GMAIL GUIDE:

How to Develop Flawless Emails for Gmail and Gmail Apps

Email on Acid

Many email developers know how tricky it is to develop HTML emails for Gmail – it's one of the more temperamental clients out there (although it's no Outlook). That's why we've created this handy guide to help you to Gmail success.

Remembering to test your email can help you catch some of these problem areas, and starting with the right code and some knowledge will help, too. It's also important to look at your email analytics to find out how many of your subscribers use Gmail. Luckily, Email on Acid can help you do both.

If you find yourself coding for Gmail users, use this guide to create flawless messages that engage your Gmail subscribers from the start.

CONTENT

General Gmail Coding Tips and Tricks

Some of the more common Gmail quirks and the workarounds you can use to tackle them.

The New Gmail Inbox and What it Means for Email Marketers

In April 2018, Gmail announced some major changes to its webmail and mobile inboxes. This chapter includes highlights from this update and how they affect developers and marketers creating email for Gmail.

The Future of Gmail

Updates and predictions for what could be coming down the pike for Gmail.

CHAPTER 1
General Gmail Coding Tips and Tricks

Although many people most often associate Gmail with webmail and mobile apps, Gmail has many different versions. This includes Gmail's inbox client, G Suite for businesses, as well as a particularly problematic version of their Android client that's configured for POP/IMAP access.

Whether you're looking at mobile Gmail, the webmail, or some other version of this infamous client, we've compiled some of the more common Gmail quirks and the workarounds you can use to tackle them.

Gmail app for non-Google accounts (GANGA) does not support background images

The Gmail Android app that comes pre-installed with most new Android phones contains a feature to access non-Google accounts using POP and IMAP. Unfortunately, emails accessed through this setup lack the embedded style (<style>) support as well as

the support for background images.

As of December 2017, the iOS Gmail app also supports IMAP accounts. However, like the Android app, the iOS version does not support embedded CSS or the style tag.

Other GANGA Quirks with Gmail on iOS

No Embedded Styles

Like the Gmail Android app, the iOS version does not support embedded styles in either the head or the body of the email.

No Background Image Support

Unfortunately, GANGA accounts do not support background images through HTML table background attributes or background

image CSS styles.

No overflow:hidden

If your emails rely on overflow:hidden, be wary that any content exceeding the container will display on these GANGA accounts. If you must use overflow:hidden we recommend using display:none to put it in an alternate block that is hidden by default. Then, display

the content using embedded styles, which are not supported by GANGA. This will prevent GANGA accounts from showing the content that is exceeding the container.

No Opacity Support

The Gmail app does not support opacity when viewing email through a GANGA account. That being said, Outlook.com and Yahoo! Mail don't support opacity, either.

SVG Image Support

Historically, Google's image proxy has blocked scalable vector graphics (SVG) images, leading to a total lack of SVG support in all the Gmail products. However, we've noticed that GANGA accounts can render SVG images in this new version. This leads us to believe that GANGA accounts do not use the Google image proxy.

Gmail clips messages larger than 102kB

If your email's size exceeds 102kB, Gmail will display the first 102kB along with a message that reads:

```
[Message clipped]   View entire message
```

When the user clicks to view the entire message, your email will be displayed in a new window.

If you're close to 102kB, you can save a few

bytes by removing any unnecessary spaces, carriage returns (
 tags), or comments. You also want to avoid embedded images and documents when sending HTML emails.

Gmail only supports <style> in the <head>

Gmail does support embedded styles (<style>). However, embedded styles are only supported in the head of your HTML document. The

Gmail Android and iOS apps does not support <style> at all when rendering emails retrieved through non-Google accounts (GANGA).

Gmail displays preheader text in the email preview

Like many modern clients, the email preheader is automatically shown after the subject without the recipient having to open the email message. Preheader text can be a visible part

of your email body or it can be specially crafted to only display before the subscriber opens your email (hidden preheaders). This article explains how to code hidden preheaders.

Gmail removes your entire \<style\> block if it encounters an error

Gmail is very finicky when it comes to parsing embedded styles. If it encounters even one error, it throws away the entire block.

