

Online In-Game and In-App Purchases: Consumer Issues

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7000 Parc avenue, suite 201
Montreal (Quebec) H2N 1X1

Phone : 514 521-6820
Toll Free : 1 888 521-6820
Fax : 514 521-0736

info@uniondesconsommateurs.ca
www.uniondesconsommateurs.ca

Members of Union des consommateurs

ACEF Appalaches – Beauce – Etchemins
ACEF de l'Est de Montréal
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Centre d'éducation financière EBO
ACQC
and individual consumers

Writing of the report

- Union des consommateurs

Research

- Me Yannick Labelle

Editorial management

- Me Marcel Boucher

Translation

- Moderna Reg'd – Mark Manning

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The masculine is used generically in this report.

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Union des consommateurs, *Strength through Networking*

Union des consommateurs (UC) is a non-profit organization comprised of several ACEFs (*Associations coopératives d'économie familiale*), the *Association des consommateurs pour la qualité dans la construction* (ACQC), and individual members.

UC's mission is to represent and defend the rights of consumers, with special emphasis on the interests of low-income households. Its activities are based on values cherished by its members: solidarity, equity and social justice, and improving consumers' economic, social, political and environmental living conditions.

UC's structure enables it to maintain a broad vision of consumer issues while developing in-depth expertise in certain programming sectors, particularly via its research efforts on the emerging issues confronting consumers. Its activities, which are nation-wide in scope, are enriched and legitimated by its field work and the deep roots of its member associations in the community.

UC acts mainly at the national level, by representing the interests of consumers before political, regulatory or legal authorities or in public forums. Its priority issues, in terms of research, action and advocacy, include the following: household finances and money management, energy, issues related to telephone services, radio broadcasting, cable television and the Internet, public health, food and biotechnologies, financial products and services, business practices, and social and fiscal policies.

Introduction

Contrary to what some people may think freemium is not a form of socialism. Freemium is a business model, employed with the main objective of making money.
– Freemium.org¹

The International Data Corporation, in collaboration with App Annie, the company specializing in data analytics of the online game and application market, published in 2016 *Gaming Spotlight, 2015 Review*, a report on the gaming market². The study reveals that in 2015, 40% of consumer expenditures on games were made on a mobile platform rather than on consoles or computers – a trend that appeared in 2014 and grew in 2015. The popularity of games on a mobile platform is explained by consumers' increased access to coveted smartphones and tablets. According to the firm Catalyst, 68% of Canadians had a smartphone in 2015, compared to only 55% in 2014³. 9.3 million Canadians owned a tablet in 2014, an increase of 56% compared to June 2013⁴.

Among the activities practiced by consumers on their smartphones and tablets, we find the use of applications (commonly called apps) of various categories, including many games. Whether for education, entertainment, communication, or to navigate or to obtain weather or travel information, consumers download numerous applications on their smartphone or tablet. Again according to the firm Catalyst, Canadian smartphone users reported in 2015 an average of 19 applications installed on their phone⁵. Some mobile applications can be downloaded free of charge, whereas others are sold. Some are offered both in a free version with limited features and in a more complete (premium) version that must be purchased.

Among today's most prized business models⁶ is the freemium model, which consists of offering an application for free and integrating in it features or bonuses the user must purchase while using the application⁷. Those in-app purchases thus generate revenues from an application that was initially free. For example, while using the application, the user can choose to upgrade to its premium version. We also find integrations of various types of in-app purchases in many applications: in games intended for adults as well as children, but also in almost every imaginable type of applications – regarding weather, media, health, exercise, etc. And the

¹ **FREEMIUM.ORG**, *Freemium 101 - A brief introduction to the freemium business model*. [Online] <http://www.freemium.org/wp-content/ebook-101.pdf> (document consulted on April 12, 2016).

² **IDC & APPANNIE**, *Gaming Spotlight, 2015 Review*, March 2016. [Online] <https://s3.amazonaws.com/files.appannie.com/reports/App-Annie-IDC-Gaming-Spotlight-Full-Year-2015-EN.pdf?aliid=80187938> (document consulted on April 10, 2016).

³ **CATALYST**, *2015 Canadian Mobile Study*, 2015. [Online] <http://catalyst.ca/2015-canadian-smartphone-market/> (page consulted on April 10, 2016).

⁴ **COMSCORE**, *Canada Digital Future in Focus 2015*, p. 26.

⁵ *Ibid.*

⁶ **LE GAL, Jordan**. *Les différents business model des applications*, blog jordannlegal.com, unknown location, July 9, 2014. [Online] <http://jordannlegal.com/les-differents-business-model-applications/> (page consulted on September 21, 2015).

STATISTA, *Total worldwide in-app purchase revenues from 2011 to 2017 (in million U.S. dollars)*. [Online] <http://www.statista.com/statistics/220186/total-global-in-app-revenue-forecast/> (page consulted on April 5, 2016).

⁷ Some applications sold to consumers also include in-app purchases (*paymium* model). Our study does not focus on that particular model.

possible types of purchases are as varied as the types of applications within which they are offered: for example, in offering additional or more-complete publications, or access to the paid version of an online newspaper or magazine, or the possibility of making progress in a game more rapidly or easily, in-app purchases have become a way for app developers to monetize and to increase their revenues more effectively than other business models, such as the use of advertising.

The firm Statista reported that in-app purchases generated revenues of US\$2.11 billion worldwide in 2012, and that this amount would likely rise to US\$14 billion by 2015⁸. The firm estimates that worldwide revenues from in-app purchases should exceed US\$36 billion in 2017⁹.

The business model of offering a free app that presents the possibility of making in-app purchases is based on the fact that the free downloading of apps enables consumers to try out a game or application and acquire a taste for it, and to then be induced to spend on such things as fictional currencies, additional content or bonuses, in order to “improve their experience.” For example: the *Smurfs’ Village* application (Beeline Interactive Inc.), a game intended for 6- to 12-year-olds and available at iTunes and Google Play, can be downloaded for free. But while playing, the user receives offers to purchase various things, at a unit price ranging from \$0.99 to \$110.86¹⁰. To accelerate the game, the player can, for instance, purchase “smurfberries” – essentially a virtual currency in amounts of \$1.99 to \$99.99 (depending on the container’s size: bucket, barrel, wheelbarrow, wagon). Those offers, particularly if made to children who are not really aware that the purchases are made with real money, can be attractive as well as expensive.

Not everything is going smoothly for consumers in the universe of in-app purchases. Consumers can face multiple problems, given the convergence of platforms, devices and services in the communications sector, and more specifically in the mobile application market. But one problem mentioned recurrently is that of hefty bills received for in-app purchases made by children. Consumers realize, sometimes at great expense, that games and applications presented as “free” can still entail substantial costs.

⁸ **STATISTA**, *Total worldwide in-app purchase revenues from 2011 to 2017 (in million U.S. dollars)*, [Online] <http://www.statista.com/statistics/220186/total-global-in-app-revenue-forecast/> (page consulted on April 5, 2016).

⁹ *Ibid.*

¹⁰ **iTunes**, *Smurfs’ Village*. [Online] <https://itunes.apple.com/ca/app/le-village-des-schtroumpfs/id399648212?l> (page consulted on April 5, 2016).

An overview of the media coverage of in-app purchases that have provoked “bill shock” since 2010 reveals many such cases¹¹. This is far from an issue unique to Canada. In Europe, Australia and the United States, class actions, government measures and monitoring activities by regulatory bodies have been undertaken to better protect consumers regarding in-app purchases.

Given app developers' increased use of this business model, and given that app stores such as Apple iTunes invite developers to use this model in order to increase the revenues of the industry's various actors, our research focuses on the consumer issues raised by purchases integrated in free applications and games.

We will attempt to answer the following questions: What are the problems reported by consumers? From the consumer's viewpoint, how does the in-app purchase mechanism (downloading, authorization, notices, collection of fees, etc.) operate? Are the notices for initiating a transaction clear and valuable? How are responsibilities shared between a game's provider, its designer and the one who will pay for the transaction? What are the specific problems posed by in-app purchases made by a minor? Do consumer protection laws regulate this new phenomenon well?

Our research thus studies the operation of in-app and in-game purchases intended for children as well as adults, in order to identify the consumer issues raised by this business model and to identify possible solutions to the problems observed in the course of our study.

To that end, we will examine, through a review of the literature, the phenomenon of in-app purchases and their operation, as well as this model's attraction for consumers as well as industry actors. We will also analyse the various marketing techniques used for promoting and selling in-app purchases.

We will also present the results of a field survey that has enabled us to analyse a series of applications involving in-app purchases. Then we will study the phenomenon of in-app purchases in the light of consumer protection laws in effect in two Canadian provinces, Quebec and Ontario. We will only briefly discuss competition issues. Rather, our research focuses on measures likely to better protect consumers against problems identified in our study of the operation of in-app purchases.

¹¹ **GRAMMOND, S.** *App Store: Une facture de 520 \$ avec un jeu pour enfants «gratuit»*, La Presse, February 19, 2011. [Online] <http://affaires.lapresse.ca/finances-personnelles/bons-comptes/201102/18/01-4371866-appstore-une-facture-de-520-avec-un-jeu-pour-enfants-gratuit.php> (page consulted on November 14, 2015);

DUSSAULT, S., *Son ado achète pour 630\$ de «cossins» sans carte de crédit*, Journal de Montréal, October 12, 2013. [Online] <http://www.journaldemontreal.com/2012/10/23/son-ado-achete-pour-630-de-cossins--sans-carte-de-credit> (page consulted on September 15, 2015);

CBC, *In-app purchasing and \$3,000 iTunes bill stun mom*, July 23, 2013;

CTV, *Google agrees to refund \$19M over in-app purchases made by kids*, September 4, 2014;

CANOE, *Cinq conseils pour contrer les factures salées pour les applis*, February 25, 2014;

LE ROUX, Rémi. *Applications gratuites, factures astronomiques!* Éditions Protégez-vous, Montreal, Quebec, Canada, April 15, 2013;

LA VOIX DE L'EST, *Des achats intégrés dans les jeux pour enfants décriés*, October 18, 2015. [Online] <http://www.lapresse.ca/la-voix-de-lest/affaires/201510/18/01-4911202-des-achats-integres-dans-les-jeux-pour-enfants-decries.php> page consulted on January 12, 2016);

CBC NEWS, *Pembroke parent gets 8k Xbox Bill after son racks up charges*, January 12, 2016. [Online] <http://www.cbc.ca/news/canada/ottawa/pembroke-xbox-bill-8000-1.3397534> (page consulted on January 12, 2016).

Lastly, we will report the data collected during a consultation of government consumer protection agencies (GCPAs), the Competition Bureau and various industry actors. This consultation aimed at verifying whether consumer complaints have been received about in-app purchases and to learn the position of those actors regarding the sale and promotion of in-app purchases.

1. The Universe of Applications

1.1 The Economics of Applications

According to the firm Statista, the two app stores that hold the largest market shares – Google Play and iTunes – made available for user downloading, as of July 2015, 1.6 million and 1.5 million applications, respectively¹². In 2016, Google Play stated that it had 2 million applications available¹³. Given the large number of applications offered, there is undoubtedly strong consumer demand and sustained marketing of new applications by developers. As observed in a 2012 report by the Information and Communication Technology Council, online apps already had great economic potential in 2012, in terms of employment as well as creativity and revenues¹⁴.

Whether as added consumer entertainment, or tools making daily life easier, or smartphone access to services, applications are constantly downloaded, flying off the shelves like hotcakes. Some applications make life easier, for example by making it possible to set an itinerary and thus travel more easily and efficiently. They can also give us moments of pleasure, for instance by enabling us to make a video call to a loved one who lives on another continent. Catalyst indicates that on average, Canadians have 19 mobile applications on their smartphone and download 2.67 apps per month¹⁵.

So what apps do Canadians use most? The latest data compiled by the firm Statista for 2015 reveal that Canadians are more and more interested in health and sports applications¹⁶. But users spend 39% of their mobile device time on messaging applications¹⁷. The firm also reports that they spend 19% of their time on games¹⁸. According to the most recent data, Statista forecasts that by 2019, 5.2 million more Canadians will be playing games on their mobile devices¹⁹.

In a report published in 2013, The Organisation for Economic Co-operation and Development (OECD) attributed the boom in mobile apps to the following factors:

- More mobile website platforms and inducements to use them;
- The availability of more affordable smartphones;
- The availability of affordable high-speed Internet connections;
- More subscribers with a data and voice package;

¹² **STATISTA**, *Number of apps available in leading app stores as of July 2015*. [Online] <http://www.statista.com/statistics/276623/number-of-apps-available-in-leading-app-stores/> (page consulted on April 13, 2016).

¹³ *Ibid.*

¹⁴ **POIRIER, François and Mireille LEHOUX**, *Étude sur les besoins de compétences dans le développement d'applications mobiles*, TECHNOCCompétences, le Comité sectoriel de main-d'œuvre en technologies de l'information et des communications, Montreal, Quebec, Canada, October 2013, 60 pages. [Online] http://www.ictc-ctic.ca/wp-content/uploads/2012/10/ICTC_AppsEconomy_Oct_2012.pdf (document consulted on October 26, 2015).

¹⁵ *Op. cit.*, note 3, **CATALYST**.

¹⁶ **STATISTA**, *Mobile app usage growth in Canada as of March 2015, by category*, 2015. [Online] <http://www.statista.com/statistics/445590/growth-mobile-app-usage-canada/> (page consulted on April 12, 2016).

¹⁷ *Ibid.*

¹⁸ *Ibid.*

¹⁹ *Ibid.*

- More smartphone data storage capacity; and
- Cloud computing, notably Apple iCloud²⁰.

The popularity of mobile apps among consumers, and the desire of industry actors to use apps as the best way to raise their revenues, make it necessary to understand the economics underpinning the apps.

a) A Few Definitions

The economics of applications is peculiar in terms of their supply chain's complexity. A consumer who acquires an app and then makes in-app purchases interacts with several actors (developers, advertisers, platform, app store, payment method manager, etc.). To avoid confusion, it is important to examine a few concepts and know the role played by each actor in this ecosystem.

App

This is the abbreviation obtained by back clipping the word “application.” An app is software that can be executed on the operating system of a computer or mobile device.

Mobile application

A mobile application is an app designed to be installed and used on a mobile device, whether a tablet or a smartphone, and is generally distributed by app stores. However, mobile apps can also be downloaded on other devices, such as desktop or notebook computers.

Operating system (or platform)

An operating system is the software that manages the operation of a computer or mobile device and of the applications installed therein.

For computers, the operating system is Windows, Mac OS or Linux, and for mobile devices it is Apple iOS, Android, BlackBerry or Windows. Whereas Apple reserves the use of its operating system for its own devices (computers, iPhones, iPads and computers), other designers allow their operating system to be used on the devices of other manufacturers (excluding Apple).

App store

The main activity of app stores is to distribute apps. Application developers make their products available to consumers there.

App stores make apps available, free of charge or at a price, to users who have devices with specific operating systems. At iTunes we find apps exclusively for iPhone and iPad, and at Google Play and Amazon we find apps for smartphones and tablets that use the Android or another operating system.

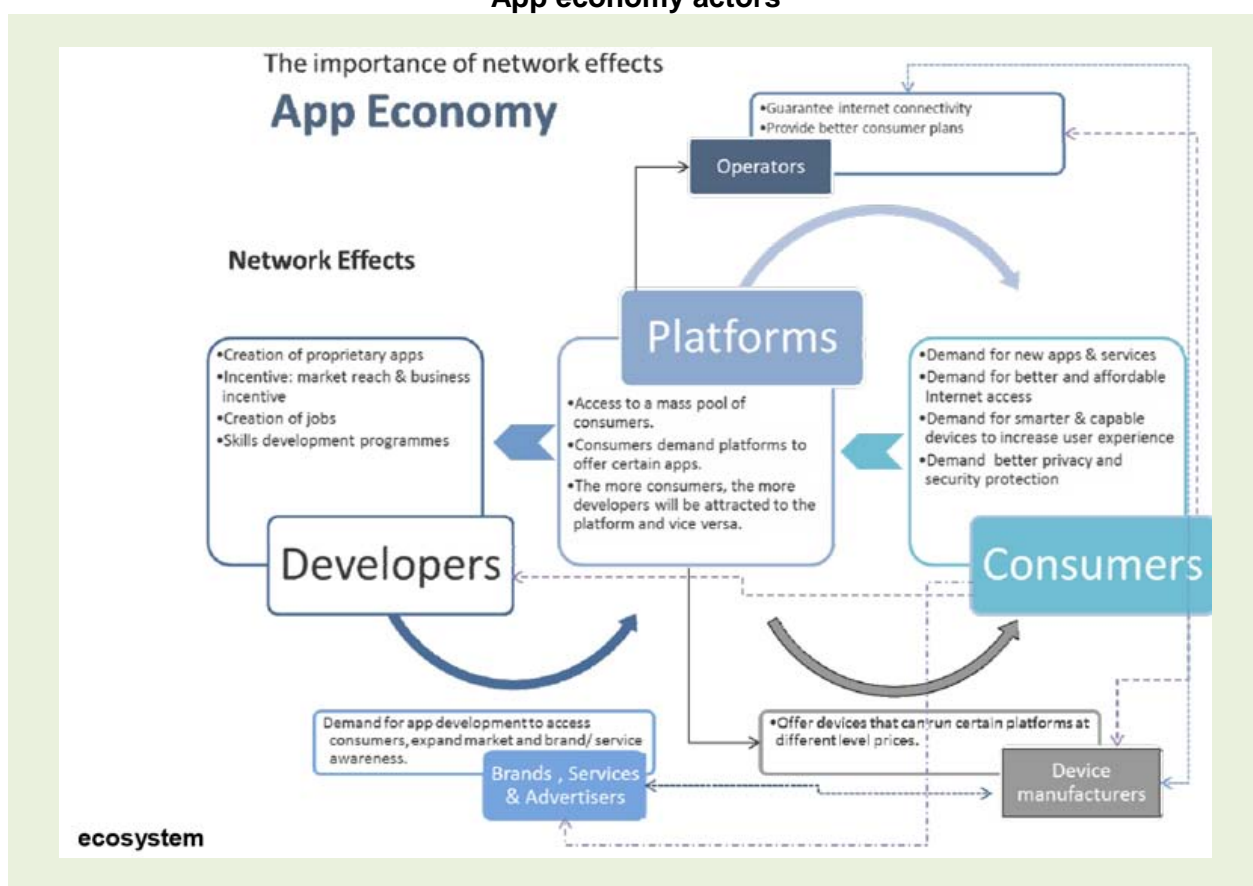
²⁰ **ORGANISATION FOR EUROPEAN ECONOMIC CO-OPERATION** (OECD), *The App Economy*, December 2013, Paris, on pp. 11 and 12. [Online] <http://dx.doi.org/10.1787/5k3ttftlv95k-en> (document consulted on September 9, 2015).

b) The various actors in the mobile app market

The game and app supply chain is more complex than it seems. This complexity can entail a series of problems for consumers. For example, the fact that a consumer must give personal information to numerous merchants can raise important questions about the security of that information. A consumer may also have difficulty knowing whom he can turn to if a problem arises during the acquisition or use of an app or during an in-app purchase transaction.

To various degrees, the following would be involved in resolving such a problem: mobile device manufacturer, operating system designer, app developer, app store, advertisers, Internet access provider, and payment system manager.

Diagram 1
App economy actors



Source: OECD, The App Economy, December 2013.

To better understand the various stakeholders' respective obligations and to evaluate the effectiveness of applicable consumer protection laws, we must first understand the role of each player in the app universe.

Operating system (or platform²¹)

As mentioned above, the operating system is the software that manages the operation of a computer or mobile device and of applications.

The operating system determines the type of applications that can be used on a given mobile device and, frequently, the app store where compatible apps can be obtained.

For mobile devices, Android had in 2014 the largest market share in Canada, i.e. 50.5%, followed by Apple at 38.3 %²². Today, with 84.7% of worldwide market shares worldwide, Android is the undisputed leader in mobile operating systems, far ahead of Apple with its 12.5% of market shares²³.

The platforms' revenues derive mainly from the sale of the operating system itself for installation on various devices (personal computers and mobile devices) and from the device manufacturers' rights to use the operating system²⁴.

Demand for a given platform will of course be commensurate with the number of software packages, apps or games available for use on that platform.

App developers

App developers are designers who support the universe of applications by developing software that can operate on one or more operating systems. Among the factors taken into account by a developer when designing his application, we find: the market share of the platform for which his design is intended, his target audience, and the revenue potential²⁵.

Developers have various means for making their applications profitable, such as: the application's "sale," the sale of in-app extras, in-app advertising, and the resale of data collected by the applications.

App store

App stores are managed by various types of operators. We thus find app stores related to: (i) a computer's operating system (e.g. the Windows Store for PCs or the Apple App Store for Macs); (ii) a mobile platform (such as Google Play for mobile devices operating under Android, or iTunes for iPad and iPhone, or the Windows Store for Windows phones, or BlackBerry World for BlackBerry phones); (iii) browsers (e.g. Firefox Marketplace or the Chrome Web Store); (iv) a

²¹ There is some confusion with the word "platform." Whereas in the data processing field, it mainly means the operating system, or more precisely the "Specific set of hardware and software resources" (Antidote) or the "Material structure of a computer system, mainly based on the type of operating system used" (Office québécois de la langue française), it is also commonly used for designating the websites making apps or games available to consumers (we often hear mentions of downloading, application *platforms* or payment *platforms*). Adding to the possible confusion is the term "platform game" to designate a certain type of game (in reference to the platforms on which avatars are blown up in some types of games), etc.

²² *Op. cit.*, note 4, **COMSCORE**, p. 22.

²³ **GIRAUD, F.**, *OS mobiles: Android détient près de 85% des parts de marché dans le monde*, November 19, 2015. [Online] <http://www.zone-numerique.com/os-mobiles-android-detient-pres-de-85-des-parts-de-marche-dans-le-monde.html> (page consulted on March 13, 2016);

MILANESI, Carolina. *Ventes de smartphones en janvier : Huawei booste Android*, Kantar World Panel, Kantar Europe Insights, London, United Kingdom, March 9, 2016. [Online] <http://fr.kantar.com/tech/mobiles/2016/ventes-de-smartphones-en-janvier-2016-huawei-booste-android/> (page consulted on April 5, 2016).

²⁴ *Op. cit.*, note 20, **OECD**, p. 20.

²⁵ *Op. cit.*, note 20, **OECD**, p. 22.

television platform (e.g. Samsung Apps for Samsung smart televisions); (iv) certain types of social media (e.g. Facebook, within which certain apps can be run, notably the Candy Crush game), v) device manufacturers (the Samsung App, for example). There are also app stores said to be independent, Steam being the most. Except for Apple and BlackBerry, app stores are not exclusive. For example, Amazon devices, which use the Android platform, offer the Amazon App by default, but users can access the other app stores to download apps or games.

The ultimate goal of each app store is to increase its market share by attracting the largest number of consumers, app developers and device designers.

App store revenues come from a variety of sources, notably fees charged to app developers to make their products available in app stores²⁶, as well fees charged on the sale of apps and in-app purchases. The standard percentage charged by the industry is 30% of the sale price²⁷.

According to the OECD, app stores are important both to app developers, by offering a promotional tool and a capacity to generate revenues²⁸, and to consumers. The latter benefit from the fact that app stores have established bidding processes to guarantee the quality of apps made available, and that they enable a certain flexibility in pricing mechanisms²⁹. App stores submit apps to a rigorous evaluation before making them available to consumers. Apple's bidding process is revealing³⁰. Apple states a long list of problems in apps or their presentation that would lead them to be rejected, as well as types of apps that would be rejected.

Here are a few examples:

2.3 Apps that do not perform as advertised by the developer will be rejected [...]

2.12 Apps that are not very useful, unique, are simply web sites bundled as Apps, or do not provide any lasting entertainment value may be rejected [...]

2.14 Apps that are intended to provide trick or fake functionality that are not clearly marked as such will be rejected [...]

3.10 Developers who attempt to manipulate or cheat the user reviews or chart ranking in the App Store with fake or paid reviews, or any other inappropriate methods will be removed from the Developer Program [...]

3.15 Apps with previews that display personal information of a real person without permission will be rejected [...]

5.5 Apps that use Push Notifications to send unsolicited messages, or for the purpose of phishing or spamming will be rejected [...]

11.2 Apps utilizing a system other than the In-App Purchase (IAP) to purchase content, functionality, or services in an App will be rejected

²⁶ The Apple app store charges \$99 annually, whereas Google Play charges a one-time fee of \$25. **MACKENZIE, Tim.** *Apps store fees, percentages, and Payouts: What developers need to know*, TechRepublic, in Software Engineer, CBS interactive, New York, NY, United States, May 7, 2012. [Online]; <http://www.techrepublic.com/blog/software-engineer/app-store-fees-percentages-and-payouts-what-developers-need-to-know/> (page consulted on 2015).

²⁷ On its website, Google notifies developers that "transaction fees" of 30% are charged, and that a developer will thus receive 70% of the payment. [Online] <https://support.google.com/googleplay/android-developer/answer/112622?hl=en> (document consulted on May 1, 2016).

See also: **APPLE**, *App Store Review Guidelines- section 11*, April 29, 2016. Subsection 11.12. [Online] <https://developer.apple.com/app-store/review/guidelines/#purchasing-currencies> (document consulted on May 1, 2016).

²⁸ *Ibid.*

²⁹ *Op. cit.*, note 20, **OECD**, p.19.

³⁰ *Op. cit.*, note 27, **APPLE**, section 11, April 29, 2016.

11.3 Apps using IAP to purchase physical goods or goods and services used outside of the App will be rejected

11.4 Apps that use IAP to purchase credits or other currencies must consume those credits within the App

11.5 Apps that use IAP to purchase credits or other currencies that expire will be rejected

[...]

11.12 Apps offering subscriptions must do so using IAP, Apple will share the same 70/30 revenue split with developers for these purchases, as set forth in the Program License Agreement [...]

24. Kids Category

24.1 Apps in the Kids Category must include a privacy policy and must comply with applicable children's privacy statutes

24.2 Apps in the Kids Category may not include behavioral advertising (e.g. the advertiser may not serve ads based on the user's activity within the App), and any contextual ads presented in the App must be appropriate for kids

24.3 Apps in the Kids Category must get parental permission or use a parental gate before allowing the user to link out of the app or engage in commerce

24.5 Apps in the Kids Category must be made specifically for kids ages 5 and under, ages 6-8, or ages 9-11³¹.

To protect the value of its devices, Apple reserves the right to review the types and quality of applications that will be presented in its stores. Apple ensures that consumers will have access to digital products that are as presented by the developer and vouched for by Apple, that serve the purpose for which they are intended, and that perform their stated functions, while promoting the value of Apple devices and platforms. Apple thus protects itself against potential consumer complaints about the apps, since such dissatisfaction would be likely to reflect on the company.

In addition to their role as collectors, app stores guarantee the apps' quality through their control over the apps offered in their store.

Device designers

Device designers play a vertical role at times in the universe of in-app purchases. At times they design both the operating systems and the devices of which they guarantee the operation. This is notably the case for Apple and Samsung. This vertical integration provides those device designers with revenues from a variety of sources. Moreover, Apple benefits from an additional source of revenue, by also owning the app store servicing its mobile apps.

Advertisers

The large number of app users is manna for advertisers who want to promote goods and services; integrating ads in apps guarantees a large target audience. In addition, user information in apps that can collect it is highly coveted, since advertisers can use it to refine their market strategies.

³¹ *Ibid.*

Payment method managers

As we will see, when a consumer purchases an app in an app store or makes in-app purchases, he can use various payment methods, such as payment cards (credit, debit or prepaid), “carrier billing” (billing by the mobile service provider), gift cards and PayPal.

In certain circumstances, a consumer experiencing a problem can thus try to resolve it with the manager of the third-party payment method, i.e. the credit or debit card issuer, or PayPal, which are actors distinct from app developers or app stores.

Internet service providers

To download apps, consumers must have access to an Internet network. Most apps require a stable Internet connection for downloading and often for using them. That Internet connection can be mobile or residential. Internet service providers, which ensure that connection, thus play an essential role in the app ecosystem.

The Consumer

An actor at the centre of our research, the consumer is the end users of apps, which are created by developers for his use on a given operating system, are made available to him on app stores, are downloaded, used online and purchased by him through an intermediary manager, the middleman.

Diagram 2
Consumers and other actors in the app universe



In the following paragraphs, we break down the various business models used by app developers to better understand the operation and implications for consumers.

1.2 The Characteristics of the Applications Market: A Few Business and Revenue Models

The app market has revolutionized the way consumers access information, communicate and obtain services³². For example, there is no longer any need to go to a physical store or receive postal delivery. From now on, with an adequate Internet connection, the consumer can access online a specialized store where millions of apps are available to him. With a few clicks, he can access a multitude of games, entertainment apps, communication, information, services, etc. that he can download and install immediately.

As we can see with the many concepts and actors, the world of apps is a complex ecosystem; all the more so because its actors are found in different jurisdictions worldwide.

The fact that all those applications constitute intangible goods, which the consumer will never see or touch, raises several consumer protection issues; existing regulatory frameworks having been adopted well before the digital age, their effectiveness may be imperilled by the numerous problems consumers may face in this peculiar ecosystem. A business model, for example, whereby industry actors can increase their revenues through purchases – in-app purchases – integrated in free applications acquired under a license agreement, is likely to require a specific interpretation or application of existing rules.

As pointed out above, the various actors obtain revenues by different means. For example, app stores distribute developers' apps for a fee, or for royalties on consumer purchases, whether during the app's sale or during in-app purchases.

A developer also has various means to make an application profitable. The OECD has identified six:

- Paid applications – consumers pay to download an app (paymium or premium models);
- App advertising;
- In-app purchases – available in free games (freemium model) and paid games (paymium model);
- Promotion of a non-digital good (for example, Nike's Fitbit tracker functions with various smartphones);
- Resale of personal data collected through apps³³.

The application model is known as freemium³⁴ – a portmanteau word combining “free” and “premium.” This type of apps allows free usage; so it is not a source of revenue, but rather bait. Apps offered with this model exist often in a more complete version (the premium version, with more features, more space, no advertisements, etc.), which the consumer must pay for to acquire. In this type of model, we also find apps downloaded for free, but offering in-app purchases, additions that the consumer must purchase for download or activation, and that enable him to “improve his experience” or his performance in using the app.

³² *Op. cit.*, note 20, **OECD**, p. 5.

³³ *Op. cit.*, note 20, **OECD**, p. 22.

³⁴ The term was coined by an e-commerce executive, Jarid Lukin.

See **FINDLAY SCHENCK**, B., *Freemium: Is the Price Right for your Company?* Entrepreneur, February 7, 2011. [Online] <https://www.entrepreneur.com/article/218107> (page consulted on April 3, 2016).

Although this model does not constitute a direct source of revenue, it is currently the most popular among developers – by choice or commercial necessity. Indeed, many think it is the most effective model for significantly increasing the revenues of app developers as well as app stores³⁵. This model in particular seems to raise the most concerns regarding consumer protection.

a) The freemium business model

The freemium model has existed only since the 2000s. This monetizing strategy consists of providing for free the basic features of an app or software package, and then offering a user the option to pay for a richer version or for aspects that would improve his experience or performance³⁶. Freemium applications should not be confused with demonstration (demo) versions of software, which can be used only for a limited time, or with certain essential features being deactivated. For an app or game to actually be freemium, it must be usable upon installation, without any other purchase being necessary to ensure adequate operation. Some experts explain that the freemium model is much more effective than the demo model (free testing periods), because consumers are wary of cumbersome and difficult cancellation processes and find free indefinite access much more appealing³⁷.

The freemium model should also be distinguished from the business model called paymium, which is not the subject of our research. A consumer pays both to acquire this type of app and to make in-app purchases.

Many consider freemium as the dominant business model among Internet start-ups and app developers³⁸. We find examples everywhere, including in apps well known for being free. For example, Dropbox provides 2 GB of storage for free, but also offers various additional storage plans for a monthly fee³⁹. Skype allows free calls between its users, but sells credits for calls made to phones⁴⁰.

LinkedIn makes it possible to develop a professional network for free, but also allows its users, if they purchase a premium account, to use additional services, such as Job Seeker, Sales Navigator, Recruiter Lite or Business Plus⁴¹.

