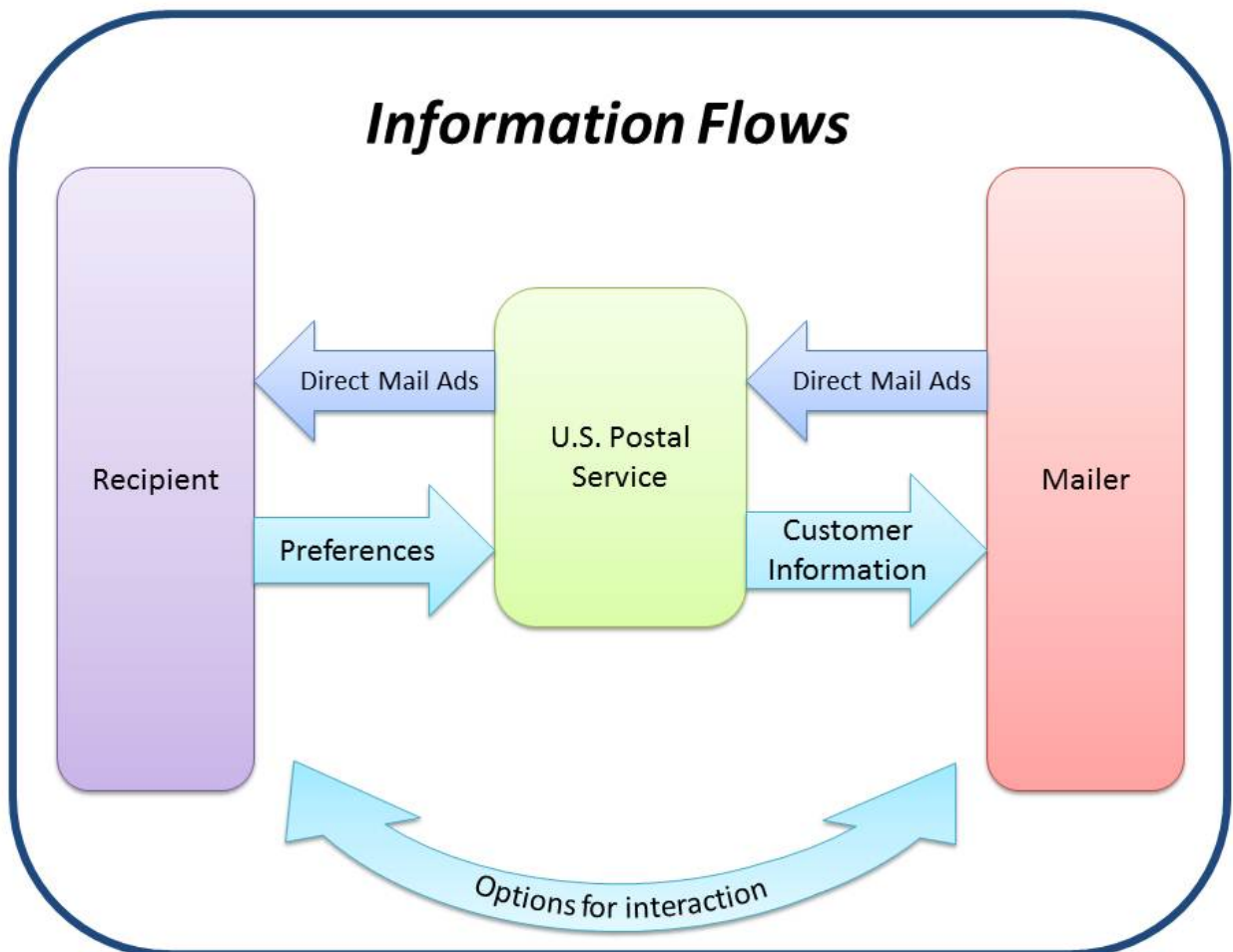




# Strengthening Advertising Mail by Building a Digital Information Market

December 11, 2013





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Advertising mail is a significant source of revenue for the Postal Service. It generated \$16.9 billion in fiscal year 2013. Moreover, advertising mail has so far maintained its market share, despite radical changes in the advertising market. However, this resilience may not continue forever. Some digital methods of advertising offer more robust ways than direct mail to gather recipient feedback. The Postal Service cannot afford to be complacent.

A key part of advertising is gaining individuals' attention, and the study of attention and its role in the economy is known as attention economics. The U.S. Postal Service Office of Inspector General asked two experts in attention economics, Marshall Van Alstyne of Boston University and Geoff Parker of Tulane University, to analyze the advertising mail market and suggest ways to strengthen advertising mail.

They identified the lack of a robust digital feedback loop between recipients and senders as a critical gap. They suggest expanding the Postal Service's hard copy platform for advertising mail into a digital information market. Participation by recipients would be voluntary, and there would be clear privacy guidelines. Recipients could scan a code or symbol on advertising mail pieces with their smart phones or tablets and access an interactive system for providing feedback on the mail piece. Those recipients who gave feedback would receive an

### Highlights

**Maintaining the health of advertising mail is a strategic imperative for the Postal Service.**

**Advertising mail has important strengths, particularly tangibility. However, the ability to build a two-way link to recipients is not as robust as in digital advertising.**

**The Postal Service could digitally enable hard copy mail by building a digital information market. Mailers would place a code or symbol on advertising mail pieces. Recipients would be rewarded for scanning the code with their smart phone and providing feedback.**

**The information market would encourage recipients to share their preferences, using clear opt-in and privacy guidelines. It could provide a "win-win-win": increasing the value of the mail to the mailer, recipient, and Postal Service.**

Information Coupon (Info-Coupon) that could be redeemed for merchandise or services from a variety of vendors participating in the program.

A digital information market would improve the value of the advertising mail channel for senders, recipients, and the Postal Service. Mailers could use the feedback to determine recipients' preferences about particular forms of advertising. This would allow mailers to target more precisely and improve their return on investment. Recipients would be rewarded for participating in the market through the Info-Coupon. The direct mail they received would also better reflect their interests. The Postal Service would benefit from the improved value of the advertising mail channel. If the market were well structured, its creation could be a win-win-win for everyone.

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# Strengthening Advertising Mail by Building a Digital Information Market

Advertising mail, also known as direct mail, is one of the Postal Service's core products. Standard Mail, which includes both advertising and nonprofit solicitations, generated \$16.9 billion in revenue and represented more than half of mail volume in fiscal year (FY) 2013.<sup>1</sup> As First-Class Mail continues to decline, Standard Mail will become increasingly important to the sustainability of the Postal Service's network.<sup>2</sup>

## Three Current Strengths of Advertising Mail

Surprisingly, despite the radical disruption of the advertising market unleashed by the Internet, advertising mail has held its market share against other forms of advertising remarkably well. The digital revolution has significantly disrupted many traditional vehicles for hard copy advertising, such as newspapers and magazines, yet Standard Mail revenue has held steady at approximately 10 percent of total advertising spending for the past 20 years.<sup>3</sup>

Despite the radical disruption of the advertising market, advertising mail has held its market share remarkably well.

The secret of this success lies in advertising mail's three distinct characteristics:

1. **Tangibility** – Many recipients like to hold or touch catalogs, coupons, and offers. This tangibility is a significant asset. Neurological research has shown that the brain has a stronger physical reaction to hard copy mail than the same information presented electronically.<sup>4</sup> Advertising mail shares tangibility with other forms of print media.
2. **Targetability** – Mailers can send their ads to customers with whom they have a previous business relationship, or they can seek prospective new customers by using demographic information to select mail recipients. They can also send ads to recipients in a particular geographic area, which is especially useful for local businesses who are trying to attract and retain local customers. Targetability is

<sup>1</sup> U.S. Postal Service, Form 10-K Fiscal Year 2013, <http://about.usps.com/who-we-are/financials/10k-reports/fy2013.pdf>, pp. 23-24.

<sup>2</sup> Although the vast majority of advertising mail is sent via Standard Mail, First-Class Mail also contains some advertisements and may offer an additional opportunity.

