

The Postal Service Role in the Digital Age - Expanding the Postal Platform

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Introduction

The Internet and the digital revolution are fundamentally changing the worlds of communications and commerce. The digital economy continues to grow at a rapid rate. Electronic substitution of traditional mail is accelerating as both consumers and businesses adopt electronic processes across multiple domains. Mail users are shifting from traditional hard copy distribution models to a variety of new ways to digitally communicate, advertise, or transact. They are attracted to greater convenience, faster service, and lower cost. The digital revolution has become the “disruptive innovation”¹ to the traditional business of the U.S. Postal Service. With several different communications channels competing for consumers, the Postal Service needs to modernize its role to accommodate for the digital age.

The transition to a new digital landscape is already under way, but the path forward is undefined. The Postal Service should consider new products and services that reflect the evolving mandate to “bind the nation together” in a new world where people are increasingly communicating digitally. Using a foundation that links a physical address to an electronic mail box for every citizen and business, the Postal Service can build a digital platform that facilitates communications and commerce for postal, governmental and commercial applications that are available to all.

The U.S. Postal Service Office of Inspector General Risk Analysis Research Center (RARC) has initiated a project to study the impact of the digital revolution on the future of the American postal ecosystem.

¹ Clayton M. Christensen, *The Innovator's Dilemma*, (Boston: Harvard Business Press, 1997).

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The Changing World of Communications and Commerce

Changing Demographics and Consumer Behavior

Markets have traditionally been segmented according to life stage models that follow a predictable pattern — think of the Baby Boomers and Generation X. The latest focus involves Generation Y, today’s largest demographic group and most telling in terms of what the future may hold. This group, also known as “digital natives” or “Millennials,” has been surrounded by technology their whole lives. This demographic has pioneered a user revolution where the balance of power is shifting from large, controlling

² Clayton M. Christensen, *The Innovator’s Dilemma*, (Boston: Harvard Business Press, 1997).

businesses to more confident and informed consumers. Generation Y's current world revolves around entertainment, communication, and content. They are most likely to use the Internet to watch videos, play games, and download music; communicate with friends and family through social networking sites and instant messages; or search for and contribute content to the Internet. It is therefore no surprise that social networks, online games, and e-mail are the top three activities consuming users' time online.³

Generation Y has a deep need for *immediacy* and like Generation X, they are naturals at multi-tasking, making use of consumer media in extremely fragmented ways. For business interactions, Generation Y generally prefers to patronize small businesses that they see as being more loyal to "people-over-profit."⁴ From a sustainability perspective, Generation Y is all for the environment, as long as it comes with a consumer benefit.⁵ This generation is aware of the perceived impact of hard copy mail on the environment; companies can reduce their environmental footprint through electronic solutions such as hybrid mail. Baby Boomers were known as the wealthiest generation up to their time.

Generation X was affected by economic and employment uncertainty. Generation Y has experienced the dot-com bubble in 2000 and the United States' housing bubble and great recession of 2008-2009. As a result, this group is trending away from credit cards in favor of debit cards and is more fiscally responsible than older demographics. They are the heaviest users of online banking. A 2010 study by Fiserv found that 80 percent of Generation Y had used online banking in the last month and most prefer online records, with growing interest in mobile banking via smartphones. Whereas only 11 percent of Baby Boomers had used mobile banking, 33 percent of Generation Y had used it in the last month.⁶

Because both Generation X and Y are "always on,"⁷ mobile has become an efficient and cost effective way of staying connected. Youth, especially teens, are the largest users of SMS and MMS text messaging services. With 1.6 billion youth worldwide owning a mobile phone and spending a staggering \$330 billion annually on mobile, the global mobile market is growing rapidly, especially in the developing world.⁸ This global mobile growth may have a profound effect on bridging the digital divide (see Section 5), which, up until recently, was largely dependent on having personal computer access.

³ "What Americans Do Online: Social Media And Games Dominate Activity," *Nielsenwire*. August 2010.

blog.nielsen.com/nielsenwire/online_mobile/what-americans-do-online-social-media-and-games-dominate-activity

⁴ "Why Gen Y prefers to patronize small businesses," *The Globe and Mail*. May 2010.

www.theglobeandmail.com/report-on-business/your-business/grow/customer-experience/why-gen-y-prefers-to-patronize-small-businesses/article1579809

⁵ "Go Easy on the Environment – And Our Wallets, Says Generation Y," *ScienceDaily*. January 2010.

www.sciencedaily.com/releases/2010/01/100121140345.htm

⁶ "Fiserv Gen Y Research Reveals Fiscal Responsibility and Digital, Mobile Mindsets," *Fiserv*. March 2010.

investors.fiserv.com/releasedetail.cfm?ReleaseID=447863

⁷ "Traditionalists, Baby Boomers, Generation X, Generation Y (and Generation Z) Working Together," *United Nations Joint Staff Pension Fund*.

www.un.org/staffdevelopment/pdf/Designing%20Recruitment,%20Selection%20&%20Talent%20Management%20Model%20tailored%20to%20meet%20UNJSPF's%20Business%20Development%20Needs.pdf

⁸ "50 Mobile Youth Facts 2011," *MobileYouth.org*. 2010. www.mobileYouth.org/download

The Shift to E-commerce

Growth in Online Retail

Despite showing steady growth over the last decade, e-retailing still only accounts for about 4 percent of total retail sales in the United States.⁹ E-retailers include “pure plays,” which are online-only stores, catalog, and mail order operations, as well as online stores of traditional brick and mortar retailers. A Forrester study showed that the two greatest barriers to online shopping are *concern over giving credit card information* (62 percent) and *the inability to see items personally* (55 percent).¹⁰ One of the biggest trends in retail is consumers browsing and researching products online and then completing the sale in-store. The most recent Pew Internet Project Report (May 2010) shows that 58 percent of Americans have researched a product or service online, while 52 percent of the population have actually purchased products such as books, music, toys, clothing, or travel services online.¹¹ In Finland, Netposti’s (an online product of the Finnish postal service) response to credit card concerns was to sign a cooperation agreement with the leading online payment solutions provider that serves more than 1,500 Finnish online stores. Consumers are able to e-invoice their purchases directly to their NetPosti account and avoid using a credit card.¹²

Recent studies identify signs of continued e-commerce adoption. A Forrester study indicates more satisfaction for consumers who research and purchase online (82 percent) than for those who only research online and then shop in-store (62 percent). Forrester forecasts double-digit growth for online retail in the United States, expecting it to reach nearly \$249 billion (6 percent of total retail sales) by 2014.¹³ A 2010 survey taken in the state of Nebraska showed a significant increase in residents purchasing goods and services online (68 percent vs. 29 percent in 2000), particularly in rural areas. Those who did not shop online tended to come from areas with poor Internet coverage, suggesting that as Internet access improves, more consumers will choose to go online to find the best deals.¹⁴ Despite this encouraging data, consumers will continue to finalize their sales in-person unless more effort is made to erode the barriers to purchasing online.

⁹ “E-Stats: E-Commerce 2008,” U.S. Census Bureau. May 2010.

www.census.gov/econ/estats/2008/2008reportfinal.pdf

¹⁰ “Why Some Consumers Don’t Buy Online,” Forrester Research. March 2005.

www.forrester.com/magazine/documents/Why%20Some%20Consumers%20Dont%20Buy%20Online.pdf

¹¹ “Online Product Research,” Pew Research Centre. September 2010.

www.pewinternet.org/~media/Files/Reports/2010/PIP%20Online%20Product%20Research%20final.pdf

¹² “Finnish online store invoices now available in NetPosti,” *Itella website*. June 2010.

www.itella.com/english/current/2010/20100610_itella_netposti_en.html

¹³ “Forrester Forecast: Double-Digit Growth for Online Retail in the U.S. And Western Europe,” Forrester Research. March 2010. www.forrester.com/ER/Press/Release/0,1769,1330,00.html

¹⁴ “More Nebraskans Shopping Online Than Anything Else,” *ZippyCart*. October 2010.

www.zippycart.com/e-commerce-news/1519-more-nebraskans-shopping-online.html

Shipping and Returns Logistics

Shipping and logistics are a huge component of e-commerce, leading to significant growth in parcel delivery for the Postal Service and its competitors. Moreover, in a world that caters to immediacy, shipping contributes significantly to the online shopping customer experience. Customers have developed higher expectations for their items to ship within 24 hours and arrive promptly, and returning products must also be easy.¹⁵ Shoppers now consider free shipping the price of entry for their business rather than a bonus.¹⁶ “Cart abandonment” worries e-retailers, as research suggests it should: 39 percent of shoppers in a Forrester Research study cited high shipping charges as the main reason for cancelling their purchases at checkout. Many e-retailers now offer free shipping either with or without a minimum purchase to entice online shoppers to complete their transactions online, while others offer a shipping subscription service (Amazon Prime).¹⁷ Some online retailers such as Zappos.com attempt to differentiate their services by providing both free shipping and returns, a policy that has no doubt contributed to its being ranked number one out of 150 e-retailers in a recent study of online customer service.¹⁸

Establishing Trust in E-commerce and Facilitating Transaction Processing and Payment

An important consideration for the success of e-commerce is establishing trust, since buyers and sellers may never meet and accountability can be low. Larger retailers can provide trust to consumers through their established brand names and safeguards such as product ratings or guarantees. However, smaller businesses often struggle to appear credible online and must find other ways to establish trust. Social networking and e-commerce consolidator sites such as eBay are helping to build trust through establishing consumer reviews and exchange forums. Having credible payment processing is a very important requirement for e-retailers and one which has limited availability today.

