

“Fonctions d’utilisabilité des configurateurs web : aperçu et perspectives”

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IHM’23 @ Troyes



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@TonyLeclercq

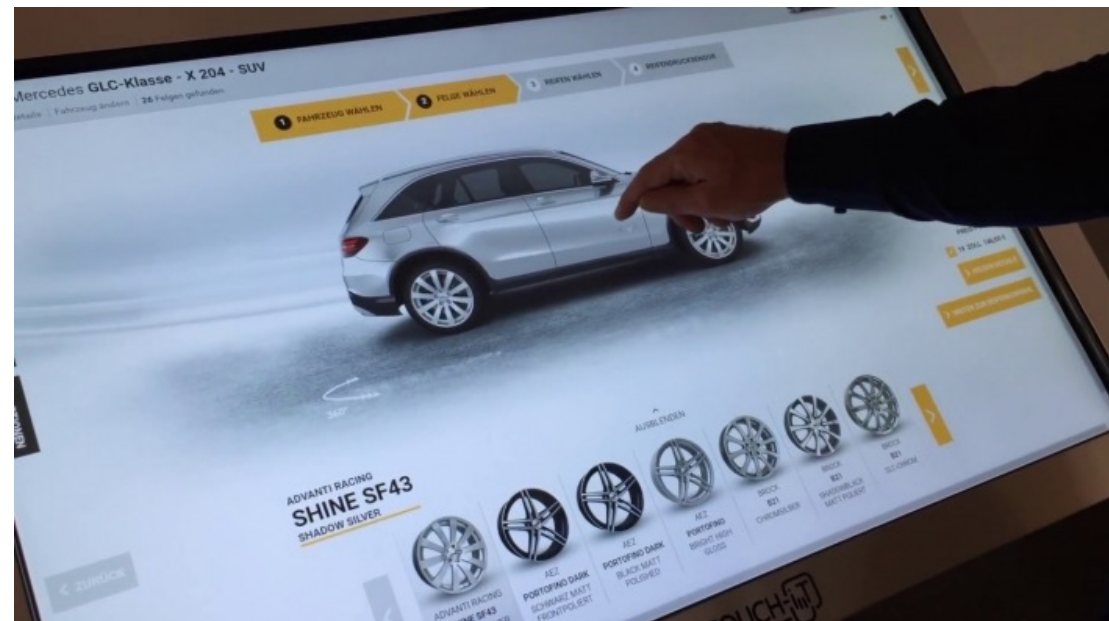
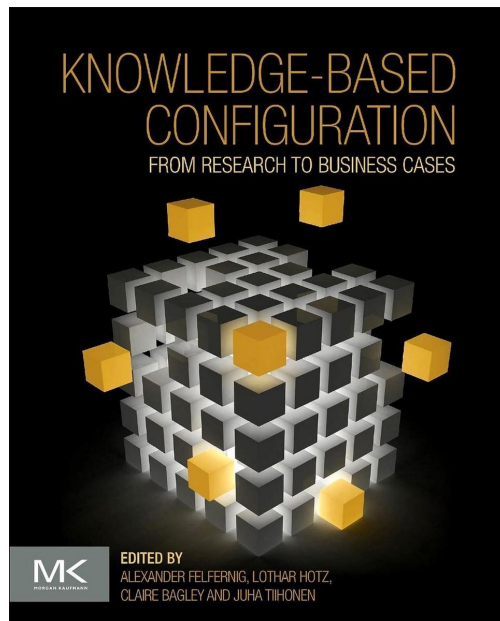


Présentation de l'auteur

- PhD student
- Définition de guidelines pour configurateurs web

Configuration

*“[...] a special case of **design activity** where the artifact being configured is assembled from instances of a fixed set of well defined component types which can be **composed conforming to a set of constraints.**” - Sabin and Weigel (1998)*



Configurateur

- Un outil permettant, **souvent à un utilisateur non expert**, de configurer un produit ou un service **selon ses besoins**
- tout en **cachant la complexité**
- souvent un **point de vente important**
- doit fournir une **expérience utilisateur (UX) de haute qualité**

The screenshot displays the 'SIGNATURE SERIES CONFIGURATOR™' interface. At the top, the 'STUDIO SHED™' logo is followed by navigation links: 'MODELS', 'ADU', 'STUDIOS', 'SHED STORIES', 'DESIGN CENTER', and a phone number '888.900.3933'. The main content area features a 3D rendering of a shed with a red double door and a grey exterior. To the right, a 'SAVE CONFIGURATION' button is visible. Below it, a step indicator shows '1. Choose your SIZE' with a close icon. A 'Filter by Depth' section offers options for 8', 10', and 12'. A 'CONFIGURE SUMMIT SERIES (larger sizes)' section provides a grid of size and price options:

Size	Price
10' x 8'	\$12,092
10' x 10'	\$13,001
10' x 12'	\$13,910
10' x 14'	\$14,821
10' x 16'	\$15,729
10' x 18'	\$16,638

Below the grid is a pagination control showing '1' and '2'. An 'Additional Options' section includes a checkbox for 'Back Eaves Shortened to 6" \$120'. A progress bar shows five steps: '2. Choose your INTERIOR', '3. Choose your EXTERIOR LAYOUT', '4. Choose your SIDING', and '5. Choose your COLORS', each with a plus icon. The current total is 'STARTING AT: \$18,450' with an 'Expand for details' link. At the bottom, it says 'From \$278/mo with Acorn FINANCE' and a 'LEARN MORE' link.