For example, Gmail does not like an '@' declaration within an '@' declaration. One way to deal with this is to use multiple style blocks and put the styles that are Gmail safe in the top block.

```
@media only screen and (max-width:320px) { @viewport { width:320px; } }
```

Gmail also eliminates your style block if it exceeds 8192 characters.

If your style block exceeds 8192 characters, split it into two parts. Gmail will remove the first block that exceeds the 8192-character threshold and any blocks after it (the character count includes all of your style blocks).

Gmail does not support attribute selectors and most pseudo-classes

Attribute selectors (like the one below) allow for a more flexibility when selecting of elements in CSS. Although they are supported in modern email clients such as iOS and Apple Mail, Gmail does not support them.

```
div[class="content"]{ color: red }
```

Gmail also does not support pseudo-classes like :checked and :active and only supports :hover in their webmail client. Therefore, interactive email support in Gmail is very limited or non-existent.

Gmail did announce in early 2018 that it will be rolling out Accelerated Mobile Pages (AMP) for Email, which will allow for fully interactive emails in Gmail.

Gmail does not allow negative CSS margin values

Most webmail clients such as Outlook.com and Yahoo! Mail do not allow negative margin values and Gmail is no exception.

Gmail displays an image download icon over large unlinked images
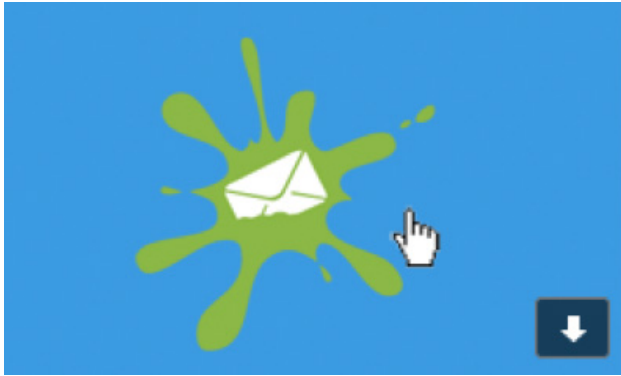
Gmail will overlay an icon that lets recipients download images that are not wrapped with a URL. This can be frustrating to designers who would rather Gmail not mess with their email designs.

The simplest solution is to ensure that images larger than 300×150 are wrapped with a link, but there are several other options you can try.

Gmail automatically converts phone numbers and URLs to links

Both the desktop and mobile versions of Gmail now insert an anchor link around phone numbers. In the desktop version, the link opens Google's new voice/chat console which is displayed along the right column of the Gmail interface.

To block this, use an HTML entity in your phone number that Gmail does not recognize such as "­" (for soft-hyphens).

```
&#173;212&#173;-389&#173;-3934
```

In the above example, we inserted this entity before each dash.

Check out this article for more examples and fixes.

If you have a URL or email address listed without a link, Gmail will add it for you. For example, Gmail will convert name@test.com to:

```
<a href="mailto:name@test.com"> name@test.com</a>
```

Here are two potential fixes:

1.) Insert an HTML entity that Gmail does not recognize, like:

```
&#173;
```

Which means you should change name@test.com to:

```
name@test¬&#173;.com
```

Change www.mydomain.com to:

```
www.mydomain¬&#173;.com
```

Change http://www.mydomain.com to:

```
http:&#173;¬//www.mydomain¬&#173;.com
```

2.) Insert an anchor around the URL or email address and format it like the rest of your text. For example:

```
<a href="#" style="color:#000; text-decoration:none"> test@test.com</a>
```

Gmail uses the HTML5 DOCTYPE

Regardless of the DOCTYPE specified in your email, the email will be rendered using the HTML5 DOCTYPE in Gmail. This may cause your email to render differently than if you loaded your email in a browser.

