

A woman with dark hair tied back is wearing black eye-tracking glasses. She is holding a smartphone in her hands and looking at the screen. She is wearing a black tank top over a red long-sleeved shirt. The background is a blurred office environment with shelves and papers. A large white circle is overlaid on the image, containing the text.

MOBILE EYETRACKING IN E-MAIL MARKETING

CHALLENGES OF THE MOBILE WORLD

This is the third time our research team at EDISONDA attempts to find out how e-mail marketing messages are perceived by their users. Since the last research session in 2013, much of what was of interest to our researchers and designers changed dramatically. The increase of mobile device usage has skyrocketed, the design approach to websites, applications and e-mail messages has changed, as the philosophy of responsive web design gained ground in form of deeper understanding and technical ability of designers and marketers.

As is often observed in the world of the web design and development, the research quickly follows new trends, best practices and patterns. That is why our third research attempt concentrated once again on e-mail marketing messages - this time, however, on the ones displayed on smartphones.

As with every design work, each iteration allows us to test our assumptions not only in terms of the research material itself, but also the approach we take and the test method we use. Previous research studies taught us the importance of the prepa-

ration of content and means of analyzing the results. The third research session was even more challenging, as the material, the medium and the method of analysis have changed significantly.



Mobile eyetracking in e-mail marketing research session prepared with [Benchmark email](#), [SMI](#) and the [Faculty of Humanities](#) at the University of Science and Technology.

SIZE DOES MATTER

As known from various research studies conducted, browsing mobile websites or using applications on a mobile phone or a tablet screen constitutes a different experience and, as a consequence, it comes with new habits, problems and observations. While conducting research on e-mails displayed on a PC, our hypotheses were based upon a volume of knowledge from previous research sessions, however the unique character of mobile research did not allow us to build the same hypothesis. In other words, researching e-mail messages within the limited display of a mobile phone was a step into the dark.

The most obvious factor influencing the way how e-mails are read and perceived was the different medium itself. Smaller screen generates different ways and patterns of looking at and perceiving any material.

Furthermore, the way users scroll websites and applications on touch screens differs from PCs, where the mouse is used in most of the cases. The full extent of those differences is not entirely known, nevertheless we were prepared to observe a different level of engagement when reading an e-mail dis-

played on a smaller, easily scrollable touch screen.

Last but not least, the mobile devices allow users to interact with marketing materials anywhere and anytime, altering therefore the experience in comparison to doing so on a PC.

Smaller screen generates different ways and patterns of looking at and perceiving any material.

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IDEA FOR A NEW RESEARCH

When preparing the procedure for yet another research study, we used the experience gained from previous sessions. The method employed during the 2013 research proved to generate a lot of insight, both in terms of quantitative and qualitative data.

A set of e-mail marketing messages was created. While differing in terms of topics, all messages attempted to follow a similar structure with text and visual elements as well as buttons.

We have introduced some modifications into the research based on several hypotheses and statements, that are more and more often found in articles or blog posts discussing both the design and marketing side of e-mail marketing.

Moreover, this time we intentionally prepared more complex stimuli - every message we presented contained not one, but two modifications. This way we wanted to advance our findings from previous research sessions by trying to observe how combinations of two modifications result in altering users' gaze movement. In other words, we endeavored to move from a standard A\B test towards a more advanced multivariate test. The messages prepared were not just mock-ups - our material could easily be used in a real e-mail marketing campaign.

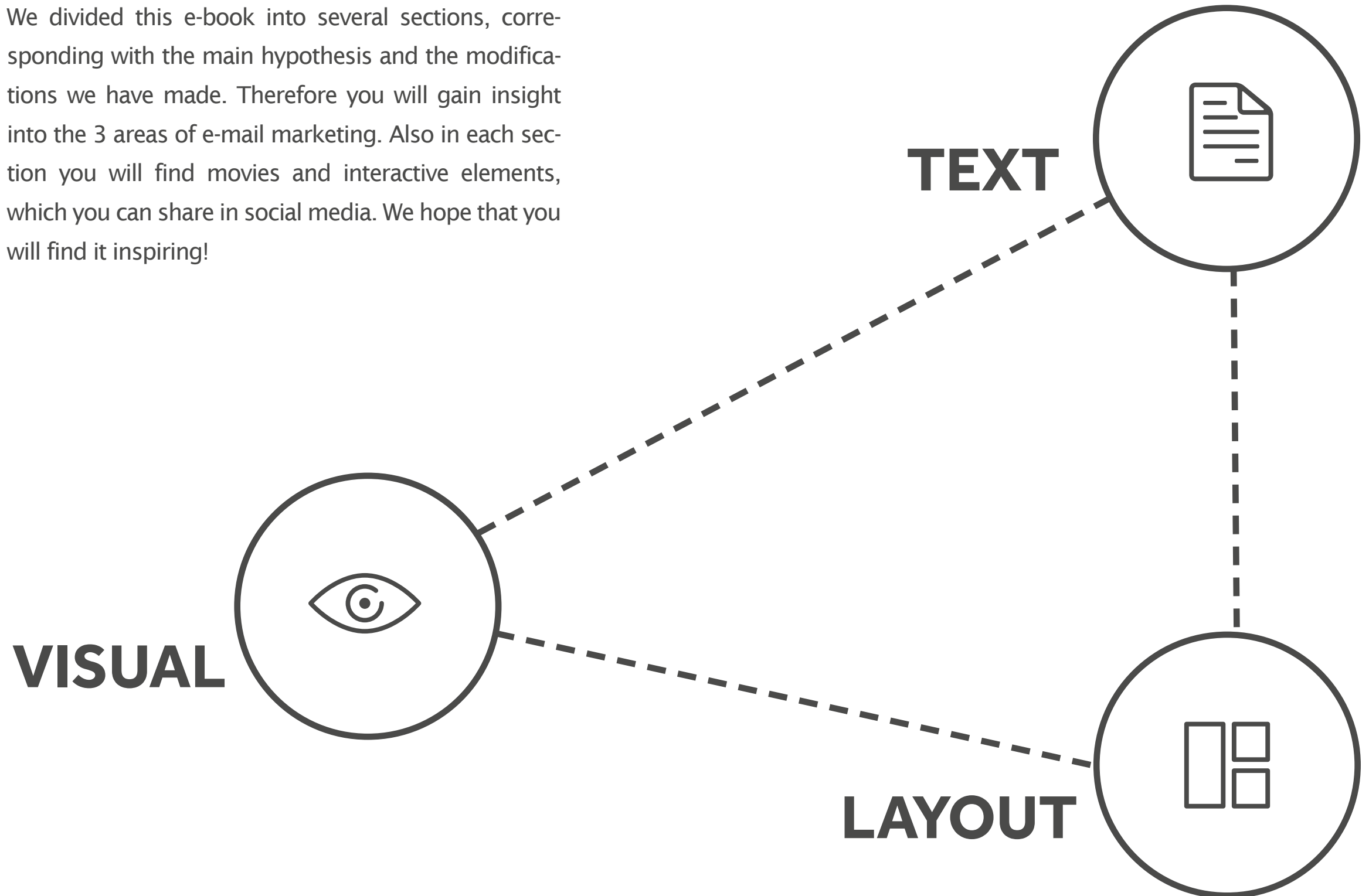
During the fieldwork, every message was presented to users for the duration of 15 seconds. Furthermore, test participants could scroll the message freely. The mobile eyetracking research was conducted amongst 50 participants - students of the Faculty of Humanities at the University of Science and Technology.

INSTEAD OF RECOMMENDATIONS

At this moment, we consider our research to be unique in the world of the web design and development. As with every research, it would be unwise to recommend solutions and practices based on just one single research session. However clear and strong some observations from our study may appear, it must be remembered that a further, more focused study is required if any set of best practices is to be created. We encourage our fellow research community to follow our steps to discover even more insight into e-mail marketing messages and go in the direction of well-grounded best practices and patterns.

After reading our report you will gain knowledge on behaviors of users of mobile e-mail marketing messages. Information contained in this report should constitute a starting point for further investigations of best practices and patterns.

We divided this e-book into several sections, corresponding with the main hypothesis and the modifications we have made. Therefore you will gain insight into the 3 areas of e-mail marketing. Also in each section you will find movies and interactive elements, which you can share in social media. We hope that you will find it inspiring!





TEXT

A well prepared content is crucial to the efficient communication, especially when it comes to newsletters and text e-mails. Moreover, the better you prepare it, the more efficient your message will be. In this section you will find a few insights into the length of the paragraphs, the alignment and the text formatting.

MESSAGE SUMMARY

Once the user opens our message, it is critical to catch his attention and inform him what content can he expect. It is this very first moment that decides whether our user will keep on reading, will move on or will delete the message. The two mailings prepared for this test contained a short summary: in the first one, the introductory text is presented just at the top of the e-mail. In the second one, the summary is placed below the photo.

The introductory text was noticed earlier when it was placed above the photo (above photo 1121.6 ms and below photo 2296.1 ms on average), and what's more important, the text above the photo attracted more attention of the respondents (the difference of 322 ms). The results show that the summary distinguished by its location is perceived better, it should inform about the main goal of the message.

