

The Consumer Voice in Europe

## AN EFFECTIVE CHOICE SCREEN UNDER THE DIGITAL MARKETS ACT

### BEUC RECOMMENDATIONS



**Contact:** Team Competition - [competition@beuc.eu](mailto:competition@beuc.eu)

**BUREAU EUROPEEN DES UNIONS DE CONSOMMATEURS AISBL | DER EUROPÄISCHE VERBRAUCHERVERBAND**

Rue d'Arlon 80, B-1040 Brussels • Tel. +32 (0)2 743 15 90 • [www.twitter.com/beuc](https://www.twitter.com/beuc) • [www.beuc.eu](https://www.beuc.eu)

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## Why it matters to consumers

- **Consumers want to feel in control of the content that they are shown and the decisions they take online.**<sup>1</sup> They must therefore be offered genuine choices, for example in relation to what search engines and web browsers they use, as these tools are the gateways to many of consumers' online activities like shopping and booking travel.
- The EU's **Digital Markets Act**, through the creation of more contestable markets, aims to give consumers more choice in online services. Requiring large digital platforms to provide consumers with **choice screens** is one element of this objective.
- However, these choice screens must be **well designed to effectively give consumers genuine choices as required by the DMA**.

## Summary

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- The EU's Digital Markets Act (DMA)<sup>2</sup> is designed to make digital markets work better and more fairly for consumers by imposing certain obligations on digital gatekeepers (large digital platforms providing core platform services, such as online search engines and web browsers). One way the DMA does this is by giving consumers the ability to more easily change default settings on their devices. This can involve requiring gatekeepers to offer consumers choice screens, namely a scrollable list of the main available search engines and browsers from which consumers can choose which one they want to use on their devices.
- To ensure that choice screens work well for consumers and to assess whether gatekeepers are in practice complying with their obligations under the DMA, BEUC commissioned specialist research into the design of choice screens.
- The results of this research show that:
  - Choice screens are a valuable tool to promote consumer choice and the contestability and fairness objectives of the DMA.
  - The design of choice screens matters for their effectiveness.
- Choice screen design should take account of the following principles:
  - The order in which service providers are displayed, and the number, must be carefully considered.

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<sup>1</sup> BEUC, Connected but unfairly treated – Consumer survey on the fairness of the online environment (2023) BEUC-X-2023-113, [https://www.beuc.eu/publications/beuc-x-2020-079\\_digital\\_services\\_act\\_and\\_new\\_competition\\_tool.pdf](https://www.beuc.eu/publications/beuc-x-2020-079_digital_services_act_and_new_competition_tool.pdf).

<sup>2</sup> Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act) [2022] OJ L 265/1.

- Gatekeepers should be positioned “below the fold”, i.e., below the immediately visible part of the choice screen.
  - More information must be provided to consumers in an appropriate way to allow consumers to learn more about their different options and to make informed decisions.
  - Further design techniques must be considered to slow down the consumer decision-making process and induce consumer reflection to counteract the effect of familiarity with gatekeepers.
  - Thought must be given to the clarity of the user interface to avoid harmful consumer confusion, including clarity that actions can be undone.
- Choice screens are unlikely to transform markets instantaneously. They can however be instrumental in raising awareness of the existence of alternatives and thus have a greater impact over time. For choice screens to be effective and compliant it will therefore be necessary to:
    - Monitor the effect of choice screens.
    - Undertake additional research on choice screen optimisation.

## 1. Introduction

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The DMA aims to ensure contestability and fairness in digital markets. This requires that gatekeeper online platforms (“gatekeepers”) allow rivals to offer their services to end users (consumers) without hindrance and that consumers can make genuine choices as to the options which best suit their needs/preferences. These principles apply, for example, to search engines, web browsers and virtual assistants which are the gateways to many of consumers’ online activities like shopping and booking travel.

To achieve the DMA’s objectives, the DMA’s Article 6(3) provides that, rather than passively accepting the options that come on their device when purchased, consumers should be able to easily change the default settings by which consumers are steered towards the use of a gatekeeper’s product. For search engines, web browsers and virtual assistants, Article 6(3) requires that this includes prompting consumers, at the moment of their first use of these gatekeeper services, to choose which online search engine, web browser or virtual assistant they want to use from a list of the main available service providers. In other words, gatekeepers must, where they would otherwise steer consumers to their own products, present consumers with a “choice screen”.<sup>3</sup>

For a choice screen to be effective in promoting contestability and fairness, both practice<sup>4</sup> and research<sup>5</sup> have shown that the design of choice screens matters. In light of this, BEUC

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<sup>3</sup> On 6 September 2023, the European Commission (“the Commission”) designated the following companies as gatekeepers for the purposes of Article 6(3):

- Search engines: Google Search
- Web browsers: Chrome, Safari
- Operating systems: Google Android, iOS, Windows PC OS.