<sup>3</sup> U.S. Postal Service, "Responses of the United States Postal Service to Questions 1-9 of Presiding Officer's Information Request No. 1," Postal Regulatory Commission Docket No. R2013-11, October 30, 2013, <http://www.prc.gov/Docs/88/88168/POIR.1.Resp.pdf>, 4(c).

<sup>4</sup> U.S. Postal Service Office of Inspector General, *Enhancing Mail for Digital Natives*, Report No. RARC-WP-14-001, November 18, 2013, [http://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-14-001\\_enhancing\\_mail\\_for\\_digital\\_natives.pdf](http://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-14-001_enhancing_mail_for_digital_natives.pdf), p. 5.

also a feature of digital media. Other forms of advertising are targetable to a lesser degree.

3. **Measurability** – Mailers collect data on who responded to their advertising campaign. Some mailers, or third party firms, merge response and purchasing information with other customer data to predict specific customer responses to different campaigns. The sophistication of measurements varies. At the high end, measurability can involve complex analytics, using proprietary company data and software. More basic forms of measurability can simply involve counting the number of coupons redeemed at a local shop. Digital media is highly measurable, as advertisers can easily create a two-way link to gather feedback from those they target.

Direct mail's unique combination of tangibility, targetability, and measurability creates a strong product that has been resilient, despite the fast-paced growth of newer advertising channels. However, the Postal Service cannot afford to be complacent about the future of advertising mail. As individuals become increasingly comfortable with digital media and digital advertising channels continue to develop, paper advertising sent through the mail may start to lose market share to other forms of media. Moreover, because direct mail is tangible, it has a greater physical presence in people's lives. This presence is often positive, but poorly targeted, unwanted advertising can appear wasteful to recipients and lead to concerns about mail's environmental impact.

**Direct mail's combination of tangibility, targetability, and measurability creates a strong product.**

Finally, the two-way link that can be easily established when a digital ad is opened is a real benefit that does not exist today with direct mail. Mailers receive inquiries or orders from a small percentage of mail respondents,

but in most cases, they do not know how an individual recipient has reacted to their ad. Is the offer interesting, but the timing wrong? Does the customer want more options or information on other products or services? Or is the customer just not interested at all; was the envelope even opened?

The Postal Service and the direct mail community can strengthen advertising mail and improve the experience for both senders and recipients by developing a stronger feedback loop that provides more detail on recipients' preferences, allowing for more precise customer targeting. This feedback loop could increase mailer revenues and customer satisfaction, while simultaneously maximizing postal revenues and minimizing unwanted mail and waste.

## The Value of the Feedback Loop

Information about customer preferences is critical to advertisers. It allows them to target their advertising more precisely to those customers who are more likely to buy something and avoid wasting advertising on those who do not appear interested. Digital advertising offers several options to provide two-way feedback on specific advertising campaigns. For example, email advertisers can determine not only whether recipients

respond to their email offers but also whether they open the emails. Search engines, social media, and other new mechanisms induce customers to reveal information about their interests and what they want to buy. Search engines can provide advertisers precise information on their click rates for various search terms, allowing a business to buy only those terms that are likely to result in customer responses. Cookies allow advertisers to follow customers across the web, so advertisers can see their customers' other interests and develop profiles about them. This behavioral tracking has been controversial and spurred "Do Not Track" campaigns.

**The two-way feedback from mail is not as robust as some digital feedback options.**

Mailers of hard-copy advertisements expend significant effort to target mail to those most likely to buy, but the two-way feedback loop from mail is not as robust as some digital feedback options. Typically, advertising mailers only receive feedback when customers attempt to place an order or make a donation, with response rates typically running at 2 to 6 percent.<sup>5</sup> There is no information flowing back to the mailer from the remaining 94 to 98 percent of targeted customers. Although the mailer may know that the recipient did not respond to a specific campaign, the mailer has no idea know why. At present, customers who *want* more information about a certain item or service have limited ways to make mailers aware of their wishes. This "information asymmetry" reduces the value of the advertising mail network. If mailers had better access to recipients' feedback on specific mailings, they could better target their mail, sending more mail that is of value to the recipients and less that is of no value.

## Two-Sided Markets, Attention, and the Postal Platform

To understand how enhancing the feedback loop could benefit senders, recipients, and the Postal Service, the concept of a two-sided market is important. A two-sided market is a market that joins two distinct types of customers in a way that takes advantage of network effects and creates value.<sup>6</sup> The company or group linking the two customers is called a platform. In advertising, two-sided markets are common. Newspapers and magazines sell to readers and advertisers. Broadcast television serves both viewers and advertisers. The platform often mediates between the two sides of the market, and sometimes participation by one side of the market is discounted or even free in order to encourage participation. For example, broadcast television is free to viewers and paid for by advertisers, and for many years, newspaper delivery was heavily discounted to build circulation numbers and raise advertising rates.

**The Postal Service is an example of a two-sided market platform.**

<sup>5</sup> The Direct Marketing Association, *DMA 2013 Statistical Factbook*, August 2013, and industry interviews.

<sup>6</sup> Often one or both sides of the market benefit from the presence of more participants on the other side of the market. For a discussion of two-sided markets, see Jean-Charles Rochet and Jean Tirole, "Platform Competition in Two-Sided Markets." *Journal of the European Economic Association*, Vol. 1 (2003), pp. 990–1029. For more information on the role of network effects, see Geoffrey Parker and Marshall W. Van Alstyne, "Two-Sided Network Effects: A Theory of Information Product Design," *Management Science*, Vol. 51, No. 10, (September 29, 2010), pp. 1494–1504, available at SSRN at <http://ssrn.com/abstract=1177443>.



The Postal Service is also an example of a two-sided market platform.<sup>7</sup> Senders pay for advertising mail, but ultimately senders use the direct mail medium because they care about reaching recipients and getting their attention. Advertisers track the response rates and return on investment (ROI) from campaigns. If recipients stopped paying attention to advertising mail, ROI would drop and advertisers would soon disappear from the mail. It is in the interest of the Postal Service and senders that recipients find advertising mail relevant and respond.

The study of individuals' attention and its importance in the economy is called attention economics. In this field, attention is considered a scarce commodity, one whose role has been fundamentally altered by the Internet. Recognition of the value of this commodity, and the development of techniques to gain control over it, are providing new insights into advertising markets.

The U.S. Postal Service Office of Inspector General asked two prominent experts in two-sided markets and attention economics, Marshall Van Alstyne of Boston University and Geoff Parker of Tulane University, to analyze the advertising mail market and suggest ways to strengthen the Postal Service's advertising mail product. Building on new research in the area of attention economics and interviews with key stakeholders in the mailing industry as well as on their previous work, Van Alstyne and Parker, together with Tushar Shanker, a Ph.D. student at Boston University, present an interesting approach and some fresh perspectives on the enhancement of advertising mail. A paper describing the results of their research appears in the appendix.

## Building a Digital Information Market

Van Alstyne, Parker, and Shanker identify the lack of a robust feedback loop, or two-way link, as an important gap in the business model underlying the Postal Service's strategic approach to advertising mail. They propose that the Postal Service move beyond operating solely as a platform for hard copy mail to act also as a digital platform for information that mail recipients volunteer to provide and share. Participation by recipients on the digital platform would be strictly voluntary. The Postal Service would only release information to mailers as authorized by mail recipients, under clear privacy guidelines.

**Van Alstyne, Parker, and Shanker propose that the Postal Service move beyond operating solely as a platform for hard copy mail.**

**The authors suggest a redeemable Information Coupon (Info-Coupon), which would reward mail recipients for giving feedback.**

To incentivize the establishment of a two-way link, the authors suggest a redeemable Information Coupon (Info-Coupon), which would reward mail recipients for giving feedback. Participating mailers would use some type of

<sup>7</sup> For a discussion of mail as a two-sided market, see Christian Jaag and Urs Trinkner, "Pricing in competitive two-sided mail markets," in *Competition and Regulation in the Postal and Delivery Sector*, edited by Michael A. Crew and Paul R. Kleindorfer (Massachusetts: Edward Elgar Publishing, Inc., 2008), pp. 136-149.



code or symbol — such as a Quick Response (QR) code, Image Recognition code, or Intelligent Mail Barcode — on the front of the mail piece. Recipients could scan the code or symbol and access an interactive system on their smartphone or tablet where they could provide information about their preferences and their response to the mail piece. In return for their feedback, recipients would receive a digital Info-Coupon. The Info-Coupon would be in the form of points redeemable for merchandise from a variety of vendors.

