HELP!
OKCUPID?
TINDER?
MATCH?
SWIPE RIGHT FOR MORE DRAMA!

“...on the World Wide Web!”

But how do I choose?!

“I think I found love... on the World Wide Web!”

Volkswagen, Penalties of Proportion or Precedent?

David Weissman

Page 15

A CRISPR Way to Splice DNA

Jonathan C. Meyer

Page 20

It’s not Sunset for Solar Subsides.... Yet.

Deane Hinton

Page 8
Table of Contents

1 Looking Back
2 Will Consumers Adapt to Proximity Marketing?
5 Spring Cleaning? Get Cash for your Trash
6 Telemarketing, Autodialing, Spam Texts and Do Not Call!
8 It’s not Sunset for Solar Subsidies... Yet.
10 Hope for Healthcare Innovation
12 Consumer Survey: The Best Way to “Swipe” a Mate
15 Volkswagen, Penalties of Proportion or Precedent?
18 Disruptive Lending, Disrupted
20 A CRISPR Way to Splice DNA
22 FCC to Weigh in on Cable Set-Top Box Out
24 Why Daily Fantasy Sports got the Penalty Box
26 What do food date labels really tell you?

Consumers’ Research is an independent educational organization whose mission is to increase the knowledge and understanding of issues, policies, products, and services of concern to consumers and to promote the freedom to act on that knowledge and understanding.

Consumers’ Research believes that the cost, quality, availability, and variety of goods and services used or desired by American consumers—from both the private and public sectors—are improved by greater consumer knowledge and freedom.

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Looking Back

Products and Consumer Affairs Then and Now

In early issues of our magazine, we published a section called The Consumers’ Observation Post, which featured brief insights, speculations, and helpful tidbits on consumer goods, services, trends, and tools. Here we reexamine some of those snippets.

Vitamins not Necessarily a Cure-all

In our December 1932 “Handbook of Buying,” we professed that consumers could get enough essential vitamins and minerals from food and need not get them from supplements, or as they were known then, “tonics.” Specifically, we said:

“Since natural foods can easily furnish adequate amounts of minerals economically, there is no occasion to use drug store preparations (tonics, etc.) unless there is definite disease requiring a physician’s care. It is probable that foods offer a source of minerals more easily utilized by the body than do chemical preparations.”

Fast forward 83 years, and vitamin use is widespread. A 2013 Gallup poll reported that 50 percent of Americans take a vitamin or supplement on a regular basis and estimated vitamin sales are $12 billion annually. While the numbers may have changed, skepticism about the benefits of supplements have not.

In a 2009 report, the Mayo Clinic advised:

“You can get your entire daily requirements of vitamin C by just popping a pill. You can get the same amount by eating a large orange. So which is better? In most cases, the orange is better.”

The experts pointed to the fact that whole foods such as an orange contain multiple vitamins and nutrients, fiber, and other food substances that you don’t get with a pill.

Similar to our 1932 recommendation that consumers do not need vitamins unless there is a medical reason, the Mayo Clinic report stated that vitamins would be helpful in cases of a medically limited diet, or for people with digestive conditions.

Going beyond merely advising against excessive vitamin intake because of the cost, the Mayo Clinic warns against excessive vitamin intake stating, “if too much vitamin A is stored in the body, it may increase the risk of birth defects, liver abnormalities and reduced bone mineral density — which could lead to osteoporosis.” The Clinic also pointed to research, which found that taking an excessive amount of beta-carotene in supplement form could increase the risk of lung cancer, but that it is not possible to get too much beta-carotene naturally from food.

We’ve Come a Long Way Since the Typewriter

In the same “Handbook of Buying” issue, we devoted a section to office supplies. At the top of this section was our recommendations on typewriters — specifically, an admonition that “typewriter construction has shown no important improvements for more than 15 years.” Today, the speed of technological progress in the PC industry means a new computer is considerably more advanced than one released four years prior. We also recommended that “the average individual user, if economical, should therefore disregard sales arguments, however plausible, to replace his typewriter at short intervals.”

Anyone familiar with PCs knows that they must generally be replaced after a few years; if you’re still using a 10-year-old PC it will be very slow and unreliable. According to Statista the average age of a PC in 2010 was 5.8 years. One wonders what the Consumers’ Research writers of 1932 would think of the pace of technological development we have today.

Validated by History?

Our June 1974 issue included a section that compiled movie reviews and presented consumers with a handy list as to how many reviews gave a film a rating of: recommended, intermediate, or not recommended. It also had a reference for the genre and suitable audience of a film. The review sources used were: Boxoffice, Catholic Film Newsletter, Cue, NY Daily News, Film Information, The Film Review, Films in Review, MD, The New York Times, and Parents’ Magazine.

What stands out in this specific list is how dismissive the source reviews were of several now highly-regarded films. American Graffiti got eight “intermediate” reviews, and only two “recommended.” That was actually the best showing, despite the film ranking #62 on the American Film Institute’s “100 Greatest American Films of All Time” list. The Exorcist, #3 on AFI’s “Most Thrilling American Films” list, received more unfavorable reviews than “intermediate” and “recommended” ratings combined. Blazing Saddles, AFI’s #6 “Funniest American Movies Of All Time,” got a disappointing four “not recommended” and four “intermediate” reviews, with no reviewers suggesting audiences should go see the Mel Brooks comedic masterpiece. It’ll be interesting to see what people think of today’s film reviews in 40 years’ time. What future classics have we rebuked?
Today's constantly connected consumers are using smartphones in-store more than ever. A recent Google survey states that a staggering 80 percent of shoppers are using smartphones to make purchasing decisions. Retailers and start-ups have taken notice, and the concepts of mobile location analytics and proximity marketing are emerging out of that.

Publications like Techcrunch and Adweek have articles of retailers launching Bluetooth beacon pilot programs almost on a daily basis. Some recent examples include Target, Country Market and Urban Outfitters.

But when you clear away all the buzzwords, what exactly is this shift we're seeing? It's the world customizing itself to you. The world is reacting to your presence, specific to you as an individual.

Talking about this out in the world will get you varying reactions, from concerns about privacy issues to the idea that your phone is going to spam you with Viagra ads non-stop, but if you boil down the idea, there are some really compelling concepts here.

Personalization Is A Key Benefit

Let's take a look at a form of personalization we all know about today. A husband and wife have individual key FOBs for their car. When the husband gets in the car, the mirrors adjust, the seat slides back, and the radio station changes to his favorite morning radio station. When the wife uses the car that evening, the car returns to her preferences. That's an example of very useful personalization. Now, imagine if a retail store could do that for you.

We've seen online personalization become more and more sophisticated over the past decade with platforms such as Google AdWords and the Facebook Audience Network, and the addition of proximity marketing technologies is making it possible to expand that personalization in-store, effectively bridging the gap between digital and physical environments. There are both exciting and scary possibilities to this.

So, why can't retailers live without it? The retailer will now be able to understand shopper behavior beyond point of sale (POS) data. Retailers currently have the ability to analyze traffic patterns, deliver personalized offers, measure dwell times, build on customer loyalty profiles, and even A/B test physical displays. And what does the shopper get? By integrating this technology into a retailer's app, the shopper gets an ultra-personalized experience through customer-specific offers, location-specific coupons, and contextual information such as maps and menus.

But the question that keeps coming up is: Will shoppers adapt to this kind of experience? If consumers don't adopt the technology, hockey stick graphs will never happen for retailers. I think of a Sheryl Sandburg story I've heard during her presentations several times. When Caller ID first came out, users were scared of it. They thought the concept of knowing who's calling before you picked up was creepy. Now, 20+ years later, we don't pick up our phones without knowing who's calling. The user's perception of the technology completely flipped over a couple of decades.
It seems a general consensus among investors and marketers is that someone will figure out and win the proximity marketing race.

**Proximity Marketing Use Cases**

Let’s take a look at some use cases that highlight potential values of proximity marketing:

**Kitchen Remodel**

You’ve finally made the decision to remodel your kitchen after 30 years, but you don’t know where to begin. You enter the kitchen department of a national hardware store and you are notified by an employee about an app that helps guide you through the complicated and expensive process of remodeling your kitchen. Upon app download, you’re given a series of easy directions that show you how to use your new app. You start by picking out your cabinets and you find a style that you like but they are not in the color you like. By tapping a swatch smart tag (tags that you swipe to receive contextual information), you are able to view additional colors available by special order. You save your style and color to your profile. As you’re walking over to pick out countertops you are notified in-app not to forget to pick out your cabinet hardware. Once that’s picked out you head over to the countertops.

The app has measured that you have now spent 20 minutes in the kitchen department. It gives you an offer for 5 percent off, incentivizing you to make the purchase today. Out of the 10 displays of countertops the retailer has on hand, most app users only spend time at four of them. The retailer learns that it may be time to change out the other six with more trendy options. Since styles may trend by region the retailer can analyze stats broken down by segments.

