Email on Mobile Devices

MailChimp Study:

Email on Mobile Devices

As an email company, we see our customers thinking more and more about how they communicate with readers on small screens—namely on mobile devices via HTML emails. We know to design for mobile first, but what does that mean for HTML emails being read on iPhones and Android devices? We wanted to find out what people really want when they read email on their smartphones.

We spent four months researching the way email is consumed on mobile devices in an effort to define best practices for this communication channel.

Industry Numbers
Device Sales Third Quarter, 2011

Mobile-email usage is skyrocketing as sophisticated mobile devices permeate the consumer market. In early 2011, smartphone sales finally outsold PCs, marking a turning point in the way we consume digital content (1). Even more astonishing, in the fourth quarter of 2011, more iPhones were sold than babies were born (2). Rumor has it that many of those babies entered the world with a mobile device in hand.

Despite this staggering iPhone statistic, Android is still leading in total devices shipped to retailers, but Apple is still gaining ground. Nokia and Blackberry (Research in Motion) are steadily losing traction in the smartphone market.

Top Five Smartphone Vendors, Shipments, and Market Share Q3 2011 (Units in Millions)

Vendor	3Q11 Unit Shipments	3Q11 Market Share	3Q10 Unit Shipments	3Q10 Market Share	Year-over-year Change
Samsung	23.6	20%	7.3	8.8%	223.3%
Apple	17.1	14.5%	14.1	17.0%	21.3%
Nokia	16.8	14.2%	26.5	32.0%	-36.6%
HTC	12.7	10.8%	5.9	7.1%	115.3%
Research In Motion	11.8	10.0%	12.4	15.0%	-4.8%
Others	36.1	30.6%	16.6	20.0%	117.5%
Total	118.1	100.0%	82.8	100.0%	42.6%

Figure 1 / Research conducted by IDC Worldwide Quarterly Mobile

Phone Tracker shows Android devices still command the lion's share of the mobile market, but iPhone continues to gain significant ground.

1: Weintraub, S.. "Industry first: Smartphones pass pcs in sales." Fortune Magazine. Fortune Magazine, 2011. Web. 28 Mar 2012. <http://tech.fortune.cnn.com/2011/02/07/idc-smartphone-shipment-numbers-passed-pc-in-q4-2010/>.

2 Panzarino, M.. "More iPhones sold than people born every day." The Next Web. The Next Web, 2012. Web. 28 Mar 2012. <http://thenextweb.com/apple/2012/01/25/there-are-now-more-iphones-sold-than-babies-born-in-the-world-every-day/>.

The Shift From Desktop to Mobile

With the sharp rise in mobile sales, it's no surprise that email consumption on mobile devices is following a similar trend. More than half of mobile users in Japan read email on their device, while around 40% in the U.S. read email on a mobile device.

Japan	U.S.	Canada	Europe
57.3%	40.8%	35.9%	30.0%

Figure 2 / Percentages of people worldwide who read email on their mobile devices.

Mobile email open rates increased 34% in the last six months of 2011, according to a study by ReturnPath (3). Compared to mobile, desktop email opens dropped by 9.5%. Similarly, email open rates via webmail decreased by 11%.

There certainly seems to be a big shift happening towards email consumption on mobile devices, which made us curious to learn more about user behaviors around this activity.

3: Johnson, Lauren . "Mobile email open rates increase 34pc: study." Mobile Marketer. Mobile Marketer, 2011. Web. 28 Mar 2012. <http://www.mobilemarketer.com/cms/news/research/11667.html>

Researching Behaviors Around Mobile Email

When we started our mobile-email research, we didn't have a specific hypothesis or idea we wanted to investigate—we just wanted to observe people on their own phones, reading emails that they subscribe to. Once we were able to observe readers through self-guided activity, we handpicked a specific sampling of newsletters based on common designs that we didn't encounter in the first round of testing. These emails' designs included three column templates, newsletters that use media queries, and varied call-to-action designs.

Participants

Our participants were selected organically from our network of contacts, including Twitter contacts from personal and MailChimp accounts, Facebook contacts from personal and MailChimp accounts, our mailing list of willing usability testing participants, and three MailChimp employees who were not otherwise involved in the research process.

In order to discover what people want from HTML newsletters on their mobile devices we interviewed 39 people in our extended network that obsess over checking their email. They weren't all MailChimp customers, but most had used an email-service platform before. Their occupations included 14 web developers and designers, six marketing and communications managers, a youth minister, two small business owners, a bookkeeper, a student, and two professional coaches. The iPhone was more than twice as popular than Android among test participants, and Blackberry was a very distant third.

The iPhone was favored by people who identified themselves as designers, communication managers, and small business owners. Android devices were favored by people who identified themselves as IT people or developers, and two budget-conscious participants.

We saved tablet testing for future studies, based on some participant's responses that they have an iPad but don't use it for email as much as they use their iPhone.