Configurateur - Exemples

ULA RocketBuilderSM

1. LAUNCH DATE ⓘ ^

SELECT A YEAR

SELECT A QUARTER

Q1 Q2 Q3 Q4

2. ORBIT v

3. ROCKET TYPE ⓘ ^

4. SERVICE OPTIONS v

5. SUMMARY v

ULA VALUE ⓘ [Customize](#) **\$73M**

To complete your build, please enter a payload weight and select a service option.

SUBMIT TO ULA SAVE

SPECS ⓘ 3D MODEL

RESET

ULA RocketBuilderSM

3. ROCKET TYPE ⓘ ^

PAYLOAD WEIGHT

0

Max payload weight with current fairing: 2,836 kg KG LB

PAYLOAD FAIRING SIZE ⓘ

SHORT MEDIUM LONG

4 METER

5 METER

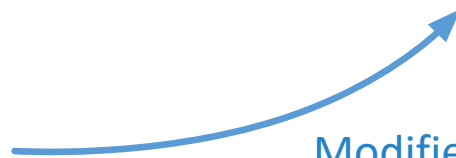
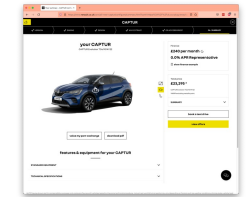
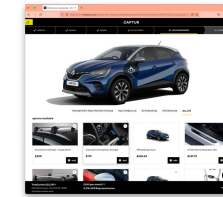
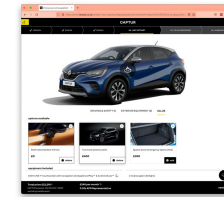
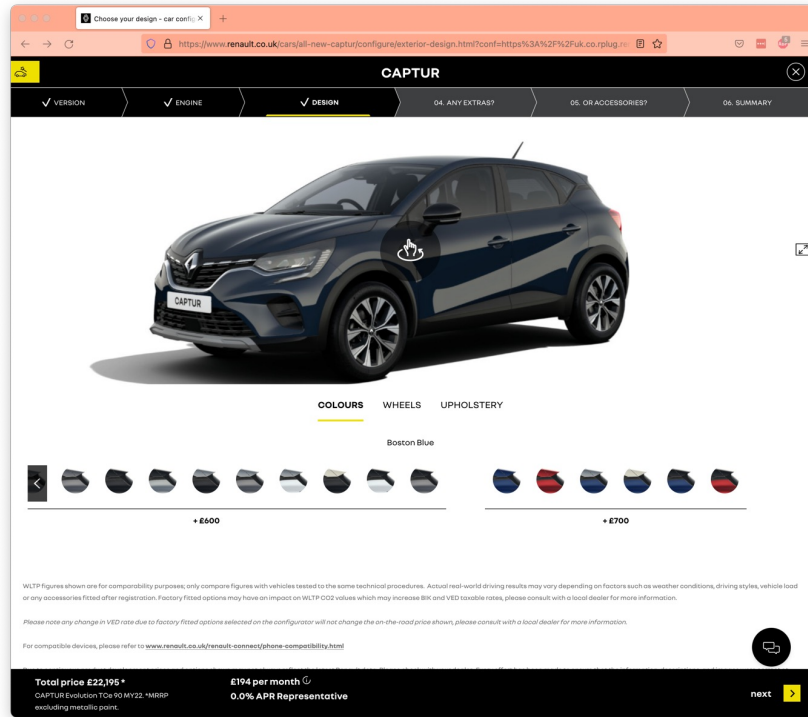
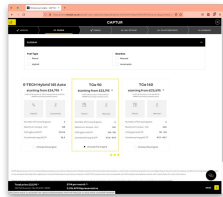
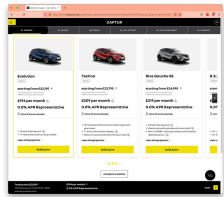
4. SERVICE OPTIONS v

5. SUMMARY v

ULA VALUE ⓘ [Customize](#) **\$73M**

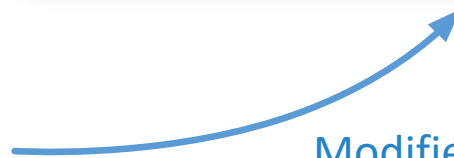
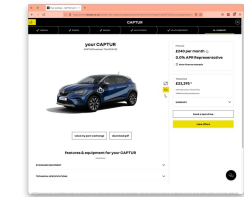
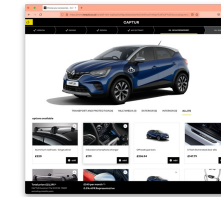
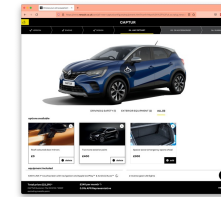
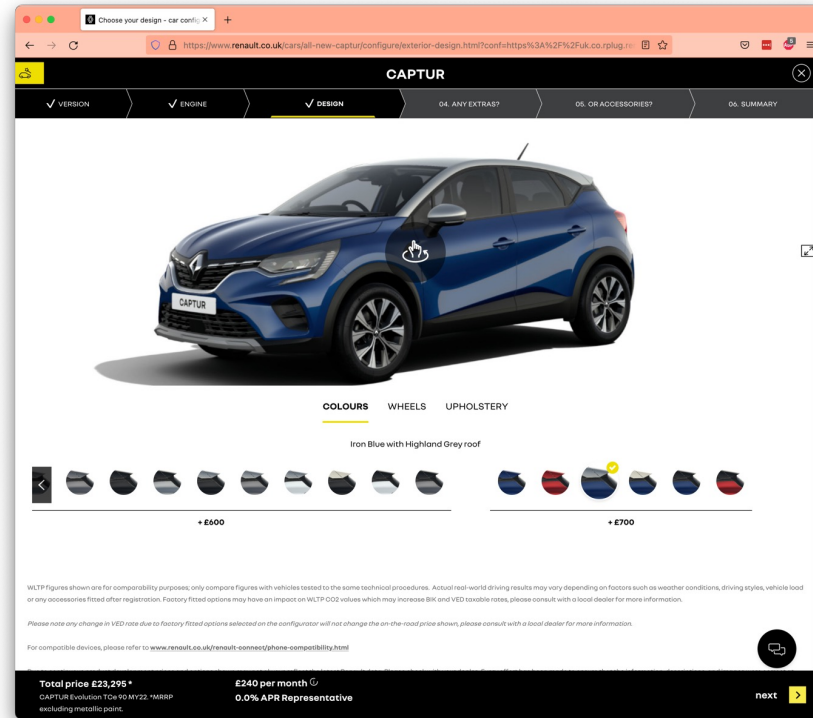
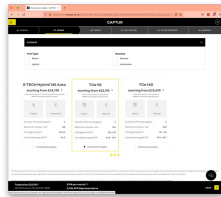
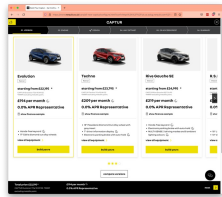
CONTINUE