The majority of transactions are still conducted using credit cards and processed through traditional, offline payment networks that link merchants and cardholders. There are many electronic payment alternatives being developed globally but the industry is still trying to build standards, and none have yet gained widespread acceptance among merchants or consumers. Paypal is the most widely used non-bank payment mechanism.

¹⁵ “Catering to Affluent Shoppers Online,” *eMarketer*. September 2010. www.emarketer.com/Article.aspx?R=1007943

¹⁶ “Retailers hope free shipping turns you into a regular,” *USA Today*. November 2009.

www.usatoday.com/money/industries/retail/2009-11-16-freeshipping16_ST_N.htm

¹⁷ “Amazon’s free-shipping secret,” *cnet reviews*. December 2010. http://reviews.cnet.com/8301-18438_7-20024644-82.html

¹⁸ Betts, M. “Zappos.com earns top score for online customer service,” *Computerworld*. June 2010. www.computerworld.com/s/article/350085/Zappos_Earns_No._1_Ranking_for_E_retailng

Facilitating Cross-Border Commerce

There is considerable opportunity for increased growth in e-retailing through international export and import (cross-border shopping) as businesses look to market their products globally. In the United States, Amazon and eBay have shown significant growth in international sales with over 54 percent and 47 percent of revenue respectively stemming from international sales.¹⁹ Until recently, many retailers viewed international expansion as an all-or-nothing proposition. The few incremental international orders were not viewed as enough of an incentive to deal with the complexity of entering new markets. This is changing, due to advances in technology, which includes international shopping cart solutions with local market payment options, translation capabilities, and more seamless fulfillment and logistics through third-party specialists.

Key Trends in the Evolution of Communications

Given the changes in demographics and consumer behavior, the exponential growth in e-commerce, and the use of innovative technologies, it is no surprise that electronic forms of communication are supplanting hard-copy communications among some consumers. From the personal to the corporate world, the Internet has transformed our ability to send messages, share knowledge, and conduct transactions more quickly and economically than ever before. This communications shift is having an impact on individuals, business, and government, forcing many to radically change how they adapt to this world and how fast they adjust.

The Shift from Physical to Electronic Communications Is Real

We are now visibly in the digital age where almost any communication that was traditionally executed in a physical manner can be conducted electronically. The cost savings can be significant, since digital delivery via the Internet avoids the cost of delivering a hard copy of many products. This transition to “e” has been particularly pervasive in the world of correspondence, where physical letter mail for both personal and business purposes is declining rapidly as digital methods of communication become mainstream.

The convergence of communications media formats, the increase in collaborative sharing of consumer knowledge, and the growing importance of declaring, tracking, and managing preferences have also contributed to the electronic shift. The impact of the electronic shift is directly felt by postal services around the world with significant declines in mail volumes, and the Postal Service is no exception. The Postal Service’s role as a primary platform for exchanging communications has declined in parallel with the drop in mail volume. While the volume and growth of First-Class Mail was traditionally linked to Gross Domestic Product (GDP) growth, new technology has

¹⁹ “International E-commerce Expansion Benchmark Study,” *J.C. Williams Group*. September 2009.

diminished that relationship. The Boston Consulting Group (BCG) forecasted a drop in total mail volume for the Postal Service between 2009 and 2020.²⁰

With First-Class Mail volume expected to decline further, the Postal Service may become almost entirely a one-way broadcast distribution medium rather than a two-way communication exchange medium.²¹ American mailboxes currently receive an average of four pieces of mail each day,²² and entire households average only one personal correspondence each week compared to almost 18 pieces of marketing mail.²³ Americans increasingly perform their day-to-day tasks online. The convenience of *any time, any place, and any format* digital media ensures that the shift will continue to grow rapidly. By 2020, 40 percent of the U.S. population will be digital natives, whose communications behaviors are primarily digital. They will replace a previous generation with a preference for traditional mail communications.²⁴

Although declining First-Class Mail volume has been a hot topic in postal circles, physical mail should not be entirely discounted. In fact, 36 percent of U.S. respondents across all ages trust the mail more than e-mail — up from 29 percent in 2008.²⁵

The Shift from Paper to Digital in Business and Government

Technology innovation and an emphasis on protecting the environment is changing the way people live and work, driving cost-efficiency with the added benefit of improved sustainability. In the past, business communication was about sending memos, writing business letters, and holding face-to-face meetings. Contemporary business communications and processes have evolved to include all the latest technologies, such as e-mail, instant messaging, teleconferencing, videoconferencing, and even social networking. As businesses and governments evolve digitally, they have gone from offering websites with static content to basic e-commerce-enabled sites to fully interactive and collaborative Web 2.0.

The progression for some has been slower than for others, largely due to cost, complexity of execution, and concerns about security. The recession of 2008-2009 encouraged many to speed up their efforts to save money. For example, in 2005, the U.S. Army made an effort to remove paper processes across the Army by moving to a fully electronic, Web-based solution, including e-forms that resulted in savings of \$1.3

²⁰ “Projecting U.S. Mail Volumes to 2020,” *Boston Consulting Group*. March 2010.

www.usps.com/strategicplanning/pdf/BCG_Detailed%20presentation.pdf

²¹ “Implications of Declining Mail Volumes for the Financial Sustainability of the Postal Service,” *USPS Office of Inspector General Risk Analysis*. September 2010.

²² “Postal Service: End Saturday delivery in 2011,” *Chicago Breaking News*. March 2010.

www.chicagobreakingnews.com/2010/03/postal-service-end-saturday-delivery-in-early-2011.html

²³ “The Facts About Junk Mail,” *ForestEthics*. www.donotmail.org/section.php?id=3

²⁴ Webb, J. “Three Numbers, 30-60-100, Foreshadow What’s Ahead,” October 2010.

whattheythink.com/articles/article.cfm?id=47075

²⁵ “Direct Mail Beating E-mail for Young Adults,” *Target Marketing*. September 2010.

www.targetmarketingmag.com/article/direct-mail-becoming-more-relevant-than-e-mail-young-adults-says-epsilon-survey/1#utm_source=tipline&utm_medium=enewsletter_continue&utm_campaign=2010-09-01

billion estimated per year and 30 minutes per person each day.²⁶ Apple has been marketing the iPad to hospitals as a paperless way to access medical records, gaining widespread enthusiasm from emergency room physicians.²⁷ Once a business has made the investment to go electronic, it is not likely to go back to paper processes.

Governments around the world are leveraging the digital economy as a way of engaging in more two-way dialogue with their citizens to help improve their quality of service. The U.S. Government, however, has been relatively slow to move from sender control to receiver control in the services it provides. State initiatives have advanced further than federal through online applications for services such as taxes, motor vehicle registration, and business licensing. The Obama administration has actively pursued its open government mandate by establishing conversations with its constituents through a number of federal portals and instant updates through the Government Notifications Dashboard.²⁸ Recent initiatives by the IRS and the Treasury Department are indicators of the government going digital. What seems most important is implementing standards to ensure operability across agencies for a more seamless user experience for citizens.

Trends in Finance, E-billing, and Payments

One notable area of electronic transformation is in finance, billing, and payments. In the United States, paper checks have declined from 61 percent of all payments in 2000 to just 26 percent in 2010, while online bill payments have grown from 12 percent to 45 percent of all payments.²⁹ Once preferred only by tech-savvy young males, the digitization of billing is becoming mainstream as more households, including seniors, and people of all income levels are adopting the trend. Currently in the United States, electronic payments are evenly split between two models, *payment at the biller website* (Biller Direct), and *payment through online banking*. According to Javelin Research, about 50 percent of U.S. households, or 43 million people, now pay bills through online banking each month.³⁰

The Speed and Scale of Communications Has Changed — the Need for “Now”

The velocity of communications changes with the launch of every new technology. When e-mail first moved to the mainstream in the mid-1990s, it was considered a very fast mode of communication, mirroring the speed of a fax at a much lower cost. But in the span of just two decades, e-mail has begun to be perceived by younger generations as slow, mainly because more accessible and immediate methods of conversation have emerged like SMS text messaging, instant messenger, Twitter, and social networking.

²⁶ “Army evolves to e-forms,” All Business. April 2005. www.allbusiness.com/management-companies-enterprises/1088598-1.html

²⁷ “The iPad makes its first hospital rounds,” ZDNet. August 2010. www.zdnet.com/blog/healthcare/the-ipad-makes-its-first-hospital-rounds/3880

²⁸ U.S. Government Notifications Dashboard. notifications.usa.gov

²⁹ “Online bill payment and e-bill adoption takes off in U.S.,” *The Paypers Survey*. May 2010.

www.thepayers.com/news/e-invoicing/online-bill-payment-and-e-bill-adoption-takes-off-in-us-survey/741286-24

³⁰ “Going paperless can stop fees from banks,” *The Post and Courier*. August 2010.

www.postandcourier.com/news/2010/aug/22/going-paperless-can-stop-fees-from-banks

These modes of communication tend to result in shorter, more direct messages that better capture the receiver's attention and elicit a faster response. Users are no longer expected to respond immediately to an e-mail since other methods of communication are preferred when an answer is needed right away. While it is true that social networks have gained in popularity with 48 percent of Americans using Facebook or LinkedIn³¹ as a communications tool, e-mail is still entrenched in our daily lives, mainly for professional communications (work and business) and increasingly for preference-based marketing messages. For some, this communications intensity has created a challenge in being able to manage the volume and types of communications across all channels. Businesses and organizations are just starting to provide the tools to help individuals manage their connections.

