

WHITE PAPER PUBLISHED JANUARY 5, 2013

**Opportunities and Pitfalls in the New Business Environment:**  
**Are Small Businesses in Maine Ready?**

Author: Ed Noyes

**ACTGO360**

[www.actgo360.com](http://www.actgo360.com)

(207) 418-0874  
ed.noyes@actgo360.com

## CONTENTS OF THIS WHITE PAPER:

### **Introduction**

### **The Fundamentals of How Technology Changes Business**

### **How New Technologies Are Disrupting the Business Environment**

*Mobile Technology*

*Social Media*

*Other Emerging Technologies*

### **Five Simple Ways to Better Adapt in the New Environment**

1. *Micro Target*

2. *Engage*

3. *Give*

4. *Be Likeable*

5. *Be Consistent*

### **Conclusions**

### **Sources**

## **Introduction**

Each new technology has the potential to disrupt the business environment in its own unique ways. Some businesses successfully adapt to the changes. Other businesses fail to adapt and fade or die completely. Disruptions also create new business opportunities and new industries are born. Technologies often begin as novelties and eventually became necessities. Lessons from the past can guide decision-makers today.

Today new technologies are being introduced every day. From the multitude there will be winners and losers. Identifying the winners and creating the profitable responses to the challenges they introduce is something that every business has to manage. Opportunities abound. Yet, too many small businesses are slow to respond.

## **The Fundamentals of How Technology Changes Business**

In 1876 Alexander Graham Bell beat out Elisha Gray to patent the first telephone. Within months the first small-scale local telephone exchanges appeared. One of the pioneers was the District Telephone Company of New Haven, Connecticut. Their first telephone directory published in 1877 had only 55 listings.

Despite some early fits and starts the telephone did catch on and became the necessity we take for granted today. It didn't happen overnight. Early adopters supported the steady but gradual build out of infrastructure. Yet, several decades passed before it was embraced by a majority of homes and businesses. By 1900 only about 5% of U.S. households had telephones. It took another ten years before even 25% of households had phones and another 35 years before 50% had phones.

Some in business were quick to see the value of telephone communication, particularly on Wall Street. J.P. Morgan is credited with heading off the panic of 1907 in the nick of time by extending credit to several other banks after a series of phone calls. The telephone also expanded the reach of financial markets, making it possible for businesses to quickly raise large pools of capital. It is no fluke that the adoption of the telephone by successful financiers coincided with a period of rapid industrial expansion.

By 1909 telephone service was available in most Maine cities, yet its utility was not immediately embraced by local business. Evidence of this can be found in the 1909-1910 Kennebec County Business Directory. It was published with 93 display ads on the cover and the first several inside pages. Of those ads only 13 had phone

numbers listed. Among these early telephone pioneers were piano sellers, horse & carriage businesses, and undertakers. There were no phone numbers listed among the dozens of attorneys, banks, accountants, and other professionals advertising in the directory. It is unimaginable to think that any serious businesses could exist today without a phone. Yet, in 1909 Maine businesses apparently still considered it to be a novelty, nearly 35 years after its invention. Coincidentally that same year an article in *Lippincott's Monthly* also dismissed telephone traffic as “the exchange of twaddle between foolish women.”

Maine was particularly slow to join the revolution. The lack of long distance service kept Maine exchanges local and isolated from the national conversation for decades. Eventually however Maine businesses began to wake up and realize the advantage, and the inevitable necessity, of offering phone-based services for customers and clients.

The lasting impact of the telephone was to accelerate communications and thereby effectively reduce the functional distances between people. At the same time it radically changed the nature of business relationships. With its advent, consumers expected faster fulfillment of their demands for products and services. Businesses without a phone were at a disadvantage and unable to be responsive. In effect they missed the opportunity to participate in the changing marketplace. Many of those businesses vanished as a consequence. The disruption was obvious.