Configurateur - Contraintes



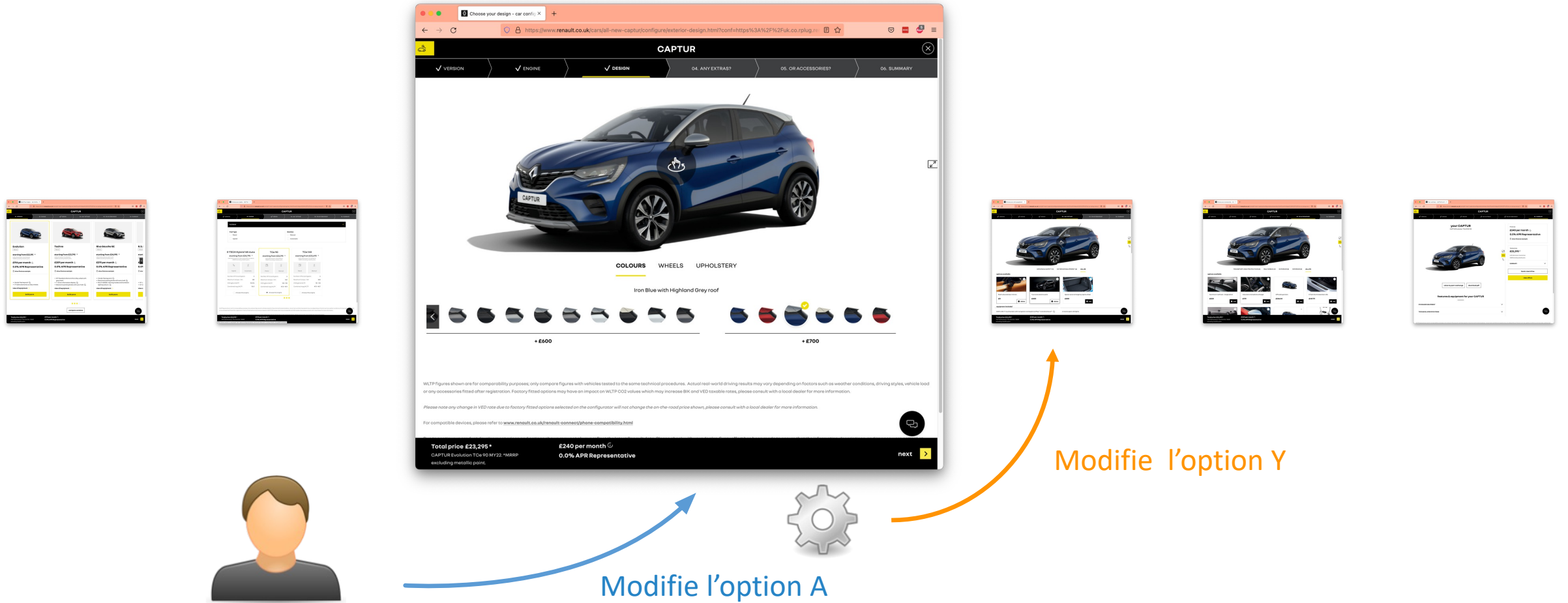
Modifie l'option A

Configurateur - Contraintes

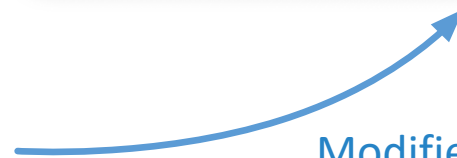
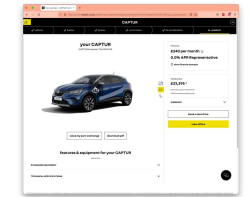
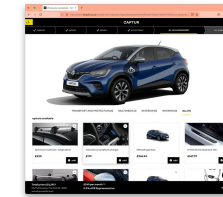
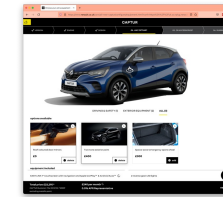
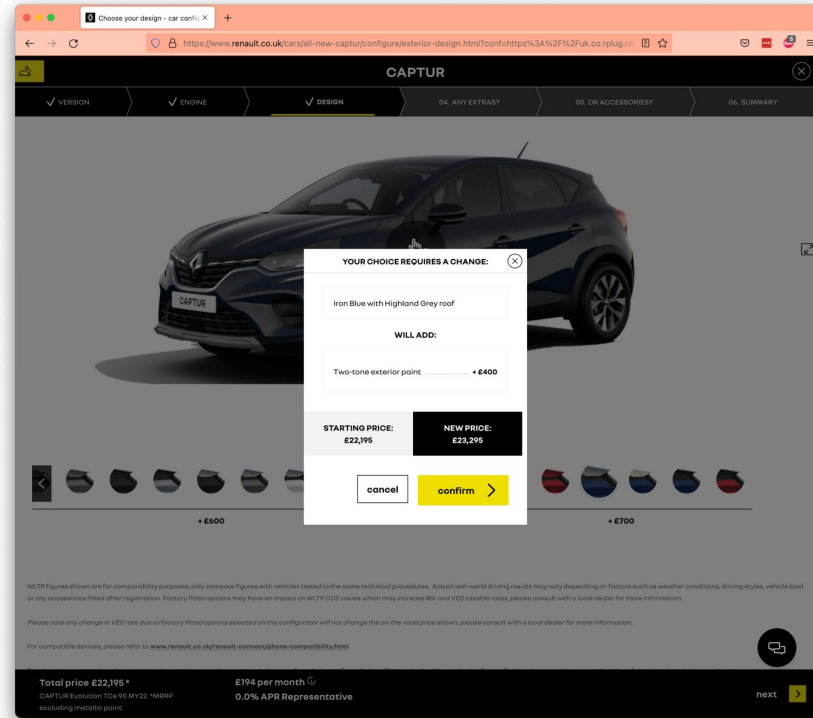
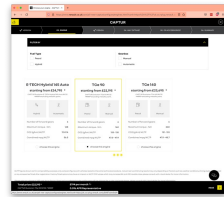
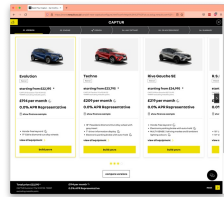