Consumer Power — Communications Control Shifts from Sender to Receiver

A fundamental shift is occurring in the communications market, where control is shifting from the sender to the receiver. There is an inverse relationship between provider control and consumer trust, something that businesses and governments must understand and accept in the digital age. In other words, businesses need to trust their customers and give them control (and they will use it); otherwise people will walk away."³²

Before the Internet, companies and institutions thought that maintaining control over content, policies, processes, and products would lead to winning the public's trust. In the digital age, we have seen the complete opposite. Content sites such as weblogs and social community boards give users the chance to produce content based on their real-life experiences. TripAdvisor, for example, has become an incredibly powerful and trusted source of travel information that is directly influencing consumer behavior. Through collaborative conversations, this shift in control is creating transparent markets where users become participants in the companies with whom they choose to do business. Companies such as Microsoft,³³ give users the opportunity to try new products in Beta release and then comment publicly with their recommendations for the next release, thereby gaining both credibility and consumer trust. That credibility and trust then grows throughout that consumer's social community, making transparency, credibility, and customer service a new form of advertising.

This shift in control is also having a significant impact on the mail industry. As users become more aware of the amount and type of communications they are receiving through all channels, they are beginning to demand more relevant content tailored to their individual needs. This becomes directly relevant to First-Class and Standard Mail, since individuals who feel they receive too much advertising are beginning to look for ways to control what information they receive and how they receive it.

³¹ "Online Product Research - 58% of Americans have researched a product or service online," *PEW Internet*. September 2010.

www.pewinternet.org/~media/Files/Reports/2010/PIP%20Online%20Product%20Research%20final.pdf

³² Jarvis, J. "What Would Google Do?," *Collins Business*. 2009, p.82-83.

³³ Microsoft website. connect.microsoft.com/Connect

The Internet Has Evolved from Mass Broadcast Media to Personalized Conversations

In a recent book, one digital authority noted that the mass market is dead — replaced with the mass of niche markets.³⁴ People gravitate towards their own interests. Thanks to the vast Internet content creation tools, people now have much greater opportunity to search for and find what they are looking for or create it themselves. Advertising has had to adapt to this notion, and as a result, many traditional forms of media are in decline. Spending on mass media, such as newspapers, magazines, catalogs, and TV, is shifting to more interactive methods of holding conversations with customers.

Social media offers brands more than just an outreach platform and are becoming increasingly popular as a marketing vehicle. Brands are finding ways to tap into peer-to-peer conversations to listen, learn, and act on the information they gather, allowing customers to shape the brands. Today's consumer wants validation and reinforcement from other consumers, and the opinions of their peers are more important than the same words from a company spokesperson. While return on investment (ROI) has been difficult to calculate, it is clear that social media has been an effective method of boosting brand awareness. Services like Twitter have allowed companies to see what consumers are saying in casual conversation without the need for expensive focus groups or consumer polls.³⁵

Many U.S. industries and top companies have shifted significant marketing dollars into social media. The auto industry will spend \$1.2 billion this year on social media advertising.³⁶ A top marketing executive recently stated that Facebook is playing the same marketing role that television played in the 1960s.³⁷ By incorporating electronic weekly newspaper flyers into Facebook pages, advertising becomes interactive. Viewers can enlarge and print barcode-enabled coupons as well as provide comments on products and specials. Users can also click a “share” button for each individual coupon or special to include in their personal newsfeeds.³⁸

Print Advertising and Direct Mail to Internet Advertising (Including Direct E-mail)

Internet advertising includes online publications, video, search engine keywords, and e-mail, and its share of advertising revenue increased by almost 10 percent in 2010 to exceed that of print advertising. This trend is similar to how online ad spending outpaced radio advertising in 2008.³⁹ Search advertising accounted for approximately

³⁴Jarvis, J. “What Would Google Do?,” *Collins Business*. 2009, p.63-65.

³⁵ “Best Global Brands 2010,” *Interbrand Study*. www.brandwizard.com/Best_Global_Brands_2010_US.pdf

³⁶ “Nissan’s Social Media Strategy: Hire ‘Nobodies’,” *Fast Company*. October 2010.

www.fastcompany.com/1693652/nissan-turns-to-virtual-nobodies-for-social-media-strategy

³⁷ Facebook Sells Your Friends, September 25, 2010,

http://www.businessweek.com/magazine/content/10_40/b4197064860826.htm

³⁸ “Big Brands Using Weekly Circulars on Facebook”, ClickZ, August 4, 2010.

www.clickz.com/clickz/news/1726606/big-brands-using-weekly-circulars-facebook?WT.rss_f=News+-+ClickZ&WT.rss_a=Big+Brands+Using+Weekly+Circulars+on+Facebook

³⁹ “Is 2010 the Year Digital Will Eclipse Print Ad Spending?” *Wired*. March 2010.

www.wired.com/epicenter/2010/03/is-2010-the-year-digital-will-eclipse-print-ad-spending

half of all digital ad revenues in 2008 and was dominated by a few large firms such as Google and Yahoo.

This shift to online channels is having an impact on direct mail volume growth for the Postal Service. ICH Global Insights predicts a modest increase of 2.2 percent for direct mail in 2010, as the economy begins a slow recovery.⁴⁰ BCG has projected that total advertising mail volumes will grow slightly (4 percent) through 2020. More specifically, BCG forecasts a moderate increase in Standard Mail (18 percent by 2020) and declines in heavier pieces such as catalogs and magazines (-29 percent and -17 percent, respectively).⁴¹ The rationale for the continued, more moderate growth in direct mail is that physical direct mail offers a better guarantee that marketing messages will make it through the clutter at a time when electronic filters are becoming increasingly successful in blocking unsolicited e-mail.⁴² The most successful direct marketing campaigns combine the physical and the digital.

Books to E-books

E-book sales now make up 9 percent of the consumer book market, up 193 percent over a year ago, according to the Association of American Publishers. The growth in e-books, similar to other transforming technologies, arises out of desire to decide where, when, and how to read books. Amazon reported in 2010 that it was selling almost two times as many e-books for every hardcover book,⁴³ and sales via the Kindle store are expected to grow 195 percent to \$701 million this year, according to a study by Cowen and Co.⁴⁴

Catalogs and Publications to Websites

One of the reasons that online shopping has been so successful in the United States is due to its long history with catalog shopping. However, many large U.S. retailers are beginning to reduce their use of catalogs due to the high cost of production and delivery. JCPenney announced the elimination of its traditional catalog, but will continue to use print to drive customers to its online store with category-targeted “Look Books,” containing less merchandise and having no pricing details.⁴⁵ Publications such as

⁴⁰ “*The Power of Direct Marketing, ROI, Sales, Expenditures and Employment in the U.S., 2009-2010 Edition*,” DMA.

⁴¹ “Projecting U.S. Mail Volumes to 2020,” *Boston Consulting Group*. March 2010.

www.usps.com/strategicplanning/pdf/BCG_Detailed%20presentation.pdf

⁴² Hooper, R., et al. “Modernise or decline, Policies to maintain the universal postal service in the United Kingdom.” Department for Business, Enterprise and Regulatory Reform, December 2008.

⁴³ “Amazon: Kindle sales accelerating; Demand tipping point?,” *ZDNet*. July 2010.

www.zdnet.com/blog/bt/amazon-kindle-sales-accelerating-demand-tipping-point/36891

⁴⁴ “Kindle, iPad Aren’t Mortal Enemies,” *PC World*. December 2010.

www.pcworld.com/article/212235/kindle_ipad_arent_mortal_enemies.html

⁴⁵ “J.C. Penney to Quit Catalogs,” *Print CEO*. September 2010.

printceo.com/2010/09/jcpenney-catalogs?utm_source=printceo&utm_medium=e-mail&utm_campaign=weeklynewsletter

The New Yorker magazine offer digital versions, which leverage the interactivity of the Internet with animated covers, slideshows, and bonus content.⁴⁶

Newspapers to Online News

The newspaper industry faces declining advertising revenues and circulation. Electronic media threatens its relevance and publishers must reinvent their businesses to remain successful. Newspapers have also lost lucrative classified ads to online sites such as Craigslist that charge very few fees. However, the Pew Internet Report has identified a trend in the synergy of multiple media that may help prolong the life of the newspaper industry whereby more than a third (36 percent) of Americans gets their news from both digital and traditional sources. News Corp., owner of the *New York Post*, is planning to introduce a new national digital newspaper distributed exclusively via mobile handsets and connected devices including Apple's iPad.

The Future Is Always "On" — Mobile Technology Means Local Content, for Me, Right Now

Explosive growth of smart phones, iPads, netbooks, and other mobile devices has increased consumption of content on the go and allowed marketers to get their content directly into the hands of individuals wherever they are. The reality of mobile is that it enables customers to take on a more participatory role in the communications they receive. In this new world, businesses need the ability to enable relevance control. For small businesses, in particular, the next wave of digital marketing trends includes several new ways to build closer customer relationships:⁴⁷

According to ComScore, smart phone penetration is now at 19 percent in the United States with 45 million active smart phones⁴⁸ and an expected annual growth rate of 20 percent through 2013.⁴⁹ Almost one-third of customers currently choose a smart phone over a regular phone, and Nielsen reports that smart phone penetration will exceed 50 percent in the United States by 2011.⁵⁰ Gartner recently reported that by 2013, the combined installed base of smart phones and browser-equipped enhanced phones will be greater than the installed base of personal computers. Google claims that there has been a 500 percent⁵¹ growth in mobile search in the past two years and boldly predicts that by 2013, half of all web traffic will be mobile.