Over the course of the 20<sup>th</sup> century other technologies followed a similar pattern of adoption and disruption. Diagram 1 shows the typical stages that a new technology will pass through on its way to widespread acceptance.

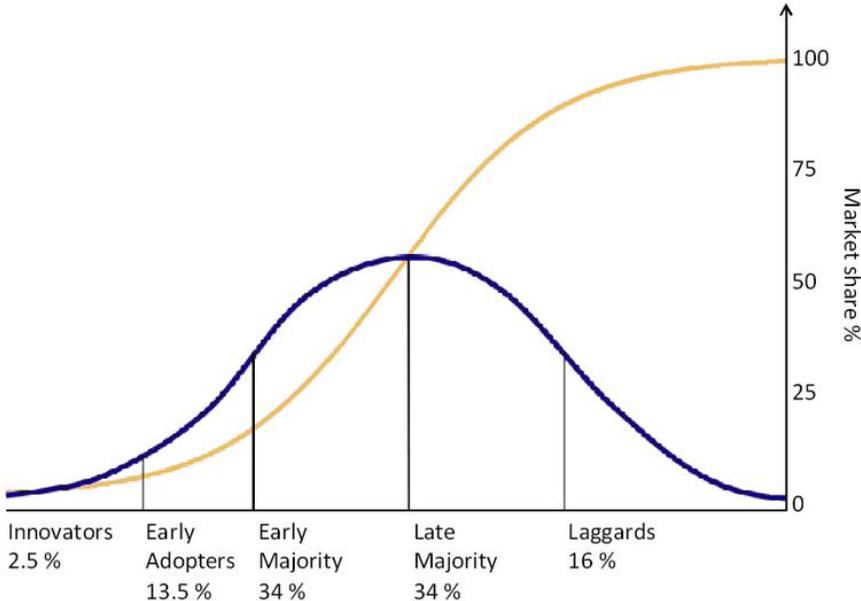


Diagram 1: The Adoption of New Technology  
 Source: Rogers, E. (1962)

Table 1 clearly shows an important trend. Generally speaking innovative technologies are being adopted more rapidly.

Technology	Approximate Years to 50% Adoption	Approximate Years To 80% Adoption
Telephone	70	86
Electricity	23	42
Auto	22	60
Radio	10	15
Refrigerator	15	25
Color TV	12	22
Microwave	10	19
VCR	8	17
Cellphone	12	19
Internet	10	20

Table 1: U.S. Adoption Milestones for Selected Technologies

Source: Charlie Catlett, Argonne National Laboratory

We instinctively know that change is happening at a faster and faster pace, yet we are conditioned to think we still have ample time to adapt. Businesses had decades and even generations to adapt to the telephone and electricity. In our lifetime we have seen how the Internet has profoundly disrupted the business environment over a much shorter time period. In Maine most small businesses have been slow to adapt to these changes, not unlike it was a century ago with the telephone.

Our 2011 study of Waterville area businesses showed that nearly a third of businesses had no web presence at all. Among those with websites, a third had sites that were badly neglected or poorly designed, rendering their online presence worthless to their customers and worthless to their businesses.

If we extrapolate the Waterville experience statewide, we can expect that a very large segment, perhaps half or more, of small businesses in Maine will be unable to successfully adapt to the potentially more disruptive technologies that are upon us.

## **How New Technologies Are Disrupting the Business Environment**

### *MobileTechnology*

2012 marked an important milestone - 50% of all U.S. adults now own smart phones. Considering that the first iPhone was only launched in June of 2007, the impact is significant. More than 60% of those in the key 18-49 year old demographic have smart phones. At least 60% of individuals with incomes over \$75,000 have smart phones. While adoption is skewed toward these younger and higher income individuals, it is rapidly increasing across all age and income groups with no signs of slowing down. Pew Research asked smart phone

users for one word that best described their experience. The resulting word cloud shows that there is very high degree of satisfaction among smart phone users, a good indication that the technology is here to stay.