More details about our participants

iPhone Users - 25
Android* Users - 12
Other - 2 (Blackberry, iPad)
Male - 18, Female - 13
Age Range 18-56 (Avg 35)

Average Years Using Smartphone - 3
Subscribe to Average of 15 newsletters
*Android Devices Tested (Galaxy Nexus (2), Samsung Fascinate, Droid X, HTC, Droid Incredible, Droid Charge, T-Mobile HTC G2)

Email Apps Used

Participants skewed iPhone heavy, despite Android having the higher market share. Figure 3 illustrates the email client usage in our study.

Figure 3

- Mail App
- Gmail App
- Gmail on Web
- K-9
- Yahoo
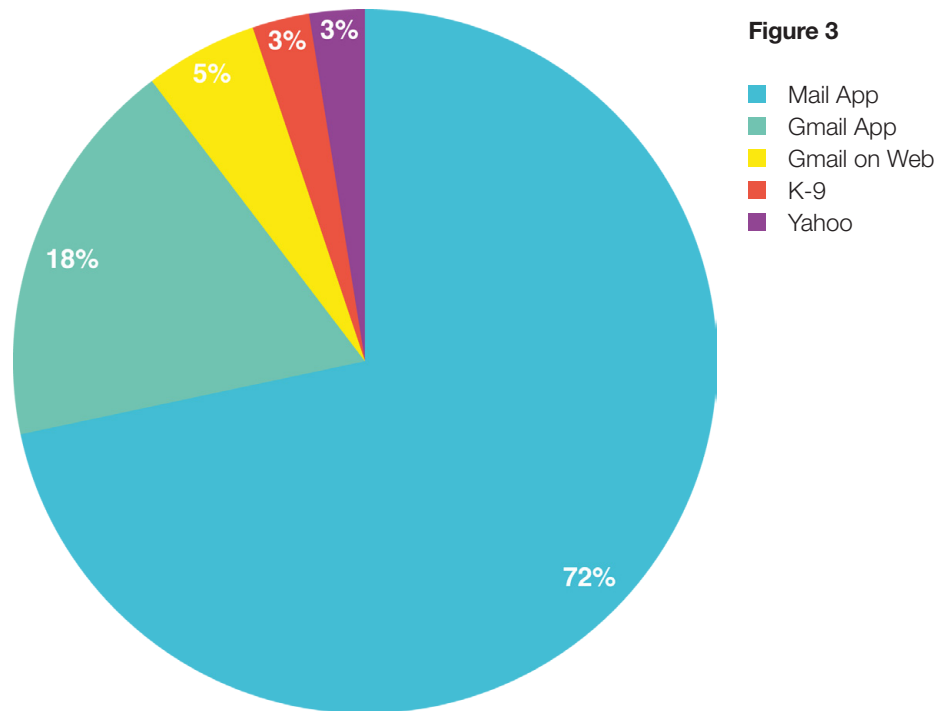
How We Conducted Our Research

Most of our research was conducted over Skype, with the readers holding their own mobile devices in front of a webcam so we could see their screens (figure 4). A modern laptop, a decent webcam, or an iPad 2 are the best camera options for remote-mobile research. Read more about our DIY approach to remote usability testing on mobile devices on our blog: http://blog.mailchimp.com/remote-usability-testing-on-mobile-devices/.

Figure 4 / Participants hug their laptop or iPad2 to position their mobile devices in front of their webcam.

When research wasn't conducted over Skype, we met with people at a coffeeshop near our office. For face-to-face research, we clipped a HueHD webcam (figure 5) (http://www.huehd.com/) to the mobile device we tested, and captured the conversation and user's facial expressions via Screenflow (http://screenflow.en.softonic.com/mac). The webcam feed was picked up by Photobooth, a free application on a Mac platform (http://www.apple.com/macosx/apps/#photobooth).

Figure 5

The HueHD webcam is attached to a regular kitchen clip by a wide rubber band. It can clip to multiple mobile devices.

Newsletters Used in Our Research

In our first round of research, we asked 14 people to save up to 10 HTML newsletters they regularly read. The newsletters saved included messages from wineries, retail stores, RSS feeds from blogs, daily deals, Cub Scout reports, and more.

In our second round of research, we gave 25 people a sampling of newsletters from MailChimp customers. These newsletters included updates from artists, journalists, parent/teacher organizations, auto-parts manufacturers, tutors, tech magazines, designers, and comedians. We provided newsletters that our participants stated were designed for mobile, newsletters where mobile design was specifically ignored, and newsletters that took both mobile and desktop viewing into consideration.

Figure 6 shows the total subscribers and mobile readership for the newsletters we provided in our research. The names of our customers have been changed to reflect the type of organization sending the email. It's important to note that iPhone readership can skew high, since images are shown by default when an email is opened. Android readership can skew low because the reader must often choose to show images in the email, which doesn't always register an open.

