

DESIGNING CALL TO ACTION: USERS' PERCEPTION OF DIFFERENT CHARACTERISTICS

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Abstract This paper aims to provide guidance when designing a call to action in a digital system with the purpose to create an intended feeling and user engagement. The paper is based on a test of four different simple call to action constructions. The users clearly prefer constructions that have a high explainability and feels intuitive. Hence, the design should have a high level of transparency and show the user straight away what it demands from the user and what the result of the action is. Furthermore, the design should have a high usability to make it clear how to use the call to action.

Keywords:

call to action, customer engagement, click-through rate, user experience design, customer relationship management

1 Introduction

Measuring and maximizing customer profitability is becoming more and more important in a constantly evolving landscape of customer engagement (Jorge, Pons, Rius, Vintro, Mateo, & Vilaplana, 2020; Gao & Javier, 2020; Pereira, de Fátima Salgueiro & Rita, 2017). Companies are constantly looking to improve their customer relationship management (CRM) strategies (Kumar, 2013; North & Ficorilli, 2017). Measuring the click-through rate (CTR) for example gives a fair representation of how engaged the customers are with their website (Rashid, 2017; Liu, Chen, Chou, & Lee, 2018).

A call to action (CTA) is a marketing tool to prompt an immediate response or encouragement, is a crucial part for many websites (Horner, 2012; Steinberg, 2005). They can be the deciding factor between whether a user takes the action the company wants to induce (Chen, Yeh & Chang, 2020). Companies can use a call to action to create customer profitability that is easy to measure and analyze. Technically, a call to action is divided into several parts – getting attention, making it possible for the user to take action and make the user take the appropriate action from the user perspective. Call to actions can take many forms and might be designed in many different ways, some are buttons to direct the user to another page while some are small input forms to gather data from the user directly in the CTA component. Some examples of CTAs commonly used in marketing are components to encourage sign ups, subscription, and an option to learn more about a specific product or service (Chen, Yeh & Chang, 2020). There are many things that determine the effectiveness of a call to action on a website. The placement has an impact since the call to action must be found (Hernandez & Resnik, 2013), affordance-based cues (Norman, 2013) and skeuomorphs (Basalla, 1988) enabling the user to know how to engage with a call to action as well at the actual design of the call to action to induce a certain sense of feeling among the audience.

This paper will focus on different strategies of designing the call to action to create the intended feeling and user engagement. The objective of this short paper is to analyze how users interpret different designs of a call to action. The aim is to provide guidance to designers and managers that intend to design call to action on websites.

2 Theory and background

Customer engagement advocates developing a portfolio of customers and nurturing this relationship (Gao & Javier, 2020; Imhof & Klaus, 2020). With this approach companies focus on how many products they can sell to a customer. How they can highlight the product benefit that aligns with customer need (Markey, 2020). Which customer segment they should focus on and what strategies should they use to develop their relationship (Schwartz, Bradlow & Fader, 2017; Jorge, Pons, Rius, Vintro & Carla, Mateo & Vilaplana, 2020). An important part of customer engagement is the management of profitable and unprofitable customers (Kumar, 2013; Imhof & Klaus, 2020). Click-through rate (CTR) is used to estimate the probability of users clicking on an advertisement or product displayed to them. CTR prediction is a key technique in internet advertising. Online advertising will play an increasingly important role in the future economy. Therefore, advertising CTRs is going to be the most important factor in developing the future of advertising. Accurately estimating the CTR of an advertisement has a crucial impact on the revenue for businesses (Jiang, Xu, Xu & Xie, 2021).