Modifie l'option A

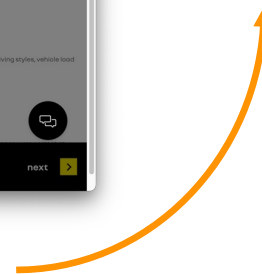
Configurateur - Contraintes



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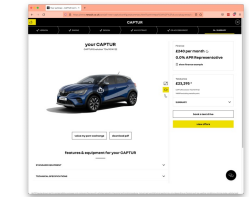
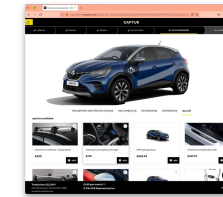
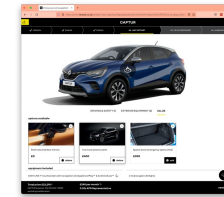
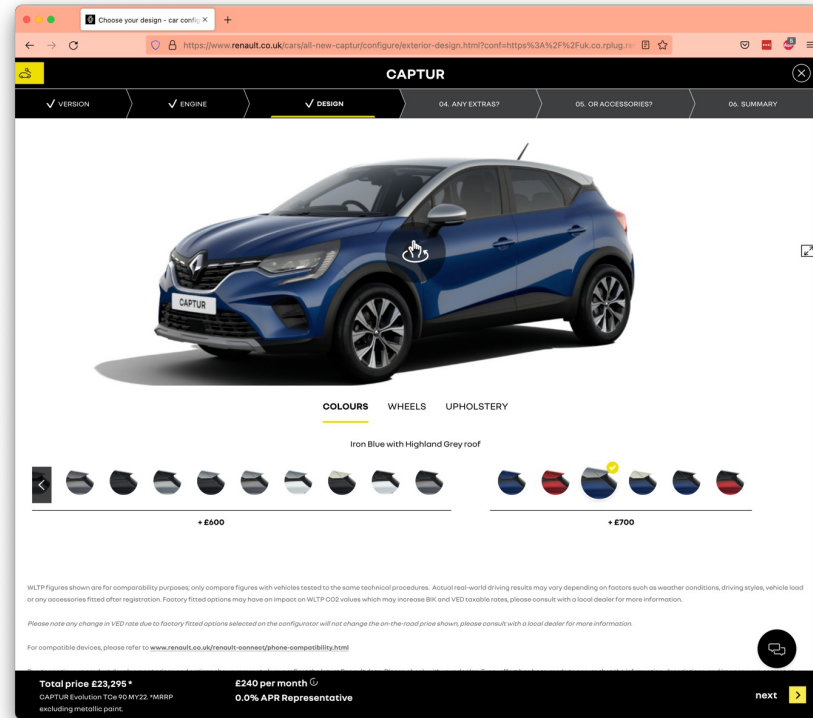
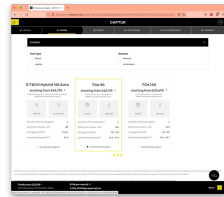
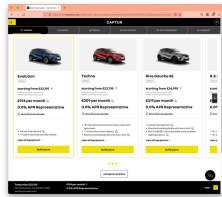