After finding a countertop you like, you save it to your profile and swipe a delivery tag to see how long that countertop takes to be installed. You have a question about how rugged the countertop is and you tap a button that alerts a store employee that you need assistance. The app has successfully guided you through this process in a way that makes you feel comfortable that your dream kitchen will come together perfectly.

**Retail Environment**

In the retail environment, smart zones and tags can be used in endless ways. Here are a few examples.

A family walks into a store with an app in hand to check the latest offers the retailer has published. After adding the coupons in which they’re interested to the app, they walk around the store. Shoppers save money and time because the app tells them the quickest route to pick up everything on their list. If a coupon is missed, the app can alert the shoppers.

The family decides to get a new TV, and after dwelling in the electronics department for five minutes, they are asked if they need assistance. They respond yes, and an employee gets a television from the warehouse for them. Next, they swipe a tag that shows them accessories, store stock information, and related products from the same brand. They can easily see which mounts work for that TV, and find the appropriate cables in the next aisle.

The app services are integrated with e-commerce and m-commerce platforms, so consumers can use ‘Buy Now’ buttons that simply send the product to their door. The family chooses not to bother squeezing the TV into their car, and instead chooses to have it delivered that afternoon.

On the way out, the app recognizes that the dwell times in the checkout areas are longer than managers would like for a good customer experience, so more cashiers are sent to the checkouts.

**Outdoor Concert**

A group of friends is going to an outdoor concert with several stages. The concert promoters built an app that helps concert attendees navigate the event. The app has many useful features like schedules, barcode access to VIP areas, and information on concession stands.

The event promoters also installed Bluetooth Low Energy beacons throughout the event so that the app can provide contextual information to attendees based on their locations. While standing in long beer lines, the group is notified that lines are half as long at the beer tents half a block away. When a band is about to begin playing, the friends are alerted that they better head over to that stage.
As they head over, they are pushed a coupon that gives them 20 percent off a T-shirt in the merchandise tent. Upon leaving, the app lets them know where the closest and fastest exit is, according to their location.

*Brand Opportunities*

Various brands might use proximity marketing to build loyalty and boost consumer engagement. So, if a shopping mall with 100,000 items on the shelves from a thousand different brands uses the technology, each brand can opt in or out of the program.

A brand could market special offers without having to invest a small fortune in on-site marketing activities or on their own app. Imagine a soft drink company doing a virtual promotion for a certain product: They could have the campaign up and running with a few lines of copy and code.

It could be deployed nationwide, or worldwide, in seconds. Imagine a flash sale: 30 minutes in which people, worldwide, could get 30 percent off a specific product at the same time, just like an e-commerce platform. And like an e-commerce platform, the brands would have access to performance analytics about the campaign they just ran. They could immediately justify the spend, while the retailer could monetize its brick-and-mortar space through the program.

*The Future Is Now! (Sort of)*

I believe that if developers create great experiences that consumers will adopt, marketing ROI will follow, but we need to focus on the consumer first. If we achieve that, there are many exciting opportunities ahead as our environments react to us and become more personalized.

I’m very excited to see how proximity marketing unfolds over the next five to 10 years. In the end, if developers focus on the customer experience and build them great tools, I think it becomes something more than advertising, and the benefit for marketers will follow.

*About the author: Brandon R. Johnson is a digital designer who has always had a passion for technology. He thrives on taking raw ideas and turning them into business solutions. Brandon has nearly 13 years of experience in interactive design. From marketing departments to top agencies, he has developed a broad skill set that is sure to suit any client. This article was published with permission from the author and Toptal - [http://www.toptal.com/mobile/proximity-marketing-in-store](http://www.toptal.com/mobile/proximity-marketing-in-store)*
t’s that time of the year again. Spring is just around the corner and with the changing of seasons comes the yearly ritual of spring-cleaning. Not only is spring cleaning therapeutic, it is also a great way to turn clutter into cash. With the advent of the Internet, never again will last year’s accumulation of “stuff” be just a pile of forgotten treasures on their way to the dump. Now with a little effort and time, last year’s junk can become this year’s cash.

The Apps

Whether you prefer Wallapop, Swappa, letgo, or something else entirely, app-based marketplaces provide consumers with quick, simple, aesthetic tools to offload their “crap” for cash. Apps like Wallapop and letgo function like modernized, “pretty-fied” Craigslist platforms, featuring a vast array of junk items—from electronics and vehicles to furniture and clothes. Apps like Swappa have a more narrow focus, featuring “new-ish” smartphones, tablets, smart watches, and accessories for these electronics. Depending on what you’re trying to offload, there’s likely an app that caters to your specific (or general) needs. Even that gift card your grandmother got you for Olive Garden, which you never intend to use, can be swapped for cash via Gift Card Granny.

eBay

When it comes to selling online, eBay is usually the first site people think of. With an uncomplicated selling platform and easy-to-use setup process, eBay has rightfully earned its place as one of the top of online selling resources. Additionally, by using eBay as a selling platform - there is an added benefit of reaching millions of eBay users. With such a large audience, there is a much greater chance of reaching that one person who can’t live without that ‘thing’ collecting dust on your shelf.

With Ebay’s long retail history, it often helps you find listings which describe either the item you are selling or one similar. This data will help you get a better idea of what prices similar items have fetched.

Amazon

You can easily sign up to sell as an individual on Amazon if you plan to sell fewer than 40 items a month. Amazon will charge you $0.99 per sale plus other selling fees, but also offers you access to the world’s largest online marketplace. If you plan to sell more than 40 items per month, you can register as a professional seller. The associated fees are a bit higher, but are likely offset by your increased sales volume. Once you’ve registered as a seller, Amazon’s process is pretty straightforward: 1) list item 2) sell item 3) ship item 4) get paid.

Craigslist

Another option for turning clutter to cash is Craigslist. The advantages are that sellers don’t typically have to ship items to purchasers and can instead meet in person. When selling an item on Craigslist, it’s best to employ healthy skepticism and a “safety first” mentality. With a cautious approach, selling on Craigslist can be a lucrative option to clear clutter. Following these suggestions should help you avoid scams on Craigslist:

• Deal locally with people you can meet in person and in a public place.
• Never wire funds via any wire service - anyone who asks you to do so is likely a scammer.
• Fake cashier’s checks and money orders are common and a bank will hold you responsible when the fake is ultimately discovered.
• Never give out financial or personal information such as your bank account number, social security number, eBay/PayPal info, etc.
• Avoid deals involving shipping or escrow services and know that only a scammer will “guarantee” your transaction.

Facebook Groups

Although not a new online marketplace concept, Facebook groups are a popular but lesser known platform for selling resources. Maybe your town has a Facebook “swap meet” group of some kind (or maybe you can start one). Everything from local yard sale groups to special interest groups fill Facebook with a whole new crop of potential buyers. One major benefit of using a local Facebook trading/selling group is that shipping costs and online selling fees are not an issue. Sellers generally have the ability to list and sell an item free of charge. This works great for larger items and items not suitable for shipping.

While the apps and platforms described above appear to be the most popular, there are many other options available to earn money while clearing clutter. Selling items online has earned relatively inexperienced sellers billions of dollars over the past few years and continues to do so every day. If turning clutter into cash is a simple matter of taking a few minutes to snap a photo and enter a description online, it is a no-brainer. Spring cleaning just became spring cash.

Joe Colangelo and Kyle Burgess
Did you know that consumers have the right to prevent unwanted telemarketing calls and texts?

Many consumers have heard about the National Do Not Call Registry and have even signed up; however, there are a number of other limits on how telemarketers may contact consumers.

Here is a quick guide to the legal protections offered to consumers under the Telephone Consumer Protection Act and subsequent U.S. Federal Communications Commission (FCC) rulings:

Unless the consumer has provided prior, written consent to receive automated calls from a particular organization for marketing purposes, that company is NOT legally permitted to contact the consumer with autodialed or pre-recorded calls.

• Cell phone users are also protected from unwanted automated communications that are “informational,” including those related to politics or debt collection.
• Consumers are afforded the same rights for text messages as they are for phone calls to wireless numbers.
• Any call or text message from a device capable of generating a random or sequential list of numbers is covered under these rules. This includes technology that sends Internet-to-phone text messages.

Consumers have the right to revoke consent and end these automated communications “in any reasonable way at any time.”

• For example, a simple request that the company stop calling, communicated to an agent over the phone, is sufficient to meet this standard.
• Consumers are not obligated to complete any form or other procedure to end unwanted communications.

Telemarketers may call a reassigned number one time and then must stop unless granted consent by the new recipient.

• Consumers whose name or number is contained in the list of contacts on an acquaintance’s mobile phone do not consent to receive robocalls from third-party applications downloaded by the acquaintance.
• Telephone service providers are permitted to offer technologies to block all automated calls and texts.