Mailers could use the feedback to determine whether recipients strongly liked or disliked receiving particular forms of advertising. This feedback would increase advertising mail's measurability — allowing more precise targeting, improving direct mail's ROI, and strengthening the value of the direct mail channel. Recipients could choose whether to participate in the information market and digitally reveal information about their preferences. Those who did participate would receive compensation through the mechanism of the Info-Coupon. As conceived by Van Alstyne, Parker, and Shanker, the information market could begin with a simple digital feedback loop. In time, the Postal Service could enhance it by developing new applications and soliciting other types of customer information.

The study of information mechanisms such as the feedback loop started as a response to the problem of unwanted spam cluttering the email channel, drowning out the ability of recipients to pay attention to advertising messages from responsible senders and personal emails. To address this problem, spam filters were developed, and prominent computer experts such as Bill Gates suggested charging for email.<sup>8</sup> Research suggests that a feedback loop is more economically efficient than filters or blunt “Do Not Spam” or “Do Not Mail” lists for ensuring that customers receive the information they want. A perfect filter can filter out wanted information, depressing potential economic growth.<sup>9</sup> In the case of advertising mail, some advertising information is desired and useful to customers. However, if recipients have to review and reject many other mailpieces before finding what they want, some may decide not to give any mailpieces their attention. As a result, mail recipients may miss opportunities for purchasing, while mailers may miss opportunities to sell more goods and services. A feedback loop allows mailers and interested recipients to find one another more easily.

## Win-Win-Win

While direct mail remains an effective advertising medium, it could be significantly enhanced by the creation of a digital information market tied to hard-copy mail. Such a market would provide a means to add the measurability of digital advertising while

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<sup>8</sup> Saul Hansel, “Gates Backs E-Mail Stamp in War on Spam,” *The New York Times*, February 2, 2004, <http://www.nytimes.com/2004/02/02/technology/02spam.html>.

<sup>9</sup> The work of Thede C. Loder, Marshall Van Alstyne, and Rick Wash suggests that applying a signaling and screening mechanism for email can create more value for consumers than depriving consumers of all information, including advertising, which they would have found helpful. See Thede C. Loder, Marshall W. Van Alstyne, and Rick Wash, “Information Asymmetry and Thwarting Spam,” (January 14, 2004), available at SSRN at <http://ssrn.com/abstract=488444> or <http://dx.doi.org/10.2139/ssrn.488444>. In their paper in the appendix, Van Alstyne, Parker, and Shanker assert that this principle can also apply to hard-copy mail.

improving targetability and keeping the tangibility that makes hard-copy mail so successful.

Senders would benefit from enhanced targeting and improved information about customer preferences.

Tightening budgets make reducing costs for effective advertising list management and prospecting even more important today than in the past. With better-targeted lists and higher response and conversion-to-order rates, a static budget can yield more orders and a higher ROI. Recipients would benefit from advertising mail targeted more precisely to their interests as well as the existence of a market to compensate them for revealing their preferences.<sup>10</sup> The Postal Service would benefit from a more robust, higher-value advertising mail product. This is the essence of a win-win-win solution.

**Direct mail could be significantly enhanced by the creation of a digital information market tied to hard-copy mail.**

The proposal from Van Alstyne, Parker, and Shanker is one potential solution to digitally enable direct mail and minimize information asymmetries, but there are others under development by private business, some in discussion with senior management at the Postal Service.<sup>11</sup> The Postal Service, with its

**Closing the information feedback loop would yield great benefits.**

reputation as the most trusted public agency and a centuries-long track record of guaranteeing privacy and prosecuting security breaches, is well positioned to be an honest, trusted mediator and custodian of customer preferences. It could determine the rules for participation in and enforcement of the system, with clear guidelines and robust privacy policies.

The Postal Service is also the most appropriate entity to investigate and conduct additional research in this area. Closing the information feedback loop to better understand and act on what mail recipients want to receive would yield great benefits, not only for the participants in the postal market, but also for the postal network and the products the Postal Service offers.

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<sup>10</sup> Further, the information feedback loop can give users more control over their ecommerce metadata and hence, better privacy protection.

<sup>11</sup> Industry stakeholder interviews, August 2013, and Postal Service executive and staff interviews, September 2013.

## Appendix One Approach

The following paper, “A Redeemable Information Coupon Mechanism for Advertising Mail: One Strategy for a Postal Information Ecosystem” by Marshall Van Alostyne, Geoff Parker, and Tushar Shanker presents one approach for building a digital information market for advertising mail.

# A Redeemable Information Coupon Mechanism for Advertising Mail

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**Marshall Van Alstyne, Geoff Parker, Tushar Shanker**

**For:  
United States Postal Service  
Office of Inspector General**

**December 11, 2013**

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## INTRODUCTION

In this document we explain how the United States Postal Service (USPS or the Postal Service) can strengthen its advertising mail product. In FY 2012 Standard Mail, which includes most advertising mail, accounted for \$16 billion in revenues<sup>1</sup> and half of total mail volume.<sup>2</sup>

Advertising mail has so far held its own against digital competition, yet it is threatened by business cycles and changing demographics. It declined during the national economic downturn, and recovery has been slow.<sup>3</sup> Because advertising mail is so important to the Postal Service, new approaches to strengthen this core mail offering must be considered.

This paper uses Information Economics to explain how to strengthen and enhance advertising mail. USPS is missing out on a significant competitive edge by not interacting with customers on the other side of the mail market and taking advantage of customer touch-points. First we identify information gaps in the current USPS environment. Then we describe our proposed platform-based solution, which creates an information ecosystem based on a new kind of reward mechanism we call Redeemable Information Coupons (Info-Coupons, or RIC).

This ecosystem would bring major benefits to mailers, recipients, and USPS. Yet participation by mailers and recipients would be strictly voluntary, with clear guidelines and privacy policies.

To validate these ideas, we interviewed stakeholders across the mailing industry spectrum in August 2013, including large associations, large mass mailers, targeted mailers, and printers. We also talked with the Postal Service and industry consultants to gain a comprehensive perspective. (All interviewees were given anonymity.) We also considered alternative approaches to improve Standard Mail and found these inadequate.<sup>4</sup>

## 1. OVERVIEW OF ADVERTISING MARKETS AND ADVERTISING MAIL

Total advertising revenue in 2010, the most recent year that data are available from the U.S. Statistical Abstract, was \$168 billion, of which Standard Mail accounted for \$20 billion or 12 percent of the total. Online and digital advertising, which included paid search,

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<sup>1</sup> U.S. Postal Service, Public Cost and Revenue Analysis FY 2012, pp. 1, 3. <https://about.usps.com/who-we-are/financials/cost-revenue-analysis-reports/fy2012.pdf>.

<sup>2</sup> Postal Regulatory Commission, Annual Compliance Report FY 2012, p. 107. [http://www.prc.gov/PRC-DOCS/UploadedDocuments/2012\\_PRC\\_ACD\\_3108.pdf](http://www.prc.gov/PRC-DOCS/UploadedDocuments/2012_PRC_ACD_3108.pdf).