⁴⁶ "New Yorker Magazine Rolls Out iPad Edition," *Print CEO*. October 2010. printceo.com/2010/10/new-yorker-magazine-rolls-out-ipad-edition?utm_source=printceo&utm_medium=e-mail&utm_campaign=weeklynewsletter

⁴⁷ "The Next Wave of Digital Marketing Trends," *Entrepreneur*. May 2010. www.entrepreneur.com/marketing/onlinemarketing/article206418.html

⁴⁸ "45 million U.S. Smartphone Users," *comScore*. April 2010. metrics.admob.com/2010/04/45-million-us-smartphone-users-comscore

⁴⁹ "Best Global Brands 2010," *Intebrand Study*. www.brandwizard.com/Best_Global_Brands_2010_US.pdf

⁵⁰ "Nielsen: U.S. Smartphone Penetration to Be over 50% in 2011," *GPS Business News*. March 2010. www.gpsbusinessnews.com/Nielsen-US-Smartphone-Penetration-to-Be-over-50-in-2011_a2154.html

⁵¹ "Google Outlines Mobile Trends at Advertising Week DC", *The Huffington Post*. September 2010. www.huffingtonpost.com/eric-shutt/post_904_b_735621.html

As mobile technology advances, there is a blurring of the lines between traditional laptops and mobile phones, as device capabilities *converge* in new products such as the iPhone and other smartphones. Companies know that developing applications that can run on any device is important in a world where people are living multi-device lifestyles. Amazon, for example, is seeing success by formatting its Kindle books to be read on multiple devices and platforms such as Android, iPad, iPhone, or Mac.⁵² The marketing and business world is responding by creating integrated advertising strategies and cross-promotional concepts that focus on placing advertising messages in *multiple channels* (including both print and digital) using tools such as “quick response” codes — a type of bar code placed on advertisements, department store displays, restaurant menus, and other material — that can be scanned with a mobile device. Consumers can use the codes to download coupons, ads, or product information, while companies can track individual responses.

More Targeted, Personalized, and Measurable Marketing through Behavioral Advertising

A major benefit of electronic marketing tools is the ability to offer more targeted, personalized marketing communications to potential customers with an easy way for them to respond. Advertisers must now consider many more simultaneous channels. Internet advertising has evolved from basic banners and keywords to a more advanced form of behavioral targeting that allows advertising networks to collect information about the online activities of a consumer for the presentation of relevant ads. These networks gather data by observing millions of consumers and tracking the sites visited and length of stay. These online firms claim that no personal data is stored, so each individual is anonymous. Companies such as Yahoo, Google, and Akamai Technologies offer behavioral ad targeting, which is expected to be a significant ad segment in the next few years.⁵³ Digital advertising is powerful in that it lends itself to quantitative analysis and measurable results. Canada Post has recently launched a digital direct marketing network that delivers local offers and advertisements to consumers using location and behavioral targeting.

As mobile devices continue to drive a linkage between the digital and physical worlds, mobile search is set to become a high driver of in-store traffic. Research firm eMarketer expects U.S. mobile ad spending to rise from \$648 million in 2008 to more than \$3 billion by 2013. The keys to successful mobile marketing lie in the ability for a marketer to grow their customer database and locate the target segments while leaving the consumer more in control of the actual marketing content they receive.

⁵² “Why Amazon’s Kindle Will Eventually Win the e-Book Wars,” *Gigaom*. June 2010. gigaom.com/2010/06/21/why-amazons-kindle-will-eventually-win-the-e-book-wars

⁵³ “Case study: Consumer Tracking on Levis.com,” *BehavioralTargeting.Biz*. April 2010. behavioraltargeting.biz/case-study-consumer-tracking-on-levis-com

M-commerce Is the Way of the Future

Although mobile commerce (m-commerce) has developed slowly, the category is set to grow significantly as a tool for marketing, retail, finance, and payments. Mainly used for information gathering to date, retailers are now starting to leverage mobile technologies to convert browsers into buyers. According to Deloitte's 25th Annual Holiday Survey 2010, 17 percent planned to use their mobile phones during the holiday shopping process, and among those, more than half plan to use their phones to compare prices or find store locations compared to 46 percent that plan to look for product information and 42 percent that will actually make purchases.⁵⁴

While mobile payments are well-established in other countries, they remain at an early stage in the United States. To encourage mobile payments, Visa has released a contactless payWave payments technology pilot for commuters in New York and Los Angeles. A small electronic chip embedded in the mobile phone or payment card communicates with contactless readers at the fare gate and on the bus so that transit riders can make payments by simply holding their device up to a fare reader. One may reload the phone or cards online or over the phone.⁵⁵ ABI Research claims that mobile financing, including mobile person-to-person payments, is "the next big thing," and predicts there will be almost a half-billion mobile financial customers in 2013.⁵⁶

With online banking gaining momentum, it isn't hard to make the jump to mobile banking. Bank of America reports that 17 percent of its online banking customers already use mobile services such as alerts to review balances, and Smartphone applications to view transactions, pay bills, or even make deposits by taking a photo of a check.⁵⁷ Financial institutions have already developed a small but growing number of iPhone applications, and consumers will continue to expect more functionality in their mobile devices. Some estimates predict that by 2013 there will be almost a half-billion mobile financial customers, including mobile peer-to-peer payments. Despite its slow growth rate, m-commerce is expected to reach \$18 billion by 2013.⁵⁸

A Strategic Positioning for the Postal Service

The Postal Service has been tracking many of trends highlighted in the preceding section. In the late 1990s, it experimented with a number of digital products and services. For example, it teamed with several foreign postal operators to launch a web-

⁵⁴ "Deloitte's 25th Annual Holiday Survey," *Deloitte*. November 2010.

www.deloitte.com/view/en_US/us/Industries/Retail-Consumer-Business/da7f6d847113c210VqnVCM3000001c56f00aRCD.htm

⁵⁵ "Visa launches contactless payment trials for commuters in New York, Los Angeles," *The Paypers*. September 2010. www.thepappers.com/news/mobile-payments/visa-launches-contactless-payment-trials-for-commuters-in-new-york-los-angeles/742042-16

⁵⁶ "Mobile Banking is an Enormous Growth Market," *L'Atelier*. March 2009.

www.atelier-us.com/mobile-wireless/article/mobile-banking-is-an-enormous-growth-market

⁵⁷ "Full Service Mobile Banking," *CMS Wire*. September 2010.

www.cmswire.com/cms/enterprise-20/mobile-enterprise-more-mobile-banking-marketing-trends-008604.php

⁵⁸ "Google Outlines Mobile Trends at Advertising Week DC," *The Huffington Post*. September 2010. www.huffingtonpost.com/eric-shutt/post_904_b_735621.html

based message delivery service called the Poste Electronic Courier Service or PosteCS. It launched another web-based service in conjunction with a large communications company, called NetPost Certified to enable government agencies to secure and authenticate electronic correspondence. The Postal Service discontinued these products in the early 2000s due to a slow adoption rate and concerns over their return on investment. Current electronic products include a USPS Electronic Postmark[®] or EPM[®], which was licensed to a third party, and Intelligent Mail[®] barcodes (IMb[®]), which can track mail from inception to delivery. A key element in surviving business disruption and fostering innovation is drawing lessons from past and present efforts.

For instance, Polaroid, once a global supplier of cameras and film, did not adapt quickly enough to the force of change in its industry and found itself marginalized as consumers switched to digital alternatives. Leading DVD mailer Netflix (a large postal customer) is already deliberately converting its business model to take advantage of a lower cost online movie delivery method. Craigslist has greatly undermined the multi-billion dollar classified newspaper establishment by providing mostly free classified advertising and charging only for employment and real estate ads.

The Postal Service is at a critical juncture. It can stick to its declining traditional business or evolve and expand its postal platform to the digital realm. It can become a victim of digital disruption and go the way of Polaroid, or it can learn from Netflix, and incorporate the advantages of digital communication into its business operations. The decision to change is not without risks, but an even greater risk would be not to change at all. Netflix has taken a significant risk that is showing early signs of success, but Polaroid, despite some recent small-scale success, waited too long to adapt.⁵⁹

This paper suggests that the Postal Service should examine entering the digital space and that this would be consistent with its mandate to “bind the nation together.” This would apply a modern interpretation and a natural extension of this role to a new environment. Microsoft has even recognized this position of trust and believes that it should be applied to the digital world when the company stated that postal operators such as the Postal Service could “meet the public need for trusted electronic communications in a way that no private sector organization could rival.”⁶⁰

The paper constructs a strategy for the Postal Service’s positioning in this new space. The strategy is framed by three guiding principles:

- Promoting solutions for the communications problems of the digital age
- Utilizing the core competencies and assets of the Postal Service