There are limited exceptions to the prior consent requirement, however consumers are allowed to opt out of these at any time:

• Free calls or texts to alert consumers to possible fraud on their bank accounts, remind them of important medication refills, or similar financial or healthcare messages are permitted without prior consent.
• Other types of financial or health care calls, such as marketing or debt collection calls, are NOT permitted without prior consent.

Solicitation calls before 8am or after 9pm are prohibited.

• Telemarketers must transmit CALLER ID information and are not permitted to block the organization or number from which they are calling.
• Anyone making a solicitation call to a home phone number MUST provide his/her name, the name of the entity on whose behalf the call is being made, and telephone number or address at which the entity may be contacted.

The National Do Not Call Registry remains in place; telemarketers may not call any number listed in the National Do Not Call Registry. However, there are certain allowed exceptions to this rule:

• Calls from organizations with whom a consumer has established a business relationship, or to whom the customer has provided prior, written consent.
• Calls which are not commercial or do not contain unsolicited advertisements.
• Calls by or on behalf of nonprofit tax-exempt organizations.

Company-specific do-not-call lists are available for consumers who do not wish to receive calls from a particular company.

The Do Not Call Registry launched in 2009 to protect consumers’ home telephone numbers from unwanted commercial calls. Over 200 million phone numbers are currently registered on this list. One must register any new or changed phone number on the list to enjoy the protections of the registry. It stops most commercial calls, although there are some exceptions for...
any business consumers have previously done business with and some exceptions for local businesses. It also does not apply to nonprofit organizations, bill collectors, pollsters and some other organizations.

According to the U.S. Federal Trade Commission (FTC), this is how a consumer can register a home phone number on the Do Not Call List:

You may register online at donotcall.gov, provided you have a working email address, or by phone, by calling toll-free 1-888-382-1222 (TTY: 1-866-290-4236) from the number you wish to register. Registration is free.

If you register by phone, you must call from the number you want to register. If you register online, you must provide an email address for confirmation. The system will send you a confirmation email that you will have to open. Click on the link in it within 72 hours for your online registration to be complete.

31 days after registration is complete, its protections apply to the consumer. If one still receives such commercial calls, one can file a complaint at donotcall.gov or call 1-888-382-1222 (TTY: 1-866-290-4236). Unfortunately, one needs to know the company’s name or phone number which can be a problem with some persistent callers, unless one has caller ID. One also needs the date of the call. There are real teeth to this—a fine of $16,000 per illegal call.

If you get a random text message from a number you don’t recognize that says you won something or asks you to confirm some personal information, the FTC advises that you do not text back or click on links. Instead, the FTC says you should report it to your provider at 7726 (SPAM) and to the FTC at ftc.gov/complaint or 1-888-382-1222.

Finally, there are a number of smartphone apps you can download to block spam texts.
Installing rooftop solar panels is costly, inefficient and offers a poor return on investment. At least that would be the case were it not for large government subsidies and favorable policies that create incentives to make rooftop solar a viable, but not quite lucrative, investment. This is made possible by the Solar Investment Tax Credit (ITC) offered by the federal government, which reimburses a portion of the cost of purchasing and installing solar panels, as well as net-metering policies, which set favorable rates for the excess energy generated that goes back into the grid.

The Solar ITC first became law in 2006, was renewed in 2008, and was set to expire at the end of 2016. It currently allows taxpayers to receive a one-time credit for up to 30 percent of the cost of installing rooftop panels and/or wind turbines, which are much less popular than solar panels. Between 2008 and 2014, property owners received an estimated $24 billion in federal subsidies. Congress extended the Solar ITC in December with adjustments, including a “step-down” schedule. The ITC will remain at its current rebate allowance of 30 percent through the end of 2019. Thereafter, it decreases to 26 percent in 2020 and 22 percent in 2021. In 2022, it will decrease to the original levels proposed for 2017 – 10 percent for businesses, with no rebate for individuals. Additionally, the extension includes a “commence-construction” clause, which means that entities undergoing the process of installation that have interconnected systems by 2023 will still qualify for tax credits.

The idea behind the subsidy is to spur growth in renewable energy and reduce demand for fossil fuels. While well intentioned, the policy has had some unforeseen consequences and has been less beneficial than expected. For example, makers and installers of solar panels have used the ITC to take advantage of consumers. Buying and installing solar panels is not cheap; on average, it costs twenty to thirty thousand dollars to purchase and install a set. Further, it is a one-time tax credit, meaning that the rebate would only apply for that year’s tax bill. Most Americans would not be able to afford the upfront cost of purchasing and installing panels and even if they could, odds are their income tax liabilities would be smaller than the full rebate for which they would qualify.

Therefore, most households that have installed solar panels have done so by leasing them from the companies that makes them. These companies claim the tax credit and charge low interest rates for the length of the lease (20 or so years). This creates several complications for consumers. It makes it harder for them to move or sell their houses, as it is difficult to move the panels and transferring the lease on the panels can be complicated. Also, while current policies and energy prices in most states make it so that consumers still come out ahead while leasing, this can change. The price for electricity might go down, or the metering policy in the area might change, making it so that the consumer is actively losing money on the panels rather than benefiting.

Another issue is that solar energy companies are not soluble without the ITC. The Solar Energy Industries Association estimated that if Congress had permitted the ITC to expire at the end of 2016, it would have cost 80,000 jobs and the installation rates of new panels would have plummeted. These companies are just not economically viable without subsidies and while reducing carbon emissions is a worthwhile goal, adoption rates have been small and the actual production of panels creates a significant amount of pollution. The Institute of Electrical and Electronics Engineers points out that manufacturing solar panels, as in all manufacturing, requires energy and it can take anywhere from six months to two years of use for a panel to offset the amount of energy used in its creation.

Net metering is another major point of contention. This refers to the system by which electric utilities “buy back” excess energy generated by rooftop solar panels. Specific implementation varies by state, but in general, electric utilities buy solar-produced energy from households at the same price the household would pay utilities for an equivalent amount of conventionally produced energy.
In most cases, depending on the amount of sunshine, household electricity use, and the individual state’s policy, someone with rooftop paneling should come out ahead. It is the main economic incentive for installing panels.

The problem, as power utility companies assert, is that paying net meter rates does not take into account the cost of maintaining the energy grid. In other words, the rate people pay utilities for conventionally produced electricity includes the cost of generating the electricity and the cost of maintaining the grid, while those who sell back solar energy through the grid are doing so at that same rate without a price reduction to offset grid maintenance costs. Given the potential strain on the grid caused by solar energy sellers, utility companies may end up charging everyone higher rates in order to account for the gap in maintenance revenue.

However, it is not that simple. The Solar Electric Power Association (SEPA), argues that the value of the electrical grid is not really clear, nor is the value of how solar buybacks affect it. Due to this uncertainty, individual states, which regulate the metering rate, are seeking compromise solutions. Many are looking into adding a flat fee charged on each utility bill for access to the grid, others are looking for a middle ground between the current net retail rate and utility-established wholesale rate, and yet others are proposing capping the amount bought back at the net metering rate.

For example, Nevada has lowered the buyback rate and instituted fees to help the utility companies cover their costs. This has led to rooftop solar companies fleeing the state, as it is no longer a viable option for their business model; it has also created a backlash from those who already had panels installed, as it is no longer economically profitable for them. Other states have taken a more measured approach and have only made small changes.

There is no doubt that consumers are being asked to carry an added burden, brought about by subsidies and other incentives, which benefit only those who can afford to buy rooftop solar panels and the companies that make and sell or lease them. The rooftop solar industry is simply not economically viable on its own.

Then again, the entire point of government subsidies and financial incentives like these is to nurture an industry (and eventually make that industry self-sustaining), lead to further innovation, and create a greater reliance on renewable energy sources. Will the rooftop solar model ever become viable? Is it fair for many to shoulder a burden that currently benefits only a few, in the hopes of a future breakthrough? The answers to these questions require proper consideration in order to chart a way forward.
For years, universally accessible health records have been a major goal of health care professionals and technology entities alike, and their benefits are well documented.

Such a system would enable medical staff at a large hospital to see the same information about a patient, at once and without the possibility of misinterpretation; the ability of a specialist to see precisely what a primary care physician sees; and critically, the capacity of the patient to access his or her medical records easily and in a format that is readily understood by a layperson.

Unfortunately, this ideal has only seen limited success in the real world. According to an article published in the Journal of the American Medical Association (AMA), “The benefits of electronic health records (EHRs) are well documented, yet their introduction has been greeted with reluctance and sometimes resistance. Indeed, current usage rates are quite low.”

In a 2008 study published in the New England Journal of Medicine, a national survey of 2,758 physicians found that only four percent were utilizing an “extensive, fully functional electronic records system, and 13% reported having a basic system.”