Gmail's DOCTYPE can create extra space under images

This space is also caused by the DOCTYPE. Here are a few workarounds (these work in Outlook.com and Yahoo! Beta, as well):

1.) Add style display:block to the image element

```
<img src="test.jpg" style="display:block">
```

2.) Add align absbottom in the image element

```
<img src="test.jpg" align="absbottom">
```

3.) Add align texttop to the image element

```
<img src="test.jpg" align="texttop">
```

4.) Add line-height 10px or lower in the containing TD

```
<td style="line-height:10px">
```

5.) Add font-size 6px or lower in the containing TD

```
<td style="font-size:6px">
```

For more workarounds, check out this blog article: 12 Fixes for Image Spacing

CHAPTER 2

The New Gmail Inbox and What it Means for Email Marketers

In April 2018, Gmail announced some major changes to its webmail and mobile inboxes. Some of these features aimed at user productivity, while others adjusted how subscribers view and interact with emails in their Gmail inbox.

We've compiled some of the highlights from this update and how they affect developers and marketers creating email for Gmail.

No More Hover Effects

The old Gmail supported the use of CSS hover effects, a way to add extra interactivity to your emails, but unfortunately, the new Gmail does not support this effect. While this could be a subtle push by the Gmail team toward the upcoming launch of Accelerated Mobile Pages (AMP) for email, we suspect this is just a byproduct of the update. Either way, don't expect the return of hover effects anytime soon.

Unsubscribe Suggestions on Gmail Mobile

One of the features to hit Gmail Mobile is unsubscribe suggestions. Gmail will now uses a card notification to suggest emails that users may want to unsubscribe from.
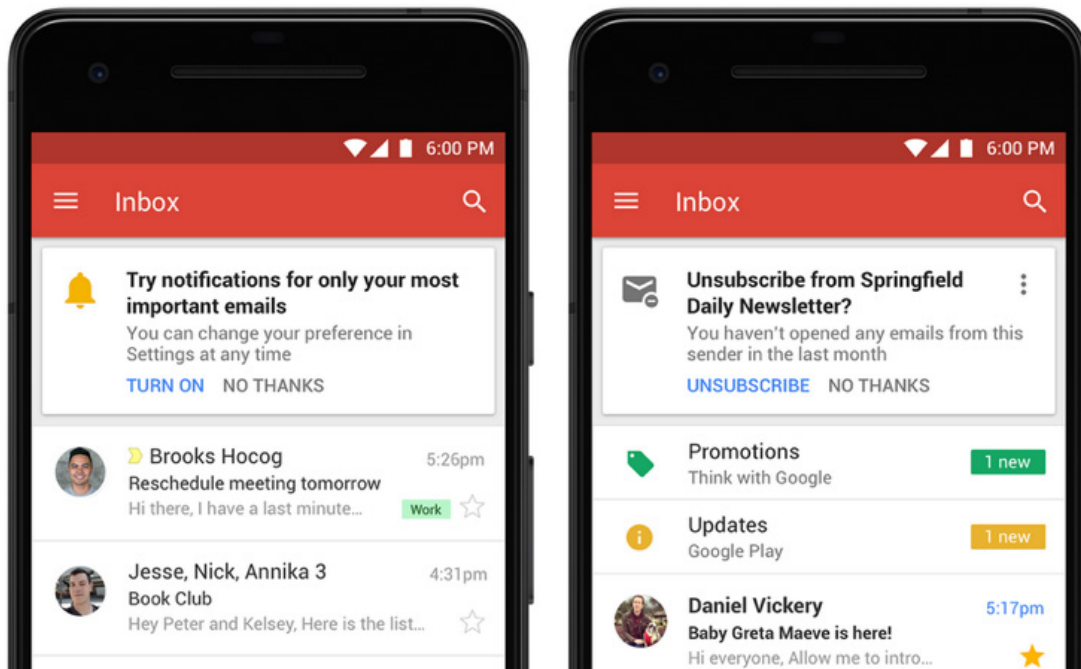
There's no need to panic, though! Email marketers who are sending relevant, engaging emails to their subscribers need not worry. A similar feature is available on a variety of email clients, including iOS mail, and they haven't created any real cause for concern.

Changes to How Gmail Handles Emoji

In our Guide to Emojis, we noted that Gmail once replaced the emoji used in your subject line with their own version, Goomoji. Gmail has since updated to correct this, though Gmail users will continue to be served Goomoji in the body of their emails. Not perfect, but a step in the right direction.