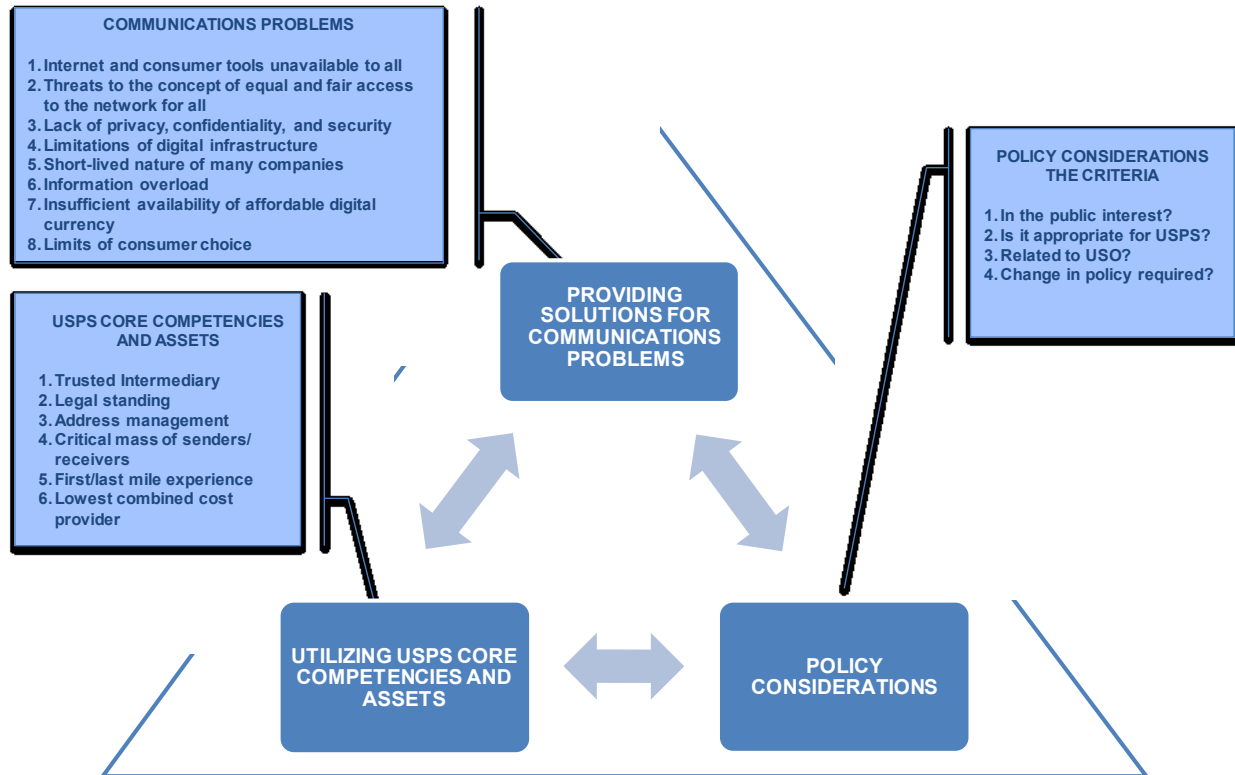
⁵⁹ “Netflix now No. 2 video subscription service, earnings impress Wall Street again,” *Los Angeles Times*, January 26, 2011, <http://latimesblogs.latimes.com/entertainmentnewsbuzz/2011/01/netflix-now-no-2-video-subscription-service-earnings-impress-wall-street-again.html> and Don McCrae, “Miss the Big Picture, Fade Like Polaroid,” *Bloomberg Business Week*, October 23, 2002, http://www.businessweek.com/careers/content/oct2002/ca20021023_9615.htm.

⁶⁰ Microsoft Corporation, “Reply Comments of Maxim Lesur, Worldwide Postal Industry Managing Director for Microsoft Corporation,” Postal Regulatory Commission Docket No. MC2008-1, August 20, 2008, p. 5.

- Considering the policy implications of the strategy based on the current legal and regulatory environment

The Guiding Principles

All three sets of guiding principles are equally important to developing a positioning strategy. This analysis makes a case for moving the Postal Service into the digital world.



First, the rapid growth and lack of established standards in providing digital communications has contributed to an expansive list of communications problems that need attention. Opportunities for the Postal Service in this sphere address unmet market needs stemming from those problems. Second, an examination of Postal Service core competencies suggests that a natural extension of its trusted intermediary role in serving the American people could help fill these gaps and shortcomings through the introduction of an array of new digital services. Finally, the digital strategy requires careful consideration of public policy questions to ensure that pursuing such opportunities constitutes a proper role for the Postal Service.

Providing Solutions for Communications Problems in the Digital Market

While hundreds of millions of users already rely on digital communications, the current digital operating platform, provided by the private sector, has shortcomings in both capabilities and access.

- The growing digital refugee population – While the federal government has embraced the goal of universal service for mail and telephone service, it has yet to extend a similar goal to the digital world. The Internet and all of its functionality is not available to all citizens, which constrains their ability to reap its economic benefits. This lengthening tail of digital refugees will continue as the digital revolution progresses.
- Threats to equal and fair access to the Internet – The principle of “network neutrality,” which promotes equal access and fair treatment of network traffic, is threatened. Individuals and businesses have no guarantees that platforms will provide them the equal treatment without preference and the same choice of control over services. A recent American University study on Washington D.C.-area residents found that poorer neighborhoods in the city received poorer broadband quality per dollar than near-by suburban customers.⁶¹
- Lack of adequate privacy, confidentiality, dependability, and security – Many citizens remain concerned about adequate levels of privacy, confidentiality, dependability, and security in digital communication and transactions. Concerns over the control of sensitive information, the potential for involuntary profiling of consumers and the placement of tracking cookies, as well as the implications of further developments in technology, are issues in developing these standards.
- Digital infrastructure limitations and the transient nature of business – The digital infrastructure has limitations in connectivity and bandwidth, and is in some cases, provided by companies that could fail, stranding its customers. Rapid changes in technology and consumer behavior can affect the level and breadth of demand on a given platform. Consistency and permanence are powerful forces.
- Information overload – A lack of adequate personal information management tools makes it difficult to deal effectively with the excess of electronic communications and applications. A curator for personal information, storing financial transactions, health records, and other key data, and providing efficient delivery of information when needed is lacking.
- Insufficient availability of affordable digital currency exchanges – Consumers without ready access to online financial tools are at a disadvantage in the digital world. They do not have access to affordable digital currency and secure and convenient methods to transact online. They must pay predatory fees to convert digital money into cash and vice versa. As the eCommerce choices increase for

⁶¹ Benjamin Orr, “Do Low-Income Households Get Slow Broadband by Design?” *The New Republic*, February 28, 2011. <http://www.tnr.com/blog/the-avenue/84325/do-low-income-households-get-slow-broadband-design>

consumers globally, there is a corresponding need for seamless cross-border payments.

- Limited choice of communication and transaction channels – As companies push consumers into digital-only communications, consumers see their choices limited, or even face complete withdrawal of the physical option. What might have been originally offered as an additional option for the consumer could become a new way for companies to control communications.

These challenges and gaps present market opportunities for the Postal Service. Over the past two centuries, the Postal Service has provided a secure, universally accessible platform for physical commerce and communications. The opportunity exists for the Postal Service to extend its trusted intermediary role into the digital age and act as a “bridge” to facilitate the advancement of access to the Internet and develop a “trust portfolio” of digital postal services.

This role may take on many different forms, but by working with leading communication service providers and applications developers, the Postal Service has the opportunity to shape and enforce industry standards that would fill some of the identified gaps in the current digital marketplace. The Postal Service can leverage its assets and work with other government agencies and private sector providers to serve as a bridge between the physical and digital worlds.

Does the Postal Service Have the Pertinent Core Competencies and Assets?

The Postal Service has delivered correspondence and commercial transactions -- letters, periodicals, catalogs, and packages -- across the domestic and global channels for more than two centuries. These core competencies and assets from its traditional business operations could position the Postal Service to enable the distribution of digitized products as effectively as it has distributed traditional physical items. It would still fulfill the role as the provider of last resort for those who have fewer choices.

- A history as a trusted intermediary – For the past 236 years, the Postal Service has adeptly executed its mission “to provide postal services to bind the Nation together through the personal, educational, literary, and business correspondence of the people.” It has provided “prompt, reliable, and efficient services to patrons in all areas and (has rendered) postal services to all communities.”⁶² In the 21st Century interpretation of its 18th Century mission the Postal Service serves as the official national platform for the secure distribution of society’s communications and commerce throughout the postal ecosystem, linking industries to the American public.
- A position of legal standing for postal communications – The Postal Service’s position as a standard for communications is recognized by every level of government as well as the courts. The postmark placed on mail is commonly recognized as a date stamp for everything from tax returns to legal filings. Mail also has legal protection, as unauthorized opening or tampering with the U.S.

⁶² 39 U.S.C. § 101.

Mail™ is considered a federal offense. First-Class Mail® is considered “sealed against inspection,” a law dating back to colonial times protecting the mail from theft, interference, fraud, and forgery.

- Experience in developing and running a national address management system – The Postal Service has established an addressing system that identifies each delivery point, or address, in the country so mail reaches its intended recipient, whether sent to a household or business. Relying on a set of addressing standards, it securely maintains and updates this vast national database. In addition, the values of affordability, reliability, universal accessibility, and security as promised and provided by the U.S. government, are critical and must be preserved in any interpretation of the Postal Service mission.
- A critical mass of customers – The Postal Service has the largest customer base in the nation. Every household and every business sends or receives mail on a daily basis, providing a truly national as well as local presence. In providing this wide customer base with a uniform range of products and services, the Postal Service has also gained experience in rolling out products from a small scale to the national level. While other companies may propose and launch new ideas before the Postal Service, few have the capabilities or infrastructure to serve every household and business.
- Facilitating communications in the first and last mile – While there is a cost to meeting its Universal Service Obligation, the Postal Service also derives benefits from its experience in the first mile (receiving mail and parcels) and last mile (delivering mail and parcels). As a result, competitors in parcel delivery regularly outsource returns and some residential deliveries to the Postal Service. Furthermore, daily delivery to every address enables the Postal Service to more efficiently maintain and update its address management system.
- Acting as the last resort provider at the lowest combined cost – By outsourcing to or collaborating with private companies as well as investing in technologies and strategies to improve internal efficiencies, the Postal Service keeps prices affordable for mailers and consumers by introducing and adopting “worksharing.” The Postal Service offers an unbeatable combination of low prices with efficient delivery, unmatched anywhere in the world. This experience could be transferred to online operations and offerings.
- Experience with currency transactions – The Postal Service has a long history of acting as a last resort provider for currency transactions. Domestically, postal money orders have been offered for nearly 150 years. Internationally, the Postal Service offers money orders to 30 countries and wire transactions to 10. Postal Service clerks have amassed significant experience in this line of products over the years, enhancing its role as a trusted intermediary in handling currency transactions.