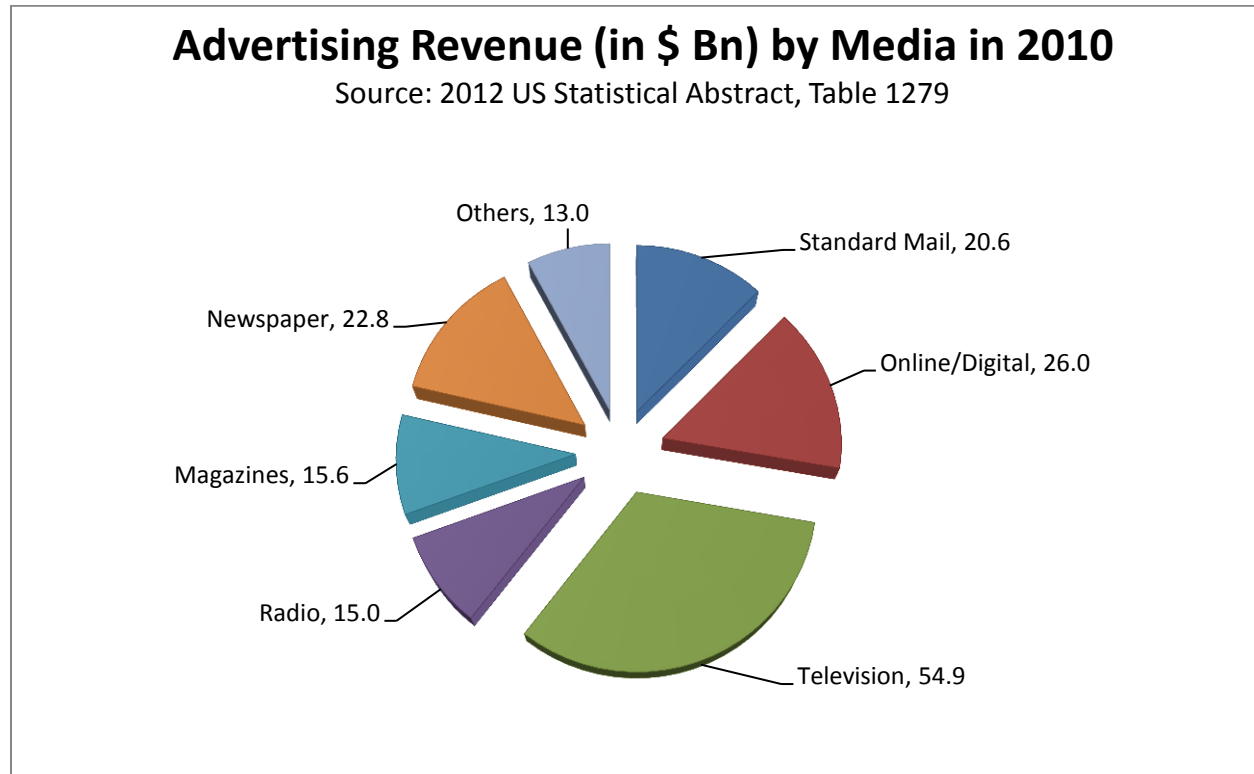
<sup>3</sup> USPS OIG (2012), "The State of the Mail." RARC-WP-12-010, <https://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-12-010.pdf>.

<sup>4</sup> The authors gratefully acknowledge Sangeet Choudary for helpful discussion of platforms.



internet classifieds, email, and mobile, accounted for \$26 billion or 16 percent.<sup>5</sup> See Figure 1 below.

Figure 1: Advertising Revenue by Media in 2010



Online and digital advertising grew 34 percent from 2008 to 2011, an average of 10 percent per year.<sup>6</sup> Yet with the increasing use of the Internet and mobile applications for advertising, Standard Mail revenue can grow as well, but it needs to add some of the capabilities that have made online advertising so attractive.

Standard Mail would become even more valuable to advertisers if it gave them the ability to target the right potential consumers and to measure the success of both overall advertising strategies and individual advertising campaigns in different media. Advertisers could then apply those lessons to future strategies and campaigns. A top barrier to marketing analytics is differentiating responses across marketing channels.<sup>7</sup>

<sup>5</sup> U.S. Bureau of the Census, Statistical Abstract of the United States: 2012, p. 785.  
<http://www.census.gov/prod/2011pubs/12statab/services.pdf>

<sup>6</sup> Based on information in the U.S. Postal Service's 2011 Household Diary Study, Table 5.1. This includes one year in which Internet advertising fell 3.4 percent. Source: Magna Advertising Group,  
<http://about.usps.com/studying-americans-mail-use/household-diary/2011/fullreport-pdf/usps-hds-fy11.pdf>

<sup>7</sup> Statistical Fact Book 2013, Direct Marketing Association, New York, NY, p 155.

Tracking a given mail campaign has always been relatively straightforward. Advertisers can code specific promotions including catalogs and coupons. As consumers place orders or redeem coupons, these source codes and barcodes can generate an aggregate view of buyer behavior and some information on exactly what individuals or households order.

Yet targeting or identifying consumers who are especially interested in the products or services offered remains a challenge. Mailers have traditionally used prospecting lists based on their (or third-party) analyses of individuals' buying habits, which in turn may be based on complex algorithms. These algorithms help advertisers decipher consumer preferences and then consummate the right match between advertisers' offerings and consumers' interests. The USPS engages a great deal with advertisers and third party intermediaries, including list brokers. But it solicits little feedback from mail recipients. If it did, this expanded Standard Mail service would go far in helping the Postal Service keep and expand advertising mail.

Both the technology and the targeting methodologies already exist to enable companies to engage with consumers and gain access to a wealth of detailed data at the individual level. What's needed to make this system work is a "disinterested, secure third party that can act as an intermediary in the world of secure digital messaging."<sup>8</sup>

Consider the major Internet search firms. They constantly analyze consumer search terms in order to glean customer preferences. They can determine which words are the most valuable to which consumers, giving them a remarkably efficient level of targeting. They then open these words for bidding in an auction mechanism. Advertisers who value their target consumers' attention will make the highest bids on the corresponding ad words, which will give them the top spot on the page of search results. Advertisers who find these customers less valuable will end up in lower spots.

By engaging directly with both consumers and advertisers, Internet search firms achieve differential pricing of their ad space. They also make it easier for companies to track their investment in advertising. If the Postal Service could approach that degree of interaction, Standard Mail would become far more valuable to advertisers. It could capture a meaningful additional amount, five to ten percent, of the \$26 billion digital advertising business, while expanding the entire pie by attracting new advertisers.

## 2. ISSUES WITH DIRECT MAIL ADVERTISING

Our focus is on USPS's advertising product that includes mail from nonprofit organizations. We first detail issues that hinder forward progress.

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<sup>8</sup> Urbanski, Al "Donahoe's Postal Vision" Direct Marketing News, August 1, 2013. Citing a BCG Report. <http://www.dmnews.com/donahoes-postal-vision/article/304971/> (accessed August 20, 2013).

## A. OLD BUSINESS MODEL

As noted in a series of reports from the USPS Office of Inspector General,<sup>9</sup> many companies are rethinking their business models in light of digitization. By more fully developing its digital business model, the Postal Service could offer an information-rich advertising product.

*Stakeholder Interview: "Mail will always be there. People will be receiving packages for years to come. The Postal Service can be at the crossroads between the physical and digital..."*

Current Standard Mail targets customers inefficiently, at a time when advertisers are looking to improve their targeting. A company's in-house mailing list may have a response rate as low as two percent.<sup>10</sup> At that level, even a 50

percent improvement moves the needle to only three percent total. Response rates for prospect lists can run as low as 0.4 percent.

Standard Mail also tends to be one-way and not interactive, unless recipients reply by mail or visit a store. As a result, physical delivery is gradually losing ground to interactive electronic delivery, especially for the more efficient mailers. That leaves behind less efficient, "noisier" advertisers that can increase calls for Do-Not-Mail legislation.

Recipients also have no voice in what they receive from advertisers, potentially compounding this problem. Moreover, unlike Internet search firms and social networking

*Stakeholder Interview: "The current system presents only very limited feedback."*

sites, USPS gains no data on recipient preferences or behaviors from which it could offer new business services. Finally, data from the responding households would be vastly more effective if it could be combined

with data from the non-responding 90-plus percent. Without interactivity, the Postal Service operates at a distinct disadvantage.