The summary distinguished by its location is perceived better, it should inform about the main goal of the message.

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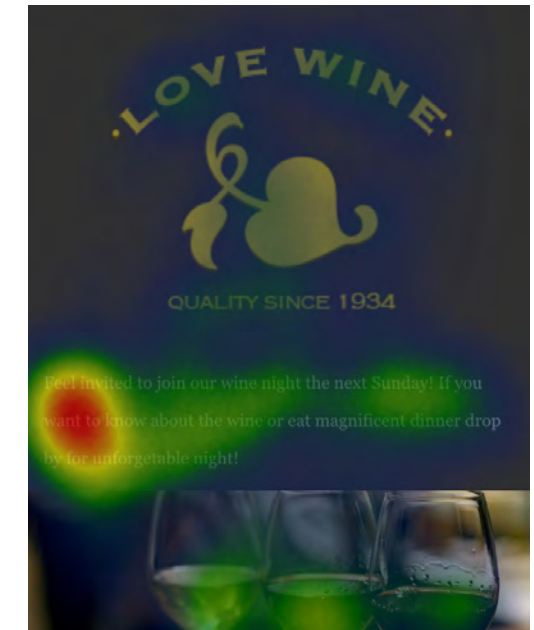
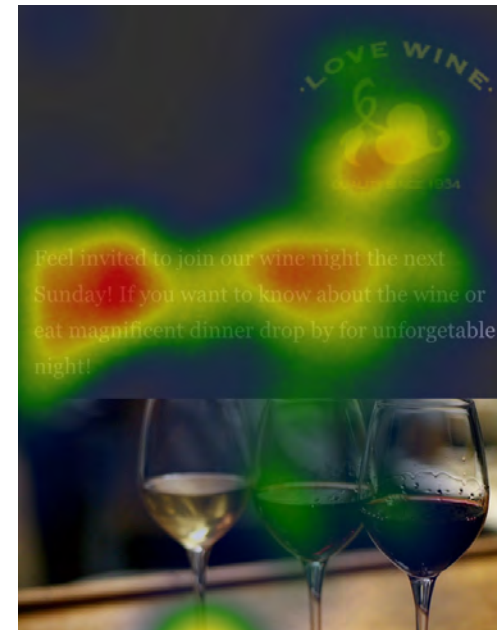
Heat map after 15 seconds, 22 (A) and 16 (B) respondents

SIZE OF THE SUMMARY

The size of the introductory text also seems to matter: the smaller the font of the text (Georgia, 11 px), the smaller the attention span on this specific area of interests. The following mailing with the summary font modification shows how the bigger summary (Georgia 14 px) attracts the user's attention (1117 ms longer). The bigger summary is perceived quicker (the difference is 1185.7 ms) than the smaller one.

Given the results, it can be assumed that a summary with a bigger font may be read and remembered more often than the smaller one.

Nevertheless, enlarging the font size will not always affect the attractiveness of the area of interests. Although the bigger summary (Georgia 20 px) is perceived quicker (2944.1 ms) than the average size (Georgia 14 px) summary (2462.4ms) the dwell time of the focus on this area doesn't differ that significantly (only 6ms). Even though the numbers confirm the hypothesis, we are aware that the size and location of the logo might have had the influence on the following pattern.



Heat map after 15 seconds, 18 (A) and 17 (B) respondents



Heat map after 15 seconds, 19 (A) and 17 (B) respondents

HOW WE READ?

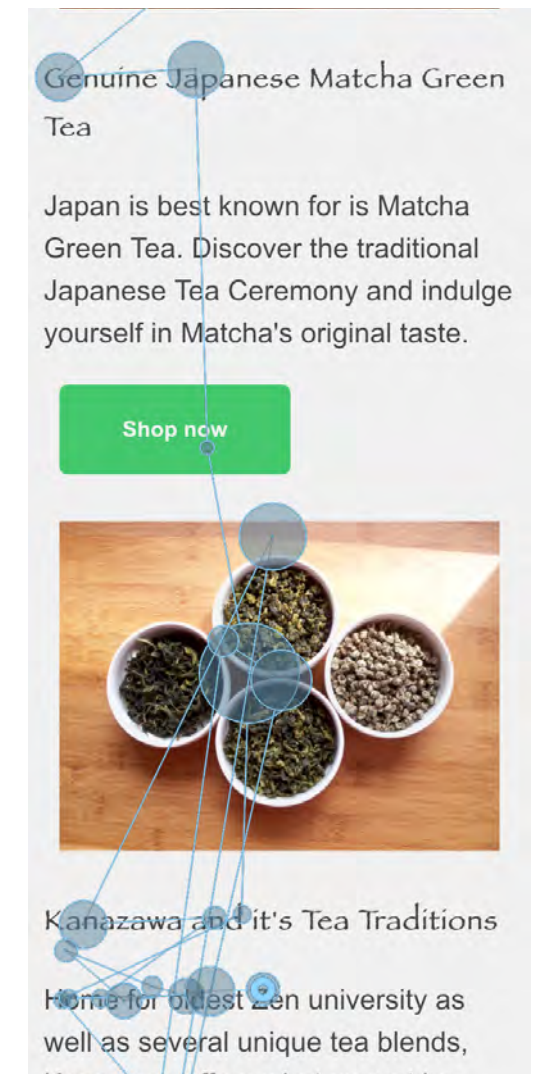
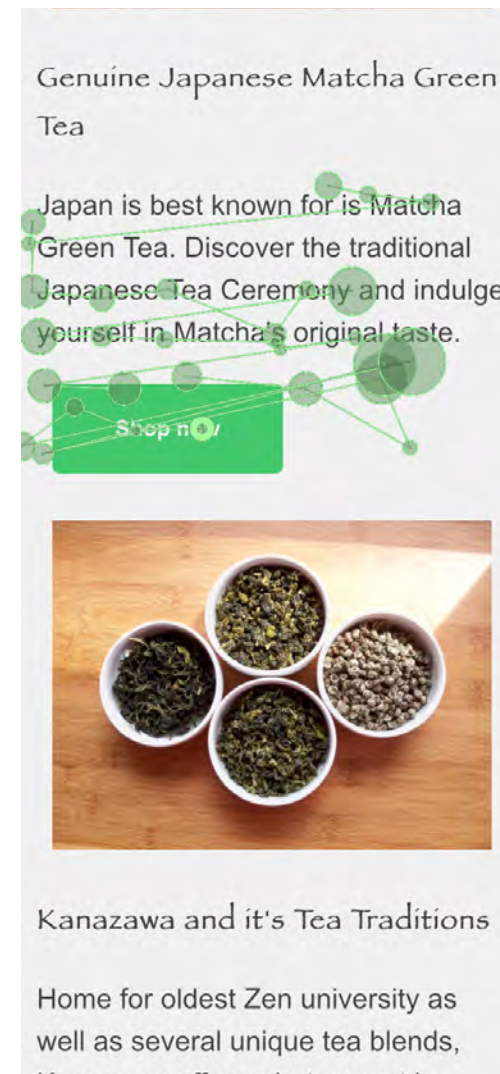
The context influences how we perceive certain things, for example in the Western cultural context we are used to reading the texts from left to right. However, there is no one way how people read, it is very relative and depends on individual habits.

These two gaze plots represent the two typical patterns of observing the given stimuli. The first user - Matt - starts at the top of the mailing but doesn't focus on the given text, he notices the following elements quickly scanning and swiping the mailing to the end. The second user - Anna - decides to focus on the content rather than to scan it briefly. The visualization of her gaze shows regular focus in the text areas.

ABOUT USERS

Anna is a 20-year-old sociology student. She is a vegetarian, interested in the Italian heritage and belly dancing. She usually check e-mails on the desktop, rather than on the smartphone.

Matt is a 24-year-old management student, keen on biking, local politics and RPG games. He is used to checking his mailbox quite often, especially on his smartphone.



Users scan paths 8,4 s trailer

WATCH THE MOVIE



LENGTH OF THE PARAGRAPHS

Our hypothesis was that the long paragraphs distract the reader more than the shorter messages. The following e-mail shows in fact that short messages are easily perceived.

Within the 15 seconds allocated for the test, the respondents who had the opportunity to see the shorter version managed to scan the e-mail from the beginning to the end. The call to action of the shorter e-mail was seen by 77% of the respondents, while in the longer one it was seen by 53 % of them.

Let's keep in mind that the length of the paragraphs influences the whole layout of the e-mail. Given this observation, we can start to wonder whether the most important element of the message (for example CTA) should be placed above the fold.

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Summarized messages are more easily perceived and scanned than the longer ones.

