODs on the offer

\* Example offer: 10% off on oil change for 20 RODs.



## Cost analysis with an example:

### Example 1:

Let's take an example of a local auto repair business that wants to reach out to its local community, offering \$10 off for oil change for 25 ROD tokens. Offer is sent out to 2000 Road Earner app users in a local demographic area. Below is the cost analysis of publication of the offer, and potential returns on the Road Earner app:

#### **Offer: \$10 off for oil change for 25 RODs, sent out to 2000 customers**

Basic yearly retailer subscription to the platform: \$100 or  $100 / 12 = \$8.33$  per month

Road Earner Platform cost per redeemed coupon: 5%

Number of weeks retailer keeps the offer published on the platform: 9 weeks (or 2 months)

Cost of publishing per week: 20 ROD tokens

Total cost of publishing in dollars:  $\$8.33 \times 2$  months' subscription cost  $\Rightarrow \$17$

Total cost of publishing in RODs:  $20 \text{ RODs} \times 9 \text{ weeks} = 180 \text{ RODs}$

#### *Low turnout scenario:*

Expected turnout for coupon redemption: 5%  $\Rightarrow 2000 \times 5 / 100 \Rightarrow 100$  customers

Cost per coupon redeemed in dollars:  $\$17 / 100 \Rightarrow \$0.17$

Cost per coupon redeemed in RODs:  $180 / 100 \Rightarrow 1.8 \text{ RODs}$

RODs collected from redeemed coupons:  $100 \times 25 \Rightarrow 2500 \text{ RODs}$

RODs earned from redeemed coupons:  $2500 \times (100 - 5 \% \text{ charge}) / 100 \Rightarrow 2375 \text{ RODs}$

### Example 2:

A food outlet inside a football stadium decides to boost its sales during a game. It sends out an offer to all the Road App users inside the stadium (**narrowed down by the area**), offering a free beer for 5 tokens on orders over \$5. Assumed number of fans in the stadium 10,000 (high percentage being the drivers); Offer is sent out to 500 app users (assuming 5% of the crowd present in the stadium uses Road Earner app)

#### **Offer: Free beer for 5 ROD tokens on orders over \$5**

Basic yearly retailer subscription to the platform: \$100 or  $100 / 12 = \$8.33$  per month

Road Earner Platform cost per redeemed coupon: 5%

Number of weeks retailer keep the published on the platform: 1

Cost of publishing per week: 20 ROD tokens

Total cost of publishing in dollars:  $\$8.33 \times 1$  month's subscription cost  $\Rightarrow \$8.33$

Total cost of publishing in RODs:  $20 \text{ RODs} \times 1 \text{ week} = 20 \text{ RODs}$

#### *Low turnout scenario:*

Expected turnout for coupon redemption: 10%  $\Rightarrow 500 \times 10 / 100 \Rightarrow 50$  customers

Potential minimum sales:  $50 \text{ customers} \times \$5 \text{ minimum order size} \Rightarrow \$250$

Potential minimum revenue:  $\$250 - \$8.33 \Rightarrow \$241.67$

Cost per coupon redeemed in dollars:  $\$8.33 / 50 \Rightarrow \$0.166$

Cost per coupon redeemed in RODs:  $20 / 50 \Rightarrow 0.4 \text{ RODs}$

RODs collected from redeemed coupons:  $5 \text{ tokens} \times 50 \text{ customers} \Rightarrow 250 \text{ RODs}$

RODs earned from redeemed coupons:  $250 \text{ tokens} \times (100 - 5\% \text{ charge}) / 100 \Rightarrow 237.5 \text{ RODs}$

As can be seen in these examples, the Road Earner platform will not only prove fast, dynamic, economical and green option to post offers but most importantly retailers will receive tokens for their offers. Retailers can use these tokens to publish more offers, practically almost for free or they can retain the tokens in their account.

## Inspiration

There is no mobile app with this business model in the market which works on the blockchain based incentivization.