## B. GIVING RECIPIENTS A CHOICE

Closely coupled with an inefficient business model is a relative lack of knowledge about the mail recipients. USPS is the main link between the advertisers and the mail recipients, yet it

<sup>9</sup> See, U. S. Postal Service Office of Inspector General, The Postal Service Role in the Digital Age, Part 1: Fact and Trends, February 24, 2011, <http://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-11-002.pdf>, The Postal Service Role in the Digital Age, Part 2: Expanding the Postal Platform, April 19, 2011, <http://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-11-003.pdf>, State of the Mail, April 27, 2012, <https://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-12-010.pdf>, Digital Identity: Opportunities for the Postal Service, May 29, 2012, <http://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-12-011.pdf>.

<sup>10</sup> The two percent is a hypothetical example. The DMA Statistical Fact Book 2013 lists a range for house files, prospect files and type of mailing, p. 52. No house file listed is under 2.4 percent.

realizes much less of the potential value because it does not encourage the latter to interact with the postal platform.

Every interaction could potentially help USPS learn something about mail recipients and their preferences. (Do-Not-Mail lists indicate what customers don't want to receive, but say nothing about what they do want.) By learning more about customers' preferences, USPS

*Stakeholder Interview: "...one person's trash is another's treasure... [There] needs to be an ability for citizens to say what they get and don't get."*

could develop postal products that better match mailers' services to consumer needs. Gathering data about consumer preferences, following strict privacy guidelines, would also give the Postal Service better insights into the mailer side of the platform. All of this

information would not only give mailers better returns on their investment through focused targeting, but also develop new sources of revenue for USPS.

### 3. STAKEHOLDERS IN THE DIRECT MAIL SYSTEM

To understand the potential for improvement in Standard Mail, let's look closely at the stakeholders:

#### Postal Service

USPS uses its core capabilities in physical delivery to offer a postal platform that connects advertisers with customers. Yet the U.S. population is steadily moving online. By adding

*Stakeholder Interview: "...Until we close the loop on the print side, performance models will lag on print vs. digital."*

services such as narrower ad targeting and better feedback, the Postal Service has the opportunity to retain current advertisers and attract new ones.

#### Current and Potential Mailers

Mailings on even the best house lists rarely draw more than a five percent response, and the average is closer to two percent. Unfocused or badly targeted mailings, such as those designed to target new prospects, are the equivalent of "spam" that often end up in the recycle bin with few adverse consequences for bad advertisers – and can cause good ads to be ignored. At least one startup firm now charges for a service to intercept Standard Mail and dispose of it before recipients ever see it.<sup>11</sup> Even somewhat targeted mail can lead to crowding out effect. For instance, between 1987 and 2011, the average number of weekly

<sup>11</sup> Marcus Wohlsen, "Inside the Postal Startup That Wants to Stick It to the (Mail) Man," *Wired*, Aug 29, 2013, <http://www.wired.com/business/2013/08/outbox>.

mail pieces received by households earning above \$100,000 has increased 200 percent to 15.9 pieces.<sup>12</sup>

All of this crowding contributes to a low redemption rate for advertising mail. With the total cost of a well-designed advertisement easily running to more than \$1 per piece of mail,<sup>13</sup> excluding the discounts provided, such costs can quickly add up. Mailers will be increasingly eager to “close the loop,” or find new visibility into the returns from their marketing investments.

### Mail Recipients

Obviously, not all recipients see advertising mail as a nuisance. Clearly, mailers are making some money from customers or they would no

*Stakeholder Interview: “Consumers don’t always know what they want. [They] say one thing, but may want another, once they better understand the options...A better interface would take this into account...”*

longer send mail. But the contrast with online advertising is instructive. While some online advertisements are viewed as “spam,” online firms have means of motivating consumers to reveal their preferences. While search firms analyze search terms, social media firms garner rich data on demographics. Consumers willingly (or

unwittingly) provide the data to these entities because they get useful information in return.

Mail recipients can be motivated to reveal their likes and dislikes on a clear opt-in basis, which would enable the Postal Service to achieve much better targeting of advertisements. USPS needs to find a balance between senders’ utility and recipients’ tolerance, so recipients accept valuable mail without their mailboxes being overloaded.

## 4. PROPOSED SOLUTION: REDEEMABLE INFO-COUPONS

We believe a “Redeemable Info-Coupon” (RIC) would greatly strengthen USPS’s Standard Mail offering. RIC is a type of technology embedded in the postage, literally the stamp used to send mail. It has three special properties. It contains information on the sender; it lets recipients express their mail preferences; and it contains a time-limited reward that recipients can redeem. By motivating customers to express their preferences, these coupons can promote an information ecosystem. USPS would be able to build and control an efficient and profitable advertising platform.

<sup>12</sup> Statistical Fact Book 2013, Direct Marketing Association p. 25. Meanwhile, the number of pieces received by households earning less than \$20,000 has fallen 23 percent.

<sup>13</sup> *Ibid.*

Participation in the coupons would be entirely voluntary for both mailers as well as recipients. Mailers would be attracted by the possibility of discounted postage rates<sup>14</sup> as well as the far more powerful targeting services. Recipients would seek rewards from

*Stakeholder Interview: "...This is an active discussion we're having to try to get response rates from 2% to 2.1% or 3% or 5% or higher. 2.1% would be a material [5% increase]. 3% would be a game changer [50% increase]..."*

redeeming the coupons, and they might also appreciate the ability to indicate interest or lack of interest in particular advertisements.

Quick Response (QR) codes are an existing technology that could be easily adapted to RIC.<sup>15</sup> But the principles behind RIC would work for other kinds of technologies or media. We'll use

"QR code" as a stand-in for any sufficiently robust and information-rich technology that can provide the capabilities listed below.<sup>16</sup>

Initially, the RIC mechanism might involve a smartphone or desktop application easily downloaded by consumers. The consumers could then use this app to scan a QR code printed on advertising mail envelopes, thus sending data back to USPS and closing the loop on the interaction cycle. Embedded in the QR code would be information about:

- Mailer ID (Name & Address)
- Recipient ID (Name & Address)
- Content
- Postage Value
- Information-Coupon Value
- Mail Send Date
- Coupon Expiration Date

Basic operation of the RIC mechanism might function as described below. Not all features are required. Rather, they represent a menu of design parameters that can be combined to pursue multiple opportunities within a platform ecosystem. Various incentive levels can be used to encourage good behavior by all parties. Recipient preferences are captured only when the recipient redeems the coupon and interacts with the USPS data system.

- 1) Mailers buy postage and post a pre-determined Info-Coupon value associated with each advertisement they distribute. The pre-determined Info-Coupon value will be held in escrow in mailer accounts managed by USPS. Each Info-Coupon value is tied to a particular recipient for a particular type of content and mailing.

<sup>14</sup> This could require a regulatory change, discussion of which is outside the scope of this paper.

<sup>15</sup> Forty-six percent of mobile users are expected to use at least one coupon offer posed via SMS or QR codes. Statistical Fact Book 2013, Direct Marketing Association, New York, NY, p. 118.

<sup>16</sup> A patent application directed to the proposed technology has been filed.



- 2) At their discretion, recipients can redeem Info-Coupons on mail addressed to them. If and when a coupon is redeemed, the value of the coupon is transferred from the mailer's account to the recipient's account. Unredeemed Info-Coupon values simply expire, allowing mailers to reuse any monies they have left over.
- 3) While redeeming the coupon, recipients can indicate their level of interest in this specific ad, this type of content, or this specific mailer. Keenly interested recipients could even initiate requests for more of this content, while those who are dissatisfied can request less.

- 4) In response, USPS can dynamically adjust the postage the mailer must pay to send

*Stakeholder Interview: "This [feedback mechanism] is particularly relevant with smaller and mid-sized businesses ...[to] create a mail piece that has this functionality and utility...to help the customer with a call to action and content... and provide that information to the client. That is something we think potentially has value."*

future ads with similar content to that customer. If the customer marked the sender or the content as "unwanted," then the Info-Coupon amount necessary to send similar mail to that recipient would go up. If mailers continue to ignore customer preferences, the requisite amounts could double. But if the recipient had designated the content or sender as "wanted," the Info-Coupon charge could shrink or vanish.