³⁵ **ANON, J.**, *Choosing the Best App Monetizing Method is Essential, but Freemium and In-app Advertising are Reliable Options*, April 8, 2015. [Online] <http://www.androidheadlines.com/2015/04/choosing-best-app-monetizing-method-essential-freemium-app-advertising-reliable-options.html> (page consulted on September 9, 2015);

BLUECLOUD, *Why is Freemium So Powerful?* March 26, 2013. [Online] <http://www.bluecloudsolutions.com/articles/freemium-powerful/#> (page consulted on September 11, 2015).

³⁶ **KUMAR, V.**, *Making "Freemium" Work*, Harvard Business Review, May 2014. [Online] <https://hbr.org/2014/05/making-freemium-work> (document consulted on April 2, 2016).

³⁷ *Ibid.*

³⁸ **FINDLAY SCHENCK, B.**, *Freemium: Is the Price Right for your Company?*;

Op. cit. note 36 **KUMAR**;

KOSNER WING, A., *Apple App Store Revenue Surge and The Rise of Freemium App Pricing*, Forbes Magazine, January 11, 2015. [Online] <http://www.forbes.com/sites/anthonykosner/2015/01/11/apple-app-store-revenue-surge-and-the-rise-of-the-freemium/#14882aef75c8> (page consulted on September 14, 2015).

³⁹ **DROPBOX**, *Choose the right Solution for your business*. [Online] <https://www.dropbox.com/plans?trigger=homepagefoot> (page consulted on April 17, 2016).

⁴⁰ **SKYPE**, *Call international phone numbers directly using Skype*. [Online] https://secure.skype.com/en/calling-rates?wt.mc_id=legacy (page consulted on April 17, 2016).

⁴¹ **LINKEDIN**, *LinkedIn Free and Upgraded Premium Accounts*, LinkedIn, Mountain View, California, United States, n.d.

Barbara Findlay Schenck, taking LinkedIn as an example, explains one of the commercial advantages of the freemium model:

When you and 80 million others post free personal profiles on LinkedIn, you contribute to a membership that advertisers, recruiters and lead-seeking professionals want to pay to reach. LinkedIn obliges this demand with ad packages, premium subscriptions and hiring solutions that together have resulted in positive cash flow for the past two years⁴².

The freemium model offers various ways to generate revenues. Many developers use an annual or monthly subscription model. Music apps such as Spotify or social network apps such as LinkedIn and Skype offer this type of subscription, which gives access to “premium” features.

Freemium apps also rely on in-app purchases, essentially for additional features or virtual objects enhancing the user’s experience or ability to progress more rapidly (in a game, for example). In fact, most in-app purchases involve games.

As mentioned above, the freemium model has become app developers’ most popular monetizing method, and for good reason. As of November 14, 2015, the five apps that generated the most revenues on Google Play were all offered for free, but also offered the option to make in-app purchases⁴³. The same applies to iTunes for iPad⁴⁴ and iPhone apps⁴⁵.

In a report published in 2015, IDC and App Annie report a 72% revenue increase for app stores from sales of freemium mobile apps between 2013 and 2014, whereas revenues from paid apps (premium or paidmium) declined⁴⁶.

While app stores profit greatly from the freemium model, so do developers. Apple reported in January 2015 that in the first week of January alone, app developers whose products are offered in Apple’s app store generated sales totalling US\$25 billion, compared to \$10 billion for all of 2014⁴⁷.

This highly lucrative business model depends on an essential aspect of human nature: once we get used to something, it is very difficult to go without it. A free app creates habits among users and, at the opportune time, induces us to “invest” in order to enhance those habits – an investment that further cements our habits⁴⁸.

[Online] <https://www.linkedin.com/help/linkedin/answer/71> (page consulted on April 2, 2016).

⁴² *Op. cit.* note 38, **FINDLAY SCHENCK**.

⁴³ **APP ANNIE**, *Store Stats*. [Online] <https://www.appannie.com/apps/google-play/top-chart/canada/overall/?date=2015-11-24> (page consulted on April 12, 2016). The data analysis website indicates that the applications having generated the most revenue to date were: Clash of Clans, Game of War- Fire Age, Boom Beach, Slotmanie and Candy Crush Saga.

⁴⁴ *Ibid.*

⁴⁵ *ibid.*

⁴⁶ **IDC & APP ANNIE**, *Mobile App Advertising and Monetization Trends 2013-2018: Freemium and In-App Ads Expand Their Lead*, March 15, p. 8. [Online] <http://john.do/wp-content/uploads/2015/05/App-Annie-IDC-Mobile-App-Advertising-Monetization-Trends-2013-2018-EN.pdf> (document consulted on March 5, 2016).

⁴⁷ **APPLE**, *App Store Rings in 2015 with New Records*, January 8, 2015. [Online] <http://www.apple.com/pr/library/2015/01/08App-Store-Rings-in-2015-with-New-Records.html?sr=hotnews.rss> (page consulted on April 10, 2016).

⁴⁸ **EYAL**, N., *Hooked: How to Make Habit-Forming Products*, Portfolio Penguin, 2014.

b) In-app purchases

For the freemium model to function, a developer must balance the app's free aspects – which must be appealing enough for the app to create a habit – and the “premium” nature of the aspects or objects offered as an in-app purchase – which must present an attractive added value. This precious balance will enable him to convince “free” consumers to convert themselves into “paid” consumers⁴⁹.

As we will see in the field survey we conducted as part of this research, we find in-app purchases in every category of apps: educational, weather, travel, music, lifestyle, physical fitness... We identified in 14 different app categories⁵⁰ free apps that offered the option to make in-app purchases.

This type of offer also allows the acquisition of an incommensurable number of objects and services. In games, for example: additional levels, “virtual” money (haystacks, crystals, etc.), items that accelerate or facilitate progress (weapons, powers, etc.), various articles of clothing for the user's game character, flavours for a cake he is baking... In-app purchases can also offer additional features in other types of applications: additional data storage, wired phone call minutes, etc. Also offered through in-app purchases are pictures, music or videos, as well as virtual services, from book rentals to data storage. All those products have in common the fact that they are purchased, in real money, within an app, and that they are all intangible aspects.

In-app acquisitions may be subscriptions, for example – access to content the consumer may use at leisure within a given period. Subscription-based in-app purchases may be renewable, at times automatically, at times not. The consumer may make a new in-app purchase at the end of the one-month subscription period (for example, subscription to a coach's services in a fitness app); the subscription may also be renewable automatically upon expiry. Subscription periods vary according to the apps; they may be monthly or annual.

Moreover, in-app purchases may or may not be “consumable.”

In-app purchases are consumable when a consumer must pay for the product each time he wants to use it. A few examples of consumable in-app purchases: a tip in a strategy game, or additional lives for an action game character. Virtual currencies, acquired in finite quantities, are also of this type. A consumer who uninstalls the app and reinstalls it may be incapable of retaining his consumable in-app purchases. Consumable in-app purchases are often non-transferrable from one device to another. For example, if a consumer starts playing a game on his iPhone and wants to continue playing it on his iPad, he risks not being able to transfer his consumable in-app purchases or to use them there. iTunes' terms of use clearly indicate this limitation for those products:

⁴⁹ **SEAVE, A.**, *Moving Customers from Freemium to Premium: The Art of Monetizing Virtual Products*, Forbes Magazine, January 21, 2015. [Online] <http://www.forbes.com/sites/avaseave/2015/01/21/moving-customers-from-freemium-to-premium-the-art-of-monetizing-virtual-products/#36c309653c6e> (page consulted on September 16, 2015).

⁵⁰ We studied the following categories: games, books, entertainment, Information (public), customization, health/physical fitness, weather, geo-tracking, lifestyle, music, social, business, travel, and education.

*In App Purchases that are consumed during the use of the App Store Product (for example, virtual ammunition) cannot be transferred among devices; can be downloaded only once; and after being downloaded, cannot be replaced*⁵¹.

In contrast, an in-app purchase may be “non-consumable,” i.e., permanent: after a single payment, the consumer can use the purchase as many times as he wants, and can transfer it to the other devices registered to his customer account. He may thus start a game of strategy on his smartphone and continue on his tablet without losing his non-consumable in-app purchase. In most cases, he can download it again for free with his customer account, to unlock a level within a game, or acquire an app’s premium version, etc.

Those categories are at times called “replenishable purchases” (such as virtual money, which the user can repurchase once his reserve is exhausted) or “non-replenishable” (an unlocked feature or level, for example).

The success of apps that offer in-app purchases rests on the micropayment approach. Consumers who have tried out an app for a given time will be more inclined to pay small amounts repeatedly in order to improve their experience within that app, or by loyalty. And the cumulated amounts will often largely exceed what the user would have paid to purchase a similar app or game, particularly without having had occasion to try it out beforehand... or to get attached to it sufficiently. On the forums of some games, we find testimonials from users who have spent thousands of dollars, and rationalize those “investments” (for example: the time spent at work to accumulate the necessary real money for purchasing virtual money is shorter than the time that must be spent playing to directly accumulate the same amount of virtual money⁵²). The price charged for in-app purchases varies from one app to another. Starting at \$0.99, in-app purchases may attain prices that may seem absurd. The Internet overflows with articles and blog posts reporting exorbitant prices for certain in-app purchases⁵³.

The gamesradar.com website reported in 2014 that the following games contained some of the most expensive in-app purchases of the year⁵⁴:

Simpsons: Tapped out, available for free, offers the option to purchase “donuts” (which constitute the virtual money of that universe), which are used to rebuild the city of Springfield. The famous Barney’s Bowlarama will cost you 250 donuts, which you can purchase for \$20 in real money. The small virtual ponies can be just as expensive in *My Little Pony: Friendship Is Magic*. A mountain of stones will cost you \$27.99. You can acquire the pony Princess Celestia for a quantity of stones equivalent to \$44. In *Contract Killer*, it will cost you 2,300 credits, or \$100 in real money, to acquire the Nanotech Sniper. You will thus have the best gun, ensuring that you will always hit your target, as well as an unlimited quantity of ammunition. The game *Real Racing 3* can enable you to realize the dream of a lifetime, i.e., to drive a car worth \$2

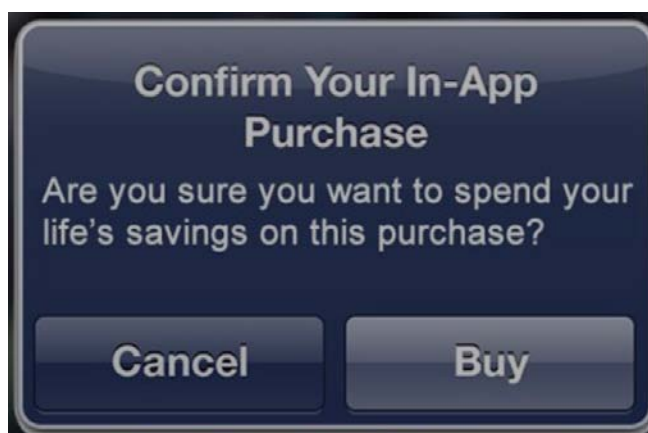
⁵¹ **APPLE**, *Terms and Conditions*. [Online] <http://www.apple.com/legal/internet-services/itunes/ca/terms.html> (page consulted on May 21, 2016).

⁵² Pointed out in a *League of Legends* forum.

⁵³ **SALDANA**, G., *Here are some in-app purchases that'll break your bank*, January 21, 2014. [Online] <http://www.gamesradar.com/most-expensive-in-app-purchases/> (page consulted on April 2, 2016), **COWEN**, N., *The Most Obscenely Expensive In-App Purchases*, March 31, 2015. [Online] <http://www.gizmodo.co.uk/2015/03/the-most-obscenely-expensive-in-app-purchases/> (page consulted on April 2, 2016).

⁵⁴ **PRICE**, D., *The 7 most expensive in-app purchases*, June 18, 2014. [Online] <http://www.macworld.co.uk/feature/apps/7-most-expensive-in-app-purchases-3525619/> (page consulted on April 3, 2016).

million, the Koenigsegg Agera R, in exchange for 800 gold pieces, equivalent to \$100 in real money. But the record is held by the game *Gun Bros*. The ultimate armour that will protect you against all attacks is nothing less than the “apathy bear.” Appearances can be deceptive: that teddy bear attached to a gun has inestimable value, but the consumer can nevertheless purchase it for 13,999 *warbucks*, or \$600 in real money.



Source: gamesradar.com

The success of the freemium model among the various actors in the app universe appears undeniable. Developers are turning more and more to this business model. And this propagation of the freemium model is not limited to mobile apps: we find it more and more in multi-player games: *Lords of Legends*, a free online game, generated revenues of \$1 billion in 2014 thanks to in-app purchases⁵⁵.

The firm TechnoCompétences reported in 2013 that smartphone users in Canada spent around \$149 M annually to download paid apps⁵⁶. But the firm indicates that Canadians spend only 22% on downloading apps, and the rest on purchases within apps, subscriptions, etc.⁵⁷. The firm Swrve has studied the spending habits of 20 million users of more than 40 freemium games during a given month (February 2016). The study reveals that 1.9% of the users made in-game purchases during the month, compared to 1.4% for the same month in 2014⁵⁸.

⁵⁵ **JACOBS, H.**, *Gaming guru explains why 'freemium' is actually the best business model for multiplayer video games*, Business Insider, March 19, 2015. [Online] <http://www.businessinsider.com/sean-plott-explains-why-he-thinks-freemium-games-are-the-best-business-model-for-both-players-and-developers-2015-3> (page consulted on September 16, 2015).

⁵⁶ **TECHNO COMPÉTENCES**, *Étude sur les besoins de compétences dans le développement d'applications mobiles*, Oct. 2013, p. 18. [Online] http://www.technocompetences.qc.ca/sites/default/files/uploads/industrie/etudes-et-rapports/2013/Etude_mobilite_2013.pdf (document consulted on November 12, 2015).

⁵⁷ *Ibid.*

⁵⁸ **SWRVE**, *Monetization Report 2016- Lifting the lid on player spend patterns in mobile*, March 23, 2016, p. 2. [Online] <https://www.swrve.com/images/uploads/whitepapers/swrve-monetization-report-2016.pdf> (document consulted on April 15, 2016).

Those consumers spent an average of \$22.46 on an in-app purchase in 2016 compared to \$22 in 2014⁵⁹. It should be kept in mind that the operation of in-app purchases rests on the assumption that a consumer who has acquired a free app is more likely to make repeated micropayments than to spend a large amount at the outset. According to Swrve, in-app purchases of less than \$5 constitute 39% of purchases made and generate 14% of revenues, whereas purchases of more than \$50 make up only 2.5% of in-app purchases made, but generate 17.5% of revenues⁶⁰. Lastly, 64% of purchasers make only one in-app purchases per month, and only 6.5% make 5 or more⁶¹.

c) Attraction of freemium apps for consumers

The greatest benefit of the freemium model for consumers is that it enables them to obtain for free a perfectly functional application, which they may use without restriction or fees. This model avoids having to pay for an app and then realizing that the product is not suitable for them or does not meet their expectations (unless the developer offers a demo version, app stores do not allow consumers to try out apps before purchasing them). This benefit is all the more important because in the mobile app universe – which implies an immaterial good, often at a low price, with actors located in different jurisdictions – a dissatisfied consumer will likely not do what is necessary to obtain a refund or repair, but rather will count the purchase as a net loss.

Consumers are of course happy to receive free products. But they have developed high expectations of what they can find on the Internet – notably, free digital content⁶². That explains consumer enthusiasm for streamed music or for YouTube and other websites where they have free access to music or videos. The appeal of freemium apps, which does give them access to free entertainment and services, is thus easily explained, especially since those free apps are perfectly functional.

Lastly, options to make in-app purchases within freemium apps promise consumers an improved experience. Since the app was free and the user has acquired a taste for it, why not pay a few dollars to enhance the experience, while encouraging the developer? The app becomes more appealing – it now has added value and the user has invested in it – and future “investments” in the app will be all the more justified⁶³.

⁵⁹ *Ibid.*, p. 3.

⁶⁰ *Ibid.*, p. 6.

⁶¹ *Ibid.*, p. 4.

⁶² JULYRAPID.COM, *Freemium App Monetization Strategy- How to Make Money*, July 16, 2015. [Online] <http://julyrapid.com/freemium-app-monetization-strategy-how-to-make-money/> (page consulted on April 5, 2016).

⁶³ *Op. cit.*, note 48, EYAL, N.

d) Attraction of freemium apps for the industry:

In 2013, the Gartner research institute forecast that free app downloads would almost triple in 2017 and that the apps would represent almost 95% of app downloads⁶⁴. It also forecast that the percentage of revenues generated by in-app purchases would represent 48% of revenues from apps, compared to only 17% in 2013⁶⁵. The firm Statista reported that worldwide revenues from in-app purchases reached US\$2.11 billion in 2012 and forecast that they would exceed \$14 billion in 2015⁶⁶.

Those forecasts appear conservative today. In Canada, no less than 78% of revenues generated by mobile apps currently come from in-app purchases, vs. only 22% from paid downloading in app stores⁶⁷. In 2015, the game *Clash of Clan* proved the success of this business model, thanks to in-app purchases generating daily revenues of over \$1.5 million⁶⁸, exceeding those of another champion of in-app purchases, the game *Candy Crush*, which accumulated \$931,000 daily. In January 2015, an Apple press release reported that its app store had pulverized records, with users having spent almost US\$500,000 in app acquisitions and in-app purchases in the first week of January alone⁶⁹.

e) Developers

The enthusiasm of app developers for the freemium model is easily explained by the capacity of this business model to generate substantial revenues – even more than app sales.

Developers obviously want the largest possible customer base. Offering an app for free helps to meet that objective and attract more consumers likely to convert into paying users of the app. The resale of data collected within apps, as well as the advertising, are also potential revenue sources, so a large customer base can lead to an increase in those types of revenues.

f) App stores

In January 2014, the firm Distimo reported that free apps with in-app purchases generated 78% of Apple's app store revenues in Canada, compared to 18% for paid apps without in-app purchases⁷⁰. Evidently, the revenues generated for app stores by in-app purchases are highly attractive. For minimal app development and investment, app stores obtain average revenues corresponding to 30% of each in-app purchase made by consumers.

⁶⁴ **GARTNER**, *Gartner Says Mobile Apps Store Will See Annual Downloads Reach 102 billion in 2013*, September 19, 2013. [Online] <http://www.gartner.com/newsroom/id/2592315> (page consulted on September 18, 2015).

⁶⁵ *Ibid.*

⁶⁶ **STATISTA**, *Total worldwide in-app purchase revenues from 2011 to 2017 (in million U.S. dollars)*. [Online] <http://www.statista.com/statistics/220186/total-global-in-app-revenue-forecast/> (page consulted on April 11, 2016).

⁶⁷ *Op. cit.*, note 45, **APPLE**.

⁶⁸ **MCALONE, Nathan**. *The top-grossing iPhone app makes a whopping \$1.5 million a day*, Business Insider, San Francisco, California, United States, June 12, 2015. [Online] <http://www.businessinsider.com/clash-of-clans-earns-15-million-a-day-as-top-grossing-app-2015-6> (page consulted on November 10, 2015).

⁶⁹ *Op. cit.*, note 67, **APPLE**.

⁷⁰ Via **FIERCEDEVELOPPER**, *Distimo: In-app purchases accounted for 79% of revenue in January*, March 24, 2014. [Online] <http://www.fiercedevolopper.com/story/distimo-app-purchases-accounted-79--revenue-january/2014-03-24> (document consulted on April 2, 2016).

An app store's success is measured by its market share. The fact that app stores market freely downloaded apps attracts a large number of users, which increases the app stores' market shares.

g) The gaming industry

As outlined below, we find in-app purchases in many online games and apps. The most popular apps are free games offering in-game purchases. According to the firm Newzoo, worldwide revenues for the gaming industry totalled US\$91.5 billion in 2015⁷¹. We should mention Canada's importance in the gaming and entertainment industry. According to the Entertainment Software Association of Canada (ESAC), that industry directly employed 20,400 persons in 2014 – an increase of 124% compared to 2013⁷². Moreover, 1,280 projects were reportedly completed in 2014, of which 65% were intended for mobile devices⁷³. It is thus perfectly understandable that 31% of profits come from mobile device apps – an increase of 20% compared to 2013⁷⁴.

In 2014, the expenditures made by game users on mobile devices – cell phones and tablets – exceeded for the first time those made for computers and consoles⁷⁵. The ever-more widespread use of mobile devices enables users to use the apps anywhere. And a survey reveals that 71% of smartphone users in the OECD say they never leave home without their smartphone⁷⁶. So users can and want to play anywhere. In study published in March 2016, IDC and App Annie report that more than 80% of the purchases of consumers who shopped at iTunes and Google Play in 2015 were made on games⁷⁷.

With strength in numbers, consumers have spent more in total on mobile device apps, despite lower average expenditures per user: *“Home console gaming saw more than double the consumer spend per device than any other gaming platform. Mobile gaming saw the lowest consumer spend per device, but had the largest audience, giving it the highest overall consumer spends in 2015”*⁷⁸.

Moreover, the gaming industry is no longer limited to implementing the freemium model for mobile apps. Our field survey indicates that one of the most popular games in 2015, with revenues estimated at \$1.628 billion, was *League of Legends*⁷⁹, a computer game available for free, but offering in-app purchases. Only three other games exceeded \$1 billion: two for computers and one for mobile devices. This phenomenon is also spreading to game consoles.

⁷¹ **SINCLAIR, B.**, *Gaming will hit \$91.5 billion this year* - Newzoo, April 22, 2015. [Online] <http://www.gamesindustry.biz/articles/2015-04-22-gaming-will-hit-usd91-5-billion-this-year-newzoo> (page consulted on April 13, 2016).

⁷² **ENTERTAINMENT SOFTWARE ASSOCIATION OF CANADA (ESAC)**, *Essential Facts about the Canadian Video Industry*, 2015. [Online] http://theesa.ca/wp-content/uploads/2015/11/ESAC_2015_Booklet_Version02_14_Digital.pdf (document consulted on March 11, 2016).

⁷³ *Ibid.*

⁷⁴ *Ibid.*

⁷⁵ **IDC & APP ANNIE**, *Gaming Spotlight, 2015 Review*, March 2016, p. 3.

⁷⁶ *Op. cit.*, note 20, **OECD**, p. 11.

⁷⁷ *Op. cit.*, note 75, **IDC & APP ANNIE**, p. 15.

⁷⁸ *Ibid.*

⁷⁹ **PEREIRA, C.**, *2015's Top Digital Games Lists Include League of Legends, Call of Duty*, Gamespot, January 16, 2016. [Online] <http://www.gamespot.com/articles/2015s-top-digital-games-lists-include-league-of-le/1100-6434142/> (page consulted on February 21, 2016).

Many games belong to this list of the most profitable in 2015; *Call of Duty: Advanced Warfare* leads with revenues of \$355 million⁸⁰.

So apps can represent a gold mine for developers and the gaming industry. The fact that consumers have devices with them at all times to use the apps also means that advertisements are ubiquitous; advertisers thus consider mobile apps a wonderful tool.

h) Advertisers

In 2013, the OECD reported that 28% of smartphone users notice the ads when using an app; this makes the smartphone a highly attractive medium for advertisers⁸¹. The goal of developers offering their app for free to the general public is to increase their customer base in order to generate the most possible revenues, notably through advertisements. As described below, mobile apps require, during their download, the consumer's permission to access a large quantity of data found on his mobile phone; the data may vary depending on the type of app – geo-tracking, camera, photos, list of contacts, etc. The apps also cumulate data on the number of hours spent using them, as well as data related notably to the service provided by the app. For example, Samsung's *S Health* app helps the user improve his health by compiling nutritional habits, water consumption, caffeine, physical activity, along with bedtime and wake-up times. This type of app thus collects a panoply of lifestyle data that can be used to draw a relatively accurate portrait of users, and thus to target consumers individually with ads corresponding to their interests.

Indeed, some think that marketing companies and advertising agencies should consider inserting ads within apps, since the use of apps is spreading rapidly and in-app ads give advertisers a better opportunity to target the coveted audience at the right time⁸².

i) “Watch this ad to earn free diamonds”

Asking the user for real money to pay for his in-app purchases is not the only way to monetize apps. As an eloquent sign of the attraction of apps for advertisers, many game and app developers have recently started to offer objects or virtual money for free (which otherwise would be available through in-app purchases) to users who agree to view an advertisement. The studio FuturePlay Game describes “*view to play*” as “*entertainment with a natural integration of broadly accessible gameplay and ad-based monetization*”⁸³. Some even think that this approach benefits consumers, who can thus play for free and give only a bit of their time in order to obtain objects helping them progress in a game; “*view-to-play*” without in-app purchases could thus be the way of the future for generating revenues from free games⁸⁴.

⁸⁰ *Ibid.*

⁸¹ *Op. cit.*, note 20, OECD, p. 11.

⁸² CHEN, Yuyu. *Why in-app ads may be the future of mobile advertising*, Canada, January 6, 2016. [Online] <https://www.clickz.com/2016/01/06/why-in-app-ads-may-be-the-future-of-mobile-advertising> (page consulted on March 14, 2016).

⁸³ MAKUH, Eddie. *Soon There Will Be "View-to=Play" Games*, Gamespot, CBS interactive, New York, NY, United States, May 22, 2015. [Online] <http://www.gamespot.com/articles/soon-there-will-be-view-to-play-games/1100-6427540/> (page consulted on January 7, 2016).

⁸⁴ THOMPSON, James. *View-To-Play, Here to Stay?* The Inner Circle Game Network, unknown location, June 3, 2015. [Online] <http://www.ticgn.com/view-play-stay/> (page consulted on January 7, 2016).

An example of this strategy: the *TextNow* app allows a consumer who views an ad, completes a survey or installs a third-party app to accumulate credits for making calls.

1.3 Types of Games and Applications with In-App Purchase Options

As mentioned above, there seems to be an app to fulfil all the desires of every consumer. Apple says it so well in the campaign it launched in 2009: “*There’s an app for that!*”⁸⁵ For the purposes of our research, we consulted an OECD study to determine the most popular app categories among consumers⁸⁶:

Educational Apps	Games
Entertainment apps	Information apps (public sector)
Personalization apps	Health and physical fitness apps
Weather apps	Geo-tracking apps (maps, navigation, etc.)
Lifestyle apps	Music apps
Social network apps	Business apps
Travel apps	Books and reference apps

Using the data analytics website App Annie, we identified by category the most popular free apps with in-app purchases as of November 24, 2015 in the following app stores: iTunes, Google Play and Amazon. In the section regarding our survey, we will detail our findings from the App Annie website. We can state generally that we found free apps offering in-app purchases in each app category.

So what types of in-app purchases can consumers make?

1.4 Types of Products and Features Offered through In-App Purchases

As our field survey demonstrates, the types of products and features offered through in-app purchases are extremely numerous and varied.

The constant? Products and features available through in-app purchases should provide the user with an enhanced experience within the app, or at least give him that impression. So that consumers who have downloaded an app for free become paying customers, it is essential that items offered through in-app purchases be viewed as providing a plus-value compared to the content of the freely downloaded app.

Beyond the four qualitative categories discussed above (permanent and consumable in-app purchases, subscriptions with or without automatic renewal), it seems presumptuous to attempt to draw exhaustive categories of the types of products or features that can be obtained through in-app purchases.

⁸⁵ <https://www.youtube.com/watch?v=szrsfeyLzyg>

⁸⁶ *Op. cit.* note 20, OECD, p. 16.

Our field survey revealed specific examples of what in-app purchases can offer: premium version of apps, batches of “likes” for liking other users’ profiles and raising one’s own profile, screen backgrounds behind a virtual dashboard in a navigation app, but also a lot of virtual currencies corresponding to a game’s theme (gold bars, smurfberries...) and used for acquiring other necessary items for progressing in the game. Those infinitely varied virtual currencies constitute one of the two essential types: either we purchase within an app the features we want to add, or we purchase virtual money to acquire them within the app.

Here is an example of in-app purchases found in the *Smurfs’ Village* app. Not only can a consumer purchase smurfberries as virtual money to acquire other virtual items within the app, but he can also, with real money, purchase other virtual items, such as a super resource machine for \$9.99.



Source: Smurfs' Village

a) Operation and design of in-app purchases

All mobile apps that can be downloaded for free and offer in-app purchases have common characteristics:

- They require a stable and reliable Internet connection for downloading them;
- They enhance a device's practical and entertainment functions;
- They are designed to perform a specific function or related functions;
- They operate on, but do not alter, the operating system software;
- They are free of charge (excepting data use costs);
- They are generally designed for access with touch screen devices;
- They are designed to function on the Internet⁸⁷.

⁸⁷ AUSTRALIAN COMMUNICATIONS AND MEDIA AUTHORITY (ACMA), *Emerging business models in the digital economy—The mobile applications market*, 2011, on p. 3. [Online] http://www.acma.gov.au/webwr/assets/main/lib310665/emerging_business_models.pdf (document consulted on September 19, 2015)

To download the app, the consumer must first have a customer account with the app store that he wants to use (for Android devices) or that he has to use (for Apple devices). Purchases will be made by means of that customer account.

In-app purchases are made within the app; the user cannot quit the app to make his purchase. Once the app confirms delivery of the in-app purchase, the user can immediately use his new acquisition. He thus has immediate access to the items that will enable him either to purchase other products within the app (by using the virtual money obtained by in-app purchases, for example) or to use additional features (e.g.: listening to ad-free radio stations, accessing additional content, etc.).

The use of products acquired by in-app purchases differs whether the purchase is consumable or permanent. A consumer who installs a permanent in-app purchase will have it available for as long as he uses the app (a purchase of premium features, for example). As for consumable in-app purchases, the product purchased stops being available once the consumer has used it. Here we spontaneously think of virtual money, but it's not that simple, because that money can be used for acquiring consumable or permanent products within the app...

The process appears simple for one-time purchases, but not for certain subscriptions. A simple subscription is a one-time purchase: for a given price, the user obtains a definite duration. However, if the in-app purchase is a subscription with automatic renewal, the latter will occur without needing any intervention by the consumer at the end of a given period⁸⁸.

This method of purchase requires of course that the consumer create a link between the app (or the app store) and a customer account replenished regularly by being linked in turn to a payment instrument; and that the consumer authorize the app to debit that account automatically for renewals.

This link between account or payment method and app or app store presents, according to the bill shock reports mentioned above, one of the risks against which consumers may need to be most vigilant. Are amounts deposited in the account or available to clearly indicated linked payment instruments? Do apps indicate to the user in a clear and timely manner that amounts will be debited from his account during an in-app purchase?

We will review in sequence the operations and notices that accompany those purchases.

b) Download process: authorizations and notices

Purchasing those items and features does not require quitting the app and completing their acquisition in the app store. This ensures continuity in the consumer's use of the app. The process of acquiring in-app purchases thus makes the process homogenous. This applies especially to in-app purchases that are either consumable or permanent without being regular subscriptions or automatic renewal subscriptions.

⁸⁸ This is the case for the premium version of the *My Fitness Pal* application: the consumer can obtain the optimized version for a month or a year. There is also the possibility that the in-app purchase be resupplied automatically when the number of credits falls below a certain threshold. For example, it is possible in the Skype application to allow the automatic resupply of credits when that number falls below \$3.00.

In the case of in-app purchases that are not subscriptions, the download process may differ from consumable in-app purchases. For example, to acquire an app's premium version, downloading is done outside the app. Notably, in the app *TuneIn Radio*, the user must quit the app and visit the app store to download the premium version. The fees to acquire that enhanced version are paid in the app store. But the practice is different for all subscription-based in-app purchases. For example, in the app *My Fitness Pal*, the premium version – with additional features obtained by a monthly subscription – is downloaded within the app.

A consumer can thus acquire in-app purchases on his own by accessing the store within the app or by viewing an on-screen invitation to make in-app purchases while using the app. In some apps, the consumer is invited from the start to access the “shop” within the app in order to acquire items that will improve his experience or performance.

To better explain the process of acquiring in-app purchases, we will mainly refer throughout this study to the well-known game *Smurfs' Village*. That app, generally used by children, has received a lot of media coverage in many jurisdictions, such as Quebec, after substantial invoices were received by the parents of children having made in-app purchases there⁸⁹. The app has also received a lemon award from the Australian consumer association CHOICE⁹⁰. We will use screenshots taken from this app to illustrate the process of acquiring in-app purchases as well as the strategies adopted to induce consumers to make in-app purchases.