2.1 Call to actions

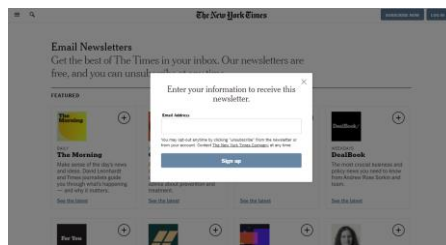
From a marketing perspective, a call to action has the aim to get the audience to perform a certain task immediately (Eisenberg & Eisenberg, 2006). It is a “call” to take an “action” that the sender of the message wants to induce. Strongly connected to the definition within marketing, in terms of web design, call to action is a term for “elements in a web page that solicit an action from the user” (Gube, 2009). Hence, a CTA is typically a part of the website or application that drives the reader to click through to engage further with a brand. A call to action is often created to drive the user to produce some type of immediate, measurable result (Chen, Yeh & Chang, 2020). Some examples of a CTA can involve a request to receive more information about a product or service.

According to Chen, Yeh and Chang (2020) some of the more popular manifestations of a CTA on websites are- (1) a link to a web page with additional and further information (e.g. ‘Learn more’), (2) a request for the user to take action after browsing the web (e.g. ‘Contact us’), and (3) the use of buttons that, when clicked, perform an action (e.g. ‘Show now’). A CTA can vary in the amount of user

engagement, some CTA contains a button while some also contain an input field for the user to fill.



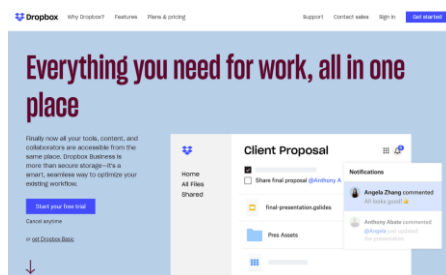
(a) Sign-up CTA.



(b) Newsletter CTA.



(c) CTA to direct users to more info.



(d) Sign up to a premium service CTA.

Figure 1: Examples of different manifestations of how a CTA can be designed and used (screenshots by authors)

In Figure 1, some examples of different manifestations of how a CTA can be used to prompt the user to take an action are illustrated. The first example is from a note-taking application with a prompt to get the user to sign up for their service (Figure 1a). The CTA contains a short description of the service they are offering, two input fields, one for email and one for the password, and a button that creates the account. The second example is an example of a newsletter CTA (Figure 1b). The CTA contains a description of what the newsletter will do for the user. An input field for your email and a button to subscribe the user to the newsletter. The third example is from a drink producer with a CTA to prompt the user to find out more about their products (Figure 1c). The CTA contains a title and two buttons that direct the user to different pages, one to “Find out more” and one to “View products”. The fourth example is a CTA from a music streaming service (Figure 1d). The purpose of the CTA is to prompt the user to sign up for their premium service. The CTA contains a description of their offer and two buttons to direct the user.

2.2 Designing for effective call to action

There are several aspects that affect the effectiveness of a call to action within web design. The most prominent ones are based on the different steps that the user goes through when encounter a call to action – (1) noticing the call to action, (2) taking action, and (3) believing that the right action was taken. Attraction of attention is related to several issues both regarding the actual design and wording of the call to action (Bashinsky, 2016) but also the placement of the call to action. Previous research has identified how users scan through a website to find placement for important information (e.g. Hernandez & Resnik, 2013). Regarding the possibility to make the user take action it is needed that that the user understands that an action is possible from a technical perspective. This is related to two issues - the affordance-based cues in the actual design (e.g. understanding that a button can be clicked) and the usability of the system (e.g. using the call to action is intuitive). Affordances (Gibson, 1977; Norman, 2013) define what actions are possible when facing an object. Hence, in digital systems affordances provide strong clues to how something is going to be used, often based on connection to the non-digital world, so-called skeuomorph (Basala, 1988). A skeuomorph is a design element that has no necessary meaning in the new setting but was essential in the old setting (e.g. the raised button with, consequently, a shadow). These affordance-based cues are important from an interaction design perspective to provide the users with information about how to use certain features (Kaptelinin, 2014) and, consequently, pushing for a call to action. Creating high usability (Nielsen, 1994) and frictionless design is often in focus and make it intuitive for the user to navigate through a design and make choices. However, the frictionless design might decrease the possibility to make reflective choices due to the higher speed of navigation. It is therefore important that the design a high explainability. An explainable design is easy for the user to understand the effect when a certain task is taken, and it create a design that is in line with the ideas of Dieter Rams (n.d.) – Good design is honest and “does not attempt to manipulate the consumer with promises that cannot be kept”. Design friction has been discussed during latter years due to its ability to make the user reflect on choices and, hence make the user take action the user intended to take (Mejtoft, Hale & Söderström, 2019).

