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HEC MONTRÉAL

La relation entre le type de contenu d'intégration et l'intention de créer un compte chez les nouveaux utilisateurs de plateformes de contenu

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Spécialisation Expérience utilisateur

Mémoire présenté en vue de l'obtention

du grade de maitrise ès sciences en gestion

(M. Sc.)

Mars, 2024

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Résumé

De nos jours, la consommation de contenus en ligne, notamment la lecture de nouvelles, le visionnement d'émissions ou encore l'écoute de balados, est un phénomène qui touche un large éventail de la population. Il est donc capital pour les organisations d'approfondir leurs connaissances sur leurs consommateurs afin de capter leur intérêt dès le premier contact. De nombreuses études explorent les tactiques incitatives à l'abonnement payant sur les plateformes de contenu, mais peu de recherches étudient les stratégies d'intégration (*onboarding*) incitant à la création de compte non payant chez les premiers utilisateurs de ce type de médias. Ce mémoire vise donc à comparer l'influence de différents types de contenus d'intégration sur l'intention de création de compte chez les utilisateurs d'une plateforme de contenu dans le contexte d'une première utilisation. En utilisant de différents types de contenus, ce mémoire étudie l'impact que peuvent avoir les émotions, la charge cognitive ainsi que le pouvoir sur la satisfaction des utilisateurs quant à l'utilisation d'une plateforme de contenu.

Ce mémoire est composé de deux phases distinctes. Dans un premier temps, il vise à comparer divers formats de contenus d'intégration et leur impact sur l'intention de créer un compte, soit en variant de niveau d'accompagnement. Plus précisément, le premier niveau d'accompagnement sélectionné correspond au format dynamique et représentant un haut niveau d'accompagnement caractérisé par des guides interactifs, étape par étape, pour faciliter la navigation et la compréhension de l'utilisateur. Par exemple, des bulles informatives indiquent comment utiliser les différentes fonctionnalités de la plateforme. Ensuite, le niveau moyen d'accompagnement correspond à un format descriptif, où cette fois-ci l'accent est mis sur des explications détaillées

et claires sur chaque étape du processus de création de compte. Par exemple, les fonctionnalités sont détaillées grâce à une fenêtre informative statique. Enfin, le dernier format représentant aucun accompagnement, où l'utilisateur est laissé seul pour naviguer à travers le processus de création de compte sans aucune assistance ou guidance supplémentaire. La deuxième phase de ce mémoire se penche plutôt sur les variations du contenu d'un même format, soit avec du contenu pouvant inciter la curiosité et avec du contenu personnalisé. Pour le contenu personnalisé, le contenu d'intégration est ajusté en fonction des préférences de l'utilisateur après qu'il ait répondu à une question concernant ses intérêts spécifiques. Tandis que le contenu induisant la curiosité est conçu pour susciter l'intérêt et l'engagement de l'utilisateur en stimulant sa curiosité, par exemple en posant une question quiz en lien avec la plateforme. Un total de 28 participants a été recruté pour la première phase de l'étude et ont accompli 3 tâches, tandis que 40 participants ont été recrutés pour la deuxième phase et ont effectué 4 tâches.

Les résultats principaux de la première phase de cette étude ont montré que la charge cognitive, mesurée par la dilatation de la pupille, varie significativement en fonction du type de contenu d'intégration présenté. Juste avant la création d'un compte, une dilatation pupillaire plus marquée a été observée pour les utilisateurs exposés à un onboarding dynamique, comparativement aux autres types d'onboarding. Cela suggère une charge cognitive accrue associée à ce format d'intégration. En revanche, après la création de compte, lors de la recherche de contenu spécifique, les utilisateurs ayant expérimenté un onboarding descriptif ont montré une plus grande dilatation de la pupille que ceux ayant connu un onboarding dynamique. Cette variation de la charge cognitive à la suite de la création d'un compte met en évidence des différences importantes dans l'expérience utilisateur selon le type d'onboarding.

La deuxième phase de l'étude a porté sur l'analyse comparative de l'effet de différents contenus au sein d'un format précis d'onboarding. Les résultats indiquent que, lors de la première tâche, l'activation émotionnelle est considérablement plus faible pour les utilisateurs exposés au contenu personnalisé et induisant la curiosité par rapport à ceux confrontés au contenu descriptif. De même, le sentiment de pouvoir personnel est réduit pour le contenu personnalisé et induisant la curiosité comparativement au contenu induisant la curiosité uniquement et au contenu descriptif. Ces facteurs semblent influencer l'intention de création de compte, qui est plus marquée en réponse au contenu descriptif qu'au contenu personnalisé ou associant personnalisation et curiosité. Enfin, les perceptions des bénéfices liés à la confidentialité sont plus importantes pour le contenu descriptif, suggérant une possible préférence des utilisateurs pour des informations claires et directes lors de l'évaluation de la confidentialité sur les plateformes de contenu.

Ce mémoire est pertinent dans le contexte actuel, marqué par une offre médiatique de plus en plus complexe pour les consommateurs, et où les organisations doivent innover afin de se distinguer de leurs concurrents en proposant une expérience utilisateur améliorée. En fournissant une meilleure compréhension des facteurs qui influencent l'intention de création de compte et la satisfaction des utilisateurs de plateformes de contenus, cette étude offre des perspectives clés pour le développement de stratégies organisationnelles d'*onboarding* plus efficaces et une expérience utilisateur plus engageante. Ce travail approfondit la compréhension théorique en examinant l'impact des émotions et de la cognition sur le comportement des utilisateurs en ligne, spécialement en ce qui concerne la divulgation d'informations personnelles, offrant un nouveau

cadre conceptuel. D'un point de vue managérial, il guide les organisations dans la conception

d'interfaces utilisateur et de processus d'*onboarding* qui maximisent la satisfaction et

l'engagement, en s'appuyant sur des insights psychologiques précis pour affiner leurs stratégies

de différenciation sur le marché.

Mots clés : *Onboarding*, accompagnement, personnalisation, charge cognitive, émotions,

pouvoir personnel, satisfaction, intention comportementale

Méthodes de recherche : Expérimentations en laboratoire, enquêtes et entrevues

Abstract

The consumption of online content, such as reading news, watching programs, or even listening to podcasts, is an activity performed by a wide spectrum of the population. It is therefore vital for organizations to deepen their knowledge of consumers to capture their interest from the very first point of contact. The purpose of this thesis is therefore to compare the impact of different types of onboarding content on the intention to create an account among users of a content platform in the context of first-time use. Using different types of content, this thesis investigates the impact of emotions, cognitive load, and consumer power on user satisfaction with a content platform. This study is composed of two distinct phases. Initially, the objective is to compare various welcome content formats and their impact on the intention to create an account by varying the level of support. More specifically, the first level of support selected corresponds to the dynamic format, representing a high level of support characterized by interactive step-by-step guides to facilitate user navigation and understanding. For example, information bubbles show how to use the platform's various functions. Next, the medium level of support corresponds to a descriptive format, where the emphasis this time is on clear, detailed explanations of each step in the account creation process. For example, functionalities are detailed in a static information window. Finally, the last format represents no accompaniment at all, and where the user is left alone to navigate through the account creation process without any further assistance or guidance. The second phase of this dissertation focuses instead on variations in the content of the same format, with both curiosity-inducing and personalized content. For personalized content, the welcome content is adjusted according to the user's preferences after they have answered a question about their specific interests. Curiosity-inducing content, on the other hand, is designed to arouse user

interest and engagement by stimulating curiosity, for example by asking users a quiz question related to the platform. A total of 28 participants were recruited for the first phase of the study and completed 3 tasks, while 40 participants were recruited for the second phase and completed 4 tasks.

The main results of the first phase of this study showed that cognitive load, measured by pupil dilation, varied significantly according to the type of onboarding content presented. Immediately prior to account creation, greater pupil dilation was observed for users exposed to dynamic onboarding, compared to other types of onboarding. This suggests an increased cognitive load associated with this onboarding format. In contrast, after account creation, when searching for specific content, users who experienced descriptive onboarding showed greater pupil dilation than those who experienced dynamic onboarding. This variation in cognitive load following account creation highlights important differences in user experience depending on the type of onboarding.

The second phase of the study involved a comparative analysis of the effect of different content within a specific onboarding format. The results indicate that, in the first task, emotional arousal is significantly lower for users exposed to personalized, curiosity-inducing content than for those confronted with descriptive content. Similarly, the sense of personal power is reduced for personalized and curiosity-inducing content compared to curiosity-only and descriptive content. These factors seem to influence the intent.

This dissertation is relevant in the current context, marked by an increasingly complex media offering for consumers, and where organizations need to innovate to stand out from their competitors by offering an enhanced user experience. By providing a better understanding of the factors influencing account creation intention and user satisfaction on content platforms, this study offers crucial insights for the development of more effective organizational onboarding strategies and a more engaging user experience. This work deepens theoretical understanding by examining the impact of emotions and cognition on online user behavior, especially regarding the disclosure of personal information, offering a new conceptual framework. From a managerial point of view, it guides organizations in designing user interfaces and onboarding processes that maximize satisfaction and engagement, drawing on accurate psychological insights to refine their market differentiation strategies.

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Liste des Abréviations

UX: Expérience Utilisateur

SOS: Subscription-Based Online Services

Avant-Propos

L'autorisation de rédiger ce mémoire par articles a été obtenue auprès de la direction du programme de maîtrise en sciences de HEC Montréal. Le projet de recherche a été approuvé par le Comité d'éthique de la recherche (CER) de HEC Montréal en janvier 2023, avec le certificat d'approbation numéro 2023-5397. De plus, tous les coauteurs des articles ont donné leur consentement pour que ceux-ci soient présentés dans ce mémoire.

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Remerciements

Ce mémoire n'aurait pas été possible sans plusieurs personnes que je tiens à remercier.

Tout d'abord, je souhaite exprimer ma gratitude envers mon directeur, Sylvain Sénécal, pour m'avoir offert l'opportunité de mener à bien ce projet au sein de l'équipe du Tech3lab. Son encadrement m'a permis de progresser dans le domaine de l'expérience utilisateur, et ce mémoire n'aurait pas été aussi enrichissant sans le soutien que le laboratoire m'a apporté. Je tiens également à remercier chaleureusement ma co-directrice de recherche, Ruxandra Monica Luca, qui m'a accompagné avec bienveillance à chaque étape de la rédaction de ce mémoire.

De plus, je tiens à remercier toute l'équipe du Tech3lab pour son soutien pendant la collecte des données. Une mention spéciale à Xavier Côté qui m'a introduit au Tech3Lab et qui m'a permis de rejoindre cette équipe.

Je tiens finalement à remercier ma famille et mes proches, qui m'ont épaulé durant tout mon parcours scolaire. Votre soutien m'a poussé à persévérer et à me rendre où j'en suis aujourd'hui. Enfin, une pensée pour ma grand-maman, qui continue de me guider par les souvenirs et dont je suis certaine qu'elle serait très fière de mes accomplissements.

Chapitre 1 | Introduction

1.1 Problématique Générale de l'Étude

1.1.1 Aperçu de la Recherche sur l'Écosystème Multimédia

Le rôle de la technologie ne cesse de croître dans notre vie quotidienne, et ce phénomène peut d'ailleurs être observé dans le monde des médias et dans les tendances d'utilisation de ceux-ci. En effet, le temps moyen passé quotidiennement sur les médias numériques aux États-Unis en 2024 devrait augmenter de 3.2 %, alors que le temps moyen passé quotidiennement sur les médias traditionnels comme les journaux, la radio et la télévision devrait diminuer de -3% (eMarketer, 2024), supportant l'omniprésence du numérique. L'utilisation des médias qui se fait de plus en plus sur des appareils électroniques (ordinateurs de bureau et portables, téléphones intelligents, tablettes, etc.) ainsi que la croissance du big data, de l'analytique avancée et de l'intelligence artificielle, contribuent à la complexité de l'environnement de consommation multimédia (Chan Olmsted & Wolter, 2018) auquel les consommateurs et les organisations doivent faire face. En effet, l'utilisation des médias sur des appareils électroniques tels que les ordinateurs de bureau et portables, téléphones intelligents et tablettes est devenue la norme, reflétant une transition vers une accessibilité omniprésente de l'information et du divertissement. Cette évolution est soutenue par la croissance exponentielle du big data, qui fournit une quantité sans précédent de données sur le comportement et les préférences des utilisateurs. Lorsque ces vastes ensembles de données sont analysés, ils exposent des modèles qui peuvent être employés pour améliorer la pertinence et la personnalisation du contenu médiatique. De plus, l'intégration de l'intelligence artificielle dans les

plateformes médiatiques permet d'automatiser et d'optimiser le traitement et la diffusion

de contenu, ainsi que de fournir des interactions utilisateurs plus sophistiquées et des

expériences immersives. Cependant, cette complexité croissante présente des défis

uniques pour les consommateurs qui doivent naviguer dans un environnement saturé de

choix et pour les organisations qui doivent capter l'attention dans un espace de plus en

plus compétitif. La capacité à comprendre et à s'adapter à cet environnement de

consommation multimédia est d'une importance cruciale, car elle impacte directement la

prise de décision, la fidélité des consommateurs et, enfin, le succès des entreprises dans le

paysage numérique actuel. Par conséquent, pour assurer leur survie et se différencier de

la concurrence en augmentant leur crédibilité et leur fidélité auprès de leur public, les

médias tels que les médias de contenu numérique doivent engager leurs utilisateurs et

mieux comprendre leurs besoins dans le but d'offrir une expérience plus personnalisée

(Nelson, 2021). Bénéficier d'une expérience personnalisée avec une marque, que ce soit

par l'adaptation de la présentation visuelle ou la conception du contenu, est un facteur clé

du succès de votre entreprise.

1.1.2 Le Paradoxe Personnalisation-Confidentialité

Vivre une expérience personnalisée avec une marque, que ce soit par l'adaptation de la

présentation visuelle ou du contenu, le diagnostic de localisation, l'interactivité, etc.

(Vesanen, 2007), est un facteur clé pour les consommateurs. En effet, selon un rapport de

2022, 88% des consommateurs accordent autant d'importance à l'expérience offerte par

une entreprise qu'à ses produits ou services (Salesforce, 2022). Afin d'assurer une

meilleure compréhension des utilisateurs, de leurs attitudes, comportements et

préférences, dans le but d'offrir une expérience personnalisée, il est nécessaire pour les nouveaux médias numériques de collecter des données sur leurs utilisateurs, cela étant possible, entre autres, grâce à la création de compte utilisateur.

Cependant, l'encouragement à la création de compte s'accompagne de son lot de défis. D'une part, les lois sur la protection des données comme la Loi 25 au Canada (Gliga, 2023) et celles concernant l'utilisation des fichiers témoins (*cookies*) comme la California Consumer Privacy Act aux Etats-Unis (Cookiebot, 2023) soutiennent le fait qu'il est difficile de collecter des données sur les utilisateurs et qu'il faut attacher de l'importance au processus de collecte d'informations personnelles via la création de compte. D'autre part, il est possible d'observer un paradoxe de la personnalisation et confidentialité chez les utilisateurs qui sont à la fois à la recherche d'expériences personnalisées et préoccupés par les informations personnelles divulguées sur le web (Chen et al., 2015). En effet, la confidentialité en ligne désigne la capacité des individus à maintenir le caractère privé de leurs informations personnelles dans l'espace numérique. Cela englobe la gestion de la collecte, de l'utilisation et de la diffusion de leurs données par des tiers, tels que les sites web, les applications et les plateformes en ligne. Alors que les services numériques deviennent omniprésents, les consommateurs partagent de plus en plus d'informations sensibles telles que leurs habitudes de navigation, leurs données de localisation, leurs préférences personnelles et leurs interactions sociales. Ce partage d'informations crée souvent un conflit entre le désir d'expériences personnalisées et la nécessité de protéger la vie privée. Le paradoxe réside dans la demande simultanée des utilisateurs pour un contenu numérique sur mesure, qui nécessite le partage de données, et leur inquiétude

quant à l'utilisation abusive potentielle ou l'accès non autorisé à leurs informations privées. Ainsi, la confidentialité en ligne est une question complexe et multidimensionnelle qui requiert un équilibre délicat entre les avantages de la personnalisation et le droit fondamental à la vie privée, nécessitant des pratiques transparentes de la part des entreprises et un consentement éclairé de la part des utilisateurs. Avec l'évolution continue des technologies numériques, le discours sur la confidentialité en ligne devient de plus en plus crucial, avec des cadres juridiques, des considérations éthiques et l'autonomisation des utilisateurs au premier plan des débats.

Cela dit, pour approfondir notre compréhension de la confidentialité en ligne, il est impératif de considérer les diverses théories qui la sous-tendent. La théorie de l'autodétermination (Ryan & Deci, 2020) suggère que les utilisateurs cherchent à contrôler leurs données personnelles pour répondre à un besoin intrinsèque d'autonomie et de compétence. De même, la théorie du comportement planifié (Ajzen & Fishbein, 1969) postule que l'intention d'un individu de protéger sa vie privée est influencée par son attitude envers la confidentialité, la pression sociale perçue et sa perception du contrôle comportemental. D'autre part, la théorie de l'échange social (Lawler, 2001) nous indique que les utilisateurs évaluent les bénéfices contre les coûts de divulguer des informations personnelles, optant pour la divulgation lorsque les avantages perçus surpassent les risques. Ces cadres théoriques contribuent à expliquer pourquoi, malgré des préoccupations évidentes en matière de confidentialité, de nombreux individus continuent de partager leurs données en échange de services personnalisés, alimentant ainsi le paradoxe de la personnalisation et de la confidentialité.

1.2 Problématiques Spécifiques de l'Étude

Dans un environnement numérique où la première impression auprès des utilisateurs est déterminante, l'efficacité du processus d'*onboarding*, ou d'intégration, est un enjeu central pour les plateformes de contenu en ligne. Le parcours d'*onboarding* constitue le premier point de contact entre l'utilisateur et la plateforme, et c'est à ce moment critique que se joue la décision de s'engager davantage, notamment par la création d'un compte. En effet, l'importance de l'onboarding réside dans sa capacité à transformer l'intérêt initial de l'utilisateur en un engagement actif et durable. Il s'agit d'une séquence structurée qui guide l'utilisateur à travers la présentation du but de la plateforme, l'inscription, une phase d'apprentissage interactif, la conversion en contributeur actif, et enfin, des stratégies de réengagement pour pérenniser cette relation (Cascaes Cardoso, 2017). Il existe quelques méthodes d'intégration dans la littérature qui utilisent différentes stratégies et théories éducatives, telles que l'apprentissage par la pratique (Kwon et Lee, 2016), l'apprentissage par analogie (Ruchikachorn et Mueller, 2015), l'échafaudage (Bishop et al., 2020), ou des méthodes d'enseignement descendantes et ascendantes ainsi que des types d'apprentissage actifs et passifs (Tanahashi et al., 2016). L'objectif étant de minimiser la complexité et de maximiser l'autonomie de l'utilisateur, créant ainsi une expérience intuitive qui répond non seulement à ses besoins informationnels, mais qui suscite également un sentiment d'appartenance et de compétence. En alignant le design d'*onboarding* sur les motivations des utilisateurs, les plateformes peuvent augmenter significativement les chances de conversion des visiteurs en membres actifs, influençant ainsi positivement la satisfaction utilisateur et la fidélisation sur le long terme (Cascaes Cardoso, 2017).

Ce mémoire se concentre donc sur l'exploration de la relation entre le contenu d'intégration et l'intention des utilisateurs de s'y inscrire. Il interroge comment différents éléments tels que les émotions suscitées, la charge cognitive requise et le sentiment d'autonomie peuvent influencer la satisfaction et la décision de l'utilisateur de passer à l'action en se créant un compte.

1.3 Questions de Recherche

Dans le cadre de cette étude, quatre questions de recherche distinctes ont été formulées pour explorer différents aspects de l'intention de création de compte des nouveaux utilisateurs sur une plateforme de contenu. La première question de recherche se concentre sur l'impact du niveau d'accompagnement, tandis que les questions de recherche deux, trois et quatre examinent respectivement le rôle de la valeur perçue, de la personnalisation et du contenu incitant à la curiosité. Chacune des deux études vise à répondre à des questions spécifiques parmi ces quatre questions, en utilisant des méthodes et des analyses adaptées à leur objectif respectif. En définissant clairement ces questions de recherche, ce mémoire vise à fournir des résultats pertinents et ciblés pour mieux comprendre les déterminants de l'intention de création de compte des utilisateurs sur les plateformes de contenu en ligne.

RQ1 : Dans quelle mesure le niveau d'accompagnement affecte-t-il l'intention de créer un compte pour un nouvel utilisateur d'une plateforme de contenu?

RQ2 : Dans quelle mesure la valeur perçue affecte-t-elle la force de la relation entre le pouvoir du consommateur et la satisfaction?

RQ3 : Dans quelle mesure le contenu personnalisé affecte-t-il l'intention de créer un compte pour un nouvel utilisateur d'une plateforme de contenu ?

RQ4: Dans quelle mesure le contenu incitant à la curiosité affecte-t-il l'intention de créer un compte pour un nouvel utilisateur d'une plateforme de contenu ?

La première étude se concentre sur l'exploration de deux questions principales, soit la première et la deuxième question de recherche. D'abord, elle examine dans quelle mesure le niveau d'accompagnement, c'est-à-dire le degré de support ou de guidage fourni aux nouveaux utilisateurs, influe sur leur intention de créer un compte sur une plateforme de contenu. Ensuite, il étudie le rôle de la valeur perçue en tant que modérateur dans la relation entre le pouvoir du consommateur et la satisfaction. Ces hypothèses visent à éclairer la compréhension des facteurs qui influencent l'intention des utilisateurs de s'inscrire sur une plateforme de contenu, ainsi que les mécanismes sous-jacents à la satisfaction des utilisateurs dans ce contexte spécifique. La deuxième étude vise à examiner l'impact de la personnalisation et du contenu incitant à la curiosité sur l'intention de créer un compte pour les nouveaux utilisateurs d'une plateforme de contenu, ainsi que le rôle de la valeur perçue dans la relation entre le pouvoir du consommateur et la satisfaction. La deuxième, troisième et quatrième question de recherche sont donc traitées dans cette étude. Les hypothèses examinent dans quelle mesure la personnalisation et le contenu incitant à la curiosité influencent l'intention de création de

compte, tandis que la valeur perçue est envisagée comme un facteur modérateur de la relation entre le pouvoir du consommateur et la satisfaction.

1.4 Résumé des Articles

1.4.1 Résumé de l'Article 1

L'article 1 ayant comme objectif d'évaluer le comportement et l'état émotionnel pouvant surgir chez les participants lors de leur première utilisation d'une plateforme de contenu lorsque exposés à différents niveaux d'accompagnement. Nous avons donc codifié les données vidéos des 28 participants grâce au logiciel Observer XT de Noldus (Noldus Information Technology Inc. Wageningen, Netherlands), cet outil permettant l'importation et la codification des vidéos, ainsi que l'exportation des résultats d'analyse. De plus, avec les enregistrements des tests utilisateurs, il a été possible de procéder à l'analyse individuelle des expressions faciales en utilisant le logiciel FaceReader software (Noldus, Wageningen, Netherlands). Enfin, les données des questionnaires de chacun des participants ont été analysées. Nous avons croisé les données de codification des vidéos avec l'analyse des expressions faciales à l'aide du logiciel FaceReader (Noldus, Wageningen, Pays-Bas), ainsi qu'avec les résultats des questionnaires administrés tout au long des tests utilisateurs. Cette démarche nous a permis d'obtenir les fréquences moyennes des comportements par tâche, répondant ainsi à notre première question de recherche. Les résultats indiquent une variation significative de la charge cognitive selon le type de contenu d'intégration présenté. Avant la création du compte, une dilatation pupillaire plus importante a été observée chez les utilisateurs soumis à un onboarding dynamique, comparativement aux autres types d'*onboarding*, suggérant ainsi une charge

cognitive accrue associée à ce format. En revanche, après la création du compte et lors de la recherche d'un contenu spécifique, les utilisateurs exposés à un onboarding descriptif ont montré une dilatation pupillaire plus prononcée que ceux ayant connu un onboarding dynamique. Cette variation de la charge cognitive post-création de compte souligne des différences significatives dans l'expérience utilisateur en fonction du type d'intégration.