⁸⁹ **CURTIS, Sophie.** *The price of the Smurfs: Apple refunds 8-year-old's £4,000 bill for in-app purchase*, The Telegraph, Telegraph Media Group, Chatham, Kent, United Kingdom, July 23, 2013. [Online] <http://www.telegraph.co.uk/technology/apple/10195029/The-price-of-the-Smurfs-Apple-refunds-8-year-olds-4000-bill-for-in-app-purchases.html> (page consulted on September 11, 2015);

KANG, Cecilia. *In-app purchases in iPad, iPhone, iPod kids' games touch off parental firestorm*, The Washington Post, Washington, DC, United States, February 8, 2011. [Online] http://www.washingtonpost.com/wp-dyn/content/article/2011/02/07/AR2011020706073_2.html?sid=ST2011020706437 (page consulted on September 13, 2015);

DUSSAULT, S., *Son ado achète pour 630\$ de «cossins» sans carte de crédit*, Journal de Montréal, October 12, 2013. [Online] <http://www.journaldemontreal.com/2012/10/23/son-ado-achete-pour-630-de--cossins--sans-carte-de-credit> (page consulted on September 15, 2015).

GAUTHIER, Camille. *Achats "in-app"- L'Europe veut plus de transparence*, UFC-Que Choisir, Paris, France, March 1, 2014. [Online] <http://www.quechoisir.org/telecom-multimedia/telephonie/actualite-achats-in-app-l-europe-veut-plus-de-transparence> (page consulted on November 7, 2015);

CBC NEWS, *Free game can lead to costly iTunes Bill*, December 20, 2010. [Online] <http://www.cbc.ca/news/free-game-can-lead-to-costly-itunes-bill-1.923133> (page consulted on September 16, 2015).

⁹⁰ **CASTLE, J.,** *Turning off In-app Purchases*, CHOICE, July 12, 2014. [Online] <https://www.choice.com.au/electronics-and-technology/phones/mobile-phones/articles/turning-off-in-app-purchasing> (page consulted on December 15, 2015).

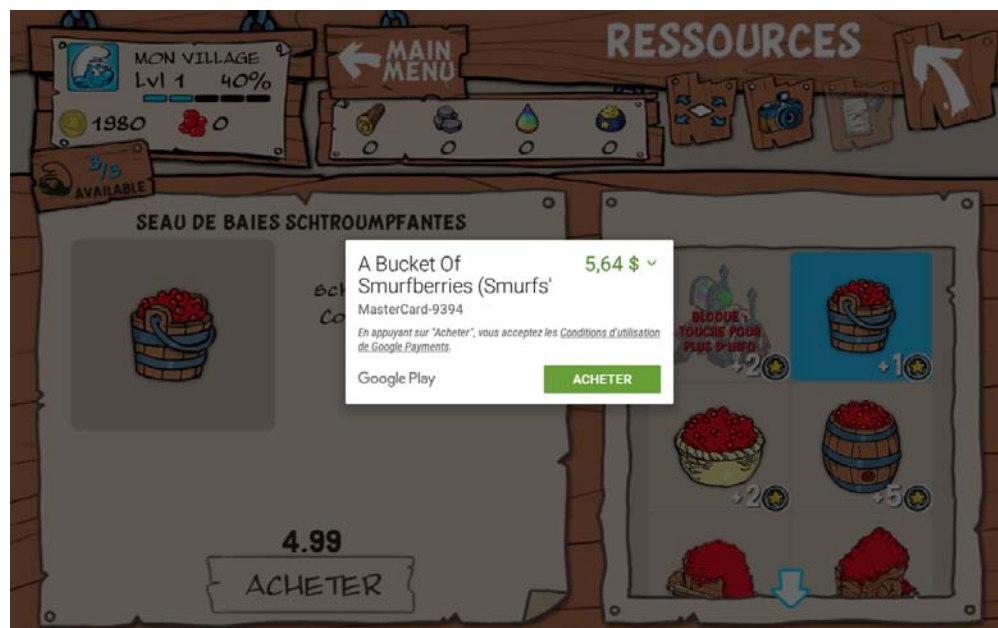
At the beginning of the game, a consumer has 2,000 gold pieces enabling him to purchase certain products in the *Smurfs' Village* store. The store also offers products to be paid for with "smurfberries," the app's second virtual currency. Both types of virtual money may be obtained in the following way: smurfberries may be purchased with real money, but may also be won as prizes when a consumer completes certain tasks or unlocks certain levels, but the consumer may also purchase them with smurfberries in the app's "shop."



Source: Smurfs' Village

A consumer can thus make an in-app purchase by selecting products offered in the "shop." While selecting a product, he indicates the payment method for that in-app purchase: smurfberries, gold pieces, or real money. The only items that seem to cost real money in the *Smurfs' Village* are the smurfberries and the super resource machine. Using two types of virtual money as well as real money can create a double reality that risks confusing children into treating purchases the same whether they are made with virtual money or with real money.

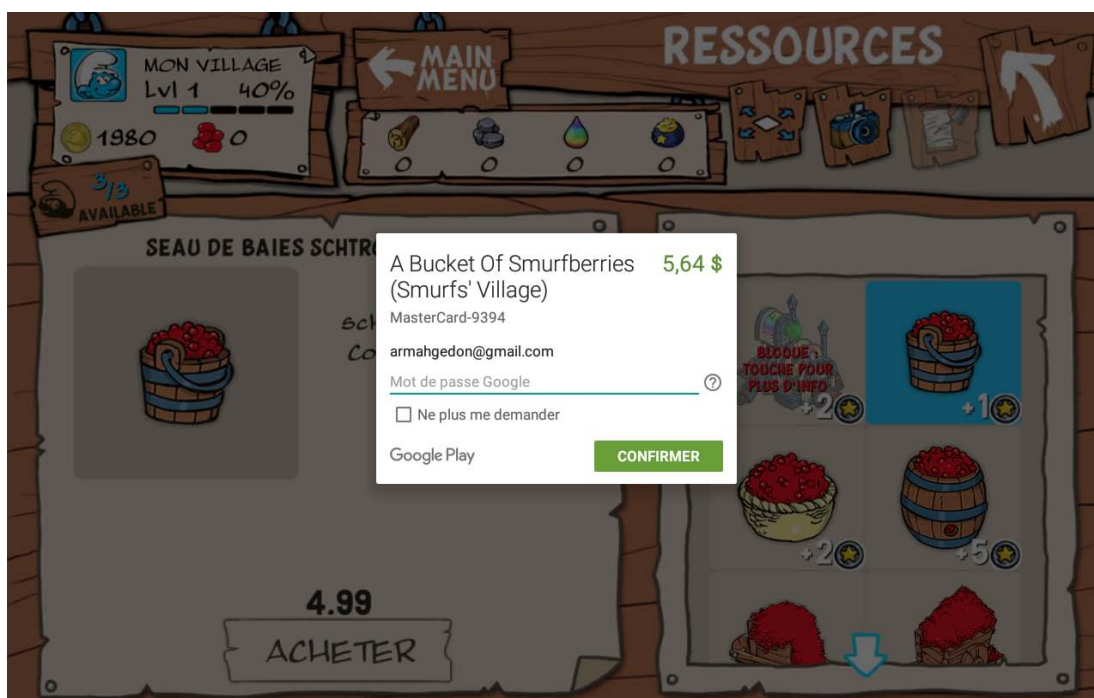
In this app downloaded at Google Play, the consumer, after selecting the in-app purchase he wants to make, receives the following notice, identified as from the app store, and inviting him to click “buy” to make the transaction⁹¹.



Source: Smurfs' Village

The first step in the purchase confirmation process is similar from one app to another, whatever the app store where the purchase is made. After clicking “buy,” the consumer sees a second window, again identified as from the app store, and asking him for the password of the app store’s customer account in order to confirm payment. Moreover, when the consumer wants to use virtual money – smurfberries or gold pieces – to make an in-app purchase, he receives no notice; the balance of his smurfberries or gold pieces is automatically debited when he selects an item.

⁹¹ It should be noted that since no payment method was associated yet with the Google Play account we were using, we had to add a payment method before finalizing the purchase.



Source: Smurfs' Village

It should be noted that the confirmation window, in which the user must enter the account password, offers the option to check a box to have future in-app purchases completed (and the account debited) without the consumer having to confirm after the “buy” button is clicked. Once the consumer has entered his password, the transaction is thus confirmed, and the purchase is downloaded to the app.

The next window indicates that payment has been made. As can be seen in the screenshot below, the confirmation message that appears in *Smurfs' Village* offers additional options regarding password confirmation of purchases⁹²:

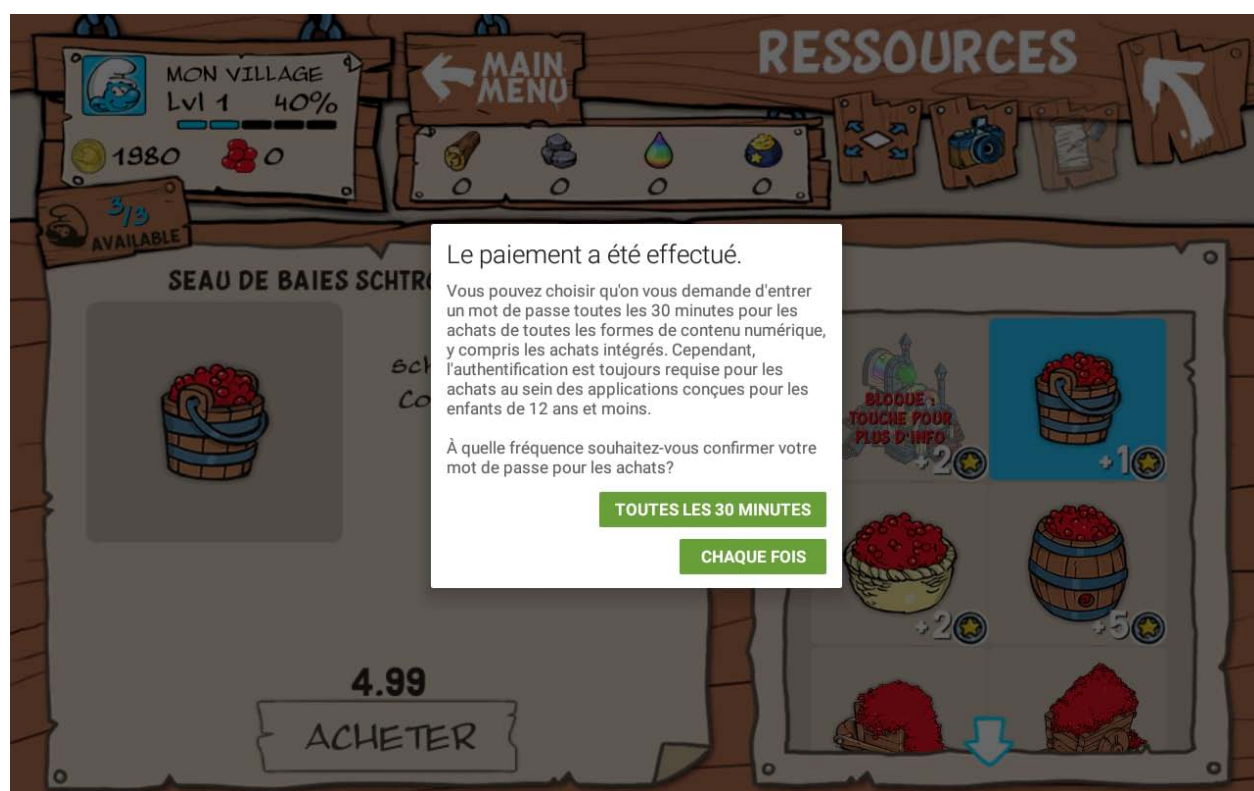
- That the password be required every 30 minutes (allowing purchases of any digital content, including in-app purchases made without the password during that period);
- That the password be required at every purchase.

That notice, which again originates from the Google Play app store, but this time without indicating that origin, specifies that authentication will always be required for in-app purchases made in apps “designed for children 12 years old or less.” We might suppose that an app such as *Smurfs' Village* would be among those requiring authentication for each in-app purchase, to spare parents from bill shock. But that game is rated “E” for apps intended for “everyone”⁹³. If the game were considered to be intended for young children, it would be rated “eC”⁹⁴.

⁹² Those choices appear only if the consumer has not checked “don’t ask me again” in the preceding box.

⁹³ **GOOGLE PLAY**, [Online] <https://play.google.com/store/apps/details?id=com.capcom.smurfsandroid&hl=fr> (page visited on May 5, 2016).

⁹⁴ **ENTERTAINMENT SOFTWARE RATING BOARD**, *Guide des cotes ESRB*. [Online] http://www.esrb.org/ratings/ratings_guide_fr.aspx (page consulted on April 27, 2016). The app rating system probably deserves further examination; but that is not the object of our research.



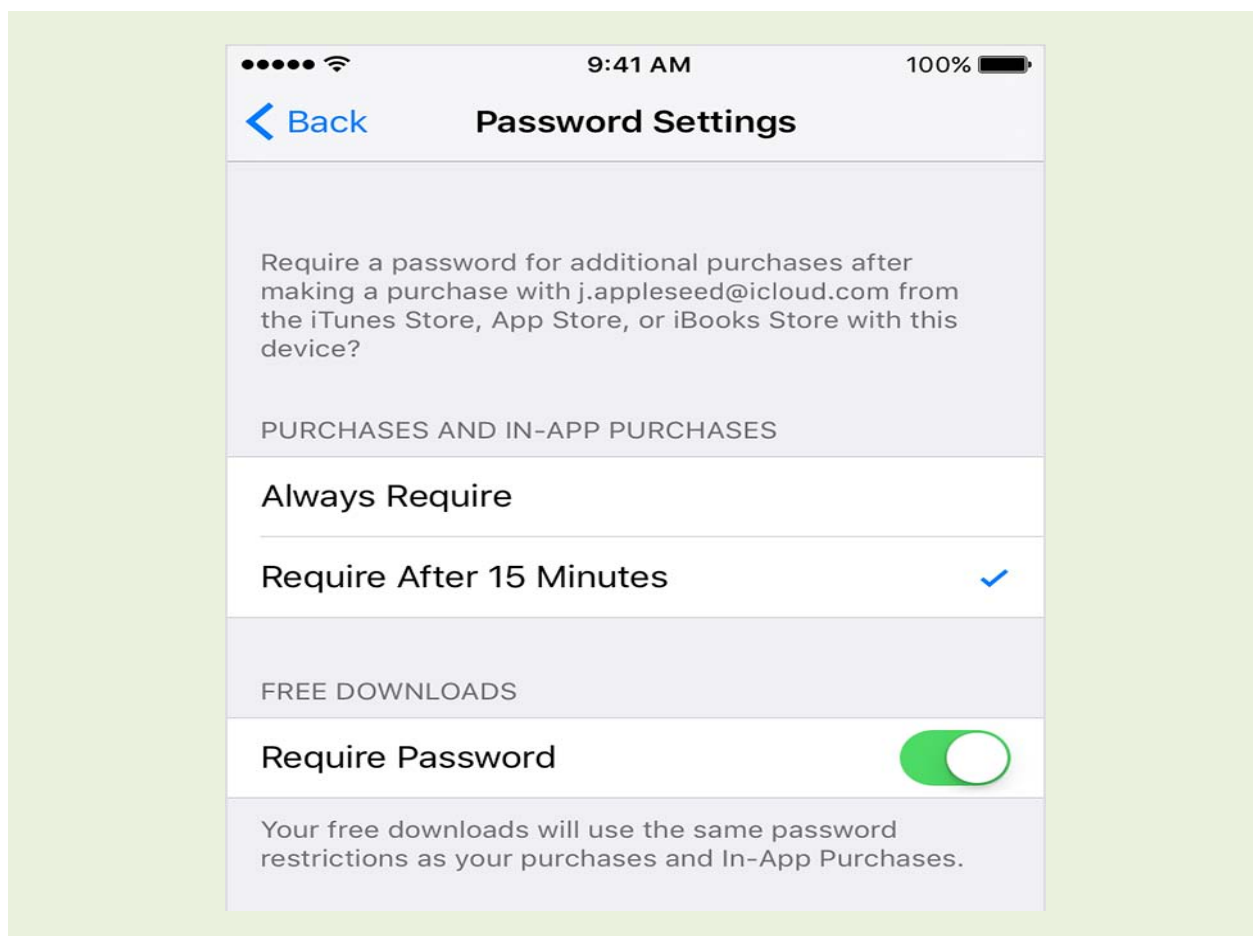
Source: Smurfs' Village

Apple's app store settings allow in-app purchases to be made without a password within 15 minutes following a transaction⁹⁵. However, a consumer can make the following choices in the confirmation window that appears after an in-app purchase:

- That the password be required every 15 minutes (allowing purchases of any digital content, including in-app purchases made without the password during that period);
- That the password be required at every purchase.

If the default settings have been changed in Apple's app store, the confirmation window may not offer those options (if, for example, the settings allow purchases at any time without authentication).

⁹⁵ **APPLE**, *Manage your iTunes Store and App Store Password Preferences*, May 4, 2016. [Online] <https://support.apple.com/en-ca/HT204030> (page consulted on May 11, 2016).



Source: Apple Support

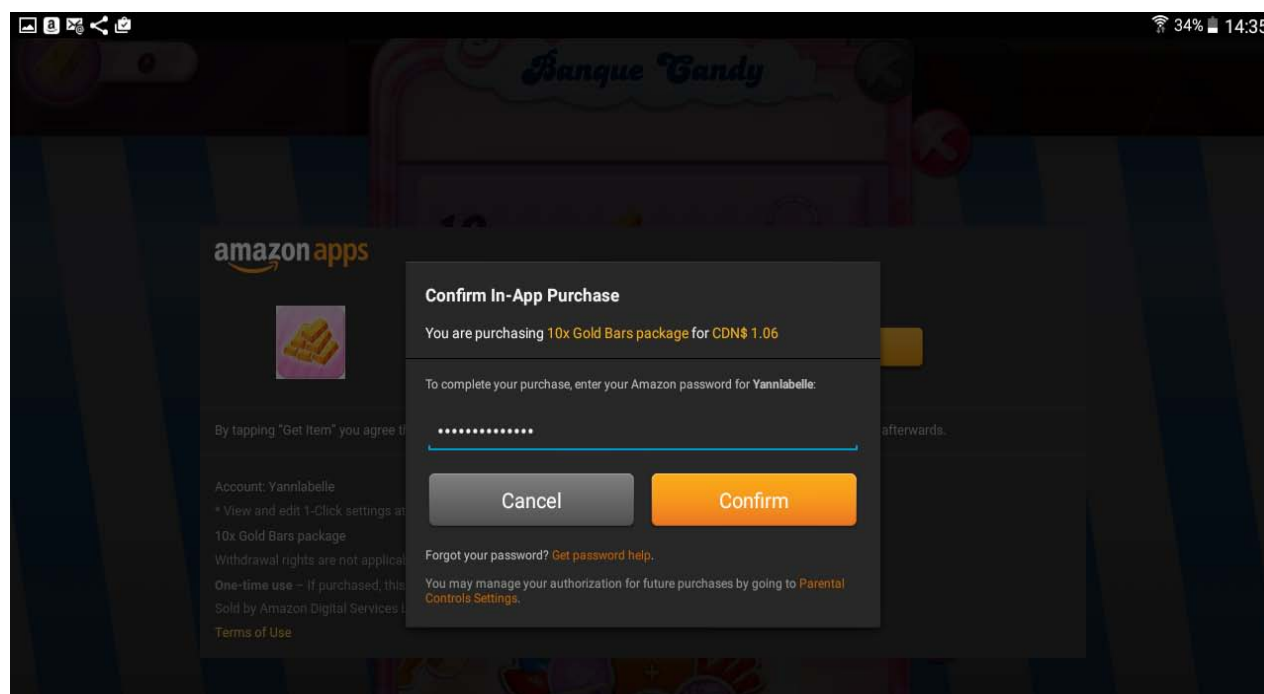
c) Charging and collecting fees

As mentioned above, One of the app stores' advantages to developers is to provide them with a platform allowing a certain flexibility regarding pricing practices, along with easy collection of amounts paid by consumers. So it's the app store, not the app or its developer, that manages transactions. The intervention of app stores in in-app purchase transactions makes management easier for app developers and raises consumer confidence, since the consumer is dealing with the app store with which he holds a customer account, an entity he already knows and with which he already has well-established business relations.

The fact that the app store manages the consumer's payments, wherever he is in the world and whatever the currencies or payment methods he uses, greatly facilitates payment processes for the consumer and collection processes for the app developer. Although the app store imposes rules for indicating the in-app purchase prices of goods or services or of their types⁹⁶, the developer sets the prices of in-app purchases.

⁹⁶ *Op. cit.*, note 27, **APPLE**, section 11.

So payment for an in-app purchase is made by putting the app in contact with the app store used for downloading the app. And as described above, confirmation of the in-app purchase is made when the consumer enters, in the window displayed for that purpose, the password for his customer account with the app store.



Source: Candy Crush Saga

Once the transaction is confirmed, the consumer generally receives confirmation e-mail sent by the app store, and his customer account is debited or his chosen payment method linked to his account is used.

d) List of payment methods or instruments linked to in-app purchases

Our review of the literature and our field survey, detailed below, reveal the various payment methods used by consumers to make in-app purchases.

The payment method used is generally the one selected by the consumer in his customer account with the app store when he opened the account, because the app store will debit the payment from that customer account. If the consumer has not chosen a payment method when opening his customer account with the app store, he will be invited to choose a payment method when making his first purchase, whether for a paid app or an in-app purchase. We will list in this section the payment methods available in the largest app stores, iTunes (Apple), Google Play (Android) and Amazon (Android).

Apple offers the following payment options⁹⁷ to Canadian consumers using iTunes:

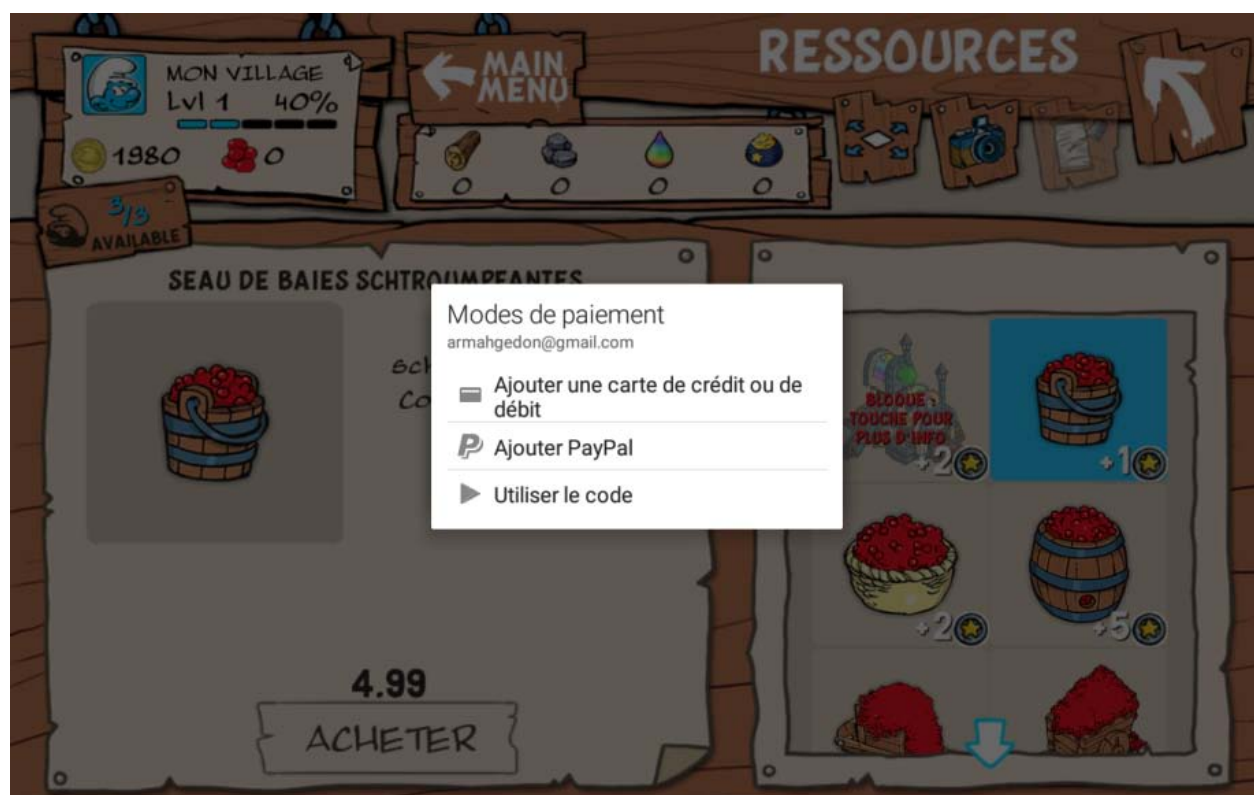
(i) **Credit cards:**

Consumers can pay by credit card. In Canada, iTunes accepts American Express, Visa and MasterCard. Prepaid credit cards from those issuers can also be used;

(ii) **Prepaid iTunes cards:**

Consumers can also use prepaid iTunes cards available in many retail stores in Canada. The cards can be purchased in any of the Apple stores or in any of the many retail stores that sell them in Canada. The cards can also be purchased and replenished in iTunes.

For Android devices, Google Play allows purchases by credit or debit card⁹⁸, PayPal, direct billing by the service provider, or prepaid Google Play card⁹⁹:



Source: Smurfs' Village

⁹⁷ **APPLE**, *Payment & Pricing*. [Online] <http://www.apple.com/ca/shop/help/payments#creditus> (page consulted on March 4, 2016).

⁹⁸ Some app stores state that they accept credit cards. Since 2012, several Canadian financial institutions have offered their customers debit cards called "Visa Debit": **CARRICK R.**, *Travellers: Not all debit cards are created equal*, *Globe and Mail*, July 18, 2012. [Online] <http://www.theglobeandmail.com/globe-investor/personal-finance/travellers-not-all-debit-cards-are-created-equal/article4426553/> (page consulted on March 6, 2016). Those debit cards give consumers access to the VISA network and make transactions with their bank account everywhere credit cards are accepted, including online: **VISA**, *What is Visa Debit?* [Online] <http://www.visa.ca/en/personal/visa-debit-card/index.jsp> (page consulted on March 6, 2016).

⁹⁹ **GOOGLE PLAY**, *Accepted payment methods*. [Online] <https://support.google.com/googleplay/answer/2651410?hl=en-CA> (page consulted on May 5, 2016).

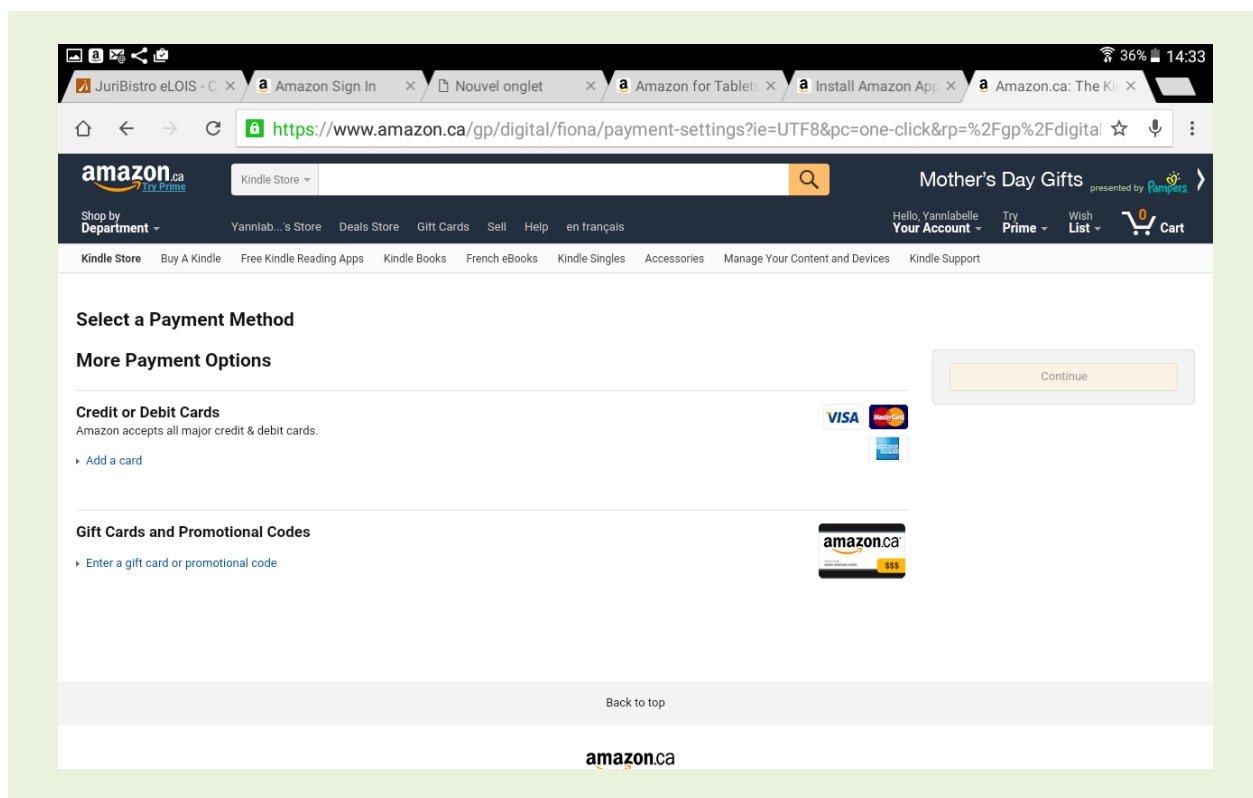
- (i) **PayPal:**
Consumers can link their Google Play account with their personal PayPal account to acquire digital content on Google Play, including in-app purchases.
- (ii) **Gift card or promotional code:**
Consumers can supply their Google Play account by purchasing a prepaid card from one of the many retail stores that distribute them in Canada, notably Pharmaprix/Shopper's Drug Mart, Safeway, Couche-Tard and 7-Eleven. The cards are available for \$15 to \$500.
- (iii) **Credit or debit card:**
Payments can be made with the three main credit cards: MasterCard, Visa and American Express.
- (iv) **Carrier billing: direct billing by the service provider:**
A consumer who uses a mobile device such as a cell phone can, depending on his package, make purchases by using "carrier billing." Purchases can thus be billed monthly by the cell phone service provider. Expenditures will appear under the heading "Google Play." In Canada, Rogers, Fido, Bell and Telus all offer this billing method¹⁰⁰.

Lastly, Amazon allows consumers to make in-app purchases with the following payment methods:

- (i) **Credit and debit cards:**
Amazon also accepts the three main credit cards used in Canada – Visa, MasterCard and American Express.
- (ii) **Prepaid Amazon card:**
A consumer can also use a prepaid Amazon card to make purchases. The cards are available in several retail stores across Canada, such as Pharmaprix, Loblaws, Safeway and Sobeys¹⁰¹.

¹⁰⁰ Ibid.

¹⁰¹ **AMAZON.CA**, *Buy Amazon.ca Gift Cards at a Store*. [Online]
<https://www.amazon.ca/gp/help/customer/display.html?nodeId=201553270> (page consulted on May 5, 2016).



Source: Amazon.ca

The process of acquiring in-app purchases may appear smooth. Although the issues are very contemporary, which may be explained largely by the industry's rapid innovations, Canadian and foreign media have reported many cases of consumers having experienced problems with in-app purchases. Since 2014, some foreign lawmakers have even thought it necessary to intervene. So what are those problems that may be encountered by consumers making in-app purchases?

2. Analysis of Terms of Use

2.1 Notices regarding In-App Purchases in App Stores' "Terms of Use"

As mentioned above, the acquisition of software from app stores as well as game platforms (Steam, for example) requires beforehand to open an account, to which a payment instrument must be linked as soon as the account is opened or at the moment when purchases are made.

From the start of account opening procedures, the consumer must indicate that he agrees to the "Terms of Use" (or "Terms of Service") of the app store or platform presented to him. Those terms alone can constitute imposing documents (almost 8,000 words for Steam¹⁰² and Google Play¹⁰³, and no less than 24,995 words for Apple¹⁰⁴. Those of Amazon¹⁰⁵ total slightly more than 3,000 words). But many of those texts state that agreement to the terms of use also involves agreement to a set of other documents that can be accessed by hyperlinks. For example, Google Play requires the user's agreement in totality to the terms contained in the following documents, to which the terms of service refer: Google's terms of use (2,449 words), the terms of sale and regulations of Google Play software (6,240 words), the terms of use and privacy rules of Payments (1,304 words), Google's privacy policy (3,502 words) and third-party software and data (931 words). Whereas Apple only adds to its imposing document its privacy policy (which still contains 3,664 words), the terms of use text of the Amazon Appstore for Android, which at first seems of modest size, provides the following:

These Terms of Use are part of an agreement between you and Amazon Digital Services LLC (together with its affiliates, "Amazon" or "we") regarding use of the Amazon Appstore for Android and associated software, services and purchases ("Amazon Appstore"). Before you use the Amazon Appstore or download any Apps made available through it, please read these Terms of Use, the Privacy Policy located at www.amazon.ca/privacy, the Conditions of Use located at www.amazon.ca/conditionsofuse, and all rules and policies related to the Amazon Appstore (including, but not limited to, any rules or usage provisions specified on any product detail page or on any help or other informational page for the Amazon Appstore) (collectively, the "Agreement").