3 Method

The aim of this study is to determine how users interpret different designs of a call to action. The study presents different construction of a CTA to see which construction the users prefer and how the design is interpreted by the users. Four different constructions of a CTA with the purpose to get the participant to sign up for a newsletter were presented to the participant. Followed by a short survey where the participant could choose which CTA they preferred and why. The tests were conducted during fall 2020. The test was conducted on 32 participants with an even distribution between male and female participants.

3.1 The different call to actions designs

As previously mentioned, four calls to action were constructed to be used in the study. The purpose of the CTA is to get the participant to sign up for a newsletter. The CTA contains a header, a description, a text field, and or a button for the participant to interact with. The CTAs differed in the level of user engagement presented in the initial component, as well as swapping the headers to be either informative or appealing.

Two constructions gave the participant a text field to fill out their email as well as a button to complete the action. The other two constructions gave the participant a button to press to start the process of signing up to the newsletter. The header and description were also swapped to determine if the participant wanted the CTA to be more appealing or informative. The header was either “Sign up to our newsletter” to be informative or “With our tips you will become a better manager” to be appealing for the participant. The description of the CTA was dependent on the header, if the header was “Sign up to our newsletter” then the description was “With our tips you will become a better manager” and vice versa.

The four CTAs used in the study (Figure 2) had the following characteristics – (a) the header is informative and the description is appealing while also having a higher initial user engagement with a text field and button, (b) the header is informative and the description is appealing while also having a lower initial user engagement with only a button, (c) the header is appealing and the description is informative while also having a higher initial user engagement with a text field and button, and (d) the

header is informative and the description is appealing while also having a lower initial user engagement with only a button. To remove the effect of e.g. skeuomorphs (Kaptelinin, 2014), typography and font size were consistent (Koniček & Světlík, 2020). These things that could affect the CTA was omitted in the study.

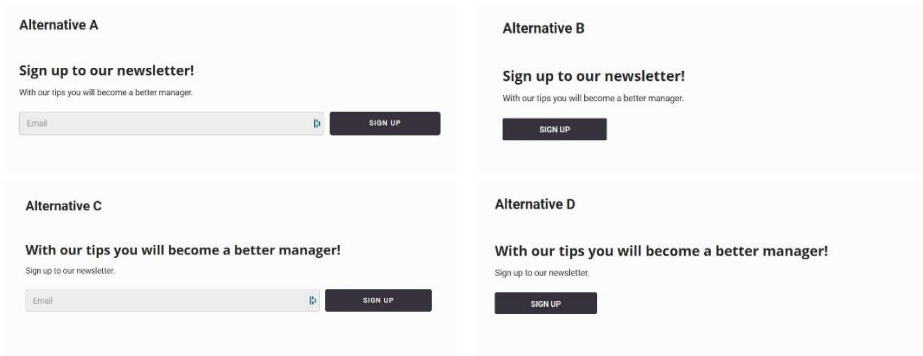


Figure 2: The four CTAs used in the study

3.2 Setup

Due to restrictions, the test was performed online. However, it is the authors strong belief that the validity or reliability of the results are not affected by the online test environment. An online test environment creates a realistic environment for this test. The participant was sent a link to a webpage where the participant would first read a short description of what the test was going to be used for, as well as an assurance that their personal information would not and could not be connected to their result. The participant would then be presented with the CTA used in this study in the same order they are presented in this paper. After the participant decided which CTA they preferred they would fill out a questionnaire regarding their preferred choice. Some basic demographics were gathered and analyzed without any significant differences being found.

