University of Waterloo
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Improving Government Digital Communications in the Context of Online Conversion Ads

Government of Ontario
Cabinet Office, Digital Communications
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Summary:

This report will study the different elements of a government conversion ad campaign and use data modelling to measure what unique best practices can be developed. The Government of Ontario is very unique in the challenges it faces in the marketing space, this report will argue that the government requires its own set of best practices based on its own data. A set of best practices were developed by visualizing internal data sets to address a pressing question for the government's marketing teams: what goes into making an effective ad?

1.0 Introduction:

Marketing is an industry that thrives on data. Just producing creative marketing materials is no longer enough to succeed in the modern digital marketing space; data needs to be an integral part of the operation (Cebeci, 2016). Every single person has individual preferences, personalities and opinions but using data models, generalizations can be made about the behaviour of segments of the population. This information is important for digital marketers because it allows them to decide what parts of an ad work, what parts do not, and over time develop more effective marketing strategies(O'Neill, 2016, p. 42).

Different marketing campaigns will have different objectives. Some ads will attempt to educate the audience, others will try to garner support around an issue, among other various campaign objectives. In 2016, Moul et. al set out to create a standard with which to categorize different marketing campaigns in the Ontario Government through the "KPI Document". This document defined the various types of government marketing campaigns by objective and the key performance indicators for each marketing platform whether it was TV, Radio, Print, Social

Media or Social Video (Moul et. al, 2016). Conversion campaigns were defined as marketing initiatives that drove the audience to complete an action and, in the context of the digital space, traditionally meant a click through to an external website. This report will address the various areas that the Government of Ontario can improve conversion campaigns by utilizing data modelling to create internal best practices.

Over the course of two co-op placements, it was noticed that there was opportunity for data to play a much bigger role for the Cabinet Office digital marketing team. Best practices have previously been adopted from the rest of the marketing industry through external research and working with the Government of Ontario's ad-buying agency PHD Media. However, government marketing is unique in that their campaigns have very different objectives and audiences than the rest of the industry. It was this thinking that prompted the following research into finding data-proven best practices that reflect the Government of Ontario's unique position.

2.0 The True Difference Between Government Marketing and the Industry

The following section will demonstrate that there is a measurable difference between the performance of the industry versus the marketing of the Ontario Cabinet Office.

2.1 Comparing Frequency Best Practices

It was previously asserted that government marketing is unique, and taking best practices from the rest of the industry, that has a very different audience and objective, may not be the best option. However, before creating a set of unique best practices, it must be proven that there is a specific need for them. Is government marketing, in fact, unique?

Frequency, in marketing, is a measure of how many times a specific audience member was exposed to the message of an ad (Ives & McGaw, 2003). It is generally understood that ads have an effective threshold, in that they need to be seen a certain amount of times before the message is effectively demonstrated. However, too high a frequency and the message begins to be received negatively. The audience can become irritated by being shown an ad too many times (Laisemon, 2012). After careful research from the Cabinet Office team, the following *Figure 1.0* best demonstrates the frequency recommendations from the rest of the marketing industry:

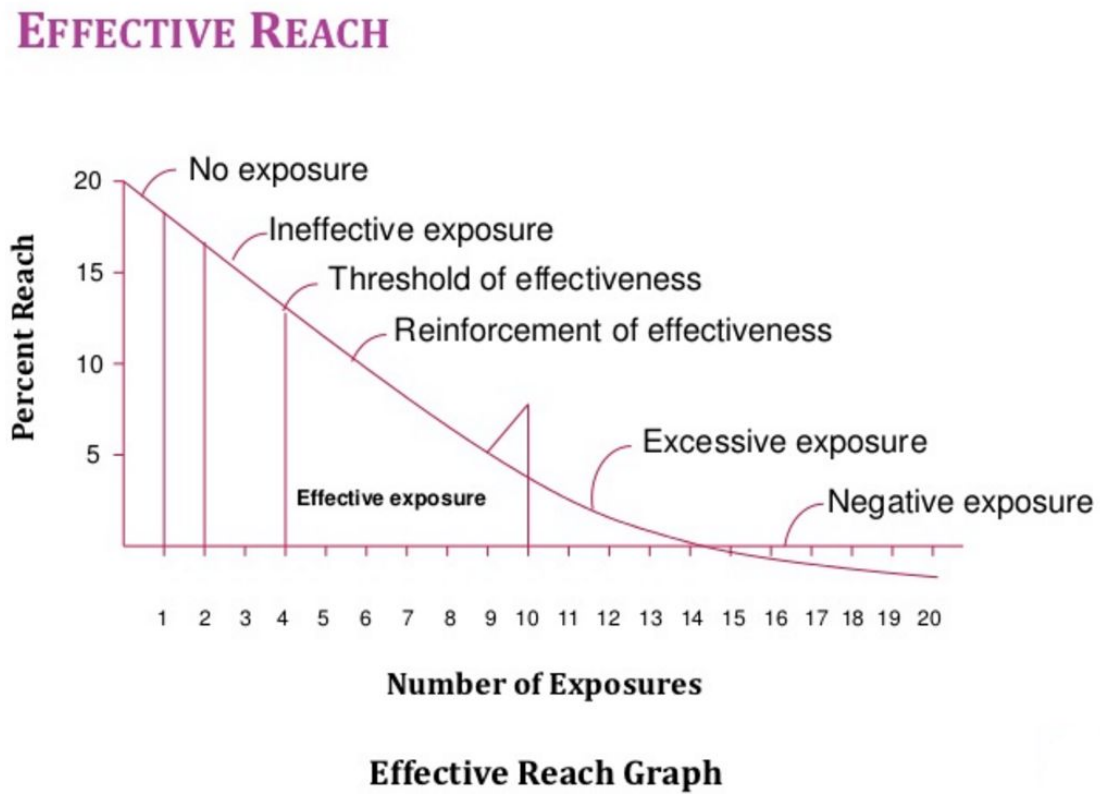

Figure 1.0 A graph of the industry's recommended frequency for all ad types (Laisemon, 2012)

This graph recommends that the effective exposure of an ad would be between a

frequency of 4 and 10. If government marketing did not face unique challenges, then it can be assumed that these industry best practices would not deviate much from the Ontario Government's own results. However, by looking at the data it can be seen that the Government of Ontario faces a very unique position in the marketing industry. The following *Figure 1.1* is chart of all of the Ontario Government's Facebook conversion ads with their click through rates (CTR) compared to their frequency:

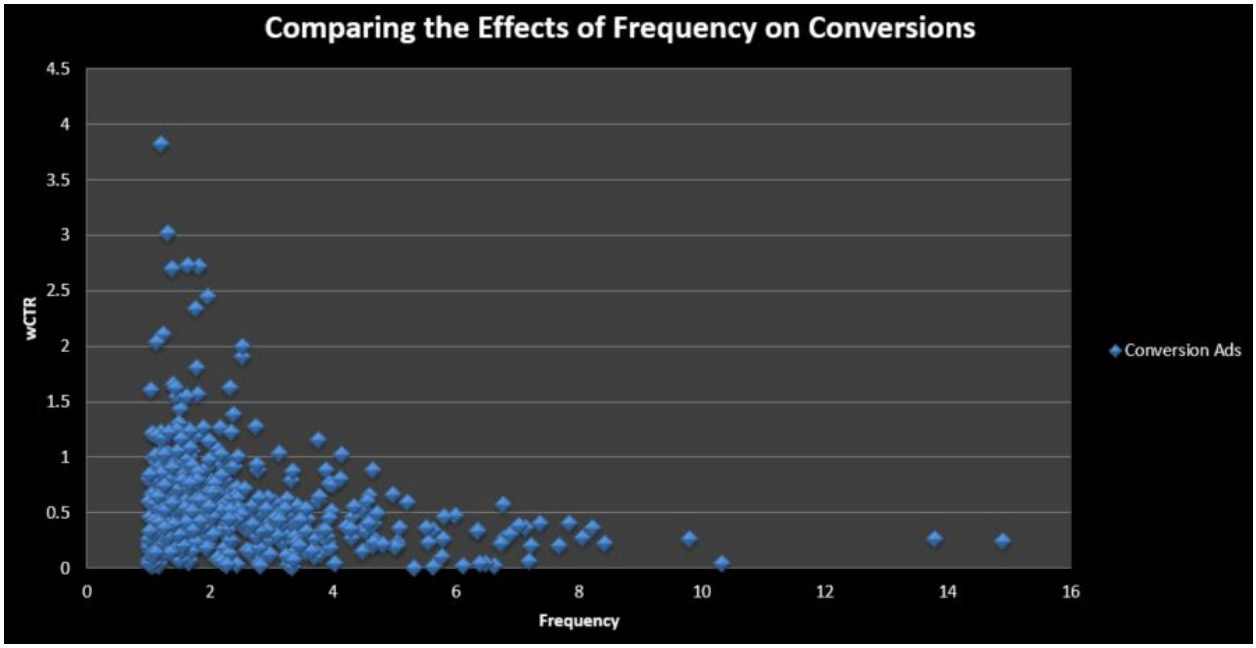

Figure 1.1 A display of the Government of Ontario's conversion campaigns and the effect of frequency on CTR (Government of Ontario, 2016c)

Figure 1.1 clearly demonstrates that the effective frequency of an Ontario Government conversion ad lies between 1 and 3.5. This is compared to the recommended industry frequency listed in *Figure 1.0* of 4 and 10. Government marketing clearly faces unique challenges that affect the results of their campaigns that make them differ from industry results. This means that building unique best practices from the

government's own data is paramount to creating more effective campaigns.

3.0 Analysis of the Cabinet Office's Conversion Campaigns

The following section will explain and establish best practices for government digital marketing teams at the various stages of an ad's lifecycle: before the campaign, during the campaign, and post-campaign.

3.1 Creating a Conversion Campaign

As demonstrated before, the government faces a very unique challenge when building marketing campaigns. One of these challenges, especially in the context of conversion campaigns, is determinig what will cause a recipient of an ad to click through to the website? What will draw their attention? To study this, the following *Figure 2.0* was created:

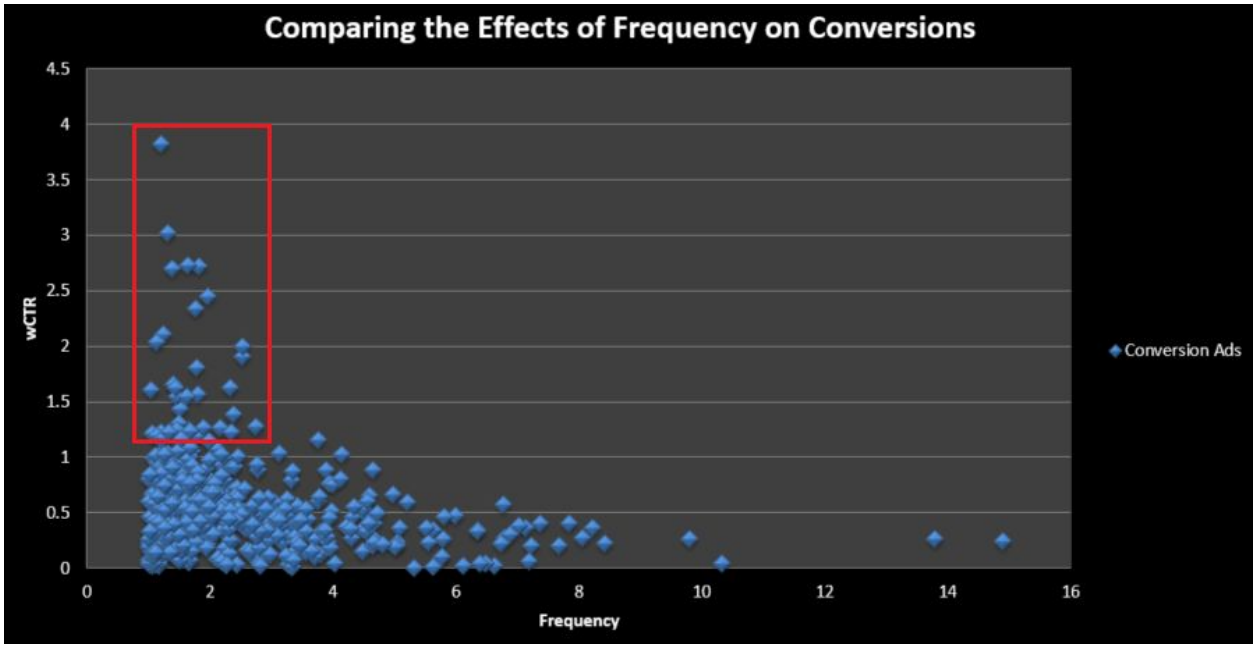

Figure 2.0 A graph of the Government of Ontario's conversion campaign's comparing the effect of frequency on CTR (Ontario Government, 2016c)

Within *Figure 2.0* there is a group of ads that seem to have performed remarkably well. The group of ads within the red square all had remarkably high link click-through rates, but what specifically made them so remarkable? To discover this, a VBA script was written to pull the top twenty five ads, and their respective ad and link copy. The data can be found in Appendix A, where only the important copy was included. Looking through the data there was a common theme throughout this group of top performing ads: each ad provided a clear, tangible benefit to an Ontarian. It did not matter whether the ad was a photograph or an illustration, what mattered was the type of messaging the ad displayed. As a best practice, when designing conversion ads for the Ontario Government, a properly designed ad copy is one of the most important aspects in the beginning stages of a campaign.

3.2 Measuring Frequency Throughout a Campaign

Through the duration of a campaign, it is extremely important to cap and monitor the frequency of a conversion ad. Frequency capping is defined as the ability to limit the number of times an individual sees an ad (Habermann, 2011). This becomes important when addressing the effective exposure limit spoken about in Section 2.1. In the spring of last year, the Cabinet Office team became aware of the ability to frequency cap their Facebook ads. Once it was implemented for all ads in April, it was not known whether this measure actually made a difference. The following *Figure 2.1* attempts to visualize this by displaying the negativity the audience had towards each ad, which was measured by Hides per 1000 Impressions:

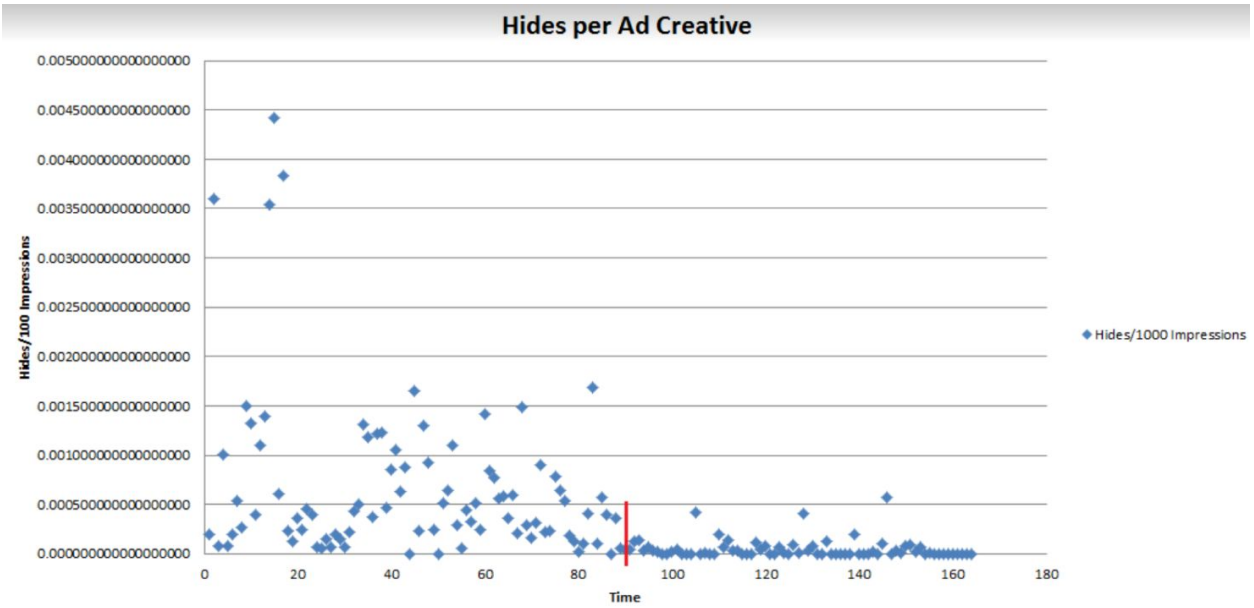

Figure 2.1 A graph displaying the change in negativity towards the Ontario Government's Facebook ads over time (Ontario Government, 2016a)

The red line in *Figure 2.1* marks the beginning of the use of frequency capping. From the graph it can be seen that there is a very noticeable drop in negativity after the use of frequency capping was implemented. This shows that the ability to frequence cap is extremely important for any campaign so that an ad does not receive negative exposure.

Now that it is known how important frequency capping is, what is the effective frequency of a Facebook conversion ad to set the cap at? Looking at Appendix B, the same graph that was covered in Section 2.1 can be seen. This figure shows that the effective frequency for the Ontario Government's conversion campaigns should be between 1 and 3.5. This frequency range has been shown to be the most effective at driving click throughs. Higher frequencies cause the click through rate to drop dramatically and can be shown to be ineffective.

3.3 Post-Campaign Analysis

After a campaign is completed, the data of these ads must be compiled to see what went well and what did not. In this section a very specific set of best practices will be shown to more accurately measure conversion.

Previously, Moul et. al defined the main key performance indicators for conversion campaigns to be click through rates in the KPI Document (2016). However, this may not be the best measure of performance for these types of campaigns. Since the ad is driving the audience to complete a specific action, it may be more useful to measure how many individuals are completing that action instead of measure how many people are clicking on the site. For example, if an ad is intending for the individual to complete a signup form, it should not matter how many people clicked on the website. What should matter is how many people actually completed the form. While CTR is a measure of click through rates and CPC is a measure of cost per click; these situations could be measured by ACR, an action completion rate, and CPAC, a cost per action completion (Ryder, 2015). This could be measured by Google Analytics on the web server side (Google, 2017). To demonstrate that there is clear difference between measuring performance with CTR versus ACR, the numbers of the Ontario Government's Remembrance Day campaign was compiled in *Table 2.2*:

	Facebook / Image Ad	Facebook / Video Ad	Twitter / ImageThankYou	Twitter / ImageJoinUs
Spend	$26,820.66	$25,133.20	$1,400.00	$1,400.00
Reach	2,306,046	2,119,677	1,442,289	931,577
Action Completion	1,170	435	107	57
CTR	0.45%	0.36%	0.30%	0.27%
CPC	$2.04	$1.75	$0.32	$0.55
ACR	0.05%	0.02%	0.01%	0.01%
CPAC	$22.92	$57.78	$13.08	$24.56

Table 1.0 A compilation of the Remembrance Day campaign data (Ontario Government, 2016d)

Action completions in *Table 1.0* is defined as the number of people that clicked on the list of Remembrance Day ceremony locations on the website. Table 1.0 shows that if one were to measure performance traditionally, Facebook Images was the best performer in terms of CTR but only 25% better than the next highest performer, Facebook video. Also, Twitter was the much cheaper platform on a cost per click basis. However, when the performance is compared using action completions, Facebook Images outperformed Facebook Video by 250%, and Twitter by even more. Furthermore, one of the Twitter Images was more expensive through cost per action completions than Facebook.