Newsletter	Members	iPhone Users	Android Users	Total Mobile Readers
Record Label	5590	1396	103	1499
Journalist Personal List	1352	808	0	808
Truck Parts	42	14	0	14
Artist	70	42	0	42
School PTO	155	96	0	96
Adult Tech Tutoring	46	16	0	16
Adult Tech Tutoring	63	22	0	22
Tech News	23898	6179	230	6409
Coupons	29122	7266	191	7457
Design Blog	775	229	6	235
Podcast	5901	2203	91	2294
Totals	67014	18271	621	18892
		27.26%	0.93%	28.19%

Figure 6 / The newsletters we provided for our interviewees ranged in size from 42 subscribers to 29,122 subscribers. 27.26% of their opens were on iPhones compared to .93% on Android devices. The iPhone Mail app has images turned on by default, so they're always downloaded when an email is opened (including the one-pixel image email service providers use to track opens). Most other clients have images turned off by default, so iPhones might show open rates that are higher than the actual number.

Observations and Interviews

When looking over these newsletters together, we initially provided a few general instructions about what we were looking for. We simply told participants, "We want to observe as you look over these emails and then hear your opinions." We were specifically looking to see how people navigate the email, their familiarity with gestures on mobile, and how they respond to certain design and content elements. If the person needed more direction, we asked them to compare the email to other emails they've read or comment on how they felt about the emails they were exploring.

Before we conducted each round of newsletter testing, we asked participants the same background questions about their email habits.

• Do you read your personal or work email on your mobile device? Or both?
• Do you use the default email app, or do you use another app for checking email?
• Do you have notifications set up to alert you when new email arrives?
• Do you check your email before you get out of bed in the morning?
• What places are you most likely to check your email?

Behaviors

Emails Everywhere

Good morning! 72% of the people we tested read their emails in bed. Most people use their phones as an alarm clock, so the common morning action is to turn off the alarm and hit the email icon. Often readers haven't even turned on the lights yet and are still cozy under blankets while reading your emails. If you send newsletters in the late evening or very early morning, you might want to rethink that bright purple and yellow graphic you've been using as a header graphic, as that would be a jarring visual for a reader who's just waking up or getting ready for bed.

77% of participants reported that they check their email "everywhere" or "obsessively." These readers have notifications set to alert them when an email arrives. They tend to check their mobile device immediately upon feeling that buzz or hearing the alert tone.

We asked people to share other places where they read their email on their mobile devices. Top locations mentioned were on public transportation, at a bar, restaurant, or coffee shop, waiting in line, and at their desk.

Top Locations to Check Email

On Public Transportation	Out to Eat/Bar/Coffee Shop	Waiting in Line	At Desk
14	12	8	6

People still use their phones in the restroom, but it's less email and more catching up on social media. We hope they're washing their hands.

People said that church and funerals are still off limits for checking email, but some churches do use Bible study apps as part of their service.

Business or Personal

87% of our participants are reading their work and personal emails together. No one we interviewed reads only their work email on their mobile device—people are getting everything all at once. Back in the dark ages before email, newsletters used to be a treat, a piece of mail that you could hold in your hand while you drink your tea. Or maybe it was a church bulletin with stories of church members, and you could stop and think of them while you relax. Today, personal and business lives are melding together into one device, and everyone is vying for attention.

Filtering

Almost all of participants interviewed reported a behavior we call filtering. Some readers savor every word of a newsletter right on their mobile device if they have time. If they don't, they either mark the email as unread and go back to it, save it in their inbox to read on their desktop, place it in a to-do folder, or most likely delete the email. On average, people we interviewed mentioned that they save 20-25 emails per day on their mobile device to "read later." The most frequently saved emails are technical newsletters, long articles, coupons and coupon notices, and interesting emails from trusted sources.

Share and Share Alike

When asked if participants liked sharing information from emails on their mobile device, most responded that they most often forward an email to a friend with comments added.

The second most common method of sharing is tweeting links in the email, or tweeting the campaign archive link to their followers. Readers find that Twitter is easy to use. Once you click a "tweet this" button or link in an email, there are just two steps: log in to Twitter, then share the link. Twitter also makes it very clear exactly what you're tweeting, so there's no guess work.

Despite its popularity around the world, Facebook is the least popular channel for sharing mobile emails. When using a Facebook "like" link in mobile emails, it's not always clear what will be posted on your Facebook account. Will it just be a link, a link with a thumbnail, or something else entirely? Certain limitations of the Facebook API make the sharing interface too clunky to feel like a smooth sharing option.

Best Practices for Mobile Email

Curate Your Content

As always, engaging content is the most important part of your email. Spending time writing or curating content that your readers will enjoy and fostering a relationship based on trust are essential parts of any great email campaign. If your design is lacking, people will still read a well-thought-out email that they're interested in. Of course, elegantly designed emails are at a distinct advantage over those that aren't.