Modifie l'option A

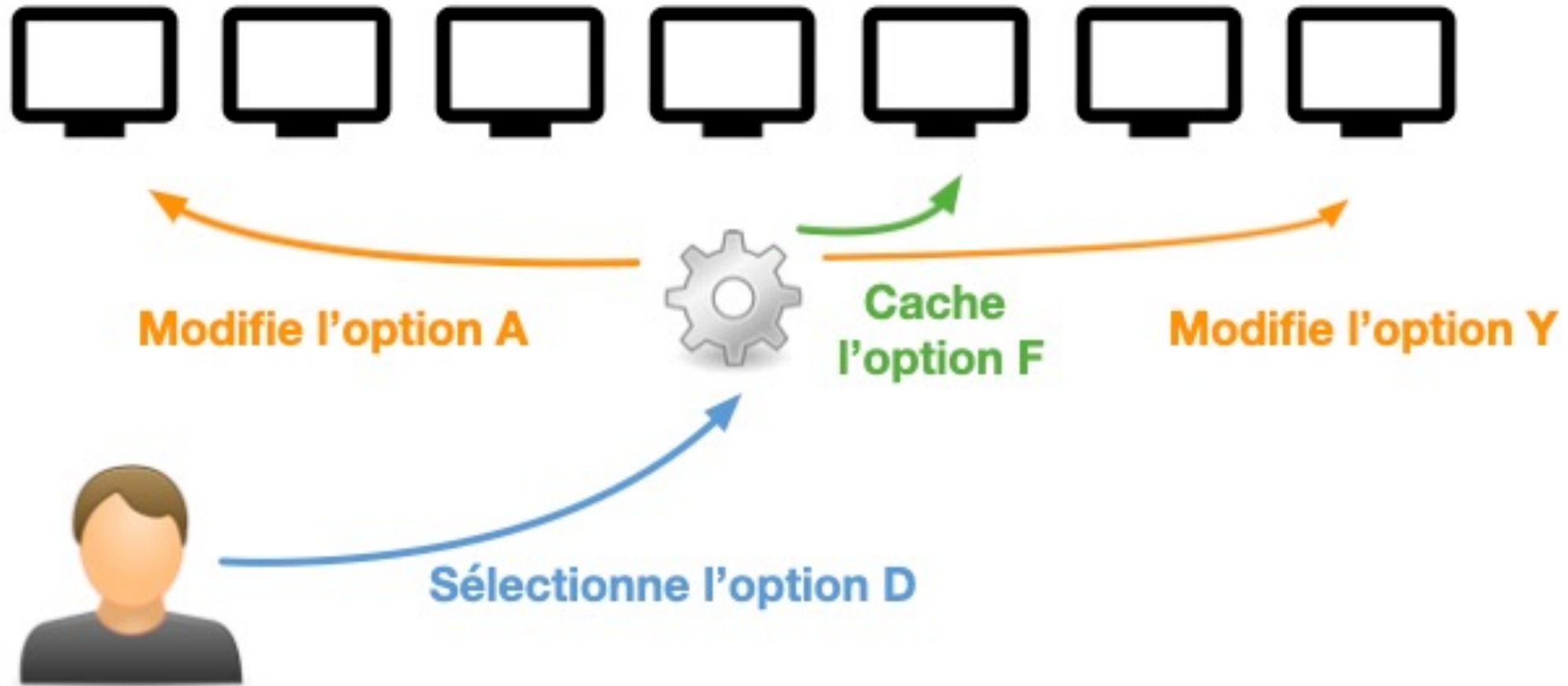


Modifie l'option Y

Configurateur - Contraintes



Configurateur - Contraintes



Mécanisme de réparation manuel



Not enough slots on Motherboard for quantity of RAM selected - Please reduce amount of RAM modules

RAM ? ▲

Crucial 4GB DDR4 2400MHz UDIMM (1x4GI ▾) ?

Unit(s)

Mécanisme de réparation assisté a.k.a. Assisted Repair

Close X

Your Selection Requires Changes

You have selected **20-Inch x 8.0-Inch Tech Gray Aluminum Wheels** which requires some changes to your configuration.

The ADDITION of:

- Normal Duty Suspension
- 265/50R20 BSW All Season LRR Tires

The REMOVAL of:

- Off-Road Adventure II

The total price of this vehicle will decrease by **\$300**.

[Help me understand this >](#)

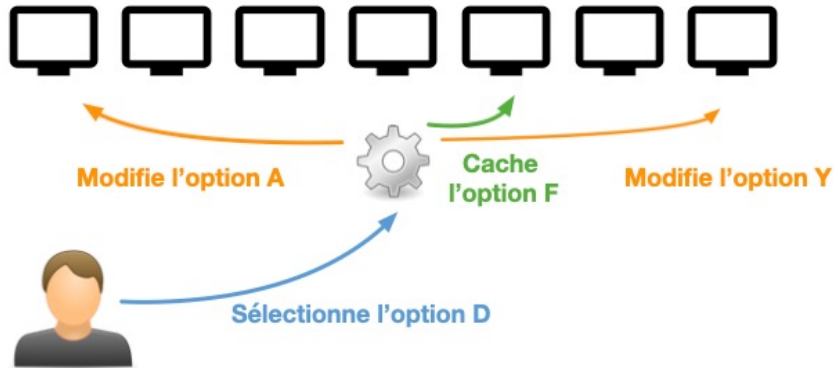
Would you like to make this change? No thanks

YES >

Question de recherche

- Le mécanisme de réparation n'est-il pas une fonction d'utilisabilité ?
- Quelles sont les fonctions d'utilisabilité existantes dans les configurateurs web ? A quelles fréquences sont-elles utilisées ?