1.4.2 Résumé de l'Article 2

L'article 2 ayant comme objectif d'évaluer le comportement et l'état émotionnel pouvant surgir chez les participants lors de leur première utilisation d'une plateforme de contenu lorsqu'exposés à différent types de contenu. Nous avons donc codifié les données vidéos des 40 participants grâce au logiciel Observer XT de Noldus (Noldus Information Technology Inc. Wageningen, Netherlands), cet outil permettant l'importation et la codification des vidéos, ainsi que l'exportation des résultats d'analyse. De plus, avec les enregistrements des tests utilisateurs, il a été possible de procéder à l'analyse individuelle des expressions faciales en utilisant le logiciel FaceReader software (Noldus, Wageningen, Netherlands). Enfin, les données des questionnaires de chacun des participants ont été analysées. Nous avons croisé les données de codification des vidéos avec l'analyse des expressions faciales à l'aide du logiciel FaceReader (Noldus, Wageningen, Pays-Bas), ainsi qu'avec les résultats des questionnaires administrés tout au long des tests utilisateurs. Cette démarche nous a permis d'obtenir les fréquences moyennes des comportements par tâche, répondant ainsi à notre première question de recherche. L'analyse de la relation entre la personnalisation du contenu, la curiosité et diverses mesures émotionnelles et cognitives a révélé qu'une plus grande personnalisation

renforce de manière significative les émotions positives, en particulier en termes de valence émotionnelle. Cela indique que le contenu personnalisé augmente effectivement la positivité des réponses émotionnelles. En ce qui concerne l'impact sur la charge cognitive, une plus grande personnalisation et des niveaux de curiosité plus élevés réduisent de manière significative la charge cognitive, comme le montrent les mesures de dilatation des pupilles. Cela suggère que ces deux facteurs contribuent à réduire la charge cognitive pendant l'interaction avec le contenu. Toutefois, d'autres aspects de la charge cognitive, mesurés différemment, n'ont pas montré de changements significatifs, ce qui indique l'influence spécifique de la personnalisation et de la curiosité sur certaines réponses cognitives, mais pas sur d'autres.

En résumé, les résultats soulignent que la personnalisation du contenu et la curiosité jouent un rôle bénéfique en renforçant les réponses émotionnelles positives et en réduisant la charge cognitive dans des contextes spécifiques.

1.5 Contributions Théoriques

Cette recherche est d'autant plus pertinente dans le contexte actuel où que les organisations sont confrontées à une concurrence accrue et à des consommateurs dotés d'une attention fragmentée (Webster, 2014). En comparant l'impact de divers niveaux d'accompagnement et types de contenus d'intégration, cette étude vise à révéler des insights précieux sur les leviers psychologiques qui facilitent l'adoption des plateformes de contenu. À travers une méthodologie rigoureuse, impliquant deux phases et un nombre conséquent de participants, ce mémoire a comme objectif de déterminer les formats

d'onboarding les plus propices à engager les utilisateurs dès leur première interaction. L'objectif est double : d'une part, comprendre en profondeur les facteurs affectant la satisfaction et l'expérience utilisateur lors de l'utilisation initiale de la plateforme ; d'autre part, évaluer comment ces facteurs se traduisent en termes d'intention de création de compte. Ce mémoire se propose d'explorer cette problématique en examinant comment différents processus d'intégration peuvent impacter l'intention de création de compte chez les utilisateurs. En s'intéressant aux dimensions émotionnelles, cognitives et du pouvoir perçu par le consommateur, nous cherchons à comprendre comment ces facteurs influencent non seulement la satisfaction immédiate de l'utilisateur mais aussi sa disposition à s'engager sur le long terme avec la plateforme.

Notre recherche enrichit la compréhension de l'impact des niveaux d'accompagnement et des différents types de contenu sur l'expérience utilisateur dans les plateformes numériques. L'étude 1 révèle que l'intégration dynamique avec un haut niveau d'accompagnement, bien qu'il soit conçu pour être plus engageant, influence spécifiquement l'activation phasique mesurée par la dilatation pupillaire, sans pour autant modifier significativement les émotions ou la satisfaction globale. Ce résultat remet en question l'efficacité des stratégies d'onboarding intensives et conventionnelles, suggérant que des approches plus nuancées peuvent être nécessaires pour optimiser l'expérience utilisateur. Dans la deuxième étude, nous explorons l'effet de la personnalisation et des contenus incitant à la curiosité sur la charge cognitive et l'état émotionnel. Les résultats montrent que la personnalisation améliore significativement la valence des émotions, confirmant que des interactions plus personnalisées peuvent enrichir positivement

l'expérience émotionnelle des utilisateurs. De plus, nous avons observé que tant le contenu personnalisé que celui induisant la curiosité augmentent la charge cognitive, comme indiqué par les mesures de dilatation pupillaire, rendant l'interaction plus exigeante en termes d'effort mental nécessaire. Enfin, l'effet modérateur de la valeur perçue sur la relation entre le pouvoir du consommateur et la satisfaction est confirmé dans l'étude 2, indiquant que la perception de la valeur ajoutée par des interventions d'onboarding peut significativement renforcer leur impact sur la satisfaction des utilisateurs. Cette découverte souligne l'importance de développer des stratégies d'onboarding qui non seulement engagent les utilisateurs mais aussi augmentent leur perception de la valeur, conduisant à une satisfaction accrue et potentiellement à une plus grande fidélité à la plateforme.

Ces contributions fournissent des directives précieuses pour la conception de plateformes numériques plus efficaces et plus satisfaisantes, en alignant les stratégies d'onboarding avec les besoins et les préférences des utilisateurs, tout en encourageant une exploration plus approfondie des dynamiques d'interaction qui affectent les utilisateurs de manière ciblée.

1.6 Implications Managériales

L'importance de ce travail réside dans son potentiel à éclairer les meilleures pratiques dans le domaine de l'expérience utilisateur (UX), en fournissant des données probantes sur les éléments de contenu qui favorisent une relation durable entre les plateformes de

contenu et leurs publics. Cette recherche s'inscrit ainsi dans une quête de perfectionnement de l'engagement numérique, où la capacité à convertir efficacement les utilisateurs en membres actifs devient un avantage concurrentiel significatif dans le paysage médiatique contemporain. À travers une étude empirique, nous avons analysé les réactions des utilisateurs face à diverses stratégies d'onboarding, en mesurant leur impact sur l'intention de créer un compte et en observant comment une dilatation pupillaire plus marquée lors de l'onboarding dynamique indique une charge cognitive accrue, renforçant ainsi l'engagement initial. En revanche, après la création du compte, un onboarding descriptif a induit une charge cognitive plus élevée lors de la recherche de contenu spécifique, soulignant l'importance d'adapter le type d'onboarding aux différentes phases de l'interaction utilisateur. De plus, l'étude de la personnalisation du contenu a révélé que celle-ci renforce significativement les émotions positives, en particulier en termes de valence émotionnelle, augmentant la positivité des réponses émotionnelles. En outre, le contenu d'intégration induisant la curiosité réduit significativement la charge cognitive, comme l'indiquent les mesures de dilatation des pupilles. Ces insights offrent des recommandations stratégiques précieuses pour les organisations médiatiques qui aspirent à optimiser leurs processus d'intégration pour transformer les visiteurs en utilisateurs inscrits et engagés, en soulignant l'efficacité des approches d'*onboarding* adaptées aux besoins et réactions des utilisateurs.

1.7 Contribution Personnelle

Les articles écrits dans le cadre de ce mémoire ont été réalisés en collaboration avec le Tech3lab de HEC Montréal. Ma contribution à chacune des étapes de la recherche,

d'analyse ainsi qu'à l'écriture des articles est décrite dans le tableau 1 présenté ci-

dessous. Ma contribution personnelle est inscrite en pourcentage.

Tableau 1 - Contribution aux Étapes du Projet de Recherche	
Étapes	**Contribution**
Définition des requis	Définition de la question de recherche et de la problématique - 75% • Contextualisation de la problématique élaborée en collaboration avec un partenaire industriel • Traduction des besoins du partenaire industriel en question de recherche et définition de la problématique
Revue de littérature	Élaboration de la revue de littérature - 90% • Identification de la littérature existante sur le sujet • Aide des co-auteurs sur l'identification des sujets de recherche • Définition des échelles et mesures à utiliser lors de l'étude • Aide du laboratoire concernant les outils physiologiques et utilisation de ressources déjà établies. Rédaction de la revue de littérature - 100%
Demande de certificat d'éthique de la recherche	Rédaction de la demande au CER et des modifications de projet par la suite - 90% • L'équipe du laboratoire de recherche a fait une relecture de la demande avant la soumission
Design expérimental	Conception du design expérimental et protocoles de test - 80% Concevoir le protocole d'expérimentation - 80% • L'équipe du laboratoire de recherche a recommandé un protocole d'utilisation de l'outil physiologique
Recrutement des participants	Rédaction du questionnaire de recrutement - 75% • Le questionnaire de recrutement a été fait en collaboration avec l'équipe de recherche du laboratoire Recrutement et gestion des participants - 20% • Recrutement par le partenaire industriel, effectué en externe • Les données des participants ont été anonymisées par le laboratoire de recherche • Les participants potentiels ont été filtrés selon leur expertise par le partenaire • Les participants sélectionnés ont été contacté par courriel avec l'aide d'un assistant de recherche
Prétests et collecte des données	Responsable des opérations lors des prétests - 100% • Tous les prétests ont été effectués par l'auteur Responsable des opérations lors de la collecte de données - 100% • Présence lors de 100% du processus de collecte

Extraction et transformation des données	Extraction et mise en forme des données en préparation à l'analyse - 100%
Analyse des données	Analyses statistiques - 75% • Aide de l'équipe et du statisticien du laboratoire de recherche pour le traitement des données
Rédaction	Écriture des articles du mémoire - 100% • Rédaction autonome avec corrections et pistes d'amélioration apportées par les coauteurs

Le mémoire est structuré comme suit. Les deuxième et troisième chapitre, présenteront les deux articles distincts et correspondant aux deux études de ce projet de recherche. Ces chapitres comprendront un résumé de l'étude en question, une introduction faisant une revue de la littérature, l'ensemble de la méthodologie, soit le design expérimental, l'échantillon, la procédure expérimentale et les mesures, l'analyse et les résultats, tout en concluant avec les références. Ces chapitres seront suivis d'une conclusion, des indexes, d'une bibliographie et enfin des annexes.

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Chapter 2 | First Article: The Level of Guidance During the Digital Media Onboarding Process

2.1 Abstract

Even though worldwide consumption of traditional and digital media is expected to reach a plateau in 2025 (Insider Intelligence Analysts, 2023), digital consumption continues to replace traditional media usage, and it is more important than ever for online content providers to use innovative tactics to engage and convert their users, to take an action within the platform whether to create an account, interact with the content or subscribe to a service. In this research, we examine the behavior individuals adopt when creating an account on an online content media platform for the first time and what they experience when confronted with different types of onboarding procedures. To achieve this, we analyze the impact of emotional and cognitive states, as well as the impact of perceived personal power and satisfaction levels on the intention to create an account online. In addition, we examine the effect of the perceived value of creating an account on this kind of platform, especially in the context of personal information disclosure. A within-subject experiment with 28 participants compared 3 different onboarding types. Results show that cognitive load varied significantly according to the type of onboarding content presented. Immediately before account creation, greater pupil dilation was observed for users exposed to dynamic onboarding compared to other types of onboarding. This suggests an increased cognitive load associated with this onboarding format. In contrast, after account creation, when searching for specific content, users who experienced descriptive onboarding showed greater pupil dilation than those who experienced

dynamic onboarding. This variation in cognitive load following account creation

highlights important differences in user experience depending on the type of onboarding.

2.2 Introduction

Although we anticipate a slowdown in digital media usage until 2025, the transition from

traditional to digital media continues to accelerate (Insider Intelligence Analysts, 2023).

This ongoing shift is largely propelled by the advent of streaming services, social media,

and gaming platforms, which have significantly transformed the digital media landscape

by offering personalized and immersive experiences. An example of this transition to

digital media is podcast platforms, a medium that first appeared in the early 2000s and

which now touch 39.6% of the population in the US, representing 135.4 million listeners

in 2024, and a predicted increase to 49.2% by 2027 (Insider Intelligence, 2023). Such

developments resonate strongly with younger generations who now favor online and

interactive formats "conventional media consumption methods like TV and radio,

becoming active participants in their media experiences. They seek platforms that provide

not just convenience and customization but also a wealth of choices, indicative of a

broader trend toward digital experiences that fulfill the need for social connection and

immersion (Dynata, 2020).

A report further underscores this evolution, pointing out how streaming video, social

media, music, and gaming are becoming increasingly interconnected, offering a seamless

and integrated entertainment experience (Deloitte, 2023). This shift from passive

reception to active engagement underscores the changing dynamics of media consumption, where the value found in digital platforms is reshaping how content is consumed and interacted with.

The significant impact of this transformation is also evident in the evolving landscape of subscription revenues, such as "Over The Top" subscription revenues that are projected to surpass traditional TV subscription revenues for the first time in 2025 (Jo, 2020). This milestone underscores the growing preference for digital media platforms and highlights the critical need for streaming video-on-demand services to continually innovate. These services must not only offer a multitude of choices but also foster competition among providers to attract and retain cost-conscious, selective consumers (Woo, 2018). This is reflective of a broader shift in entertainment consumption, where younger generations are increasingly drawn to social media and gaming for their entertainment needs, seeking out more interactive and immersive experiences (Leclercq, 2020).

Within this context, the level of guidance provided during the onboarding process on media platforms emerges as a pivotal factor influencing users' decisions to create an account or subscribe. Effective onboarding can enhance user experience by simplifying the account creation process and demonstrating the platform's value proposition (Andonova, 2021). This guidance is crucial in converting first-time visitors into subscribers, as it directly impacts their perception of the platform's immediate value it offers. Thus, as digital media platforms strive to expand their subscriber base among intense competition, optimizing the onboarding experience to provide the right level of

guidance becomes essential. It not only facilitates a smoother transition for users into the platform but also strengthens their intention to engage with the content, thereby influencing their decision to subscribe.

Incorporating strategies that ensure a user-friendly onboarding process, which effectively communicates the benefits of subscription and encourages user engagement from the outset, is integral to sustaining growth and competitiveness in the digital media landscape. This approach aligns with the broader trends of media consumption, where the demand for personalized, interactive, and immersive experiences is shaping the future of how content is delivered and consumed (Dwivedi & al., 2023).

Minimal research examines how specific interface elements can influence user behavior, particularly regarding non-paying subscription models (Gupta, 2021; Antonopoulos, 2020). To address this gap, our experiment aimed to investigate the effect of varying interface features on participants' willingness to register an account. In this study, several key constructs play pivotal roles in understanding user behavior within the context of content platforms. The level of guidance is an important construct to consider, and it refers to the instructions or assistance provided to new users as they navigate and utilize a content platform for the first time (Stoiber & al., 2022). The intention to create an account or the behavioral intention, in general, reflects the propensity or willingness of users to register for an account on a content platform, the consumer power denotes the influence or control wielded by users in their interactions with businesses or service providers (Akhavannasab & al., 2018). Consumer power is also an aspect to consider in

this context since it denotes the influence or control wielded by users in their interactions with businesses or, in this case, service providers. Finally, the perceived value and satisfaction are two constructs explored in this study. Perceived value entails the subjective evaluation made by users regarding the benefits or advantages they perceive to derive from using a product or service (Morar, 2013). Satisfaction, on the other hand, refers to the overall contentment or fulfillment experienced by users based on their interactions with a product, service, or platform (Giese & Cote, 2002).

Our study centered around two main research questions. Our first research question explores the relationship between the amount of guidance provided to new users on a content platform and their inclination to register for an account. It aims to understand how the presence or absence of guidance influences user behavior and decision-making regarding account creation. On the other, our second research question investigates the role of perceived value in mediating the connection between consumer power and satisfaction. It seeks to determine how the perceived benefits or advantages of using a product or service impact the degree to which consumer power translates into satisfaction with the offering.

> **RQ1**: To what extent does the level of guidance affect the intention to create an account for a new user of a content platform?
>
> **RQ2**: To what extent does perceived value affect the strength of the relationship between consumer power and satisfaction?

To answer our research questions, our experiment was theory-directed to gain new insight on behavioral intention to create an account for the first usage of a media platform. To guide our research, we chose two different theories which helped direct our research and to guide us for future research. Initially, the Theory of Planned Behavior (Azjen & Fishbein, 2018) guided our understanding of the influences of attitude and perceived behavioral control on intention and behavior. In our research, we have enriched this theory by adapting the concept of perceived behavioral control, substituting it with personal power. This alteration makes the theory more applicable to the context of digital media. Secondly, the Theory of Interactive Media Effect (Sundar, 2015) enriched our understanding of the context by shedding light on how interface affordances interact with users' perceptions and knowledge of the interface. We expanded upon this theory by refining the notion of affordances through our independent variables, namely the level of guidance. Furthermore, we enriched the theory, which initially treated the source, interface, and content perceptions of the platform as separate outcomes, by consolidating them into a single construct of perceived value. This addition of perceived value, considered within the context of online information disclosure, enhances the theory's applicability to our research.

To understand how the level of guidance of an interface impacts behavioral intention, we conducted a within-subjects experiment with 28 participants. Three consecutive tasks were administered, all consisting of finding a specific podcast on an online platform. All tasks consisted of accessing the platform, going through the onboarding process, creating an account, and finally finding the podcast named in the description of the task. The

onboarding process is different for each task. Each participant individually completed one questionnaire after each task. As the participants' video were recorded while completing their tasks, researchers were able to code those videos to then conduct statistic tests linking the behaviors to certain measures like their emotions, cognitive load and satisfaction.

Our empirical analysis offers valuable insights into the onboarding process, particularly emphasizing the preference for dynamic onboarding despite its higher cognitive load. This aligns with previous research advocating for visual guidance techniques, as integrating visual cues enhances user experience, especially for first-time users (Stoiber & al., 2022). The study's exploration of data-driven guidance techniques demonstrates their effectiveness in alleviating user burdens and facilitating insightful data analysis, contributing to a more rewarding user journey. The findings also contribute to understanding the relationship between onboarding guidance, cognitive load, and user satisfaction, challenging prevailing notions in the literature. While comprehensive onboarding guidance may not always directly translate into higher satisfaction or behavioral intentions, our study underscores the importance of balancing cognitive load with user engagement and satisfaction in designing onboarding experiences. Practically, this suggests the need for tailoring onboarding experiences to manage cognitive demands while encouraging user commitment to the platform, offering valuable insights for digital user experience design.

In this research paper, we provide background literature which guided our research and experiment and describe our methodology and results. We conclude by discussing our findings as well as the contributions, implications, and limitations of this research.

2.3 Background Literature and Hypothesis Development

2.3.1 User Onboarding in Digital Platforms

The onboarding on digital platforms refers to the moment a first-time user enters the platform and where information about it is communicated to the user (Cascaes Cardoso, 2017). The information communicated during the onboarding on a website or mobile app can include the relevance, the key advantages of subscribing and setting expectations about the product or service (Fu, 2018). Onboarding includes informational guidance provided to guide users on platform navigation through various methods like tours, demos, tooltips, videos, or tutorials, which also detail community norms and expected behaviors (Dhanoa, 2022). Efficient onboarding accomplishes several tasks that contribute to the retention, engagement, and adoption of new users to the products or services through establishing trust, acquainting them with what the product has to offer, organizing necessary logistics, steering them towards a commitment, directing them to subsequent actions until they reach a stable engagement level (Higgins, 2021). It marks the beginning of the user's journey with the platform, a critical point where motivation is triggered. The overall strategy, including the flow, messaging, interactions, and user interface design, needs meticulous planning to ensure the entire experience encourages user engagement (Cascaes Cardoso, 2017).

2.3.2 Guidance Level and User Satisfaction

As discussed, one of the components of the onboarding process refers to the informational support or guidance provided to guide the users during their first visit to the website. Using guidance during the onboarding helps the users understand a product more than explaining the product up front by linking information to the impactful activities facilitated by education, rather than presenting details in isolation and with an onboarding process that separates crucial steps, allowing new users in varied circumstances to engage with them at the most appropriate moment and in the sequence that best fits their needs (Higgins, 2021). Research shows that comprehensive guidance during the onboarding, such as step-by-step instructions, video tutorials, and interactive guides for visual analytics systems, can significantly improve users' ability to interpret and engage with data visualizations and have a direct correlation with perceived ease of use and user satisfaction (Froehlich, 2021; Simmons, 2020). More precisely, the perceived ease of use measured by the cognitive load pertains to the mental effort required by individuals to process information and perform tasks while engaging with a digital interface. It encompasses factors such as the complexity of instructions, the amount of information presented, and the cognitive resources needed to comprehend and navigate the interface effectively.

Effective visualization onboarding is crucial to enhance user satisfaction in digital environments (Stoiber, 2022). User satisfaction reflects the extent to which individuals feel content, fulfilled, and positively inclined toward a digital platform after using it (Cardozo, 1965). Prior research provides empirical evidence supporting the relationships

between these constructs. For instance, studies have shown that comprehensive onboarding support, including clear instructions and interactive tutorials, can reduce users' cognitive load (Higgins, 2021; Froehlich, 2021). Moreover, positive emotions elicited during the onboarding process have been found to correlate with higher levels of user satisfaction (Simmons, 2020). Conversely, higher cognitive load and negative emotions have been associated with decreased user satisfaction and engagement (Stoiber, 2022).

Considering this research, the following hypotheses are proposed:

H1a: A greater level of guidance leads to more positive emotions.

H1b: There is a negative relationship between the level of guidance and cognitive load.

H2a: More positive emotions lead to greater satisfaction.

H2b: There is a negative relationship between cognitive load and user satisfaction.

These hypotheses are grounded in existing literature and aim to explore the impact of onboarding guidance on users' cognitive processing, emotional responses, and overall satisfaction with the digital platform.