<sup>4</sup> Commission decision of 18 July 2018, case AT.40099, *Google Android*. For a discussion of the case, see *Amelia Fletcher*, ‘The EU Google Decisions: Extreme Enforcement or the Tip of the Behavioural Iceberg?’ [2019] CPI Antitrust Chronicle.

<sup>5</sup> *DuckDuckGo*, ‘Search Preference Menus: Google Auction Ignores Screen Size and Scrolling’ (Spread Privacy, 20 May 2020) <https://spreadprivacy.com/search-preference-menus-scrolling>; *Australian Competition and Consumer*

commissioned a consumer-focussed research study for the purpose of optimising choice screen design and evaluating effective compliance with Article 6(3) DMA.<sup>6</sup> The nature of the research undertaken and the findings, together with conclusions and recommendations, are set out below.

## 2. Research Project

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### 2.1. Contractor

Following a tender procedure to identify a suitable independent contractor, BEUC commissioned Bonanza Design GmbH, that has expertise in user interface (UI) and user experience (UX) design, to undertake a study into how different choice screen design elements impact on the functioning of choice screens.

### 2.2. Research

The objective of the study was to assess how different designs affect the way users interact with choice screens and thus the effectiveness of choice screen designs in promoting contestability and fairness as required by the DMA.

In this study, it was decided to specifically test search engine choice screen designs. The study employed both quantitative and qualitative testing of seven different choice screen designs with around 1,450 representative participants from a wide range of EU Member States.

The designs were based on existing research into choice screen design and the testing was modelled on the device onboarding process of the search engine gatekeeper - Google. With the exception of design 4, as set out below, the search engines included in the choice screen were stratified to include the five most widely used search engines by market share in the EU at the top, and additional lesser used search engines below this. The search engines were ordered randomly within these two tiers.

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*Commission*, 'Digital Platform Services Inquiry: Interim Report No. 3 – Search Defaults and Choice Screens' (2021) ACCC 10/21\_21-74; *Competition and Markets Authority*, 'Mobile Ecosystem – Market Study Final Report' (2022) (see in particular Appendix G); *Competition and Markets Authority*, 'Online Choice Architecture – How Digital Design Can Harm Competition and Consumers' (2022) Discussion Paper CMA155; *Amelia Fletcher*, 'DMA Switching Tools and Choice Screens' (Centre on Regulation in Europe 2022) Issue paper; *Amelia Fletcher*, 'Behavioural Insights in the DMA: A Good Start, but How Will the Story End?' [2022] TechReg Chronicle 7; *DuckDuckGo*, 'Google Search Mobile Market Share Likely to Drop Around 20% through Search Preference Menus' (Spread Privacy, 10 August 2020) <https://spreadprivacy.com/search-preference-menu-research/>; *DuckDuckGo*, '10 Principles for Fair Choice Screens and Effective Switching Mechanisms' (Spread Privacy, 5 July 2022) <https://spreadprivacy.com/choice-screen-principles/>; *Gemma Petrie*, 'Beyond Choice Screens: Exploring Browser Choice Design Interventions' (Mozilla Research, 2023) <https://research.mozilla.org/browser-competition/remedyconcepts/>; *Jasper Akesson and others*, 'Can Browser Choice Screens Be Effective?' (Mozilla 2023) <https://research.mozilla.org/browser-competition/choicescreen/>.

<sup>6</sup> This research and recommendations apply primarily to search engines and web browsers, where gatekeepers have been designated and choice screens have been used previously. Depending on how choice screens are developed for virtual assistants, separate research might be required to cater for virtual assistant specificities.

Participants were randomly assigned to one of the seven interactive mock-up choice screens and their reactions were recorded. Heatmaps were also used to see where consumers focussed their attention/clicked.

The research was conducted in two stages, with the first stage testing six different designs and the second stage testing a further design based on the results of the first stage. The seven designs were:

1. Control (baseline modelled on the current Google Android choice screen)
2. No logos
3. Expanded descriptions of individual search engines within the choice screen
4. Placement of the gatekeeper (Google) below the fold
5. A consumer education screen preceding the actual choice screen
6. Information screens on individual search engines selected in the choice screen
7. A combination of placement of the gatekeeper below the fold; information screens; changing the order of search engine presentation.