The consumer counterpart of these systems, such as Google Health and Microsoft HealthVault, have also not achieved their predicted success. Google shut down Google Health as of January 1, 2012. Google’s official blog stated, “...we haven't found a way to translate that limited usage into widespread adoption in the daily health routines of millions of people... we were not able to create the impact we wanted with Google Health.” Google continues to be involved in EHRs, however; in January 2015 they were named as a partner of a PricewaterhouseCoopers-led $11 billion electronic health-record contract bid for the U.S. Department of Defense.

The past few years have seen more strides into this area with the adoption of electronic health records. According to the Centers for Disease Control and Prevention, 74% of physicians' offices had an electronic health record system in 2014, up from 67.5% in 2013. The percentage of physicians sharing patient health information with external providers such as specialists was considerably lower, however, calculated at 32.5% in 2014.

The Health Information Technology for Economic and Clinical Health Act (HITECH) of 2009, written into law as part of the American Recovery and Reinvestment Act (ARRA) has accelerated the adoption of EHR technology. This portion of the bill provided incentive payments to eligible hospitals and providers that demonstrated “the meaningful use of a certified electronic health record (EHR) system.”

These incentives were provided starting in 2011 up until 2015, at which point the Office of the National Coordinator for Health Information Technology within the Department of Health and Human Services (the agency given authority over the stimulus program) could begin levying penalties for failing to demonstrate such “meaningful use.”

Individual adoption of fitness trackers, such as FitBit, and the data they generate could be considered a form of personalized health record, and certainly indicate a greater desire on the part of the general public to know more about its health data.

Enter Health2047, a new company that intends to meld technology with health care in new ways, including widening the adoption of electronic health records and the associated patient data sharing.

Founded by the AMA, the company describes itself as an “integrated innovation company whose mission is to develop, guide, and commercialize disruptive ideas that enhance — at the system level — the practice of health care.” The AMA will invest $15 million up front in the venture, and will be heavily involved in its work.

The CEO of this organization is Dr. Douglass Given, a physician and businessman with health care, venture capital, and drug development experience. That includes experience working in public health and academic medicine, as well as running traditional pharmaceutical companies and Vivaldi Biosciences, Inc., a biotech firm involved in the development of flu vaccines.

Hope for Healthcare Innovation

David Weissman
Concerning the issue of EHRs, Given believes that development must focus on quality and the user experience, and the central role of the physician as “pilot” of the system, stating, “We believe that desirable features and enhanced usability will be what drives adoption.”

He envisions EHRs that serve the needs of both patients and their physicians by giving “actionable information,” from patient data that is both high-quality and accessible. He also prioritized patient knowledge, data security, and user experience as vital for a next generation of electronic health record system.

Dr. Given believes a major fault of current EHRs is that only a small fraction of the data collected is useful in “assessing and addressing health outcomes” – less than 25%, in fact. This happens because the way data streams operate in EHRs; they don’t enable data analysis and therefore, it is difficult to get “actionable” information (read: information that can be used for a diagnosis).

A major emphasis of Health2047 is on partnerships and collaboration with AMA physicians and other stakeholders. Dr. James L. Madara, CEO and executive vice president of the AMA, will serve as board chair of Health2047.

According to Madara,

“Improving the health of the nation is at the core of the AMA’s work and Health2047 will build partnerships to create new solutions for physicians and their patients that improve health care delivery and health outcomes. Health2047’s product orientation and entrepreneurial DNA will help forge new paths and bring commercial solutions to market faster.”

Given has outlined several sectors as particularly open to innovation: medical education, chronic care, “value-based” health care and payments, connected health solutions, and networking technology for physicians, providers, payers and patients. He said of medical networking technology, similar to EHRs and other systems that enable physicians and specialists to communicate, “It’s a mystery to me why it doesn’t exist, why physicians aren’t using this in their practice.”

Given said that the company will be working with multiple partners across what he calls “asset classes.” These are the media, wireless and mobile technology, consumer technology, enterprise technology, health care provider systems, medical and pharmaceutical product companies, and health benefits providers.

He also intends to work with venture-backed emerging companies that have “strong product/service offerings,” which have health care applications. Health2047 will assist these companies to meet health care market needs by leveraging their own inside perspective of physicians – giving an “unparalleled physician-level view,” in addition to regulatory expertise from the AMA. “You think about the $3 trillion-plus health marketplace, with less than a million practicing physicians,” Given said. “Think of the leverage they have.”

Health2047’s planning focus is still at the strategic level, as they are a fairly new company. Given said that these areas of strategic focus include: system-level solutions to chronic disease, value-based health care, connected health solutions, and collaboration models for physicians, providers, payers, and patients.

A specific health care problem the organization would address, other than the EHRs listed previously, would be what Given describes as the “the mismatch between the mobile world that patients and individuals live in and the tethering of doctors and providers to the physical world.”

Given stresses involving the physician perspective as well as applying “system engineering thinking” in order to solve these problems. As he says, “Simply dropping discrete products into the healthcare system doesn’t work. All you get is fragments of benefit and that is unacceptable.”

Regarding the overall climate of health care challenges in the United States, Given had this to say:

“With the shifts from acute illness to chronic illness, and from in-patient care to outpatient and ambulatory care into the home, there are clear system-level issues we must address to improve healthcare… To fix them, we must innovate across the continuum—from products and services, to business models, regulation, distribution, and financing methods. That means enlisting critical constituencies—including physicians, healthcare providers, regulatory and policy experts, venture capitalists, technology providers, scientists, designers, software developers and consumers—to arrive at the best possible solutions.”
Despite the love–hate relationship many have with online dating, after 20 years, not only is it here to stay, soon it may boast the best odds for finding a match. For starters, research indicates that online dating is no longer taboo – more people are doing it, more people are talking about it openly, more people are having success with it. According to Pew Research, the public opinion of people who search for love online has much improved over the past five years. That’s likely no surprise to younger generations; however, for those who didn’t come of age with the Internet, it would have been scandalous to follow suit with 1998’s “You’ve Got Mail” and use AOL to meet someone in person. (You might get hacked up by a crazy person!)

Pew also reports that 5 percent of marriages and committed relationships stem from online dating. While that doesn’t sound like much now, it stands to reason that with 32 percent of adults ages 18-35 engaged in online dating, the percentage of marriages and committed relationships spawned from online dating will only continue to grow, perhaps becoming the norm for how couples meet.

Dating websites and apps employ complex algorithms via user-friendly technology to help users find partners for love, lust, and even platonic friendship. But are these digital matchmakers any better than the traditional methods of meeting people – set-ups by friends or family members, chance encounters (read: meeting in a bar), happy accidents in the check-out line at the supermarket (which, let’s face it, never really happens)? If anecdotal experience and academic research are any indication, the answer is no… and yes.

Online dating tools come in a variety flavors: web-based, app-based, swipe-based, substantive profile, limited profile, LGBTQ, kinksters encouraged, seniors only, farmers only (yes, really), beautiful people only (yep, that’s a thing too), and so on. Basically, if you can think it up, it’s probably out there.

So, what’s the right dating app for you? How can you achieve success through online dating? Well, the few hundred people we asked about their experiences with online dating may be able to help you. We began

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Kyle Burgess and Milan Bederu

Consumer Survey: The Best Way to “Swipe” a Mate

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12 | Consumers’ Research Spring 2016
Among the options presented in our survey (Tinder, OkCupid, Grindr, Match, and eHarmony), the most popular digital matchmakers by far were Tinder and OkCupid, which is in line with active user numbers reported for these platforms. Our survey also indicated that tech savvy Millennials seem to be utilizing their devices to cast a wider net for potential mates by using a number of dating apps, instead of just one. Columnists and researchers agree; a wide net is the greatest benefit of online dating.

Online dating advice gurus recommend an outgoing spirit in the quest for online love. Our survey showed that while the majority of online daters averaged fewer than six new attempts to connect per day, those who sent more messages (either initially or in reply to messages received) ended up in relationships more often than those who did not engage in communication. Though the majority of correspondences lasted less than a week, increased interactions seem to be linked with higher success rates for winding up in relationships (of any duration).

While common interests and shared experiences are the building blocks of making a connection, being too specific may be a recipe for failure. Online dating sites are great for widening your sphere of potential dates, but if your preferences are too narrowly focused, you may limit that advantage if you’re reluctant to communicate with or meet up with potential matches.

Based on our survey, well over half of those who use online dating sites and apps reported that they ended up in relationships for at least some period of time. Of the mainstream online dating tools, eHarmony scored the best for the most relationships formed, at 57 percent with 28 percent of those relationships lasting longer than one month. However, Match scored the best in terms of...
relationship longevity, with 33 percent lasting over six months. Roughly 32 percent of OkCupid users ended up in relationships lasting longer than one month, with 20 percent of total users making beyond six months. Tinder users reported the least success with ending up in relationships of any duration and trailed the other platforms in terms of longevity, with only 13 percent making it past the one-month mark.