2.3.3 The Role of Onboarding in Decision Making

Implementing effective onboarding strategies is crucial for the success of digital platforms, as they significantly influence user engagement (Trahant, 2008). By imitating best practices from leading organizations, including the emphasis on customer-centric communication, digital platforms can devise onboarding experiences that not only educate but also inspire and engage users right from their initial interaction (Altinpulluk, 2020). This method cultivates a sense of inclusion and dedication, enhancing user engagement and loyalty, and reinforces the notion that thoughtful onboarding processes are vital for digital platform success (Cascaes Cardoso, 2017). Moreover, research indicates that, particularly for subscription-based online services (SOS), paying attention to consumer feedback and demonstrating adaptability are essential for augmenting satisfaction and tailoring services to meet specific consumer demands (Jo, 2020). Such strategies enable service providers to develop a more solid user loyalty among long-term service users. Jo's research highlights the strategic importance of understanding and leveraging factors that drive consumer acceptance for the successful introduction and expansion of SOS. This research also identifies key influences on consumer attitudes and intentions towards SOS, focusing on usefulness, enjoyment, and cost advantage as principal advantages. A notable correlation between perceived value and acceptance intention is also established, showing how perceived value cultivates positive attitudes, which in turn, encourages the willingness to adopt SOS (Andonova, 2021). This analysis emphasizes the critical need for SOS providers to concentrate on these fundamental factors to nurture consumer engagement and loyalty (Chen, Fenyo, Yang, & Zhang, 2018).

The theoretical framework of this research is based on the Theory of Planned Behavior (TPB) and the Theory of Interactive Media Effects (TIME). The Theory of Planned Behavior (TPB) (Ajzen, 1997) is a behavioral theory that stems from an improvement of the theory of reasoned action (Fishbein and Ajzen, 2018) and explains that the decision to adopt a behavior comes from an emotional and cognitive process. More specifically, this theory supports that a behavior must be planned and depends on three factors: the attitude towards the behavior meaning the desirability and consequences of the behavior, the social norms which are considerations of the influence and opinion of close ones on the behavior, and the perceived behavioral control defined as the perception of the ability to perform the behavior successfully (Ha & Nguyen, 2019). This theory can serve as a framework for analysis for the study of numerous behaviors, such as more normative and rational behaviors, or even to explain specific behaviors like purchase intentions online (George, 2004; Sentosa, 2012) or disclosing information online when creating an online account, as we explored in this study. Thus, the TPB helps study the behavior of creating an account on digital news media and how attitudes, social norms, and perceived behavioral control can impact the intention of users to create an account. In the context of this study, the TPB offers valuable insights into the behavior of creating an account on digital news media platforms. By examining how attitudes, social norms, and perceived behavioral control influence users' intentions to create an account, the TPB provides a comprehensive understanding of the underlying motivations and determinants driving this behavior.

The TIME (Sundar & al., 2015) is a more recent theory and incorporates the concept of interactivity into existing theories on the impact of communication technologies (media) on individuals, concluding that interactive media have more impact on user engagement than traditional (non-interactive) media. In this model, affordances correspond to the perceived properties of the system that can encourage the individual to use it and can take two paths: the action route which is the individual perceives the system not only as a means of communication but also as having psychological impacts on knowledge, attitudes, and behaviors or the heuristic route known as the presence of features that have an impact on user perception. Moreover, TIME incorporates four models that explain the relationship between affordances, mediating variables, and outcomes, namely the model of interactivity effects, the agency model, the motivational technology model, and the MAIN model (modality-agency-interactivity-navigability). Thus, thanks to the integration of these models, TIME proposes that the pre-existing attitudes, beliefs, and values of individuals can influence how they interpret, react to, and interact with media (attitudes, beliefs, and behaviors). Finally, this theory is relevant to this study to better understand the impact of media and feature type on user and engagement levels. These two frameworks will thus provide insights into several key concepts for this research, including the willingness to proceed with the creation of an account on online platforms and helped us construct a solid research model and user experiment. By integrating this theory into our research framework, we were able to discern the significance of perceived value as a moderating factor. Specifically, TIME suggests that the perceived properties of a system, or its affordances, play a crucial role in shaping user perceptions and behaviors. In this context, we hypothesized that perceived value acts as a moderator between

consumer power and satisfaction, indicating that the strength of the relationship between consumer power and satisfaction is contingent upon the level of perceived value.

Considering the research on the influence of onboarding strategies on decision-making and the theories previously presented, we propose the two following hypotheses:

H1c: A greater level of guidance leads to greater perceived consumer power.

H2c: Greater perceived consumer power leads to greater satisfaction.

H3: Greater satisfaction leads to greater intention to create an account.

H4: Perceived value moderates the relationship between consumer power and satisfaction, such that the relationship between consumer power and satisfaction is stronger when perceived value increases.

The research model (Figure 1) postulates that the level of guidance provided to consumers during the onboarding process impacts their emotional state, cognitive load, and perceived consumer power. Specifically, we hypothesize that these psychological dimensions, influenced by the initial guidance level, play critical roles in shaping consumer satisfaction and their subsequent behavioral intentions. Moreover, this model suggests that the impact of consumer power on satisfaction is influenced by perceived value and ultimately affects behavioral outcomes. The significance of this model lies in its potential to enhance user decision-making efficacy, particularly in digital interaction contexts. By exploring how structured guidance influences psychological and behavioral responses, this study seeks to identify optimal strategies for increasing user satisfaction and loyalty in digital environments.

Figure 1 – Research Model
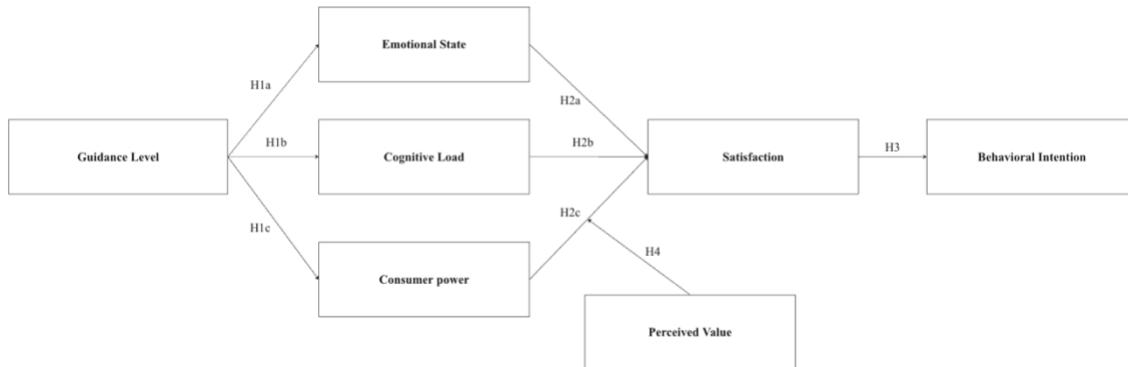
2.4 Research Method

2.4.1 Experimental Design

An experiment was conducted to test how different elements of the onboarding process on a media platform can impact the intention to create an account for first-time users. Specifically, we used a within-subject, one-factor design to examine the effects of onboarding on the intention to create an account on an online content platform through emotional state, cognitive load, consumer power, and satisfaction. The experimental factor had three onboarding levels corresponding to different levels of guidance: descriptive, dynamic, and none. The dynamic onboarding presented a series of smaller pop-ups presenting the functions directly on the platform (Appendix 1), while the descriptive onboarding consisted of static pop-ups presenting three different features accessible on the platform (Appendix 2). Finally, the third onboarding format corresponding to no guidance consisted of the no onboarding condition (Appendix 3).

The study was conducted on a podcast platform, a medium that has seen substantial growth in consumption, particularly evident in its user statistics. In 2023 alone, there were 129.9 million podcast listeners in the US, which represents 38.3% of the population, and this number is expected to continue growing over the years (eMarketer, 2023). Podcast platforms offer users the ability to explore a vast range of topics through audio content, which can be conveniently accessed on the go, making it a versatile choice for diverse audiences (Sullivan, 2019). Given the platform's rising popularity since its introduction in the early 2000s, its relevance in the digital media landscape is underscored, making it an ideal focus for this study.

The research involved three different tasks, each designed to test specific functionalities of the podcast platform during the account creation process: adding a podcast to favorites, adding to 'listen later,' and opting to get notified about new episodes. For each task, participants experienced varying levels of onboarding: no onboarding, descriptive onboarding, and dynamic onboarding. The order of the tasks and the types of onboarding were counterbalanced to ensure that the data collected was robust and reflective of a variety of user experiences.

2.4.2 Sample

In this study, 28 participants, aged between 19 and 33 years old (M = 24.50, SD = 4.01; n = 20 females; other = 0) were recruited using our institution's student panel. We utilized a prototype of the latest version of a podcast platform of a renowned Canadian content

provider, enabling us to tailor it to suit the needs of our experience. We restricted

ourselves to participants aged between 18 and 34 years old who had not used the tested

platform in the last 12 months. These selection criteria avoid confounding factors due to

participants' potential knowledge of the platform. We also recruited participants based on

those criteria: to be able to speak and read fluently in French since the instructions and

the platform content were given in French, to read on the computer without eyeglasses

and not to have any skin allergies or any other sensitivity, cardiac stimulator, epilepsy, or

any facial paralysis. Our ethics committee approved the study and each participant

provided informed consent and was compensated CAD $20 upon completion.

2.4.3 Experimental Procedure

We conducted the study in a laboratory. The following Figure 2 outlines the experimental

setup for this user study. Participants were welcomed in a room next to an observation

room. The participants were first asked to read and sign a consent form on the computer

on which all the instructions were provided. We then proceeded to the installation of the

physiological tools to measure emotional arousal, emotional valence and cognitive load

through pupil dilatation. After that, we proceeded to the calibration of the eye tracker

which was used to capture participants' pupil dilation. To calibrate the eye-tracking tool,

the participants had to count a certain number of squares appearing on the screen in front

of them. With all the equipment in place, the recordings were launched. Participants were

then guided through a calibration phase, during which they were asked to stare at a cross

for 90 seconds while remaining relaxed and at ease. This step was used to establish a baseline for the physiological data.

The experimental task was done on a desktop. Before starting the tasks, the participant had to answer a survey on Qualtrics to answer some demographic and media consumption questions (Appendix 4). After the completion of each task, the participant was asked to fill out a survey through Qualtrics consisting of 10 questions to evaluate their experience (Appendix 5). These questions allowed us to measure the following constructs: satisfaction, arousal, valence, effort, intention, consumer power, perceived emotions, and perceived value.

Figure 2 – Experimental Procedure

2.4.4 Measures

This study comprehensively assessed user experience by combining implicit physiological measures, and with explicit questionnaire-based assessments.

Emotional State

Emotional state refers to an individual's current emotional condition or how they are feeling at a particular moment in time and can be defined through the dimensions of valence and arousal (Kim, 2013). This construct is conceptualized as 2 dimensions in the circumplex model of affect (Russell, 1980). The valence dimension is defined as the degree to which a person feels positive or negative about a situation and activation also named arousal is defined as the degree to which a person feels stimulated or activated about a situation (Russell, 1980). Moreover, it is assumed that these two dimensions are independent since the level of activation can be pleasant or not (Menon & Kahn, 2002).

The emotional valence was captured with Facereader (Noldus, Wageningen, Netherlands), an automated system by Noldus. This system was validated in research (Skiendziel & al., 2019; Dupré and al., 2020) and used in different experimental studies to assess emotions (Zaman & Shrimpton-Smith, 2006). This tool allows us to read the facial expressions of a participant's test recording to provide an objective assessment of emotions where the emotional valence is after being analyzed by the software Noldus. More specifically, we extracted the average emotional valence for each task, which we then used in the data analysis. Subsequently, the emotional arousal was captured with Biopac MP-150 (Biopac, Goleta, United States) physiological sensors placed on the palm

of the participant's hand. More specifically, this tool allows us to measure the skin conductance level (SCL) and response (SCR). Indeed, phasic was extracted from the EDA signal and measured the activity of the eccrine sweat glands and has been demonstrated to be correlated to arousal (Boucsein, 2012). It is explained and used in research that physiological changes such as elevation in EDA are referred to as physiological and emotional arousal (Korosec-Serfaty and al., 2021; Picard, 2009). This tool is useful to capture the experienced arousal during the entire experiment. The physiological signal was recorded with a sampling rate of 250 Hz. More precisely, we used Log Phasic to adjust for the positively skewed distributions of SCR amplitudes, all scores underwent standardization using the formula $y = \log(1 + x)$ (Venables & Christie, 1980). This standardization method was also applied to the raw data displayed before it was averaged among participants.

Emotions were also captured with perceived measures after each task, and the measurement constructs chosen were the arousal, valence, and the perceived positive and negative emotions. The perceived arousal and perceived valence were measured with the Affective Slider, a digital self-reporting tool composed of two slider controls that the participants could place from the left on a continuous scale (Betella, 2016). The PANAS scale was utilized to obtain self-reported measures from participants regarding their experiences of positive and negative emotions specifically within the context of disclosing personal information online. This scale has been validated through various studies and was developed to measure two broad dimensions of mood: positive affect (PA) and negative affect (NA), PA reflecting the extent to which an individual

experiences pleasurable engagement with the environment and NA representing a general dimension of subjective distress and unpleasurable engagement (Crawford & al., 2004). Specifically, in this study we measured positive emotions with five items (Excited, Alerted, Inspired, Enthusiastic and Determined) and negative emotions with five items (Scared, Angry, Nervous, Afraid and In Distress (Crawford, 2004). The participants had to rate every emotion on a scale from 1 to 5 after completing the task.

Cognitive Load

To measure cognitive load, we used pupil dilatation using an eye-tracking device (Krejtz & al., 2018). Cognitive load refers to the amount of working memory resources used in the execution of various mental tasks (Gambiraza & al., 2021). Cognitive Load was measured using a pupil diameter to estimate the user's cognitive effort required before, during and after the account creation process. We computed the average percentage change from a baseline taken from a neutral image (PcB) for each participant and each timeframe in this analysis. We used the percentage change of pupil diameter rather than the raw pupil size variation due to inter-participant variances such as luminance and vergence (Medathati & al., 2020). The interest in cognitive load is relevant to our study since many studies revealed that cognitive load is significantly correlated to satisfaction (Bradford, 2011; Altinpulluk, 2020). We also measured participants' perceived effort through a scale using the customer effort score (Cardozo, 1965). This evaluation was conducted after participants completed each task, using a questionnaire where they rated the level of effort they had to make to accomplish the task on a 1-item scale from 1 to 5 (1 = very low effort; 5 = very high effort).

Perceived Value

The perceived value can be associated with customer satisfaction, which leads to customer loyalty and retention, positive word-of-mouth, a stronger competitive position, and higher market share (Morar, 2013). In the context of our study, we used the Privacy Calculus Scale to measure the perceived value from the perspective of personal information disclosure. This scale has been proven to measure intention to disclose based on the calculus of the perceived benefits for customers, such as customized services, financial rewards and promotion of the public image and perceived risks associated with the disclosure of their data (Luo, 2023). Incorporating the Privacy Calculus Scale into our study allows us to quantify how potential subscribers evaluate these trade-offs during the onboarding process. This evaluation is critical as it directly influences their perceived value of the service, for example, whether the benefits of personalized content and other features outweigh the privacy concerns (Jo, 2020). By understanding this balance, we can draw insights into how onboarding strategies might be optimized to enhance user perception of value, thereby increasing the likelihood of account creation. We measured the perceived benefits through a question consisting of two items, "If I create an account, I will be able to access additional features of the website." and "If I create an account, I'll be able to enjoy a more personalized experience on the website.". Whereas for the assessment of the perceived risks we asked, "I'm reluctant to create an online account because I'm concerned about the security of my personal information." and "I have reservations about the use of my usage data on this site.". Participants were able to answer on a scale from 1 to 5 (1 = strongly disagree and 5 = strongly agree).

Consumer Power

Perceived consumer power can be defined as the perceived capacity for consumers to counteract a firm's marketing strategies and impact the firm's decisions, consumer power being increasingly amplified by technological advancements (Akhavannasab & al., 2018). In our study, we measured this construct with a question of three items in the survey the participants had to complete after each task and indicate on a scale from 1 to 5 (*1 = not at all and 5 = totally*) how they felt after realizing the task. The items established to measure this construct were: "I was free to choose.", "I had the autonomy to choose what I wanted." and "I was in control of my decisions.". The measurement of consumer power is relevant for our study since it influences both consumer behavior and firm strategies (Akhavannasab & al., 2022).

Satisfaction

 Consumer satisfaction can be defined as a reaction, either emotional or cognitive, that is directed towards a specific aspect, such as expectations, the product itself, or the experience of consumption and manifests at a specific moment, whether it be post-consumption, following a decision-making process, or as a result of cumulative experiences (Giese & Cote, 2002). In our research, we investigated satisfaction to understand its influence on behavioral intention, specifically assessing how likely participants were to create an account on a platform similar to the one they had just interacted with. This evaluation was conducted after participants completed each task, using a questionnaire where they rated their intention to create an account on a 1-item scale from 1 to 10. (1 = very unlikely; 10 = very likely).

Behavioural Intention

Behavioural intention can be defined more specifically as motivational factors that influence a given behaviour (Ajzen & al., 2018). In this study, we asked the participants to answer the question of how much they would like to create an account on a platform like the one they just experienced which we measured using a 1-item scale with a 10-point anchor going from "Not at all" to "Totally".

Table 2 presents the constructs studied in the research, along with the specific measures, tools, and scales employed and the key references supporting their use.

Table 2

Study Constructs

Construct	Measures	Tool/Scale	Reference
Emotional State	Emotional arousal	Biopac MP-150	Kim, 2013
	Emotional valence	Facereader automated system by Noldus	Kim, 2013
	Perceived arousal	Affective Slider digital self-reporting tool	Betella, 2016
	Perceived valence	Affective Slider digital self-reporting tool	Betella, 2016
	Perceived positive emotions Perceived negative emotions	5-point Likert scale with 10 items ranging from 1 (not at all) to 5 (totally)	Crawford & al., 2004
Cognitive Load	Pupil dilatation	Eye-tracking device	Krejtz & al., 2018
	Perceived effort	One-item scale (1 = very low effort; 5 = very high effort)	Cardozo, 1965
Consumer Power	Perceived power	5-point Likert scale with 3 items ranging from 1 (not at all) to 5 (totally)	Akhavannasab & al., 2018
Perceived Value	Perceived benefits Perceived risks	5-point Likert scale with 2 items ranging from 1 (strongly disagree) to 5 (strongly agree)	Luo, 2023

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Satisfaction	Perceived satisfaction	1-item scale from 1 to 10. (1 = very unlikely; 10 = very likely).	Giese & Cote, 2002
Behavioural Intention	Likelihood to create account	One-item scale (1=Not at all to 10=Totally)	Ajzen & al., 2018

To synchronize and align our various data, we used specific time markers. More precisely, we used markers to identify the moment before the participants had to create an account, the account creation, and the moment after the account creation. We used those time markers for every condition of the study. Time markers corresponding to the stimuli presentation were entered in the Observer XT software (Noldus, Wageningen, Netherlands). EDA data was recorded with a Biopac MP-150 system running via the AcqKnowledge 4.4 software (Biopac, Goleta, United States). The Noldus FaceReader software was used to record the facial recognition system and model valence (Noldus, Wageningen, Netherlands). Post hoc synchronization of the physiological data was run via the Cobalt Photobooth software (Courtemanche et al., 2018, 2019, 2022).

2.5 Results

2.5.1 Descriptive Statistics

For this research, we conducted two types of analysis. The first was a comparison between stimuli for all time frames and all tasks together. This was followed by a comparison between stimuli for each time frame, considering all tasks. Our objective was to assess the impact of different types of onboarding on readers' emotional states, cognitive load, consumer power, satisfaction, and behavioural intention. To achieve this, we conducted linear mixed-effect analyses to explore the relationships between

participants' emotional states, cognitive load, consumer power, satisfaction, behavioural intention, and the experimental conditions, which consisted of the onboarding types (no onboarding, descriptive onboarding, and dynamic onboarding). Given the repeated measures design, we employed linear regressions with mixed models using SAS and the results are presented in Table 3.

Dynamic Onboarding Condition

As for the results of the emotional state of the participants, the emotional arousal measured as log phasic obtained a mean of -3.679 and standard deviation of 3.158, the emotional valence a mean of -0.094 and standard deviation of 0.134, the perceived arousal and valence respectively, had a mean of 55.556 with a standard deviation of 20.276, and mean of 59.519 and 16.451 as standard deviation. Also, the emotional state was assessed through perceived positive emotions (Mean = 2.778, Std Dev = 0.795) and perceived negative emotions (Mean = 1.178, Std Dev = 0.427).

As for the results of the cognitive load of the participants, we obtain a pupil dilatation mean of 3.146 with a standard deviation of 0.4, and a mean of 1.593 with standard deviation of 0.797 for the perceived effort.

Behavioral intention had a mean of 5.556 and a standard deviation of 2.708. Consumer power ratings averaged 3.444 with a standard deviation of 1.173. Perceived value, assessed through perceived benefits, perceived risks, and overall, had means of 4.074,

2.333, and 3.87 respectively, with standard deviations of 0.793, 1.193, and 0.836. Finally, the participants' overall satisfaction averaged at 4.185 with a standard deviation of 0.834.

Descriptive Onboarding Condition

Regarding the emotional state of the participants subjected to descriptive onboarding, emotional arousal measured as log phasic obtained a mean of 0.132 and a standard deviation of 0.235. Emotional Valence recorded a mean of -3.17 and a standard deviation of 1.82, while Perceived Valence was measured at 59.607 with a standard deviation of 16.491. The perceived arousal was noted at 51.143 with a standard deviation of 21.919. Additionally, the emotional state was assessed through perceived positive emotions with a mean of 2.657 and a standard deviation of 0.855, and perceived negative emotions with a mean of 1.179 and a standard deviation of 0.426.

For the cognitive load of the participants, pupil dilatation was recorded with a mean of 3.08 and a standard deviation of 0.363, and perceived effort showed a mean of 1.679 and a standard deviation of 0.612.

Behavioral intention was noted with a mean of 5.429 and a standard deviation of 2.7. Consumer power ratings averaged at 3.25 with a standard deviation of 1.182. Perceived value, segmented into perceived benefits, perceived risks, and overall perception, yielded means of 3.982, 2.321, and 3.83 with standard deviations of 0.897, 1.355, and 0.991, respectively. Finally, participants' overall satisfaction averaged at 3.893 with a standard deviation of 0.916.

No Onboarding Condition

In examining the emotional state of the participants for the no onboarding condition, emotional arousal, measured as log phasic, was found to have a mean of 0.132 and a standard deviation of 0.235. For emotional valence, two separate measures were reported: emotional valence itself recorded a mean of -4.056 and a standard deviation of 2.779, while perceived valence showed a mean of 56.444 with a standard deviation of 14.679. The perceived arousal measured among the participants had a mean of 49.926 and a standard deviation of 20.595. Additionally, the study assessed perceived positive emotions, which averaged a mean of 2.496 and a standard deviation of 0.801, and perceived negative emotions, with a mean of 1.222 and a standard deviation of 0.401.

For cognitive load among participants, pupil dilatation was measured, showing a mean of 3.124 and a standard deviation of 0.379. Perceived effort was noted at a mean of 1.519 with a standard deviation of 0.643.

Behavioral intention was documented with a mean of 5.444 and a standard deviation of 2.708. Ratings for consumer power averaged at 3.543, with a standard deviation of 1.268. Perceived value was assessed in three categories: benefits, risks, and overall perception, yielding mean scores of 4.056, 2.352, and 3.852 with standard deviations of 0.902, 1.247, and 0.812, respectively. Lastly, overall participant satisfaction was captured at a mean of 3.852 and a standard deviation of 1.064.

Table 3 presents the results from various descriptive measures across our three different

conditions: dynamic onboarding, descriptive onboarding, and no onboarding condition.

Each measure is reported with its mean and standard deviation.