Learn more about defining your readers, determining your purpose, and creating useful content in our How to Create An Email Marketing Plan guide.
http://mailchimp.com/resources/guides/how-to-create-an-email-marketing-plan/

Save it for Later

Many people save emails for later, to read when they have more time, or if the email is better read on a desktop or laptop. You can make your email easy to save for later by adding an Instapaper (http://instapaper.com) link to your articles. Simply link to a URL with this format:

http://www.instapaper.com/hello2?url=____&title=____&description=____

Each of the url, title, and description values must be URL-encoded, and title and description are optional (but title is recommended). You can learn more about how to create Instapaper links at http://www.instapaper.com/publishers. Do Lectures includes Instapaper links to their online content in their emails and even indicates how long each article takes to read (figure 8).
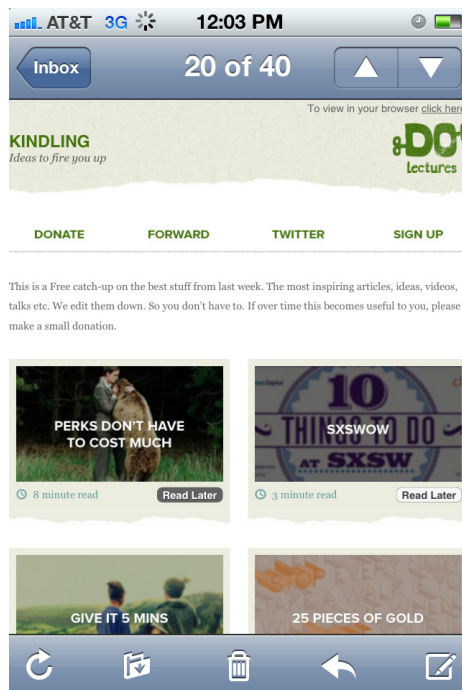
Figure 8 / An interesting use case from Do Lectures not only includes "Read Later" links to save the articles on Instapaper, but they give you an estimate of how long it will take to read the article.

Dipping into Design

After you've written your content, create an email designed to be read first on a mobile device. Below are tips, tricks, and examples we've gathered from our research. Many of these tips will apply to both iPhone and Android devices, unless otherwise noted.

Media Queries

Media queries are a way to change content delivery according to media types and media features. The idea behind a media query is simple: Change presentation rules (CSS) when certain conditions are met. For example, if the screen is small, your CSS can reflow the layout and increase the font size to make a better reading experience.

On a mobile screen, an ideal solution is to have the email fill the screen completely, regardless of whether the phone is in portrait or landscape orientation. Media queries help you change the width of your email from a set pixel width on desktop to 100% of the screen when viewed on a mobile device.

When you code your templates and include media queries, you can also bump up your email's text size, change a font or do more cool things with email-valid CSS when viewed on mobile. Tech journalist Dave Pell uses media queries in his HTML emails to scale type to a legible size for mobile reading (figure 9).
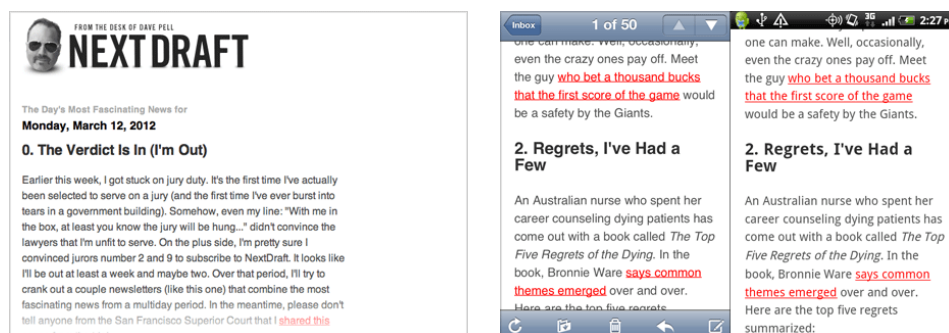

Figure 9 / Dave Pell's HTML email newsletter before and after adding media queries (iPhone/Android).

Additional Hint / *Readers expect to be able to click on a social media button, so don't use a social media logo as a section header without making it clickable.*

Choose Your Layout

People are more likely to read your links, follow through on your calls to action, and visit your site if your website is built with responsive design (http://www.abookapart.com/products/ responsive-web-design) in mind, or if your newsletter looks like it's designed for mobile reading. In fact, 25% of the people we interviewed about mobile email mentioned responsive design.