The disruptive essence of mobile technology is evident in the way the devices are now being used. In 2011 25% of all smartphone owners used their phones as their primary means for accessing the internet. Today it has grown to over 31%. Furthermore, the reason they rely on smart phones isn't because they don't have access to desktop Internet. 82% say it is because their smart phone is "more convenient" or a "better fit". Smart phone owners are also using their devices more and more for location-based services, which means that smart phones are playing a larger role in shopping and dining decisions.

Software developers have responded with thousands of apps. Yet, very few small businesses have any representation in the mobile world. Compounding the problem, most small business websites do not translate well to small screens. Traditional small business e-commerce sites are simply too difficult to navigate on phones. Adding to the urgency, Gartner Research predicts that over the next 2-3 years 50% of all e-commerce sales will originate from mobile apps and social media.

Like the telephone smart phones began as a novelty. Most early mobile traffic was used for sharing photos and downloading ringtones, songs, and games. Alert businesses saw beyond that. As a result in less than 5 years the traffic has quickly transitioned to include e-commerce functions previously reserved to desktop computers.

### *Social Media*

Around the same time that Apple launched the first iPhone, Facebook opened its doors to the general public, creating a revolution in social media. It took less than two years for half of all 18-29 year olds to join. Today well over 60% of all U.S. adults participate in social media. Marketers have been tripping over each other to tap into the vast audience. However, too often they have been tripping over themselves. They've discovered that traditional "push" style marketing doesn't work in social media. Many businesses have given up entirely while others who have unlocked the secrets have succeeded in the social world.

Among those who have given up, a line of reasoning goes something like this: "Social media doesn't work for me; therefore it must be only a playground for frivolous pursuits." This is reminiscent of an early criticism of the telephone. The housebound women of a century ago were eager to use the phone for social networking and as escape from domestic isolation. As a result many in business dismissed the telephone as a frivolous pastime for women. The truth is that many frivolous pursuits do take place in social media, but there also is a



Bowl, if there is a wanted poster for you somewhere. However, Facebook is more interested in using facial recognition software to compile a profile of your likes and activities in order to send targeted advertising your way. If they can connect your profile picture to other images of you anywhere online, it will add more pieces to the puzzle. Of course they also track your movements around the web even after you log off Facebook. Facebook is not alone. Microsoft, Google, Yahoo, Apple, and others are doing the same thing.

4. *The Internet of Things*. In Japan you can buy a rice cooker that connects to the Internet and downloads recipes for you. Imagine a car with a place to plug in your tablet from where it can monitor your engine, control the heating and air conditioning, control the sound system, and provide navigation directions. How about a refrigerator that monitors its contents? When you are at the supermarket you can call up your refrigerator for a shopping list. Bathroom scales and home-based medical devices are being built with apps that will automatically report the results wirelessly to your doctor.
5. *Self-Driving Cars*. Google has been perfecting this technology over the past few years. In 2012 California and Nevada have enacted legislation allowing limited use of these cars on their roads. There isn't much that will prevent more widespread adoption in the near future. Most commuters would enjoy reading a newspaper, while leaving all the traffic headaches up to their vehicle to figure out.

These are just five examples of the dozens of new technologies that have already been launched and apt to be widely available in the future. In the new environment the ones that make it will certainly be adopted faster than ever.

### **Five Simple Ways to Better Adapt to the New Environment**

Many businesses are struggling to adapt to this new environment. It can be confusing and frustrating. On the upside there are new opportunities everywhere. Yet, sitting on the fence often feels safer than plunging into the unknown. Taking a systematic approach can help ease the sense of uncertainty. These five steps can help you navigate the new environment.