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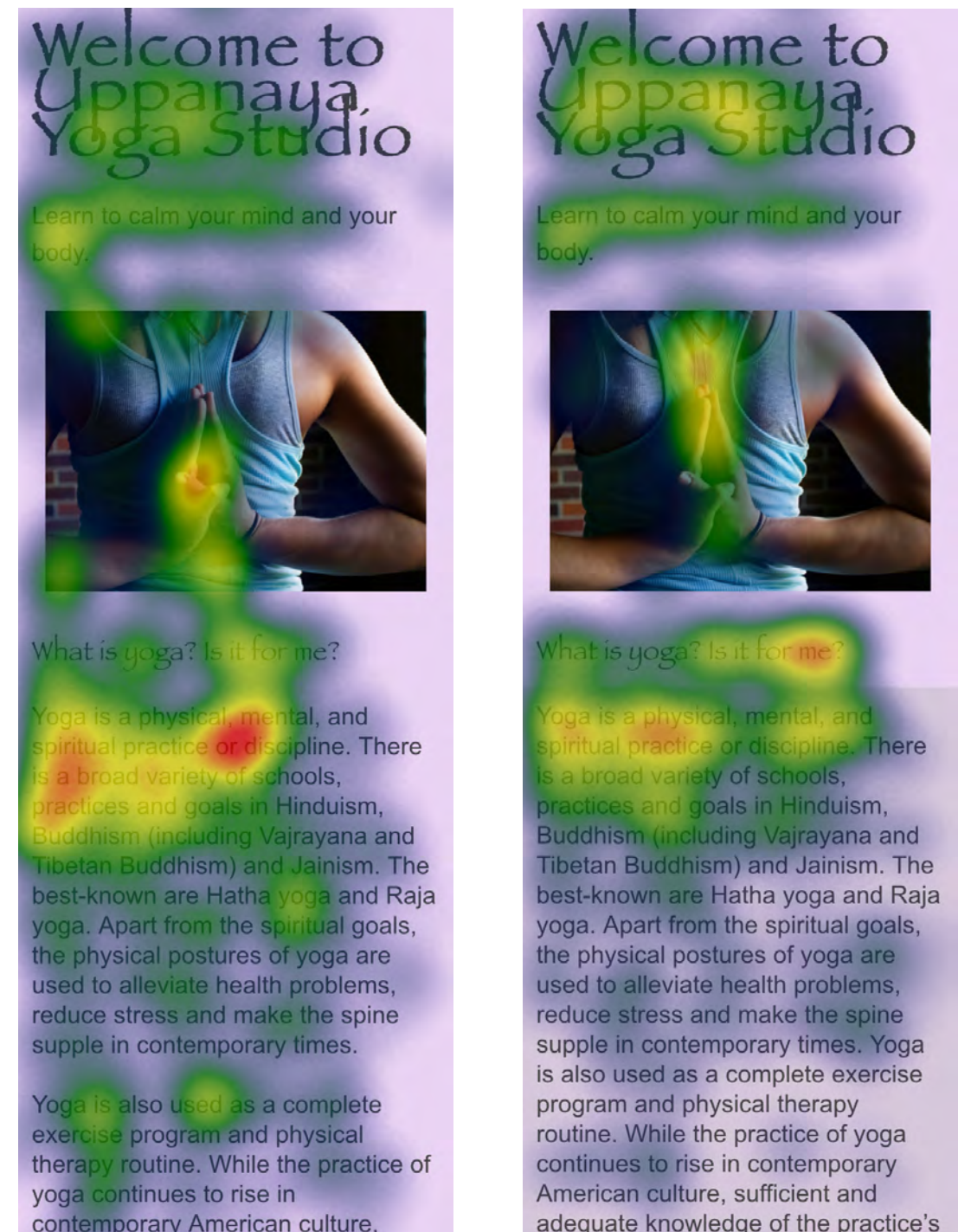
Heat map after 15 seconds, 17 (A) and 19 (B) respondents

MAIL COMPOSITION

Not only the length of the text but also the formatting can change the way the user perceives the message. The two mailings about yoga contained the same amount of text, but were divided in a different way – the first message consists of 5 short paragraphs, while the second one has only 2 much longer sections.

The heat map presents how the focus of the respondents was distracted and distributed in regard to other elements of the mailing: the title, summary, headers and social media buttons. The attention of the respondents who saw the message containing more paragraphs is less distracted, probably because the text prepared this way is more user-friendly and easier to read. Surprisingly, the photo placed within the mailing with shorter paragraphs attracted their attention longer than in the other mailing.

The attention of the respondents who saw the message containing more paragraphs is less distracted



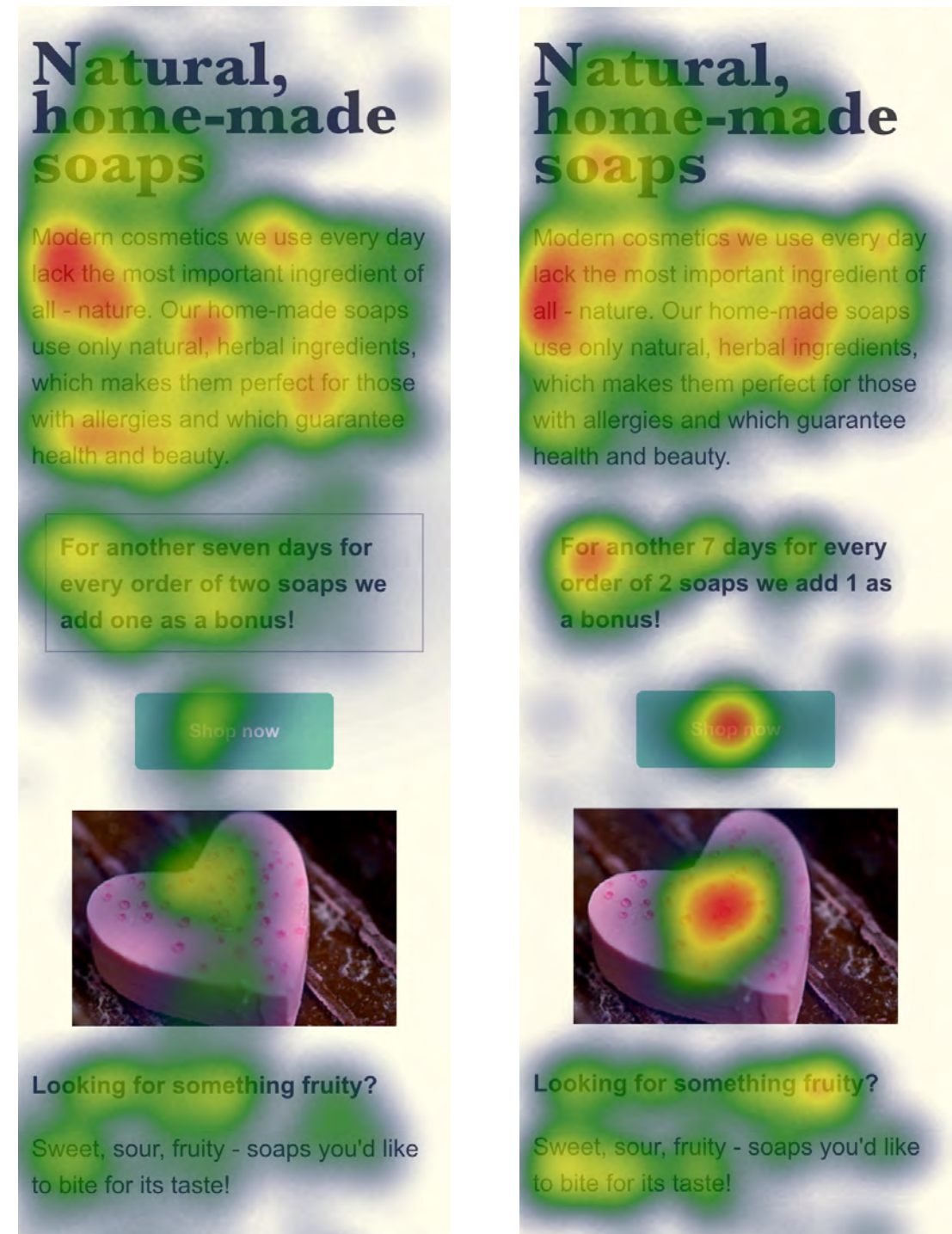
TEXT IN THE FRAME

One of the questions we've asked ourselves was how the text placed in the frame focuses attention and how it differs if it is emphasized in another way.

The text in the frame is perceived by the users earlier (791 ms quicker) and it gets more of their attention. The respondents also seem to focus their attention longer on the text within the frame (139.2 ms of difference). This modification has its own consequences, both the CTA and the photo below in the version including the text in the frame get much less attention than in the first mailing.

The text in the frame is perceived by the users earlier (791 ms quicker) and it gets more of their attention.