IF YOU USE THE AMAZON APPSTORE, YOU WILL BE BOUND BY THIS AGREEMENT.

When it is possible to calculate the number (which is not the case with Amazon), the app stores thus require us to accept almost a hundred pages of contractual text (and also require us, at the moment of opening the account, to check a box confirming that we have read and agree to all

¹⁰² **STEAM**, Steam Subscriber Agreement. [Online] http://store.steampowered.com/subscriber_agreement/ (page consulted on May 5, 2016).

¹⁰³ **GOOGLE PLAY**, Google Play Terms of Service. [Online] https://play.google.com/intl/en_ca/about/play-terms.html (page consulted on May 5, 2016).

¹⁰⁴ *Op. cit.*, note 51, **APPLE**.

¹⁰⁵ **AMAZON**, Amazon Appstore for Android Terms of Use. [Online] <http://www.amazon.ca/gp/help/customer/display.html?nodeId=201485660> (page consulted on May 3, 2016).

those terms). Moreover, the terms of use specify that using the website is equivalent to accepting the agreement.

We discussed earlier the app store user's possible confusion when determining the scope of the advertisement that certain games or apps are free. We searched the app stores' terms of use for mentions that theoretically would inform the user about the freemium business model applied in the products offered, and about the app stores' processing of in-app purchases.

In the Apple document, around the 40th page of the terms of service, i.e., in the Additional Terms regarding the Mac App Store and App Store, we find a section titled "In-App Purchases":

Certain App Store Products may include functionality that enables you to receive additional services, or licenses to additional functionality or content for use within the App Store Product ("In App Purchases"). In App Purchases that are consumed during the use of the App Store Product (for example, virtual ammunition) cannot be transferred among devices; can be downloaded only once; and after being downloaded, cannot be replaced. Once a consumable In App Purchase is acquired and received by you, Apple shall be without liability to you in the event of any loss, destruction, or damage. All In App Purchases are deemed App Store Products, and In App Purchases received within Third-Party Products are deemed Third-Party Products, and treated as such, for purposes of these terms and conditions.

You must authenticate to acquire In-App Purchases separately from any authentication to obtain App Store Products by entering your password when prompted, but once you have authenticated to obtain an In-App Purchase, you will be able to acquire additional In-App Purchases for fifteen minutes without re-entering your password. You can turn off the ability to acquire In-App Purchases on your iOS Device by following the steps outlined at <http://support.apple.com/kb/HT4213>.

Despite a certain lack of clarity in the presentation, we understand that some apps may offer, i.e. sell, additional services (or other things), charged to the account, but only after a new authentication. The immediately following section of Apple's Terms and Conditions pertains to in-app subscriptions and automatic renewal systems:

Certain App Store Products may include functionality that enables you to acquire content on a subscription basis ("In App Subscriptions"). Paid In App Subscriptions are non-refundable. In App Subscriptions will automatically renew for the applicable time period you have selected, and, where applicable, your Account will be charged no more than 24-hours prior to the expiration of the current In App Subscription period. You may cancel automatic renewal of paid In App Subscriptions by selecting Manage App Subscriptions in your Account and selecting the subscription you want to modify. In the event of a price increase, the In App Subscription may continue at the new price upon prior notice to you unless you have cancelled automatic renewal. You may cancel free In App Subscriptions by deleting the App Store Product from your device. Certain paid In App Subscriptions may offer a free trial period prior to charging your Account. If you decide you do not want to purchase the In App Subscription, turn off auto-renewal in your Account settings during the free trial period. Certain In App Subscriptions may be designated as magazine and newspaper products. You should review additional information about the magazine and newspaper subscription offer at the point of sale

within the App Store Product. We may ask for your permission to provide the name, email address and zip code listed in your Account to the Application Provider of such magazine and newspaper subscriptions so that the Application Provider can send you marketing messages about its own products in accordance with its publicly posted privacy policy. Once the Application Provider has this information, it will be treated in accordance with the Application Provider's privacy policy. We encourage you to learn about the privacy practices of the Application Provider before agreeing to give it your personal information. For more information, please review the Application Provider's privacy policy or contact the Application Provider directly.

The Amazon Appstore for Android Terms of Use also describe "In-App Products" and subscriptions. The description of in-app purchases seems clearer, and the text announces that apps offering in-app purchases will be identified with a logo:

2.3 In-App Products; Subscriptions. *We may offer digital products for sale that are intended to be accessed or used within an App, such as additional or enhanced functionality, media content, or subscription access to content or services ("Amazon-Sold In-App Products"). Not all products and services available for purchase within an App are Amazon-Sold In-App Products. You will be able to identify Amazon-Sold In-App Products because you will see our logo when making the purchase and will complete the purchase using Amazon 1-Click technology. Amazon-Sold In-App Products are subject to any use, access and other restrictions described on, or linked from, the Amazon-Sold In-App Product detail page or otherwise provided in this Agreement. If you purchase an Amazon-Sold In-App Product that is a subscription or start a free trial for such a subscription, your subscription will automatically continue at the regular subscription price using a payment method we have on record for you. However, if you are Quebec resident (determined by your billing address at the time of purchase) and purchase an Amazon-Sold In-App Product that is a subscription and the paid subscription term is two months or longer, your subscription will automatically terminate at the end of its initial paid term. We may terminate a subscription at any time, for example, if the applicable Amazon-Sold In-App Product is no longer available. If we terminate a subscription before the end of its term, you will receive a prorated refund. We reserve the right to change subscription terms and prices from time to time, effective as of the beginning of the next subscription term. Other than for purchases of Amazon-Sold In-App Products, we are not a party to, and have no responsibility for, any payment or purchase transactions you make through an App (unless we expressly state otherwise in writing, such as in connection with purchases made through our Amazon Shopping App).*

You must use a credit card to pay for an Amazon-Sold In-App Product that is a subscription. Do not sign up for an Amazon-Sold In-App Product that is a subscription with a debit card. [...]

Google Play's Terms of Service do not mention in-app purchases directly. A general provision titled "Access to Products" simply states that Google Play makes it possible to browse, locate and/or download products, some of which "*may be made available by third-parties not affiliated with Google.*" As for payment processing, the Terms of Service only refer to the purchase of Google Play products, or to purchases made on Google Play.

However, a section titled Google Payments adds that the following may well apply to in-app purchases:

The Payments Terms of Service and Privacy Notice also apply whenever you want to purchase Content using a Google Payments account. Please ensure that you read those terms carefully before making any purchase. Some purchases in Google Play will require you to transact with the product Provider directly.

Under "Free Content," in the Purchases and Payments section, the Terms of Service make certain clarifications, without ever mentioning the possibility of in-app purchases:

Google may allow you to download or use Content free of charge. Any terms and conditions that apply to purchased Content will apply to free Content, except with respect to payment-related matters (for example, the refund-related provisions of these terms do not apply to such free Content). Google may impose limitations on your access and use of certain free Content¹⁰⁶.

Google's Terms of Service also mention subscriptions, but in the context of free trial periods, which are not the object of our research.

To use Steam's services, it is necessary first to create a customer account. In so doing, one must accept a Subscriber Agreement. The account may include "billing information you provide to Valve for the purchase of Subscriptions, Content and Services and Hardware." Steam can also make available to the user an "account balance" associated with the account (the "Steam Wallet") and able to be credited by bank card, prepaid card, promotional code or any other accepted payment method.

You may use Steam Wallet funds to purchase Subscriptions, including by making in-game purchases where Steam Wallet transactions are enabled, and Hardware. Funds added to the Steam Wallet are non-refundable and non-transferable¹⁰⁷.

Among games with in-app purchases that our field survey focused on, *League of Legends* is a peculiar case: this PC game is available only on the website put in place by Riot Games Inc., which offers that game only¹⁰⁸. As mentioned above, this game, although exclusively for PCs, includes in-app purchases as is more and more prevalent in the industry. Given the popularity and phenomenal revenues of *League of Legends*, we will examine it here.

As indicated by the Terms of Use of *League of Legends*¹⁰⁹ (9,372 words), some parts of the website are freely accessible, but:

[C]ertain aspects of the Site (e.g. posting in the Forums, as defined below) as well as participation in the Game requires you to create an Account by providing Riot Games with certain personal information, specifically, your email address and date of birth.

¹⁰⁶ **GOOGLE PLAY**, Google Play Terms of Service, December 9, 2015. [Online] https://play.google.com/intl/en_ca/about/play-terms.html (page consulted on May 20, 2016).

¹⁰⁷ **STEAM**. Steam Subscriber Agreement. http://store.steampowered.com/subscriber_agreement/

¹⁰⁸ **RIOT GAMES**. Our Games. [Online] <http://www.riotgames.com/our-games>

¹⁰⁹ **LEAGUE OF LEGENDS**. Terms of Use Agreement, Dublin, Ireland. [Online] <http://euw.leagueoflegends.com/en/legal/termsofuse> (page consulted on May 3, 2016).

As opposed to what we observed elsewhere, the account opened with *League of Legends* is not linked to any payment instrument. And yet, the Terms of Use clearly state the possibility of making in-app purchases. The following paragraphs show how the agreement mentions in-app purchases that will be available. The Field Survey section of this report will detail the game's peculiar purchasing process.

Section IV - Ownership

B- Game Assets, Virtual Items, and Accounts

You may also utilize our Riot Points (defined below) system to license certain Game Assets that can be used while playing the Game, including, but not limited to, special champions, champion "skins," and boosts ("Virtual Items").

Section V - Fees, Riot Points, Billing

Some aspects of the Game may require you to pay a fee, and you agree that you will provide accurate and complete payment information to Riot and/or the third-party payment provider used by Riot Games. You agree to pay all fees and applicable taxes incurred by you or anyone using an Account registered to you. All fees and charges are payable in accordance with payment terms in effect at the time the fee or the charge becomes due and payable. Depending on your region, there may be multiple payment options available to you. You will be directed to choose the payment method you desire and enter the applicable payment information. Your purchase will be complete upon your acceptance of the payment terms (if applicable) and clicking the "pay now" button, at which point a confirmation email will be sent to you. Depending on the payment method you select, you may be redirected to a third-party payment site, and your transaction will be subject to the third party's payment rules and processes. [...]

If you have a valid, active Account, you may participate in our Riot Points service offering, which is a redeemable point system that operates like virtual currency ("Riot Points") used to license certain Virtual Items. Riot Points can be purchased online through the in-Game store or at retail in the form of a prepaid Riot Games Game Card. Please note that you must register your Riot Games Game Card in the in-Game store in order to access the Riot Points the card contains. Riot Points might also be provided to you by Riot Games as part of a promotion, or through other means, such as completing certain quests or achievements in the Game, or through Riot Games-sponsored contests or sweepstakes. You agree that you will be solely responsible for paying any applicable taxes related to the acquisition of, use of or access to Riot Points. Unless otherwise specified, all amounts due are inclusive of applicable taxes (e.g. VAT). Riot Points are sold or issued in bundles and the price may vary depending on the amount you purchase and where you are purchasing. As Riot Games feels necessary, in its sole and absolute discretion, Riot Games may limit the total amount of Riot Points that may be purchased at any one time, and/or limit the total Riot Points that may be held in your Account in the aggregate. Riot Games will notify you in the event that you near any such limit. Additionally, price and availability of Riot Points and/or Virtual Items are subject to change without notice (to the extent permitted by applicable law). Some Virtual Items you obtain may have expiration dates while others do not, and each Virtual Item you obtain using Riot Points will be included in your Account until the earlier of that Virtual Item's expiration date, or your Account's expiration or termination date, or such date when Riot Games ceases to offer or support the Game.

As we can see, it is not through agreements concluded with app stores that the consumer will obtain the best information about in-app purchases. At least, some of the terms state that the account, if applicable, can be debited with the amounts for this type of purchases.

In the following section, we will see how those purchases are made and how they are presented, as well as accompanying notices.

3. Consumer Issues and Problems Reported

The Committee on Consumer Policy of the Organisation for Economic Co-operation and Development (OECD) identifies, in a 2013 report¹¹⁰, the major challenges facing consumers who acquire digital content. The latter includes the applications and games that are the object of our study.

The OECD identifies ten types of problems encountered by consumers during such transactions:

- (i) Unclear and complex provisions that do not help consumers understand their rights and obligations, which are not presented prominently;
- (ii) Consumer lack of information about copyright laws and how consumers can use the digital content;
- (iii) Product control measures put in place by the providers and affecting functionality and interoperability;
- (iv) Problems of access to digital products due to their intangible nature – problems of Internet access, of the download “platform”¹¹¹ that freezes up, or problems of product unavailability in some jurisdictions;
- (v) Product quality, notably visual or audio quality, or problems of corrupted content.

Another type of complications identified by the OECD and particularly related to games and apps with in-app purchases is:

- (vi) Unauthorized charges – the OECD document gives as an example the mobile apps used mainly by children who make in-app purchases without their parents’ authorization. The OECD questions the effectiveness of the information disclosure and is considering the necessity of control measures during in-app purchases¹¹².

The OECD’s list continues with:

- (vii) Misleading or unfair commercial practices, including withdrawing content without prior notice to consumers, or a lack of pre-purchase information;
- (viii) Privacy problems – the collection of personal information is often mandatory for acquiring digital content, even when such information is not necessary for making the transaction or for the product’s operation. The OECD also mentions the sharing of personal information with third parties without the consumer’s consent;
- (ix) Digital competence – the OECD states that when acquiring digital content, consumers do not have the necessary knowledge of the digital environment and of their rights and responsibilities in order to benefit from the digital content;
- (x) Problems related to dispute resolution and redress also emerge – dispute resolution information is not prominently displayed or easily accessible.

¹¹⁰ **OECD**, Digital Economy Papers No. 219, *Protecting and Empowering Consumers in the Purchase of Digital Content Products*, 2013, on pp. 22 and fol. [Online] http://www.caa.go.jp/adjustments/pdf/140910adjustments_2.pdf (document consulted on January 5, 2016)

¹¹¹ See footnote 21 regarding the confusion surrounding the term “platform.”

¹¹² *Op. cit.*, note 110, **OECD**, pp. 27 and fol.

Moreover, the OECD points out that divergent regulations between one country and another make things more difficult for consumers when apps are involved.

[t]he situation may be particularly difficult for consumers purchasing products like “apps” from third party developers on online platforms. The role of the platform provider can be unclear. In some countries, such as Poland and Spain, the law requires the online platform to provide consumers with information on the third party vendor. In other countries, such as Hungary, consumers need to be informed simply that a third party may be supplying a service to consumers¹¹³.

These problems identified during consumer acquisition and use of digital content are essentially the same for games and apps with in-app purchases. The following lines describe reported in-app purchase problems, which we will associate with the types of problems identified by the OECD. Given that our research pertains mainly to consumer protection issues, this section of our report excludes problems raised by the OECD with regard to personal information and privacy and to copyright problems.

Despite its great popularity among the public, the freemium model can cause customers a lot of frustrations. So much so that the mythical Comedy Central show *South Park* targeted it in 2014 in an episode titled *Freemium Isn't Free* that won an Emmy Award in the Outstanding Animated Program category¹¹⁴. That episode criticized that app model's popularity and addictiveness. But *South Park* is not alone in criticizing the freemium model and in-app purchase apps. We mentioned above the substantial media coverage regarding *Smurfs' Village*. Numerous other in-app purchase apps, particularly those used by children, have received coverage or criticism by public personalities¹¹⁵. With striking examples of parents experiencing bill shock following in-app purchases made by their minor children, we can report many problems related to those listed in the OECD's categories.

3.1 A “Free Game” – Really?

The “free to play” model at the heart of our research involves apps offered for free, particularly in app stores, but including the option of making in-app purchases, and encouraging or inducing consumers to make such purchases to enhance their experience or improve their performance. And yet, app stores classify this type of apps as “free.” Not so long ago, the fact that this type of app offered the option to make in-app purchases was not mentioned prominently; account holders, notably parents, could thus be unaware of the very existence of the in-app purchase option offered in the apps they downloaded or allowed their children to download. This is the case of a mother whose children played the game *Clash of Titans* on a tablet – an app

¹¹³ *Op. cit.*, note 110, **OECD**, p. 32. Although no EU Directive specifically covers the platform's obligation to disclose the developer's identity and contact information, Article 5 of *Directive 2011/83/EU on consumer rights* [...] requires some mandatory information to be disclosed about developers' identity.

¹¹⁴ **WIKIPEDIA**, *Freemium Isn't Free*, 2014. [Online] https://en.wikipedia.org/wiki/Freemium_Isn%27t_Free (page consulted on April 2, 2016).

¹¹⁵ See for example: **CBC NEWS**, *Kanye West's angry tweets on in-app purchases highlight problem in kids' games*, October 9, 2015. [Online] <http://www.cbc.ca/news/technology/kanye-west-in-app-purchases-1.3277695> (page consulted on November 13, 2015).

presented as free – and made in-app purchases on iTunes to the tune of \$3,000¹¹⁶. The mother, who had a customer account, was unaware of the existence of in-app purchases, and was convinced that her account had been hacked.

Some users might mistakenly believe that freemium apps, presented as free in an app store, cannot entail any expenses. Children are of course more likely to have this false perception.

Since 2014, Apple has made changes to the presentation of “free to play” apps in its iTunes app store¹¹⁷. Since then, a customer no longer clicks the “free” button to download apps offering in-app purchases, but a “Get” button (“Obtenir” in the French version). The app store’s description of this type of apps also mentions that the app is not totally free because it involves in-app purchases. Some think Apple has adopted these new practices because it faced numerous lawsuits in the U.S. from the Federal Trade Commission and from parents unhappy with the bills they received for in-app purchases¹¹⁸, and to meet demands from the European Union, concerned by the effects of in-app purchases¹¹⁹.

As an illustration of current display practices, the screenshot below of the *Duolingo* app’s presentation in iTunes no longer includes the “free” (“gratuit”) button, but expressly indicates, below the “Get” (“Obtenir”) button and below the app’s name in the pop-up window, that the app contains in-app purchases.

¹¹⁶ **CBC NEWS**, *In-app Purchasing and \$3,000 iTunes Bill stun mom*, July 23, 2013. [Online] <http://www.cbc.ca/news/canada/newfoundland-labrador/in-app-purchasing-and-3-000-itunes-bill-stun-mom-1.1342843> (page consulted on September 23, 2015).

¹¹⁷ **GIZMODO**, *Why App Store Apps Say "Get" Instead of "Free,"* November 19, 2014. [Online] <http://gizmodo.com/why-app-store-apps-now-say-get-instead-of-free-1660834562> (page consulted on November 13, 2015).

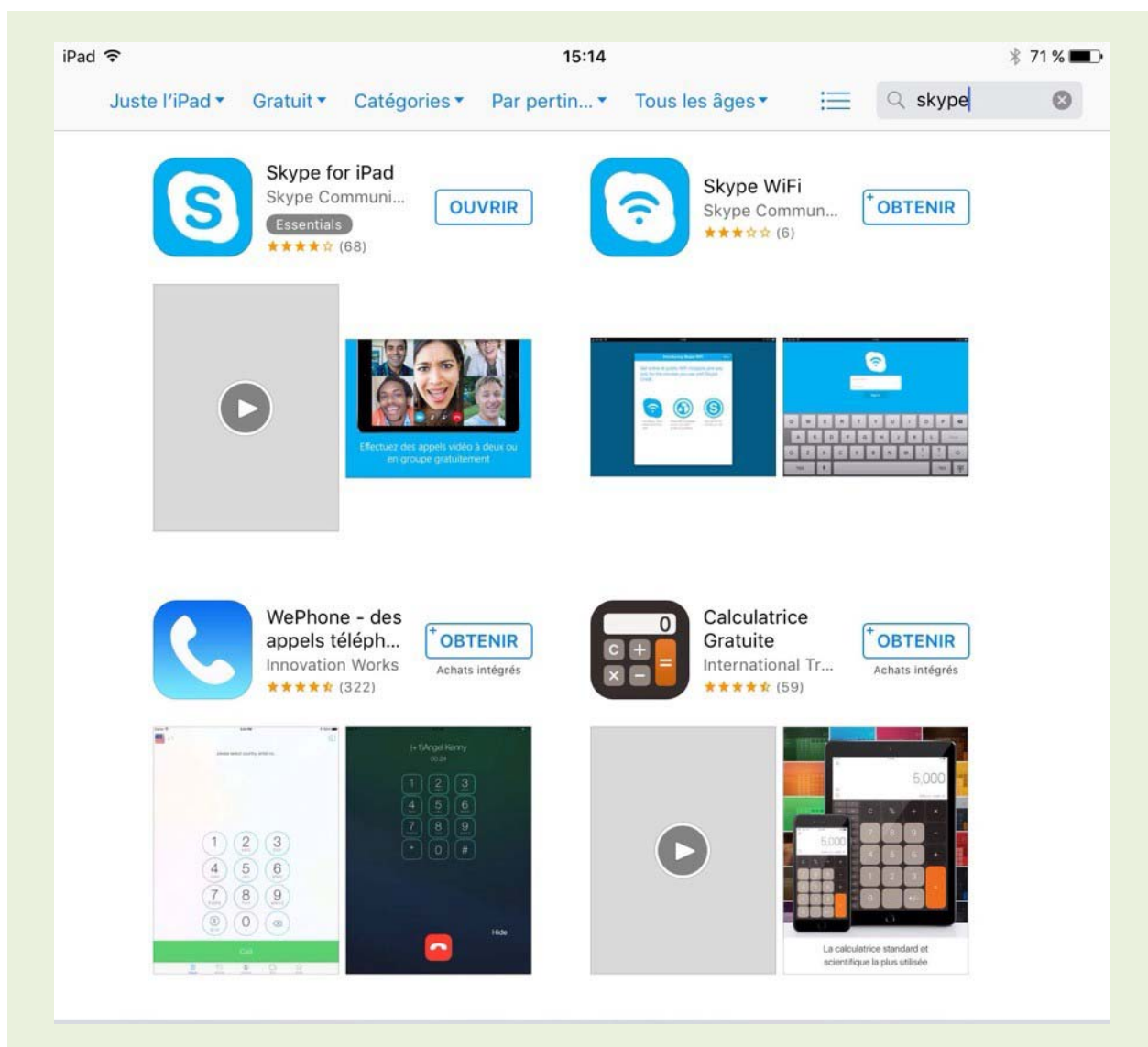
¹¹⁸ *Ibid.*

¹¹⁹ **HODGKINGS, K.**, *EU Meeting with Apple and Google to Discuss Concerns Over In-App Purchases*, February 27, 2014. [Online] <http://www.macrumors.com/2014/02/27/eu-in-app-purchases/> (page consulted on November 11, 2015).



Source: Duolingo in iTunes
(We have added the arrows)

Still, those apps with in-app purchases are still found in the free apps section, and some (see the calculator in the illustration below) even carry the mention “free” in their name, despite the indication of “in-app purchases” below the “Get” (“Obtenir”) button. Here again, the “Free” (“Gratuit”) button has been replaced by the buttons “Get” (“Obtenir”) or “Open” (“Ouvrir”).



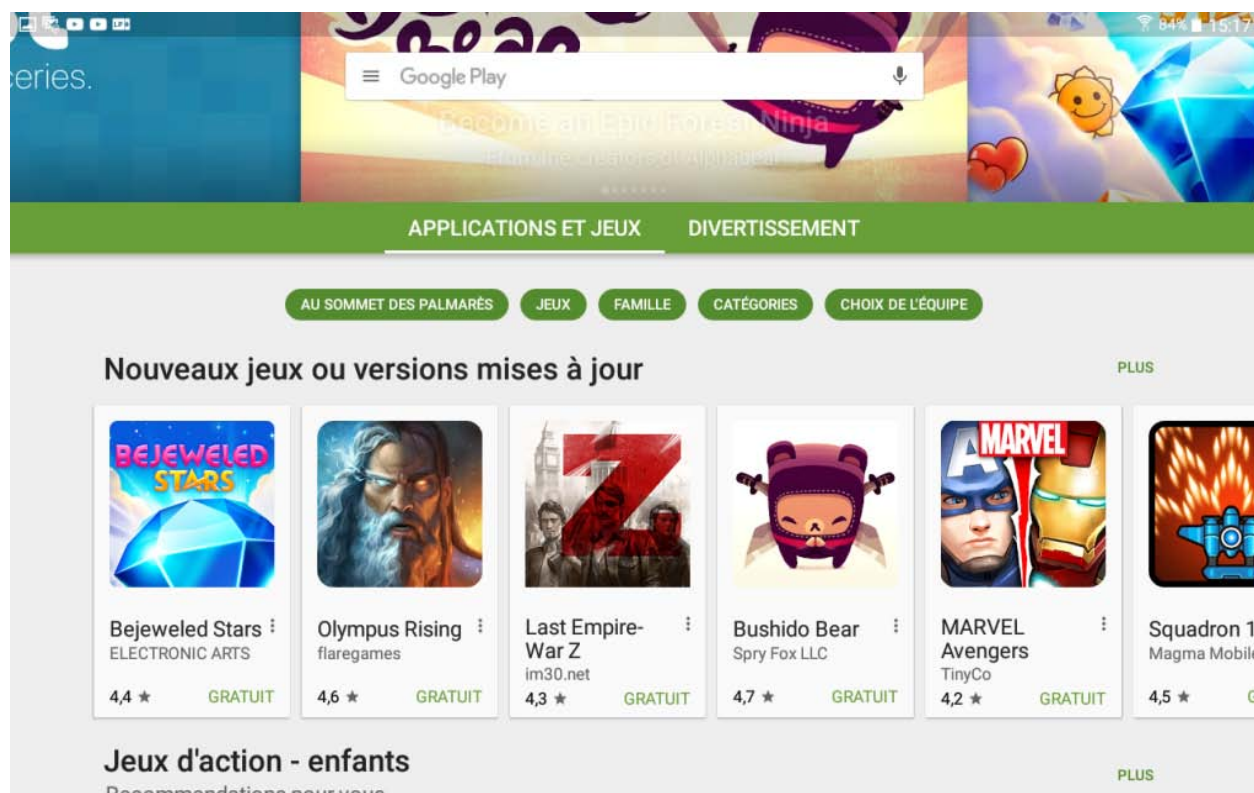
Source: iTunes Canada

At Google Play, a consumer can click the “Install” button to download an app with in-app purchases. In the app store itself, freemiums such as Smurfs’ Village are advertised as free. Only after the consumer selects the app and accesses its description is the app no longer advertised as free; a mention below the “Install” button indicates that the app contains in-app purchases. If the consumer clicks on “Continue,” the following mention appears: *“PLEASE NOTE: Smurfs’ Village is free to play, but charges real money for additional in-app content. You may lock out the ability to purchase in-app content by adjusting your device’s settings.”*



Source: Smurfs' Village

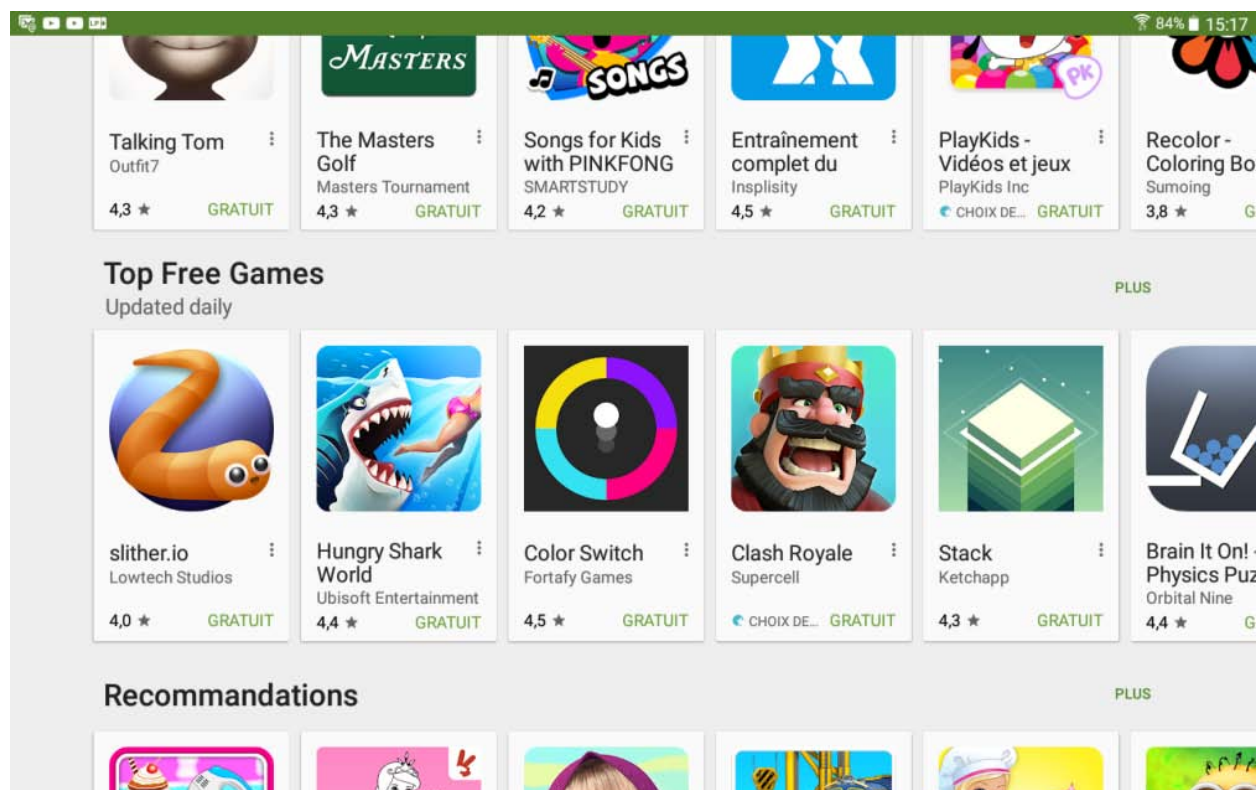
Faced with pressure from the European Union, Google Play pledged not to present as “free” any apps containing in-app purchases¹²⁰. But Google Play’s Canadian website still presents such apps as “free”: notably, the apps *Bushido Bear* and *Marvel Avengers*, which offer the option to make in-app purchases.