This is a very different picture these different statistics are describing. It could be argued that because ACR and CPAC are direct measures of a conversion, the situation

the metrics describe is a more accurate one. Utilizing this knowledge, a process can be implemented to use these new metrics to better measure the results of a conversion campaign.

4.0 Conclusions

In summary, the Government of Ontario is in an unique position in the marketing industry and because of this, requires unique best practices based on its own data. There is clear difference between the recommendations taken from the industry and the performance of the government's own marketing materials. This means that in order to create best practices, the Ontario Government must look internally. Using data models and visualization, a series of best practices were outlined here to reflect the unique nature of government marketing in Ontario.

The first is to provide a clear, tangible benefit in the ad or link copy of ad to capture the audience's attention. This is extremely important in the context of conversion campaigns because it draws the user in to complete an action. The second is the importance of frequency capping as it reduces negativity, and to set a frequency cap between 1 and 4. This puts ads in an effective threshold that specifically addresses the Government of Ontario's audience. The last best practice is to implement the measurement of ACR and CPAC to directly measure the results of conversion campaign. Rather than relying on click throughs which give incomplete data, a better picture can be drawn by measuring action completions through Google Analytics. Overall, the hope is that these conclusions give a set of actionable points in which the Cabinet Office of the Government of Ontario can improve the effectiveness of their conversion campaigns.

5.0 Recommendations

My recommendation would be for the Cabinet Office to look into implementing the best practices laid out within this paper as part of their procedures for creating conversion campaigns. Many of these points were backed by statistical evidence based on the government's own data. This is compared to industry recommendations that may not necessarily reflect the reality of the government's marketing. Points outlined in Section 3.1 and 3.2 can be easily implemented as guidelines for when individuals on the marketing team develop or go to market with an ad. The points addressed in Section 3.3 can be implemented by increasing collaboration between the digital marketing team and the Cabinet Office web development team. In this way, a process can be developed to accurately measure action completions. I would also further recommend to apply data modelling techniques in other aspects of the marketing team to find further possible process improvements.