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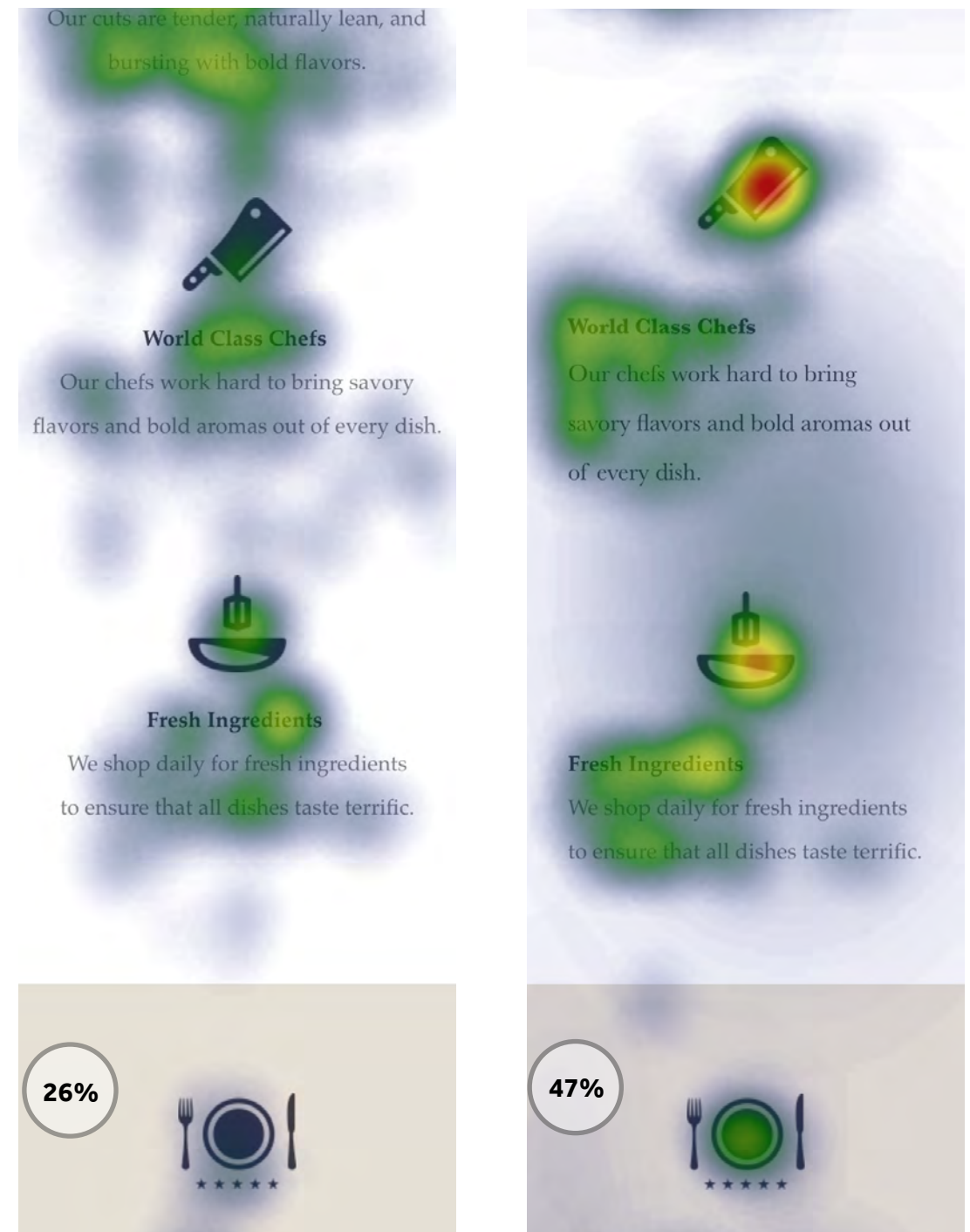
Heat map after 15 seconds, 18 respondents

THE TEXT ALIGNMENT

One of the popular trends in e-mail marketing is the center aligned text. As our initial hypothesis was different, we have decided to check it. The following results show that the text is easier to scan when it is aligned to the left than if it's centered. This pattern of behavior is visible in any modified element of the mailing. The text aligned to the left allowed the respondents to scan further than in the other mailing: in the left aligned one, 47% of the respondents noticed the plate graphic, while in the centered version it was noticed by 26% of the respondents. The readers found it more difficult to stay focused when scanning the centered text and therefore they reached the areas placed below faster.

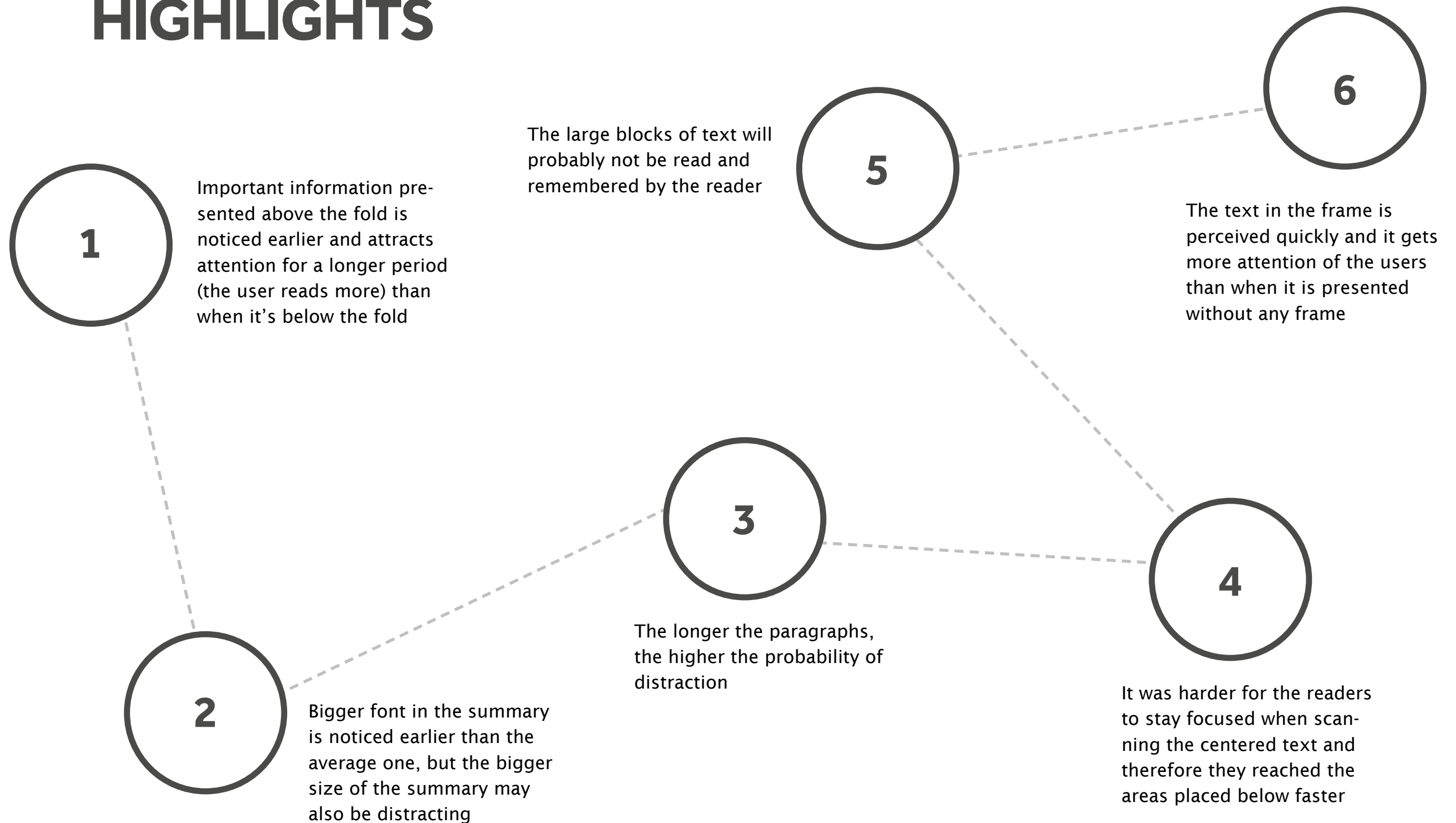
The text aligned to the left allowed the respondents to scan further than in the other mailing

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Heat map after 15 seconds, 20 (A) and 18 (B) respondents

HIGHLIGHTS



A photograph of two people, a man and a woman, sitting at a white desk. The man on the left is looking at a laptop screen. The woman on the right is wearing a black long-sleeved shirt and a pair of black safety glasses, and she is holding a tablet. The laptop screen displays a spreadsheet with green and yellow cells. On the desk, there are two smartphones, one of which is connected to a white charging dock. A large white circle is overlaid on the image, containing the word 'VISUAL' in a bold, white, sans-serif font.