Source: Google Play–Canada

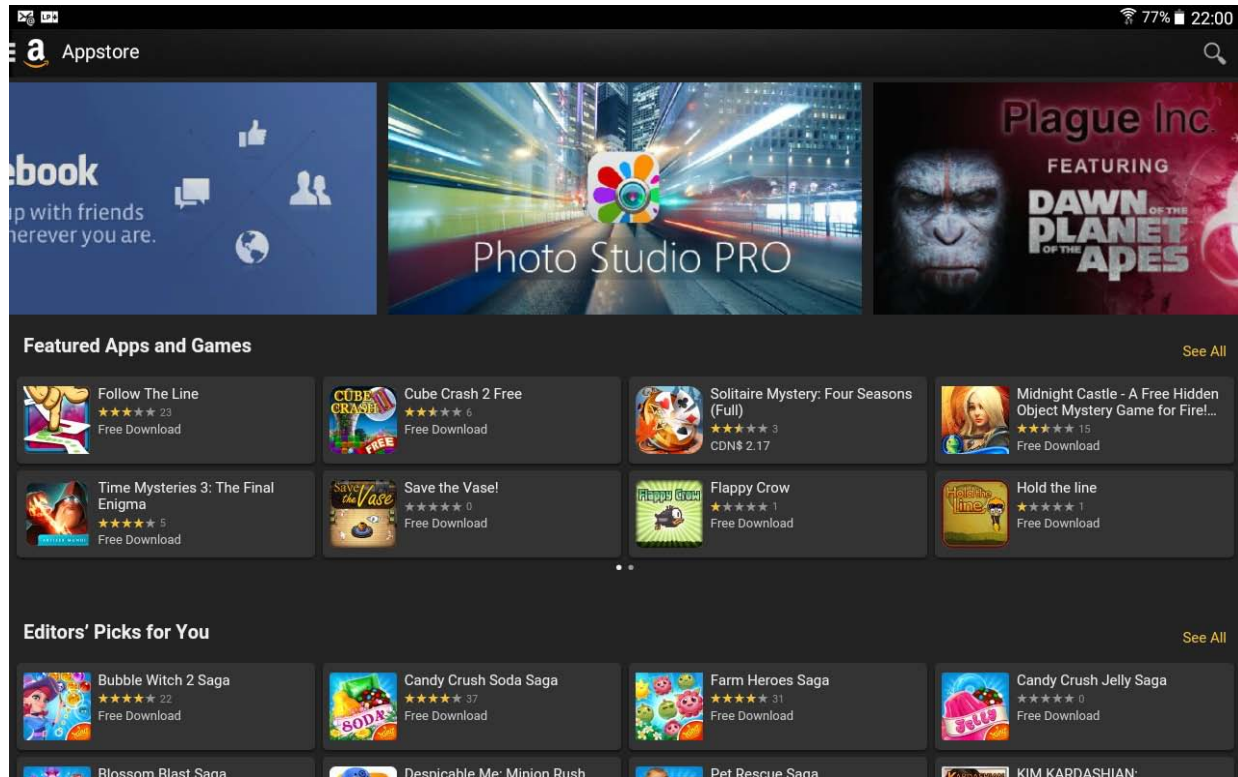
¹²⁰ CRIDER, M., *After Pressure From the European Commission, Google Will No Longer Call Games with In-app Purchases 'Free' On the Play Store*, Android Police, July 18, 2014. [Online] <http://www.androidpolice.com/2014/07/18/after-pressure-from-the-european-commission-google-will-no-longer-call-games-with-in-app-purchases-free-on-the-play-store/> (page consulted on November 6, 2015).

Likewise, in its “Top Free Games” section, the app store continues to include numerous freemiums with in-app purchases, such as *Clash Royal*. Moreover, Google Play’s home page makes no mention of in-app purchases.



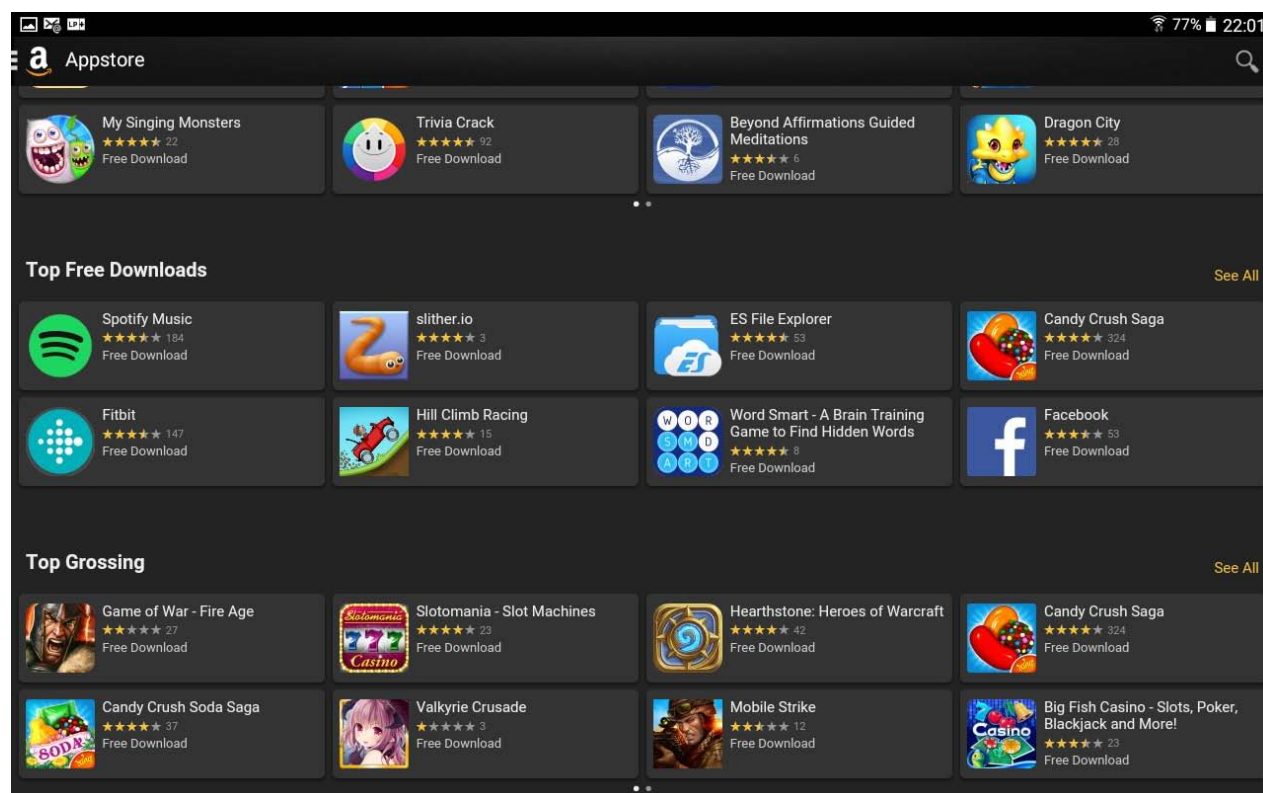
Source: Google Play-Canada

Lastly, Amazon seems to have adopted a hybrid approach to advertising apps with in-app purchases. As shown in the screenshots below, some such apps do not appear as free on that app store's home page, but rather carry the mention "*free download.*" The consumer is left to deduce from that subtle nuance that the app's download may be free, but perhaps not its use.



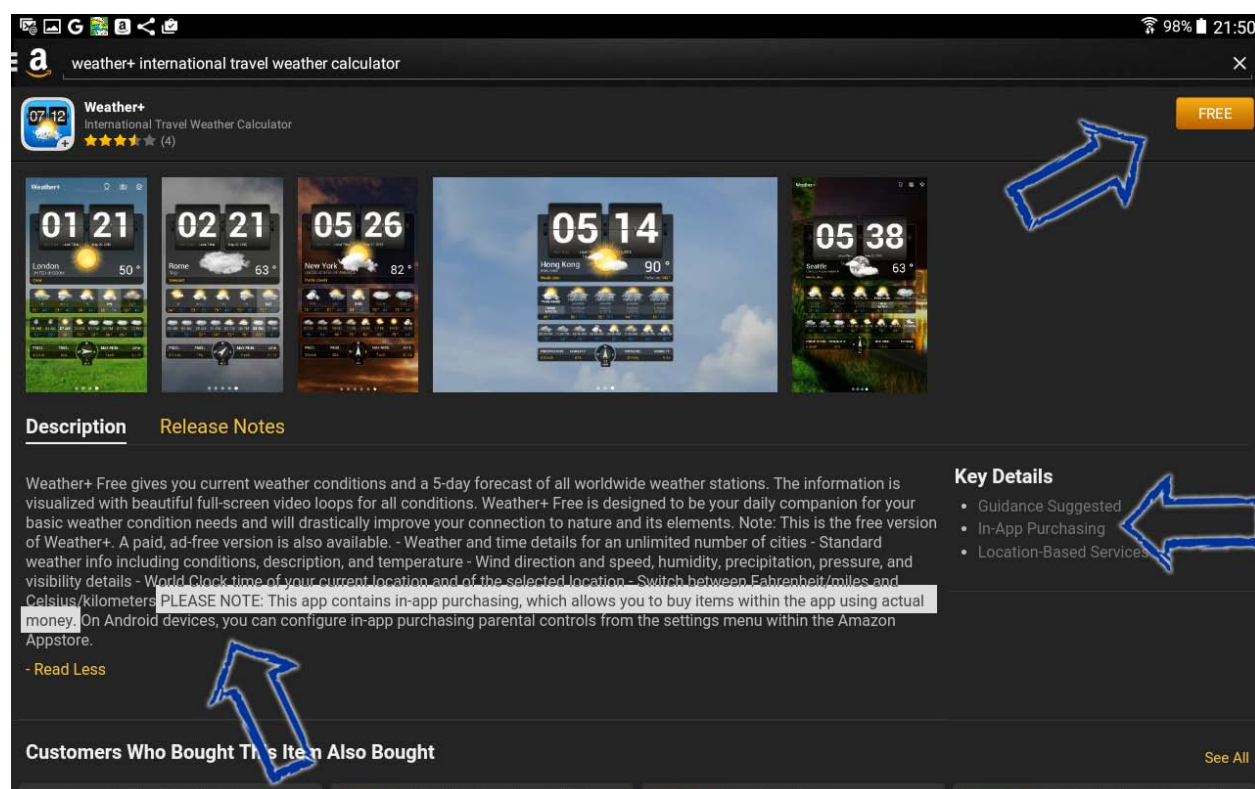
Source: Amazon Appstore-Canada

The same applies to apps promoted by the app store. Amazon does not display a “free” app category, but rather a “top free downloads” category, which includes apps that are at least free to download. In this category we find for example the popular game *Candy Crush Saga*, which offers in-app purchases.



Source: Amazon Appstore-Canada

Once the consumer selects a freely downloadable app containing in-app purchases, a button appears that clearly indicates “Free” (the yellow button in the upper right corner of the picture below). However, Amazon takes care to mention twice – once in the “Key Details” section and afterward in the app’s description – that the app contains in-app purchases.



Source: Weather + in the Amazon Appstore

By clicking the button insisting that the app is free (the “Free” button), the user can download the app, as a new button replaces the previous one and invites the consumer to acquire the app (“Get App”).

There has apparently been growing discontent with that practice of advertising as free those apps offering in-app purchases. As we will see, several European countries are opposing such advertising of not-so-free applications. We have outlined the phenomenal worldwide revenues generated each year by the freemium business model. Those apps, which continue being presented to consumers by apps stores and developers as being “free,” subject to a few subtle mentions or distinctions, can be expensive. Is the information to that effect adequate, as presented to a consumer downloading that type of application? We will try to determine this in the following pages.

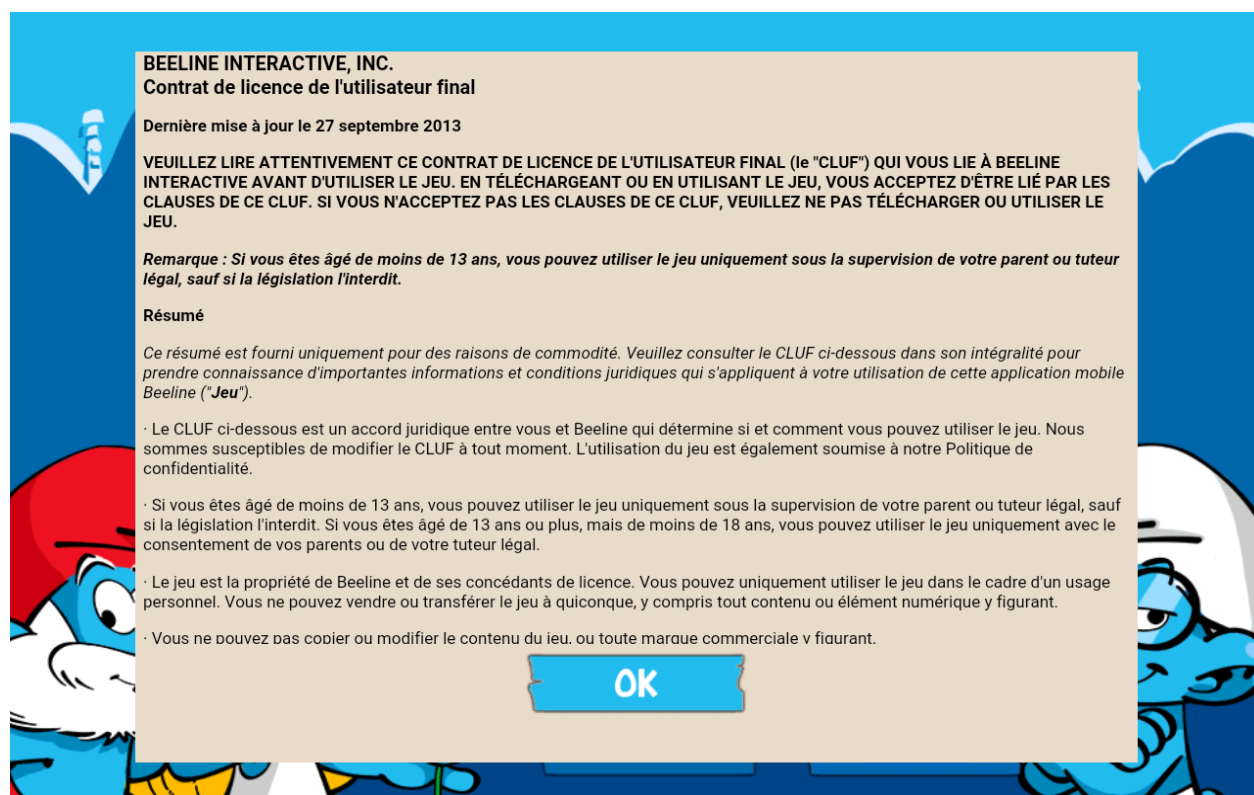
3.2 Disclosure of Information

The app stores are making efforts not to have consumers believe that in-app purchase apps downloaded for free are actually free – and to avoid frightening consumers to the point that they would abstain from downloading the apps. Still, at the moment of downloading, the consumer is far from having all relevant information about the true usefulness (or necessity) of the products offered as in-app purchases or about their prices. He also has little information about an app's collection and use of mobile data (which, as mentioned above, provide revenues to developers and constitute, in a sense, a price paid by the user).

We will discuss this issue further in the section on our field survey, but at this point we can report some findings. Although the presence of in-app purchase features is mentioned more clearly than previously in app stores or the apps' descriptions, pricing information regarding in-app purchases remains deficient. The Apple app store's description of an app lists the prices of in-app purchases most popular among the app's users. Google Play lists, at the bottom of the page describing an app, the prices of its in-app purchases. For example, regarding *Smurfs' Village*, it is announced that in-app purchases cost from \$0.99 to... \$110.86.

Of course, a contract and terms of use bind a consumer downloading an app. And in the case of apps that may prove expensive, the consumer would probably have to consult the relevant terms and conditions before downloading those apps. What links will the download create between consumer and app store? Between consumer and developer? Between consumer and payment intermediary?

As with so many other products and services available online, we observe first that most app terms of use contain dozens of pages written in a style that is hardly user-friendly. But the consumer still must be able to access those terms if he wants to know them before the download. In the case of *Smurfs' Village*, we were able to consult the End-User License Agreement (hereinafter EULA) only after downloading the app. Converted into a Word version, the document contains 14 pages, no less than 5,526 words. The EULA invites people who don't agree to be bound by those provisions... not to download the app.



Source: Smurfs' Village

If the consumer decided to read all the terms of use before downloading the app and when making an in-app purchase, he would spend a great deal of time doing so. As mentioned above, Catalyst has reported that Canadians have on average 19 mobile apps on their smartphones and downloaded on average 2.67 apps per month¹²¹. The necessary time to read all the apps' terms of use would thus be considerable. A Norwegian public organization undertook the exercise to demonstrate the absurd length of apps' terms of use¹²². Consumers had to spend 31 hours, 49 minutes and 11 seconds to read the 260,000 words or 900 pages constituting the terms of use of 33 apps – the average number of apps found on Norwegians' smartphones¹²³.

But as we have seen, the EULA is not the only contract binding the consumer downloading and using an app and in-app purchases. Privacy rules, discussed below, which notably manage the developer's data collection and use, generally appear in the app's description, as opposed to the EULA.

When a purchase is made within an app, a new actor intervenes, whose terms of use may also have to be accepted. During a transaction, the consumer may receive a notice that by confirming the purchase, he also accepts the terms of use of the app store and its payment model. Thus, in the example below, taken from *Smurfs' Village*, the consumer accepts, by

¹²¹ *Op. cit.*, note 3, **CATALYST**.

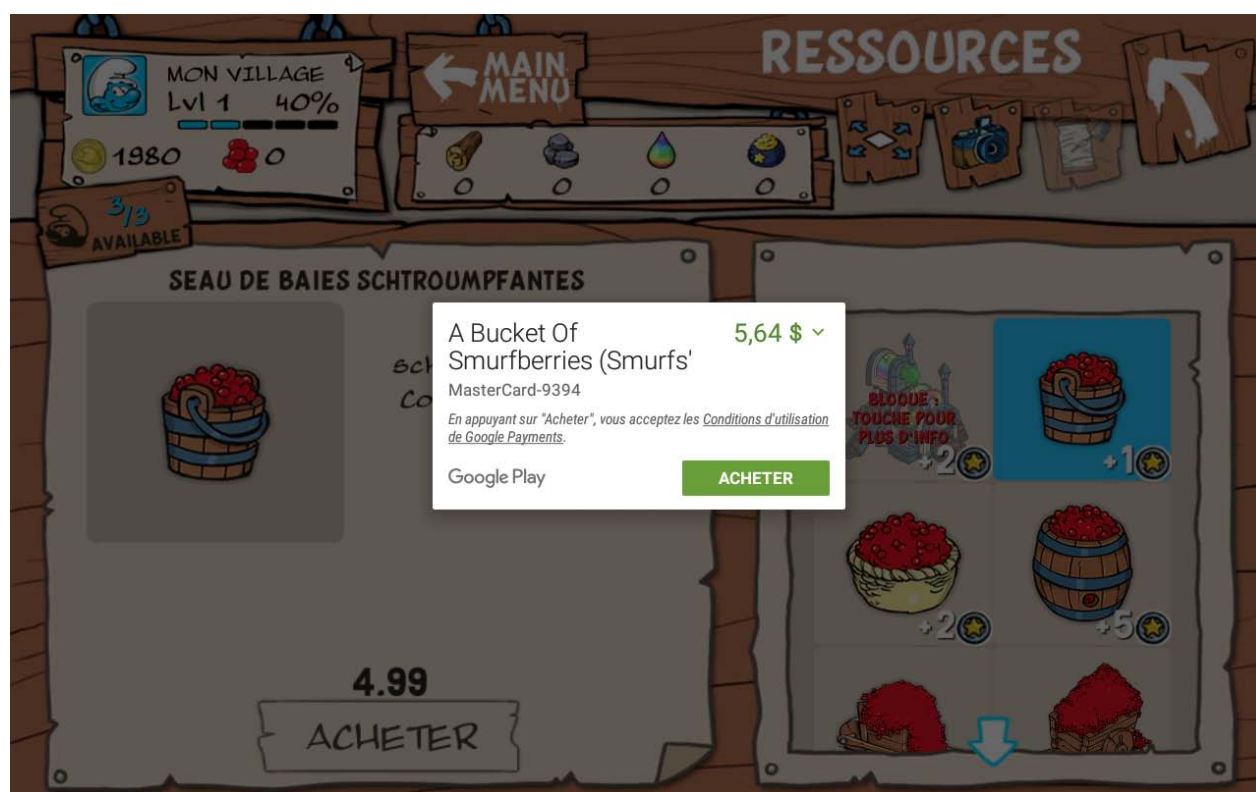
¹²² **AGENCE FRANCE-PRESSE**, *Lecture marathon pour fustiger les conditions d'utilisation des applications*, La Presse, Montreal, Quebec, Canada, May 25, 2016.

[Online] <http://techno.lapresse.ca/nouvelles/applications/201605/25/01-4984805-lecture-marathon-pour-fustiger-les-conditions-dutilisation-des-applications.php> (page consulted on May 25, 2016).

¹²³ **FORBRUKERRADET**, *Vi leser appvilkår minutt for minutt*. [Online] <http://www.forbrukerradet.no/vilkår-og-personvern-minutt-for-minutt/> (page consulted on May 26, 2016).

clicking the link to make his purchase, Google Payments' terms of service¹²⁴; a hyperlink gives him the opportunity to consult those terms. Although in-app purchases ensure a homogeneous process and continuous use within the app itself, it is hard to believe that a consumer, while using an app, will suspend his activities to read all applicable contractual provisions, before accepting them in totality by clicking "Buy." Indeed, Google Payments' terms of service contain 19 pages when converted into a Word text. But the consumer would learn, for instance, that Google Payments assumes no responsibility for "the safety, quality, accuracy, reliability, integrity or legality of any Product, the truth or accuracy of the description of Products, or of any advice, opinion, offer, proposal, statement, data or other information (collectively, "Content") displayed or distributed, purchased or paid through the Service, or the Google Web Sites"; and that if a user attempted to involve Google in any litigation or other dispute, he "shall pay all costs and legal fees of GPC, Google, and other GPC affiliates and shall provide indemnification..."

He might also read about the treatment of his personal information, and click a hyperlink to consult the Privacy Rules (in English only, though) added to the "Google Privacy Policy."



Source: Smurfs' Village

Among the information disclosure problems revealed by the literature on the subject, we find disputes related to mobile data use having led to exorbitant bills for consumers. The omission by app stores and developers to give consumers clear information on mobile data use by the app or game involves a substantial risk that consumers have no way of estimating.

¹²⁴ **GOOGLE**, *Google Payments Terms of Service - Canada*, July 31, 2015. [Online] <https://wallet.google.com/termsOfService?type=BUYER&gl=CA&hl=en> (page consulted on December 3, 2015).

As mentioned in our report's section on mobile data use (section 3.10), Google Play's Terms of Service do include a cautionary note about possible charges related to bandwidth use: "You may incur access or data fees from third parties (such as your Internet provider or mobile carrier) in connection with your use of Products and Google Play¹²⁵." The notice is summary at best. Moreover, it is found in a subsection titled "Third-Party Fees" within the voluminous document constituting the Terms of Service; so only a user who carefully reads the document when opening his account will see that notice.

Given the multiple disclosure problems identified, it isn't surprising that the most publicized complaints about in-app purchases pertain to unauthorized charges appearing either in the customer account or the service provider's bill.

3.3 Unauthorized Charges

A typical case: In March 2016, Union des consommateurs received a call from a consumer whose 4-year-old child had made multiple transactions on his mother's iPhone, for a total of \$3,700. The statement indicated that the transactions had been made every 36 seconds. Similar cases have appeared across Canada; we reported beforehand the case of a mother whose twins made in-app purchases of over \$3,000 in the *Angry Birds* app¹²⁶. An Ontario father was billed \$8,000 after his son had made purchases in FIFA's game with the Xbox¹²⁷. A Quebec mother's young children made in-app purchases of \$520 in the *TapZoo Christmas* game, intended for children four years and older¹²⁸.

The amplitude of the problem of in-app purchases made by young children in apps that seem intended for them is such that a Toronto studio decided in 2015 to develop only apps that are intended for children 2 to 4 years old and contain no advertising and no in-app purchase option¹²⁹. According to that company's chief executive, Jason Krogh, offering paid apps without in-app purchases was quite a challenge for the studio, but won the trust of parents¹³⁰. And the bet seems won – Sago Mini has had considerable success, with almost 10 million downloads of its 18 apps intended for very young children¹³¹.

In all the cases reported and many others, parents experiencing bill shock due to in-app purchases have argued that they never authorized those purchases. However, the terms of service specify that the account holder is solely responsible for the use of his account (barring fraud).

¹²⁵ *Op. cit.*, note 106, **GOOGLE PLAY**.

¹²⁶ **CBC NEWS**, *In-app purchasing and \$3,000 iTunes bill Stun Mom*, July 23, 2013. [Online] <http://www.cbc.ca/news/canada/newfoundland-labrador/in-app-purchasing-and-3-000-itunes-bill-stun-mom-1.1342843> (page consulted on November 13, 2015.)

¹²⁷ **CBC NEWS**, *Xbox bill refunded after teen racked up \$8K in charges to dad's dismay*, January 25, 2016. [Online] <http://www.cbc.ca/news/canada/ottawa/xbox-bill-credit-card-refunded-1.3418669> (page consulted on March 13, 2016).

¹²⁸ **GRAMMOND, S.** *App Store: Une facture de 520 \$ avec un jeu pour enfants "gratuit,"* La Presse, February 19, 2011. [Online] <http://affaires.lapresse.ca/finances-personnelles/bons-comptes/201102/18/01-4371866-appstore-une-facture-de-520-avec-un-jeu-pour-enfants-gratuit.php> (page consulted on November 14, 2015).

¹²⁹ **SAGOMINI**, *Welcome Parents!* [Online] <http://www.sagomini.com/> (page consulted on May 10, 2013).

¹³⁰ **AHEARN, V.**, *Des achats intégrés dans les jeux pour enfants décriés*, October 18, 2015, La Voix de l'Est. [Online] <http://www.lapresse.ca/la-voix-de-lest/affaires/201510/18/01-4911202-des-achats-integres-dans-les-jeux-pour-enfants-decries.php> (page consulted on November 10, 2015).

¹³¹ **SAGOMINI**, *About Us*. [Online] <http://www.sagomini.com/about/> (page consulted on May 10, 2013)

Does this mean that those parents were careless? Or that the measures for avoiding such unforeseen and unauthorized uses are deficient? App stores and device manufacturers have installed features enabling mobile device owners to restrict the possibility of making in-app purchases. But that depends on whether those features are sufficient and effective, and whether users are adequately informed of their existence, usefulness and method of use.

3.4 Consent

Some think consumers should deduce that the indication of in-app purchases within an app means that those purchases can be debited from the customer's account and be made by a third party using his device. But we may doubt those two assumptions.

Indications of in-app purchases in some apps are now clearer than in the past. So we may assume that a consumer who agrees to download such an app gives a certain consent. Given that the apps are presented as "free downloads" and "free to play" games, we may also easily assume that the consumer is agreeing to the free operations. But does that first consent by the account holder imply free and informed consent to in-app purchases that can be made with his account without his knowledge? Can that consent to future transactions even be valid if the account holder is not informed, at the moment of downloading, about essential aspects (price, detailed description and any other essential aspect of the transaction) of possible or eventual transactions?

The app stores come prepared. The terms of use that the consumer must accept at the moment of opening an account expressly provide that the account holder is responsible for any transaction made with it; and by agreeing to the terms of use in totality, the consumer also assumes that responsibility.

For example, Apple's policy states "You are solely responsible for maintaining the confidentiality and security of your Account, and for all activities that occur on or through your Account [...]"¹³²

With Google, you agree to being solely responsible for all charges related to the purchases you make on Google Play¹³³. In addition:

You are responsible for any charges and related fees that may be imposed under your Carrier Billing Account terms & conditions as a result of your use of Carrier Billing.

[...]

*None of Carrier, Google, GPC, or Google Play is responsible for any product (including an App) purchased with Carrier Billing, including download, installation, use, transmission failure, interruption, or delay, refunds, third party advertisements you may encounter while using the product or App, alterations any App may make to the functionality of your device, including any changes that may affect your Carrier's plan, service, or billing, or any content or website you may be able to access through the App*¹³⁴.

¹³² *Op. cit.*, note 104, **APPLE**.

¹³³ *Op. cit.*, note 106, **GOOGLE PLAY**.

¹³⁴ **GOOGLE**. Google Payments Terms of Service. [Online]

<https://payments.google.com/legaldocument?family=0.buyertos&gl=ca> (page consulted on November 18, 2015).

However, as pointed out by the OECD, consumers don't have the necessary knowledge of the digital environment and their rights and responsibilities in order to benefit fully from digital content.

As we have seen, one of the problems reported by consumers concerns unauthorized charges, particularly for in-app purchases made by children. It is difficult to imagine that a consumer who allows his child to play using the parent's tablet or smartphone is thereby agreeing to any in-app purchase the child might make. We may even doubt that the game designers who try to attract young children and lead them to make real-money purchases sincerely believe that parents would agree to all the purchases their children might make.

It remains that parents can modify device settings and thus manage, to a certain extent, the acquisition of in-app purchases. Are app store customers aware of those device features and of how to modify them?

3.5 Consumers' Lack of Knowledge and Understanding regarding the Operation of Devices, Apps and In-App Purchases

As reported by the OECD:

Users face a learning curve for apps and there is a set of skills that people must master before they can take advantage of all the benefits of the app economy. The switch from a standard "featurephone" to a smartphone requires that users configure an account, that they learn how the new operating system functions, and that they have the skills necessary to install and use apps. The platform providers have made the platforms as intuitive as possible but there are still steps that can be difficult for end users¹³⁵.

Lack of knowledge about device settings and the operation of apps and in-app purchases is no doubt part of the difficulties faced by many consumers in a digital environment. Professor Sidneyeve of Queens University reported in a CBC News article in 2013 that "parents often know generally about these kinds of games. It's just that they may not have the mobile digital literacy to know how to turn off some of those settings in Apple or on the phone or tablet itself¹³⁶."

The problems consumers experience with in-app purchases result to a certain extent from consumers' lack of understanding and knowledge of this type of transactions. While a great many Canadians have smartphones or tablets, that does not imply an adequate understanding of apps or in-app purchases, or of device settings. Consumers who download free games don't seem to expect that their children can make purchases without their knowledge. Consumers also don't seem to have the necessary knowledge for using the settings in their devices, app stores, etc. (or even to think that such settings exist or could be useful) and for avoiding to a certain extent this type of undesired charges.

¹³⁵ *Op. cit.*, note 110, **OECD**, p. 49.

¹³⁶ **HILDEBRANDT, A.**, *How to Protect Yourself from Costly 'Bait Apps'*, CBC NEWS, July 24, 2013. [Online] <http://www.cbc.ca/news/canada/how-to-protect-yourself-from-costly-bait-apps-1.1388603> (page consulted on November 18, 2015).

Is it necessary that those who have such knowledge find a way to impart it in a timely manner to consumers who use the apps on their “smartphones” and risk being faced with in-app purchases? Should those in the know be compelled to so inform consumers?

In its terms of service, Apple indicates to the user the settings that can replace the default settings and provides links to instructions for thus changing the settings:

You must authenticate your account before making In-App Purchases – separate from any authentication to obtain other Content – by entering your password or using Touch ID. You will be able to make additional In-App Purchases for fifteen minutes without re-authenticating unless you’ve asked us to require a password for every purchase or have enabled Touch ID. You can turn off the ability to make In-App Purchases by following these instructions: <https://support.apple.com/en-us/HT201304>¹³⁷.

This initiative is certainly laudable, but the document containing the above mention also contains almost 25,000 words, and the consumer opening an account may very well not take the time to read it carefully in full.

Some initiatives have attempted to educate young people about various aspects of the digital environment, particularly games offering in-app purchases, so that young people may acquire a certain level of digital literacy. In that vein, MediaSmarts (HabiloMédias), a non-profit organization, has developed workshops intended for Canadian schools¹³⁸. Those workshops, titled *Use, Understand & Create: A Digital Literacy Framework for Canadian Schools*, are intended for children from kindergarten to grade 6.

The *Pay For Play* workshop, which pertains precisely to games with in-app purchases, aims at teaching students to:

- *understand the sometimes misleading nature of “free” online games;*
- *recognize advertising, branding, upselling and privacy risks in online games;*
- *recognize advertising, branding, upselling and privacy risks in online games;*
- *develop strategies for mitigating the risks and drawbacks of free online games*¹³⁹.

¹³⁷ *Op. cit.*, note 51, **APPLE**.

¹³⁸ **MEDIASMARTS**, *Use, Understand & Create: A Digital Literacy Framework for Canadian Schools*, 2016. [Online] <http://mediasmarts.ca/teacher-resources/use-understand-create-digital-literacy-framework-canadian-schools> (page consulted on May 26, 2016).

¹³⁹ **MEDIASMARTS**, *Pay For Play*, p. 1 [Online] http://mediasmarts.ca/sites/mediasmarts/files/lesson-plans/lesson_pay_for_play.pdf (document consulted on May 3, 2016).

3.6 Default Settings, Restrictions and Other Ways to Manage In-App Purchases

Apple, the iPhone and iPad manufacturer, states that it has taken measures to restrict in-app purchases. The company has also made it possible for users of its app store to manage access to in-app purchases.

a) Apple and iTunes

(i) Operating system, iTunes and the 15-minute grace period:

On the 2nd page of its terms of use, Apple mentions that authentication of the account during a payment means that, by default, the password will not be requested for 15 minutes following an operation. However, the same paragraph advises the user that those settings can be modified, and includes two hyperlinks to pages explaining how to do so in order to restrict access to purchases¹⁴⁰.