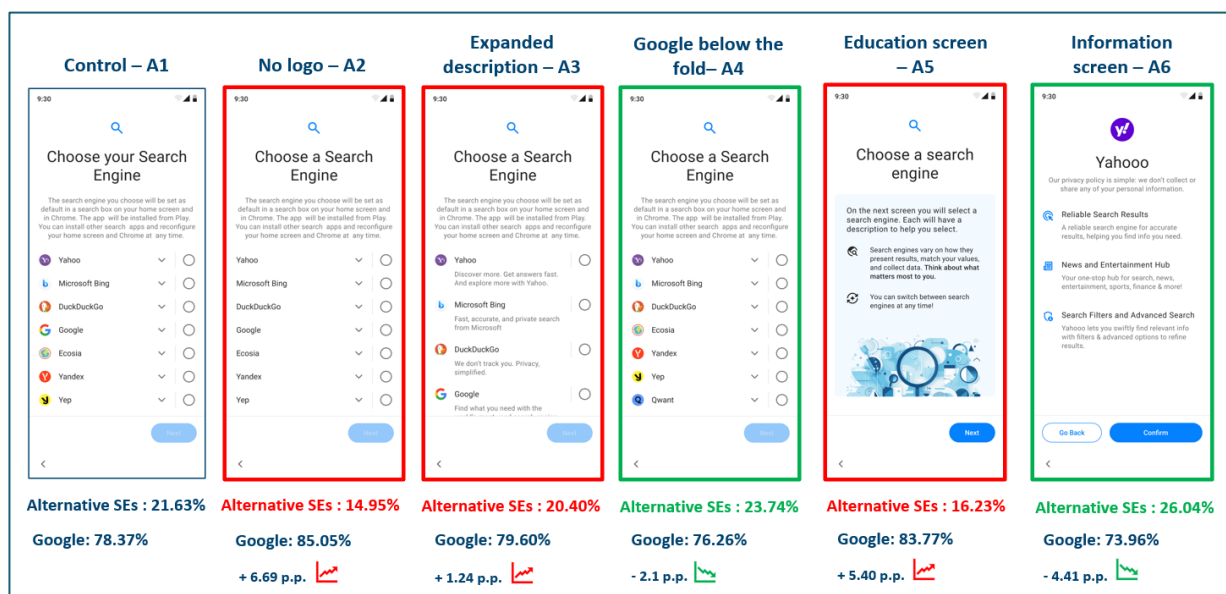
Details on the different designs and the testing methodology can be found in Bonanza's study report available on [BEUC's website](#).

## 2.3. Findings

The study found that across the first six experiments, Google was selected on average by 79.48% of the participants.

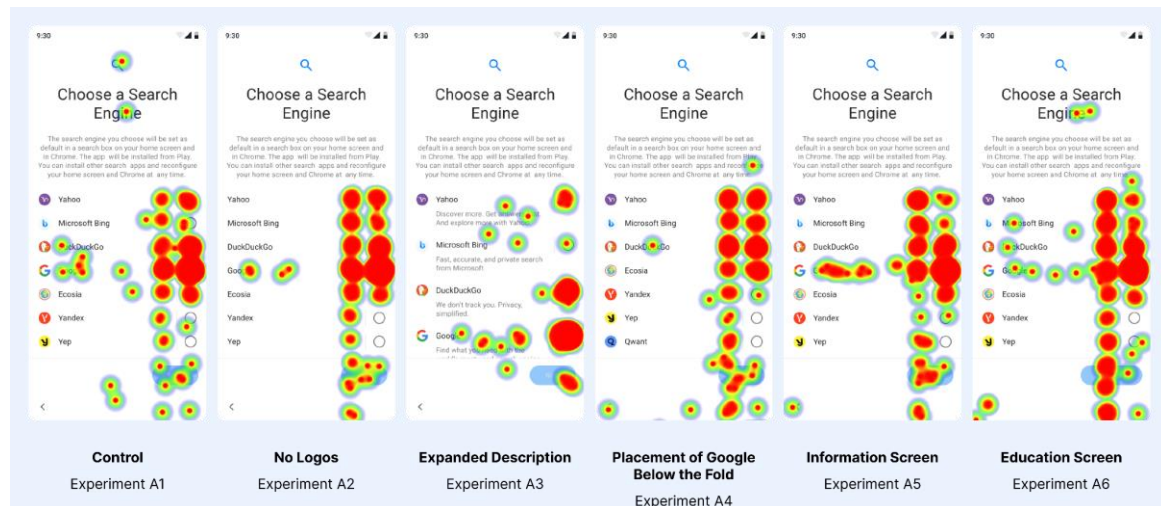
Three designs (no logos, expanded description and education screen) led to an increase in the percentage of participants selecting the gatekeeper compared to the control design. In contrast, two designs (placing the gatekeeper below the fold and information screens) led to an increase in the percentage of participants that selected one of the alternative search engines to the gatekeeper – see Figure 1 for further detail.

*Figure 1: Participants' search engine selection in experiments 1 – 6*



Consumers tended to click on/select the top five search engines in the choice screen list – see Figure 2.