Table 3

Results from Descriptive Measures

Measure	Dynamic Condition		Descriptive Condition		No Onboarding Condition	
	M	*SD*	*M*	*SD*	*M*	*SD*
Satisfaction	4.19	.83	3.89	.92	3.85	1.06
Perceived arousal	55.56	20.28	51.14	21.92	49.93	20.6
Perceived arousal	59.51	16.45	59.61	16.49	56.44	14.68
Cognitive load	1.59	0.8	1.68	.61	1.52	0.64
Behavioral intention	5.56	2.71	5.43	2.7	5.44	2.71
Consumer power	3.44	1.17	3.25	1.18	3.54	1.27
Perceived negative emotions	1.18	.43	1.18	.43	1.22	0.40
Perceived positive emotions	2.78	0.8	2.66	.86	2.5	0.80
Perceived value (benefits)	4.08	.79	3.98	0.9	4.06	.90
Perceived value (risks)	2.33	1.19	2.32	1.36	2.35	1.25
Perceived value (overall)	3.87	.84	3.83	.99	3.85	.81
Arousal	-3.68	3.16	-3.17	1.82	-4.06	2.78
Valence	-.09	0.13	-.06	.13	-.06	0.1
Cognitive load	3.15	0.4	3.08	.36	3.12	.38

2.5.2 Hypothesis Testing

H1a: Relationship between the level of guidance and emotional state

For H1a, which examines the relationship between the level of guidance (independent variable) and emotional measures such as valence and arousal (dependent variables), a comprehensive statistical analysis was conducted. An ANOVA for repeated measures was specifically employed to assess the impact of varying levels of guidance on participants' emotional responses. The results from the ANOVA indicated no significant association between the level of guidance and valence (p = 0.0687), suggesting that changes in guidance levels do not significantly affect the emotional valence of participants. Conversely, a significant result was found for Log Phasic, an indicator of arousal, with p = 0.0058, indicating that higher levels of guidance correlate with increased arousal. Further investigation through linear regression using a random intercept model revealed non-significant relationships for emotional arousal (p = 0.2129), emotional valence (p = 0.3533), perceived negative (p = 0.3002), and positive (p = 0.1552) emotions. These findings suggest that these dimensions of emotional state are not significantly influenced by the level of guidance provided.

Based on the statistical tests performed, Hypothesis H1a is partially supported, as higher levels of guidance were associated with increased emotional arousal but did not significantly influence emotional valence or other measures of emotional state. To investigate this significance, we used linear regression with random intercept models was utilized due to their effectiveness in analyzing the effects of multiple group variables on a continuous outcome, while accounting for variability among subjects (Appendix 6). Our

independent variable was the level of onboarding guidance, and the dependent variable was emotional arousal. Our results showed that there was an estimated mean difference of .566 between descriptive and dynamic onboarding, with a *p*-value = .060, suggesting a trend towards higher emotional arousal with descriptive onboarding but not reaching statistical significance. Descriptive onboarding compared to no guidance showed a more pronounced difference with an estimated mean difference of .980, which was statistically significant (*p*-value = .004), indicating significantly higher emotional arousal with descriptive onboarding. The difference between dynamic onboarding and no guidance was less pronounced, with an estimated mean difference of .414 and a *p*-value = .160, showing no significant effect.

In conclusion, descriptive onboarding significantly increases emotional arousal compared to no guidance, confirming part of our hypothesis, while the effects of dynamic onboarding compared to no guidance remain unsupported.

H1b: The relationship between the level of guidance and cognitive load

In examining H1b, which posits a relationship between the level of guidance (independent variable) and cognitive load, we focused on perceived effort and cognitive load measured with pupil dilation as dependent variables. We used linear regression with a random intercept model to assess the impact of coaching level, our independent variable, on perceived effort. This model was chosen specifically for its ability to accommodate individual differences that might influence cognitive load readings, thus enabling a more accurate and personalized analysis of the data. In addition, a type 3 ANOVA was applied to the pupil dilation measurement to manage repeated

measurements across subjects. This method is particularly appropriate for time-dependent and repeated data, ensuring rigorous analysis of the effect of coaching level on observed cognitive load. The results indicated no significant effects; the linear regression for perceived effort resulted in a non-significant p-value = .590, and the ANOVA for pupil dilation also showed no significant differences with a p-value = .137. Consequently, these findings suggest that variations in the level of guidance do not significantly impact cognitive load, thereby not supporting hypothesis H1b under the conditions studied.

H1c: The relationship between the level of guidance and consumer power

In evaluating H1c, which investigates the potential influence of the level of guidance, the independent variable, on consumer power, the dependent variable, we employed a linear regression analysis. This method was chosen to accurately assess the relationship and determine the strength and significance of the influence of guidance on consumer power. The results of the linear regression model indicated a non-significant p-value = .185, suggesting that the level of guidance does not significantly impact consumer power. Consequently, based on the statistical evidence, H1c is not supported.

H2a: The relationship between emotional state and satisfaction

In assessing H2a, we aimed to determine whether variations in emotional state could predict changes in customer satisfaction. To analyze this relationship, we employed a linear regression model with a random intercept, chosen to accommodate individual variability in baseline satisfaction levels. Emotional state was quantitatively measured using standardized emotional assessment tools, while satisfaction was assessed via CSAT

scores. Despite the theoretical underpinning suggesting a potential link, the results of our

analysis revealed no significant association between emotional state and satisfaction,

yielding a *p*-valu*e* = .242. Thus, H2a is not supported.

H2b: The relationship between cognitive load and satisfaction

To evaluate H2b, which posits a negative relationship between cognitive load

(independent variable) and user satisfaction (dependent variable), we employed a linear

regression with a random intercept model. This statistical method was chosen to account

for individual differences among participants, providing a more accurate assessment of

the effects of cognitive load on satisfaction. Despite the assumptions regarding the impact

of cognitive load on user satisfaction, the results of our analysis indicated no significant

association, with a *p*-value = .242. Consequently, Hypothesis H2b is not supported.

H2c: The relationship between consumer power and satisfaction

Exploring H2c, which examines the potential influence of consumer power (independent

variable) on user satisfaction (dependent variable), we utilized a linear regression with a

random intercept model to assess this relationship. This statistical approach was

specifically chosen to appropriately account for inherent variations among individual

responses, thereby providing a robust analysis of the interaction between consumer power

and satisfaction. Despite theoretical expectations, our analysis found no significant effect,

as indicated by a *p*-value = .242. Therefore, the results do not support Hypothesis H2c.

H3: The relationship between satisfaction and behavioral intention

In our investigation of H3, we assessed the potential influence of user satisfaction (independent variable) on the behavioral intention to create an account (dependent variable), utilizing a linear regression with a random intercept model. This model was selected to better account for variability among participants, aiming to provide a more accurate analysis of how satisfaction might drive behavioral intentions. Despite our expectations, the analysis indicated no significant effect of satisfaction on the intention to create an account, with the regression yielding a non-significant p-value = .844. Consequently, Hypothesis H3 is not supported.

H4: Moderation of perceived value on the relationship between consumer power and satisfaction

In exploring Hypothesis H4, our objective was to determine whether perceived value moderates the relationship between consumer power and satisfaction. To investigate this interaction, we utilized a cumulative logistic regression with a random intercept model, specifically applying Type III Tests of Fixed Effects. This statistical test was chosen to rigorously assess the significance of the interaction between perceived consumer power and perceived consumer satisfaction. Despite theoretical expectations, the analysis resulted in a p-value = 0.886, indicating that the interaction effect is not statistically significant. Consequently, this suggests that our hypothesis that perceived value influence the relationship between consumer and satisfaction is not supported.

Table 4 provides a summary of the results of our hypotheses tested against different measures in this study. The table lists each hypothesis along with the corresponding measures and their p-values, indicating whether each hypothesis is supported by the data.

Table 4

Summary of Results

Hypothesis	Measure	p-value*	Support
H1a	Emotional valence	.069	Not supported
	Emotional arousal	.006	Supported
	Perceived arousal	.213	Not supported
	Perceived valence	.353	Not supported
	Perceived negative emotions	.300	Not supported
	Perceived positive emotions	.155	Not supported
H1b	Cognitive load	.137	Not supported
	Perceived effort	.589	Not supported
H1c	Consumer power	.185	Not supported
H2a	Satisfaction	.242	Not supported
H2b	Satisfaction	.242	Not supported
H2c	Satisfaction	.242	Not supported
H3	Behavioral intention	.844	Not supported
H4	Perceived value	.886	Not supported

* p value for 2-taield test adjusted for multiple comparisons by method of Holm

2.6 Discussion

Examining various onboarding strategies is essential for digital media aiming to engage and retain new users. This study aimed to analyze the effect of different levels of guidance during the onboarding process on the intention to create an account for first-time users of a media platform, characterized by their emotional state, cognitive load, perceived power, and satisfaction. Additionally, we explored how the platform's perceived value affects the link between participants' perceived power and their satisfaction.

In our investigation into the effects of onboarding methods on emotional arousal, we identified that descriptive onboarding tends to elevate emotional arousal compared to dynamic onboarding, though this difference was not statistically significant. Significantly, our findings show that descriptive onboarding, with less guidance than dynamic, unexpectedly leads to higher emotional arousal when compared to having no guidance at all. This suggests that even a less intensive form of structured guidance can significantly enhance emotional engagement. Conversely, despite dynamic onboarding involving a higher level of guidance, it did not significantly affect emotional arousal compared to no guidance. This underscores that more intensive or interactive guidance does not necessarily translate to heightened emotional arousal, highlighting the nuanced impact of different onboarding strategies on user engagement. Interestingly, in interviews conducted after the overall experience, 13 participants expressed a preference for dynamic onboarding over the alternatives. The majority of this study's hypotheses were not supported, which could be explained by the complexity of users' behaviors and

expectations when faced with different onboarding processes. It is possible that the

subtleties of emotional and cognitive reactions are not fully captured by the support

conditions tested, or that these conditions do not differ substantially enough to have a

significant impact on the measures studied.

2.6.2 Theoretical Contributions

Our empirical analysis revealed a nuanced understanding of the onboarding process,

particularly highlighting that dynamic onboarding, despite its increased cognitive load,

remains preferred by a significant portion of users. To establish a connection with our

study, previous research highlights users' preference for visual guidance (Dhaona & al.,

2022), underscoring the significance of incorporating such techniques into our platform.

As demonstrated in the study's exploration of data-driven guidance techniques,

integrating visual cues can effectively enhance user experience, particularly for first-time

users (Ceneda, 2018). This resonates with the notion put forth in the study that guidance

has the potential to alleviate user burdens and facilitate more insightful data analysis, thus

contributing to a more rewarding and profitable user journey. Theoretically, our findings

contribute to a more nuanced understanding of the relationship between onboarding

guidance, cognitive load, and user satisfaction. They suggest that the benefits of

comprehensive onboarding guidance may not always directly translate into higher

satisfaction or behavioral intentions, such as the decision to create an account,

challenging prevailing notions in the literature. This finding brings a nuanced perspective

on the current literature on informational guidance during onboarding. Some studies

articulate that the provision of guidance throughout the initial interaction with a digital

platform, through methods that link information to impactful activities, enhances the user's comprehension and engagement (Higgins, 2021). This approach underscores the importance of not just presenting information but integrating it into the user experience in a manner that educates and facilitates user engagement at important steps. Moreover, our study's results align with the notion that while dynamic onboarding demands more from users cognitively, it does not unequivocally translate to higher satisfaction or a stronger intention to create an account. This outcome suggests a reconsideration of the assumption, as suggested in some studies, that comprehensive guidance, including step-by-step instructions, video tutorials, and interactive guides, directly correlates with user satisfaction and perceived ease of use, particularly in complex digital environments like visual analytics systems (Stoiber, 2022). While Stoiber's research underscores the potential of detailed guidance to enhance user satisfaction through effective onboarding, our findings introduce a layer of complexity regarding user preferences and cognitive load. Interestingly, despite the higher cognitive load associated with dynamic onboarding, a significant portion of our study's participants expressed a preference for this onboarding style over others. This preference suggests that users may value the comprehensive guidance and structured guidance provided during their initial platform interaction, even at the cost of increased cognitive effort.

2.6.3 Practical Implications

Practically, these insights underscore the importance of tailoring onboarding experiences to balance cognitive load with user engagement and satisfaction. Designers and

developers of digital platforms should consider the cognitive demands of their

onboarding processes and seek to offer guidance that is both comprehensive and

cognitively manageable. This balance is key to designing onboarding experiences that not

only educate and engage users but also encourage them to commit to the platform. This

insight is crucial for both theoretical contributions and practical implications in the field

of digital user experience design.

2.6.4 Limitations and Future Research

A limiting aspect of this study was the time restriction imposed on users as they explored

the platform. Specifically, an onboarding pop-up appeared automatically a few seconds

after participants had begun navigating the platform, reducing their opportunity to

acclimatize to the digital environment at their own pace. This temporal limitation could

have altered users' perception of the usefulness and relevance of the information

presented during onboarding, as well as their preliminary engagement with the platform.

In order to overcome this constraint, it would be beneficial to consider experimental

configurations that allow freedom of navigation prior to any onboarding process. Such a

strategy would allow participants to explore functionalities and content on their own

initiative, thus fostering initial engagement and curiosity. For future studies, it would be

interesting to look for approaches that allow users to explore autonomously, while

minimizing the risk of them leaving the platform before encountering the onboarding

process. One possible solution would be to launch onboarding pop-ups after a specific

interaction with the interface, such as a click on a specific function. This method would

contextualize onboarding, making it more relevant and captivating. However, it's crucial

to strike the right balance between allowing free exploration and ensuring that users receive the key information to enhance their experience on the platform. The key challenge is to identify the best time to start onboarding, thus ensuring optimal user engagement without deterring them from continuing their visit.

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2.8 Appendix

Appendix 1 – Dynamic Onboarding
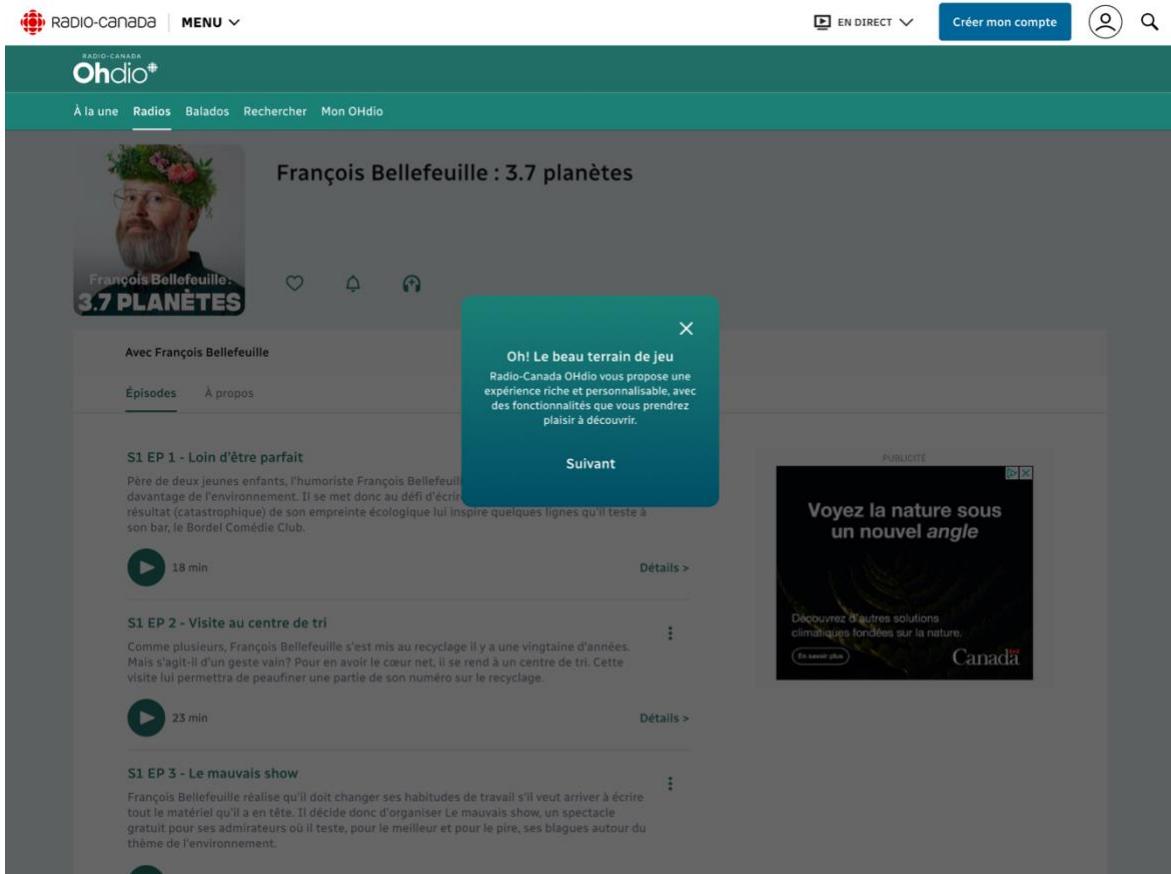
Appendix 2 – Descriptive onboarding
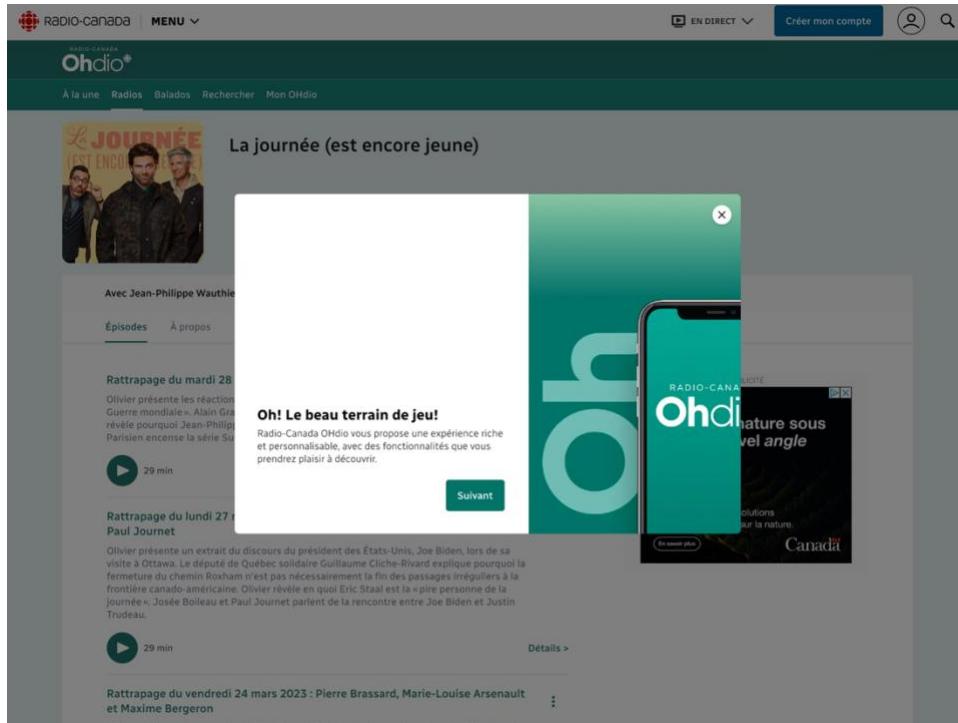
Appendix 3 – No Onboarding
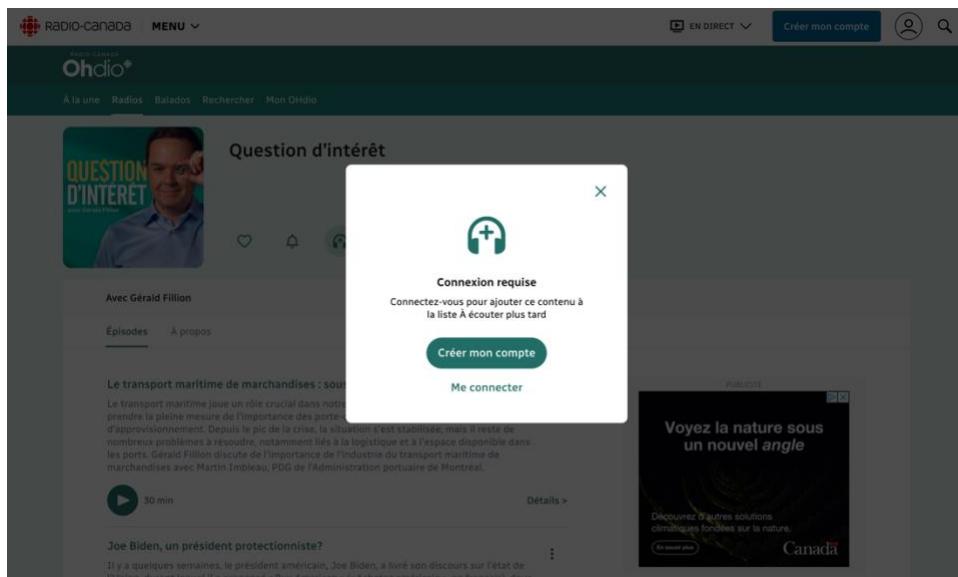
Appendix 4 – Before Study Survey

tech3lab
HEC MONTRÉAL

Bienvenue et merci de participer à notre étude !

Avant de commencer, merci de répondre aux questions suivantes.

→

tech3lab
HEC MONTRÉAL

Indiquez le numéro de participant qui vous est communiqué par le modérateur / la modératrice.
Exemple: P02

← →

tech3lab
HEC MONTRÉAL

Mon genre

○ Homme

○ Femme

○ Non binaire

←   →

tech3lab
HEC MONTRÉAL

Mon âge

[⌄]

←   →

tech3lab
HEC MONTRÉAL

Quelles **plateformes d'écoute en ligne** avez-vous utilisé dans les 12 derniers mois ?

☐ Spotify

☐ Google Podcasts/Music

☐ Apple Balado/Music

☐ Youtube

☐ iHeartRadio

☐ TuneIn

☐ Qub

☐ Autre:

---

tech3lab
HEC MONTRÉAL

À quelle fréquence **écoutez-vous des podcasts sur des plateformes d'écoute en ligne** ?

○ Souvent (1 ou plusieurs fois par jour)

○ Régulièrement (quelques fois par semaine)

○ Occasionnellement (quelques fois par mois)

○ Rarement (quelques fois par an)

○ Jamais

← →

Quels **produits Radio Canada** avez-vous utilisé dans les 12 derniers mois ?

☐ ICI TOU.TV (app et web)

☐ Radio-Canada INFO (app et web)

☐ Mordu (web seulement)

☐ RAD (web seulement)

☐ Aucun de ces produits

← →

Appendix 5 – Post-Task Survey

Déplacez le curseur afin de représenter votre niveau de **plaisir** ressenti pendant la tâche. Plus le curseur est placé vers la droite, plus le plaisir ressenti est grand.

← →

Déplacez le curseur afin de représenter votre niveau **d'activation** ressenti pendant la tâche. L'activation concerne l'intensité de l'émotion : calme versus excité. Plus le curseur est placé vers la droite, plus le niveau d'activation est élevé.

Indiquez votre niveau de satisfaction suite à **votre visite de la plateforme OHdio.** Merci de donner une réponse allant de 1 à 5 *(1 = très insatisfait et 5 = très satisfait)*.