Assisted Repair



Close X

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[Help me understand this >](#)

Would you like to make this change? No thanks

YES >

Assisted Repair

- Assure un feedback et un feedforward
- Automatise l'ensemble des modifications nécessaires (automatisation et navigation)
- Permet qu'une configuration reste ou redevienne valide
- Permet que la configuration soit la plus proche des souhaits de l'utilisateur !
- Permet également de laisser des options disponibles

Fonction d'utilisabilité

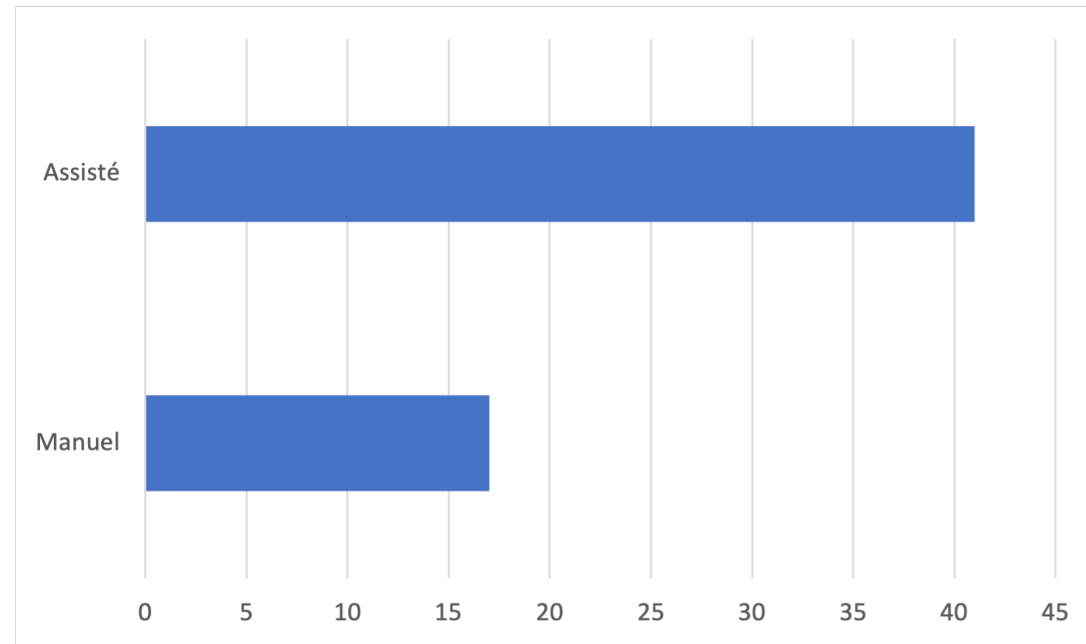
- Undo
 - Copier / coller
 - Suggestion / complétion. -> sélection par défaut, objectif à prioriser
 - Navigation
-
- Feedback
 - Feedforward
 - Navigation
 - Automatisation

Etude

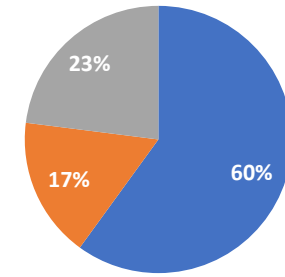
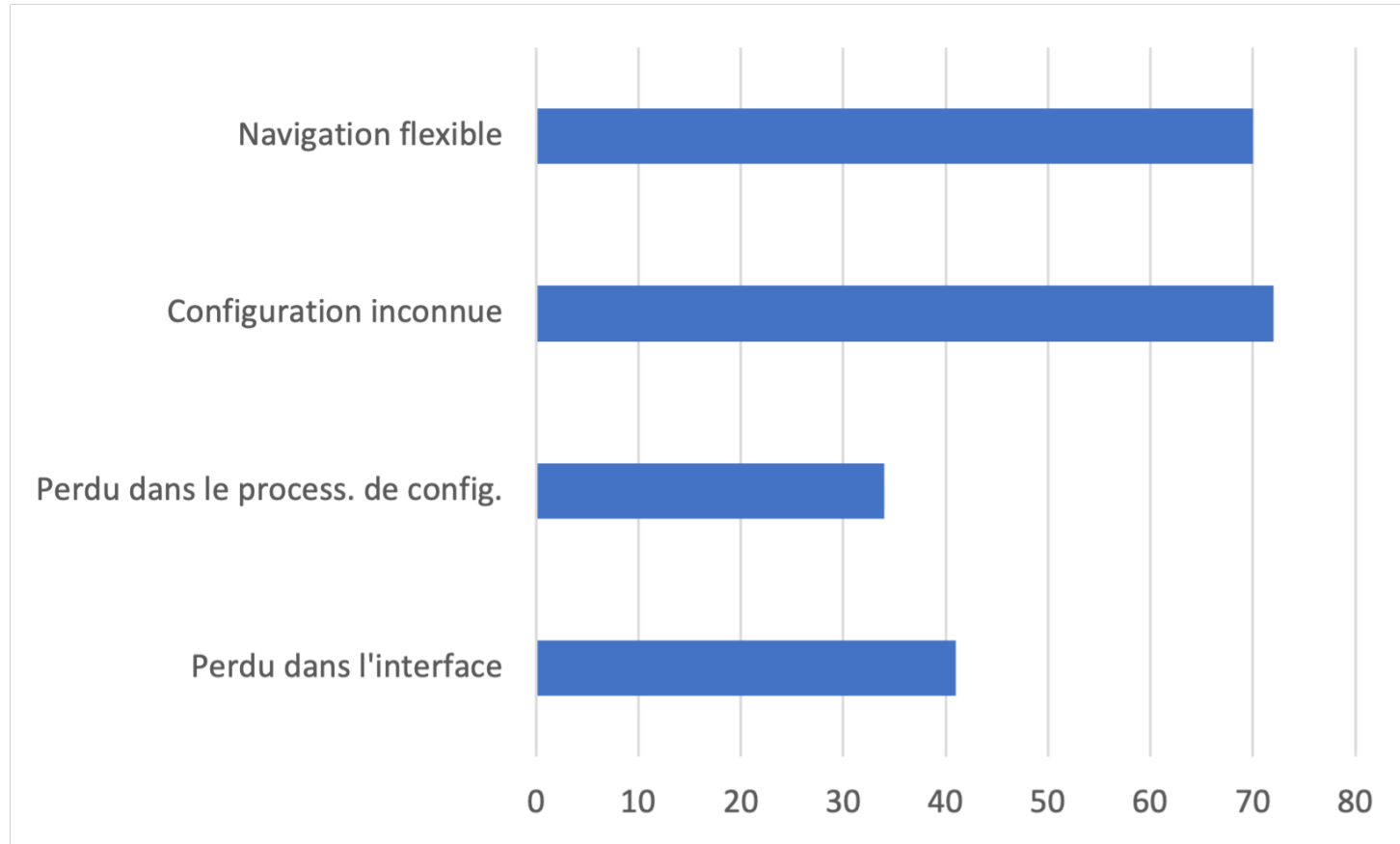
- 100 configurateurs
- Issus de 6 industries
- Pas loin de 200 variables d'observation