Survey respondents who reported using Grinder and dating sites not listed in our survey (including Scruff, Coffee Meets Bagel, Plenty of Fish, DateMySchool, and MeowChat), reported having greater success in finding relationships (short- and long-term) than the other sites we included; however, too few respondents listed those sites for us to glean anything meaningful from the data. (We know. Booooh! We really did try though.)

When it comes to feelings of harassment, survey respondents were all over the place; however, user experiences did appear to run along gender lines. Roughly 57 percent of female respondents, versus only 21 percent of male respondents, reported experiencing feelings of harassment, ranging from a response of “Once or Twice” to “Always.” The highest reports of harassment came from Tinder and OkCupid users at 39 and 38 percent respectively.

In more general terms, online dating has provided scientists and sociologists a look at the inner workings of love and other social structures. For example, based on OkCupid’s data blog, men have a tendency to message the most attractive women on any given page only. Ethnicity can also shape what users look for in a partner and what they see when reviewing potential matches. Online dating has also affected the way we date, in some cases leaving many of us with an “unlimited options” problem – either we can’t choose or have trouble being satisfied when we do. One thing is certain; we won’t be swiping online dating left any time soon.
Volkswagen, Penalties of Proportion or Precedent?

David Weissman

Introduction of the Scandal, Technical Background

The Volkswagen diesel scandal is the largest the company has ever faced, both in terms of potential liability as well as damage to the brand’s reputation and marketing strategy. It is also unique among the rash of recent automotive industry controversies in terms of the sheer scale of penalties sought.

Those penalties count among the highest in history to date, as the U.S. Department of Justice (DOJ) is seeking $48 billion for the company’s violation of environmental laws by installing a “defeat device” to circumvent U.S. Environmental Protection Agency (EPA) emissions rules.

The initial study on which the DOJ bases its case, “In-Use Emissions Testing of Light-Duty Diesel Vehicles in the United States,” tested three vehicles; two were equipped with an emissions testing system known as an “urea-based selective catalytic reduction” (SCR) and one with a “leanNOx trap” (LNT). All vehicles were “broken-in” having accumulated 3,000 to 4,000 miles but less than 15,000, and were not showing any fault codes or anomalies. They were tested over five routes, categorized by three predominant driving conditions: highway, urban/suburban, and rural-up/downhill driving.

The report found that “real-world emissions” exceeded EPA standards by a factor of 15 to 35 for the LNT-equipped vehicle, and by a factor of 5 to 20 for the first, yet at or below the standard for the second urea-SCR fitted vehicle. The second urea-SCR equipped vehicle (which on average performed at or below the EPA standard) exceeded that benchmark only during rural-up/downhill operating conditions, by a factor of around 10. The study goes on to state, “Generally, distance-specific NOx emissions were observed to be highest for rural up/downhill and lowest for high-speed highway driving conditions with relatively flat terrain.”

Emissions for the two highest-emitting test vehicles were found to be below the standards only during dynamometer testing, the controlled test performed by the EPA and the California Air Resources Board (CARB), which is how VW initially passed emissions tests. In September 2015, Volkswagen admitted to using defeat devices to cheat the system and overcome the discrepancy between the real-world results and the controlled test results.

Consequences of the Scandal

In addition to the massive government penalties, the automaker will likely face payments to owners seeking damages due to lost resale value (including the possibility of buying back older models that cannot be easily retrofitted) as well as costs associated with whatever emissions fix is required.

Kenneth Feinberg, (who previously headed compensation funds for the 9/11 attacks, BP’s Deepwater Horizon spill, and GM’s ignition switch scandal) is in charge of VW’s claims fund. Feinberg said in an interview with German newspaper Allgemeine Sonntagszeitung, “It is a purely business transaction, less emotional. I see that from emails I get from vehicle owners, who say things like: ‘Mr. Feinberg, I know I haven’t lost a relative, I just want to be treated fairly.’ They are all quite reasonable.” Feinberg indicated that Volkswagen had given him full authority to set compensation levels, and expected an overwhelming majority to accept a deal. He also said he was unlikely to meet his goal of setting up the claims fund within 60 to 90 days, stating, “My hands are tied as long as VW and the authorities have not overcome their differences.” Those problems are likely to continue for some time, as CARB has rejected Volkswagen’s first proposed recall plan.

The impact on Volkswagen’s identity and strategy will be as massive as that on its finances. The company has staked its reputation in the marketplace for years as a purveyor of “clean diesels,” trumpeting their cost and range of advantages over hybrids and electric cars. This strategy may have to be completely rethought, as the public image of diesel engines, always a hard sell in the U.S. market, may be tarnished for years. There is also a possibility that the company will be forced to sell off one or more of the 13 brands currently under the VW Group umbrella, in order to meet the financial burden of the fallout from the scandal.
Volkswagen’s product portfolio includes luxury brands like Audi and Porsche, budget vehicles like Skoda and SEAT, truck manufacturers MAN and Scania, and ultra-luxury/ performance brands Lamborghini, Bentley, and Bugatti. “VW has several brands that fall into the ‘nice to have’ category. Bugatti, Lamborghini, Ducati too – they’re not core to the company in terms of making money,” said Stefan Bratzel, director of the Center of Automotive Management at the University of Applied Sciences in Bergisch Gladbach, Germany.

There are a myriad of unintended consequences that will come from the diesel saga, aside from the staggering direct costs. Individual Volkswagen investors as well as any larger mutual or pension funds which hold shares in the company will be hit hard; as will the otherwise strong German economy in general, as Volkswagen is Europe’s largest carmaker and one of Germany’s biggest employers. VW directly employs 270,000 people, and thousands more work for one of its associated brands or for the company’s suppliers. The German automotive sector as a whole (two percent of the country’s workforce) employs 775,000 workers and the sector exported $225 billion worth of inventory in 2014 (one-fifth of total German exports).

“All of a sudden, Volkswagen has become a bigger downside risk for the German economy than the Greek debt crisis,” ING chief economist Carsten Brzeski told Reuters. “If Volkswagen’s sales were to plunge in North America in the coming months, this would not only have an impact on the company, but on the German economy as a whole.” In addition, Volkswagen announced that they would be postponing their 2015 financial statements due to uncertainty regarding the costs of the scandal.

All of this will likely be a boon to sellers of electric cars and other alternative fuels, as the scandal has besmirched the reputation of diesels as a “green” alternative to gas. Tesla Motors CEO Elon Musk stated, “What Volkswagen is really showing is that we’ve reached the limit of what’s possible with diesel and gasoline. And so the time has come to move to a new generation of technology.”

In addition, regulators will likely scrutinize manufacturers selling diesel cars more closely than before. German environmental group Deutsche Umwelthilfe has alleged that a bevy of European carmakers are exceeding EU diesel standards, and the latest to feel its ire is Fiat. Spokesman Axel Friedrich (who is also a co-founder of the group which commissioned the original Volkswagen emissions study) said, “The extreme overruns of NOx emissions that have meanwhile been detected with an Opel Zafira, a Renault Espace, a Mercedes C-Class and now a Fiat SUV are technically not plausible and point towards defeat devices.”

A Benchmark Scandal, with Benchmark Penalties

Beyond the impact on Volkswagen’s reputation, another major aspect of the scandal is the sheer scale of the penalties sought by the DOJ. The $48 billion levied against Volkswagen would be the largest penalty for automobile company wrongdoing, by far. General Motors paid $900 million to the government as part of a deferred prosecution deal for its ignition switch default that killed well over 100 people. Toyota paid $1.2 billion for its “unintended acceleration” controversy, and the National Highway Traffic Safety Administration eventually determined many of those incidents to be a result of user error. Takata, meanwhile, paid $70 million for airbags that exploded, sending shrapnel into the cabin (and will have to pay $130 million more if they violate the terms of their deal).

It is obvious that people died in the three smaller cases of manufacturer malfeasance, while the Volkswagen punishment has largely been interpreted as due to violations of environmental laws as well as misleading the public.

However, there may be health repercussions due to the emissions. According to a study published in Environmental Research Letters, “59 (95% CI: 10 to 150) early deaths will be caused by 2008–2015 excess emissions, with a monetized cost of ~$450m.” The study also estimates that not recalling the offending vehicles in 2016 will result in “140 early deaths from 2016,” with a monetized cost of $910 million. “However, assuming that vehicles are recalled at a constant rate from the start of 2016 and all devices replaced by the end of 2016, the total cost of future mortality impacts could be reduced by 93% to $61m. This is equal to 62% of the total projected costs from 2008 to 2040.”

Conclusions, Moving Forward

This entire situation will have a substantial impact on a range of stakeholders. The eventual judgments against Volkswagen will have significant bearing on two important questions: 1. Whether environmental violations (and the potentially linked early deaths) are considered to be more “severe” than direct deaths due to a defective product; 2. Whether this is a case of manufacturer bad behavior, or a more systemic problem with the expectations of emissions tests and the way those tests are performed.
The former issue will be one largely resolved by the extent of the eventual judgment against the company. While the potential penalties sought by the DOJ are astronomical, they are still just that: potential.