As mentioned above, the user may, when making an in-app purchase, either choose to suspend for 15 minutes the password request for subsequent purchases, or opt for a password confirmation at each purchase (if the choice has not been made in the device settings never to request a password). Those choices (as well as the option never to request a password) are also in the device's basic settings, with the default option being the 15-minute period with password verification. This possibility of modifying device settings to request the password at each transaction has existed since 2001; it still seems poorly known, as demonstrated by the bill shocks reported by consumers. Without that modification, purchases are thus authorized without any verification within 15 minutes following each purchase authorized by password.

Before an in-app purchase is made, notices that a 15-minute grace period allows other in-app purchases without a password have been in place only since version 7.1 in 2014¹⁴¹. Such a caution obviously has little effect on a child or teenager wanting to make an in-app purchase. But it may give parents an opportunity, or even induce them, to modify their device settings. Of course, those precautions would not be necessary if Apple established as the default setting a password verification at each purchase.

(ii) iTunes Allowance:

Apple has announced that its iTunes Allowance would no longer be available as of May 25, 2016¹⁴². That feature had been offered since 2003, enabling parents to control their children's digital content purchases, notably in-app purchases. Parents could transfer amounts to their children's iTunes account so they could make certain purchases; once the allocated amount was exhausted, no further purchase could be made with that account.

¹⁴⁰ *Op. cit.*, note 51, **APPLE**.

¹⁴¹ **WHITNEY, L.**, *How to disable or limit In-app Purchase in iOS*, CNET, March 12, 2014. [Online] <http://www.cnet.com/how-to/how-to-disable-or-limit-in-app-purchases-in/> (page consulted on November 16, 2015).

¹⁴² **APPLE**, *iTunes Allowances to end May 25th*, 2016. [Online] <https://support.apple.com/en-ca/HT201676> (page consulted on May 5, 2016).

The reason why Apple has decided to end that control measure is unclear; some think that the aim is to favour Family Sharing, introduced to iTunes in 2014¹⁴³.

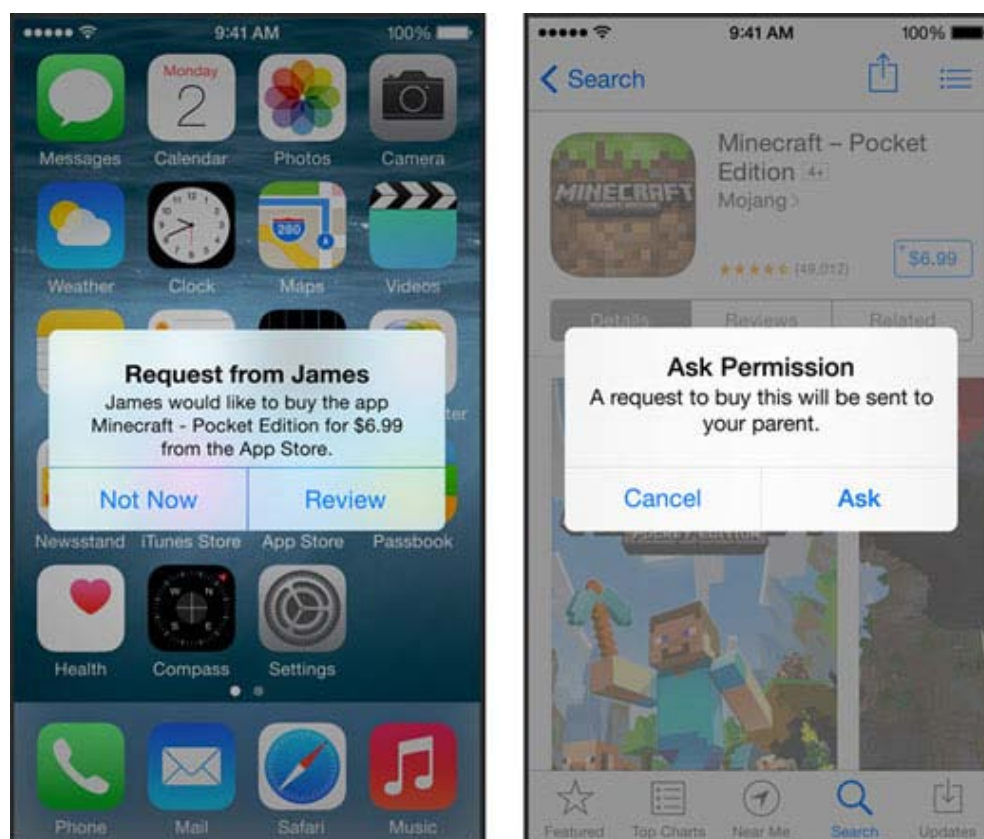
(iii) Family Sharing:

With iOS 8 in 2014, Apple introduced Family Sharing, a feature the company described as follows:

Family Sharing makes it easy for up to six people in your family to share each other's iTunes, iBooks, and App Store purchases without sharing accounts. Pay for family purchases with the same credit card and approve kids' spending right from a parent's device. Share photos, a family calendar, and more to help keep everyone connected¹⁴⁴.

Family members can share apps only to the extent allowed by developers. However, our research is particularly concerned with the “Ask to Buy” feature.

It should be known that each family member must, to benefit from Family Sharing, have his own Apple username. Apple does not authorize children younger than 13 years to create their own username, but the parent may do so for them¹⁴⁵.



Source: Macworld¹⁴⁶

¹⁴³ FRIED, I., *Apple is Ending iTunes Allowances, but Why?*, Recode, April 14, 2016. [Online]

<http://www.recode.net/2016/4/14/11586136/apple-ends-itunes-allowances> (page consulted on April 5, 2016).

¹⁴⁴ APPLE, Family Sharing. [Online] <https://support.apple.com/en-ca/HT201060> (page consulted on May 21, 2016).

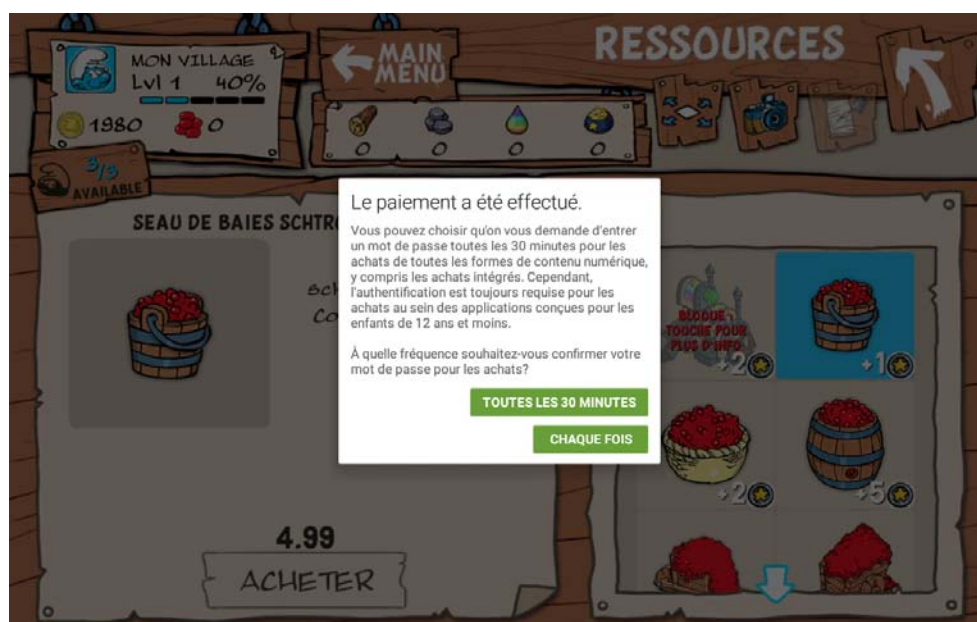
¹⁴⁵ *Ibid.*

This feature enables parents to receive a notice when a minor child of theirs wants to make a purchase¹⁴⁷. The parent can then either confirm or disallow the purchase. How can this feature help parents manage in-app purchases? Apple clearly indicates that in-app purchases cannot be shared between family members¹⁴⁸. Each one who wants virtual products available through in-app purchases must therefore make his own transactions. However, everything suggests that if the “Ask to Buy” feature is activated, the parent will receive a notification requiring him to approve or not any transaction, including in-app purchases, in the applicable account.

b) Google Play

(i) Default settings and the authentication process

Google Play has settings similar to Apple's. The first time a customer uses his account to make a payment, he must enter his password to conclude the transaction, and he may choose either that the password be required for each subsequent purchase or that it be requested again only every 30 minutes. With the latter option, all subsequent purchases are automatically validated without authentication for 30 minutes (except those made from an app intended for children less than 12 years old).



Source: Smurfs' Village - Google Play Canada

¹⁴⁶ HATTERSLEY, L., *Complete guide to Family Sharing in iOS 8 and OS X Yosemite: Share photos, location data, apps, music and movies, and control kids' purchases*, Macworld, July 11, 2014. [Online] <http://www.macworld.co.uk/feature/iosapps/how-apples-ios-8-family-sharing-for-itunes-will-work-3524350/> (page consulted on November 16, 2015).

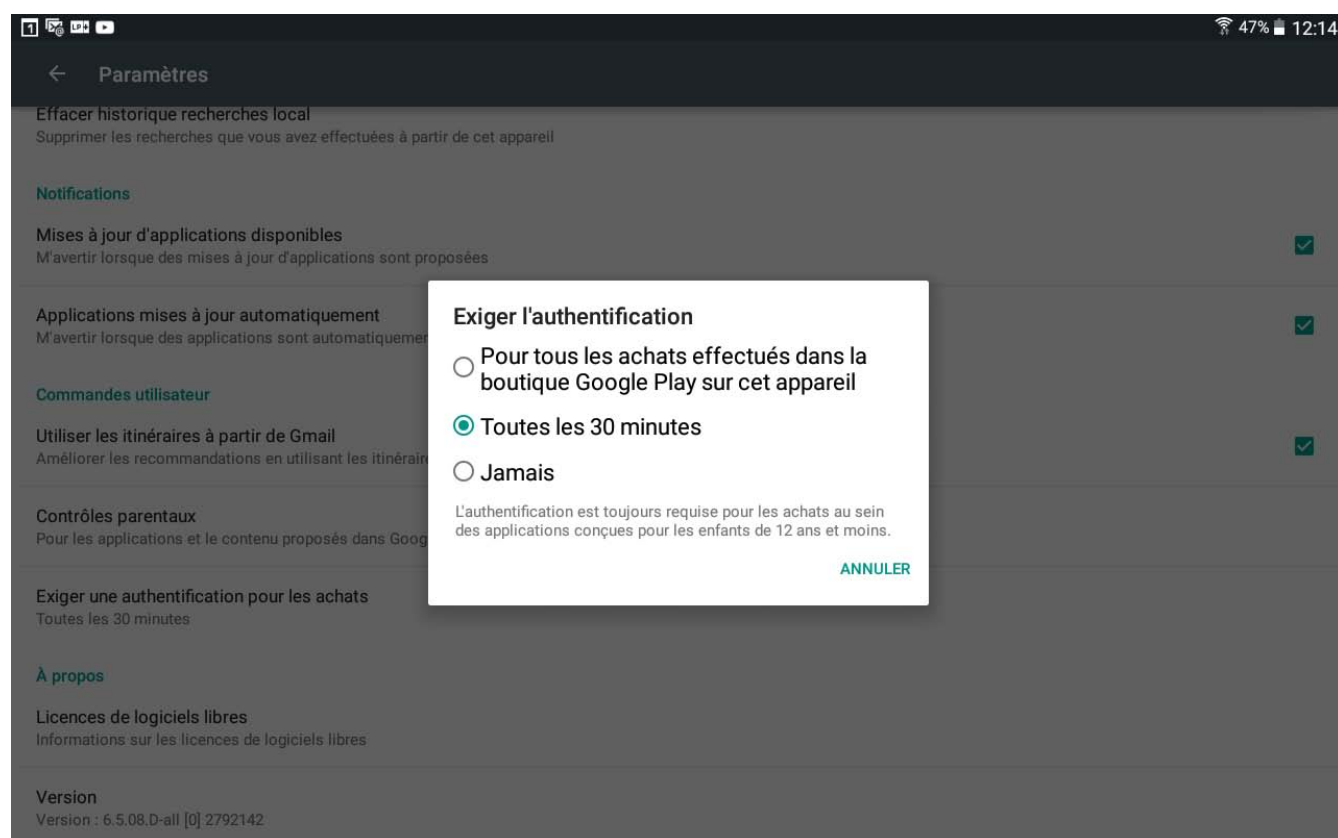
¹⁴⁷ "The family organizer can turn on Ask to Buy for any family member who isn't an adult. It's on by default for any children under 13, and you'll be asked if you want to enable Ask to Buy when inviting anyone under 18 to your family group. Use these steps to turn Ask to Buy on or off for family members who are under 18 in your family group." APPLE, Request and make purchases with Ask to Buy. [Online] <https://support.apple.com/en-us/HT201089> (page consulted on May 13, 2016).

¹⁴⁸ APPLE, *About in-app purchases*, May 3, 2016. [Online] <https://support.apple.com/en-ca/HT202023> (page consulted on May 13, 2016).

However, nothing in that notice indicates that the device's default settings allow unauthenticated purchases for 30 minutes following a password-authenticated purchase, and that those settings should be changed if necessary¹⁴⁹.

(ii) Parental control and family sharing on Google Play

So that parents may exercise a certain control over their children's purchases, Google Play has established parental control measures that the consumer has the option to activate¹⁵⁰. A Google Play account user may modify Google Play's settings and thus require the password to be required by default for each purchase.



Source: Google Play Canada

¹⁴⁹ PATWEGAR, S., How to Disable In-App Purchases on Your Android Device, Techbout, January 3, 2016. [Online] <http://www.techbout.com/disable-in-app-purchases-on-android-6815/> (page consulted on February 10, 2016).

¹⁵⁰ GOOGLE PLAY, *Parent Guide to Google Play*. [Online] <https://support.google.com/googleplay/answer/6209547?hl=en-CA> (document consulted on April 3, 2016).

(iii) Family sharing and the badge

Google Play now offers users features similar to Apple's "*Family Sharing*" that we described above¹⁵¹. This feature allows digital content to be shared between up to six members of the same family and also allows a single family payment method to be established. On its website, Google Play's customer service clearly explains that members of the same family can, without the account holder's approval, make purchases with the payment method established by him, but that he will receive an e-mail notification at each purchase made with the family payment method¹⁵². But regarding in-app purchases, the company adds:

*By default, family members ages 13-17 will need to get your approval for all purchases, and family members ages 18 and older need your approval to make in-app purchases*¹⁵³.

This may prove effective for the consumer to avoid bill shock from in-app purchases made by family members. But to benefit from this measure, the option's inconveniences or problematic features must be accepted.

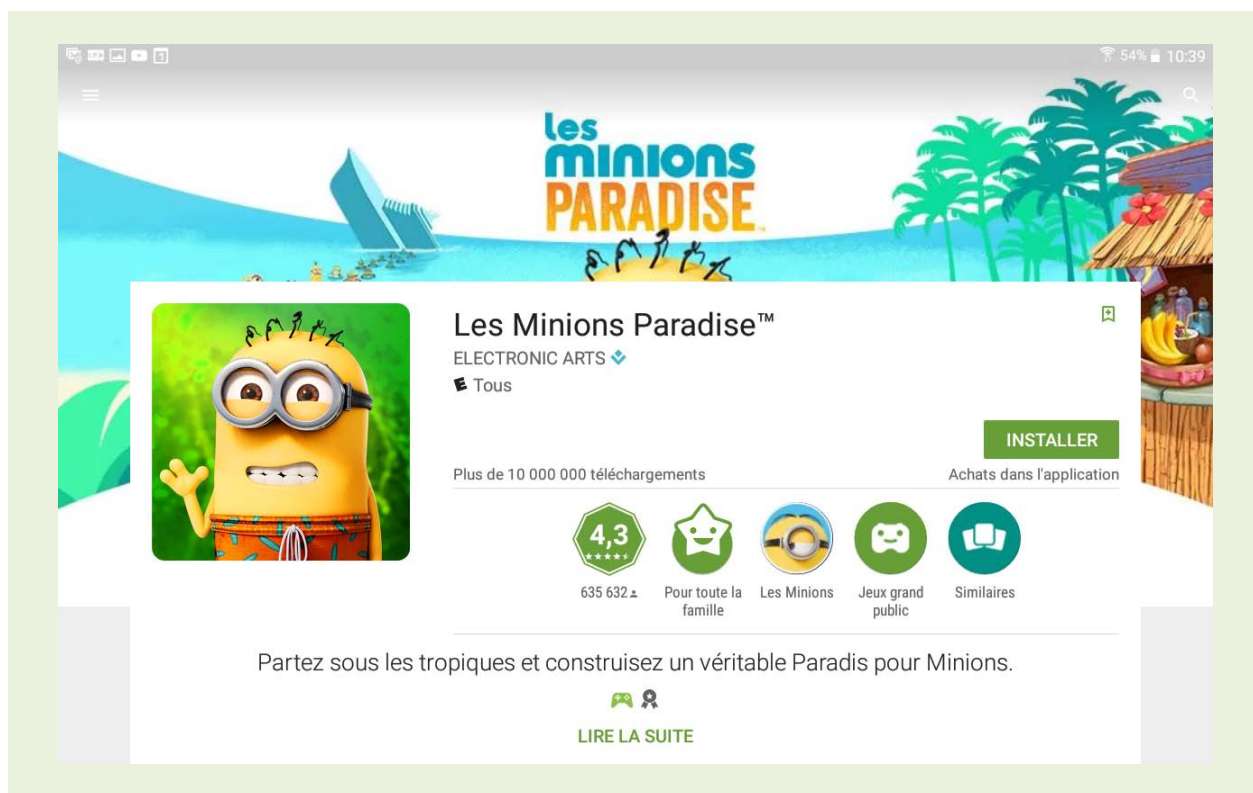
As mentioned above, iTunes and Google Play default settings that allow in-app purchases without authentication for a certain grace period following an initial transaction seem to put users needlessly at risk. So we're happy to see a company adopt some default settings that protect account holders a little better. It's at least a step in the right direction.

To enable parents to detect more easily applications intended for the entire family, Google Play uses a set of badges. As in the example of the *Minions Paradise* app, the badge indicates that the app has family content ("Everyone"). It should be noted that the app also carries (in the upper right corner, under the "Install" button, the mention "Offers in-app purchases"...

¹⁵¹ **GOOGLE PLAY**, *Manage your family group on Google Play*. [Online] https://support.google.com/googleplay/answer/6286986?hl=en-CA&ref_topic=6209538 (page consulted on May 5, 2016).

¹⁵² **GOOGLE PLAY**, *Use a family payment method on Google Play*. [Online] <https://support.google.com/googleplay/answer/6294544> (page consulted on April 5, 2016).

¹⁵³ *Ibid.*



Source: minions Paradise on Google Play

c) Amazon

The default setting practices seem uniform among the various app stores.

At with Google Play and Apple, the consumer can set his parameters so that the customer account's password (or a personal identification number used as such) is necessary for making in-app purchases.

The consumer can also simply allow or disallow in-app purchases.

The majority of operating systems for smartphones and tablets now allow consumers to restrict the possibility of making in-app or in-game purchases on the device. But this tool will be useful only if the consumer is aware of its existence, of how to access and activate it.

However, the majority of devices and the app stores allow the possibility of making in-app purchases, except for the Google Play feature "Manage your family group," which by default requires the approval of the parent managing in-app purchases made by family members. Of course, it would be better for the consumer, particularly a novice with applications or smartphones, if those default settings did not allow in-app purchases. The revenues that in-app purchases generate for companies that own both the operating systems and the app stores, and even the devices themselves, obviously explain the companies' lack of enthusiasm for finding ways to complicate or hinder the ways users can access those purchases.

However, we note that the app stores have established a series of settings that enable consumers to restrict the possibility of making in-app purchases. Still, to know about those settings and their use, consumers need to be aware that an app advertised as free involves in fact the possibility of making in-app purchases.

3.7 Strategies Available to App Developers

In 2012, the blog *Readwrite.com* listed “five tricks app-makers use to boost in-app purchases”¹⁵⁴:

- (i) “Bait and Hook”: *“The psychology here is simple. Lure in the customer with an all-too-accessible free download. With that initial barrier removed, developers then only need focus on creating a fun and engaging gaming experience. After those first few minutes (or hours) of play, it’s that much easier to get the customer’s buy-in to spend a little something to continue the experience. The desire to make it to the next level can be almost addictive. A fully invested customer will be more willing to pay to play”*¹⁵⁵.
- (ii) “Make It Easy”: Offer a relatively simple app. The author gives the example of the app *Angry Birds*, the object of which is simple: to eliminate all the pigs at each level by throwing little angry birds at them. It should be easy for consumers to understand the rules of the game or app and to start using it.
- (iii) “Timely Offerings”: In-app purchases should be offered at an opportune time. An in-app purchase should be offered only after the consumer has downloaded the app and feels he can win. The author refers to pop-ups that can appear at critical times of the game and, for example, offer a key item to progress more quickly in the game.
- (iv) “Introduce New Items”: Offer new items as in-app purchases. The author mentions as the leader in this strategy the developer TinyCo, producer of the app *Tiny Zoo Friends* – where children maintain a virtual zoo –, which sells new animals each week. For instance, the cow, named The Cash Cow, has reportedly earned the company \$50,000.
- (v) “For A Limited Time Only”: Make limited-time offers. In-app purchases are offered at a reduced price, but for a limited time to induce the consumer to acquire the virtual item immediately, even if it isn’t necessary at the time of the announcement.

Those are only five of the in-app purchase strategies we find in various forms. There are of course many other strategies¹⁵⁶. In the following paragraphs, we list a few and offer examples encountered during our field survey.

¹⁵⁴ HENRY, V., *5 Tricks App-Makers Use to Boost In-App Purchases*, Readwrite, September 21, 2012. [Online] <http://readwrite.com/2012/09/21/5-tricks-app-makers-use-to-boost-in-app-purchases/> (page consulted on November 11, 2015).

¹⁵⁵ *Ibid.*

¹⁵⁶ D’ANTONI, R., *40 Secrets to Making Money with In-App Purchases*, RAYWENDERLICH-Tutorials for Developers and Games, June 27, 2013. [Online] <https://www.raywenderlich.com/39647/40-secrets-to-making-money-with-in-app-purchases> (page consulted on November 18, 2015).

One of the experts we consulted to validate our analysis of the in-app purchase environment of online games and apps, Thiéry Adams, an independent game producer and, notably, an MBA graduate, expressed shock at the blog author's use of biased language. He suggested, among other things, to replace the word "trick" with "best practice" and the above quoted paragraph with the following text, which he estimated to be more objective:

L'industrie mobile a beaucoup de compétition pour l'acquisition des joueurs. Dû à cette pression de l'offre, les produits doivent retirer le maximum de barrières à l'entrée, et offrir de plus en plus au client pour le persuader de rester et de dépenser (compétition de marché mature). C'est pourquoi la vaste majorité des produits mis en marché et téléchargés sont gratuits et la vaste majorité des dollars sont dépensés dans les produits gratuits à l'installation. Plus le temps avance, plus les exigences des joueurs sont élevées, alors l'expérience doit être d'une qualité et d'une accessibilité plus compétitive.

It is very interesting to compare the excerpt whose approach and tone he is attempting to correct with his presentation, which is correct, but seems to us as colourful as the previous one, although with different viewpoints. We thought it useful to present not only the "tricks" used, but also their objectives:

The Australian Communication Consumer Action Network, which represents Australian consumers with regard to telecommunications, stated the following about games/apps with in-app purchases: "free gaming apps are advertised as free to play but gameplay is structured in a way that purchases are heavily encouraged or, in some cases, mandatory to progress through the game"¹⁵⁷.

a) Liking the free app enough to "invest" more

When consumer complaints first appeared in 2012, the American broadcast *The Daily Show with John Stewart* interviewed Gameview's CEO, creator of the app *Tapfish*, very popular among children at the time¹⁵⁸. The openly satirical interviewer discussed a freely downloaded app: a virtual aquarium where children have to feed their little fish to keep it alive. If the animal dies, the children can buy food to revive their precious animal. The company CEO assured us that it didn't intend to take advantage of the children, and explained that on the contrary, the game taught them to be responsible and take care of things belonging to them. The journalist suggested that teaching young children to resuscitate an animal by paying up is a curious thing to teach them.

The journalist continued his investigation by interviewing a psychologist specializing in treating Internet and game addictions. Dr. Hilarie Cash explained that children are particularly vulnerable to video games, since the prefrontal cortex, which controls impulses, is fully developed only during a person's twenties. Lastly, Dr. Cash stated that threatening an animal's death, for

¹⁵⁷ **AUSTRALIAN COMMUNICATIONS CONSUMER ACTION NETWORK**, *App purchases by Australian consumers*, February 2013, p. 5. [Online] https://accan.org.au/files/App_purchases_by_Australian_consumers.pdf (document consulted on January 7, 2016).

¹⁵⁸ **HAMILTON, Kirk**. *The Daily Show Gleefully Rips into Free-To-Play Gaming*, on the Kotaku website, September 12, 2011. [Online] <http://kotaku.com/5866694/the-daily-show-gleefully-rips-into-free-to-play-gaming> (page consulted on November 11, 2015).

example, if only in an app, destabilizes children who are emotionally invested and that they would want to do anything to prevent the death of their app's character or animal.

As mentioned above, to make free apps with in-app purchases function, developers must provide a free app version that is sufficiently entertaining and interesting, as well as in-app purchases adding a real plus-value so that free consumers become paying consumers. The technique adopted in an app such as Tapfish perfectly corresponds to the preferred *modus operandi* for converting free users into paying users. The technique also raises ethical questions, particularly when apps are intended for children, who do not have the necessary cognitive ability to be discerning when using apps with in-app purchases.

Children are not the only ones likely to develop a need to acquire in-app purchases in order to advance more rapidly in games. Users who spend a great deal of money on games and apps are commonly called “whales” in the industry. During the *Wall Street Journal Pop-up Tech Café* in London, video game author and consultant Nicholas Lovell aptly describes the need that apps can develop in their users: “My favourite example of a whale is in World of Tanks where there is, apparently, a Russian oligarch who has bodyguards in the game. He pays a team of five people full time to play, so that when he comes in he drives a tank and they make sure he doesn't die¹⁵⁹.”

b) Virtual money

We have classified the types of items offered as in-app purchases under two main categories: virtual money and the other types of items, such as screen backgrounds, specific features, virtual items usable in the game, etc. The apps involve “premium currency,” which can be purchased only with real money, as well as “achievable currency,” which the user can accumulate by playing – by accumulating hours spent in the app, by attaining certain levels, by completing certain tasks, etc. In some apps, we find both types of currency. This is the case notably for the *Smurfs' Village* app, where smurfberries (a virtual currency for making purchases in the game's universe) can be purchased with real money or with “achievable” gold pieces, which the consumer may obtain by playing. Of course, there is no example of an “achievable currency” that can be exchanged for real money...

Using virtual currency reinforces the user's immersion in the app's universe, by eliminating one of his usual reference points, real money, that would enable him to evaluate the true value of the virtual items he covets. Since their true monetary value is difficult to estimate, the consumer fully immersed in the app is less inclined to question the in-app purchases he makes. The website The App Maker Blog describes why this strategy succeeds:

The strategy is common in game design because it so successfully creates user loyalty and satisfaction. Players love earning virtual rewards, often for the rush that comes with

¹⁵⁹ Via **CHARLTON, A.**, *Freemium, In-App Purchases and the Psychology of Gaming*, International Business Times, September 26, 2013. [Online] <http://www.ibtimes.co.uk/freemium-app-purchases-candy-crush-saga-gaming-509349> (page consulted on November 13, 2015).

it, which has been described as similar to the feeling some people get when shopping or playing slots at the casino¹⁶⁰.



Source: Smurfs' Village

c) The “pay or wait” method

Another strategy for inducing consumers to make in-app purchases is called “pay or wait.” It attaches a great deal of value to time. The consumer must either choose to make in-app purchases with virtual or real money, or to wait a certain time before continuing in the game or app¹⁶¹. In some apps, the consumer must, following a failure, wait a certain time before trying again, unless of course he pays to be able to try again – this is notably the case in the *Nono Island* app¹⁶². We can easily imagine that an in-app purchase offer enabling consumers not to wait will seriously strengthen the temptation.

¹⁶⁰ NAZARIO, K., *Virtual Money in Apps Can Mean Real Life Cash for Developers*, The App Maker Blog, July 11, 2014. [Online] <https://www.appmakr.com/blog/virtual-currencies-the-key-to-real-currency-from-your-app/> (page consulted on November 20, 2015).

¹⁶¹ *Op. cit.*, note 158, AUSTRALIAN COMMUNICATIONS CONSUMER ACTION NETWORK, p. 6.

¹⁶² BABIN, A., *Une aventure bondissante!*, Journal de Montréal, July 31, 2015. [Online] <http://www.journaldemontreal.com/2015/07/31/une-aventure-bondissante> (page consulted on March 3, 2016).



Source: Smurfs' Village

d) Colours

The use of colours is a well-known tool for shaping consumer behaviour. Indeed, a tool, the “A/B test,” is made available to developers so they can verify the effect on consumers of the various items in the app. As indicated in a tutorial intended for app developers: “sometimes small changes like changing the color of a ‘Buy’ button are enough to get great results¹⁶³.” The following colours are commonly used for inducing different reactions, according to industry actors¹⁶⁴:

- Yellow attracts consumers’ attention;
- Red creates a feeling of urgency;
- Blue creates a feeling of confidence and security;
- Green is the easiest colour on the eyes and facilitates the process. This colour is commonly used for relaxing users;
- Orange is used for pushing users to act;
- Black is a sign of power and is used to give a feeling of luxury.

¹⁶³ *Op. cit.*, note 157, D’ANTONI, R.

¹⁶⁴ *Ibid.*

e) Attractive stores

To make it easier to convert “free” users into “paying” users, it is essential that the store within the app be suitably designed and as attractive as possible. Not only must it be easily visible, but it must also be easy to use. As seen in the illustration below, the Smurfs’ Village store is prominently displayed during the game – in fact, an arrow pointing to the icon will appear if the app deems it timely for the user to go there.



Source: Smurfs' village

The simplicity of the Candy Crush Saga store makes it very user-friendly.



Source: Candy Crush Saga

f) Gift Offers

Another highly successful strategy according to Raywenderlich's tutorial is to offer a gift to give the consumer a feeling of well being instilled by the act of gratitude. To have the consumer associate that feeling of well-being with the app's store, often within apps with in-app purchases, a gift is offered – virtual money or other items normally offered as in-app purchases – to a user who completes certain tasks or accedes to higher levels.



Source: Smurfs' Village



Source: Smurfs' Village

g) Limited-time offers

Offering an in-app purchase for a limited time creates a feeling of urgency in consumers, which pushes them to acquire the in-app purchase offered. According to Raywenderlich-Tutorials for Developers and Games, adding to that offer a timer indicating the remaining time before acquiring the in-app purchase offered increases that feeling of urgency and “leads to snap buying decisions¹⁶⁵.”

The screenshot below illustrates this type offer in the *Smurfs' Village* app.