1. **Micro Target.** With social media you can now reach more relevant prospects and connect with your ideal customers. You can even directly target the fans of your competitors. The techniques for finding and targeting new customers and clients are almost endless. The opportunity is there to get a jump on your competition, simply because most of them don't understand how to market in the new environment. Knowing exactly who to target is the most important first step.
2. **Engage.** You can no longer "push" a message in the new environment. You need to actually establish a dialogue with your customers. You need to listen and be responsive.
3. **Give First.** Your ideal customers expect more. You will create greater attraction by helping them with their challenges and providing something of value for free. It will show that you understand them, that you are serious about helping, and that you are capable of solving problems.

4. Be Likable. It is simple human nature for people to do business with people they like. Today it is easy for your ideal customers to learn more about you than ever before. That is, if you let them. In the new environment people like stories and especially ones with clues that match you to what they are seeking. It is all about earning trust.
5. Be Consistent. The messages you offer need to be consistent across all the platforms you use and across time.

## **Conclusions**

Small Businesses face a challenging environment. Simply put, you need to build an online presence that best matches your business objectives. Pitfalls need to be avoided and resources need to be carefully deployed. Every business should be guided by an explicit plan with specific but flexible strategies.

Unfortunately many small businesses have decided to stick their heads in the sand hoping it will all go away. The way they dismiss mobile technology and social media is reminiscent of the way the telephone was dismissed a century ago. In 1909 Maine businesses could take their time. They had another 10, 20, or even 30+ years to adapt. That luxury is not available to business today.

Other businesses have decided to take a haphazard and inconsistent approach to social media and the mobile web, wasting time and resources.

Whether you realize it or not each day smart decisions are being made in the new environment that will affect your business. The question is - are they being made by you to grow your business or by someone else in order to take business from you? The good news is that with trusted guidance and a solid plan any small business can survive and prosper.

Navigating in these times requires perspective, knowledge, and a clear understanding of the technologies shaping the new environment.

If you started the day with any doubts, your first step should be to get off the fence and create an action plan for success in the new business environment. Help *is* available.

*Ed Noyes holds a Master's degree from Auburn University in Information Systems. He has also done graduate studies at the University of Minnesota in Information Sciences and more recently Electronic Commerce at the School of Information Studies at Syracuse University. A case study he wrote appeared as a feature article in the Journal of Internet Commerce. He currently lives in Maine, where he conducts research, builds websites, teaches, and consults with businesses to help improve their online presence.*

*Questions and comments can be directed to him at (207) 418-0874 or ed.noyes@actgo360.com*

## Sources

Brooks , John (1975). *Telephone: The First Hundred Years*. New York: Harper & Row.

Internet Adoption Over Time. Pew Internet and American Life Project (2012, April)  
<http://pewinternet.org/Reports/2012/Digital-differences/Main-Report/Internet-adoption-over-time.aspx>

Computer and Internet Use in the United States: 2010. United States Census Bureau  
<http://www.census.gov/hhes/computer/publications/2010.html>

*Insights Social Image Sharing and Online Shopping*. Bizrate, Series 3, August 2012.

Kennebec Business Directory

McCracken, Harry. "Bye-Bye, Wallets" *Time* 108 17 August 2012: 28-29.

Noyes, Ed (2011). A Usability Study of Waterville, Maine Businesses Online. *ACTGO360*.

"Pinterest Users Nearly Twice as Likely to Purchase Than Facebook Users, Steel House Survey Shows" (Press release). GlobeNewswire via COMTEX. May 30, 2012.

*Resident and Business Directory of Kennebec County, Maine*. Auburn, Maine: Merrill & Webber, 1909-1910.

Rogers, Everett (1962). *Diffusion of Innovations*. New York: Free Press.

Schulz, G.W. (2012-06-12) "Facial Recognition Technology: A Boon to Law Enforcement, a Blow to Privacy Advocates". [http://www.huffingtonpost.com/2012/02/06/facial-recognition-technology\\_n\\_1257382.html](http://www.huffingtonpost.com/2012/02/06/facial-recognition-technology_n_1257382.html)

Shea, Ammon (2010). *The Phone Book*. New York: Penguin.