1	2	3	4	5
○	○	○	○	○

Déplacez le curseur afin de représenter votre niveau **d'activation** ressenti pendant la tâche. L'activation concerne l'intensité de l'émotion : calme versus excité. Plus le curseur est placé vers la droite, plus le niveau d'activation est élevé.

Déplacez le curseur afin de représenter votre niveau de **plaisir** ressenti pendant la tâche. Plus le curseur est placé vers la droite, plus le plaisir ressenti est grand.

Veuillez indiquer comment vous vous sentez suite à l'accomplissement de cette tâche *(1 = très peu ou pas du tout, 2 = un peu, 3 = modérément, 4 = assez, 5 = extrêmement)*.

	1	2	3	4	5
Inspiré(e)	○	○	○	○	○
Alerte	○	○	○	○	○
Excité(e)	○	○	○	○	○
Enthousiaste	○	○	○	○	○
Déterminé(e)	○	○	○	○	○

← →

Veuillez indiquer comment vous vous sentez suite à l'accomplissement de cette tâche *(1 = très peu ou pas du tout, 2 = un peu, 3 = modérément, 4 = assez, 5 = extrêmement)*.

	1	2	3	4	5
Effrayé(e)	○	○	○	○	○
Fâché(e)	○	○	○	○	○
Nerveux(se)	○	○	○	○	○
Apeuré(e)	○	○	○	○	○
En détresse	○	○	○	○	○

← →

tech3lab | HEC MONTRÉAL

Sur une échelle allant de 1 à 5 *(1 = pas du tout et 5 = tout à fait)*, veuillez indiquer comment vous vous sentez suite à l'accomplissement de cette tâche.

	1	2	3	4	5
J'étais libre de choisir.	○	○	○	○	○
J'avais l'autonomie de choisir ce que je voulais.	○	○	○	○	○
J'étais maître de mes décisions.	○	○	○	○	○

← →

---

tech3lab | HEC MONTRÉAL

Quel **niveau d'effort** avez-vous dû déployer pour **créer un compte** ? *Merci de donner une réponse allant de 1 à 5 (1 = très faible effort ; 5 = très grand effort).*

1	2	3	4	5
○	○	○	○	○

← →

Sur une échelle allant de 1 à 5 *(1 = tout à fait en désaccord et 5 = tout à fait en accord)*, veuillez indiquer comment vous vous sentez par rapport à la **création d'un compte sur OHdio.**

	1	2	3	4	5
Si je crée un compte, je pourrai accéder à des fonctionnalités supplémentaires du site web.	○	○	○	○	○
Si je crée un compte, je pourrai vivre une expérience plus personnalisée sur le site web.	○	○	○	○	○

← →

Sur une échelle allant de 1 à 5 *(1 = Tout à fait en désaccord et 5 = tout à fait en accord)*, veuillez indiquer comment vous vous sentez par rapport à la **création d'un compte sur OHdio.**

	1	2	3	4	5
Je suis réticent(e) à créer un compte en ligne car je suis préoccupé(e) par la sécurité de mes informations personnelles.	○	○	○	○	○
J'ai des réserves quant à l'utilisation de mes données d'utilisation sur ce site.	○	○	○	○	○

← →

Si vous aviez vécu cette expérience sur le site d'OHdio dans votre vie de tous les jours (i.e., pas dans le cadre de cette étude), à quel point auriez-vous **l'intention de vous créer un compte OHdio?** Merci de donner une réponse allant de 1 à 10 *(1 = très peu probable; 10 = très probable)*

1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○

Appendix 6

Pairwise Comparisons

DV	Test	Effect	stimuli	stimuli	Adjp	Support
Emotional arousal	Linear regression with random intercept	stimuli	descriptive	dynamique	.132	Not supported
		stimuli	descriptive	none	.004	Supported
		stimuli	dynamique	none	.164	Not supported

Chapter 3 | Second Article: Personalization and Curiosity-Inducing Content in the Digital Media Onboarding Process

3.1 Abstract

This study explores the impact of personalized and curiosity-inducing content on user behavior during the initial onboarding phase on digital platforms. As personalization becomes crucial for consumer satisfaction, highlighted by 88% of consumers in 2022 valuing experience as much as products (Salesforce, 2022), we investigate how these content strategies affect user's emotional and cognitive responses, and their perceived personal power and satisfaction. Testing with 40 individuals showed that personalized and curiosity-inducing content led to lower emotional arousal and perceived personal power compared to descriptive content. These findings suggest that while such content may engage users more contemplatively, it also impacts their feelings of empowerment, affecting overall satisfaction with the onboarding process. This research contributes to understanding how to effectively design onboarding experiences that not only attract users but also enhance their connection and satisfaction.

3.2 Introduction

Securing consumer attention is increasingly vital in today's digital marketplace, where the battle for consumer focus has intensified to the point where it essentially acts as a currency (Teixeira, 2014). In response, digital platforms are innovating the media landscape by curating memorable experiences that cater to individual preferences and interests. The success of these platforms in attracting and retaining consumer interest

depends crucially on their capacity to provide personalized experiences since it is something that consumers actively seek and highly value (eMarketer, 2023). This shift in consumer expectations underscores the growing demand for content that connects on a personal level, signalling a pivotal change in how content needs to be tailored and presented.

The importance of personalization stems from consumers' desire for more relevant and engaging interactions with digital platforms. By customizing content and user interfaces to reflect individual preferences, platforms can significantly improve the user experience, making it more meaningful and satisfying. Successful personalization not only helps consumers navigate the abundance of available content more effectively but also fosters a stronger connection between the consumer and the platform, as it increases the consumers' willingness to engage (Blasco-Arca, 2014). Achieving effective personalization presents challenges, requiring advanced algorithms and a comprehensive understanding of consumer data. Nevertheless, the benefits of well-implemented personalization strategies are critical, providing a competitive advantage in a crowded digital marketplace. Another strategy to improve the consumer experience involves teasing curiosity through the process of introducing and then resolving uncertainty. This approach not only satisfies the curiosity, turning the anticipated positive experience into reality, but also offers hedonically benefits and increases the consumers' willingness to try the service or product (Ruan, 2018).

Minimal research exists on how personalization and curiosity can be employed to trigger behavioral intention with a media platform, especially for a first-time visit (Chiappetta, 2020; Heimburger, 2020). To address this gap, our experiment aimed to investigate the effect of varying interface contents on participants' willingness to register an account. Our study centred around three main research questions. The first research question delved into the extent to which personalized content affects the intention to create an account for new users of a content platform. The second research question explored the impact of curiosity-inducing content on the intention to create an account for new users of a content platform. Lastly, the third research question investigated the influence of perceived value on the strength of the relationship between consumer power and satisfaction.

RQ1: To what extent does personalization affect the intention to create an account for a new user of a content platform?

RQ2: To what extent does curiosity-inducing content affect the intention to create an account for a new user of a content platform?

RQ3: To what extent does perceived value affect the strength of the relationship between consumer power and satisfaction?

To answer our research questions, our experiment was theory-directed to gain new insight into behavioral intention to create an account for the first usage of a media platform. To guide our research, we chose two different theories which helped direct our research and guide us for future research. Firstly, the Theory of Planned Behavior

informed us on how intention and behavior are affected by attitude and perceived behavioral control. Secondly, the Theory of Interactive Media Effect put more perspective on our context since it helped us better understand how the affordances of an interface interact with the perceptions and knowledge of the interface in question.

To understand how the content of an interface impact the behavioral intention, we conducted an experimental study with 40 individuals. Each participant had to complete four consecutive tasks, which consisted of finding a specific podcast on an online platform. All tasks consisted in accessing the platform, going through the onboarding process, creating an account and finally finding the podcast named in the description of the task. The onboarding content being different for each task. Each participant individually completed one questionnaire after each task. As the participants were video recorded while completing their tasks, researchers were able to code the videos to then conduct statistic tests linking the behaviors to certain measures like their emotions, cognitive load and satisfaction.

Our study underscores the positive impact of personalization on emotional engagement, aligning with existing research emphasizing its emotional benefits (Kumar, 2019). Additionally, it provides a nuanced perspective on the effects of curiosity-inducing content. While some studies suggest it enhances user attitudes and engagement by creating a more hedonic experience (Ruan, 2018; Hüttl-Maack, 2020), our findings indicate no significant differences in emotions or satisfaction, except for cognitive load measured by pupil dilation. This challenges previous assumptions, suggesting that

heightened curiosity driven by increased cognitive load doesn't always lead to a better user experience (Litman, 2010). Importantly, our research contributes to the literature by integrating and exploring the combined impact of personalization and curiosity-inducing content, shedding new light on optimizing user experiences on digital platforms.

In this research paper, we provide background literature which guided our research and experiment and describe our methodology and results. We conclude by discussing our findings as well as the implications and limitations of this research.

3.3 Background Literature and Hypothesis Development

3.3.1 Personalization in Digital Media

Incorporating personalized content within digital platforms has been identified as a pivotal factor in elevating user engagement and satisfaction (Kang, 2016; Tong, 2012). Personalization can be defined as a firm-controlled process that leverages customer-level data to determine the most suitable marketing mix for an individual, distinct from customization, which is driven by customer choices (Sundar, 2020). This approach is effective across digital, like "recommended for you" messages on Amazon, Pandora, and Netflix, to name a few platforms. Research studies underscore the transformative impact of personalization, revealing its capability to foster more positive emotions among users, diminish cognitive overload, and enhance consumer empowerment (Kumar, 2016).

In addition to enhancing emotional engagement, personalization also plays a crucial role in managing the cognitive load for users (Sun, 2019). By presenting content tailored to

their interests and needs, personalized platforms reduce the cognitive effort required for

users to find relevant information or products, thereby improving overall usability and

satisfaction (Bradford, 2011; Sun, 2019). Moreover, personalization not only influences

users' emotional states and cognitive load but also empowers them by providing greater

control over their digital experiences. This aspect of consumer empowerment, known as

consumer power, reflects the ability of users to make informed choices, exert influence,

and shape their interactions with digital platforms according to their preferences and

values (Shulman and Meyer, 2022).

Personalization is important in strengthening the bond between customers and marketers,

enhancing emotional engagement, and positively influencing customer engagement

behaviors. However, the effectiveness of these personalization efforts is limited by the

availability and quality of customer data, the insights derived from this data, and their

implementation (Toch, 2012). Overcoming these challenges can significantly enhance the

level of personalization offered to customers an experience resonates on a deeper level.

These previous findings on personalization online helped us formulate those three

hypotheses:

> **H1a:** Greater personalization leads to more positive emotions.

> **H1b:** Greater personalization reduces cognitive load.

> **H1c:** Greater personalization strengthens perceived consumer power.

3.3.2 Curiosity in Digital Media

Another way digital platforms can engage their users is with curiosity. In the current competitive digital world where attention is the currency, the psychological concept of curiosity emerges as a key to creating deeper user engagement (Menon, 2013). Curiosity can be defined as the pursuit of new knowledge or experiences, emerging from the presence of uncertainty in dynamic media environments (Arnone, 2011). This uncertainty phase, coupled with a response that employs diverse new media skills and with a resolution stage (regardless of its outcome), forms what is recognized as an episode of curiosity. This episode can be resolved and provoke learning and profound engagement, proving that curiosity is triggered and enhanced by interest. For the sake of this study, we decided to take a closer look at creating and resolving uncertainty strategies online. Teasing information to the consumer can have positive effects by creating a better hedonic experience by increasing enjoyment and engagement with the platform (Ruan, 2018). These findings suggest that uncertainty and its subsequent resolution can increase enjoyment and engagement, underscoring the importance of incorporating teasing strategies in information presentation and advertising to enhance consumer attitudes and willingness to engage with content or products.

In addition to curiosity and consumer power, understanding the cognitive load experienced by users is crucial in digital platform design. Cognitive load refers to the mental effort required to process information and perform tasks effectively (Sweller, 2011). In the context of digital platforms, users may encounter varying levels of cognitive load depending on factors such as interface complexity, task demands, and the amount of

information presented. High cognitive load can lead to decreased user satisfaction and engagement, as it may overwhelm users and hinder their ability to navigate the platform comfortably (Paas & Van Merriënboer, 2017). Therefore, considering cognitive load when designing platform features and content is essential for optimizing user experiences and ensuring positive outcomes.

In the realm of digital platforms, understanding the concept of consumer power is paramount. Consumer power refers to the influence and control wielded by users in their interactions with businesses or service providers (Stoiber & Straßl, 2022). In the digital landscape, consumers have unprecedented access to information, choices, and platforms, empowering them to make informed decisions and shape their online experiences according to their preferences and values. This empowerment is evident in various aspects, including the ability to customize settings, provide feedback, and access a wide range of content and services tailored to individual needs. Recognizing and leveraging consumer power is essential for digital platform designers and marketers seeking to foster meaningful connections with users and build long-lasting relationships based on trust and mutual benefit.

According to the previous research on curiosity, we propose the following three hypotheses:

H2a: Higher levels of curiosity-inducing content leads to more positive emotions.

H2b: Higher levels of curiosity-inducing content leads to lower cognitive load.

H2c: Higher levels of curiosity-inducing content leads to greater consumer power.

3.3.3 Perceived Personal Power Online

When employing strategies like personalization, a concern that may emerge is personal information disclosure (Toch, 2012). The effectiveness of personalization relies on the use of personal data to tailor experiences, content, and recommendations to individual users and offer an even more relevant user experience (Fan, 2006). However, the need for users to disclose their personal information on digital media highlights concerns for privacy, security and trust, as users need to trust that their information is being used responsibly, for personalization purposes. Results from a study suggest that although users have privacy concerns, the cumulative influence of Internet trust and personal Internet interest are important factors that can outweigh privacy risk perceptions in the decision to disclose personal information when an individual uses digital platforms (Dinev & Hart, 2006). This context set the stage for our research where we took a particular interest in the users' perceived power on digital media when having to disclose personal information. Perceived power is crucial in decision-making processes like creating an account online and personal information and can also be referred to as consumer power. This sense of control not only shapes but also shapes attitudes and defines the effectiveness of persuasive messages (Briñol, 2017). In the digital setting, consumer power stems from their perceived capacity to counteract a firm's marketing strategies and impact the firm's decisions, consumer power being increasingly amplified by technological advancements. (Akhavannasab et al., 2018). These findings highlight

the nuanced ways users perceive control over their personal information depending on the complexity of data processing and the context in which their data is shared. They underscore the importance of transparency in data processing practices and the need for systems that clearly communicate how personal information is used and what additional data can be inferred from the information users disclose (Shulman, 2022).

Based on these acknowledgments of consumer power, we suggest the following 4 hypotheses:

H3a: More positive emotions lead to greater satisfaction.

H3b: There is a negative relationship between cognitive load and user satisfaction.

H3c: Greater perceived consumer power leads to greater satisfaction.

H4: Greater satisfaction leads to greater intention to create an account.

H5: Perceived value moderates the relationship between consumer power and satisfaction, such that the relationship between consumer power and satisfaction is stronger when perceived value increases.

The research model (Figure 3) proposes that the manipulation of content through personalization or curiosity-inducing strategies affects users' emotional state, cognitive load, and perceived consumer power. We hypothesize that these psychological states, shaped by the nature of content manipulation, play vital roles in influencing user satisfaction and subsequent behavioral intentions. Furthermore, the model indicates that

consumer power's effect on satisfaction is moderated by perceived value, which in turn impacts behavioral outcomes. The importance of this model lies in its potential to enhance user engagement and decision-making effectiveness, especially within digital platforms. By examining how different content manipulation strategies affect psychological and behavioral responses, this study aims to uncover the most effective methods for boosting user satisfaction and loyalty in digital settings.

Figure 3 – Research model
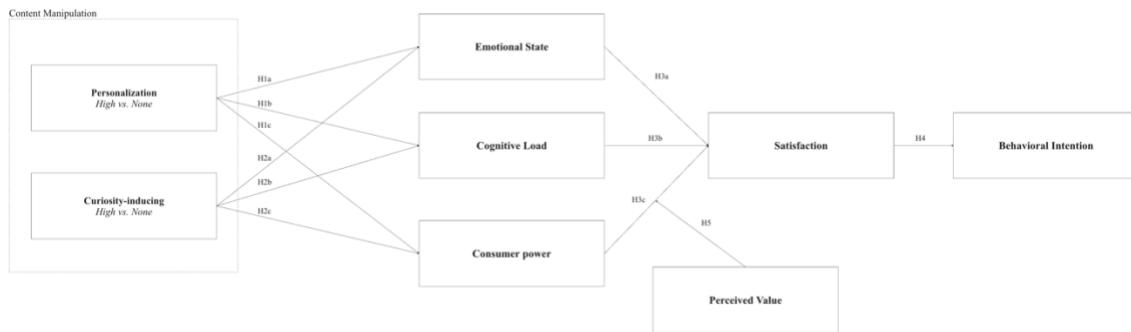
3.4 Research Method

3.4.1 Experimental Design

We designed a laboratory experiment to test our hypotheses. Specifically, we used a 2 x 2 within-subjects factorial design to examine the effects of personalized and curiosity-inducing content on the intention to create an account on an online content platform. The first factor considers personalization with two levels: Personalized content vs. non-personalized content, and the second factor considers curiosity with two levels: Content with curiosity vs. without curiosity.

Condition 1

The first condition was the personalized content and it consisted of two static pop-ups. In the first pop-up, the participants were asked to answer a question about their podcast preferences (Appendix 1). The content of the second pop-up then varied according to the participant's previous answer.

Condition 2

The second condition was the curiosity-inducing content and it consisted of two static pop-ups. In the first pop-up, participants were asked to answer a quiz question on the popularity of the platform's podcasts (Appendix 2). In the second pop-up, the message informed participants whether or not they had guessed the correct answer.

Condition 3

The third condition was the personalized and curiosity-inducing content where the participants had to interact with two static pop-ups, the first one being a question about their podcast preferences and the second being a quiz question based on their previous selection (Appendix 3).

Condition 4

Finally, the fourth condition was not personalized or curiosity-inducing content pop-ups, where participants had the platform explained to them via two static pop-ups (Appendix 4).

The study was conducted on a podcast platform, a medium that has seen substantial growth in consumption, particularly evident in its user statistics. In 2023 alone, there were 129.9 million podcast listeners in the US, which represents 38.3% of the population, and this number is expected to continue growing over the year (eMarketer, 2023). Podcast platforms offer users the ability to explore a vast range of topics through audio content, which can be conveniently accessed on the go, making it a versatile choice for diverse audiences (Sullivan, 2019). Given the platform's rising popularity since its introduction in the early 2000s, its relevance in the digital media landscape is underscored, making it an ideal focus for this study.

The study consisted of four different tasks, each consisting of finding a specific podcast on the platform and passing through the account creation process. For each task, a different pop-up was presented, but the content varied for each task: Personalized content (1), curiosity-inducing content (2), personalized and curiosity-inducing content (3), and no personalized or curiosity-inducing content (4). Each participant had to complete the four tasks in a counterbalanced order.

3.4.2 Sample

A total of 40 participants aged between 18 and 32 years old (M_{age} = 24.60, SD = 3.46; n females = 21; other = 0) were recruited using the HEC Panel, an online platform allowing participants in research projects developed by École Centrale Paris professors, in exchange for financial compensation. We utilized a prototype of the latest version of a podcast platform of a renowned Canadian content provider, enabling us to tailor it to suit

the needs of our experience. We restricted the study to participants aged between 18 and 34 years old who had not used the tested platform in the last 12 months and did not have a bad opinion of the brand we tested. These selection criteria avoid confounding factors due to participants' potential knowledge of the platform. We also recruited participants based on those criteria: to be able to speak and read fluently in French, to read on the computer without eyeglasses, and not to have any skin allergies or any other sensitivity, cardiac stimulator, epilepsy, or any facial paralysis. The HEC's ethics committee approved the study, and each participant provided informed consent and was compensated $20 upon completion.

3.4.3 Experimental Procedure

We conducted the study in a laboratory. The following Figure 4 outlines the experimental setup for this user study. Participants were welcomed in a room next to an observation room. The participants were first asked to read and sign a consent form on the computer on which all the instructions were provided. We then proceeded to the installation of the physiological tools to measure emotional arousal, emotional valence, and cognitive load through pupil dilatation. After that, we proceeded to the calibration of the eye tracker which was used to capture participants' pupil dilation. To calibrate the eye-tracking tool, the participants had to count a certain number of squares appearing on the screen in front of them. With all the equipment in place, the recordings were launched. Participants were then guided through a calibration phase, during which they were asked to stare at a cross

for 90 seconds while remaining relaxed and at ease. This step was used to establish a baseline for the physiological data.

The experimental task was done on a desktop. Before starting the tasks, the participant had to answer a survey on Qualtrics to answer some demographic and media consumption questions (Appendix 5). After the completion of each task, the participant was asked to fill out a survey through Qualtrics consisting of 10 questions to evaluate their experience (Appendix 6). These questions allowed us to measure the following constructs: satisfaction, arousal, valence, effort, intention, consumer power, perceived emotions, and perceived value.

Figure 4 – Experimental design

3.4.4 Measures

This study comprehensively assessed user experience by combining implicit physiological measures, and with explicit questionnaire-based assessments.

Emotional State

Emotional state refers to an individual's current emotional condition or how they are feeling at a particular moment in time and can be defined through the dimensions of valence and arousal (Kim, 2013). This construct is conceptualized as 2 dimensions in the circumplex model of affect (Russell, 1980). The valence dimension is defined as the degree to which a person feels positive or negative about a situation and activation also named arousal is defined as the degree to which a person feels stimulated or activated about a situation (Russell, 1980). Moreover, it is assumed that these two dimensions are independent since the level of activation can be pleasant or not (Menon & Kahn, 2002).

The emotional valence was captured with Facereader (Noldus, Wageningen, Netherlands), an automated system by Noldus. This system was validated in research (Skiendziel & al., 2019; Dupré and al., 2020) and used in different experimental studies to assess emotions (Zaman & Shrimpton-Smith, 2006). This tool allows us to read the facial expressions of a participant's test recording to provide an objective assessment of emotions where the emotional valence is after being analyzed by the software Noldus. More specifically, we extracted the average emotional valence for each task, which we then used in the data analysis. Subsequently, the emotional arousal was captured with Biopac MP-150 (Biopac, Goleta, United States) physiological sensors placed on the palm

of the participant's hand. More specifically, this tool allows us to measure the skin

conductance level (SCL) and response (SCR). Indeed, phasic was extracted from the

EDA signal and measured the activity of the eccrine sweat glands and has been

demonstrated to be correlated to arousal (Boucsein, 2012). It is explained and used in

research that physiological changes such as elevation in EDA are referred to as

physiological and emotional arousal (Korosec-Serfaty and al., 2021; Picard, 2009). This

tool is useful to capture the experienced arousal during the entire experiment. The

physiological signal was recorded with a sampling rate of 250 Hz. More precisely, we

used Log Phasic to adjust for the positively skewed distributions of SCR amplitudes, all

scores underwent standardization using the formula $y = \log(1 + x)$ (Venables & Christie,

1980). This standardization method was also applied to the raw data displayed before it

was averaged among participants.