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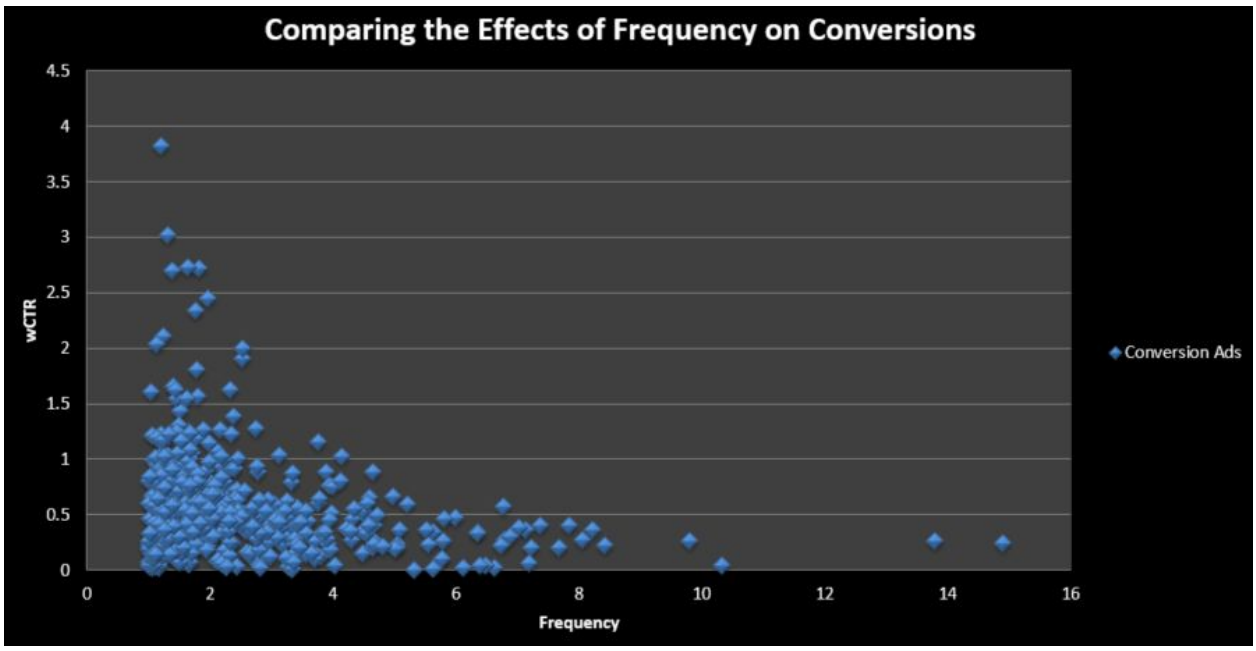
Appendix A:

Post ID	Ad Type	Copy Words of Interest	Link Text Words of Interest
6050247034478	Illustration	To be safe, clean your boat and equipment	Attention Boaters!
6050599161478	Illustration	To be safe, clean your boat and equipment	Attention Boaters!
6048701815078	Illustration	To be safe, clean your boat and equipment	Attention Gardeners!
6057643047078	Photograph	…would provide residential customers an 8% savings on electricity bills.	Electricity Rebate
6057635127078	Photograph	une économie de 8% sur la facture d'électricité des clients résidentiels.	Electricity Rebate
6057635015278	Photograph	benefit from an average total monthly savings of $45	Electricity Cost Savings
6051924107278	Photograph		Get the 2016 Fun Pass / Receive free admission
6052849781278	Photograph		Get the 2016 Fun Pass / Receive free admission
6052847924678	Photograph		Get the 2016 Fun Pass / Receive free admission
6052847917478	Photograph		Get the 2016 Fun Pass / Receive free admission
6051059445278	Illustration	Earn free time	Unlimited Time Offer
6050842519678	Illustration	Earn Free time	Unlimited Time Offer
6054033576678	Photograph	Reducing your ETA across the GTA	
6053067086878	Photograph	We're on track to improve your commute	
6052849895278	Photograph	expanding the Stouffville GO Corridor to get you where you're going faster.	
6051286635078	Illustration	Find out the top 3 lessons that Canadians ages 50+ wish they had known about retirement planning	3 Key Retirement Lessons from GetSmartMoney.ca
6051286602478	Illustration	Find out the top 3 lessons that Canadians ages 50+ wish they had known about retirement planning	3 Key Retirement Lessons from GetSmartMoney.ca

6051043030878	Illustration	Find out the top 3 lessons that Canadians ages 50+ wish they had known about retirement planning	3 Key Retirement Lessons from GetSmartMoney.ca
6051042991278	Illustration	Find out the top 3 lessons that Canadians ages 50+ wish they had known about retirement planning	3 Key Retirement Lessons from GetSmartMoney.ca
6049707179078	Illustration	Invest where you live with Ontario Savings Bonds. On sale June 1 to 21.	
6051130154478	Photograph	Hamilton LRT will keep your commute on track	
6051043031078	Illustration	Protect your money!	7 Common Investment Scams
6051042956678	Illustration	Protect your money!	7 Common Investment Scams

(Ontario Government, 2016c)

Appendix B:



(Ontario Government, 2016c)