- 5) Interested recipients could interact at a higher level. Whole new classes of business services become possible once this information and reward layer is established. For a higher Info-Coupon value, recipients could be requested to answer a short survey. Keenly interested recipients could be connected directly to a mailer's website. For a different Info-Coupon value, a recipient could be rewarded for forwarding an offer to someone they know who might be interested. Mailers could even request permission to contact a recipient on another channel, such as a mobile device, affording the chance of multichannel marketing.
- 6) This process gives mailers precise feedback on individual and aggregate reaction to their campaigns. Data can be anonymous or identifiable based on the wishes of recipients.

With this rich feedback, mailers can send advertisements that better match the interests of

*Stakeholder Interview: "I am surprised that some private sector company hasn't developed a RIC system for Direct Mailers to use in gaining more information about Direct Mailings."*

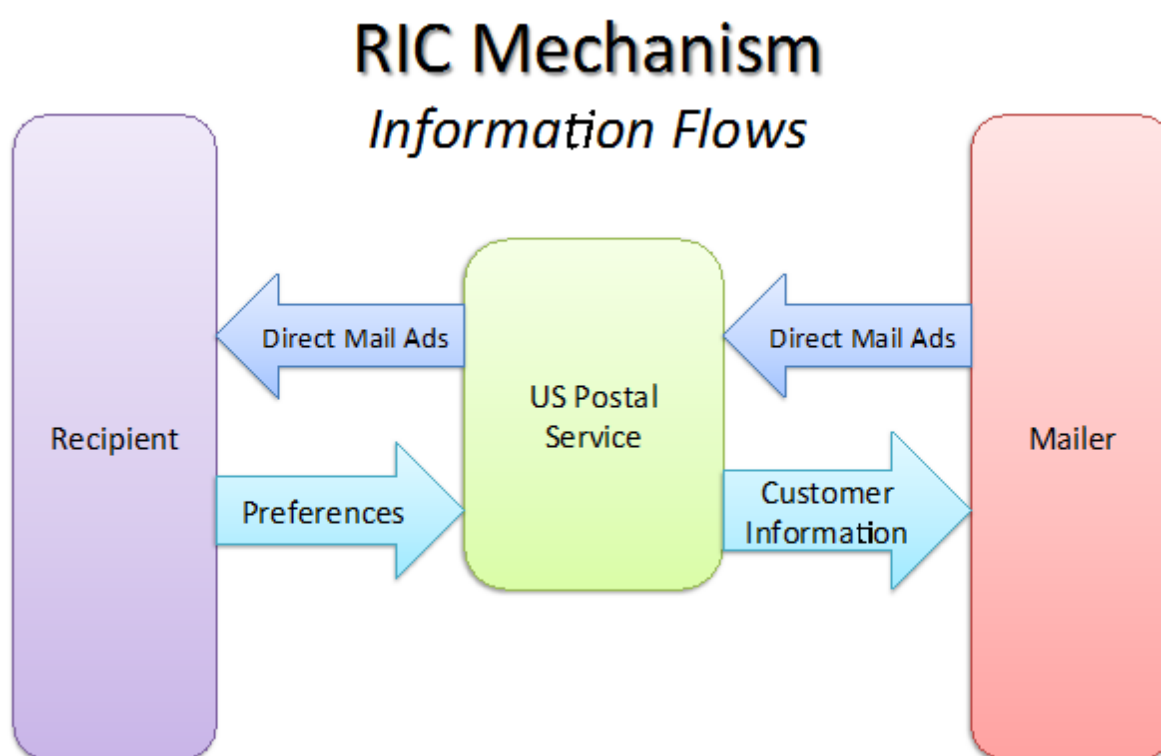
their customers, not just in content but also packaging. Response rates go up. The platform becomes even more useful over time as it enables USPS and third parties to offer value-added services.

These are the basic principles behind the

working of the mechanism. Numerous implementations are feasible and actual details will vary depending on the subtleties and incentives used to motivate information sharing. Over time, the mechanism could even become more sophisticated, and adjust coupon values based on implicit as well as explicit preferences.<sup>17</sup> Whereas explicit preferences are those specifically declared by recipients, implicit preferences are those based on behavioral cues such as “people who bought X also bought Y.”

Figure 2 lays out the basic participants and information flows in the proposed RIC mechanism. It closes an information feedback loop and provides USPS new data.

Figure 2. Information Flows in the RIC Mechanism<sup>18</sup>



## 5. BENEFITS OF REDEEMABLE INFO-COUPONS

The Info-Coupon mechanism has the potential to be a win-win-win proposition among mailers, mail recipients, and USPS. Let us closely examine some of the possible benefits of this mechanism.

<sup>17</sup> Precise elasticities, prices, and Info-Coupon values should be based on formal data analytics. A proper implementation should also work with an established human factors design firm to ensure ease of use, security, and adoption based on explicit user testing of design tradeoffs.

<sup>18</sup> Mailers may also use intermediaries, as they do today. Participation in the RIC system would be voluntary, and any formal development of the system would have to address concerns in the Privacy Act (5 U.S.C. 552a).

### A. RECIPIENT PARTICIPATION

The RIC mechanism would create an advanced platform where the mailers form the supply side, the recipients form the demand side, and USPS is the intermediary. Up to this point, the demand side of the platform has not really had significant influence over the functioning of the platform. But couponing makes this possible. Consumers have shown

*Stakeholder Interview: “[a redeemable coupon that rewards consumers]...is perfect. You reward consumers for responding. Then you've given a customer incentive...[Secure mapping between sender and household]...that's cool; if you can pull that off that would be great.”*

growing willingness to use coupons, and not just print versions. By 2012, more than a quarter of all coupons were redeemed electronically through smartphones.<sup>19</sup>

Info-Coupon would give recipients the ability and an incentive to signal their preferences on four different levels. By redeeming a coupon and indicating aversion, they strongly signal their lack of interest in the content or the

mailer. Or by redeeming a coupon and indicating acceptance, they strongly signal their interest in the content or the mailer. A third kind of interest is shown indirectly by the products consumers buy when they redeem their coupons. But even if they take no action, recipients are sending a message -- a lack of strong interest or disinterest (or either unwillingness or inability to participate in the platform).

Recipients would not be able to abuse the system to maximize their rewards. If they expressed a willingness to receive future mailings, their rewards from future mailings would go down. If they indicated aversion, they would likely receive fewer mailings. The system is economically self-regulating, so recipients have no incentive to disguise their interests. By revealing their preferences, they would be investing in the platform, thus making the postal platform more valuable to them and a true business ecosystem.

### B. AN EFFICIENT INFORMATION ECOSYSTEM

The RIC mechanism would give USPS a digital information ecosystem, one that has the potential to generate a huge amount of extremely valuable data regarding customer

*Stakeholder Interview: “This would help in identifying different parts of the retail paradigm and using predictive analysis to drive future activity.”*

preferences. Access to and ownership of this data ecosystem could give USPS a significant competitive advantage, not just for current mailers but also to attract new customers to advertising mail.

That's because the ecosystem makes mailings far more efficient. On the face of it, greater efficiency could mean a lower volume of mailings, in the short run, which could reduce

<sup>19</sup> Statistical Fact Book 2013, Direct Marketing Association, New York, NY, p. 128.

revenues for the Postal Service. But mailers would gain information not just about which of the advertisements succeeded, but also about the kind of content people value most. While the volume of mail might decrease slightly in the short run, better targeting and giving mailers a higher return on their investments could increase mail volume in the long run.

That makes the postal platform a lot more valuable as an avenue for advertising to the mailers. As the platform owner, USPS would have the leverage to command a premium for its services. USPS's costs per mail piece might actually fall as well. By helping mailers better target customers, USPS could potentially operate with much more streamlined infrastructure, with fewer warehouses and trucks. Operating efficiencies could improve.

### C. COMPLEMENTARY SERVICES

We have already highlighted two possible complementary services that could add value to the platform. First, USPS could get valuable feedback by studying the usage by entities like

*Stakeholder Interview: "A postal platform can become a platform for other services; a better platform that is a safe and secure environment that no one else has."*

advertising agencies that could rent out data, with mail recipients' consent, from the digital information ecosystem. Second, complementary services like location-based advertising could be offered through the mobile app used for scanning the QR codes.