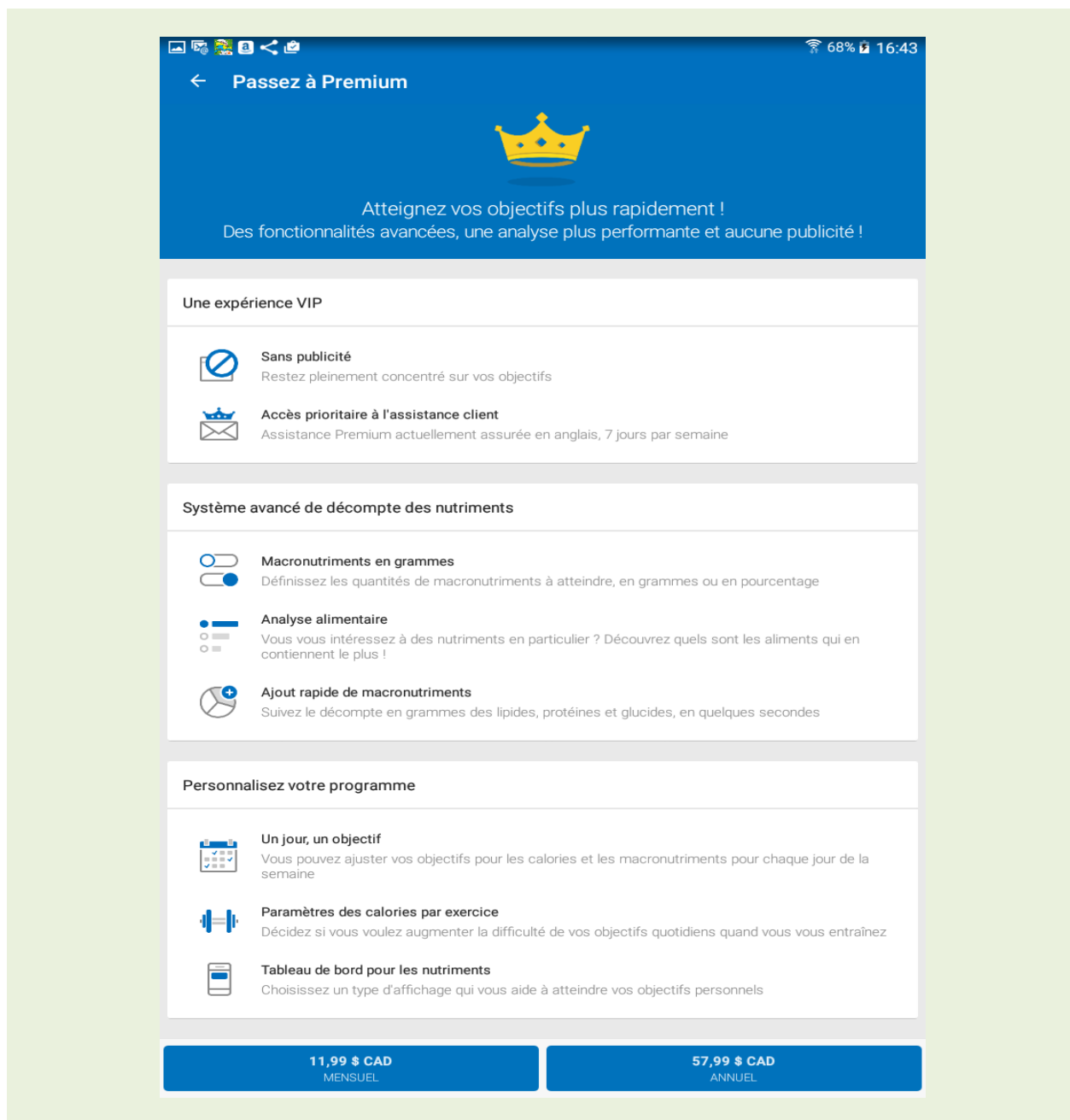


Source: *Smurfs' Village*

¹⁶⁵ *ibid.*

h) Offering the option of removing advertisements

Our field survey found examples of apps that offered as an in-app purchase the option of using the app without advertisements. It appears that many consumers want to use ad-free apps and are prepared to pay for that feature¹⁶⁶. Moreover, in several applications, this feature was grouped with others, as in the app *My Fitness Pal*.



Source: My Fitness Pal

¹⁶⁶ *Ibid.*

i) Using “bling” to attract users’ attention

App developers generally use eye-catching things to attract the attention of app users. This approach aims at leading the consumer toward in-app purchases. We can see an illustration of this technique in the screenshot below of the *Smurfs’ Village* app: on the left of the screen, a treasure box surrounded by yellow. By clicking this icon, the consumer can view the new items offered as a group of in-app purchases.



Source: Smurfs' Village

j) Other strategies

Our expert, Mr. Adams, recommended adding to our list three strategies that may determine whether a game is among the best sellers. He indicated that “In all three cases, the practices require a level of understanding that is less accessible to the youngest players.”

- Competitive pressure: in a system where a player’s ranking depends on his performance in comparison with other players, competitive pressure helps justify a greater investment for a top ranking;
- Social pressure: games involving teammates encourage spending in two ways. Teammates congratulate a player investing to benefit the group; and teammates’ investments apply pressure to spend more, to equal or exceed their investments;
- Lotteries: some in-app purchase offers involve buying a chance to win something. The user doesn’t precisely know the probabilities; what is offered is only the potential of a better result. The user has difficulty knowing the total cost, before or after the purchase.

Those examples represent only a limited sample of strategies employed by app developers to induce consumers to make in-app purchases. There are myriad other examples. The app developers’ marketing and design strategies aim at leading users to make a transaction in order to enhance their experience or performance within an application.

3.8 Consumer Behaviour and In-App Purchases

Throughout our research, we consulted a marketing expert, Professor Saïd Zouiten, to inform us about the various ways that in-app purchases are marketed and function, in relation to consumer behaviour. After reading our report, he gave us an expert report, reproduced in Annex 1. Here is the gist of his report, with excerpts.

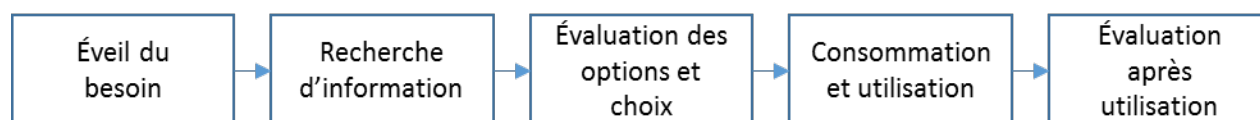
Applied research focusing on the hedonistic aspect of the consumer’s experience has developed behaviour analysis models with the following principles:

- The free offer of an app or game awakens the need for entertainment, stimulates curiosity and motivates the consumer to try the app.
- The app’s diversity and limited advancement enable the user to acquire a taste for it.
- New paid options would make the app easier to use and improve the user’s performance and experience.

Regarding the purchasing process, Professor Zouiten reports the following:

The literature on consumer marketing and behaviour describes a classic five-step process.

Figure 1
Decision-making process of consumer purchases



[L]es consommateurs, fortement impliqués, sont prêts à s'engager dans un processus cognitif parfois complexe pour prendre une décision, soit d'acheter ou non la suite de l'application ou du jeu. Il s'agit notamment de règles de décision élaborées et établies à partir de critères de choix bien identifiés. On pourra nommer l'utilité perçue de l'application, son aspect visuel, la facilité de son utilisation et, bien entendu, le prix à déboursier pour l'obtenir. Une des règles de décision la plus utilisée par les cyberconsommateurs est la règle dite lexicographique. Elle consiste à ordonner les critères de décision, du plus important au moins important et choisir l'option la mieux positionnée par rapport au critère le plus important.

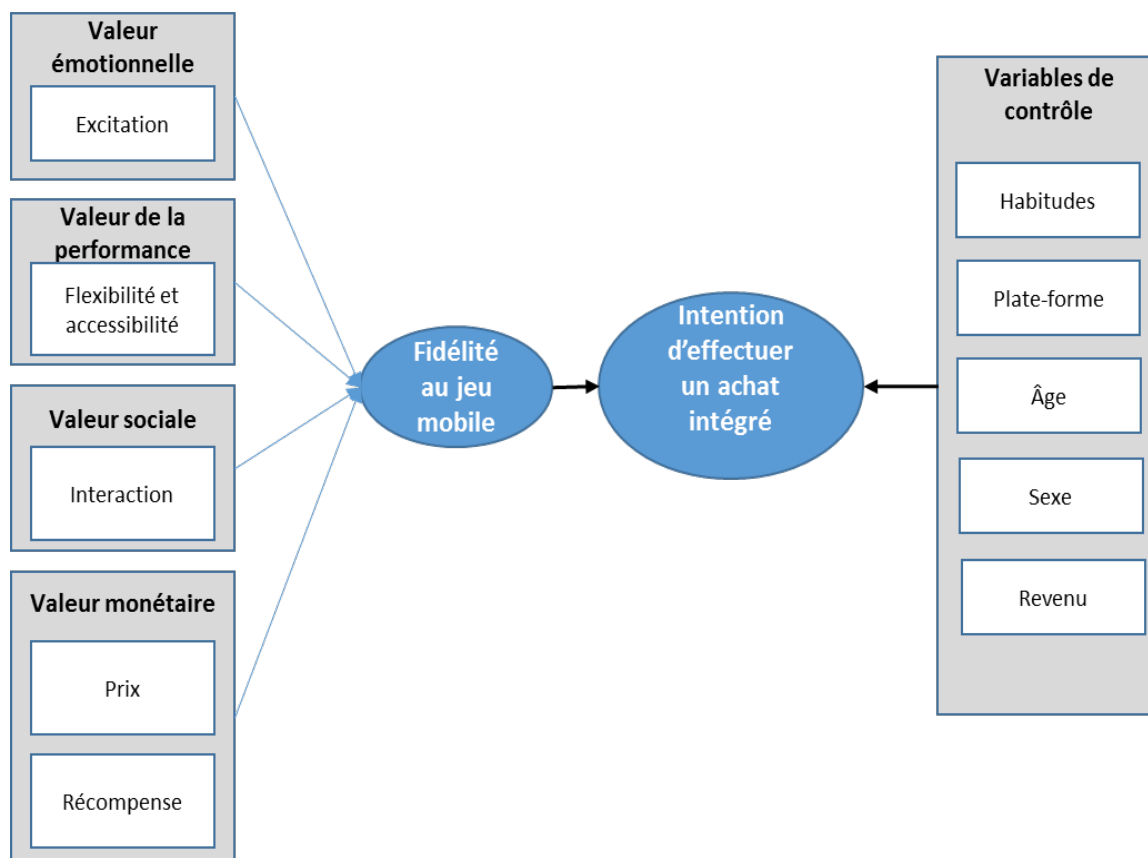
Given that process, app developers want to target their audience well and create tricks to enhance consumer involvement.

The last two steps concern consumer satisfaction. With regard to in-app purchases, those steps are determining factors and require a very delicate balance.

On sera porté à croire qu'un consommateur insatisfait d'une application ou d'un jeu offert en freemium, ne sera pas intéressé à acheter des fonctionnalités ou des bonus, alors que celui qui en est satisfait sera porté à acheter ces fonctionnalités pour améliorer davantage sa performance et son expérience. Bien que ce scénario semble plausible, on pourra observer un phénomène inverse dans la mesure où le degré de satisfaction ou d'insatisfaction ne soit pas très élevé. Ainsi, le consommateur légèrement insatisfait (ses attentes dépassent légèrement la performance du produit), sera potentiellement intéressé à améliorer sa performance en cédant à l'offre proposée. De même, un consommateur très satisfait (la performance du produit dépasse largement ses attentes), ne sentira probablement pas le besoin «d'investir» davantage. Le produit dans sa forme actuelle répond largement à ses attentes.

Product loyalty, directly related to satisfaction, is one of app developers' ultimate goals, since loyal customers will be more inclined to reuse the product and try to improve their experience or performance, as demonstrated by recent studies. The figure below illustrates the relations between all the components of the perceived value of a game or app:

Figure 2
The theory of perceived value and loyalty



Taking those relations into account enables developers to identify the marketing actions that may be most effective in stimulating purchases.

Professor Saïd Zouiten emphasized that evidently, the marketing strategies used are largely based on consumer behaviour knowledge, whether scientific or intuitive.

He then presented a table tracing the relations between some of the marketing strategies identified in our study and consumer behaviour concepts, and he concluded that the marketing strategies were not established arbitrarily.

Table 1
Marketing strategies and consumer behaviour concepts

Marketing Strategies Adopted	Underlying Consumer Behaviour Concepts	Explanations
Bait and hook	<ul style="list-style-type: none"> – Consumers' decision-making process – - Theory of perceived value (value of performance) 	The free offer awakens the need and stimulates curiosity, while limited advancement makes the consumer want to improve, and the offer of options appeals to him.
Offering a relatively simple application	<ul style="list-style-type: none"> – Consumers' decision-making process 	Rapid advancement through the purchasing process (from awakening to choosing), thanks to simplicity.
Offering new elements	<ul style="list-style-type: none"> – - Degree of involvement via a feeling of advancement 	Novelty in the game or app breaks monotony, enhances the involvement and gives the impression of advancing.
Making limited-time offers	<ul style="list-style-type: none"> – Theory of value (monetary value) 	A common practice is that a promotion should not be offered continuously, because the consumer will get used to that new price and consider it as the regular price. The reduced price risks losing its attraction. Moreover, a limited-time offer creates a feeling of urgency.
Attributing socially acceptable benefits (education, health, security) to the game or app	<ul style="list-style-type: none"> – Degree of involvement – Theory of perceived value (value of performance) 	If that association is credible, the consumer will feel engaged and will certainly advance and improve his performance and experience.
Offering in-app purchases in a timely way	<ul style="list-style-type: none"> – Consumers' decision-making process (consumption and use, after-use evaluation) – Satisfaction and loyalty 	The consumer gets used to a game, develops loyalty following repeated use, so if he feels stuck the in-app purchase is perceived as a solution.
Pay or wait	<ul style="list-style-type: none"> – Theory of value (monetary value - reward) 	The theory of value insists on the confrontation between what the consumer spends (in time or money) and receives (in usefulness, satisfaction, gains). This technique aims at showing the consumer that if he buys, he saves time.
Improving the visual aspect of the game or app	<ul style="list-style-type: none"> – Consumers' decision-making process (option evaluation step) – Symbolism of colours, shapes and objects – Degree of involvement – Theory of perceived value (emotional value) 	The aesthetic and visual aspects are among the evaluation criteria of a game or app and play a prominent role in a highly competitive environment. It is also a priority to make the store attractive in order to induce an in-app purchase.
Offering gifts	<ul style="list-style-type: none"> – Satisfaction and loyalty 	It has been demonstrated that loyalty has a significant impact on making in-app purchases. Offering gifts helps develop that loyalty.

3.9 Identity of the Actors

As discussed in the first part of this report, the universe of applications is complex, and a variety of actors, often located in different jurisdictions, are involved. Developers, app stores, payment method managers – a consumer may find it difficult to know whom he should approach, to know the contact information of the various actors, and to contact them in order to solve a problem he encounters.

But it should be noted that app stores make available to users different means of communication for contacting them – a regional phone number, a mailing address, an e-mail address, user forums at Google Play for example (the Google Play Help Forum), chatting with the support team. Still, the absence of proximity between the actors in the app universe can make communication between the parties difficult. Reading the app stores' terms of use does not enable consumers to identify the various actors' roles and to know whom to address in case of a snag. Here is an example of a clause that confuses more than clarifies:

Direct, Agency and App Sales. When you buy Products from Google Play you will buy them either:

(a) directly from Google (which is referred to as “Google”, “we”, “our”, or “us” in these Terms) (a “**Direct Sale**”);

(b) from the provider of the Product (the “**Provider**”), where Google is acting as agent for the Provider (an “**Agency Sale**”); or

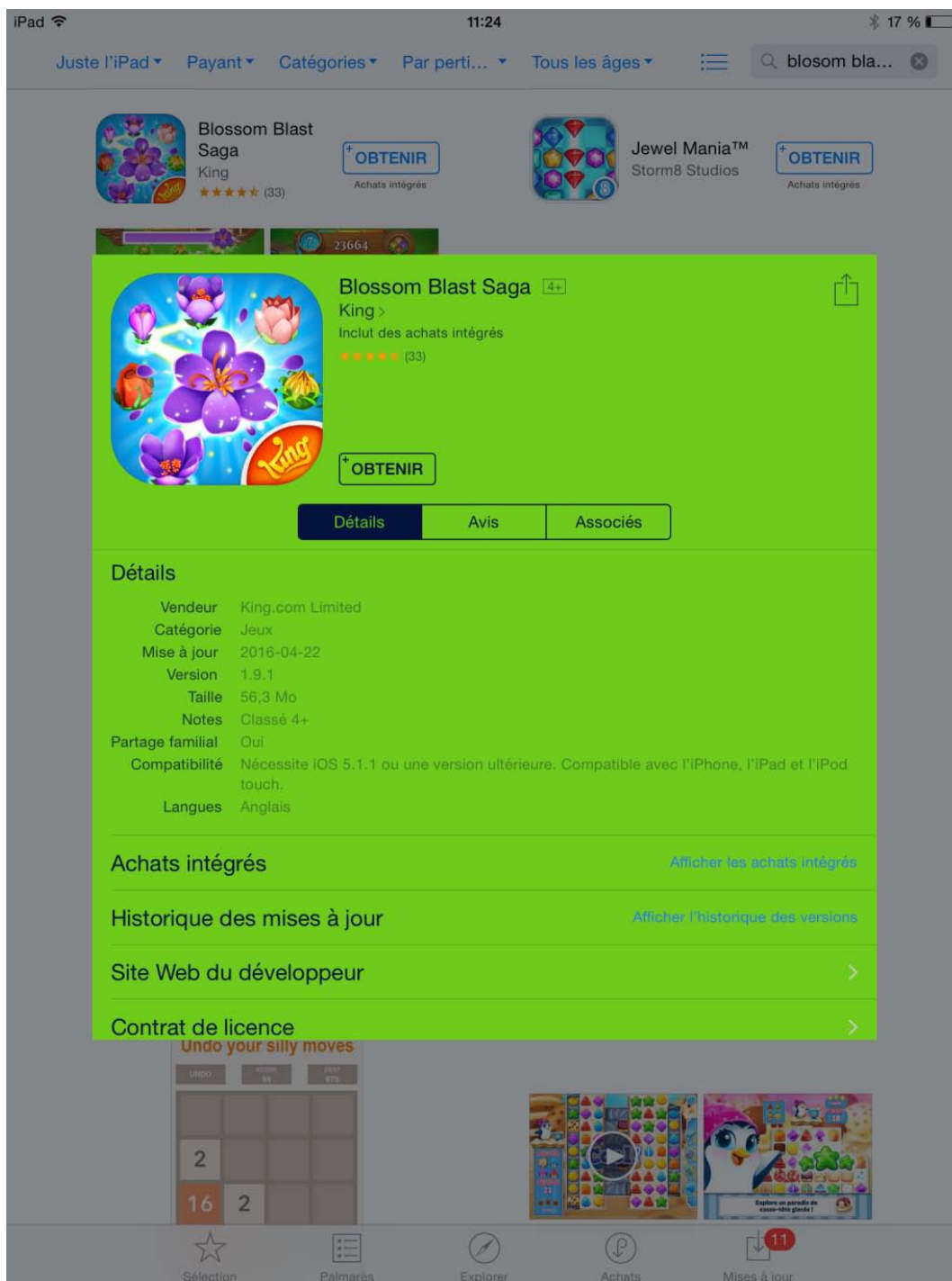
(c) in the case of Android apps, from the Provider of the app (an “**App Sale**”).

Each time that you purchase a Product, you enter into a contract based on these Terms with: Google in relation to the use of Google Play and (in the case of a Direct Sale) the purchase of that Product; and also (in the case of Agency Sales and App Sales) with the Provider of the Product you have purchased¹⁶⁷.

Concerning developers, we note first that their name is always entered under the app's name in all app stores. Not only is that a way for the consumer to know the developer's identity immediately, but also for ensuring that the consumer downloads the right application if the app store offers apps with similar names or appearances.

During our field survey, we observed that there is no uniform information on the identity of app developers (except their name) in all the app stores. In Amazon's app store, the consumer can access the developer's contact information only by clicking the link to Amazon's personal information collection policy. On Google Play, an app's description generally contains the developer's mailing address and e-mail address, as well as a link to its Twitter account, Facebook account and YouTube channel. iTunes enters the developer's name a second time under the Seller heading, with a hyperlink to the developer's website.

¹⁶⁷ *Op. cit.* note 106, **GOOGLE PLAY**.



Source: Blossom Blast Saga in iTunes

Moreover, if the problem experienced by the consumer concerns unauthorized charges to his credit card for example, he may have to address his credit card issuer in order to be refunded. That actor is much closer to the consumer because of a more longstanding and well-established relationship. Likewise when fees are charged by the Internet or wireless service provider. If unauthorized charges appear on the Internet or wireless invoice, he can contact his service provider, whose identity is generally well known to him. This doesn't mean the consumer will obtain a quick resolution to his problem.

3.10 Limited Return Policies

In 2015, Union des consommateurs made the following finding about the return and exchange policies of various companies for in-store purchases:

In Canada, exchange, return and refund policies are left to the merchant's sole discretion – apart of course from returns motivated for example by a lack of conformity that would lead to application of the legal warranty.

Accordingly, merchants are free to adopt the policies that suit them, but the lawmakers have considered that those policies, whatever their content or scope, are sufficiently important for their nondisclosure to justify cancellation of a distance sale¹⁶⁸.

In the description of the *Smurfs' Village* app, downloaded from Google Play, we searched in vain for a return policy for in-app purchases made within the app, or for the app itself. However, the End-User License Agreement (EULA) provides the following clauses regarding the possibility of being refunded and the finality of sales made within the app:

[...] Amounts paid are non-refundable except required under local law of your jurisdiction. In certain cases the mobile application seller from which you purchased the Game, such as iTunes or Google Play, may provide refunds¹⁶⁹.

This clause implies to the consumer that whatever circumstances may compel him to request the refund of an in-app purchase, the developer does not refund the amounts paid, unless the law compels it.

Another clause of the same document reads as follows:

Any amounts paid for the Game or virtual items or virtual currency are non-refundable, except as expressly set forth in this EULA.

The Game may include "virtual currency," consisting of coins, points or similar items that may be earned or obtained through the Game or otherwise purchased by you for actual ("real-world") currency, subject to applicable law. The Game may also include "virtual

¹⁶⁸ **UNION DES CONSOMMATEURS**, *The Truth behind the Obligation to Take back Returned Items: return policies or take-back Times for in-store purchases*, Union des consommateurs, Montreal, Quebec, Canada, June 2015, 82 pages, p. 54. [Online] <http://www.uniondesconsommateurs.ca/wp-content/uploads/2015/11/R02-UC-Politique-retour-rapport-F-Eng.pdf>.

¹⁶⁹ **BEELINE**, *End User License Agreement*, last updated on September 27, 2013. It should be noted that the EULA is accessible only within the app store from which it was downloaded.

goods," consisting of digital items such as commodities, abilities or other goods that may be earned or obtained through the Game or otherwise purchased by you for actual currency, or for virtual currency, subject to applicable law¹⁷⁰.

In the above clause, which is not particularly comprehensible, the developer does state clearly that it will not refund in-app purchases. The developer reiterates that in the following clause, which involves the app store as well:

You agree that all sales of virtual currency and virtual goods are final and non-refundable, unless we or the applicable third-party platform (such as the Apple App Store and the Android Market) decides in its sole and absolute discretion to provide a refund. You agree that in the event that this EULA, your account or the Game is terminated for any reason, which may include without limitation our discontinuation for any reason of the applicable portion of the Game, you will forfeit all virtual currency and virtual goods, and we will have no liability to you for such forfeiture¹⁷¹.

Moreover, although the consumer will apparently receive no refund if he requests one, the developer reserves the right – at its sole discretion – to the following: *"We can manage, regulate, control, modify or eliminate virtual currency and/or virtual goods, including the price thereof, at our discretion, and will have no liability to you or any third party for any of such actions. You have no right, title or interest in or to any virtual goods or virtual currency except the following: a limited, personal, non-transferable, non-sublicensable, revocable license to use, solely within the Game, virtual goods and virtual currency that you have earned, purchased or otherwise obtained in a manner authorized us¹⁷²."*

As mentioned above, given the multiple apps that are the object of our study, we used as a reference the *Smurfs' Village* app. However, we find similar clauses in other apps' terms of use. For example, here are a few clauses in the terms of use of the *My Fitness Pal* app:

8. Paid Services

Payment Terms

You can choose to pay for the Premium Services on a monthly or annual basis. All fees due for the Premium Services are payable in advance, and will be billed automatically to the Payment Method at the start of the monthly or annual Premium Service period, as applicable. Unless otherwise stated, Premium Services will auto-renew until you elect to cancel your access to Premium Services. All purchases of Premium Services are final and non-refundable, except at our sole discretion and in accordance with the rules governing each Premium Service¹⁷³.

(Our underlined)

¹⁷⁰ *Ibid.*

¹⁷¹ *Ibid.*

¹⁷² *Ibid.*

¹⁷³ **UNDER ARMOUR**, *Terms and Conditions of Use*, January 22, 2016, clause 8 a). [Online] <https://account.underarmour.com/terms-and-conditions> (page consulted on May 19, 2016).

e. Free Trials

*Unless you cancel before the end of the Free Trial, or unless otherwise stated, your access to the Premium Service will automatically continue and you will be billed the applicable fees for that Premium Service. All incurred charges are final and non-refundable, except at our sole discretion and in accordance with the rules governing each Premium Service*¹⁷⁴.

(Our underlined)

Another app containing similar contractual provisions is the popular application Tinder:

4. Term and Termination.

This Agreement will remain in full force and effect while you use the Service and/or have a Tinder account. You may terminate your account at any time, for any reason, by following the instructions in “Settings” in the Service. The Company may terminate or suspend your account at any time without notice if the Company believes that you have breached this Agreement, or for any other reason, in its sole discretion. Upon such termination or suspension, you will not be entitled to any refund of unused fees for in app purchases.

12. In App Purchases.

Generally. From time to time, Tinder may offer additional products and services for purchase (“in app purchases”) through the App StoreSM, Google Play or other application platforms authorized by Tinder (each, a “Software Store”). If you choose to make an in app purchase, you will be prompted to enter details for your account with the mobile platform you are using (e.g., Apple, Android, etc.) (“your IAP Account”), and your IAP Account will be charged for the in app purchase in accordance with the terms disclosed to you at the time of purchase as well as the general terms for in app purchases that apply to your IAP Account. In app purchases may include a free trial period. At the end of the free trial period, you will be charged the price of the subscription and will continue to be charged until you cancel your subscription. To avoid any charges, you must cancel before the end of the trial period. If you purchase an auto-recurring periodic subscription through an in app purchase, your IAP Account will be billed continuously for the subscription until you cancel in accordance with the platform terms. In all cases, please refer to the terms of your application platform which apply to your in app purchases.

ALL PURCHASES AND REDEMPTIONS OF VIRTUAL ITEMS MADE THROUGH THE SERVICE ARE FINAL AND NON-REFUNDABLE. *The provision of Virtual Items for use in the Service is a service provided by Tinder that commences immediately upon the acceptance of your purchase of such Virtual Items. You agree to pay all fees and applicable taxes incurred by you or anyone using your Tinder account. Tinder may revise the pricing for the goods and services offered through the Service at any time. YOU ACKNOWLEDGE THAT TINDER IS NOT REQUIRED TO PROVIDE A REFUND FOR ANY REASON, AND THAT YOU WILL NOT RECEIVE MONEY OR OTHER*

¹⁷⁴ Ibid.

COMPENSATION FOR UNUSED VIRTUAL ITEMS WHEN AN ACCOUNT IS CLOSED, WHETHER SUCH CLOSURE WAS VOLUNTARY OR INVOLUNTARY¹⁷⁵.

(Our underlined)

Whereas app developers seem more rigid in their terms of use with regard to refunds and virtual product returns, app stores seem to have more-flexible policies, despite what the terms of use imply.

Apple terms and conditions:

[...]

All sales and rentals of products are final.

IN-APP PURCHASES

Certain App Store Products may include functionality that enables you to receive additional services, or licenses to additional functionality or content for use within the App Store Product ("In App Purchases"). In App Purchases that are consumed during the use of the App Store Product (for example, virtual ammunition) cannot be transferred among devices; can be downloaded only once; and after being downloaded, cannot be replaced. Once a consumable In App Purchase is acquired and received by you, Apple Canada shall be without liability to you in the event of any loss, destruction, or damage. All In App Purchases are deemed App Store Products, and In App Purchases received within Third-Party Products are deemed Third-Party Products, and treated as such, for purposes of these terms and conditions.

IN-APP SUBSCRIPTIONS

*Certain App Store Products may include functionality that enables you to acquire content on a subscription basis ("In App Subscriptions"). Paid In App Subscriptions are non-refundable, unless required by law*¹⁷⁶.

(Our underlined)

It is entirely possible for a consumer to be refunded from app stores, particularly if he has a valid reason. Among the reasons that can justify a refund is an iPad app version purchased for an iPhone, or downloading by mistake an app with a name similar to the one desired, or in-app purchases made accidentally during the 15-minute period following an in-app purchase if the default settings have not been changed¹⁷⁷. But it should be noted that the choice of granting a refund is at the app store's sole discretion. As we will see, there have been numerous publicized cases, as well as lawsuits that app stores have chosen to settle by refunding or compensating the parents of children who made unauthorized in-app purchases.

¹⁷⁵ **TINDER**, *Terms of Use*, last updated on April 24, 2016. [Online] <https://www.gotinder.com/terms> (page consulted on May 1, 2016).

¹⁷⁶ *Op. cit.*, note 51, **APPLE**.

¹⁷⁷ **AGARWAL, A.**, *How to Get Refunds from iTunes App Store*, Digital Inspiration-Tech à la Carte, January 14, 2015. [Online] <http://www.labnol.org/software/itunes-app-store-refunds/13838/> (page consulted on April 12, 2016).

We find similar clauses in Google Play's terms of use:

[...]

All Sales Final. Except as expressly set forth in these Terms or other Google Play policies, all sales are final, and no returns, replacements or refunds are permitted. If a replacement, return or refund is granted for any transaction, the transaction may be reversed, and you may no longer be able to access the Product that you acquired through that transaction. Your rights to cancel or return purchases and get a refund are set out in the additional terms below for the relevant Product type and related policies.

[...]

***Defective Products.** Once a Product is available to you through your account, you should check the Product as soon as reasonably possible to ensure that it downloads or streams correctly (as applicable) and performs as stated, and notify us as soon as reasonably possible if you find any errors or defect. In the case of Android apps, you should contact the developer concerning any defects or performance issues in the apps, as described in the Google Play help center. In the case of Products other than apps, subject to any limitations in the additional terms for the specific Product below, You may return Products that you purchased from Google Play to Google if Google Play does not perform as stated with respect to that purchased Product, and Google will provide at its option either a replacement Product or a refund of the purchase price. If Google elects to issue you a refund, the refund of your purchase price shall be your sole remedy. Google reserves the right to issue refunds or credits at its sole discretion. If Google issues a refund or credit, it is under no obligation to issue the same or similar refund in the future.*

[...]

Effect of Refunds. If Google chooses to issue you a refund of the purchase price of a Product for any reason, you will no longer have the right to access the relevant Product¹⁷⁸.

(Our underlined)

In closely reading Google Play's terms of use, we may think it possible for a consumer to return an app that is unsuitable for the reasons mentioned in those terms of use. But things don't seem so clear for an in-app purchase. Can a consumer who has purchased a wheelbarrow of smurfberries request a refund if they don't meet his expectations or if the in-app purchase does not correspond to the object of the transaction? Apparently not. In our review of the literature, we found numerous comments from bloggers and consumers to the effect that it is not possible to return an in-app purchase to an app store¹⁷⁹.

¹⁷⁸ Op, cit. note 106, **GOOGLE PLAY**.

¹⁷⁹ **ANDROPIT**, *How to Get a Refund on Google Play Store apps*, May 30, 2015. [Online] <https://www.androidpit.com/google-play-store-how-to-return-paid-apps-and-games> (page consulted on April 18, 2016).

Lastly, the Amazon app store's terms of use contain clauses stating that all sales are final and that the app store accepts no returns:

2.4 All Sales Final. *All purchases of Apps and Amazon-Sold In-App Products are final. We do not accept returns of Apps or Amazon-Sold In-App Products. Once you have purchased an App or Amazon-Sold In-App Product, we encourage you to download (if applicable) and access it promptly to be sure you have received it. If you are unable to complete a download or access an App or Amazon-Sold In-App Product, please contact Amazon customer service for assistance. Once you purchase an App or Amazon-Sold In-App Product and we make it available to you, you bear responsibility for completing the download (if applicable) and for all risk of loss after downloading or accessing the App or Amazon-Sold In-App Product, including any loss due to a mobile device malfunction¹⁸⁰.*

STEAM seems a notable exception in this regard. In fact, the company has adopted a very flexible policy:

You can request a refund for nearly any purchase on Steam—for any reason. Maybe your PC doesn't meet the hardware requirements; maybe you bought a game by mistake; maybe you played the title for an hour and just didn't like it.

It doesn't matter. Valve will, upon request via, issue a refund for any reason, if the request is made within fourteen days of purchase, and the title has been played for less than two hours¹⁸¹.

¹⁸⁰ **AMAZON.CA**, *Amazon Appstore for Android Terms of Use*, last updated on January 18, 2016. [Online] https://www.amazon.ca/gp/switch-language/help/customer/display.html/ref=cs_switchlang?ie=UTF8&language=en_CA&nodeId=201485660 (page consulted on March 11, 2016).

¹⁸¹ **STEAM**, *Steam Refunds*. [Online] http://store.steampowered.com/steam_refunds/ http://store.steampowered.com/steam_refunds/?l=french (page consulted on May 22, 2016).