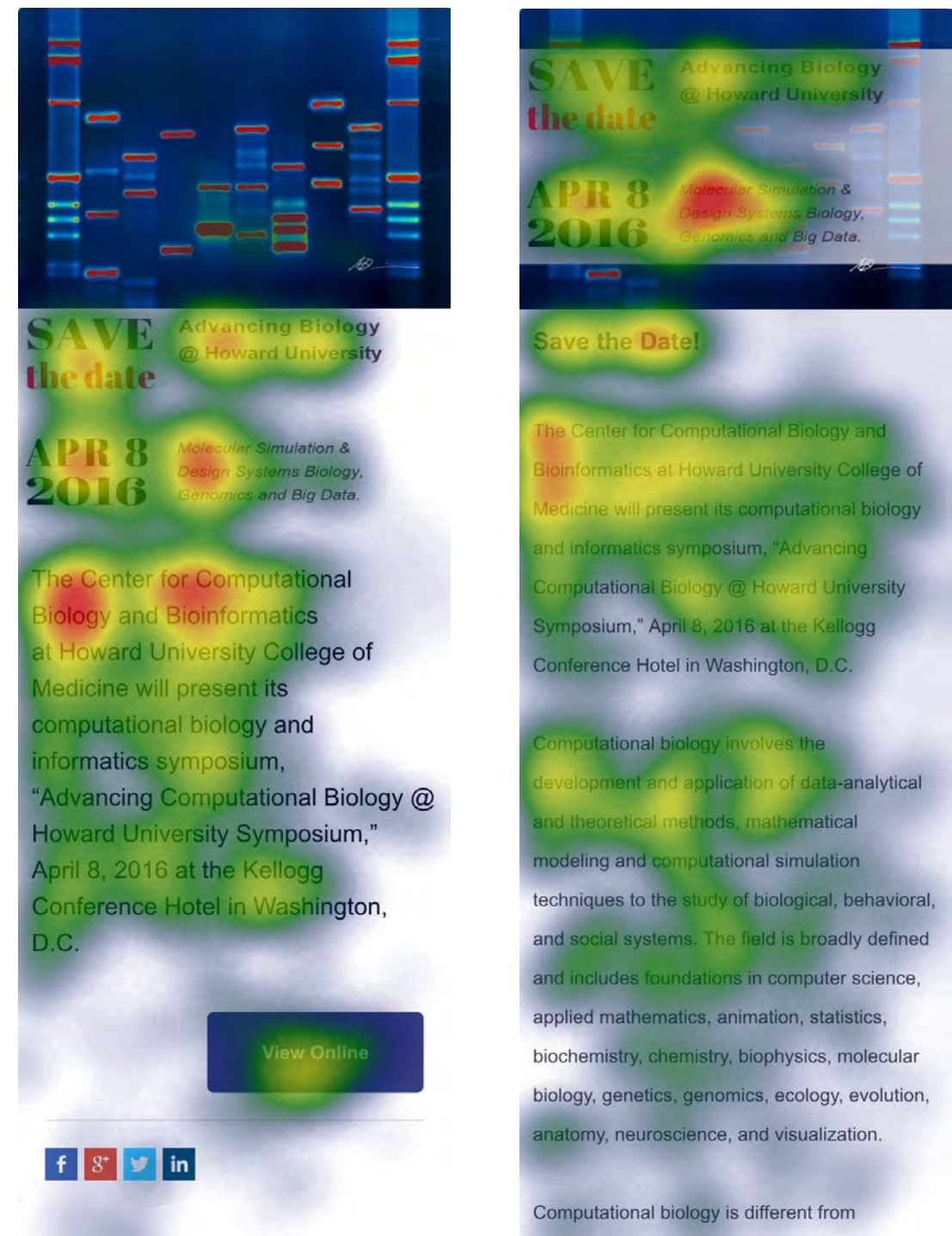
VISUAL

The visual aspect of each e-mail marketing message is important, because photos provide information hard to describe in words. While designing the mailing you need to choose unique and interesting materials. In this section you will find some insights on how graphics and numbers influence our perception.

PHOTO OR TEXT

One of our hypothesis concerned the problem of the presentation of information in a visual context. Therefore, the stimuli was prepared in two versions: in the first one the information about the date of the symposium was placed in the header in a text form, in the second one the same information was shown in the header in a form of a banner.

The information presented on the photo was noticed earlier (27,4 ms vs 356,2 ms) but it was the information without any background that got more attention (difference 524,5 ms). Although the numbers seem to confirm the hypothesis, it is important to keep in mind that this mailing contained also other changes related to the amount of the text. This modification can have a significant influence on the attention of the respondents regarding other areas of interest.



Heat map after 15 seconds, 19 (A) and 17 (B) respondents

The following mailing about an astronomy lecture introduces a similar modification with slight changes.

The results show that the title of the e-mail attracts interest of the respondents when it's located below the photo. On the other hand, the information about the date and the venue gets less attention and of course it's noticed later.

As there were more modifications implemented in this message we can only assume that the text placed on the photography looks like an advert and it attracts less attention due to the banner blindness phenomenon - meaning that the users ignore the banner-like element of the stimuli ([read more](#)).



Heat map after 15 seconds, 19 (A) and 17 (B) respondents

NUMBERS

The numbers written using the numeral format (e.g. 123 instead of one hundred twenty three) are the most eye-catching part of the text. Furthermore, they carry a lot of important information so it is easy for them to attract the attention of the recipients ([read more](#)). We have checked how this rule works on mobile mailings.

The heat maps present the difference between the two mailings. Small change within the text influences the overall experience of the mailing content. The header with the number “50% off” (dwell time 895.1 ms) gets more attention of the respondents than a simple header with the “Half price off” wording.

The header with the number “50% off” (dwell time 895.1 ms) gets more attention of the respondents than a simple header with the “Half price off” wording.



Heat map after 15 seconds, 17 (A) and 15 (B) respondents

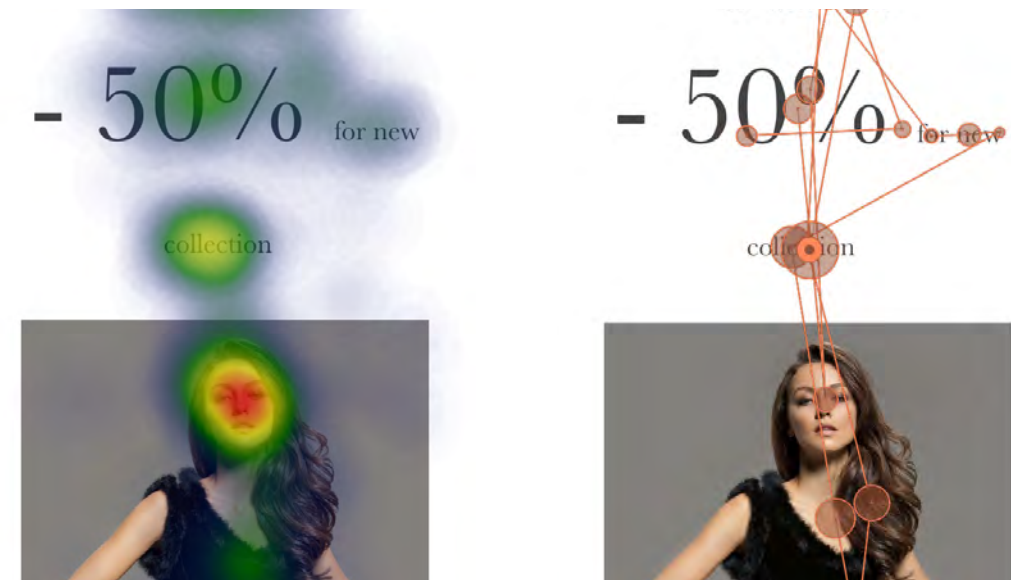
FACES

Human face is a powerful and universal medium that could provide a lot of information in one single moment. Moreover, some parts of that information, like emotions, for example, are understandable to everyone regardless of their cultural background.

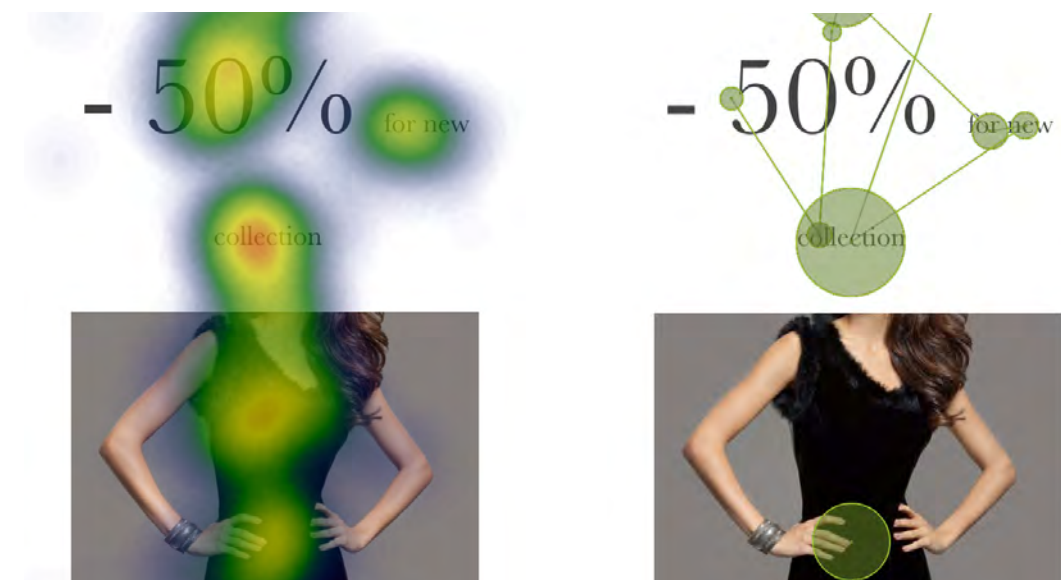
Probably this is the reason why the faces of the models attract almost all attention of the respondents. The mailing without the faces is much balanced and the gaze also focuses on other elements of the message, what could be helpful while designing the fashion offer mailings. Although both e-mails have the same ending, the CTA and the content below the photos found in the mailing without faces get more focus.