Emotions were also captured with perceived measures after each task and the

measurement constructs chosen were the arousal, valence, and the perceived positive and

negative emotions. The perceived arousal and perceived valence were measured with the

Affective Slider, a digital self-reporting tool composed of two slider controls that the

participants could place from the left on a continuous scale (Betella, 2016). The PANAS

scale was utilized to obtain self-reported measures from participants regarding their

experiences of positive and negative emotions specifically within the context of

disclosing personal information online. This scale has been validated through various

studies and was developed to measure two broad dimensions of mood: positive affect

(PA) and negative affect (NA), PA reflecting the extent to which an individual

experiences pleasurable engagement with the environment and NA representing a general dimension of subjective distress and unpleasurable engagement (Crawford & al., 2004). Specifically, in this study we measured positive emotions with five items (Excited, Alerted, Inspired, Enthusiastic and Determined) and negative emotions with five items (Scared, Angry, Nervous, Afraid and In Distress (Crawford, 2004). The participants had to rate every emotion on a scale from 1 to 5 after completing the task.

Cognitive Load

To measure cognitive load, we used pupil dilatation using an eye-tracking device (Krejtz & al., 2018). Cognitive load refers to the amount of working memory resources used in the execution of various mental tasks (Gambiraza & al., 2021). Cognitive Load was measured using a pupil diameter to estimate the user's cognitive effort required before, during and after the account creation process. We computed the average percentage change from a baseline taken from a neutral image (PcB) for each participant and each timeframe in this analysis. We used the percentage change of pupil diameter rather than the raw pupil size variation due to inter-participant variances such as luminance and vergence (Medathati & al., 2020). The interest in cognitive load is relevant to our study since many studies revealed that cognitive load is significantly correlated to satisfaction (Bradford, 2011; Altinpulluk, 2020). We also measured participants' perceived effort through a scale using the customer effort score (Cardozo, 1965). This evaluation was conducted after participants completed each task, using a questionnaire where they rated the level of effort they had to make to accomplish the task on a 1-item scale from 1 to 5 (1 = very low effort; 5 = very high effort).

Perceived Value

The perceived value can be associated with customer satisfaction, which leads to customer loyalty and retention, positive word-of-mouth, a stronger competitive position, and higher market share (Morar, 2013). In the context of our study, we used the Privacy Calculus Scale to measure the perceived value from the perspective of personal information disclosure. This scale has been proven to measure intention to disclose based on the calculus of the perceived benefits for customers, such as customized services, financial rewards and promotion of the public image and perceived risks associated with the disclosure of their data (Luo, 2023). Incorporating the Privacy Calculus Scale into our study allows us to quantify how potential subscribers evaluate these trade-offs during the onboarding process. This evaluation is critical as it directly influences their perceived value of the service, for example, whether the benefits of personalized content and other features outweigh the privacy concerns (Jo, 2020). By understanding this balance, we can draw insights into how onboarding strategies might be optimized to enhance user perception of value, thereby increasing the likelihood of account creation. We measured the perceived benefits through a question consisting of two items, "If I create an account, I will be able to access additional features of the website." and "If I create an account, I'll be able to enjoy a more personalized experience on the website.". Whereas for the assessment of the perceived risks we asked, "I'm reluctant to create an online account because I'm concerned about the security of my personal information." and "I have reservations about the use of my usage data on this site.". Participants were able to answer on a scale from 1 to 5 (1 = strongly disagree and 5 = strongly agree).

Consumer Power

Perceived consumer power can be defined as the perceived capacity for consumers to counteract a firm's marketing strategies and impact the firm's decisions, consumer power being increasingly amplified by technological advancements (Akhavannasab & al., 2018). In our study, we measured this construct with a question of three items in the survey the participants had to complete after each task and indicate on a scale from 1 to 5 (*1 = not at all and 5 = totally*) how they felt after realizing the task. The items established to measure this construct were: "I was free to choose.", "I had the autonomy to choose what I wanted." and "I was in control of my decisions.". The measurement of consumer power is relevant for our study since it influences both consumer behavior and firm strategies (Akhavannasab & al., 2022).

Satisfaction

 Consumer satisfaction can be defined as a reaction, either emotional or cognitive, that is directed towards a specific aspect, such as expectations, the product itself, or the experience of consumption and manifests at a specific moment, whether it be post-consumption, following a decision-making process, or as a result of cumulative experiences (Giese & Cote, 2002). In our research, we investigated satisfaction to understand its influence on behavioral intention, specifically assessing how likely participants were to create an account on a platform similar to the one they had just interacted with. This evaluation was conducted after participants completed each task, using a questionnaire where they rated their intention to create an account on a 1-item scale from 1 to 10. (1 = very unlikely; 10 = very likely).

Behavioural Intention

Behavioural intention can be defined more specifically as motivational factors that influence a given behaviour (Ajzen & al., 2018). In this study, we asked the participants to answer the question of how much they would like to create an account on a platform like the one they just experienced, which we measured using a 1-item scale with a 10-point anchor going from "Not at all" to "Totally".

Table 5 presents the constructs studied in the research, along with the specific measures, tools, and scales employed and the key references supporting their use.

Table 5

Study Constructs

Construct	Measures	Tool/Scale	Reference
Emotional State	Emotional arousal	Biopac MP-150	Kim, 2013
	Emotional valence	Facereader automated system by Noldus	Kim, 2013
	Perceived arousal	Affective Slider digital self-reporting tool	Betella, 2016
	Perceived valence	Affective Slider digital self-reporting tool	Betella, 2016
	Perceived positive emotions Perceived negative emotions	5-point Likert scale with 10 items ranging from 1 (not at all) to 5 (totally)	Crawford & al., 2004
Cognitive Load	Pupil dilatation	Eye-tracking device	Krejtz & al., 2018
	Perceived effort	One-item scale (1 = very low effort; 5 = very high effort)	Cardozo, 1965
Consumer Power	Perceived power	5-point Likert scale with 3 items ranging from 1 (not at all) to 5 (totally)	Akhavannasab & al., 2018
Perceived Value	Perceived benefits Perceived risks	5-point Likert scale with 2 items ranging from 1 (strongly disagree) to 5 (strongly agree)	Luo, 2023

Satisfaction	Perceived satisfaction	1-item scale from 1 to 10. (1 = very unlikely; 10 = very likely).	Giese & Cote, 2002
Behavioural Intention	Likelihood to create account	One-item scale (1=Not at all to 10=Totally)	Ajzen & al., 2018

3.5 Results

3.5.1 Descriptive statistics

Personalized Content

As for the results of the emotional state of the participants, emotional arousal, measured

as log phasic, obtained a mean of -4.179 and a standard deviation of 2.235. Emotional

valence recorded a mean of -0.065 and a standard deviation of 0.12. Additionally,

perceived arousal and perceived valence had respective mean scores of 51.425

(SD=21.483) and 51.05 (SD=17.266). The emotional state was further assessed through

perceived positive emotions, which had a mean of 2.665 and a standard deviation of

0.897, and perceived negative emotions, with a mean of 1.23 and a standard deviation of

0.383.

Regarding the cognitive load of the participants, pupil dilatation was measured with a

mean of 0.099 and a standard deviation of 0.209, while perceived effort yielded a mean

of 1.825 and a standard deviation of 0.675.

In terms of behavioral intentions, the mean score was 4.425 with a standard deviation of

2.872. Consumer power ratings averaged at 2.858 with a standard deviation of 1.29.

Perceived value was assessed in terms of perceived benefits, risks, and overall, with mean

scores of 3.525 (SD=1.05), 2.563 (SD=1.236), and an overall perceived value that was

not directly provided in your latest data. Lastly, participants' overall satisfaction averaged at 3.2 with a standard deviation of 1.018.

This comprehensive analysis covers the different dimensions of emotional state, cognitive load, behavioral intentions, and consumer power among participants, providing a nuanced understanding of the impact of various factors on their experience.

Curiosity-Inducing Content

The analysis of participants' emotional state showed that emotional arousal, measured as log phasic, obtained a mean of -4.557 with a standard deviation of 2.784. Emotional valence was recorded at a mean of -0.083 and a standard deviation of 0.154. Additionally, perceived arousal was noted at 55.95 with a standard deviation of 16.996, and perceived valence at 53.225 with a standard deviation of 19.636. The study further evaluated emotional states through perceived positive emotions, which showed a mean of 2.715 and a standard deviation of 0.751, and perceived negative emotions, with a mean of 1.26 and a standard deviation of 0.507.

Regarding cognitive load, measured via pupil dilatation, participants exhibited a mean of 0.12 and a standard deviation of 0.212. Perceived effort reported a mean of 1.9 and a standard deviation of 1.033.

Behavioral intentions had a mean score of 4.75 with a standard deviation of 2.743. Consumer power ratings averaged at 3.075 with a standard deviation of 1.223. Perceived value was assessed in terms of benefits and risks, with mean scores of 3.463 (SD=1.065)

for benefits and 2.6 (SD=1.272) for risks. Lastly, participants' overall satisfaction averaged at 3.35 with a standard deviation of 0.975.

All Content

In our study, emotional arousal demonstrated a mean of -4.649 and a standard deviation of 3.342, while emotional valence showed a mean of -0.101 and a standard deviation of 0.152. The data for perceived arousal reached a mean of 50.35 with a standard deviation of 18.775, alongside perceived valence at 52.5 with a standard deviation of 16.706. The emotional atmosphere was further characterized by participants' perceived positive emotions, averaging 2.715 with a standard deviation of 0.806, and perceived negative emotions at a mean of 1.2 and a standard deviation of 0.336.

Cognitive load, gauged through pupil dilation, was measured at an average of 0.076 with a standard deviation of 0.216, and perceived effort recorded a mean of 1.9 with a standard deviation of 0.9.

The assessment of behavioral intentions revealed a mean of 4.425 with a standard deviation of 2.934. Measurements of consumer power produced an average value of 2.742 with a standard deviation of 1.291. Additionally, perceived benefits of value were rated at 3.225 (SD=1.074), while perceived risks stood at 2.538 (SD=1.222). Overall satisfaction among participants was calculated to be 3.275, with a standard deviation of 0.877.

None Content

The assessment of emotional state among participants revealed that emotional arousal, logged as phasic activity, achieved a mean of -4.391 with a standard deviation of 2.786, while emotional valence stood at -0.075 with a standard deviation of 0.13. Additionally, measurements showed perceived arousal at an average of 58.7 with a standard deviation of 13.914, and perceived valence at 57.9 with a standard deviation of 15.956. Emotional assessments also highlighted perceived positive emotions with an average score of 2.75 (SD=0.903) and perceived negative emotions at 1.15 (SD=0.341).

Cognitive load, as determined through pupil dilatation, recorded a mean of 0.065 and a standard deviation of 0.204, with perceived effort reported at 1.6 (SD=0.709).

Behavioral intentions towards creating an account presented a mean of 5.05 with a standard deviation of 2.791. Consumer power was quantified with an average of 3.208 (SD=1.223). In terms of perceived value, the benefits and risks were evaluated with means of 3.675 (SD=0.964) and 2.438 (SD=1.156) respectively. Finally, the overall satisfaction of participants averaged 3.575 with a standard deviation of 0.813.

Table 6 presents the results from various descriptive measures across our four different conditions: personalized content, curiosity-inducing content, all content and no content condition. Each measure is reported with its mean and standard deviation.

Table 6

Results from descriptive measures

Measure	Personalized Content		Curiosity-Inducing Content		ALL Content		NONE Content	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Satisfaction	3.2	1.02	3.35	.98	3.28	0.88	3.58	.81
Perceived arousal	51.43	21.48	55.95	16.00	50.35	18.78	58.7	13.91
Perceived valence	51.05	17.27	53.23	19.64	52.5	16.71	57.9	15.96
Perceived effort	1.83	.68	1.9	1.03	1.9	0.9	1.6	.71
Behavioral intention	4.43	2.87	4.75	2.74	4.43	2.93	5.05	2.79
Perceived positive emotions	2.67	.90	2.72	.75	2.72	.81	2.75	.90
Perceived negative emotions	1.23	.383	1.26	0.51	1.2	.34	1.15	.34
Consumer power	2.86	1.29	3.08	1.22	2.74	1.29	3.21	1.22
Perceived value (benefits)	3.53	1.05	3.46	1.07	3.23	1.07	3.66	0.96
Perceived value (risks)	2.56	1.24	2.6	1.27	2.54	1.22	2.44	1.16

3.5.2 Hypothesis Testing

H1a and H2a: Relationship between the content and emotional state

To investigate the impact of the content type on emotional state, our study examined a range of variables, including perceived arousal, perceived valence, perceived positive emotions, perceived negative emotions, emotional valence, and emotional arousal. The analysis employed linear regression with random intercept models for emotional arousal and emotional valence to effectively manage variations within the grouped data. For the other variables, a Kruskal-Wallis test was used.

To examine the impact of different content types on emotional valence, we employed linear regression with random intercept models, recognized for their effectiveness in handling variability among subjects and analyzing the effects of multiple group variables on a continuous outcome (Appendix 7). Our analysis focused on comparing the effects of personalized content versus all content and curiosity-inducing content versus no content.

Our findings revealed that personalized content significantly affected emotional valence compared to no content. The results indicated a meaningful difference with a p-value = 0.0403, suggesting that personalized content substantially enhances emotional valence. This supports our hypothesis that more personalized content leads to more positive emotional responses. In contrast, when comparing personalized content against curiosity-inducing content, and curiosity-inducing content against no content, our results did not show statistical significance, with p-values = 0.7084 and 0.8763, respectively. These outcomes suggest that while personalization distinctly enhances emotional valence, the mere presence of curiosity-inducing content without personalization does not significantly impact emotional valence.

In conclusion, our analysis confirms that personalized content significantly boosts emotional valence, validating partially our hypothesis (H1a). However, the effects of curiosity-inducing content, when not personalized, do not show a significant influence on emotional valence (H2a).

H1b and H2b: The relationship between the content and cognitive load

To assess the impact of greater personalization (H1b) and higher levels of curiosity (H2b) on cognitive load, we examined cognitive load with pupil dilatation and perceived effort. We conducted a linear regression with random intercept models on the pupil measure and Kruskal-Wallis Test on the perceived effort measure to understand the effects of each variable. For H1b, it was hypothesized that greater personalization would decrease cognitive load. The ANOVA on the pupil measure indicated a significant reduction in cognitive load with greater personalization, marked by a p -value of 0.0328. However, the Kruskal-Wallis Test on the perceived effort measure showed a p -value of 0.5462, suggesting that the evidence to support that personalized content affect positively cognitive load (H1b) was insufficient.

Similarly, for H2b, we hypothesized that increased curiosity would result in lower cognitive load. The results from the ANOVA on the pupil measure reaffirmed this, showing a significant reduction in cognitive load associated with higher levels of curiosity, also with a p -value = 0.0328. Yet, the findings from the perceived effort measure remained statistically insignificant (p -value = 0.5462), failing to support H2b. These results indicate that while pupil measures of cognitive load are sensitive to changes in personalization and curiosity, the perceived effort measures do not reflect the same trends.

To further our investigation of different content types on cognitive load, we specifically looked at how pupil dilatation varied across conditions, employing a linear regression

with random intercept models, recognized for their effectiveness in handling variability among subjects and analyzing the effects of multiple group variables on a continuous outcome (Appendix 7). We compared the effects of curiosity-inducing content versus no content, all content versus personalized content, and curiosity-inducing content versus personalized content.

Our findings showed that curiosity-inducing content significantly increases cognitive load compared to no content (p=0.007), supporting the hypothesis that engaging content can increase cognitive load due to increased interest and engagement. However, the comparison of all content versus no content (p=0.7146) and personalized content versus no content (p=0.7146) did not yield significant differences, indicating that the mere presence of content, whether personalized or not, does not necessarily affect cognitive load. Furthermore, when comparing personalized content directly with curiosity-inducing content, there was no significant difference in cognitive load (p=0.7084). This suggests that while curiosity-inducing content specifically increases cognitive load, personalized content does not yield a statistically different impact compared to other content types. Similarly, comparing all content against curiosity-inducing content also showed no significant difference (p=0.1545), reinforcing the unique impact of curiosity-inducing content on cognitive load.

These results highlight the nuanced effects of content type on cognitive load, with curiosity-inducing content proving particularly effective in increasing cognitive strain compared to no content or personalized content.

H1c and H2c: The relationship between the content and consumer power

To examine the relationship between greater personalization and consumer power, the

Kruskal-Wallis Test was employed with consumer power as the measure. The analysis

yielded a *p* -value = .899. As this *p*-value exceeds the predetermined significance level of

0.05, we fail to reject the null hypothesis. Therefore, there is not sufficient evidence to

support the hypothesis (H1c), that greater personalization strengthens consumer power

based on the consumer power measure. To investigate the influence of curiosity on

consumer power (H2c), the Kruskal-Wallis Test was utilized with the consumer power as

the measure. The analysis revealed a chi-square value = .588 with 3 degrees of freedom,

resulting in a *p* -value = .899. Since this *p*-value is greater than the predetermined

significance level of 0.05, we fail to reject the null hypothesis. Therefore, there is

insufficient evidence to support the notion that higher levels of curiosity lead to greater

consumer power based on the consumer power measure, which corresponded to our

hypothesis H2c.

H3a: The relationship between emotional state and satisfaction

The relationship between positive emotions and satisfaction was explored using the

Kruskal-Wallis Test with the satisfaction measure. The analysis had a *p* -value = .910.

Since this *p* -value is greater than the predetermined significance level = .05, we fail to

reject the null hypothesis. Therefore, there is inadequate evidence to support the

proposition that more positive emotions lead to greater satisfaction based on the

satisfaction measure (H3a).

H3b: The relationship between cognitive load and satisfaction

To assess the potential negative relationship between cognitive load and user satisfaction, the Kruskal-Wallis Test was employed with the satisfaction measure. The analysis resulted in a p-value = .546. Since this p-value is greater than the predetermined significance level of .05, we fail to reject the null hypothesis. Therefore, there is insufficient evidence to support the idea of a negative relationship between cognitive load and user satisfaction based on the satisfaction measure (H3b).

H3c: The relationship between consumer power and satisfaction

The association between consumer power and satisfaction was examined using the Kruskal-Wallis Test with the satisfaction measure. The analysis revealed a p-value = .899. Since this p-value exceeds the predetermined significance level of .05, we fail to reject the null hypothesis. Therefore, there is insufficient evidence to support the claim that a higher consumer power leads to greater satisfaction based on the satisfaction measure (H3c).

H4: The relationship between satisfaction and behavioral intention

To explore the relationship between satisfaction and intention to create an account, the Kruskal-Wallis Test was utilized with the Intention measure. The analysis resulted in a p-value = .8394. Since this p-value is greater than the predetermined significance level of 0.05, we fail to reject the null hypothesis. Therefore, there is inadequate evidence to support the notion that a higher level of satisfaction leads to greater intention to create an account based on the Intention measure (H4).

H5: Moderation of perceived value on the relationship between consumer power

and satisfaction

To investigate the moderation effect of perceived value on the relationship between

consumer power and satisfaction, a cumulative logistic regression with a random

intercept model was employed. The interaction effect between perceived value and

consumer power on satisfaction was examined as the measure. The analysis revealed a p-

value = .0062. Since this p-value is less than the predetermined significance level of 0.05,

we reject the null hypothesis. Therefore, there is sufficient evidence to support the

hypothesis that perceived value moderates the relationship between consumer power and

satisfaction. Specifically, the relationship between consumer power and satisfaction is

stronger when perceived value increases (H5).

Table 7 provides a summary of the results of our hypotheses tested against different

measures in this study. The table lists each hypothesis along with the corresponding

measures and their p-values, indicating whether each hypothesis is supported by the data.

Table 7

Summary of Results

Hypothesis	Measures	p-value*	Support
H1a	Emotional valence	.049	Supported
	Emotional arousal	.262	Not supported
	Perceived arousal	.359	Not supported
	Perceived valence	.696	Not supported
	Perceived negative emotions	.953	Not supported
	Perceived positive emotions		

		.633	Not supported
H2a	Emotional valence	.049	Supported
	Emotional arousal	.262	Not supported
	Perceived arousal	.359	Not supported
	Perceived valence	.696	Not supported
	Perceived negative emotions	.953	Not supported
	Perceived positive emotions	.633	Not supported
H1b	Perceived effort	.546	Not supported
	Cognitive load	.033	Supported
H2b	Perceived effort	.546	Not supported
	Cognitive load	.033	Supported
H1c	Consumer power	.899	Not supported
H2c	Consumer power	.899	Not supported
H2a	Satisfaction	.910	Not supported
H2b	Satisfaction	.910	Not supported
H2c	Satisfaction	.910	Not supported
H3	Behavioral intention	.839	Not supported
H5	Perceived value	.006	Supported

p value for 2-taield test adjusted for multiple comparisons by method of Holm

3.6 Discussion

Personalized and curiosity-inducing content affects users differently. Users showed

greater valence for personalized content, compared to both personalized and curiosity-

inducing content suggesting that users find personalized content more emotionally

positive or satisfying. Also, the significant increase in pupil dilation for curiosity-inducing content during onboarding suggests a heightened level of engagement and interest from users at this crucial stage. These findings could imply that while curiosity can engage users, the addition of personalization alone better aligns with users' preferences or expectations, leading to more positive emotional responses.

In addition to the findings discussed, the study also delved into the moderation effect of perceived value on the relationship between consumer power and satisfaction. This aspect sheds light on the nuanced dynamics within digital platform interactions, particularly concerning user satisfaction and engagement. The interaction effect between perceived value and consumer power on satisfaction being significant suggests that perceived value plays a pivotal role in shaping users' satisfaction levels, especially in conjunction with their perceived consumer power. The significance of this interaction implies that the impact of consumer power on satisfaction varies across different levels of perceived value. As perceived value increases, the influence of consumer power on satisfaction becomes more pronounced. Conversely, when perceived value is lower, the effect of consumer power on satisfaction may diminish. Furthermore, most hypotheses failed to find significant support, which can be attributed to individual variabilities in user responses to different content strategies. This observation suggests that personal preferences and expectations play a crucial role in the effectiveness of onboarding, and that more targeted or personalized approaches may be needed to effectively capture and support user engagement. These findings encourage deeper investigation into the

interactions between content characteristics, emotional state and cognitive load to better understand how to optimize engagement strategies across digital platforms.

3.6.2 Theoretical Contributions and Practical Implications

Our findings underscore the nuanced impact of personalization and curiosity on digital platform engagement. Firstly, our results support studies that insight into personalization's emotional benefits are reflected in our observation of greater valence for personalized content, suggesting a deeper emotional connection (Pappas, 2017).

Secondly, our findings bring a nuanced perspective when exploring the concept of teasing curiosity online. More precisely, some studies highlight the benefits of teasing curiosity online on the attitude and engagement of their users by creating a more hedonic experience (Ruan, 2018 and Hüttl-Maack, 2020). However, our results do not exactly support these insights, since no significant differences were detected when analyzing the effect of curiosity-inducing content on emotions or even satisfaction, but only on cognitive load which was measured with pupil dilatation. It is crucial to nuance this perspective by proposing that an increase in curiosity, driven by elevated cognitive load, does not necessarily translate to a more positive experience. This proposition challenges existing literature by acknowledging the complexity of human cognitive and emotional responses. While heightened attention caused by curiosity might be beneficial in some contexts, facilitating deeper engagement and learning, it could also lead to experiences bad emotions like anger, anxiety and ultimately decreased satisfaction in others (Litman,

2010). Lastly, our research contributes to the literature by combining two concepts that few explored before in the study of digital media, personalization, and curiosity-inducing. Through integrating these dimensions, our study sheds new light on optimizing user experiences on digital platforms.