In reference to the latter, the rash of manufacturers implicated in smaller-scale diesel scandals points to a systemic problem. Renault is another manufacturer currently dealing with a controversy of its own, as authorities in Europe (Renault does not sell cars in the U.S.) have alleged that some of the company’s cars exceed emissions standards in real world driving, though they have not accused the company of Volkswagen-scale malfeasance.

Renault CEO Carlos Ghosn defended his company, saying that all Renault vehicles “followed the norms.” He added, “you can say that anyone is cheating... test any other car you will find this kind of things.”

The International Council on Clean Transportation sponsored the West Virginia University (WVU) emissions study that ultimately condemned Volkswagen in the U.S. as a result of findings by previous studies, including the European Commission’s Joint Research Centre, which found vehicles that emitted 4-7 times higher than European standards. The WVU study “concluded that the introduction of tighter emissions limits for the purpose of vehicle/engine certification has not necessarily translated into effective on-road NOx reductions of the same magnitude.”

Regardless of the outcome of these aspects of the scandal for Volkswagen specifically, and automakers in general, it is certain that the consumers are severely affected. These are different effects than the fear of an unsafe product brought on by the Toyota, GM, and Takata scandals; this is a largely economic hit for owners coupled with a loss of faith in a company and in a previously lauded alternative to gas-powered engines.
At Consumers’ Research we first examined Peer-to-Peer (P2P) lending in the Summer 2014 issue of our magazine. We explained how P2P lending gives modern consumers an interesting new opportunity to engage in borrowing or lending. While this is still true nearly two years later, the breadth of this opportunity has contracted as a result of misapplied regulation.

P2P lending is available through online platforms that allow lenders to connect directly to borrowers without the use of a traditional institutional intermediary, such as a bank. Two of the more popular platforms are Prosper and Lending Club. In these marketplaces, lenders can loan out as little as $25 at a time. The platforms bundle a number of small loans into a larger loan, ranging in size from $2,000 and $50,000, and lend the aggregated loan to borrowers at an interest rate typically between 5% and 15%.

As a lender myself, I scan the loan amounts and durations of borrower listings, looking for the option that best fits my needs. After receiving dividends for a couple of months, I set my “auto-invest” criteria, so whenever my cash on hand reaches $25, it is automatically lent to a new borrower. It’s a really fun and easy system to set up, and I enjoy checking it to watch my regular dividends stream in. For example, a $25 loan with a 36-month term and 6% interest rate pays a monthly dividend of 76 cents. I’ve been lending for the past 3 years and have earned an average of 7.31% on my loans at a time when the annual percentage yield offered by most savings accounts is negligible.

That is, until I updated my mailing address to New Jersey.

At that point, I was greeted with the friendly but ominous message from Prosper that read, “Unfortunately, at this time lenders in New Jersey are not able to invest or transfer money to Prosper. You may transfer money out of your Prosper account as funds become available from loan payments.”

What?!

See, back in 2008, the U.S. Securities and Exchange Commission determined that the loans these peer-to-peer lending platforms facilitated constituted unregistered securities. In an administrative opinion, the Commission reasoned that the loans should be classified as investments, because lenders expected to make a profit based on higher interest rates than those found at financial institutions. As a result, companies offering P2P lending platforms had to restructure their business models – a process that nearly destroyed Prosper – even though the final product still functioned like a loan to lenders and borrowers.

One effect of this regulation is that these companies need to register as providers of securities in every state from which they want to accept loans. As you can imagine, this is a costly and time-consuming endeavor. Consequently, lenders, now termed investors, cannot “invest” in peer-to-peer loans in every state. While Lending Club is available to investors in 43 states, Prosper is only available in 32.

One way to give the burgeoning industry of financial technology, known as “fintech,” the breathing room it needs to grow, while also protecting consumers, is to give the industry the chance to self-regulate. This would give the P2P market the opportunity to mature and the Commission the time to develop an appropriate regulatory framework based on case studies of Prosper and Lending Club – if still deemed necessary.

In August 2015, a group of P2P lending platforms, including Lending Club, revealed a list of best practices they called the Small Business Borrowers’ Bill of Rights. The list included a right to transparency in terms and pricing, a right to non-abusive products, a right to responsible underwriting (i.e. no predatory lending), a right to fair treatment by brokers, a right to inclusive credit practices (i.e. no discrimination), and a right to fair collection practices. The list, which was unveiled at a National Press Club Event, was met with a positive response among industry insiders, though it remains to be seen whether such efforts at self-regulation will stay the government.

Regulating the rapidly advancing fintech industry is a balancing act. American consumers are accustomed to being protected against bad actors and we shouldn’t assume that consumers will suddenly become responsible...
for assessing the security and fiduciary reliability of financial institutions. At the same time, overburdening startups with ill-fitting regulation threatens to stifle the very innovation these peer-to-peer lenders promise to bring to the lending and borrowing process. ❄️
Humans have been selectively breeding plants and animals since before the dawn of civilization, resulting in extensive changes from their natural state. While science has made selective breeding more efficient in modern times, actual genetic engineering was not possible until the discovery of DNA. Scientists began applying this knowledge in the 1970’s through recombinant DNA technology. Genetically modified (GM) plants and bacteria created with recombinant DNA have been on the market for decades (although not without controversy); one example is genetically modified foods, often referred to as genetically modified organisms or GMOs. While the first GM animal, a mouse, was produced in 1973, techniques applicable to animals were crude, limited, difficult, and expensive to use. They remained so until 2012, in spite of significant refinements.

The year 2012 marked a revolutionary change with the discovery that a bacterium, streptococcus pyogenes, has the natural ability to change the genetic makeup of viruses as an immune system mechanism. This mechanism was quickly isolated and used in genetic editing, with a successful demonstration of its accuracy in humans in 2013. It is known as CRISPR (clustered regularly interspaced short palindromic repeat). CRISPR makes it possible to target and excise any gene as desired, insert a new gene in an organism, or even to edit out a single base pair within a gene, thereby changing its effects.

Thus, CRISPR allows easy, extensive, and accurate editing of the genome, marking a quantum leap in the ease and affordability of the development of practical genetic engineering of animals and humans, while making the already established genetic engineering processes in plants and bacteria much more versatile and efficient. For example, it used to take approximately one million tries to get a mouse cell to accurately include a desired new characteristic; CRISPR can attain the same result in about 10 tries. CRISPR both makes established genetic engineering processes orders of magnitude more efficient and opens up many new areas that were not feasible with prior techniques. Due to its accuracy, CRISPR enables the prospect of routine genetic engineering of animals other than mice; before CRISPR, genetic engineering of other animals was so difficult that mice were virtually the only animals used in genetic modeling of human disease.

In every area of agriculture, livestock farming, and biotech applications, CRISPR speeds progress and reduces development costs, and thereby consumer prices. Scientists are developing new varieties of crops, incorporating added nutritional value and desirable characteristics such as pest resistance or ability to prosper under a wider range of conditions. All these developments have been ongoing, but they will be quicker and cheaper with CRISPR.

Genetic engineering of animals has both livestock industry and medical implications. It will greatly speed up the development of breeds of animals that have desirable characteristics such as leaner meat or greater milk production and, because of its accuracy in targeting genetic characteristics, it may avoid incorporating as many undesirable side-effects as standard selective breeding often does.

In drug development, CRISPR will enable the use of animals genetically engineered to develop various human genetically-related diseases that are much closer to the human genome than the mice currently used. This will lead to great improvement in the speed and accuracy of animal testing of experimental drugs and other therapies. Consequently, improved testing could result in quicker and better development of new drugs at lower costs, which could mitigate the current spiral of drug price increases.

Some scientists are hoping to use CRISPR to create gene-altered pests, such as mosquitoes, that no longer carry dangerous diseases, including malaria and dengue fever. The designer genes inserted into such mosquitoes could also be tweaked to have a natural characteristic known as “gene drive” which gives them a selective advantage; thus, seeding a relatively small percentage of the insect population could spread the characteristic throughout the population. Theoretically the U.S. Department of Agriculture (USDA), would regulate such releases of selectively viable GM insects, and researchers and companies would not undertake such activities without prior permission. Conversely, regulation on the release of GMOs that are selectively disadvantaged would be less strict, because these insects will presumably die out. In the United States, regulation of GMOs is relatively light and focuses on the safety of their uses, not on the
The process of genetic modification. The U.S. Food and Drug Administration (FDA) and the USDA regulate GM crops. The FDA considers them “generally recognized as safe” and permits their sale without specific regulatory approval, unless the inserted genes result in the expression of foreign proteins that are different from the natural plant, in which case the FDA requires pre-approval under its regulations for food additives. GM crops that incorporate pesticide-producing genes are regulated by the U.S. Environmental Protection Agency, as are those that incorporate pesticide-resistant genes.