4 Results and discussion

The effectiveness of a CTA is an important field to study, both from a marketing perspective and a design perspective. Focusing on developing strategies to enhance companies' customer relationship management (CRM) is crucial for success in an everchanging business landscape. Measuring and maximizing profitability of online

assets is becoming increasingly important. One way to increase profitability is by improving one's use of CTA. For user experience designers monitoring the click-through rate can be a great way to evaluate how well a website is fulfilling its purpose.

The results from the questions about which CTA the participant prefers are shown in Figure 3. Most participant preferred design A and design C and there were no major differences between male and female participants. Both Design A and Design C wanted the participant to fill in their email right away and had an upfront higher user engagement than Design B and Design D. For a CTA with few inputs, e.g. signing up for a newsletter, the user seems to prefer being able to see directly what they need to fill out to complete the action.

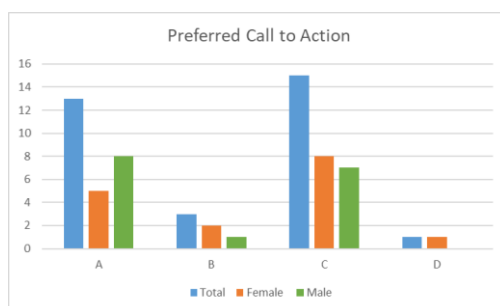


Figure 3: Number of votes each CTA received in the study

Of the 34 participants 24 out of the 32 were cited motivations for their choice of CTA. The motivations were analyzed and categorized based on the reasons for making a certain choice. Patterns were found and five different reasons based on design, usability and marketing theories and reasoning, emerged from the answers. The reasons were classified as *intuitive and frictionless*, *High explainability and honest*, *Aesthetic and appealing*, *attention-grabbing* and *design friction*. In Figure 4 the total number of mentions for each of these reasons are plotted for the different designs.

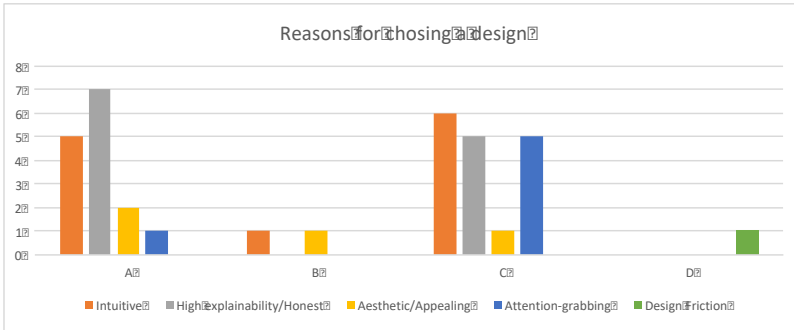


Figure 4: Reasons mentioned for choosing a specific design (one participant could mention several reasons)

Since very few respondents preferred Design B and Design D there were few comments mentioned. However, there were comments mentioned for *not* choosing Design B and Design D e.g.: “Design B and D require me to click on and then I do not know what will happen after that” and “unclear what happens if I click ‘SIGN UP’ on B and D, a box will appear where I enter an email or have my email via a cookie, etc.”. Thematically, these comments were in line with the user getting a feeling of the website wanting to trick the user into doing something that is not in the users’ best interest, so-called deceptive design or dark patterns (Brignull, 2011).

Design A was the second most preferred by the participants and was high regarding the factors of intuitiveness and high explainability/honest. Regarding intuitive, respondents stated e.g. that “a clear title that describes the purpose and functionality, and when I see that I only have to enter in one field makes it feels frictionless. Nothing is hidden or feels indistinct that would otherwise make me hesitate”, “it felt like the easiest way to sign up”, “Easy to Sign Up without having to click on to another page to enter your email” and “Simplest and clearest”. Regarding having a high explainability and a feeling of being honest in the design the respondents stated that “if the email field is above the button, you also know what it will mean if you press the button”, “shows that they only need my email and nothing more”, “prefer text fields for emails as I do not know how the others will then get hold of my email, a new page opens?” and “just need to fill in the email so it’s clear, nothing uncertain. With only a button and no input field, you would be taken to a new page, and you do not know what more you may need to do”.