The mailing without the faces is much balanced and the gaze also focuses on other elements of the message

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Heat map after 15 seconds, 20 (A), user's scan path



Heat map after 15 seconds, 17 (B), user's scan path

WATCH THE MOVIE



PRODUCT AND CONTEXT

Another interesting question concerning the photos is how to present products in an e-mail marketing message. Therefore, in the first mailing the knife was presented alone, whereas the other mailing presented the knife used by the model. Both photos were placed in the same location in the two mailings.

The photo of the knife used in the kitchen got more attention than the photo presenting the knife alone. The most distinguishing difference concerns the length of gaze on this area of interest: that is 554 ms more in the case of the photo with the model.

Although the model looked at the knife, the exact focus on the knife and the act of cutting was only 164.1 ms long, while the focus on the knife alone in the other message lasted 953.3 ms.

Even though the picture with the model got more attention the user was more likely to remember the product in the mailing presenting the product itself.

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It may be assumed that even though the picture with the model got more attention the user was more likely to remember the product in the mailing presenting the product itself.

Another interesting phenomenon can be observed just below the photo of the product. The respondents who had spent less time gazing at the product had more time and energy to focus on the text just below the photo (that is the dwell time with disparity 1728.9ms vs. 2514.3 ms).



Heat map after 15 seconds, 19 (A) and 17 (B) respondents

BALANCING TEXT AND PHOTOS

In the longer version of the mailing the respondents haven't even reached the middle part of the prepared stimuli. The reason may be obvious: the arbitrarily imposed time of display of this specific message. We took into consideration how the longer message distracts the user with its long text, and as shown in the following scan path, the user apparently looks for elements other than the text alone.

The longer the message, the less probable it is for the user to see all the elements of the mailing.

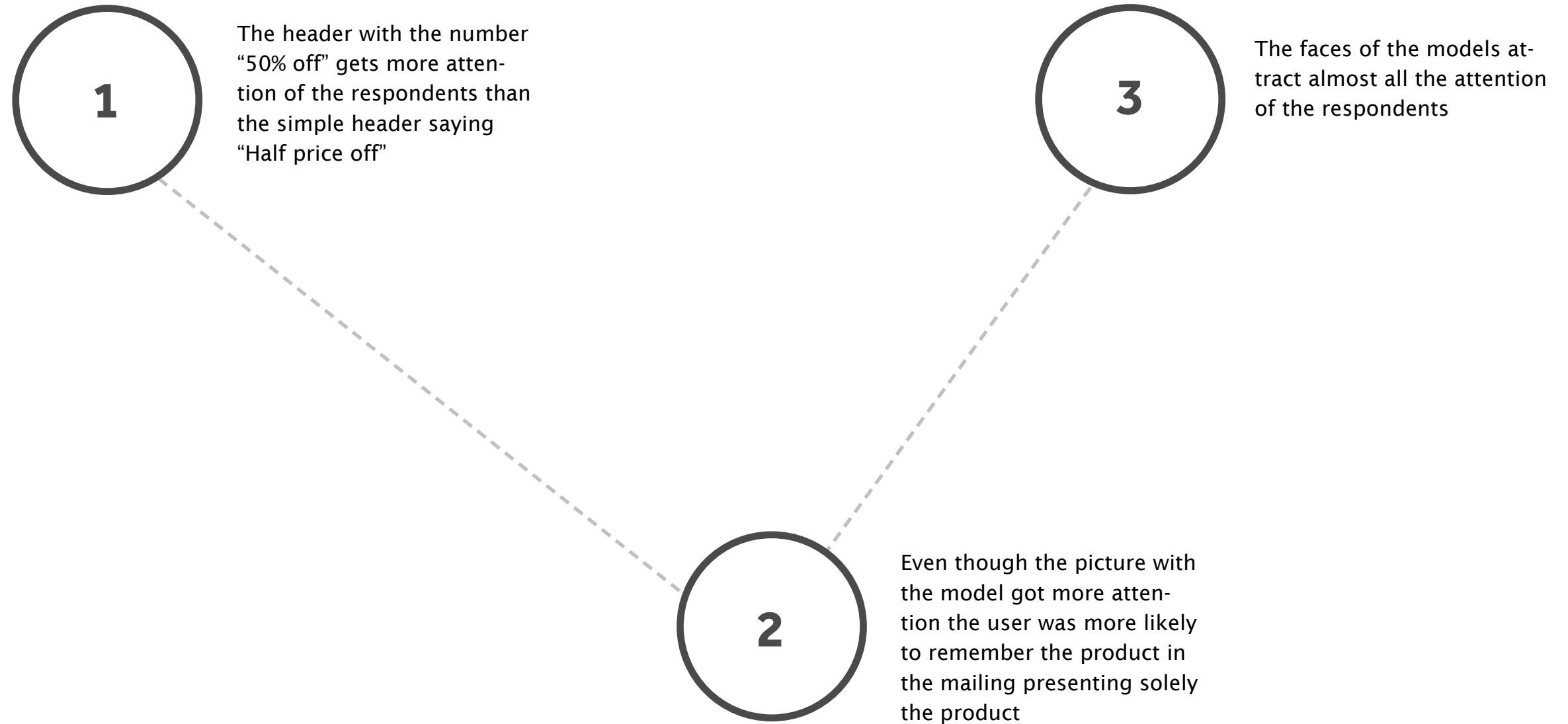
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It turns out that in all of the cases the modification wasn't applied successfully enough. Apparently the button with the indicator was placed too low and the respondents didn't manage to reach this part of the mailings frequently enough to summarize the outcomes within the quantitative method.



Heat map after 15 seconds, 22 (A) and 17 (B) respondents

HIGHLIGHTS



A person's hands are holding a black smartphone. The screen displays a video player interface. At the top, it says 'PLAY LTE' and 'Gotowe'. Below that is a progress bar with a playhead at approximately 0:03 out of 0:58. The video itself shows a person in a cowboy hat. At the bottom of the screen are standard video controls: a play/pause button, a progress slider, and skip forward/backward buttons. A large white circle is superimposed over the center of the image, containing the word 'LAYOUT' in a bold, white, sans-serif font.

LAYOUT

The last section of this e-book is about the layout of the mailing. We endeavored to check how the size and the alignment of the logo and the CTA engage our users' attention, and therefore to discover what is the best location for those elements. Thus far this aspect seems still to be neglected in the mobile context.

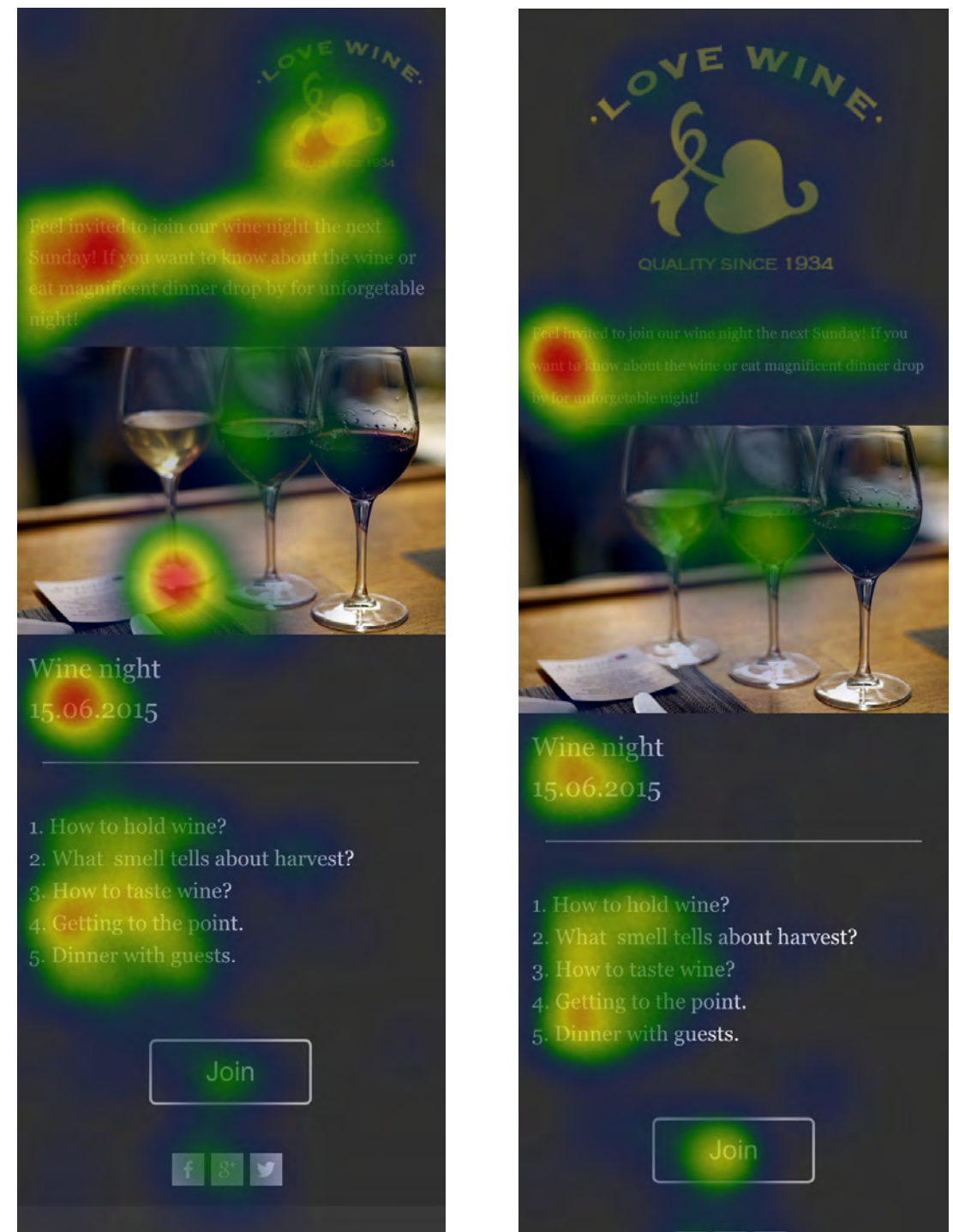
SIZE AND LOCATION OF THE LOGO

The logo located in the centre or in the top left corner is perceived better than when it is placed in the right top corner. In the following mailing, placing the logo in the top left corner seems to be a better solution than putting it in the top right. The respondents notice the logo located in the top left corner much faster (24.9 ms) than in the second version (1886.7 ms), and look at the logo in the left corner for 147 ms longer.