GM animals are regulated by the FDA on the theory that the recombinant DNA used to make the genetic modifications is a drug under applicable law. The production of animals that are not intended for introduction into the food chain is generally permitted without detailed pre-approval procedures, while those expected to get into the food chain will be regulated similarly to other new food additives or components.

The most controversial application of genetic engineering is its direct application to humans. It is current international consensus that human germ cell modification (where the change is transmitted to offspring) is prohibited. Any such application would clearly require prior medical licensing. It is likely that what are known as “negative eugenic” interventions to eliminate debilitating or developmental genetic defects at the germ cell level, such as Down syndrome, Huntington’s disease, or cystic fibrosis, most likely in utero, may be more favorably considered in the future because of their ability to prevent these genetically inherited diseases. However, the concern about “playing God” with human heredity, even in such attractive applications, is likely to result in careful and prolonged review before any germ cell treatments are approved.

Gene therapy on patients to make a non-heritable correction of a congenital defect is far less controversial, but it is difficult to accomplish and has been of limited practicality, because it requires a change to be incorporated in millions of cells. Both because it operates so easily and because it can actually “repair broken genes,” CRISPR increases the ability to target a specific gene in millions of cells and change enough of these cells to deliver meaningful therapeutic benefits without unacceptable side effects and with some prospect of developing effective treatment gene therapy for congenital diseases.

One biotech startup, Editas Medicine, received $120 million in August 2015 from a group of major investors led by Bill Gates; it plans to conduct a clinical trial in 2017 of CRISPR gene therapy on a variant of a rare congenital eye disease known as Leber congenital amaurosis. Other startups, such as Intellia Therapeutics and CRISPR Therapeutics, also plan to develop similar therapeutic applications for other congenital diseases. Like any other new medical technique, gene therapy is subject to extensive and detailed U.S. medical regulation before any therapeutic use is permitted.
On February 18th, the five commissioners of the U.S. Federal Communications Commission (FCC) voted to propose formally an open standard for cable set-top boxes. In other words, the FCC intends to enact new regulations mandating cable companies to let third parties create hardware and software that taps into the video stream the cable companies provide. The idea behind the regulation is that by allowing third parties to manipulate the video stream consumers will have more options when it comes to choosing a cable set-top box and the associated features.

In an editorial published on the website Re/Code, FCC Chairman Tom Wheeler, shares the impetus that fueled the current proposal stating, “Today, 99 percent of pay-TV customers lease set-top boxes from their cable, satellite or telco providers [sic]. Pay-TV subscribers spend an average of $231 a year to rent these boxes, because there are few meaningful alternatives.”

Wheeler argues that consumers benefit not only from cheaper set-top boxes, but also from potential innovation. He compares it to the 1968 Carterfone decision, which allowed consumers to use their own phones to connect to the telephone network, rather than lease them from telephone companies; a decision that led to many innovations such as answering machines and early modems.

As an example, of how opening up the video stream could benefit consumers, Wheeler points out that Smart TVs allow consumers to access the Internet and video streaming apps using just one controller, and yet they still have to use separate cable set-top boxes, with separate controllers and different user interfaces if they want to access their paid-TV. Opening up the data stream to third-party devices would enable TV manufacturers to integrate cable set-tops.

Open video stream access would enable third party set-top boxes to compete, not only at the hardware level, but at the software as well. As an example of how innovators might be able to improve the cable experience Wheeler mentions more intuitive user interfaces and improved search functions to find programming. Potentially, this could go further and change the way channels are presented and organized.

Like all government regulation, there are potential pitfalls and repercussions, the largest of which, might hurt the natural market transition from paid-TV to cord-cutting and Internet streaming already underway. Additionally, there is a concern that opening up the cable set-top box may negatively impact minority broadcasters, resulting in the loss of revenues that support their programming.

Larry Downes, project director at Georgetown’s Center for Business and Public Policy, argues that the FCC is, “mistaking its clear view of the traditional market for an easy path to redesign the emerging new industry, which is mutating rapidly outside its peripheral vision.”
The big threat, as he sees it, is that opening up the data stream for third parties would threaten the deals already in place between content providers and producers; thereby disrupting revenue streams for both. Paid television is an industry that is already hurting, in large part, because content producers are already able to distribute their product without them and gain revenue from both markets. A shake-up in deals between the two, could therefore threaten the content that is being made, in which case no consumers benefit.

The FCC has been arguing over a proposal to reclassify Internet video providers and apply some of the same regulations that govern TV providers for a couple of years. So far, it has not made a decision and this is a good thing, according to Downes, because should Internet video providers be reclassified it “would be a disaster for consumers and entrepreneurs.” Opening video stream access to third-party set-top box producers could blur the distinction between paid-TV providers and Internet video providers and lead to reclassification.

The National Cable & Telecommunications Association, which represents cable and satellite TV companies, makes a similar argument to Downes. They state that the new proposed regulations “will ignore contractual freedoms, weaken content diversity and security, undermine important consumer protections like privacy, and stall the creative and technical innovation that is driving positive changes in today’s TV marketplace.” In particular, they worry that companies like Google and Amazon would benefit by tracking user behavior, inserting their own advertisements, and having their devices promote some content over other content.

There is also a case to be made that the proposed regulations would be a violation of the first amendment as pointed out by Free State Foundation president Randolph May. He asserts that this proposed regulation would have mandates attached over channel and menu orders to prevent discrimination either for or against the cable companies. This would in essence mean that the government is regulating content, which is prohibited. Therefore, he does not believe the courts would uphold such regulations should they come to pass.

This is also not the FCC’s first attempt at opening up the cable set-top box market. In 2007, they passed a mandate requiring cable companies to develop a standard CableCard that could be used with third party devices. The initiative failed and potentially cost billions of dollars to cable companies, which was ultimately passed on to consumers.

The FCC’s vote in favor of formally developing regulations to open set-top cable boxes has only set the wheels in motion. It will be months before the FCC drafts and releases proposed rules for review and comment. There is a lot to work out in terms of the collection and handling of consumer data, the kind of access new set-top box providers would have to video content, the cost implications for cable providers and consumers, etc. Whatever the proposed rules end up looking like, expect great debate once they are released.
Daily fantasy sports (DFS) sites FanDuel and DraftKings have been at the center of regulatory attention for months, as state attorneys general, Congressmen, and others call for them to be defined as illegal gambling operations. Residents of six states currently have bans on playing on the two sites: Montana, Arizona, Washington, Louisiana, Iowa, and Nevada.

Representative Frank Pallone, Jr. (D-NJ) has called for a congressional hearing “examining the relationship between professional sports and fantasy sports to review the legal status of fantasy sports and sports betting.”

It may not be a coincidence that Iowa, Louisiana, and New Jersey are counted in the top ten states with the most consumer spending on casinos, casino tax revenue, and casino jobs, according to data from the American Gaming Association (AGA) reported by Bloomberg. Nevada is the biggest gambling state in the nation, by far.

There is clearly some interest on the part of established gaming interests such as the AGA to become involved in the area, but also some reticence. Sara Rayme, the senior vice president for public affairs of the AGA, said, “It’s still sort of a gray, ambiguous market. Right now, we’re at a competitive disadvantage because of the ambiguity. Gaming regulators always reserve the right to take [gaming licenses] away. We’re not going to jeopardize that.”

John McManus, general counsel for MGM Resorts International said, “It is not in the interests of consumers that established gaming companies, which are fully licensed and regulated, are the only market participants that cannot engage in the business.”

“Season-long” fantasy sports have been commonplace and fully accepted (if not formally legal) for years; however, the two major sites in question work on a different model than their predecessors. Players place bets on a daily basis and the sites themselves regulate payouts, variables (such as athlete “salaries”), and profit directly from the activity. Regulators have commented that they are pursuing FanDuel and DraftKings in order to protect the public. The office of New York state attorney general Eric Schneiderman sent cease and desist letters to the two sites in November 2015, in which his office alleges that, “... contests are neither harmless nor victimless. Daily Fantasy Sports are creating the same public health and economic concerns as other forms of gambling, including addiction.”

The legal complaint from Schneiderman’s office against DraftKings (the complaint against FanDuel is identical) states,

“Our review concludes that DraftKings’ operations constitute illegal gambling under New York law, according to which, ‘a person engages in gambling when he stakes or risks something of value upon the outcome of a contest of chance or a future contingent event not under his control or influence.’”

A panel of appellate judges in the state ruled on January 11 that the sites may continue operating until their dispute with Schneiderman’s office is resolved. The attorney general is seeking to prosecute the sites on seven separate violations of state law and regulation. New York is another of the top ten states with the largest established gambling interests.