As a platform intermediary, a guiding principle for USPS would be to remain open to innovations around the ecosystem, or even to facilitate such innovations as these could lead to unforeseen streams of revenue. Such a platform would help USPS partner with business, fostering "permissionless innovation" like that on the Internet.<sup>20</sup> USPS could

*Stakeholder Interview: "One of the great values that the Postal Service has is the delivery address. There are opportunities around that address. There are services the Postal Service would be best positioned to provide developing services that marry hard copy delivery and electronic."*

establish a marketplace for software applications for extracting insights from the ecosystem. These could be developed either in house, by mailers or by third party developers. USPS could also partner with developers to leverage their expertise in business analytics. USPS could also, separately, establish an app store for recipients and mailers to share and redeem

coupon credits, providing further data on user preferences.

However, given the Postal Service's long-standing respect for privacy, association with collaborators and complementors would need to involve a strict emphasis on data anonymization and encryption. Participation would be entirely voluntary, further allaying

<sup>20</sup> See Parker & Van Alstyne 2013.

privacy concerns. Such measures would serve to increase trust in the platform, and thereby, attract more mail recipients to adopt the digital postal platform.

**Potential Benefit Summary**

Stakeholder	Benefit
Recipients	Households and individuals gain a voice in the mail they receive
	Digital access provides simple archival and on demand retrieval of ad content
	RIC rates can adjust up or down based on recipient response, discouraging unwanted mail
Mailers	Targeting improves with consequent improvements in campaign efficacy
	Physical mail becomes a legitimate portal to mobile customer access. This has the quality of permission-based ads, which has higher value. It also bypasses spam filters
	Recipients can forward offers to friends or family
	Get fine-grained distinctions among non-respondents, such as: non-delivery, not opening the mail, not interested in this product, not interested in this seller. Boost response from the missing 94 percent
	Interactivity with previous non-respondents enables complete redesign of new approaches and new products
	RIC allows bi-directional initiation, including both advertiser push and recipient pull. Recipients can use the system to <i>request</i> ad content on topics of special or developing interest as when they intend to purchase home furnishings, schedule oil changes, or try new restaurants
	USPS
	Gain a mechanism to merge physical and digital addresses
	New ability to offer value-added business services regarding preferences, behaviors, crowding-out, and data analytics
	Product rebates could be deposited directly to user RIC accounts maintained by USPS
	Mailers are motivated to comply with recipient wishes based on changes in postage costs
	RIC values and information flows create a platform that allows USPS to support numerous other businesses as distinct from competing with them
	Avoid Do-Not-Mail list
	Create an Information Market

## 6. THE RIC MECHANISM

The Info-Coupon mechanism is grounded in fundamental economic principles. In this section, we outline the participation incentives for each of the stakeholders and some enforcement mechanisms. We note again that more advanced technologies could also be considered so long as they exhibit the technological capabilities outlined in Section 4 on operation of the RIC mechanism. Today, mailers use various levels of sophisticated analysis

*Stakeholder Interview: "It is an exciting and potentially valuable concept for improving the Direct Mail marketplace."*

to develop an address list. After mailing, the only feedback they get is from customers who make a purchase or donation, or who redeem a traditional coupon. These tend to be only a small fraction of recipients (2012 response

rates for letter-sized Direct Mail campaigns from "house lists" averaged 3.4 percent; response rates from "prospect" lists averaged 1.3 percent).<sup>21</sup> The others fall into an information vacuum. During the next advertising cycle, the process is repeated and additional mail sent to recipients who will remain non-responsive. With a RIC system, assuming sufficient opt-ins, it is possible to elicit information from the 94 to 98 percent of current nonresponders. They can provide basic information such as "I never want to see this again" or "I may be interested next month, but not now" or "I would like more information on X product." This feedback can then be used to adjust subsequent mailings.

### A. PARTICIPATION INCENTIVES

The RIC mechanism provides all the stakeholders with incentives for participation. Although there is some upfront investment in the form of capital and/or learning by each of the parties, the long-term benefits should outweigh the costs once the mechanism gathers critical mass. Following are some of the incentive structures at play for each of the stakeholders:

#### **Mail Recipients**

The most obvious and immediate incentive that the RIC mechanism provides in order to solicit participation from the mail recipients is the choice to redeem Info-Coupons for merchandise or directly as cash. Recipients could scan the QR code associated with uninteresting or irrelevant Direct Mail advertisements using a smartphone app.<sup>22</sup> When this occurs, the value associated with that Info-Coupon is automatically transferred from the mailer's account to the recipient's account. By providing the recipients the flexibility to spend these points or dollars on any merchandise of their choice, the mechanism does not restrict their choices. Thus, the mechanism aims to provide a monetary incentive for participation.

<sup>21</sup> Yory Wurmser (2012), "2012 Response Rate Report." See also Statistical Fact Book 2013, Direct Marketing Association, p. 14.

<sup>22</sup> Any system with a camera and access to the Internet could also work.



A less obvious, but equally important incentive is provided in the form of better targeting. As more and more data are gathered about their preferences, recipients could potentially begin receiving more relevant advertisements, including discounts on goods they purchase frequently. There is also an opportunity to provide recipients with more relevant location based offers from local merchants that they might highly value. Furthermore, since the recipients could be continuously providing feedback regarding their preferences, the targeting could be adapted to their recent and anticipated needs, thus providing huge benefits for the recipients in a highly responsive fashion. These benefits would need to be appropriately articulated when the system is introduced in order to accelerate adoption.

### **Direct Mail Advertisers**

The participation incentives for Direct Mail advertisers (mailers) are less obvious, especially because this mechanism necessitates an additional initial investment from them in the form of the Info-Coupon value. However, their incentives can be articulated on three related fronts. First of all, by participating in the RIC mechanism, the mailers could get access to much better targeting tools with the data collected by USPS. This could allow them to reach out to a higher percentage of customers who actually value their products and services.

Second, mailers' costs for mistargeting would decline as they achieve higher efficiency. Third, by participating in the RIC mechanism, advertisers could potentially see which consumers purchased their merchandise using Info-Coupon points. This could give them the ability to track their advertising dollars, see which ones actually resulted in sales, and learn about how to improve on the ones that did not. Thus, the ability to fine-tune advertisements to obtain better return on advertising investment, coupled with lower customer acquisition and retention costs, provide the advertisers strong incentives to participate in the RIC mechanism.

### **Postal Service**

This new RIC mechanism has the potential to be the basis of a highly profitable digital postal platform. As outlined above, implementing this system could give USPS access to, and ownership of, a vast tome of valuable data revealing preferences of the mail recipients. This data could then be utilized to not only motivate efficient advertiser behavior but also to build an ecosystem of services surrounding that data. Thus, USPS could create alternate sources of revenue by perhaps providing the advertisers with subscription-based access to the data.<sup>23</sup> Furthermore, by opening up the ecosystem to developers, USPS could catalyze innovations and unforeseen business successes.

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<sup>23</sup> Yory Wurmser, "2012 Response Rate Report," and Statistical Fact Book 2013, Direct Marketing Association, p. 14.

## B. ENFORCEMENT MECHANISMS

There are two possible concerns related to enforcement – the mailer side and the recipient side. The mailer side presents fewer opportunities for concerns, especially because USPS could control transactions and Info-Coupon values.

Mailers could misrepresent the true content of their mailings, but USPS could correct this by asking a small random sample of recipients to confirm the category of content claimed by advertisers. Mailers' escrow accounts could be forfeited by advertisers that behave badly in this or other ways.

Another enforcement mechanism could involve the way mail recipients actually indicate interest in advertising content. They might just signal interest to collect coupons. Then the cost of sending coupons could decline. The RIC mechanism provides for multiple signals of interest including strong interest, weak interest, lack of interest, and potentially even reasons for each category. Polling and follow-up must be carefully designed in cases where recipients have indicated mail is not wanted. However, as the mechanism matures and gathers critical mass, there are business opportunities for USPS to offer a content request service for recipients. For example, someone considering buying a new car could request information from different advertisers to help make a more informed choice. Such requests could lead to a direct reduction of informational asymmetries and lead to an immediate consummation of the match between advertisers and recipients, thereby potentially resulting in additional revenue streams for USPS.