What Policy Implications Need to be Considered?

The Postal Service served as a platform in its traditional role of providing a physical infrastructure to facilitate communications and commerce throughout the United States. From a policy perspective, the question is whether the Postal Service should play a similar role in the digital space.

Certainly, there appears to be a national need to provide a digital platform with the trademark characteristics — affordability, reliability, universal accessibility, and security — of the Postal Service physical platform. As part of this strategy’s guiding principles, this paper presents the following core questions:

- Is the application in the public interest? – Generally, the government provides services as a last resort when the role cannot or will not be easily filled by the private sector. If the Postal Service fills one of the many gaps or shortcomings in the digital space, would this be an appropriate role for the U.S. government? If so, is the Postal Service the best agency for that role or is there another governmental entity with sufficient core competencies to fulfill the role or provide the service?
- Is the application appropriate for USPS? – Would the Postal Service be in direct competition with private companies or is this a product or service not being adequately provided in the market currently? Could this be an opportunity for a strategic partnership or cooperative effort combining the Postal Service’s core competencies with private sector innovation?
- Is the application needed to assure the Universal Service Obligation? – Does the application support the core mission of the Postal Service, which is to bind the nation together through personal, educational, literary, and business correspondence? Would the digital application be a natural extension of a product or service already provided in the physical world and part of the portfolio of products accessible to every American household and business?
- Would a policy change be required? – Some services are already offered by the Postal Service in some capacity. Would adding additional features require approval? Does the application meet the Postal Accountability and Enhancement Act’s (PAEA) definition of a postal service (defined as “the delivery of letters, printed matter, or mailable packages, including acceptance, collection, sorting, transportation, or other functions ancillary thereto”⁶³)? Could some of these applications be classified under “ancillary service” provisions while others could perhaps meet the criteria to be tested as experimental products?⁶⁴ Would the Postal Service need changes in policy to pursue the application?

⁶³ 39 U.S.C §§102-105.

⁶⁴ The Postal Accountability and Enhancement Act, Section 203, §3641 describes the conditions necessary for carrying out a market test for experimental products. Among other requirements, the product must be “significantly different” or novel and cannot create an unfair or inappropriate competitive advantage.

Two critical questions must be answered by policymakers and the Postal Service, but are outside the scope of this paper. They include:

- Does the application fit the definition of a postal product or service? – Current laws restrict the Postal Service from providing nonpostal services, which have traditionally been associated with the transport and delivery of physical mail. Would new applications in the digital space fit a modern definition of a postal product or service? Is the application already being pursued by the private sector and is there already a product or service commercially available?

Is the application relatively feasible? – Would the Postal Service be able to implement an initiative in a timely enough manner for it to have a reasonable chance of success? Would the application generate revenue or at least break even over 5 years? Does the Postal Service have the internal expertise (or organizational structure) or could it easily collaborate with a third party to develop the service? The eMailbox Foundation and the Postal Platform

Critical to the postal strategy is the development and deployment of an “eMailbox.” The eMailbox would serve as a foundation to capitalize on the range of possible initial applications outlined in the succeeding section.

Features of the eMailbox Foundation

The eMailbox would serve as a single official U.S. Mail branded e-mail box at a secure website. Individuals could collect all daily mail from their eMailboxes. The standard features of the eMailbox would include:

- Every individual would have a permanent single eMailbox address.
- eMailbox addressing standards would be officially established and maintained in the same manner as current Postal Service ZIP Code addressing standards.
- With the eMailbox as the foundation for the electronic platform, the Postal Service would then have the ability to deliver both physical and electronic items and facilitate the receipt of the messages in both electronic and physical formats.
- The eMailbox allows the receivers to choose to receive mail from individual senders by either physical or electronic delivery. The receivers would have the opportunity to opt in and transition to full electronic delivery at their own pace.
- Using the link to the physical mailing address, commercial mailers would maintain uninterrupted customer contact.
- Most individual physical delivery addresses would have multiple residents, each requiring a unique eMailbox address.
- With anywhere, any device access, it provides those without a permanent address the ability to move into the digital economy and avoid the additional costs associated with paper mailings.
- Mail recipients would be provided with the online tools to easily manage their mail delivery options and channels, such as changing physical addresses when moving or holding and forwarding mail when away.
- Mail recipients could express channel preferences to mailers for mail content received. For example, a customer interested in receiving coupons from a local grocery store could choose to receive them electronically at their eMailbox rather than in paper form.

Address-coupling technology, which connects physical and e-mail addresses, exists and applications are currently available in the U.S. mail market, as offered by Zumbox. Other solutions from postal service providers and foreign postal operators will soon be available. Pitney Bowes has announced its “integrated” addressing concept called Volly™, while Hearst is rolling out Manilla. Norway Post recently launched its Digipost digital mailbox service as well.

The Postal Service will need to analyze and determine the type of nomenclature or top-level domain name for the eMailbox. E-mail addresses could use the well-known .com or .gov or the new top-level domain name .post, which was approved for use by postal operators and managed by the Universal Postal Union (UPU), a technical agency of the United Nations responsible for the regulations and standards of international mail.⁶⁵ While the .post project has multiple applications in eGovernment and eCommerce, the domain name could serve as a critical component of the overall platform.

Developing a Postal Platform

The first step in platform development is trade marking. Such a step is necessary to ensure full protection and preserve its exclusive designation as a trusted intermediary and enabler for the businesses and individuals utilizing it. The Postal Service has a great deal of experience in registering and enforcing trademarks for a wide range of products and services. This “USPS Platform” would be universally recognized just as the iPhone App Store is trademark-protected by Apple® Inc.

The second step is establishing standards and systems for operating on the platform. The standards requirements would need to be approved by Postal Service management and conform to U.S. regulatory bodies and national and international standards organizations. These could encompass everything from cyber security to Internet Protocol addressing requirements to adhering to Payment Card Industry Data Security Standards. The Postal Service would also determine the types of systems and applications suitable for the platform. Finally, the platform would be open to all. The cooperative outsourcing spirit of worksharing on the physical mail platform should expand to the digital platform.

The Three-Layers Approach

The applications would be developed within three layers (see Table 1). The Platform Infrastructure layer is the core of the approach providing the hardware and tools that are open for others to leverage. For Apple, this would include its all-important iPhone and iPad platforms, while for the Postal Service this would mean such core assets as its address management database, the retail network and track and trace systems. The Entrepreneurial layer forms a stratum atop the platform infrastructure and allows individuals and businesses of all sizes to utilize existing infrastructure to create new

⁶⁵ Universal Postal Union, “ICANN Grants UPU .post top-level domain,” news release, December 11, 2009, <http://www.upu.int/en/media-centre/news/union-postale-emag/underway-news/category/technology/article/52/icann-grants-upu-post-top-level-domain-1.html>.

value. Apple’s vast array of 350,000-plus iPhone apps provides the best example. Comparable examples for the Postal Service would be Intelligent Mail barcodes and worksharing.

The Strategic Alliance and Network layer makes up the last component, which creates a broad system of alliances and networks between the owner of the core assets and the players on the platform. In Apple’s case, this is illustrated through its maintenance of the App Store, where users, entrepreneurs, and other players partner with Apple and amongst themselves to develop an entire subsystem of applications, accessories, and other offerings composing an entire community. For the Postal Service, this would include senders and addressees as well as third-party players from across industry and government collaborating, partnering and even co-branding applications.

Table 1: The Three Layers of the Postal Platform

Layer	Characteristics	Examples
Platform Infrastructure	The Postal Service provides the foundation as well as defines the standards and types of systems that can be used	iPhone, iPad, and iPhone App Developer Kit
Entrepreneurial	Businesses of every size and individuals create value on top of the provided platform	iPhone Apps
Strategic Alliance/Network	The Postal Service partners with key industry players in creating mutually beneficial products and services through business relationships that grow the ecosystem through outsourced, co-branded, and private label products	Apple community of businesses and consumers

If services such as these were enabled on the postal platform and endorsed, facilitated, and promoted by the Postal Service, consumer adoption would likely be achieved at a higher rate. Not only would the powerful promotional reach of the Postal Service brand be significant, its official endorsement and authorization would serve as the stamp of approval and extension of the all-important element of trust.

The highly successful, fast-growing online postage program offers a precedent for the Postal Service to license applications from third parties. Consumers and small businesses alike are buying postage online from applications provided by approved vendors such as eBay, Endicia[®], Pitney Bowes, and Stamps.com[®]

Initial Digital Applications

This section identifies and analyzes the seven applications the Postal Service could develop, in addition to its established suite of electronic services, to extend its physical postal platform into the digital realm. Some should be seen simply as responses to customer-service demands. Others may amount to new revenue opportunities. Several may fall outside of its current allowable operating authority, but still should be considered.