3.6.3 Limitations and Future Research

Our approach involved investigating curiosity-inducing content through a quiz about the platform's podcasts, which might need reconsideration for effectively assessing this concept. The quiz focused on the platform's content, requiring participants to make guesses without prioritizing performance. Based on the feedback from the interviews, it seems this type of content didn't resonate with participants, who viewed it more as an impediment, assumingly leading to a higher cognitive load. Consequently, the quiz may not have effectively engaged participants' interest or sufficiently stimulated their curiosity.

In future research, it would be beneficial to refine the approach to isolating the curiosity-inducing factor. This could involve designing experiments that more directly assess the impact of curiosity on user engagement, perhaps by varying the types of content more systematically or introducing interactive elements that allow users to actively seek out information. Additionally, employing methodologies that track real-time responses, such as eye-tracking or physiological measures mixed with descriptive measures, could

provide deeper insights into how curiosity unfolds and affects user behavior in digital

environments.

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3.8 Appendix

Appendix 1 – Personalized Onboarding
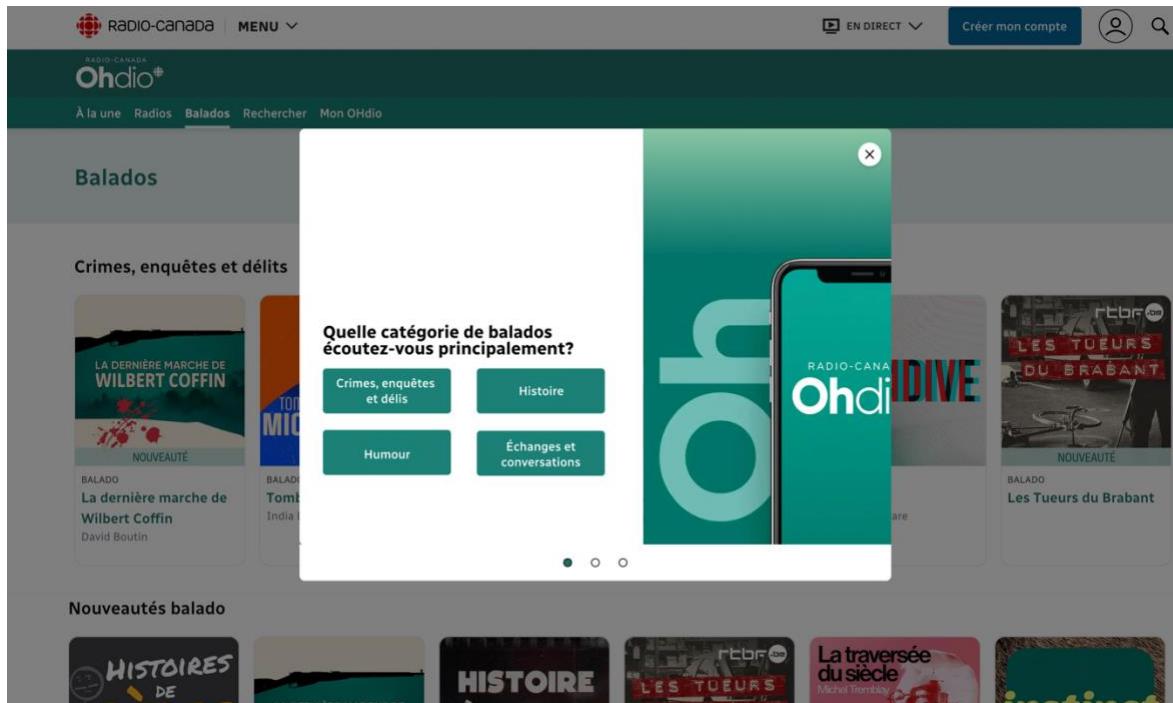
Appendix 2 – Curiosity-Inducing Onboarding
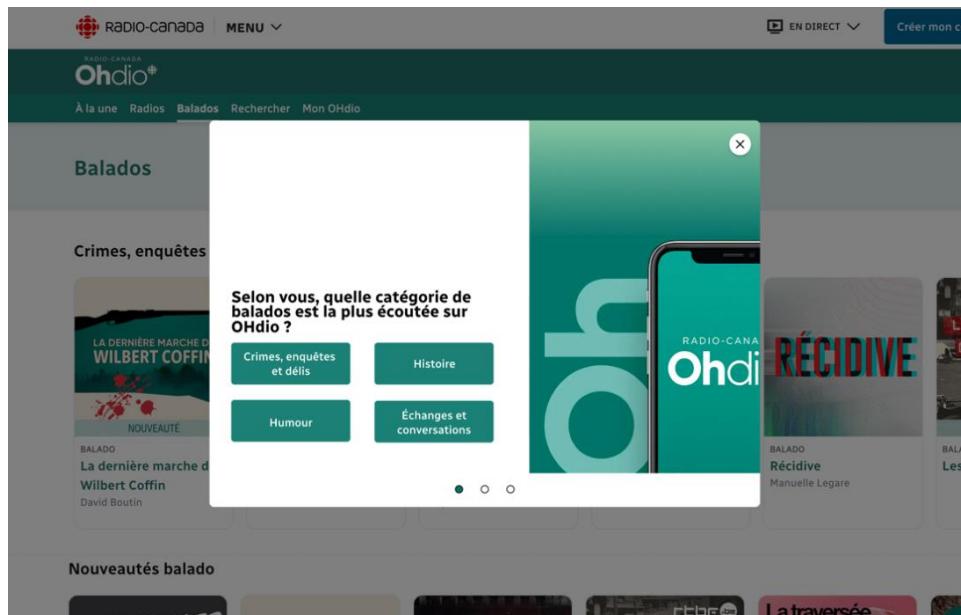
Appendix 3 – Personalized and curiosity-inducing onboarding
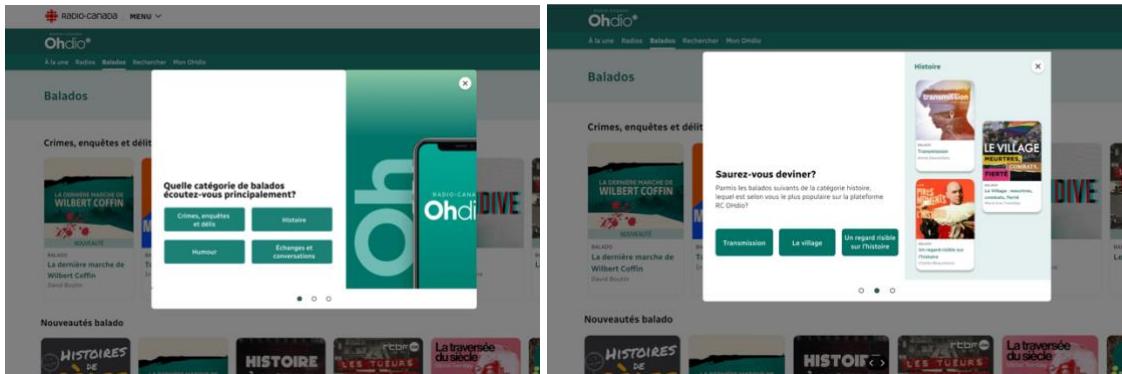
Appendix 4 – Descriptive onboarding
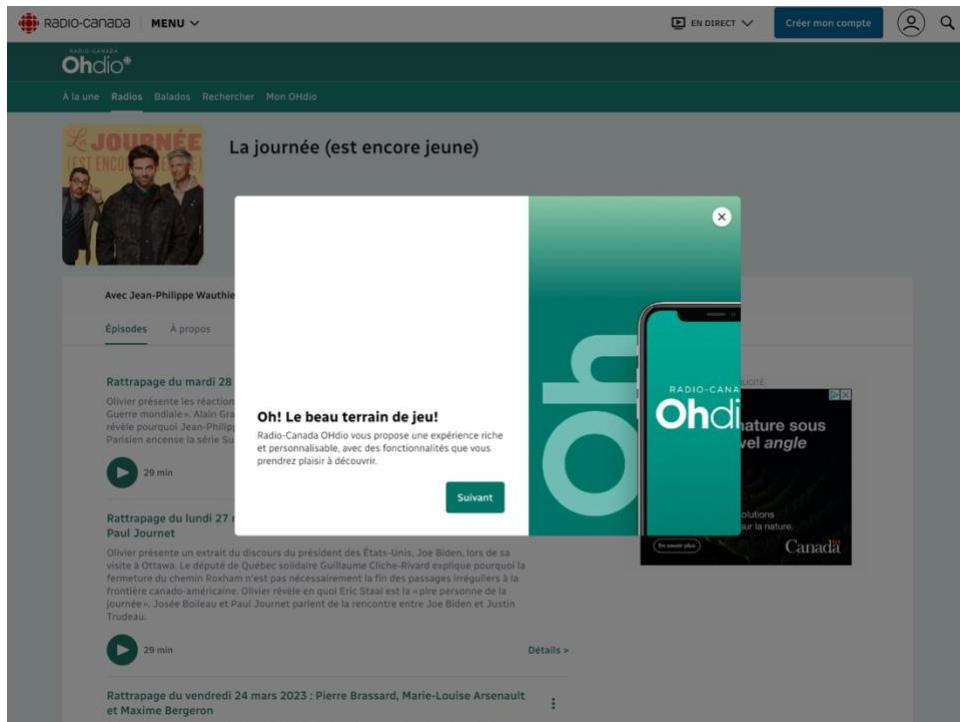
Appendix 5 – Before Study Survey

tech3lab
HEC MONTRÉAL

Bienvenue et merci de participer à notre étude !

Avant de commencer, merci de répondre aux questions suivantes.

[→]

tech3lab
HEC MONTRÉAL

Indiquez le numéro de participant qui vous est communiqué par le modérateur / la modératrice.
Exemple: P02

[←]   [→]

tech3lab
HEC MONTRÉAL

Mon genre

○ Homme

○ Femme

○ Non binaire

←   →

---

tech3lab
HEC MONTRÉAL

Mon âge

[⌄]

←   →

tech3lab
HEC MONTRÉAL

Quelles **plateformes d'écoute en ligne** avez-vous utilisé dans les 12 derniers mois ?

- [ ] Spotify
- [ ] Google Podcasts/Music
- [ ] Apple Balado/Music
- [ ] Youtube
- [ ] iHeartRadio
- [ ] TuneIn
- [ ] Qub
- [ ] Autre:

tech3lab
HEC MONTRÉAL

À quelle fréquence **écoutez-vous des podcasts sur des plateformes d'écoute en ligne ?**

- ○ Souvent (1 ou plusieurs fois par jour)
- ○ Régulièrement (quelques fois par semaine)
- ○ Occasionnellement (quelques fois par mois)
- ○ Rarement (quelques fois par an)
- ○ Jamais

← →

tech3lab
HEC MONTRÉAL

Quels **produits Radio Canada** avez-vous utilisé dans les 12 derniers mois ?

☐ ICI TOU.TV (app et web)

☐ Radio-Canada INFO (app et web)

☐ Mordu (web seulement)

☐ RAD (web seulement)

☐ Aucun de ces produits

← →

Appendix 6 – Post-Task Survey

tech3lab
HEC MONTRÉAL

Déplacez le curseur afin de représenter votre niveau de **plaisir** ressenti pendant la tâche.
Plus le curseur est placé vers la droite, plus le plaisir ressenti est grand.

← →

Déplacez le curseur afin de représenter votre niveau **d'activation** ressenti pendant la tâche. L'activation concerne l'intensité de l'émotion : calme versus excité. Plus le curseur est placé vers la droite, plus le niveau d'activation est élevé.

←   →

Indiquez votre niveau de satisfaction suite à **votre visite de la plateforme OHdio.** Merci de donner une réponse allant de 1 à 5 *(1 = très insatisfait et 5 = très satisfait).*

1	2	3	4	5
○	○	○	○	○

←   →

tech3lab
HEC MONTRÉAL

Déplacez le curseur afin de représenter votre niveau **d'activation** ressenti pendant la tâche. L'activation concerne l'intensité de l'émotion : calme versus excité. Plus le curseur est placé vers la droite, plus le niveau d'activation est élevé.

←   →

tech3lab
HEC MONTRÉAL

Déplacez le curseur afin de représenter votre niveau de **plaisir** ressenti pendant la tâche. Plus le curseur est placé vers la droite, plus le plaisir ressenti est grand.

←   →

146

Veuillez indiquer comment vous vous sentez suite à l'accomplissement de cette tâche *(1 = très peu ou pas du tout, 2 = un peu, 3 = modérément, 4 = assez, 5 = extrêmement)*.

	1	2	3	4	5
Inspiré(e)	○	○	○	○	○
Alerte	○	○	○	○	○
Excité(e)	○	○	○	○	○
Enthousiaste	○	○	○	○	○
Déterminé(e)	○	○	○	○	○

← →

Veuillez indiquer comment vous vous sentez suite à l'accomplissement de cette tâche *(1 = très peu ou pas du tout, 2 = un peu, 3 = modérément, 4 = assez, 5 = extrêmement)*.

	1	2	3	4	5
Effrayé(e)	○	○	○	○	○
Fâché(e)	○	○	○	○	○
Nerveux(se)	○	○	○	○	○
Apeuré(e)	○	○	○	○	○
En détresse	○	○	○	○	○

← →

tech3lab
HEC MONTRÉAL

Sur une échelle allant de 1 à 5 *(1 = pas du tout et 5 = tout à fait)*, veuillez indiquer comment vous vous sentez suite à l'accomplissement de cette tâche.

	1	2	3	4	5
J'étais libre de choisir.	○	○	○	○	○
J'avais l'autonomie de choisir ce que je voulais.	○	○	○	○	○
J'étais maître de mes décisions.	○	○	○	○	○

← →

tech3lab
HEC MONTRÉAL

Quel **niveau d'effort** avez-vous dû déployer pour **créer un compte** ? *Merci de donner une réponse allant de 1 à 5 (1 = très faible effort ; 5 = très grand effort).*

1	2	3	4	5
○	○	○	○	○

← →

Sur une échelle allant de 1 à 5 *(1 = tout à fait en désaccord et 5 = tout à fait en accord)*, veuillez indiquer comment vous vous sentez par rapport à la **création d'un compte sur OHdio.**

	1	2	3	4	5
Si je crée un compte, je pourrai accéder à des fonctionnalités supplémentaires du site web.	○	○	○	○	○
Si je crée un compte, je pourrai vivre une expérience plus personnalisée sur le site web.	○	○	○	○	○

← →

Sur une échelle allant de 1 à 5 *(1 = Tout à fait en désaccord et 5 = tout à fait en accord)*, veuillez indiquer comment vous vous sentez par rapport à la **création d'un compte sur OHdio.**

	1	2	3	4	5
Je suis réticent(e) à créer un compte en ligne car je suis préoccupé(e) par la sécurité de mes informations personnelles.	○	○	○	○	○
J'ai des réserves quant à l'utilisation de mes données d'utilisation sur ce site.	○	○	○	○	○

← →

Appendix 7 – Pairwise Comparisons between stimuli

Pairwise Comparisons

DV	Test	Stimuli		*p*-value*	Support
Emotional valence	Linear regression with random intercept model	All content	Curiosity-inducing content	.708	Not supported
		All content	No content	.260	Not supported
		All content	Personalized content	.040	Supported
		Curiosity-inducing content	No content	.876	Not supported
		Curiosity-inducing content	Personalized content	.708	Not supported
		No content	Personalized content	.876	Not supported
Cognitive load (pupil dilatation)	Linear regression with random intercept model	All content	Curiosity-inducing content	.155	Not supported
		All content	No content	.715	Not supported
		All content	Personalized content	.715	Not supported
		Curiosity-inducing content	No content	.042	Supported
		Curiosity-inducing content	Personalized content	.715	Not supported
		No content	Personalized content	.339	Not supported

* p value for 2-taield test adjusted for multiple comparisons by method of Holm

Chapitre 4 | Conclusion

4.1 Rappel des Questions de Recherches et Principaux Résultats

Le principal objectif de ce mémoire était d'évaluer l'intention de création de compte sur une plateforme de contenus chez des premiers utilisateurs. Ainsi, l'étude a examiné certaines stratégies d'intégration des médias de contenu sur l'intention de création de compte des utilisateurs, en évaluant les effets d'un niveau d'accompagnement, la personnalisation ainsi que la curiosité. Pour répondre à ces objectifs, une étude en laboratoire a été déployée en deux phases. Un total de 28 participants a participé à la première étude et devaient compléter 3 tâches sur une plateforme de balados, tandis que 40 participants ont participé à la deuxième étude pour accomplir 4 tâches.

Dans le cadre de notre étude sur l'interaction des utilisateurs avec les plateformes de contenu numérique, nous avons formulé plusieurs questions de recherche centrées sur l'impact de différentes stratégies d'intégration sur l'intention comportementale

RQ1 : Dans quelle mesure le niveau d'accompagnement affecte-t-il l'intention de créer un compte pour un nouvel utilisateur d'une plateforme de contenu?

RQ2 : Dans quelle mesure la valeur perçue affecte-t-elle la force de la relation entre le pouvoir du consommateur et la satisfaction?

RQ3 : Dans quelle mesure le contenu personnalisé affecte-t-il l'intention de créer un compte pour un nouvel utilisateur d'une plateforme de contenu ?

RQ4: Dans quelle mesure le contenu incitant à la curiosité affecte-t-il l'intention de créer un compte pour un nouvel utilisateur d'une plateforme de contenu ?

Nous avons examiné l'effet du niveau d'accompagnement sur l'intention des nouveaux utilisateurs de créer un compte, cherchant à déterminer si un accompagnement plus ou moins intensif influençait cette intention (RQ1). Les résultats ont montré que le niveau d'accompagnement, particulièrement l'accompagnement de type descriptif, a influencé l'intention comportementale en augmentant le niveau d'excitation, ce qui pouvait affecter la décision de créer un compte. Les utilisateurs exposés à un accompagnement descriptif ont montré une plus grande excitation, suggérant un état émotionnel accru. Cependant, cette augmentation de l'état émotionnel n'a pas nécessairement conduit à une plus grande satisfaction ou intention de créer un compte, mettant en lumière la complexité des réactions des utilisateurs aux différentes formes d'accompagnement.

Nous avons analysé comment la valeur perçue modifiait la relation entre le pouvoir du consommateur et sa satisfaction, pour voir si la perception des avantages et des risques affectait cette dynamique (RQ2). L'étude 2 a confirmé que la valeur perçue joue un rôle crucial dans le renforcement de la relation entre le pouvoir du consommateur et la satisfaction. Les résultats ont démontré que les avantages perçus modèrent significativement cette relation, influençant positivement la satisfaction des utilisateurs. Cela confirme l'importance de la perception de la valeur dans l'amélioration de l'efficacité du pouvoir du consommateur à générer de la satisfaction.

Nous avons évalué l'impact de la personnalisation du contenu sur l'intention des nouveaux utilisateurs à s'inscrire, pour comprendre si des contenus plus ciblés encourageaient l'engagement et l'inscription (RQ3). En effet, les résultats ont indiqué que le contenu personnalisé a amélioré la valence émotionnelle, ce qui pouvait augmenter l'intention de créer un compte. Les utilisateurs exposés à un contenu personnalisé ont rapporté une plus grande positivité dans leurs émotions, ce qui est lié à une meilleure expérience utilisateur et pourrait donc augmenter l'intention de s'engager davantage avec la plateforme.

Enfin, nous avons investigué si l'exposition à un contenu incitant à la curiosité pouvait augmenter l'intention des utilisateurs de créer un compte, en mesurant si un tel contenu pouvait intensifier l'intérêt et l'interaction avec la plateforme (RQ4). Les résultats pour cette question de recherche n'ont pas montré d'effet significatif du contenu incitant à la curiosité sur l'intention de créer un compte. Néanmoins, les mesures de la charge cognitive indiquent que la charge était plus élevée pour le contenu induisant la curiosité. Cela suggère que, bien que le contenu incitant à la curiosité puisse être engageant d'un point de vue cognitif, il n'augmentait pas nécessairement l'intention des utilisateurs à se créer un compte comparativement à d'autres types de contenu.

4.2 Contributions du Mémoire

Ce mémoire a exploré l'influence de différentes stratégies d'intégration sur l'intention des utilisateurs de créer un compte sur une plateforme de contenus, mettant en lumière l'importance des réponses émotionnelles, cognitives, et attentionnelles dans le processus de décision. Il contribue à la littérature sur les stratégies d'intégration en ligne, en offrant des orientations stratégiques pour les concepteurs de plateformes de contenus souhaitant améliorer l'expérience utilisateur et encourager l'inscription et l'engagement des premiers utilisateurs. En adoptant une méthodologie quantitativement rigoureuse, cette étude se distingue par son exploration approfondie des effets de l'accompagnement, de la personnalisation et de la curiosité sur l'expérience utilisateur. Cette recherche contribue à la théorie TPB en modifiant le concept de contrôle perçu d'une plateforme par les utilisateurs et en s'intéressant plutôt au pouvoir personnel perçu. Grâce à cette recherche, nous pouvons constater que le type de contenu d'intégration peut avoir un impact significatif sur le pouvoir personnel perçu par l'utilisateur dans un contexte d'utilisation d'une plateforme de contenu en ligne. Elle contribue aussi à la théorie TIME en ajoutant le concept de la valeur perçue dans un contexte de divulgation de données et en révélant que le contenu d'intégration peut avoir un impact sur la valeur perçue par l'utilisateur de la plateforme.

Les implications pratiques de cette recherche sont tout aussi importantes, offrant des orientations précieuses pour la conception et l'amélioration des stratégies d'intégration sur les plateformes de contenu en ligne. En effet, la première étude a permis d'identifier qu'un niveau d'accompagnement descriptif permet de générer davantage d'excitation

durant le processus d'*onboarding*. Cette découverte est cruciale quant au développement

de stratégies d'intégration des nouveaux utilisateurs afin de les inciter à rester sur la

plateforme et ultimement à se créer un compte en générant davantage d'excitation. La

deuxième étude quant à elle a permis de constater que les stratégies de personnalisation

de contenu d'intégration pourraient engendrer des émotions plus positives chez les

utilisateurs, tandis que le contenu induisant la curiosité quant à lui requiert un plus grand

engagement cognitif. De plus, cette étude a permis de confirmer l'impact de la perception

de valeur sur l'utilisation de telles plateformes en termes de pouvoir personnel perçu et de

satisfaction, offrant une contribution significative à la compréhension des dynamiques de

divulgation de données. Les résultats soulignent comment une valeur perçue accrue,

notamment à travers les avantages et les bénéfices ressentis par les utilisateurs, renforce

leur sentiment de contrôle et d'efficacité, ce qui se traduit par une satisfaction plus

élevée. Cela suggère que les stratégies visant à améliorer la perception de la valeur

peuvent être particulièrement efficaces pour augmenter la satisfaction des utilisateurs et

potentiellement encourager des comportements plus engagés et sécuritaires en matière de

divulgation de données personnelles.

4.3 Limites et Pistes de Recherches Futures

Une limite de cette étude consiste en le temps contraint pour les utilisateurs d'explorer la

plateforme. En effet, le pop-up d'onboarding se déclenchait automatiquement quelques

secondes seulement après que les participants aient accédé à la plateforme, limitant ainsi

leur capacité à se familiariser avec l'environnement numérique à leur propre rythme.