## C. CHOICE OF QR CODE/OTHER TECHNOLOGIES OVER INTELLIGENT MAIL BARCODE

We strongly recommend using technology at the level of QR codes or higher, rather than the Intelligent Mail Barcode (IMb) currently in use by USPS. QR codes support more advanced data fields than the current IMb does, which would enable targeting to specific individuals. This facilitates development of a trusted and secure platform for authentication.<sup>24</sup> Since the Redeemable Info-Coupon is data-heavy, it is advisable to adopt technology with higher capacity. Furthermore, more advanced technology could support additional fields in the future depending on how the ecosystem evolves.

A second important reason for choosing the QR code over IMb is to make things easier for the mail recipients. While advertisers are familiar with the IMb for use in automation of the mail sorting and tracking process, mail recipients and general consumers are much farther along in adoption of QR technology.<sup>25</sup> With mobile device manufacturers incorporating QR

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<sup>24</sup> Urbanski, Al, "Donahoe's Postal Vision," Direct Marketing News, August 1, 2013, <http://www.dmnews.com/donahoes-postal-vision/article/304971/> (accessed August 20, 2013).

<sup>25</sup> A search of QR readers on the Apple App Store or Google Android Market turns up dozens of applications whereas a search of IMb scanner turns up very few.

technology into their smartphones,<sup>26</sup> USPS would have much less need to educate consumers in the technology. This would accelerate adoption and shorten the time required to achieve critical mass.

## 7. OPTIONS FOR MONETIZATION OF THE RIC SYSTEM

Given a platform to support the Info-Coupon system, monetization can rely on multiple possible revenue streams. It is not necessary or even expected that USPS implement the RIC system with all the features described here. Rather these illustrate a window into the range of possibilities for generating revenues with the RIC system.

1. The increase in targeting efficacy can stem and possibly reverse the decline in volume of advertising mail. By using incentives to help provide modest information on a large number of non-respondents, marketers could improve their performance, encouraging them to engage further with USPS. Importantly, the RIC system gives consumers a voice in what they receive, suggesting consumers too will be better off.
2. USPS can manage sender and receiver escrow accounts. Funds could earn interest, be invested, and be managed for additional revenue.
3. Once RIC authentication is operational, businesses could set up shop on top of the RIC platform and conduct any form of e-commerce transaction with recipients they have reached by Standard Mail.
4. Manufacturers that currently pay stores for handling printed coupon redemption could now pay for faster and cheaper processing via the RIC system.
5. Recipient initiated requests for mail become feasible via the RIC application. Households that wish to receive brochures on new family cars, catalogs of sports clothing, materials for retirement planning, or travel packages could request them by category without having to identify specific Mailers. This should increase mail volume. As an added consumer benefit, requests could be made anonymously and managed via the trusted USPS platform.
6. The Info-Coupon data layer permits development of new third party apps. These could be sold via a RIC app store.

## 8. PROBLEMS WITH POTENTIAL ALTERNATIVE APPROACHES

Our interviews brought out a few alternative approaches to improve the current system of advertising mail. None of them, however, boost the efficiency of mailing enough to enable USPS to compete with online advertising.

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<sup>26</sup> Darrell Etherington, "With iOS7 Apple Shows It Will Tolerate QR Codes – But Not Further Their Cause," June 12, 2013, <http://techcrunch.com/2013/06/12/apple-hate-loves-qr-codes>.

### A. PRICE DISCRIMINATION BY ZIP CODE

Price discrimination by zip code involves charging the mailers different rates based on the zip code of the destination address. Zip codes with wealthier residents, for example, would command higher rates than others.

Yet this approach still assumes that all advertisements have equal appeal to recipients – which in turn leads to the inefficiencies that drive the “good” mailers to better targeted media. By failing to engage the mail recipients in a dialogue, the zip code mechanism also relies on a blunt form of targeting based on aggregated economic indicators.

### B. DO-NOT-MAIL LISTS

Do-Not-Mail lists serve as filters that allow recipients to block particular senders. Yet they do not allow recipients to explain why they reject the mail, nor do they communicate the kinds of mail that do interest recipients.<sup>27</sup> Hence these lists provide much less benefit to recipients and mailers alike, as compared to a mechanism as interactive as RIC.<sup>28</sup>

### C. STANDARD MAIL PRICE INCREASE

A standard mail price increase can be thought of as a flat tax levied on all the mailers. This mechanism again treats all mailers as if they are equally efficient, and could lead to adverse selection, eventually driving away the more efficient mailers who use well-targeted lists. A tax tends to block or disallow messages that the recipients might actually find valuable, which could result in reduced business for USPS.

### D. MAILER COUPONS

Mailer coupons come closest to providing the benefits of the RIC mechanism. Advertisers can just use the current system and add coupons that could be redeemed directly by the end consumers. The mailers can then track which coupons have been redeemed and understand consumer preferences. However, as far as USPS is concerned, this mechanism is no different from what currently exists and, hence, does not really address any of the problems faced by the Postal Service.

## 9. CONCLUSION

This paper describes one answer to the question of how to enhance the efficacy of advertising mail and potentially reverse the decline in mail volume. We propose an Info-Coupon that can provide incentives to participate in an “information layer” that rests on top of the physical mail distribution system. Our proposed mechanism is grounded in fundamental principles of information economics.

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<sup>27</sup> Van Alstyne (2007), “Curing Spam, Rights, Signals, and Screens,” *The Economists' Voice*, April 2007.

<sup>28</sup> Loder, Van Alstyne, Walsh, “An Economic Response to Unsolicited Communication,” *Advances in Economic Analysis & Policy*, Vol 1, No. 6.

This mechanism has a number of advantages. First and foremost, it could create a platform around which to build a business ecosystem. Mailers on one side of the platform and recipients on the other have strong incentives to participate. Mailers gain dramatic improvements in information gathering and targeting, response rates, cross-channel access, and data analytics. Recipients gain a say in the mail they wish to receive, secure authentication, simplified archival, and direct Info-Coupon compensation. USPS gains substantial new revenue streams.

Second, this provides not only an electronic opportunity but also a bridge between the current physical business model and the future digital business model. Recipients can couple their physical and digital lives via the USPS platform. Such a system has the potential to help the Postal Service compete with and potentially exceed the appeal of purely digital systems by taking advantage of cross-platform physical and digital functionality.

Finally, the economics suggest that the benefits are subject to positive feedback, which implies the business model could be sustained over time. In short, this need not be a temporary or one-time fix, but an opportunity for broader USPS growth.

Development of the RIC concept included interviews with a wide range of industry stakeholders, who indicated interest in such a mechanism if the Postal Service were willing to implement it. Different technologies have different strengths and weaknesses in terms of the customer value relationship, and technologies evolve quickly. There was unanimity in agreement that any technology solutions must be flexible and adaptive; QR codes, expansion of the IMb, Image Recognition, and other developing technologies should be accommodated. Although the interviews provided a qualitative element to our research, it is interesting to note that not one of the stakeholders we talked to discouraged investigation of print-digital options in the mail market. They all enthusiastically supported better customer targeting techniques to maximize their campaign response rates. (While acknowledging that better targeting is needed for mailers, the Postal Service itself was noncommittal on our specific proposal.)

We also presented alternatives to better serve customers and explain why these are not as attractive as the RIC mechanism. That said, this paper presents a theoretical solution to an actual issue. Pursuing such a solution would require detailed analytical work and modeling, using both high-level models and information from different types of mailers and stakeholders, whose data and algorithms are usually proprietary and strictly held. Formal modeling and development of a business plan are beyond the scope of this paper.

We recommend that the advantages of the proposed RIC mechanism be examined in more formal detail and considered in the context of both an overall postal platform and the maintenance of Standard Mail health and viability. It is, in our opinion, a valuable potential

solution, using both traditional print and new digital options. It would boost revenue for USPS by improving targeting in the main advertising mail market, by encouraging business development with ecosystem partners, and by encouraging the growth of additional and more profitable niche markets.

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