In addition, New York is the biggest DFS market in the country, according to a poll by Eilers & Krejcik Gaming LLC, a California-based research company. California is the number two DFS market.

Texas’ state attorney general, Ken Paxton, is the most recent to denounce the sites. In a statement on January 19, he said:

“Paid daily ‘fantasy sports’ operators claim they can legally operate as an unregulated house, but none of their arguments square with existing Texas law. Simply put, it is prohibited gambling in Texas if you bet on the performance of a participant in a sporting event and the house takes a cut.”

Texas has not yet taken any concrete legal action to ban the sites from operating within state borders.

Washington State’s legislature is currently considering
three separate bills which codify daily fantasy sports, for good or ill. The first, sponsored by state Representative Chris Hurst (D-Enumclaw) would reinforce existing state law against sports betting to declare that it is illegal to play any fantasy sports for money. The bill working its way through the state Senate, by Sen. Doug Ericksen (R-Ferndale) would legalize all fantasy sports by calling them games of skill, rather than games of chance. The third, sponsored by Sen. Pam Roach (R-Auburn) would permit season-long fantasy leagues as long as they involve no more than 50 people, with payouts of no more than $50.

The distinction between games of chance and games of skill is where daily fantasy’s main regulatory headaches seem to reside. Hurst, in promoting his bill, said “You cannot call this a game of skill.” New York’s complaint makes the issue of games of chance central to their complaint, alleging, “DraftKings’ customers are clearly placing bets on events outside of their control or influence… DraftKings has promoted, and continues to promote DFS like a lottery, representing the game to New Yorkers as a path to easy riches that anyone can win.”

Pallone, in his press release calling for a congressional hearing, said, “Fans are currently allowed to risk money on the performance of an individual player. How is that different than wagering money on the outcome of a game?” It is of note that Pallone has not called for an outright ban or restriction on fantasy sports; in the past he has advocated for the full legalization of sports betting in his state.

For their part, the sites do favor some regulation to their business. A Fanduel representative said in a statement in response to Schneiderman’s ban,

“We are confident that fantasy sports have always operated lawfully in New York, but we do believe that new, common-sense regulations to protect consumers and reflect the evolution and growth of the game are needed. The New York legislature, like many states around the country, is working towards such regulation, and we will work with them to achieve it.”

Perhaps seeking to prepare for whatever regulators may throw at it, both sites hired their first federal lobbyists in October 2015, and their lobbying expenditures increased to $100,000 total for the two sites, for the last three months of 2015. Since the beginning of 2016, the sites have ramped up their state efforts dramatically – the two sites together with the Fantasy Sports Trade Association have contracted with 78 lobbyists in 34 states. They will spend a projected $5 million to $10 million this year in their effort to pass at least six to eight state laws exempting fantasy sports from gambling restrictions, according to an anonymous source cited by The Wall Street Journal.

Chris Grove, an online gambling and fantasy sports analyst, said, “This legislative rush in the first few weeks of the new year is unlike any on gambling that I’ve seen. If all these bills passed you would have just essentially legalized a ton of sports betting that is unregulated and untaxed. I don’t think lawmakers get the ramifications of what they are doing.” If DFS were taxed similarly to state-run casinos, that could generate billions of dollars annually. ◄
While strolling through the supermarket aisles, consumers are inundated with a multitude of food date labels. Some feature “sell-by” dates, which indicate the last recommended date merchants should offer the product for sale. Others are phrased as indicators of when consumers should use the product (e.g. “best if used by”) and still others are expiration dates, such as “expires on” or “use by.”

These labels do not have quite the meanings one would expect. “Expires on” doesn’t necessarily mean a product is actually dangerous or not as nutritious after the expiration date, as the temperature and way it is stored may affect its longevity. “Best if used by” (or simply “best by”) generally means that one may find the product less enjoyable or less nutritious after the indicated date and is more commonly used on items that do not perish quickly, including goods such as peanut butter, cooking oil, or tomato paste. Some foods do not feature a phrase at all, such as canned soups, and merely feature a date without specification whether a food starts to spoil on that date or simply will not be as high-quality.

The most specific are “sell by” dates, which are mandated for some perishable products in most states and are used most commonly on foods such as milk, meat, poultry, fish, eggs, and bread. Label mandates for such perishables require stores to date perishable products so they will still be good if purchased by the sell-by date, and often for a period thereafter which varies by product, from a day or two for meat and fish to several weeks for eggs.

Unlike in Europe, where there is extensive EU-wide regulation, in the United States, there are very few federal requirements for date labels on food, except for infant formula and baby food. Nearly all food date label regulation is determined at the state level and varies widely, both as to the meaning of date labels and as to which foods must be labeled.

Both in the United States and in Europe, freshness labels did not come into widespread use until the 1970s. In the United States, many of the labels consumers encounter remain voluntary.

Food date labeling and safety

Food date labeling does not guarantee food safety and foods consumed after their best-by or even after their expiration dates are not necessarily unsafe. The two most important factors in food safety are the preparation and handling of food by the producer and the seller, as well as the preparation and handling of the food by the consumer. Food may be well within its freshness dating and still be dangerous if bacterial contamination has occurred in its preparation and processing, or if it has not been properly refrigerated before sale to the consumer. Similarly, if food, especially meat, fish, or poultry, is not properly refrigerated after purchase, it can become a health hazard in a matter of hours. Finally, if such foods are not cooked properly, they are not safe to consume, even if all other precautions have been taken. The most effective consumer precaution for perishable foods is to inspect them and to discard anything that does not appear or smell normal.

Food waste and food date labels

According to the U.S. Department of Agriculture, an estimated 31 percent of the food available for consumption in the U.S. at the retail and consumer levels goes uneaten – a figure that rises to 40 percent and amounts to $165 billion when taking farm-to-retail food loss into account. Further, a report by the Natural Resources Defense Council found that American consumers waste roughly 25 percent of the food and beverages they buy. This includes spoilage and throwing away leftovers, but some estimates indicate that up to 10 percent of food is thrown away while still safe and nutritious. Much of this waste occurs due to the misunderstanding of food date labels. Many consumers dispose of any food past its best-by or use-by date and some even dispose of it after its sell-by date, even though that date is intended to indicate that the food will be good for at least a few days after purchase.

Some experts even advocate the removal of food date labels, because of the food waste they attribute to these labels. Others advocate a uniform, detailed set of federal regulations to solve this problem; however, is not the
cure-all it may appear to be. Such an endeavor would be expensive for producers and sellers to implement – costs that would end up being passed on to the consumers – and the associated expenses would vary according to the amount of detail required on packaging. Such a plan may also be ineffective; even in Europe, consumers still throw away food unnecessarily because they believe it is outdated. A 2014 report by the House of Lords concluded that 89 million metric tons (roughly 98 million U.S. tons) of food are wasted across the European Union per year.

The problem is twofold: inconsistency in labeling and consumer misinformation as to the significance of those labels. To address the inconsistency problem, an alternative to extensive federal rules would be for state or federal agencies, working together with food industry trade groups (representing producers, sellers, and other stakeholders) to develop a recommended set of definitions for some of the more common terms. This approach may be time-consuming, but it has worked well and allowed flexibility and innovation in other areas, for example in the Uniform Commercial Code. To address the second part of the problem, consumer education campaigns, preferably undertaken by a partnership between government and the food industry, are a promising method.

Food date labeling is much more extensive than required by regulation

Forty-one states require at least some food date labeling; however, most limit these requirements to certain categories of food products. Sell-by dates are the most common labels required, so other designations, such as “best used by” or “expiration date,” are usually voluntary industry initiatives. The most common food regulated is raw shellfish, which is regulated in over 20 states, often as the only state-regulated food. Eggs and milk, or in some states, all dairy products, are the other two most commonly regulated products. A few states, notably Michigan, Minnesota, Ohio, Oregon, and Washington, require sell-by dates on a broad category of perishable foods (which include the aforementioned shellfish, milk, and eggs).

Industry response to consumer demand has been the primary driver behind food date labeling. Some of the state-mandated labeling is, however, more responsive to industry interest in managing supply. Such is the case with Montana’s rule that milk must have a sell-by date no more than 12 days after pasteurization, even though it remains good for a substantially longer period after pasteurization. (This also means that milk in Montana is typically much more expensive than in states without such regulations.)

Even imperfect food date labeling is useful to a rational consumer

Despite these weaknesses, food date information is valuable to rational consumers. Many consumers check sell-by dates and select ones with more distant dates if they do not expect to use the perishable item immediately. A post-purchase use of this information is that if consumers don’t remember when they bought a product, the date label lets them know what is old and needs to be checked and either thrown away or used quickly. If a consumer has more than one of an item, even a non-perishable item, these labels make it possible to be sure to use the older items first. Food date labeling also expands consumer choice; some consumers may consciously and with full information choose to consume only fresher products, irrespective of the safety of older products.