While single-column layouts initially look good on a mobile device, they aren't very practical. Half of the people we spoke to knew to use double tap to expand text to the size of the screen, but few enjoy using it. Double tap doesn't offer much control over expansion of the text, and often results in accidentally tapping an image or link. When zooming is necessary, most people prefer to pinch/zoom the text to exactly the size they want to read. Zooming in on a single-column mobile email often leads to scrolling left to right while reading, which can be distracting and seen as an interruption in the flow of an article (figure 10). It's important to take into consideration the way the email will look on a desktop if you use a single column, which, again, is where media queries and appropriate text sizes can make your mobile email very readable.
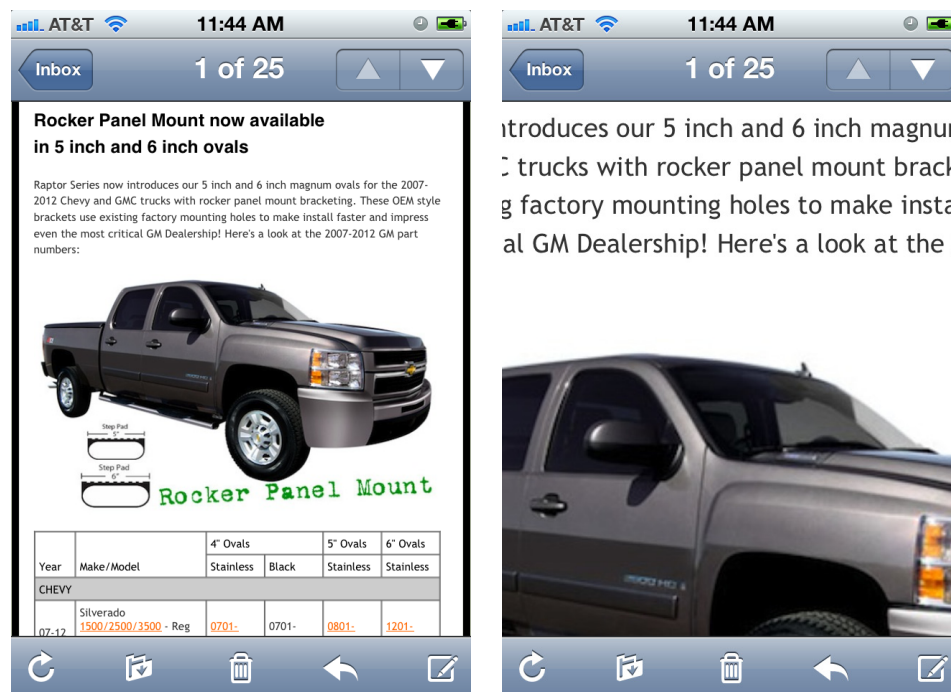

Figure 10 / Zooming in on text on a mobile device can be tricky.

Although it might seem counter-intuitive, multi-column layouts are OK! With two or even three columns, the reader can zoom the text to a comfortable reading size without having to scroll left to right while reading (figure 11).
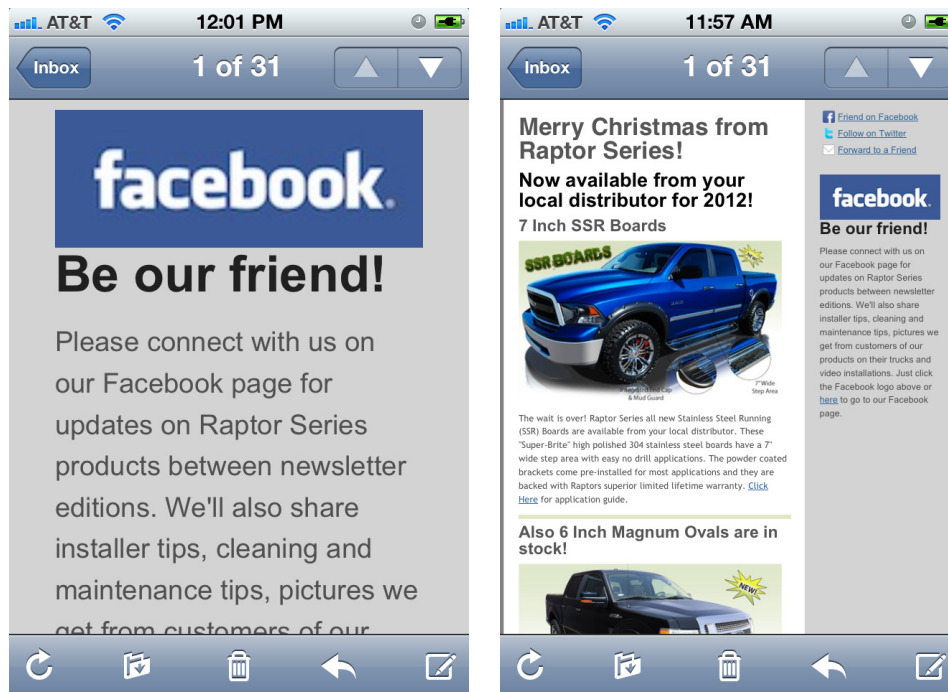

Figure 11 / Multi-column layouts actually make it easier for readers to double tap and zoom on text, avoiding awkward side scrolling.