The logo located in the centre or in the top left corner is perceived better than when it is placed in the right top corner.

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In next mailing about the wine the modification of the logo also embraced the size of the element. Although the heat maps may suggest that the bigger logo in the centre gets less attention than the smaller one at the top, the numbers say just the opposite. The logo in the centre was noticed by all of the re-



Heat map after 15 seconds, 22 (A) and 17 (B) respondents

spondents (entry time 276.9 ms vs. 139.0 ms), contrary to the logo in the right top corner, which attracted the attention of 82.4 % of the participants. The respondents spent on average 1176.4 ms looking at the bigger logo while the smaller one at the top was watched on average 28% less time (842.7 ms).

The logo in the centre was noticed by all of the respondents, contrary to the logo in the right top corner.

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It may be assumed that the bigger logo attracts less attention and that the area of interests of the smaller logo is more condensed than that of the bigger one. The heat map appears more intense than in the bigger logo area, although it is the big one that attracts more attention.



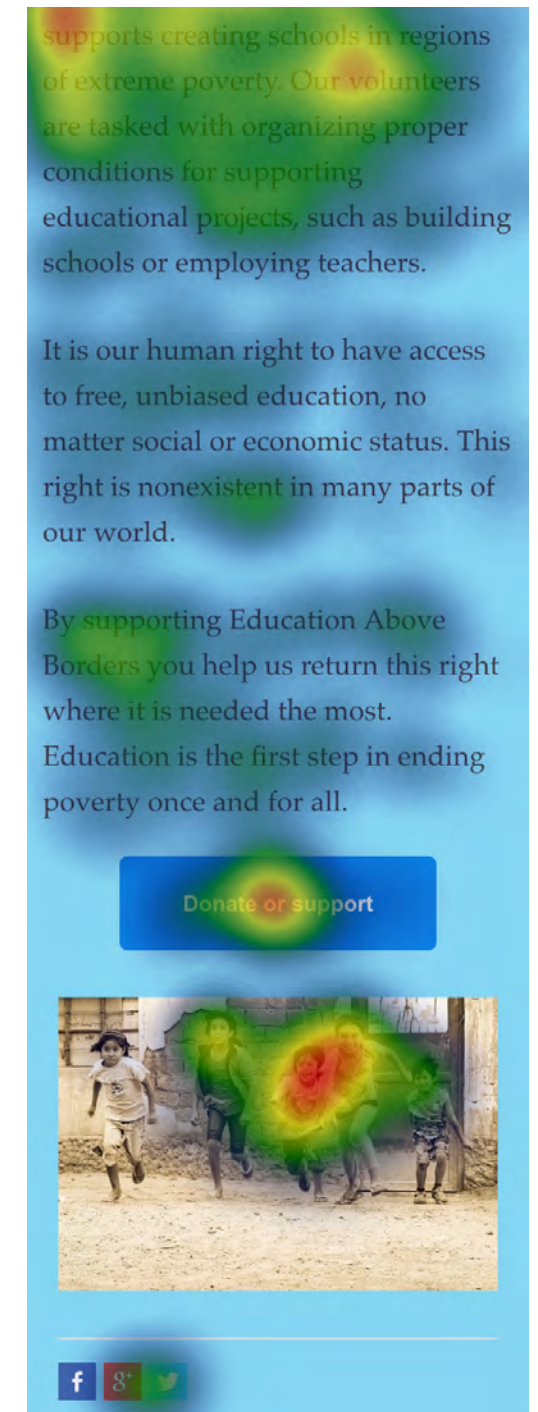
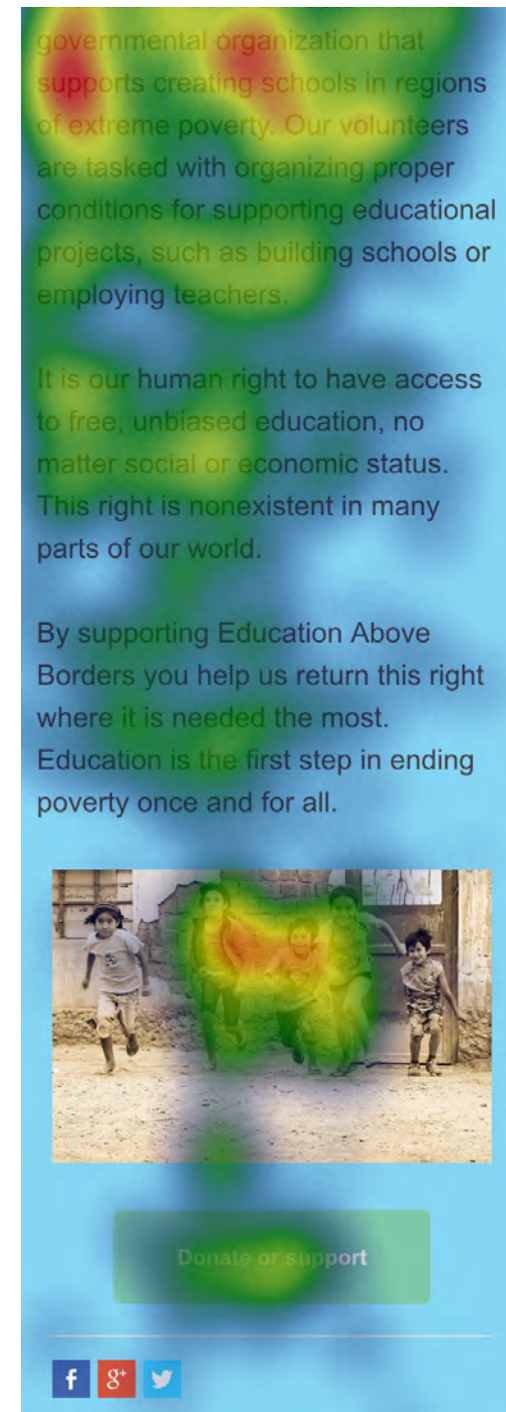
Heat map after 15 seconds, 22 (A) and 17 (B) respondents

CALL TO ACTION

The faces attract attention, therefore in this modification the button which was previously put at the bottom of the message was moved right above the photo of the children. Surprisingly, the outcome revealed exactly the opposite pattern than the one we suspected. The button located closer to the photo gets more attention. While analyzing this hypothesis other modifications need to be taken into account as other location could have had influence on how fast the element was noticed. Moreover, the colour of the button in the first mailing isn't as much distinct as in the other version.

The button located closer to the photo gets more attention.

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Heat map after 15 seconds, 18 (A) and 17 (B) respondents

CTA PLACEMENT

Given the results presented in the following heat map the respondents seem to focus more on the CTA located on the left side of the mailing, however, any of the observations might have been influenced by other modifications introduced in the given stimuli. Due to the possible influence of several modifications, it is difficult to come to a definite conclusion.