EPILOGUE
The Future of Gmail

We're excited to see what the future holds for Gmail, as they're dedicated to developing, testing, and releasing new features. For email marketers and developers, it's critical to be aware of any future features they choose to implement so you can make the most of them when they land.

AMP for Gmail

Google announced in early 2018 its plans for Accelerated Mobile Pages (AMP) for email. These are a way of adding interactivity to email experiences inside Gmail.

With the new Gmail update removing CSS hover support, we remain cautiously optimistic about the rollout of AMP. We've yet to hear any updates, but we'll let you know as soon as we do.

Gmail Is Testing Promotion Cards

Deftly spotted by Rafael Viana of Return Path, Gmail seems to be testing promotion cards, or cover photos, under email subject lines.

Our good friend Justin Khoo also covered this on his blog, FreshInbox, and noted the similarities to Gmail's 2014 attempt at Grid View.

Justin also notes how easy it would be to use these promotion cards if such an update made its way into Gmail.

It could be a while off before we see this as a fully-fledged feature across all Gmail inboxes, but keep an eye out for these promotion cards.
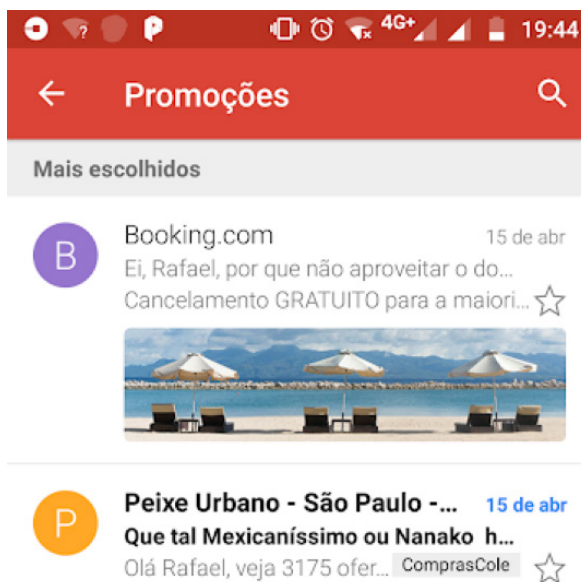
"Unlike AMP for Gmail, which requires ridiculous tooling changes for existing email service providers, many senders are already sending Schema-enhanced email," Khoo writes. *"Furthermore, many email service providers, such as MailChimp, added the ability to send Grid View images in their apps (only to disable it later), which they can easily enable should Gmail make promotion cards widely available."*

Creating Emails for Gmail: Final Words

Gmail can be frustrating at times, but as one of the most popular email clients, it's a tricky beast that developers and marketers need to know how to tackle. We'll be sure to bring forward any new tricks or updates as we learn about them. In the meantime, feel free to reach out to us on Facebook and Twitter, or send us an email: hello@emailonacid.com.

Keep in mind that email clients like Gmail are constantly changing, and the code that you used in your last email may break in your next.

That's why it's important to test every email, every time. Email on Acid can show you what your email will look like before it hits your subscribers' inboxes, so you can make changes before you hit "send."
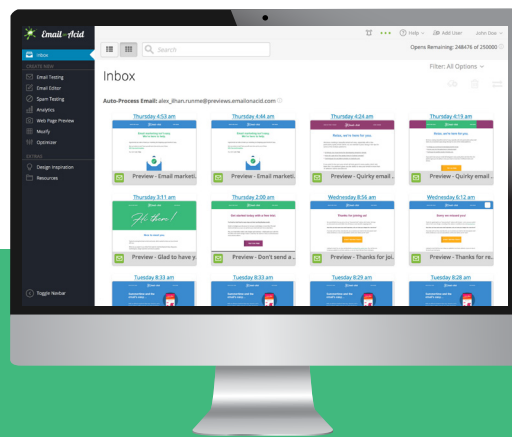
Sign up for our free, seven-day trial and see how we can help you perfect your email, so you can reach more subscribers and increase email ROI.

SIGN UP FOR **FREE** TODAY!

Email on Acid