Finally, some applications may be provided by other government agencies, private businesses, and emerging entrepreneurs. In this case, the Postal Service could act as an impartial enabler, collaborator, or advocate. All would be contingent upon connecting an individual's physical address to an e-mail address for each registered individual.

Table 2 provides an overview of the initial applications discussed in this paper. It also provides a summary of our analysis (based on the guiding principles) on why the Postal Service is in the best position to pursue these applications. The public policy implications and options are discussed in detail in the Appendix. Those require critical deliberations. Unlike a private company, the Postal Service is not free to design and implement an e-business strategy as it deems fit. Any strategies or services must be consistent with existing public policy and regulatory constraints, or must await changes to allow the Postal Service to undertake them.

While the Postal Service has offered some of these products on a smaller scale in the past, others are new and would require development and cooperation with third parties. Overall, the digital initiatives that appear to be the best fit for the Postal Service can be categorized into three groups: those related to the Postal Service's physical delivery of mail, those that would address gaps in the digital space, and those that would deliver government services and information through a combination of physical and electronic means.

Section 101 of the PAEA defines postal services as "the delivery of letters, printed matter, or mailable packages, including acceptance, collection, sorting, transportation, or other functions ancillary thereto." The term ancillary has not yet been fully defined through the regulatory filing process so that many of the proposed digital products and services may supplement or be a natural extension of current products and services. For other initiatives, new statutory authority may be necessary. Ongoing legislative debates provide the Postal Service with an opportunity to make its case to policymakers to seek the necessary changes.

Table 2: Opportunity Checklist

Opportunity	Description	Why use the Postal Service?	Public Policy Criteria			
			In the public interest?	Appropriate for USPS?	Related to USO?	Requires policy change?
Coupled Physical and e-mail Address: "eMailbox"	Enable individuals with an authorized U.S. Mail physical address to have an eMailbox address.	<ul style="list-style-type: none"> ▪ Address data ▪ Identify individuals & establish electronic connection ▪ Brand/Reach 	Yes	Yes	Yes	Possibly Yes
eGovernment Platform	Enable a common transaction platform for government services.	<ul style="list-style-type: none"> ▪ First & Last mile connection ▪ Physical locations ▪ Identity Validation ▪ eMailbox 	Yes	Yes ⁶⁶	Yes	No
Identity validation, privacy protection, and financial security	Enable identity validation by linking the physical identity to the eMailbox.	<ul style="list-style-type: none"> ▪ Address data ▪ Physical locations ▪ eMailbox 	Yes	Possibly Yes	Yes	Yes
Hybrid and Reverse Hybrid Mail	Convert digital documents to physical and vice versa for senders and receivers.	<ul style="list-style-type: none"> ▪ First & Last mile connection ▪ Physical locations ▪ eMailbox 	Yes	Possibly Yes	Yes	Possibly Yes
Enabling eCommerce	Connect senders and receivers physically and electronically to offer returns, landed cost, and payment solutions.	<ul style="list-style-type: none"> ▪ First & Last mile connection ▪ Physical locations ▪ Brand/Reach ▪ Identity Validation ▪ eMailbox 	Yes	Possibly Yes	Yes	Possibly Yes
Digital Concierge	Provide tools to help individuals manage their communications across all channels.	<ul style="list-style-type: none"> ▪ First & Last mile connection ▪ Brand trust ▪ Physical locations ▪ eMailbox 	Possibly No	Possibly Yes	Possibly Yes	Yes
Digital Currency Exchange	Mechanisms to conduct financial transactions at post office locations and on-line.	<ul style="list-style-type: none"> ▪ First & Last mile connection ▪ Brand trust ▪ Physical locations ▪ Identity Validation 	Yes	Possibly Yes	Possibly Yes	Yes

Coupled Physical and E-mail Address

Connecting a physical address to an e-mail address is the underpinning of the overall digital platform expansion. The key features of the coupled address and creation of an eMailbox are explained in detail in the preceding section on the eMailbox Foundation and the Postal Platform.

eGovernment Platform

A natural domain for the Postal Service to establish itself is within the U.S. Government. It should begin with binding government entities with each other as well with their

⁶⁶ Though an eGovernment services platform is not defined under PAEA, the Postal Service is allowed to provide services to other government agencies.

constituencies. Federal departments and programs, such as the Internal Revenue Service, Social Security Administration, Medicare, Veterans Administration, and U.S. Census Bureau, depend upon the Postal Service to reliably deliver confidential communications, personal data, and financial transactions to residents. However, government agencies are initiating digital communications strategies to both cut costs due to growing budgetary constraints and enhance customer service. If government entities were to invest in separate digital platforms, taxpayer funds would be wasted. The Postal Service enjoys a high level of trust amongst hundreds of millions of recipients of government-originated mail, not to mention the government agencies themselves. These essentials would continue as part of the digital postal platform available to all entities.

Secure National Database

In addition to facilitating communications and managing the flow of data between agencies across the postal platform, the Postal Service is the ideal agency to store the personal digitized data of the nation's citizens. Through its hosting of the physical address files for every business and household in America, it has proven the value of a consolidated centralized national database securely managed according to strict standards.

As the most trusted federal agency⁶⁷, the Postal Service should serve its citizens as the secure connection to other centralized federal government personal databases, such as social security, law enforcement, veterans, passport, etc., as well as state voting, driving, education, and real estate records. A trusted centralized access point to personal consumer data, such as credit and health records, would also be appealing to many on an opt-in basis.

Getting started with eGovernment

A Postal Service platform strategy would synchronize well with an overall eGovernment strategy. Given the current absence of such a plan, the Postal Service could seek the creation of an interagency task force charged with defining a comprehensive eGovernment approach. The Postal Service could be at the forefront of implementation efforts with respect to reaching the U.S. population. In particular, the Postal Service could assist other agencies in determining the appropriate mix of digital and hard copy outreach to Americans, and could be the vehicle for delivering those communications, perhaps pairing online efforts with kiosks that would be located in Post Offices in areas with limited broadband access.

Of course, in developing an eGovernment-wide strategy, it would be important to work in concert with other government agencies in developing their outreach strategies and with the existing agencies that already have some jurisdiction in the digital space, such

⁶⁷ Ben Bain, "For privacy protection, survey says this agency delivers," *Federal Computer Week*, June 30, 2010. <http://fcw.com/articles/2010/06/30/web-federal-agencies-privacy-trust-survey.aspx>.

as the Federal Communications Commission, Federal Trade Commission and the National Telecommunications and Information Administration.

A lengthy analysis of eGovernment services is unnecessary; PAEA's definition of postal services, as detailed in a recent study by the Institute for Research on the Economics of Taxation (IRET), states, "The law permits the [Postal] Service to provide nonpostal services to other government entities."⁶⁸

Furthermore, an eGovernment initiative could be a major component of an overall government services strategy – something that several observers have suggested as a logical opportunity for the Postal Service to pursue. For example, Postal Regulatory Commission Chairman Ruth Goldway, in December 2, 2010, testimony noted: "In general, Postal Service 'federal' agreements have increased the availability of government services for residents, added operational flexibility for government agencies, and provided incremental revenue to the Postal Service. Appropriately applied, such arrangements promise to be similarly beneficial at the state and local level."

Tools for Identity Validation, Privacy Protection, and Transaction Security

The Postal Service has earned its reputation as the most trusted federal government agency by being a reliable delivery partner for 236 years. Customers will regularly drop their most personal secrets and prized possessions "in the mail" without reservation. Moreover, federal law protects the items they send.

Identity Validation

Security is fundamental to the current postal platform and must be a significant part of the digital platform. Given the current gaps in the digital world, the digital postal platform can be part of an overall solution to close these gaps. Working with the Department of Commerce, the Postal Service could help enable the National Strategy for Trusted Identities in Cyberspace, a federal initiative designed to improve the security and convenience of online transactions. By leveraging the existing assets — namely the address database and physical post offices across the country — in combination with future assets such as the eMailbox, the Postal Service could enable both identity authentication and identity validation. With capabilities for end-to-end identity assurance, the platform will facilitate individual identity management and, with the right partners, increase the potential for privacy and financial transaction security. This authorization can then be used to enable financial transactions and further enhance the digital economy.

⁶⁸ Michael Schuyler, "Opportunities for the Postal Service to Deliver Nonpostal Government Services," IRET Congressional Advisory No. 270, Institute for Research on the Economics of Taxation, November 30, 2010, <http://iret.org/pub/ADVS-270.PDF>.

Privacy

Privacy is another physical attribute that does not yet exist with full assurance in the digital world. The Postal Service could use its reputation to influence the development of trusted privacy applications while advocating for consistent consumer rights across the platforms. In a December 2010 decision,⁶⁹ a federal appeals court ruled that there are fundamental similarities between e-mail and traditional forms of communication such as postal mail and telephone calls and declared that e-mail should be afforded the same Fourth Amendment protections against unreasonable searches and seizures.

Yet, for some people, the lack of adequate privacy when communicating on the Internet tops their list of concerns. In fact, as a key element of digital postal platform, security represents the widest gap in the digital divide.

Transaction Security

With all its acknowledged and proven advantages such as cost, convenience, and speed of execution, the Internet presents significant risks for users. Many commercially available Internet security tools exist to protect against a growing market in “cyber crime” and they are largely effective. However, they do not hold the level of trust that consumers have in the Postal Service.