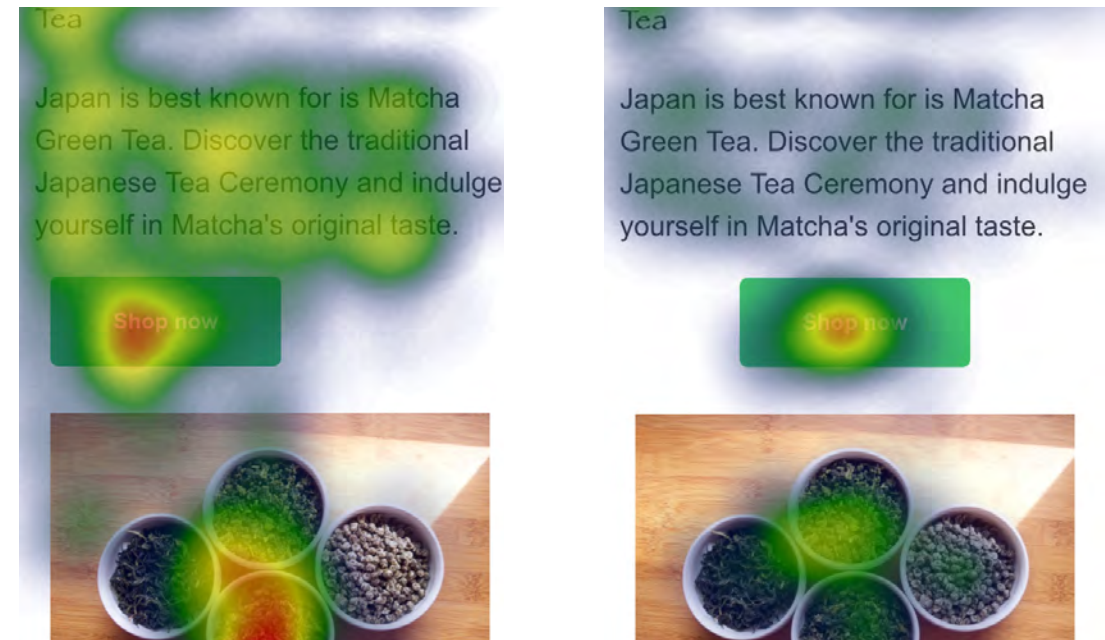
CTA APPEARANCE

A plain text link with no background was noticed on average 2081.5 ms later than the classic CTA button, but the difference in the length of focus on this specific element doesn't differ that much (it is a dwell time of 157.6 ms vs. 74.5 ms).

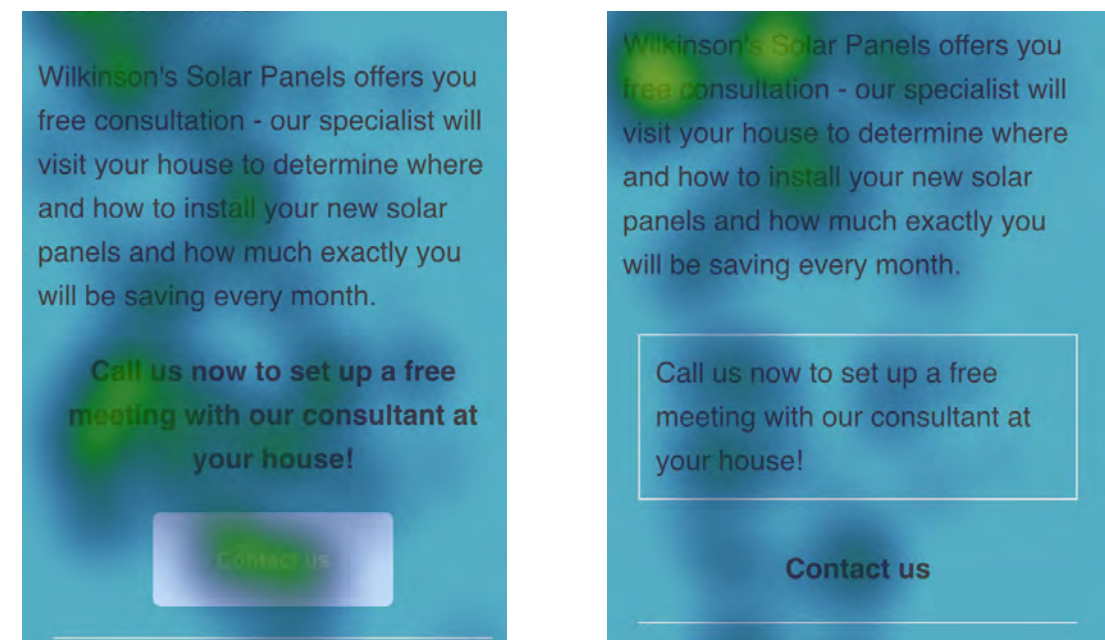
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A plain text link with no background was noticed on average 2081.5 ms later than the classic CTA button,

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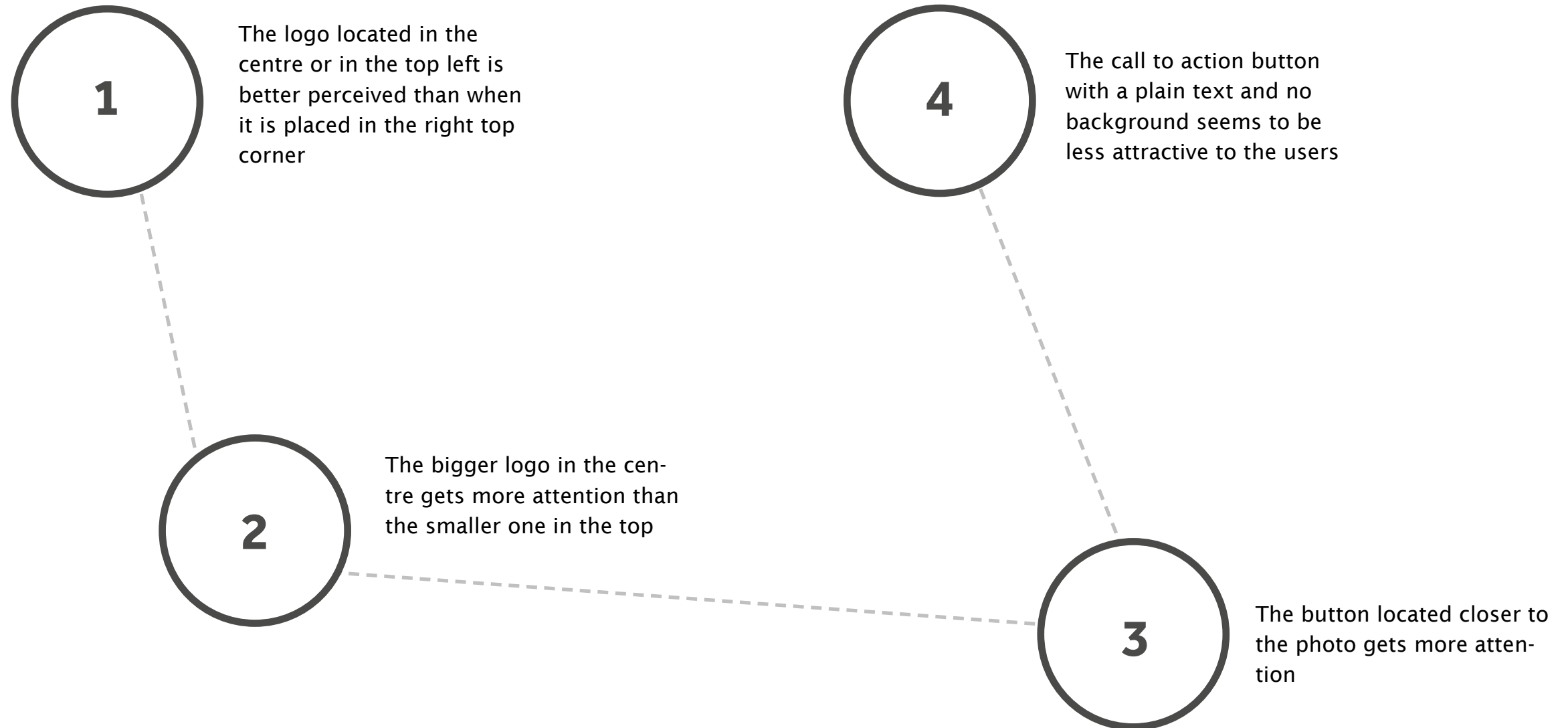


Heat map after 15 seconds, 22 (A) and 16 (B) respondents



Heat map after 15 seconds, 18 (A) and 18 (B) respondents

HIGHLIGHTS



A pair of black-rimmed glasses and a black textured wallet with a strap are on a desk. Several cables, including a red Ethernet cable and a black USB cable, are plugged into the wallet. A white circle is overlaid on the image, containing the word 'SUMMARY' in large white letters and a paragraph of text below it.

SUMMARY

Both the design and research aspects of e-mail marketing are highly iterative – what is a good solution or answer today may not be a perfect choice tomorrow.

IS THERE A PERFECT E-MAIL MARKETING MESSAGE?

The more the factors influencing when, where and how e-mail marketing messages are read, the more difficult it is to pinpoint a set of best practices and patterns.

One has to remember the influence of context on a mobile user, who is reading an e-mail marketing message. The location, lighting, sound, distractions and more - they all have a direct impact on how messages are read.

At the same time it has to be remembered that, while attempting to keep the research methodology intact, it is difficult, or even impossible, to recreate an environment in which we read e-mail marketing messages on our mobile devices most frequently. We consider this a very interesting challenge for an upcoming research. See you there!



SMI Eye Tracking Glasses 2 Wireless is the new version of the device, we used during the fieldwork, that allows for wireless, real-time streaming of the session.

PARTNERS

Last but not least we want to thank our partners, without whom conducting this research would be impossible.

SensoMotoric Instruments (SMI) (eyetracking-glasses.com, smivision.com) the producer of the SMI Eye Tracking Glasses that were used during the research and the provider of SMI Be-Gaze analysis software and its advanced Semantic Gaze Mapping license. A special thanks to Stefanie Gehrke for her enthusiasm and professionalism.

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MOBILE EYETRACKING IN E-MAIL MARKETING

INTERACTIONS EVERYWHERE
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