Besides using columns, there are other great ways to design your emails with clear sections to assist with mobile-email scanning. You can do this with appropriately sized header text (figure 12), dividing lines, numbered paragraphs, or even using a relevant image to notate a block of the email design (figure 13/14). People we interviewed mentioned that they like images in mobile emails as long as they're small and don't take a lot of time (and don't overly tax their data plan) to load.
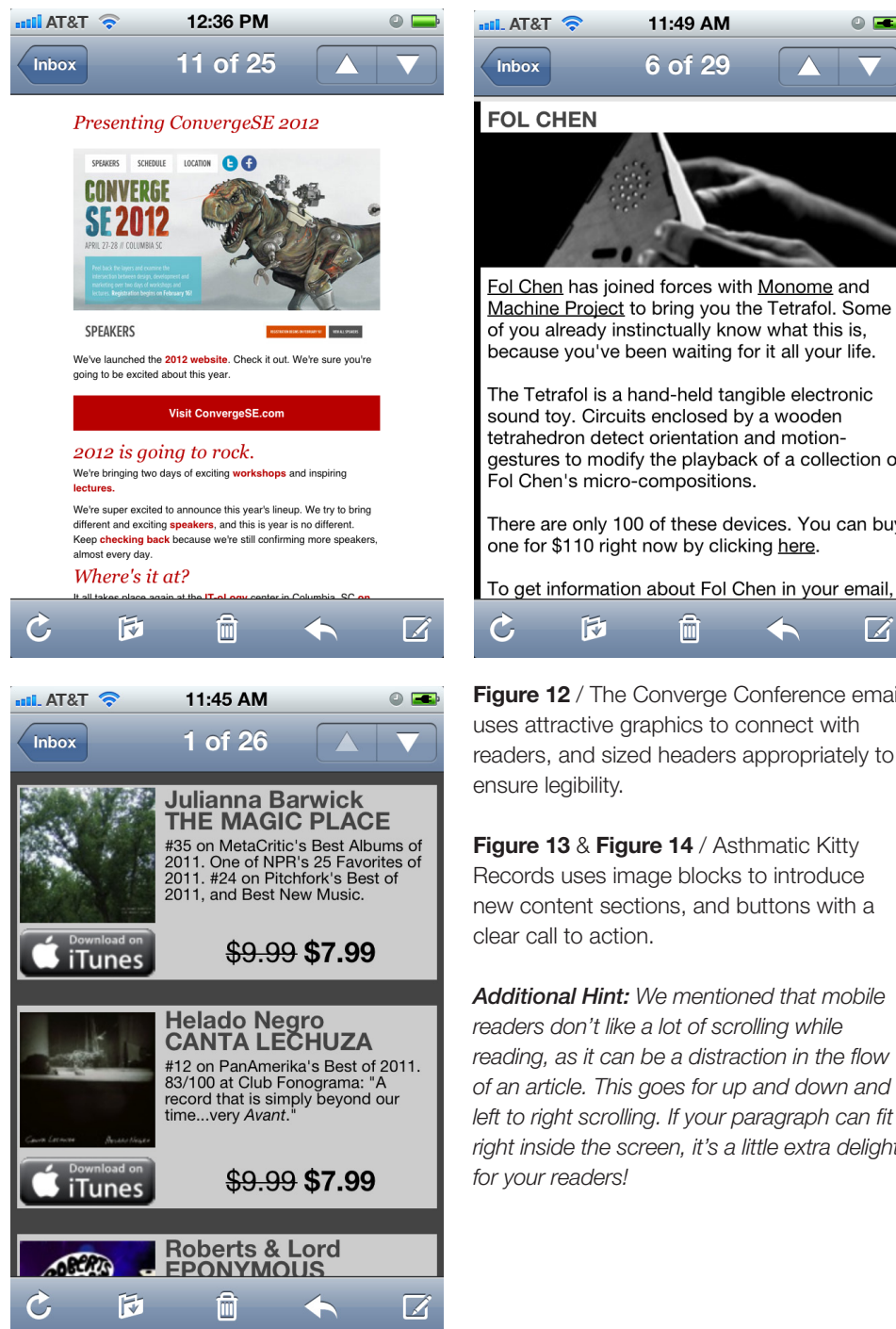

Figure 12 / The Converge Conference email uses attractive graphics to connect with readers, and sized headers appropriately to ensure legibility.

Figure 13 & **Figure 14** / Asthmatic Kitty Records uses image blocks to introduce new content sections, and buttons with a clear call to action.

Additional Hint: We mentioned that mobile readers don't like a lot of scrolling while reading, as it can be a distraction in the flow of an article. This goes for up and down and left to right scrolling. If your paragraph can fit right inside the screen, it's a little extra delight for your readers!

Style Your Text

It might seem cliché, but readers in their mid-40s and older do mention having trouble reading tiny text on mobile devices. Luckily, the Apple recommended font size of 17-22pts in mobile emails satisfies most mobile readers (figure 15 and 16)*.
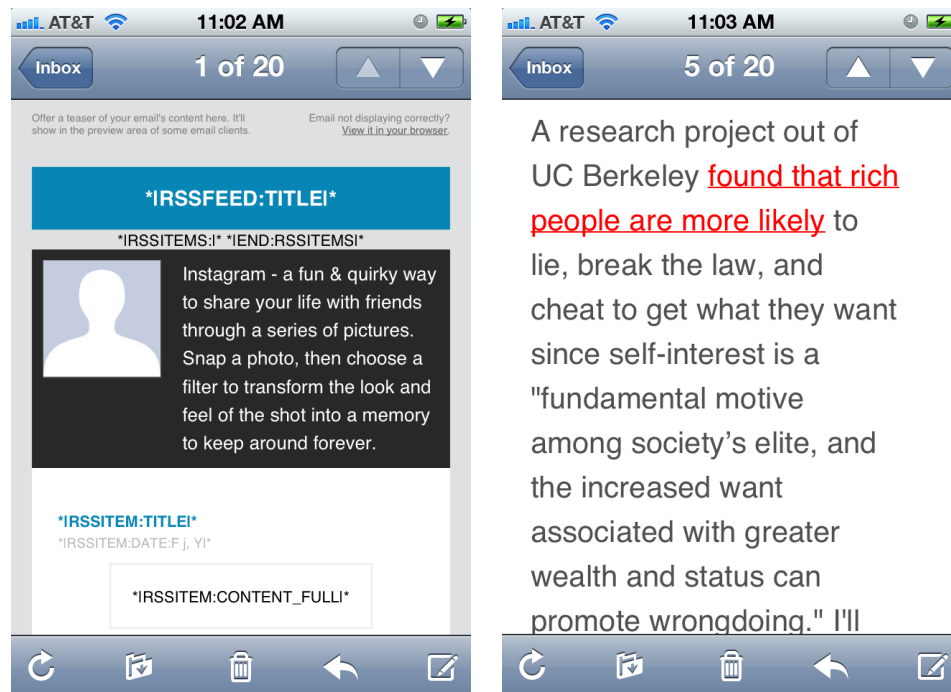