There remains a struggle between those who develop secure financial transaction software and those who try to exploit its weaknesses. In order to evolve into a cashless society, the infrastructure requires innovations in both currency and security of payments. New developments in e-currency will need to combine ease of use with the security features demanded by consumers. The fear of having credit card data stolen remains an issue for all Americans whether a Baby Boomer or a member of Generation Y.

In cooperation with private-sector innovators, the Postal Service already has enabled the development of online postage payment applications; in fact, these have become one of the most popular retail postal applications. The Postal Service has the opportunity, influence, and credibility to advocate for the development of security tools for its digital postal platform by entrepreneurs, established private businesses, and other government agencies.

Hybrid and Reverse Hybrid Mail

Echoing investments and the direction of other posts, the Postal Service should consider expanding hybrid mail applications as an early step on the bridge across the digital divide.

⁶⁹ For more information, see *United States v. Warshak*, Sixth Circuit Court of Appeals, December 14, 2010, <http://www.ca6.uscourts.gov/opinions.pdf/10a0377p-06.pdf>.

- Digital to physical – Hybrid mail typically begins as a digital document, such as an invoice, that is securely transmitted to one of many remote printers located closer to the recipient’s address (its final destination). There it becomes a physical document and is inserted into an envelope, presorted, mailed, and delivered conventionally by letter carrier. Another approach allows a consumer or small business to access a web-based template for printing and mailing photo postcards or direct marketing pieces from a central location. The Postal Service maintains strategic partnerships with a number of companies in this area including Click2Mail™, Cardstore.com, and PremiumPostcard. Other third-party providers of these services include Pitney Bowes 1ntegrate, Immediate Mailing Services, and DigitalToPrint, which specializes in distributing hybrid mail overseas.
- Physical to digital – Reverse hybrid mail begins as a conventional letter received at a central location, where it is scanned and made available to the addressee on a secure website or delivered to the e-mail address. The recipient can then view, forward, discard, or store it like other document files. A service like this is commercially available in the United States from Earth Class Mail and offered in Europe by SwissPost.

Hybrid and reverse hybrid mail are applications that are facilitated by having both physical and electronic platforms and further encourage innovation to pair physical mail with its digitized counterpart and electronic mail with its physical equivalent. When paired with an eMailbox, this hybrid focus would further enhance the value of the electronic platform and connect more people to the network.

In these applications, hybrid mail employs the convenience, low cost, perceived environmental benefits, and speed of digital transmission and display, with the desired appeal and familiarity of conventional letters and cards. Reverse hybrid mail empowers the consumer, particularly those that have made the full leap to digital, to receive their physical mail in digital form. This is particularly attractive to traveling executives and for businesses attempting to reduce mailroom costs.

Enabling eCommerce

eCommerce and mobile commerce (mCommerce) markets are growing globally. For many consumers and businesses alike, this market has several key barriers that are curtailing its full development.

For potential e-tailers developing an end-to-end solution can be a challenge even though the eCommerce value chain is well understood and many companies offer services for: marketing and merchandising; on-line ordering and payment; warehousing, pickup, pack, and ship operations; residential delivery; customer service; and returns. However, many smaller e-tailers face serious challenges in integrating multiple services efficiently. For both consumers and businesses, international transactions are complex and costly.

Most U.S. websites do not accept orders for delivery to international addresses or payment by foreign credit card. Fewer offer efficient and cost-effective solutions for “fully landed” or true cost pricing, which includes paid duty, taxes, customs fees, insurance, and residential delivery charges. Even for domestic orders, several issues challenge consumers: inadequate visibility into the status of their order, lack of real-time notification and options to redirect delivery, and finally, limited ability to effectively and efficiently manage returns. The growth for global eCommerce depends on the seamless integration of ordering and payment across borders.

The Postal Service platform is well positioned to connect the dots between senders and receivers both physically and electronically. The platform can host applications that remove some of the barriers to effective eCommerce and mCommerce. Outside third parties will best provide some applications, but in other instances, the Postal Service may be in a position to provide the solution itself.

- The Postal Service currently facilitates convenient parcel return services, including pick up by carrier and acceptance at retail outlets. Valuable consumer data about returned merchandise would enhance returns management solutions.
- The Postal Service would facilitate the incorporation of landed cost applications and solutions as a component offered to its business customers, thus enabling growth in parcel exports on the digital postal platform. Several applications already exist such as Borderfree and Clearpath.
- The most significant hurdle to further eCommerce growth is online payment. Fearing identity theft, consumers are reluctant to share personal financial information on the Web.⁷⁰ The Postal Service is in a position to offer a variety of solutions bridging the physical and electronic worlds. It could emulate Itella’s (Finland Post) NetPosti and have electronic invoices sent to eMailboxes for secure online payment. Australian Post, which recently acquired a payment platform provider, offers another model for developing this critical function. The Postal Service has already demonstrated its expertise in managing secure online payments through millions of online transactions daily, many of which are facilitated on its platform by licensed third parties.

Digital Concierge

With the vast amount of information available on the Web and the explosion of e-mail, texting, Tweets, and other communications, users have been bombarded with information. In addition, as many utilize web applications for personal business, they are increasingly concerned about limiting the amount of information they share online⁷¹ and with whom they share it. Individuals are seeking some sort of balance between sharing

⁷⁰ Chloe Albanesius, “Study: Generation Y Taking Online Privacy to Heart,” *PC Magazine*, May 27, 2010. www.pcmag.com/article2/0,2817,2364227,00.asp.

⁷¹ Ibid.

information, filtering messages, and the ability to protect privacy.⁷² Some recent innovations are focused on developing applications and services that help people decipher the “good from the bad” and organize electronic data in a way that increases their Internet productivity.

The Postal Service has an opportunity to enhance its relationship with these individuals. It can leverage its trust in establishing a safe “lockbox” which would serve as a type of curator for personal information ranging from financial payments and health records to legal documents and electronic backups of personal papers. While most payment sites, banks, and other online sites leave critical data on the providers’ sites, the lockbox would allow consumers to maintain personal records on a personal site. The lockbox would not only provide a high level of security, but also the means to share information efficiently and quickly when needed.

Acting as the Digital Concierge, the Postal Service would leverage its experience with individual consumers to ensure they receive what they want, when and where they want it. This role leverages the trust, brand, and first mile/last mile presence. The Postal Service is in an ideal position to serve as a trusted gatekeeper that preserves identity and privacy while simultaneously facilitating personalized and targeted messages.

Digital Currency Exchange

Opportunities may also exist for the Postal Service to aid secure financial transactions on its digital postal platform, moving beyond its historical role of issuing money orders and providing electronic international money transfer services through Sure Money (Dinero Seguro) with its partner, Bancomer. The Postal Service has experience with reloadable stored value cards, though it discontinued them in 2003. Additionally, billions of dollars in postage payments are already electronically transferred between commercial customers and the Postal Service each year. Businesses and consumers trust that their financial transactions with the Postal Service are secure.

Digital technologies could allow the Postal Service to expand its trusted role as a provider of online currency transactions to underserved markets. Facilitating international eCommerce transactions have been discussed in the Enabling eCommerce section.

Helping the Unbanked

In the spirit of its serving as the postal “provider of last resort” ensuring that “no-one is left behind,” the Postal Service would help to facilitate financial transactions on its platform for individuals without bank accounts or credit cards. Offering financial transactions both at post office locations and online would provide a valuable service to this segment of society that is often overlooked. A growing proportion of U.S. citizens are unbanked, including working families, new immigrants, unemployed, homeless, or

⁷² Organisation for Economic Co-operation and Development, *The Economic and Social Role of Internet Intermediaries*, April 2010, <http://www.oecd.org/dataoecd/49/4/44949023.pdf>.

non-credit worthy individuals. They need easier access to payment systems in order to transfer funds on prepaid debit or stored value cards to cash or vice versa. The Postal Service would use its identification verification skills, as it does with passport applications, to facilitate authenticated cash or prepaid debit card disbursements from state and federal agencies to these individuals at local Post Offices.

One somewhat surprising disruptive digital phenomenon is that while many individuals may be unbanked, they often have mobile phones. In some African and Asian countries, mobile phones have already become the primary means of payment and access to cash. Examples of this service include M-Pesa, Kenya's highly successful mobile money transfer service, and Obopay, a similar service now offered in the United States. While these services facilitate the transfer of funds from one phone to another, they require retail facilities for receiving and disbursing cash. Post Offices, already well experienced in handling money orders, would provide convenient and trusted outlets to facilitate such financial transactions.

Conclusion

The Postal Service should consider addressing the inevitable digital disruption and radical transformation of the postal ecosystem in America. It has the legacy of serving the nation as a communications platform and it can continue to serve all of its customers with access to physical as well as digital postal products. Given the rapid changes in technology and consumer behavior, the Postal Service would benefit from identifying a lead functional area where it could devise and implement a digital strategy. It can start by studying the feasibility of some of the prospective applications identified in this white paper, particularly the eMailbox foundation and eGovernment applications. Some of the other applications may meet the criteria of an "ancillary service" though this classification process remains open to interpretation.

The Postal Service has the opportunity to extend its national platform into the digital world and enable traditional service providers, as well as new entrepreneurial "applications developers," to generate a wide array of additional physical and digital postal services to meet the present and future needs of digital natives and digital migrants. The framework outlined in this paper is not a cure all for solving the Postal Service's ongoing financial difficulties. However, by embracing a digital strategy, the Postal Service would be providing needed solutions through a suite of digital products and services. It would modernize a vital part of our national infrastructure and ensure that all Americans have the opportunity to access an innovative postal platform that reflects America's position as a technology leader.