*Figure 2: Heatmaps showing first clicks for each experiment.*



The seventh experiment (combining the placement of the gatekeeper below the fold, information screens and changing the order of the search engines in the choice screen presentation to put the lesser used search engines in the second tier from the first stage of testing at the top of the choice screen list, and moving the search engines in the first tier below the fold) led to three main findings:

- More consumers viewed the information screen for the lesser used search engines when these were moved above the fold compared to when they were placed lower in the choice screen as in experiments 1-6.
- While most consumers did not select these lesser used search engines, the percentage of participants selecting them nevertheless increased when these were moved above the fold.
- There was an increase in the number of participants selecting Google. In addition, of the other 5 search engines placed at the top in experiments 1-6 but below the fold in experiment 7, two of them also experienced an increase, while the other two experienced a decrease.

The study found that familiarity with the gatekeeper search engine strongly influenced consumer choices but introducing positive friction elements into choice screen design to cause consumers to pause and reflect could lead to consumers choosing alternatives. Positive friction means the deliberate introduction of challenges within an interface to encourage user reflection and exploration during the decision-making process.<sup>7</sup> The study also found that clarity of the user interface design – buttons and language - can have an impact.

<sup>7</sup> This is consistent with System 1 and 2 decision-making identified by Kahneman, see Daniel Kahneman, *Thinking, Fast and Slow* (Farrar, Straus and Giroux 2013).

### 3. Conclusions and recommendations

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The following conclusions and recommendations can be drawn from the empirical research:

#### 3.1. Choice screens are a valuable tool to promote contestability and fairness

The results of the study suggest that the use of choice screens leads to fewer consumers sticking with the gatekeeper's search engine than its usage market share would suggest. Google Search has consistently had a market share of above 90% in the EU<sup>8</sup>, whereas in this study Google Search was selected by around 79% of the participants. This demonstrates that choice screens can promote alternatives to the default in markets with gatekeepers.

#### 3.2. The design of choice screens matters for compliance with the DMA

The research also found that familiarity with the gatekeeper's product influences to a significant extent consumers' choice of a search engine and that this is a difficult factor to overcome and counteract. It is therefore essential for gatekeepers' effective compliance with Article 6(3) and the objectives of the DMA<sup>9</sup> to employ choice screen designs that are effective in promoting contestability and fairness and give consumers genuine free and fair choices in the selection of their default services.

The study identified factors that promoted contestability and fairness – as set out below, and others that did not. For example, the study found that the elimination of branding elements such as logos did not promote contestability.

#### 3.3. Recommendations for choice screens

On the basis of the above, BEUC recommends that compliant choice screen design must take account of the following factors:

- The order in which service providers are included in the choice screen – in particular the position of the gatekeeper (below the fold) and the service providers included in the top five of the list – matter. Position in the list influences how much attention a service provider receives from consumers and how often they are selected.
- More information must be provided to consumers in an appropriate way (information screens) to allow consumers to learn more about their different options and to make informed decisions.
- Further design techniques should be considered to slow down the consumer decision-making process and induce consumer reflection to counteract the effect of familiarity with gatekeepers.
- Given the role of familiarity, to promote contestability the most well-known (most used) service providers beyond the gatekeeper should be included in the choice

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<sup>8</sup> According to Statcounter data.

<sup>9</sup> As required by Article 8 DMA.



screen<sup>10</sup> but not to the exclusion of smaller players as these may nevertheless enhance user choice, and ultimately contestability, through the visibility generated by their inclusion in the choice screen.

- Thought must be given to the clarity of the user interface to avoid harmful consumer confusion, including clarity that actions can be undone.

### **3.4. Long term impact**

The introduction of choice screens in March 2024 is unlikely to transform markets instantaneously, in particular in light of consumers' familiarity with the gatekeepers. Nevertheless, even if consumers do not switch their default service provider on first presentation of a choice screen, the design of choice screens can be instrumental in raising awareness of the existence of alternatives, in particular for less tech-savvy consumers. This in turn, could lead to greater switching in future and thus more contestable markets, underlining the importance of effective choice screen design.

On this basis BEUC recommends:

- Monitoring the effectiveness of choice screens by requiring gatekeepers to regularly transmit choice screen data to the Commission.
- Where there are clear and replicated research findings in choice screen studies, these cannot be ignored by gatekeepers in implementing compliant choice screens under the DMA. Further research could, however, yield additional optimisations and should therefore be kept under review by the Commission and gatekeepers to ensure effective compliance.

It would also be important to consider choice screens in conjunction with effective implementation of other relevant DMA provisions and, to the extent necessary, further interventions under antitrust and consumer law.

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<sup>10</sup> This would suggest that the list of search engines should be based on objective market share data and not on an auction model and inclusion in the choice screen should be free of charge.