Figure 15 & **16** / Large 18px (left) and 19px (right) type makes reading on a mobile device much easier.

*http://stylecampaign.com/blog/2010/05/mobile-email-design-part-2/

Style Links and Calls to Action

Consider using thumb-friendly buttons for your "Read more," "Buy now," and social-media links. As Fitt's Law (http://en.wikipedia.org/wiki/Fitts's_law) suggests, increasing the size of an interaction target decreases the time and effort required to reach it. Big buttons are not only more visible on a mobile screen, they're also easier to interact with. When asked to compare two newsletters, we observed that readers more easily notice icons and buttons instead of links as calls to action, especially if a small font is used (figure18).

If you really want to use text, keep the sizing guidelines in mind, but note that some readers also mentioned that while it's old school, it helps to have links underlined in mobile emails to make them stand out. If the link is buried in a paragraph of text and is just a different color, it looks like it's highlighted text rather than a link (figure 17).
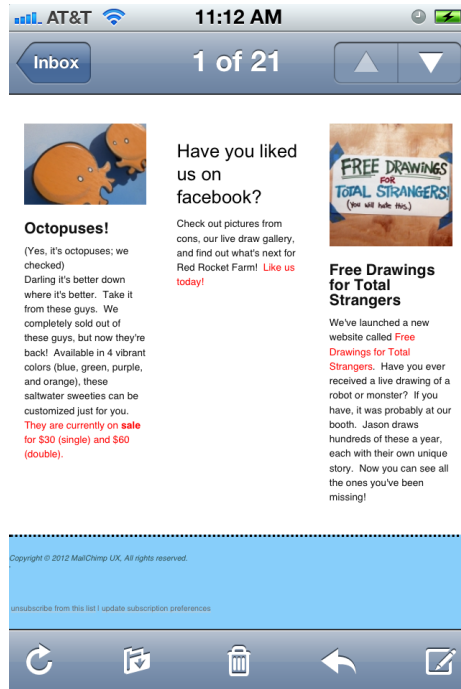

Figure 17 / The text links in this email are easy to ignore. For critical actions, go with a graphical button instead.
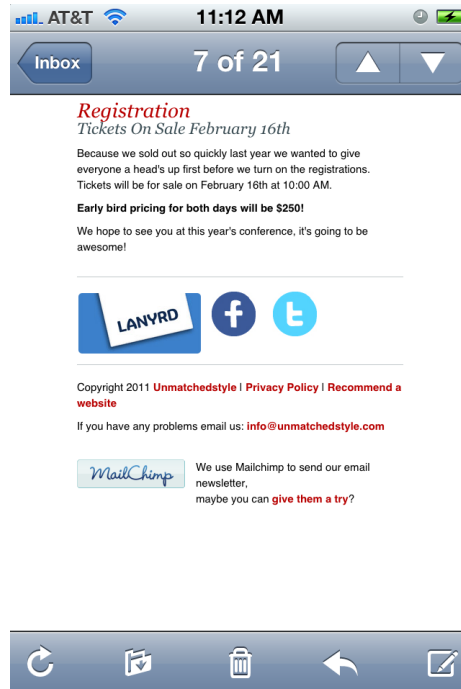

Figure 18 / The social links in the footer of this email capture the readers attention and are sufficiently large enough to be tapped with fat thumbs.

Android Exceptions

We're going to save you some headache here. Unless you're getting down to the super nitty-gritty details, most emails look the same on most Android devices. The differences come in how the Android user chooses to set up their device for email, and in what app they choose to read their email. They can set an overriding text size, set download limits, choose plain-text only emails, and set all their email to clear out of their inbox in a number of days, which doesn't help much with saving for later.