Design C was the most preferred design being high regarding the factors intuitive, high explainability/honest and attention-grabbing. Regarding intuitive, the respondents stated that it is “nice to avoid through to another page”, “easy to get the newsletters with as few clicks as possible” and “nice to fill in the email immediately so you avoid another step”. The reasons for high explainability were mainly due to reasons like: “I think it’s nice that it clearly says why I should sign up first”, “like the fact that I get everything at once. That I have to enter everything and then click ‘sign up’” and “that it is email contact and I get a direct answer to what it can give me”. The respondents also believed that this design attracted attention since e.g. “attractive title, not with the main goal of getting people to sign up, “it attracts more attention” and “you have to attract people to get them to sign up for newsletters, by offering something they do not get somewhere else”.

One recurring opinion on whether or not to have the input field was that the participants preferred to be provided with everything at once, making the interaction more frictionless. With only a button and no input field, some of the participants wrote that they felt unease with not knowing where the button would take them or if a modal would pop up or they would get directed to a new page. Some participants preferred the informative title and being able to see right away that it was a newsletter they were asked to sign up for while others felt that a more appealing title was attracting more of their attention. On the other hand, there are no clear results on whether or not the participant had a preference for the title of the CTA to be more appealing (Design C) or informative (Design A) since they both was equally preferred. A few possible errors could have affected the outcome of this study. One of them being the choice of the appealing title used in this study. All of the participants were presented with the CTA in the same order presented in this paper, which could have an impact on their choice. A study where the different CTA are presented in random order would remove this error.

5 Conclusions

There is a wide range of call to actions found online. This study investigates two different characteristics and the impact of these regarding the reactions of the users’ and how they want to engage with the call to action. The results indicate positive attitudes towards the design features such as intuitive and high explainability/honest are important for the users’ willingness to engage with a call to action. Clearly

showing the user what to expect is important when designing for a high click through rate. Hence, the study shows that moving the user engagement upfront is better for enabling users to trust the design. This makes the call to action more transparent by showing the user right away what they need to fill out to complete the action.

Acknowledgements

The authors would like to acknowledge the students at the MSc program in Interaction Technology and Design at Umeå university for their support in this research study.

References

- Basalla, G. (1988). *The evolution of technology*. Cambridge, UK: Cambridge University Press.
- Bashinsky, A. (2016, January 13). 6 Easy Ways to Incorporate Emotional Appeals Into Your Website's Call to Actions. *Entrepreneur*. Retrieved December 13, 2020 from <https://www.entrepreneur.com/article/253284>.
- Brignull, H. (2011, November 1). Dark Patterns: Deception vs. Honesty in UI Design. *A List Apart* 338. Retrieved March 2, 2021, from <https://alistapart.com/article/dark-patterns-deceptionvs-honesty-in-ui-design/>.
- Chen, T.-Y., Yeh, T.-L., & Chang, C.-I. (2020). How different advertising formats and calls to action on videos affect advertising recognition and consequent behaviours. *The Service Industries Journal*, 40(5-6), 358–379.
- Eisenberg, B., & Eisenberg, J. (2006). *Call to Action: Secret Formulas to Improve Online Results*. Nashville, TN: Nelson Business.
- Gibson, J. J. (1977). The theory of affordances. In R. E. Shaw & J. Bransford (Eds.), *Perceiving, Acting, and Knowing: Towards an Ecological Psychology* (pp. 67-82). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Gao, L., & Javier, S. F. (2020). Customer equity drivers, customer experience quality, and customer profitability in banking services: the moderating role of social influence. *Journal of Service Research*, 23(2), 174–193.
- Gube, J. (2009, October 13). Call to Action Buttons: Examples and Best Practices. *Smashing Magazine*. Retrieved January 30, 2021, from <https://www.smashingmagazine.com/2009/10/call-to-action-buttons-examples-and-best-practices/>.
- Hernandez, A., & Resnik, M. L. (2013). Placement of Call to Action Buttons for Higher Website Conversion and Acquisition: An Eye Tracking Study. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 57(1), 1042-1046.
- Horner, T. (2012, April 30). Writing a Better Call to Action. *Marketing Professors*. Retrieved December 13, 2020 from <http://www.marketingprofs.com/articles/2012/7772/writing-a-better-call-to-action>.
- Imhof, G., & Klaus, P. (2020). The dawn of traditional cx metrics? examining satisfaction, eqx, and war. *International Journal of Market Research*, 62(6), 673–68.
- Jiang, D., Xu, R., Xu, X., & Xie, Y. (2021). Multi-view feature transfer for click-through rate prediction. *Information Sciences*, 546, 961–976.
- Jorge, O., Pons, A., Rius, J., Vintro C., Mateo, J., & Vilaplana, J. (2020). Increasing online shop revenues with web scraping: a case study for the wine sector. *British Food Journal*, 122(11), 3383-3401.