Other apps in the market do encourage and promote safe driving. Such apps validate the idea of Road Earner, however, the key features that make Road Earner app unique are:

1. **Privacy by Blockchain:** It is based on blockchain, and keeps driver's journey record private in blockchain, only visible to the driver
2. **Rating:** It ranks the driver, based on their driving behaviour, that they can use to establish their credibility to the insurance providers
3. **Involving Parents/Family:** Parents got a unique way of incentivising and tracking their wards' driving behaviour
4. **Incentivization:** Drivers are not just driving safe but they are potentially earning by doing so
5. **Digital Promotions:** Retailers get a fully digital, ready to use digital platform, accelerating the speed with which they can reach to a large audience, and that too dynamically
6. **Ecosystem:** Retailers not only attract more customers by publishing offers on a very economical platform, they are potentially earning by collecting tokens from redeemed offers, that they can then reuse to publish more ads or can retain their tokens

## Number of tokens to release

<b>Total initial coins in supply</b>	<b>330,000,000</b>
<b>Pre-Sale</b>	<b>214,500,000</b>
Coins held by the development team and advisory	115,500,000
<b>Initial price</b> of the Road (ROD) token	\$0.08

### Allocation of Funds

App development for android and iOS market

Platform development for token management, blockchain interaction, and for market place  
Marketing for retailers on boarding  
Safe Drive campaigns to reach out to drivers  
Taxes on **pre-sale** token sale  
Legal costs

Once the app is launched, 200,000,000 new tokens will be generated by the platform to reward the drivers. As the eco system builds these tokens will be recycled back into the pool; drivers will redeem their tokens for offers and retailers will publish new offers using the tokens. Once these tokens are consumed and if there are no tokens in the pool for rewarding drivers, another lot of 200,000,000 tokens will be generated.

## Roadmap

## Conclusion

ROAD is a mobile based app that leverages blockchain technology to address increasing challenge on our roads. As a driver, you earn rewards online that are correlated to your driving habits.

Drive Safe, Be Safe.

## Risks

Financial and operating risks confronting Mobile App, marketing and technology companies may be significant. Mobile App markets are highly competitive and the percentage of companies that survive and prosper may be limited. Unexpected problems in the areas of product development, marketing, financing and general management, among others, that cannot be solved may arise.

### Hacking and Security

Road Tokens involves a high degree of risk, volatility and illiquidity. A prospective purchaser should thoroughly review the information contained herein and carefully consider whether a purchase of Road tokens is suitable to the purchaser's financial situation.

Purchasers should be aware that they will be required to bear the financial risks of the purchase of Road tokens for an indefinite period of time. Purchasers of Road tokens should be aware that they bear any risks involved in the purchase of such tokens, if any, for an indefinite period of time.

## Terms and conditions

This Whitepaper is being made available for information purposes only. This Whitepaper does not constitute a prospectus or offer document of any sort, and is not intended to constitute an offer, solicitation, recommendation or invitation to any person to subscribe for or purchase tokens or any rights or securities of any form.

This document is intended to outline our general product direction and should not be considered as an offer to sell shares or securities using the Road Earner platform or any other affiliated company.

This document may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for our products remains at the sole discretion of us.

Owning Road (ROD) tokens does not give their holder the right of ownership or the right to property in **Road Earner platform**. While we will reach out to the community for opinions and feedback, ROD tokens do not give their holders any right to participate in decision making concerning the development of the Road Earner platform, app and the ecosystem.

### **Not for income or profit**

ROD tokens are not for generating income or profits.

All the examples of income and profits calculation used in this document are given for demonstrative purposes only or for showing industry averages and do not constitute a guarantee that these results will be obtained according to the marketing plan.

### **Regulatory uncertainty**

Blockchain-related technologies are subject to supervision and control by different regulatory bodies around the world. ROD tokens may fall under one or more inquiries or actions on their part, including but not limited to imposing restrictions on the use or possession of digital tokens such as ROD tokens, which may slow or limit the functionality of the system or the process of purchasing Road tokens in the future.

### **ROD tokens are not an investment**

ROD tokens are not an official or legally binding investment of any kind. Due to unforeseen circumstances, the objectives set forth in this document may be amended. Despite the fact that we intend to reach all the goals described in this document, all persons and parties involved in the **acquiring** of ROD tokens do so at their own risk.