Cette contrainte temporelle pourrait avoir influencé la perception des utilisateurs quant à l'utilité et la pertinence des informations fournies durant l'onboarding, ainsi que leur engagement initial envers la plateforme. Pour pallier cette limitation, il serait judicieux de concevoir des modalités d'expérimentation permettant aux utilisateurs de naviguer librement sur la plateforme avant l'intervention de tout processus d'onboarding. Une telle approche offrirait aux participants l'opportunité de découvrir par eux-mêmes les fonctionnalités et les contenus proposés, établissant ainsi un premier niveau d'engagement et de curiosité. Dans le cadre de futures recherches, il serait pertinent d'examiner des méthodes permettant aux utilisateurs d'explorer la plateforme de manière autonome, tout en gérant le risque qu'ils la quittent avant d'être exposés au processus d'onboarding. Une idée serait de déclencher les pop-ups d'onboarding suite à une interaction spécifique avec l'interface, par exemple, lorsqu'un utilisateur clique sur une fonctionnalité particulière. Cette approche contextualise l'onboarding, le rendant potentiellement plus pertinent et engageant. Néanmoins, cette stratégie nécessite un équilibre entre la liberté d'exploration des utilisateurs et la garantie qu'ils reçoivent les informations essentielles pour enrichir leur expérience. L'enjeu principal réside dans le défi de déterminer le moment optimal pour initier l'onboarding, afin d'assurer que les utilisateurs soient suffisamment engagés sans risquer de les voir partir trop tôt.

Nous avons choisi d'examiner le concept de contenu suscitant la curiosité en soumettant aux participants un quiz portant sur les podcasts disponibles sur la plateforme. Cette approche pourrait être reconsidérée pour évaluer ce concept car les questions posées portaient sur le contenu de la plateforme, et les participants, ne connaissant pas forcément

les réponses, devaient donc deviner la bonne réponse sans vraiment se préoccuper de leur performance. À partir des données qualitatives et quantitatives recueillies, il semble que les participants n'aient pas saisi l'intérêt de ce type de contenu, le considérant plutôt comme un obstacle et entraînant une charge cognitive plus importante. Ainsi, les questions posées n'ayant probablement pas capté l'intérêt des participants, le niveau de curiosité suscité chez eux n'était peut-être pas idéal.

En s'appuyant sur les résultats de la première étude, qui a démontré que l'*onboarding* descriptif permet de capter l'attention et d'engager les utilisateurs, il est proposé pour de futures recherches d'associer le caractère descriptif de l'onboarding avec des fonctionnalités personnalisées adaptées aux préférences et besoins individuels. L'idée serait donc de tester cette stratégie d'onboarding enrichie par la personnalisation, afin de mesurer précisément son impact sur l'expérience utilisateur globale. Cela impliquerait de concevoir un *onboarding* qui, non seulement initie descriptivement les utilisateurs à la plateforme, mais qui en plus indiquerait aux utilisateurs la personnalisation de l'interface. L'hypothèse sous-jacente est que cette combinaison d'engagement descriptif et de personnalisation ciblée augmentera non seulement la satisfaction des utilisateurs mais encouragera également une utilisation plus approfondie et prolongée de la plateforme. Pour évaluer l'efficacité de cette stratégie, il serait pertinent de mener des études comparatives, en analysant les comportements, les taux de rétention et les *feedbacks* des utilisateurs confrontés à différents types d'onboarding : standard, uniquement descriptif, et descriptif personnalisé. Cette démarche permettrait de valider l'importance de la personnalisation combinée à l'aspect descriptif dans le processus d'*onboarding* et

d'optimiser les premières interactions des utilisateurs avec la plateforme, en vue de maximiser leur engagement et leur fidélité. La personnalisation demeure un élément essentiel pour répondre aux attentes des consommateurs, mais trouver un équilibre adéquat avec la protection de la vie privée demeure un défi majeur à relever dans l'univers compétitif des médias.

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Annexes

Approbation éthique

HEC MONTRÉAL

Comité d'éthique de la recherche

Le 01 mars 2024

À l'attention de : Sylvain Sénécal , Professeur titulaire, HEC Montréal

Projet # 2023-5397
Titre : Fonctionnalités interactives sur un site web de nouvelles

Source de financement : R2870B CRSNG, R2870 partenaires Alliance 1

Bonjour Sylvain Sénécal,

Pour donner suite à votre demande de renouvellement, le certificat d'approbation éthique pour le présent projet a été renouvelé en date du 01 mars 2024. **Ce certificat est valide jusqu'au 01 mars 2025.**

Vous devez donc, avant cette date, obtenir le renouvellement de votre approbation éthique à l'aide du formulaire *F7 - Renouvellement annuel*. Un rappel automatique vous sera envoyé par courriel quelques semaines avant l'échéance de votre certificat.

Si des modifications sont apportées à votre projet, vous devrez remplir le formulaire *F8 - Modification de projet* et obtenir l'approbation du CER avant de mettre en oeuvre ces modifications.

Prenez également note que tout nouveau membre de votre équipe de recherche devra signer le formulaire d'engagement de confidentialité et que celui-ci devra nous être transmis lors de votre demande de renouvellement.

Lorsque votre projet est terminé, vous devrez remplir le formulaire *F9 - Fin de projet (ou F9a - Fin de projet étudiant sous l'égide d'un autre chercheur)*, selon le cas. **Les étudiants doivent remplir un formulaire F9 afin de recevoir l'attestation d'approbation éthique nécessaire au dépôt de leur thèse/mémoire/projet supervisé.**

Nous vous souhaitons bon succès dans la poursuite de votre recherche.

Cordialement,

Le CER de HEC Montréal

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Comité d'éthique de la recherche - HEC Montréal

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Comité d'éthique de la recherche

RENOUVELLEMENT DE L'APPROBATION ÉTHIQUE

La présente atteste que le projet de recherche décrit ci-dessous a fait l'objet d'une évaluation en matière d'éthique de la recherche avec des êtres humains et qu'il satisfait aux exigences de notre politique en cette matière.

Projet # : 2023-5397

Titre du projet de recherche : Fonctionnalités interactives sur un site web de nouvelles

Chercheur principal : Sylvain Sénécal Professeur titulaire, Marketing, HEC Montréal

Cochercheurs : Sylvain Sénécal; Salima Tazi; Xavier Côté; Pierre-Majorique Léger; Marine Farge; Brendan Scully; Frédérique Bouvier; Luis Carlos Castiblanco; Alexander John Karran; Jared Boasen; Constantinos K. Coursaris

Date d'approbation du projet : 16 mars 2023
Date d'entrée en vigueur du certificat : 01 mars 2024
Date d'échéance du certificat : 01 mars 2025

Maurice Lemelin
Président
CER de HEC Montréal

Signé le 2024-03-01 à 15:04

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Formulaire de recrutement

Expérience utilisateur d'une plateforme d'écoute audio en ligne

Nous vous invitons à répondre à ce questionnaire pour un projet de recherche en laboratoire portant sur une plateforme d'écoute audio en ligne. Si vous répondez aux critères de l'étude, vous pourrez réserver un créneau horaire pour votre visite au Tech3Lab de HEC Montréal (vous serez automatiquement redirigé à la fin du questionnaire).

L'étude est d'une durée de **1h00** et vous recevrez une compensation de **20$ (virement Interac)** dans les 10 à 15 jours ouvrables suivant l'étude. L'étude aura lieu au Tech3lab situé au **5540 av. Louis-Colin, Montréal, QC H3T 1T7**.

Nous allons collecter des données oculométriques lorsque que vous participerez à cette étude. L'oculomètre utilise une caméra à lumière infrarouge pour calculer la direction de votre regard à l'écran. De plus, nous allons collecter des données physiologiques. Pour ce faire, nous vous demanderons de placer des petits senseurs adhésifs et jetables jetables sur la paume de votre main et sur votre torse. Un ordinateur enregistrera les données transmises par ces senseurs. Aucun des senseurs utilisés ne contient du latex. Nous mesurerons vos émotions faciales grâce à webcam qui évalue vos réactions émotionnelles. Cette technologie ne comporte aucun risque.
Finalement, des questionnaires vous seront présentés, et une courte entrevue avec un modérateur conclura l'étude.
Cette étude sera filmée et l'audio sera enregistré.

Ce projet est réalisé sous la supervision du professeur Pierre-Majorique Léger que vous pouvez rejoindre par téléphone au 514 340-6890 ou par courriel à pierre-majorique.leger@hec.ca.

Les critères de participation à cette étude sont les suivants :
- Je comprends le français, à l'oral et à l'écrit;
- Je n'ai pas de paralysie faciale (partielle ou complète);
- Je peux travailler à l'ordinateur sans lunette de correction pour la vue (les verres de contact sont acceptés);
- Je n'ai pas d'allergies cutanées ni de sensibilité particulière;
- Je n'ai pas de stimulateur cardiaque;
- Je ne souffre pas d'épilepsie.

Est-ce que vous correspondez à tous ces critères?

○ Oui, je corresponds à tous ces critères.

○ Non, je ne corresponds pas à un ou plusieurs de ces critères.

Quelles plateformes d'écoute en ligne avez-vous utilisé dans **les 12 derniers mois ?**

☐ Spotify

☐ Google Podcasts/Music

☐ Apple Balado/Music

☐ Youtube

☐ Radio-Canada OHdio

☐ iHeartRadio

☐ TuneIn

☐ Qub

☐ Autre

[   ]

Quelle est votre opinion à propos de Spotify ?

○ Plutôt bonne

○ Très mauvaise

○ Ne connaît pas

○ Très bonne

○ Neutre

○ Plutôt mauvaise

Quelle est votre opinion à propos de Radio-Canada/OHdio ?

○ Très mauvaise

○ Plutôt mauvaise

○ Neutre

○ Plutôt bonne

○ Très bonne

○ Ne connaît pas

Quelle est votre opinion à propos de iHeartRadio ?

○ Très mauvaise

○ Plutôt mauvaise

○ Neutre

○ Plutôt bonne

○ Très bonne

○ Ne connaît pas

Quelle est votre opinion à propos de TuneIn ?

○ Très mauvaise

○ Plutôt mauvaise

○ Neutre

○ Plutôt bonne

○ Très bonne

○ Ne connaît pas

Quelle est votre opinion à propos de Google Podcasts/Music ?

○ Neutre

○ Très mauvaise

○ Très bonne

○ Plutôt bonne

○ Ne connaît pas

○ Plutôt mauvaise

Quelle est votre opinion à propos de Apple Balado/Music ?

○ Très mauvaise

○ Plutôt mauvaise

○ Neutre

○ Plutôt bonne

○ Très bonne

○ Ne connaît pas

Quelle est votre opinion à propos de Youtube ?

○ Très mauvaise

○ Plutôt mauvaise

○ Neutre

○ Plutôt bonne

○ Très bonne

○ Ne connaît pas

Quelle est votre opinion à propos de Qub ?

○ Très mauvaise

○ Plutôt mauvaise

○ Neutre

○ Plutôt bonne

○ Très bonne

○ Ne connaît pas

Nom de famille

Your answer

Prénom

Your answer

Numéro de téléphone

Your answer

Adresse courriel

Your answer

Quel âge avez-vous?

○ 18-24 ans

○ 25-34 ans

○ 35-45 ans

○ 46 ans et plus

Lorsque vous choisissez votre créneau horaire, veuillez en sélectionner un qui n'est pas le jour même de votre inscription à l'étude.

Lors de votre choix de plage horaire, veuillez sélectionner le timezone (UTC-4:00) America/Toronto. Cela vous permettra de voir les bons créneaux horaires. Si vous avez des questions ou des difficultés à vous inscrire, n'hésitez pas à nous envoyer un courriel au panel.admin@hec.ca.

Soumettre

Questionnaire avant étude

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Bienvenue et merci de participer à notre étude !

Avant de commencer, merci de répondre aux questions suivantes.

→

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Indiquez le numéro de participant qui vous est communiqué par le modérateur / la modératrice.
Exemple: P02

←   →

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Mon genre

○ Homme

○ Femme

○ Non binaire

←   →

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Mon âge

[⌄]

←   →

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Quelles **plateformes d'écoute en ligne** avez-vous utilisé dans les 12 derniers mois ?

- ☐ Spotify
- ☐ Google Podcasts/Music
- ☐ Apple Balado/Music
- ☐ Youtube
- ☐ iHeartRadio
- ☐ TuneIn
- ☐ Qub
- ☐ Autre:

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À quelle fréquence **écoutez-vous des podcasts sur des plateformes d'écoute en ligne ?**

- ○ Souvent (1 ou plusieurs fois par jour)
- ○ Régulièrement (quelques fois par semaine)
- ○ Occasionnellement (quelques fois par mois)
- ○ Rarement (quelques fois par an)
- ○ Jamais

← →

Quels **produits Radio Canada** avez-vous utilisé dans les 12 derniers mois ?

☐ ICI TOU.TV (app et web)

☐ Radio-Canada INFO (app et web)

☐ Mordu (web seulement)

☐ RAD (web seulement)

☐ Aucun de ces produits

← →

Questionnaire post-tâches

Déplacez le curseur afin de représenter votre niveau de **plaisir** ressenti pendant la tâche. Plus le curseur est placé vers la droite, plus le plaisir ressenti est grand.

← →

Déplacez le curseur afin de représenter votre niveau **d'activation** ressenti pendant la tâche. L'activation concerne l'intensité de l'émotion : calme versus excité. Plus le curseur est placé vers la droite, plus le niveau d'activation est élevé.

Indiquez votre niveau de satisfaction suite à **votre visite de la plateforme OHdio.** Merci de donner une réponse allant de 1 à 5 *(1 = très insatisfait et 5 = très satisfait).*

1	2	3	4	5
○	○	○	○	○

Déplacez le curseur afin de représenter votre niveau **d'activation** ressenti pendant la tâche. L'activation concerne l'intensité de l'émotion : calme versus excité. Plus le curseur est placé vers la droite, plus le niveau d'activation est élevé.

←   →

Déplacez le curseur afin de représenter votre niveau de **plaisir** ressenti pendant la tâche. Plus le curseur est placé vers la droite, plus le plaisir ressenti est grand.

←   →

Veuillez indiquer comment vous vous sentez suite à l'accomplissement de cette tâche *(1 = très peu ou pas du tout, 2 = un peu, 3 = modérément, 4 = assez, 5 = extrêmement).*

	1	2	3	4	5
Inspiré(e)	○	○	○	○	○
Alerte	○	○	○	○	○
Excité(e)	○	○	○	○	○
Enthousiaste	○	○	○	○	○
Déterminé(e)	○	○	○	○	○

← →

Veuillez indiquer comment vous vous sentez suite à l'accomplissement de cette tâche *(1 = très peu ou pas du tout, 2 = un peu, 3 = modérément, 4 = assez, 5 = extrêmement).*

	1	2	3	4	5
Effrayé(e)	○	○	○	○	○
Fâché(e)	○	○	○	○	○
Nerveux(se)	○	○	○	○	○
Apeuré(e)	○	○	○	○	○
En détresse	○	○	○	○	○

← →

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Sur une échelle allant de 1 à 5 *(1 = pas du tout et 5 = tout à fait)*, veuillez indiquer comment vous vous sentez suite à l'accomplissement de cette tâche.

	1	2	3	4	5
J'étais libre de choisir.	◯	◯	◯	◯	◯
J'avais l'autonomie de choisir ce que je voulais.	◯	◯	◯	◯	◯
J'étais maître de mes décisions.	◯	◯	◯	◯	◯

← →

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Quel **niveau d'effort** avez-vous dû déployer pour **créer un compte** ? *Merci de donner une réponse allant de 1 à 5 (1 = très faible effort ; 5 = très grand effort).*

1	2	3	4	5
◯	◯	◯	◯	◯

← →

Sur une échelle allant de 1 à 5 *(1 = tout à fait en désaccord et 5 = tout à fait en accord)*, veuillez indiquer comment vous vous sentez par rapport à la **création d'un compte sur OHdio.**

	1	2	3	4	5
Si je crée un compte, je pourrai accéder à des fonctionnalités supplémentaires du site web.	○	○	○	○	○
Si je crée un compte, je pourrai vivre une expérience plus personnalisée sur le site web.	○	○	○	○	○

← →

Sur une échelle allant de 1 à 5 *(1 = Tout à fait en désaccord et 5 = tout à fait en accord)*, veuillez indiquer comment vous vous sentez par rapport à la **création d'un compte sur OHdio.**

	1	2	3	4	5
Je suis réticent(e) à créer un compte en ligne car je suis préoccupé(e) par la sécurité de mes informations personnelles.	○	○	○	○	○
J'ai des réserves quant à l'utilisation de mes données d'utilisation sur ce site.	○	○	○	○	○

← →

Si vous aviez vécu cette expérience sur le site d'OHdio dans votre vie de tous les jours (i.e., pas dans le cadre de cette étude), à quel point auriez-vous **l'intention de vous créer un compte OHdio?** Merci de donner une réponse allant de 1 à 10 *(1 = très peu probable; 10 = très probable)*

1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○

← →

Onboarding dynamique

Onboarding descriptif


Sans onboarding
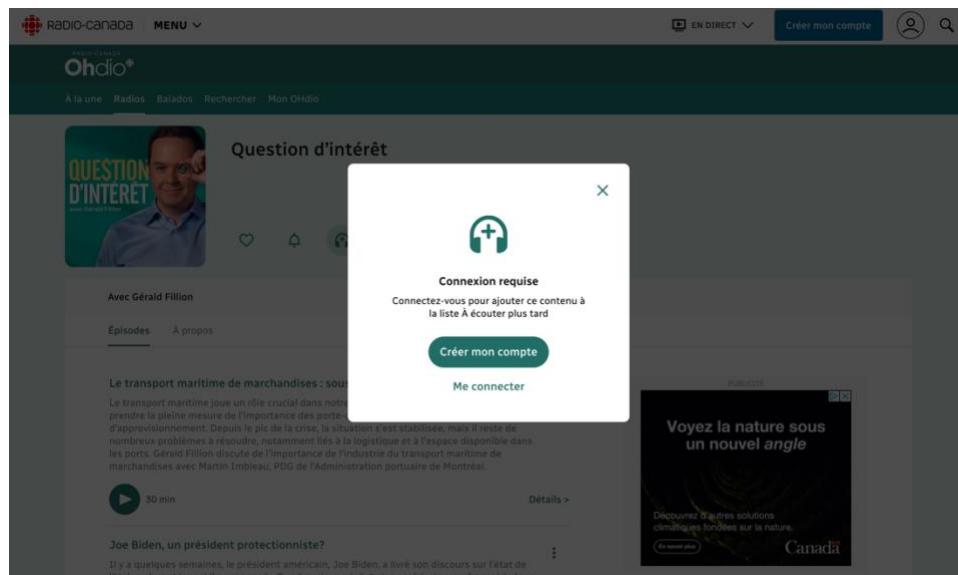
Contenu personnalisé

**Contenu induisant la curiosité**

185
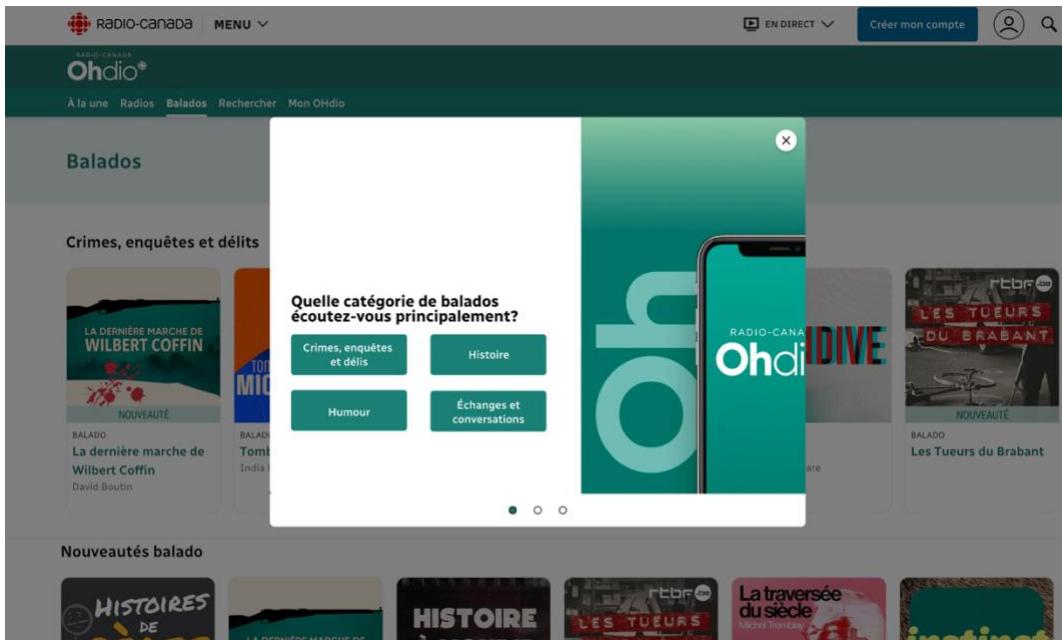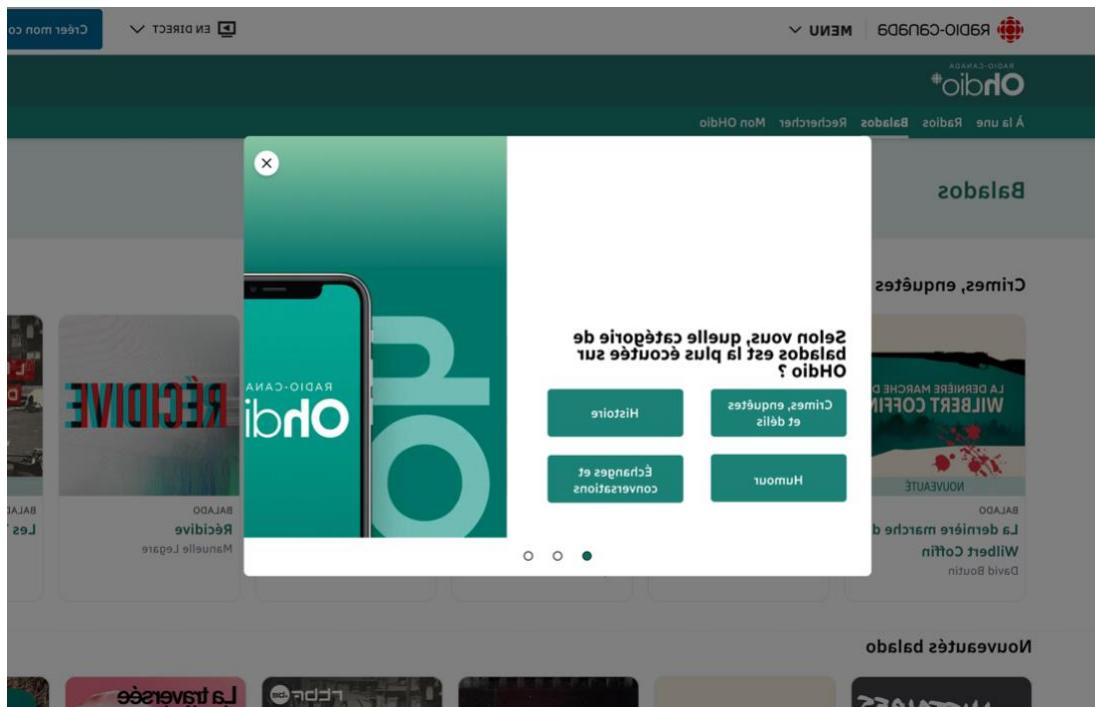
Contenu personnalisé et induisant la curiosité

Contenu descriptif