- Kaptelinin, V. (2014). Affordances. In *The Encyclopedia of Human-Computer Interaction* (2nd Ed.) (Chapter 44). Interaction Design Foundation. Retrieved May 18, 2021 from interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/affordances
- Koníček, I., & Světlík, J. (2020). Some principles for the design of successful and appealing websites. *European Journal of Media, Art and Photography*, 8(1), 106-116.
- Kumar, V. (2013). *Profitable customer engagement: Concept, metrics and strategies*. SAGE.
- Liu, D.-R., Chen, K.-Y., Chou, Y.-C., & Lee, J.-H. (2018). Online recommendations based on dynamic adjustment of recommendation lists. *Knowledge-Based Systems*, 161, 375–389.
- Markey, R. (2020). Are you undervaluing your customers? *Harvard Business Review*, 98(1), 42–42.
- Mejtoft, T., Hale, S., & Söderström, U. (2019). Design Friction: How intentionally added friction affect users level of satisfaction. In M. Mulvenna & R. Bond (Eds.), *Proceedings of the 31st European Conference on Cognitive Ergonomics* (pp. 41-44). New York, NY: ACM.
- Nielsen, J. (1994). Enhancing the explanatory power of usability heuristics. CHI '94: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, 152-158.
- Nielsen, J. (2012). *Usability 101: Introduction to Usability*. Nielsen Norman Group. Retrieved January 12, 2021, from <https://www.nngroup.com/articles/usability-101-introduction-to-usability/>
- Norman, D. (2013). *The design of everyday things: Revised and expanded edition*. New York, NY: Basic Books.
- North, M., & Ficorilli, M. (2017). Click me: an examination of the impact size, color, and design has on banner advertisements generating clicks. *Journal of Financial Services Marketing*, 22(3), 99–108.
- Pereira, H. G., de Fátima Salgueiro, M., & Rita, P. (2017). Online determinants of e-customer satisfaction: application to website purchases in tourism. *Service Business*, 11(2), 375–403.
- Rams, D. (n.d.). The power of good design. Retrieved January 23, 2021, from <https://www.vitsoe.com/gb/about/good-design>
- Rashid, U. (2017). A framework to explore results in multiple media information aggregated search. *Multimedia Tools and Applications*, 76(24), 25787–25826.
- Schwartz, E. M., Bradlow, E. T., & Fader, P. S. (2017). Customer acquisition via display advertising using multi-armed bandit experiments. *Marketing Science*, 36(4), 500–522.
- Steinberg, B. (2005, March 22), 'Call to Action' Ads Give Clients Results They Can Measure. *Wall Street Journal*. Retrieved November 13, 2020 from <https://www.wsj.com/articles/SB111145597859585890>