ROD token is not a security or for speculation. ROD token is sold as a means to reward drivers for adhering to guidelines and keeping roads safe.

We never advocate the buying or selling of ROD token or comment on price alone. We also request that any comments on price or value of ROD token by the organization, affiliates or other parties be significantly and sensibly discounted to zero. Always form your own opinions about the price and value of ROD token.

## References

- [1 <http://www.who.int/mediacentre/factsheets/fs358/en/>]
- [2 <http://asirt.org/initiatives/informing-road-users/road-safety-facts/road-crash-statistics>]
- [3 [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(15\)00551-6/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(15)00551-6/fulltext)]
- [4 <http://www.scmp.com/news/china/article/66537/road-accidents-ahead-cancers-death-toll-china-lancet-study-finds>]
- [5 [http://apps.who.int/iris/bitstream/10665/44494/6/9789241500890\\_eng\\_References.pdf](http://apps.who.int/iris/bitstream/10665/44494/6/9789241500890_eng_References.pdf)][12 Dragutinovic N, Twisk D. Use of mobile phones while driving – effects on road safety. Leidschendam, Netherlands, SWOV Institute for Road Safety Research, 2005 <http://www.swov.nl/rapport/r-2005-12.pdf>, accessed 6 January 2011]
- [6 <https://www.caa.ca/distracted-driving/statistics>]
- [7 [http://www.who.int/violence\\_injury\\_prevention/publications/road\\_traffic/distracted\\_driving\\_en.pdf?ua=1](http://www.who.int/violence_injury_prevention/publications/road_traffic/distracted_driving_en.pdf?ua=1)]
- [8 <https://www.emarketer.com/Article/Mobile-Phone-Smartphone-Usage-Varies-Globally/1014738>]
- [8 <https://www.digitaltrends.com/mobile/smartphone-users-number-6-1-billion-by-2020/>]
- [8 <https://www.statista.com/statistics/330695/number-of-smartphone-users-worldwide/>]
- [8 <https://www.gsma.com/mobileeconomy/>]
- [9 <http://www.pewinternet.org/fact-sheet/mobile/>]
- [10 <http://www.npr.org/templates/story/story.php?storyId=126117811>]
- [11 [http://drivingassessment.uiowa.edu/sites/default/files/DA2013/Papers/003\\_Ehsani\\_0.pdf](http://drivingassessment.uiowa.edu/sites/default/files/DA2013/Papers/003_Ehsani_0.pdf)]
- [12 <https://www.nhtsa.gov/risky-driving/distracted-driving>]
- [13 [http://www.chinadaily.com.cn/business/motoring/2017-07/07/content\\_30026549.htm](http://www.chinadaily.com.cn/business/motoring/2017-07/07/content_30026549.htm)]
- [14 [http://www.who.int/violence\\_injury\\_prevention/publications/road\\_traffic/distracted\\_driving\\_en.pdf?ua=1](http://www.who.int/violence_injury_prevention/publications/road_traffic/distracted_driving_en.pdf?ua=1)][Hosking S, Young K, Regan M. The effects of text messaging on young novice driver performance. In: Faulks IJ et al, eds. Distracted driving. Sydney, Australasian College of Road Safety, 2007, 155–187]
- [15 <http://asirt.org/initiatives/informing-road-users/road-safety-facts/road-crash-statistics>]
- [16 <http://www.racfoundation.org/research/safety/delays-due-to-serious-road-accidents>]
- [17 <https://www.caa.ca/distracted-driving/statistics/>]
- [18 [http://www.who.int/violence\\_injury\\_prevention/publications/road\\_traffic/distracted\\_driving\\_en.pdf?ua=1](http://www.who.int/violence_injury_prevention/publications/road_traffic/distracted_driving_en.pdf?ua=1)]
- [19 <https://www.nchmarketing.com/couponindustrytrends.aspx>]
- [20 <https://www.juniperresearch.com/researchstore/commerce-fintech/mobile-online-coupons>]
- [21 <https://www.juniperresearch.com/press-release/coupons-pr1>]
- [22 <http://faculty.chicagobooth.edu/jean-pierre.dube/research/papers/mobile%20targeting.pdf>]