However, they don't have a lot of control over the HTML email display. It's common for an HTML email on an Android device to show only a small portion of the email at a time (figure 19).
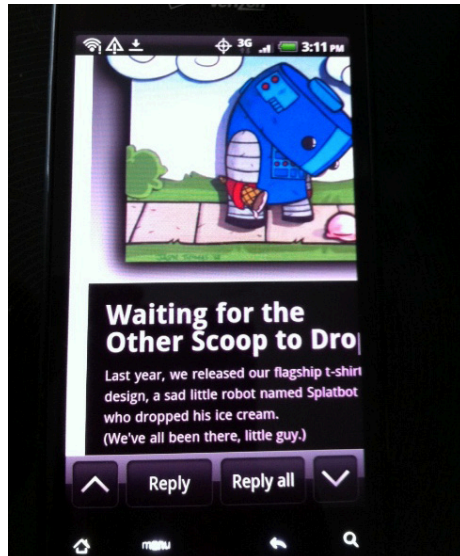
This, of course, leads to a lot of scrolling left, right, up, and down for your reader. Add to that the inability on some Android devices (especially in the Gmail app) to pinch/zoom in email, your reader is just going to have to scroll to read your content. And if the device does allow pinch/zoom, it often doesn't zoom the images, but just the text to better fit the screen. Ouch.

So if you know you're sending to an Android-heavy readership, take these tips into consideration.

Figure 19 / The default Android display only shows a portion of an email.

If you're using a two-column template, consider using a smaller left column and wider right column (figure 20). In our research, we found that if the right column takes up the entire screen on initial download, the reader doesn't always remember that there may be an additional column hiding on the right side. Android users in our research had an easier time reading single-column (figure 21) and left-sidebar designs.

Figure 20 / Android users may notice awkward left/right scrolling in some emails, which makes for a terrible reading experience. A left column sidebar can alert the reader to the full scale of the design.
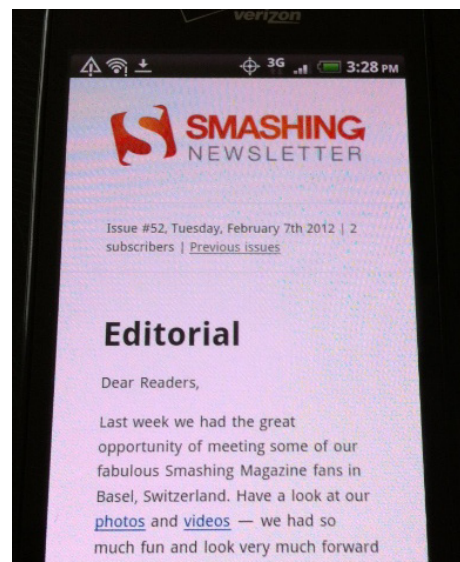

Figure 21 / Smashing Magazine shows that a single-column email with appropriately sized text can be a great experience on an Android device.

Also watch the margins and padding on the edges of your email. For instance, on the Galaxy Nexus in the Gmail app, if your text is right against the edge of the screen and your reader scrolls too far horizontally to read the text, they'll scroll to the next email instead of to the end of the text or image they're viewing.

Pro tip: *If you're coding your own email include "-webkit-text-size-adjust: none;" in your CSS to prevent Android settings from overriding your text sizes.*

Gmail Exceptions (for Android and iPhone)

Gmail was the second most popular email client used on mobile devices in our study (after the built-in mail app). Whether on iPhone or Android, the Gmail app has the same issues and limitations as Gmail on your desktop.

We know that Gmail strips out the HTML head element, and with it, any CSS it contains. So if you're coding your own HTML emails, be sure to inline your CSS (http://beaker.mailchimp.com/inline-css). Otherwise you may see unwanted centering of your content, and your email won't have any styling or coloring outside of what your browser or email client applies as default.

There's also an email file size limitation in the Gmail app. Gmail often only loads a partial email, cutting the content off at 102KB with an option to download the rest of the email.

While we didn't focus on tablets for this study, we can tell you that on the iPad, Gmail offers no way to get the rest of the message if you go over the maximum size limit.*

*http://www.emailonacid.com/blog/details/C13/when_it_comes_to_html_email_size_does_matter

The Future

This is only the beginning of our mobile-email research. Through our studies, we've learned much, but by talking to mobile-email readers, we saw personalized habits in action while increasing our curiosity about mobile devices and tablets.

Right now, people strongly view mobile email as a filter, and we're all trying to avoid getting deleted too fast, because our emails are awesome. Follow these best practices regarding engaging content and building trust with your audience, and take into consideration the design tips we've unearthed through our research. Your audience will thank you with its increased engagement.

Resources

We recorded all the interviews we conducted during our mobile email study. Each interview lasted 15-25 minutes. Here are a few shorter clips of real people reading real newsletters sent through MailChimp.

https://vimeo.com/40313661
"A" read Red Rocket Farm's newsletter on her iPhone.

https://vimeo.com/40313912
"B" read Smashing Magazine's newsletter and WTF Podcast's newsletter on his iPhone.

https://vimeo.com/40313913
"C" read Smashing Magazine's newsletter on her iPhone.

https://vimeo.com/40313911
"D" read Red Rocket Farm's newsletter on her Nexus S Samsung (Vanilla)*

*You may notice that Tester D's screen on the Android is a little hard to see at times. Even with the brightness taken down to a minimum on the Android, the screen still reflects a lot of light into the webcam. Since we're familiar with the newsletter and text, it's not as important for us to see the text during the interview as it is to see how the person responds to the design.