- Sélectionnés entre autres via la Configurator Database de Cyledge

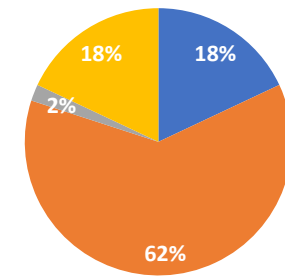
Repair mechanism



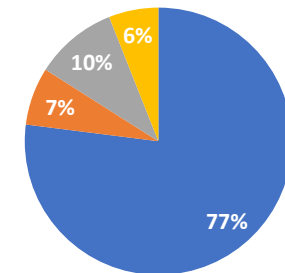
Navigation



■ Basic Multi-Step ■ Hierarchical Multi-Step ■ Single Step

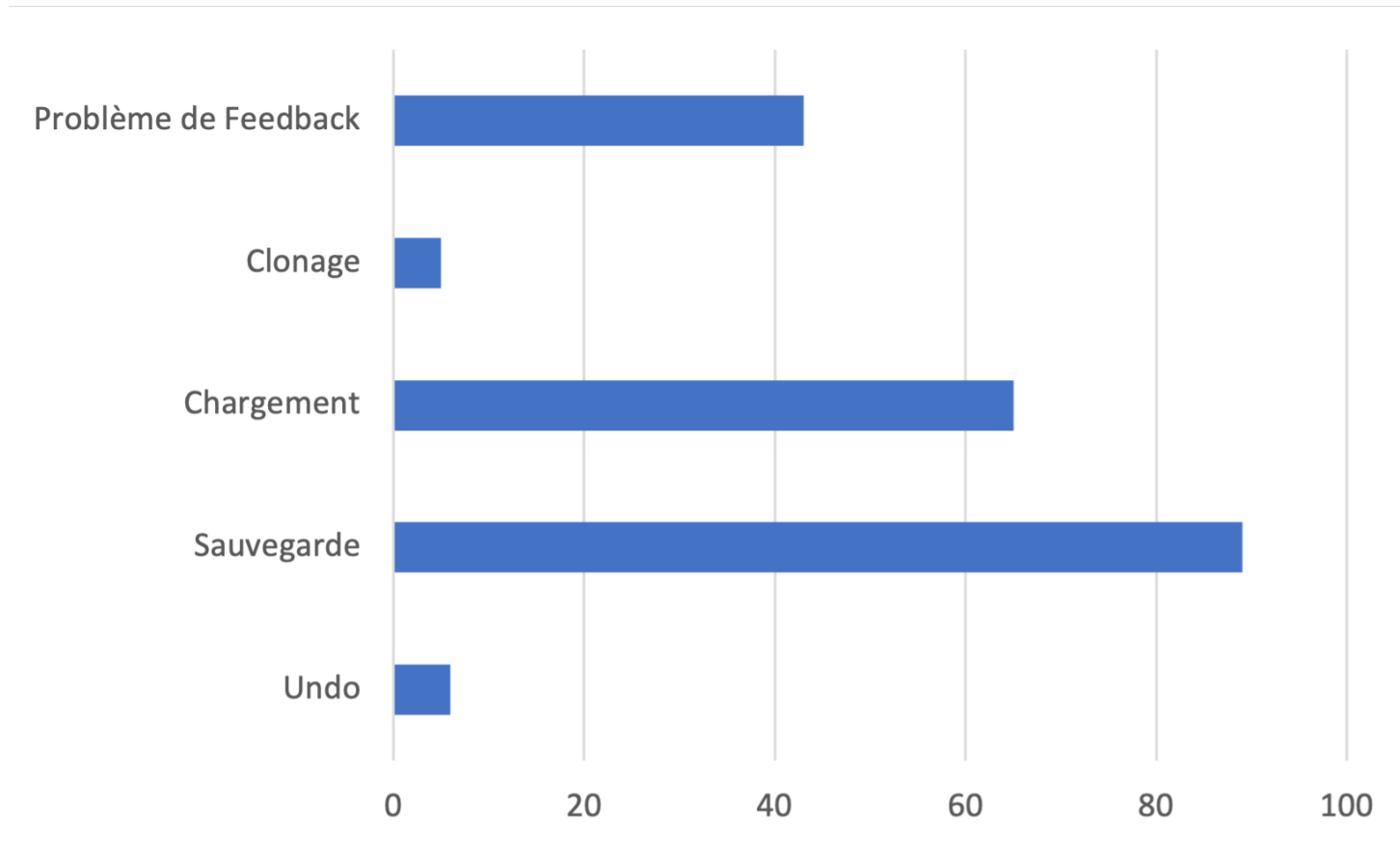


■ Step by Step ■ Full Step ■ Mixed ■ No relevant

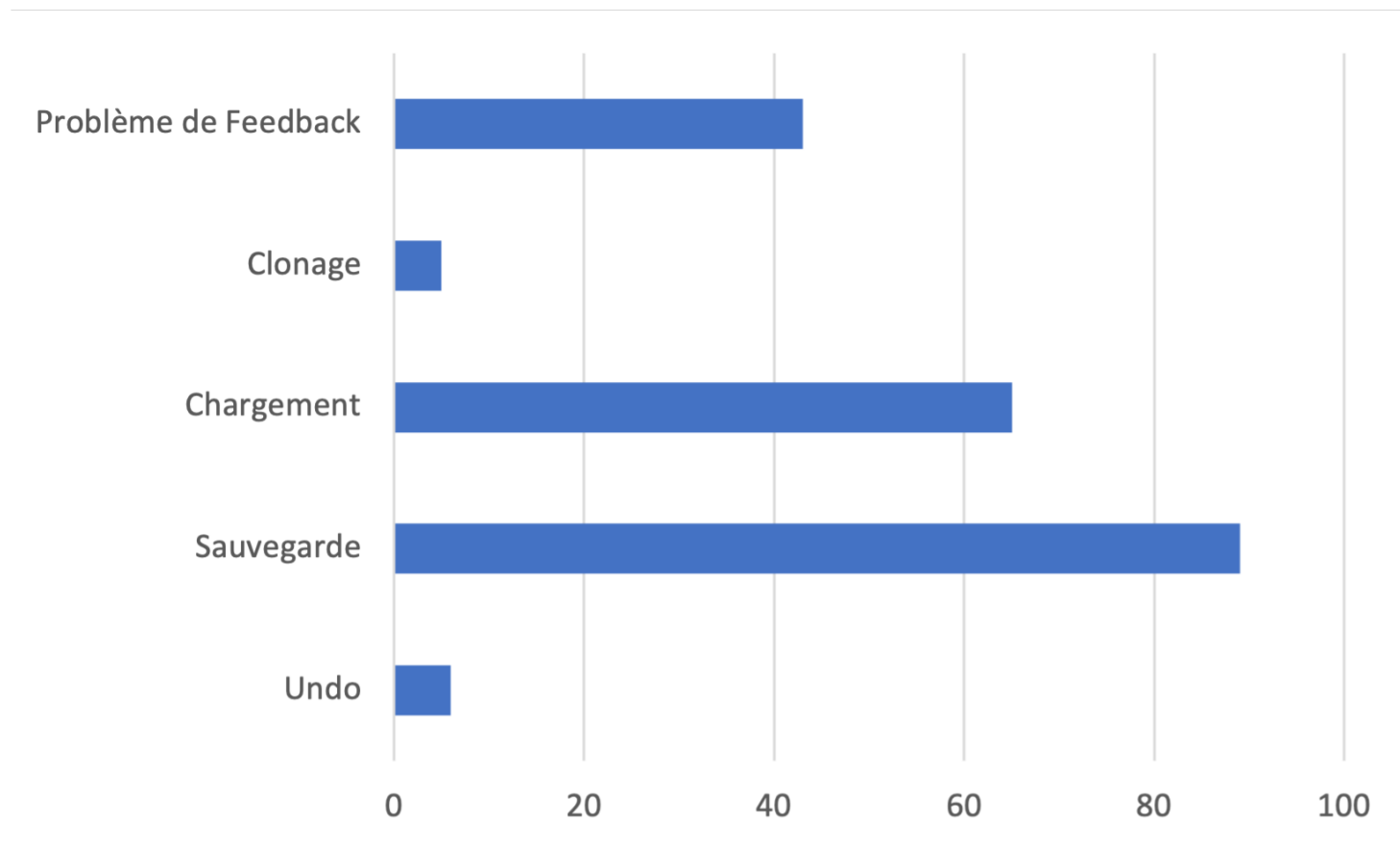


■ Stateful ■ Stateless ■ No relevant ■ No

Fonction d'utilisabilité



Fonction d'utilisabilité



Ratings : 10 %

Conseils : 17 %

Comparaison : 8 %

Question de recherche

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Question de recherche

- Le mécanisme de réparation n'est-il pas une fonction d'utilisabilité ?

Oui !

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Question de recherche

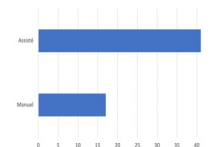
- Le mécanisme de réparation n'est-il pas une fonction d'utilisabilité ?

Oui !

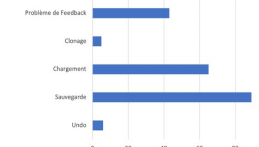
- Quelles sont les fonctions d'utilisabilité existantes dans les configurateurs web ? A quelles fréquences sont-elles utilisées ?

Parfois difficiles à identifier !

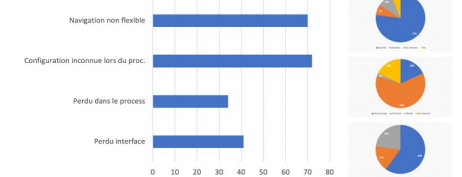
Repair mechanism



Fonction d'utilisabilité



Navigation



Conclusion

- Assisted repair est une fonction d'utilisabilité à étudier
- Un recensement et une description des fonctions d'utilisabilité est nécessaire

Merci pour votre attention



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