3.11 The Collection and Protection of Personal Information and the Use of Mobile Data

A variety of issues

Our research encountered certain business practices that, although they exceed the scope of our project's main issues, certainly deserve a brief mention. Indeed, it's difficult to ignore certain findings from existing studies and from our own data collection with regard to various problems with imprecise information given to consumers about data transfer resulting from the use of mobile apps – more specifically, about personal information and/or consumer usage information. In both cases, consumers might benefit from more precise information in order to avoid nasty surprises when using an app. We will focus next on the information problems identified.

Data transfer and bill shock

The commonly used expression “bill shock” means the nasty surprise, or shock, experienced by consumers consulting their bill and finding it exorbitant. Many consumers have been victims of bill shock over the years due to the billing of mobile data transfers exceeding the monthly quantity provided by their package. In Canada, a wide majority of packages that include mobile Internet access prescribe particularly restrictive usage limits, compared to typical limits imposed for wired Internet access. Overage fees are also typically much higher for mobile data. It is difficult for consumers to monitor their usage effectively, because many apps require Internet access and are likely to transfer data even when not in use. Some device settings can minimize the risk of bill shock – for example, deactivating background data transfers or automatic searches and installations of updates unless the device is connected to a Wi-Fi network. But to this day, mobile devices' default settings commonly allow all data transfers.

The Canadian Radio-television and Telecommunications Commission (CRTC), under the *Wireless Code*, has intervened to reduce the risk of bill shock, notably by requiring wireless service providers to limit overage fees for mobile data transfers to \$50 monthly (and \$100 for international roaming)¹⁸². The consumer could still explicitly agree to pay more to maintain Internet access beyond that limit. However, the CRTC's intervention alone does not enable consumers to monitor effectively and in real time the quantity of data transferred. This type of monitoring requires the consumer to conduct a tedious exercise. But the monitoring may be facilitated by occasional notices sent by certain providers when consumers attain preset transfer percentages of the data quantity allocated for the month. Unfortunately, sending those timely notices is not an obligation.

The merchants who operate in the mobile app sector do not offer miracle solutions either, and do not demonstrate much proactivity in informing consumers. Many mobile apps require Internet access. So many consumers use mobile data. The consumer has to know when those data are transferred and the quantity transferred according to their uses. Disclosures to that effect are neither systematic nor clear. On the contrary, the consumer information page of mobile apps we downloaded as part of our research seems to indicate that data transfer disclosures are not very frequent. Numerous apps make no mention of the subject. Others give information that data are transferred, but do not effectively alert the consumer on the subject. For example, one app

¹⁸² **CANADIAN RADIO-TELEVISION AND TELECOMMUNICATIONS COMMISSION**, *Telecom Regulatory Policy CRTC 2013-271*, sections D2 and D3 [Online] <http://www.crtc.gc.ca/fra/archive/2013/2013-271.htm> (page consulted on June 5, 2016).

states that the app “a besoin d’une connexion Internet pour utiliser sa lampe magique. Utilisez le Wi-Fi ou assurez-vous d’avoir un plan de données (comme la 3G)¹⁸³ (sic).” Another indicates rather a “synchronisation en toute simplicité entre les appareils et déblocage de toutes les fonctionnalités de jeu une fois connecté à Internet¹⁸⁴.” =====

We nevertheless identified a caution on the subject in Google Play’s Terms of Service: “You may incur access or data fees from third parties (such as your Internet provider or mobile carrier) in connection with your use of Products and Google Play. For instance, you may incur such fees if you use services provided through Google Play on or through third-party services or devices¹⁸⁵.” That caution would of course be more useful if the apps themselves indicated afterward the data quantity they consume. Moreover, Google Play’s caution is found in a subsection titled “Third-Party Fees” within the voluminous document constituting the Terms of Service. So a user will see that caution only if, at the moment of opening his account, he carefully reads the document.

Whereas the quantity of data transferred by an app is not generally disclosed, the “weight” in megabytes required to download each app is systematically disclosed in the app stores we studied. The consumer should not rely solely on that partial information, since an app’s total data transfers include the usual download weight of updates, the background data transfers, and of course the data required for using an app. So the consumer can estimate an app’s data consumption only after downloading the app. Evidently, even after their products have been downloaded, app developers should issue alerts when their products transfer data, including the approximate quantity of data that can be transferred and the circumstances of those data transfers, in order to spare consumers any nasty surprises.

Privacy protection

For several years, privacy protection authorities have been denouncing problems regarding the protection of personal information in the use of mobile apps. One such problem, not exclusive to apps, involves obtaining the consumer’s informed consent before his personal information is collected, used and transferred. This is the cornerstone of the *Personal Information Protection and Electronic Documents Act* and comparable provincial laws, such as the *Act Respecting the Protection of Personal Information in the Private Sector* (ARPPIS). And yet, despite very clear recommendations for merchants¹⁸⁶, there is flagrant laxity in the process of obtaining consumer consent, as we will see.

Consumers are concerned about the collection of information about them. A study by the *Pew Internet and American Life Project* indicates that 54% of users decided not to download an application after realizing all the data they had to share in using the application. The study also points out that 30% of users reported uninstalling an application after learning that it collected data they did not want to share¹⁸⁷. Unfortunately, despite occasionally very complete recommendations in that regard, disclosures of collected information and of how it will be used

¹⁸³ Akinator the Genie FREE on Google Play.

¹⁸⁴ Blossom Blast Saga in the iTunes App Store.

¹⁸⁵ *Op. cit.* note 106, **GOOGLE PLAY**.

¹⁸⁶ See notably these two information bulletins of the Officer of the Privacy Commissioner of Canada. [Online] https://www.priv.gc.ca/information/guide/2014/gl_oc_201405_e.asp and

https://www.priv.gc.ca/information/pub/gd_app_201210_e.asp (documents consulted on April 23, 2016).

¹⁸⁷ **BOYLES, Jan Lauren, Aaron Smith & Mary Madden.** *Privacy and Data Management on Mobile Devices*, Pew Research Center, Washington, CD, United States, September 5, 2012. [Online] <http://pewinternet.org/Reports/2012/Mobile-Privacy.aspx> (page consulted on June 7, 2016).

remain as obscure to consumers. The following paragraphs list several problems we think hinder consumers' informed consent or, more broadly, the protection of their privacy:

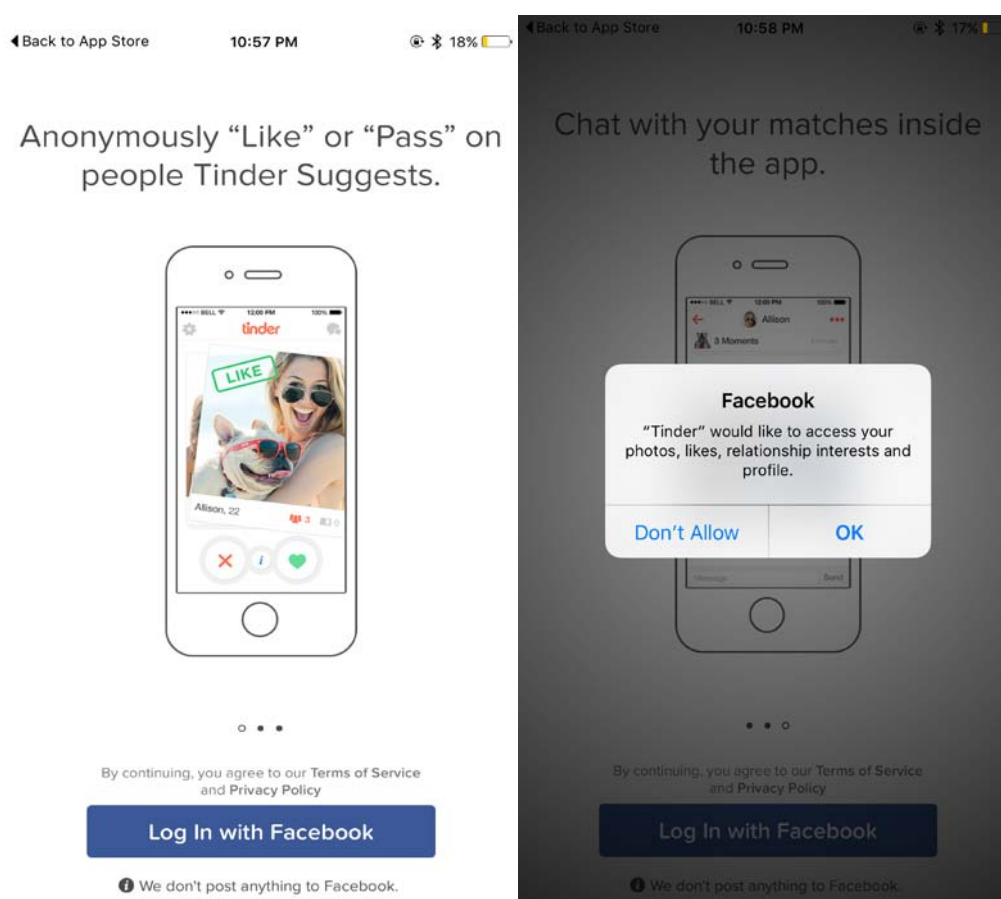
1. Adequacy of privacy policies: As soon as consumers download an app, they are bound by terms of use containing several provisions on privacy issues, mixed up with many other provisions on a variety of subjects; by the privacy protection policies of app stores; and by the terms of use and privacy protection policies of app developers. The documents are commonly voluminous, often accessible only by hyperlink, which does not necessarily induce the consumer to read them and give his informed consent. Of course, the briefer terms of use tend to refer to external clauses. The consumer is thus requested to check a box to confirm that he has read the interminable contractual documents and that he agrees to their terms. While the party having requested the consumer's consent may claim it to be informed, that claim is not reasonable if the consumer has not carefully read the documents' terms¹⁸⁸; and it is unrealistic to think consumers will read all the contractual documents before downloading an app.
2. Usually, disclosures of possible collections of information, which may include personal information, are very general and do not allow the consumer to understand which information will be collected. For example, iTunes' Terms and Conditions mention the collection of information contained in "hardware identifiers." Occasionally, the information that the app or app store reserves the right to collect and that may constitute personal information is not identified adequately. Amazon, like others, collects some metadata, seemingly to improve service operation, but without it being clear whether those data can include or constitute personal information¹⁸⁹. The companies' policies also contain very general statements, notably to the effect that the merchants comply with privacy laws, without the text specifically mentioning the efforts made to that end.
3. Consumers have to provide app stores with a great deal of personal information. Before being able to download apps, even free ones, users must typically create an account. To that effect, the app store requires them to communicate a lot of personal information (including billing address and payment method information, even if the user doesn't intend to make purchases). Although legislation requires that the collection of personal information be limited to what is necessary, the personal information required by app stores bear at times no relation to what is necessary for the app's store to operate or for using the apps downloaded. Certain important disclosures about the collection and transmission of personal information may be buried in voluminous documents. For example, we find in Google Play's terms of service that "The network provider may send us your billing address information to help us create your Google Play account." Of course, some apps may also require a long list of information exceeding what is necessary for their good operation.

¹⁸⁸ **ACMA**. *Emerging business models in the digital economy—The mobile applications market*. Occasional paper, p. 17. [Online] http://www.acma.gov.au/webwr/assets/main/lib310665/emerging_business_models.pdf (document consulted on June 7, 2016).

¹⁸⁹ *Op. cit.* note 182, **AMAZON.CA**. "The Appstore Software and Apps will provide Amazon with information relating to the download, use and performance of the Appstore Software and your Apps, as well as information regarding the devices on which you download and use the Appstore Software or Apps. For example, the Appstore Software and Apps may provide Amazon with information about the device type, mobile network connectivity, location of the device running an App, information about when an App is launched, individual session lengths for Apps, or why an App may not be working."

4. Consumers can easily lose control over their personal data. They are rarely offered the opportunity to manage or control the transfer of their personal data. Apple is an exception in enabling the consumer to refuse the collection of some data¹⁹⁰. But most often, the consumer must agree to all those terms, otherwise he cannot use (or download) the products offered to him.

The Tinder app is an example of the large quantity and the usage of data accessed by apps. During installation, the app tells the user it wants to access his Facebook account. The app clearly states it will display nothing on Facebook in the user's name, but it will use all of the user's personal information and data that are in his Facebook profile (educational institutions, university education, workplace, restaurants frequented, interests, networks, friends, etc.) to create a profile and associate it with others, in order to offer him those associations.

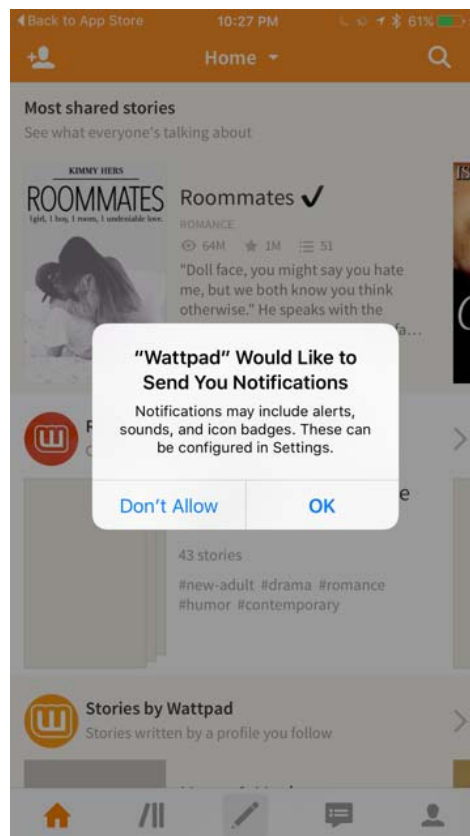


Source: Tinder on iPhone

¹⁹⁰ **APPLE.** See the webpage on privacy, in the section on the company's values. [Online] <http://www.apple.com/privacy/manage-your-privacy/> (page consulted on June 6, 2016).

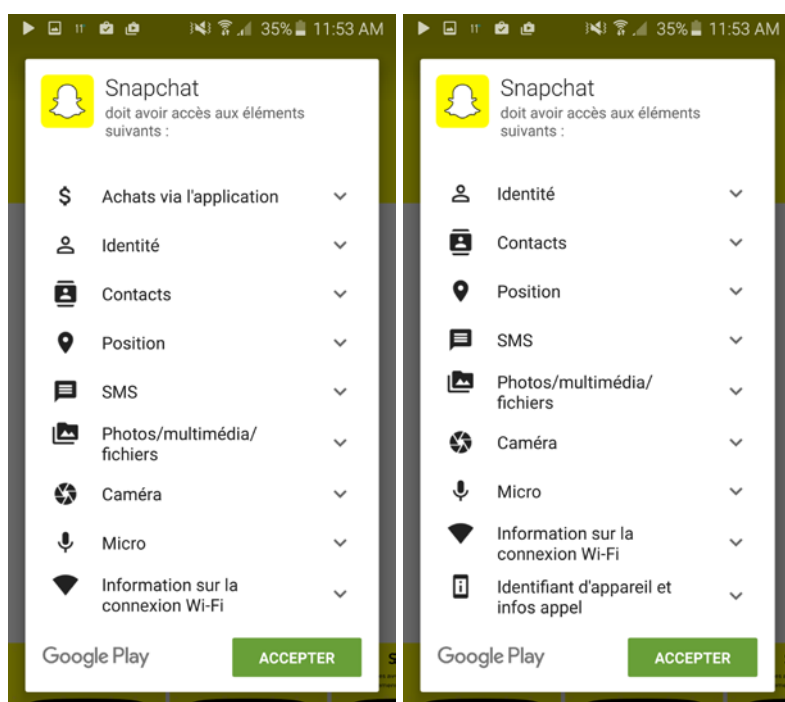
Users can block the sharing of some information, such as their location, contacts, photos, etc. Android users have no choice but to avoid using an application they deem too intrusive in sharing some of their information. *Op. cit.*, note 110, **OECD**, p. 42.

Our survey pertained mainly to notices and statements regarding in-app purchases. But it also enabled us to observe how app stores inform consumers about an app's accesses to their personal information or to certain features of their device, and how app stores obtain authorization for those accesses or related data collections. As shown by the screenshots below, an Apple device user is asked to authorize or not the various accesses to personal information or to his device's features while he uses the app. As the app activates a feature requiring access, a notice and an authorization request are presented to the consumer, who can choose to accept or refuse. Of course, refusal usually means that the feature cannot be used.



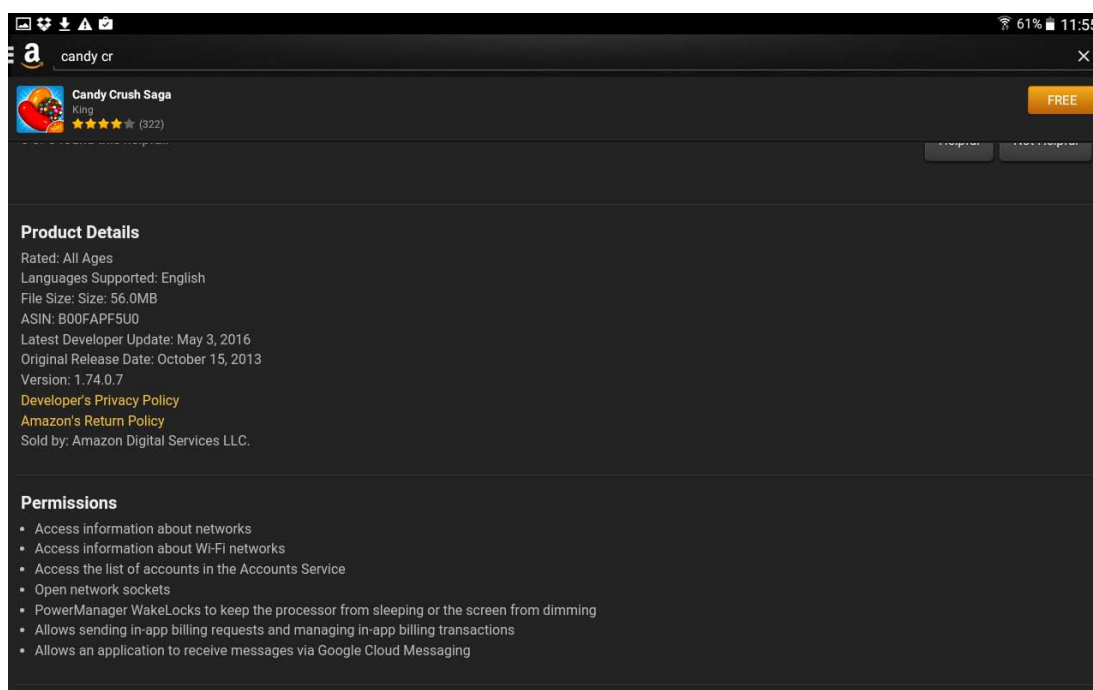
Wattpad in iTunes

When downloading an app from Google Play, the consumer must give blanket consent to a series of access permissions. Otherwise he will not be authorized to download the app.



Snapchat in Google Play

Amazon's app store lists, in an app's detailed description, the various accesses to which the consumer will give blanket consent when downloading. He may click either "cancel" or "install" to complete the app's download, thus giving the required permissions.



Candy Crush Saga in Amazon's app store

Apple's approach, requiring each permission in turn when an access is necessary for the app's operation, has the advantage of allowing the user to choose, at the right time, the accesses he wants to authorize. But this approach has a disadvantage compared to the approach of Google Play and Amazon, which present at the outset all the accesses that will be required, but don't allow the consumer to authorize some and refuse others. Apple's approach allows the consumer to know which specific access is required and why. For example, the first time a consumer wants to publish a photo in a given app, the app will request access to the device's camera. However, before downloading the app, the consumer has no clear idea of the access that an app may require. Would the ideal approach not be to combine the two above approaches, i.e. a complete list at the outset and then piecemeal authorizations as necessary?

We could draw a long list of privacy problems observed, but that is not the purpose of this study. However, we can conclude with this point: there appears to be a systemic problem with the collection and treatment of users' personal information. The quality of the consent obtained often leaves much to be desired, users' control over their information is usually very limited, and the quantity of information collected often seems excessive. The guidelines of the Office of the Privacy Commissioner have not cleaned up market practices. All the problems of compliance with the ARPPIPS and its provincial equivalents, and the market's apparent unwillingness to remedy those problems, obviously necessitate strong intervention by the authorities responsible for applying privacy laws.

3.12 The Conflict-Resolution Process

Many authors have studied consumer access to justice¹⁹¹. Whereas multiple problems of access to justice have been identified in “traditional” transactions, the problems are the same, or even amplified, when disputes concern apps and in-app purchases. Although some in-app purchases involve substantial amounts of money, as mentioned above, in-app purchases generally involve micropayments, and thus small amounts. Small amounts at stake have always posed an obstacle likely to discourage consumers to seek remedies. Moreover, the distance between actors that is created by the digital environment of in-app purchases likely exacerbates dispute resolution difficulties. A lawsuit, in which a consumer would face multiple barriers for the sake of minimal amounts, seems excluded at the outset. So do the various actors involved in this type of transactions take necessary measures to make available to consumers a quick and effective dispute resolution process?

To undertake a dispute resolution process, the consumer must be able to identify the party with whom he must do so. We have explained that the app ecosystem is highly complex and that it can be difficult for a consumer to know precisely the roles and responsibilities of the various actors with whom he interacts.

¹⁹¹ **CARREAU, Simon**, *Consumers and Access to Justice: One-Stop Shopping for Consumers?*, Union des consommateurs, Montreal, Quebec, Canada, June 2011, 102 pages. [Online] http://uniondesconsommateurs.ca/docu/protec_conso/02-Tribunal-consommation-e2.pdf (page consulted on May 5, 2016);
LAFOND, P.-C., *Le consommateur et le procès – Rapport général*, Les Cahiers de Droit, vol. 49, no 1, March 2008;
LAFOND, P.-C., (dir.), *L'accès des consommateurs à la justice*, Cowansville, Canada, Les Éditions Yvon Blais, 2010;
Accès à la justice
MACDONALD, R., *L'accès à la justice et le consommateur : une marque maison?*, in P.-C. Lafond (dir.), *L'accès des consommateurs à la justice*, Les Éditions Yvon Blais, 2010;
LACOURSIÈRE, Marc, *Le consommateur et l'accès à la justice*, Les Cahiers de Droit, Vol. 49, No 1, under the direction of Michelle Cumyn, Consortium Érudit, Laval University Faculty of Law, Québec City, Québec, Canada, March 2008, pp 97-130, 171 pages.
DUGGAN, Anthony J. *Consumer access to justice in common law countries: a survey of the issues from a law and economics perspective*, in Charles E. F. Rickett and Thomas G. W. Telfer, *International Perspectives on Consumers' Access to Justice*, Cambridge, 2003, pp 46-67, 425 pages;
LAFOND, Pierre-Claude, Lison Néel and Hélène Piquet, *L'émergence des solutions de rechange à la résolution judiciaire des différends*, in “Mélanges Claude Masse – En quête de justice et d'équité,” Éditions Yvon Blais, Cowansville, Quebec, Canada, March 1, 2003, 632 pages;
RAYMOND-BOUGIE, Stéphanie, *L'arbitrage des différends en droit de la consommation, Une nouvelle approche*, Éditions Yvon Blais, Cowansville, Quebec, Canada, December 12, 2005, 160 pages;
LABELLE, Me Yannick, *Consumer Arbitration: A Fair and Effective Process?*, Union des consommateurs, Montreal, Quebec, Canada, June 9, 125 pages.
CANADIAN JUDICIAL COUNCIL, *Access to Justice: Report on Selected Reform Initiatives in Canada*, Subcommittee on Access to Justice (Trial Courts) of the Administration of Justice Committee, June 2008;
CANADIAN FORUM ON CIVIL JUSTICE, *Access to Consumer Justice-What We Need to Know*, March 31, 2016, Slaw Magazine. [Online] <http://www.slaw.ca/2016/03/31/access-to-consumer-justice-what-we-need-to-know> (page consulted on April 5, 2016);
CANADIAN FORUM ON CIVIL JUSTICE, *Everyday Legal Problems and the Cost of Justice in Canada*, 2011-2016. [Online] <http://www.cfcj-fcjc.org/cost-of-justice> (page consulted on April 21, 2016).

First, many of the apps' terms of use contain an arbitration clause compelling the consumer to submit any eventual dispute to arbitration (often in foreign jurisdictions, for Canadian consumers), for example in the EULA of the Smurfs' Village app:

Our liability to you relating to the Game is limited. You agree that any disputes will be subject to binding arbitration, to be held in Los Angeles, California, USA¹⁹².

Recourse to arbitration outside Canada, particularly for small amounts, involves major disadvantages to consumers¹⁹³ and hardly encourages them to try to resolve their dispute by that means. Likewise when clauses subject the contractual relation to a foreign jurisdiction's laws. This is notably what Apple provides:

You expressly agree that exclusive jurisdiction for any claim or dispute with Apple or relating in any way to your use of the iTunes Service resides in the courts in the State of California¹⁹⁴.

A small comfort to Quebec consumers: Although Amazon's Appstore uses this type of arbitration and choice-of-court clauses to the detriment of consumers' access to justice – clauses that burden the dispute resolution process –, the Appstore takes care to mention that this type of clause does not apply to Quebec:

Applicable Law and Disputes

(Not applicable to Quebec consumers) Any dispute or claim relating in any way to your use of any Amazon.ca Service, or to any products or services sold or distributed by Amazon.ca or through Amazon.ca Services will be resolved by binding arbitration, rather than in court, except that you may assert claims in small claims court if your claims qualify. The U.S. Federal Arbitration Act and U.S. federal arbitration law apply to this agreement¹⁹⁵.

3.13 Conclusion

While the problems likely to be encountered by consumers in the universe of apps and in-app purchases appear the same as in "traditional" transactions, they are aggravated by certain peculiarities of that universe. Information does not seem disclosed adequately and accessibly. First, one of the essential aspects of in-app purchases is that the transaction is made within the application itself, thus enabling the consumer to complete it without stopping to use the app. However, the apps' terms of use, which at times are accessible in an app's description at the moment of its download, contain numerous pages in small characters and in a language not very comprehensible to most people. This hinders consumers from having a good understanding of their rights and responsibilities or those of the other actors involved.

¹⁹² *Op. cit.* note 171, **BEELINE**.

¹⁹³ **LABELLE, Me Yannick**, *Consumer Arbitration: A Fair and Effective Process?*, Union des consommateurs, Montreal, Quebec, Canada, June 9, 125 pages, on pp. 18-24. [Online] http://uniondesconsommateurs.ca/docu/protec_conso/arbitrageE.pdf (document consulted on May 25, 2016).

¹⁹⁴ *Op. cit.*, note 51, **APPLE**.

¹⁹⁵ **AMAZON.CA**, *Conditions of Use*, last updated on May 16, 2016. [Online] <http://www.amazon.ca/gp/help/customer/display.html?nodeId=918816> (document consulted on May 25, 2016).

Advertisements of in-app purchase apps may seem harmless, but likely lead consumers to believe that an app is entirely free, and that they don't have to be concerned about eventual charges when using it. The efforts exerted by app stores to notify consumers that an app involves purchase options do not appear to yield the expected results. This is explained in part by consumers' low digital literacy. They don't understand the operation of in-app purchase apps, or don't know that default settings allow in-app purchases without authentication, and don't know how to change the settings of their device or app store to control or even prohibit in-app purchases.

The problem most often reported and publicized is that of charges for in-app purchases made by children with their parents' account without the latter's authorization or consent. This occurs because smartphones' default settings allow in-app purchases without a password for a certain period following an authenticated operation.

Developers' strategies to encourage in-app purchases have a particularly important effect on children, notably due to their inability to distinguish clearly between the virtual world and reality.

When snags occur with in-app purchases, the consumer may have difficulty identifying the various actors involved in the transaction, or to contact the one responsible. Moreover, he will be opposed by terms of use that, theoretically, have been accepted by the account holder and engage his responsibility for any purchase made. But it remains difficult to admit that a blanket acceptance of terms of use (found in documents highly unlikely to be read and understood by the user) can in fact be the equivalent of consent to in-app purchases made unbeknownst to the holder of the account from which payment is made.

Regarding the collection of personal information and the use of mobile data, we observe that the consumer receives only very succinct information that does not enable him to evaluate the magnitude of such collection, or the actual use to be made of collected data, or the quantity of mobile data that downloaded apps will use.

Moreover, a consumer who encounters a problem with in-app purchases is opposed (except in Quebec, in the case of Amazon) by arbitration and choice-of court clauses likely to discourage him from taking necessary steps to obtain a resolution of the dispute between him and the app universe's actors.

And if the consumer tries to identify who is responsible for problems encountered with an in-app purchase, whom should he turn to? It appears that all the key actors share responsibility¹⁹⁶. Certain app store and device features do enable the consumer to block in-app purchases. While the consumer should be cautious and find out more about the operation of in-app purchase apps and the features that could help him avoid certain problems, app stores and mobile device manufacturers should ensure that default settings, for example, do not make it possible to make in-app purchases so easily. App stores could also offer automatic settings protecting the consumer, along with a link to setting options and to usage instructions. As soon as an account is opened in an app store, the question "Will your device be used by persons other than yourself, notably minor children?" could for example be asked and settings be configured as securely as possible for the account holder according to his answer.

¹⁹⁶ **DREDGE, S.**, *Who is responsible for Kids and In-app purchases: Apple, developers or parents?* The Guardian, January 17, 2014. [Online] <https://www.theguardian.com/technology/2014/jan/17/kids-in-app-purchases-apps-parents> (page consulted on November 11, 2015).

Industry actors should acknowledge the problems that in-app purchases may cause, and should act proactively – which consumers should also do, before discovering “the joys of in-app purchases” only when confronted with a problem. It seems reasonable to insist that the best-informed actors, who profit substantially from in-app purchases, take measures to educate device users and parents about the operation of in-app purchase apps and to try sparing consumers any nasty surprises. Instructions to parents and users should be more ubiquitous and prominently displayed, and could serve as reference documents enabling users to take necessary measures for preventing problems with in-app purchases¹⁹⁷.

A special issue arises when children use this type of app. To sell virtual products, app designers don't hesitate to profit from weaknesses in children's perceptions and monitoring abilities, while plundering the parents' accounts. The app stores tout their role in the choice of apps they offer and the strict rules binding app designers; they could do better and promote children's apps that do not contain in-app purchases and that meet the highest ethical standards.

This is what Apple chose to do in 2015, during its “Pay once and play” campaign, by promoting apps without in-app purchases in its app store's home page¹⁹⁸. It matters little that, as some have suggested, this initiative follows multiple complaints by consumers unhappy with charges for in-app purchases to which they did not consent, and various investigations undertaken by several government agencies¹⁹⁹. A clear choice should be offered to consumers.

For its part, Amazon launched in August 2015 a new app store, Amazon Underground, offering apps and games that are “actually free”²⁰⁰. Amazon Underground operates as follows: users download directly from the Amazon.com app store, which freely offers the most popular in-app purchase apps. In exchange for Amazon's payment of a certain amount for each minute a consumer spends in the app, developers freely offer the user virtual products that would otherwise be available as in-app purchases²⁰¹.

¹⁹⁷ **GOOGLE PLAY**, *Parent Guide to Google Play*. [Online]

<https://support.google.com/googleplay/answer/6209547?hl=en-CA> (document consulted on April 3, 2016).


¹⁹⁸ **BOXALL, A.**, *Apple promotes Paid Games without In-app Purchase in new Play Once & Play App Store Section*, BusinessofApps, February 18, 2015. [Online] <http://www.businessofapps.com/apple-promotes-paid-games-without-in-app-purchase-pay-once-and-play> (page consulted on April 23, 2016).

¹⁹⁹ **VITICCI, F.**, *Apple Promoting "Great Games with No In-App Purchases" on App Store Front Page*, MACSTORIES.NET, 1e February 12, 2015. [Online] <https://www.macstories.net/news/apple-promoting-great-games-with-no-in-app-purchases-on-app-store-front-page/> (page consulted on April 23, 2016).


²⁰⁰ “apps and games that are actually free.”

AMAZON, *Welcome to Amazon Underground- The Same Games You Love. With Amazon Underground, They Are Actually Free*. [Online] http://www.amazon.com/b/ref=tw_tiny?_encoding=UTF8&node=9530541011 (page consulted on April 24, 2016).

²⁰¹ **KIELER, A.**, *Amazon Launches App Store That Claims to Show Other Actually Free Apps*, CONSUMERIST, August 26, 2015. [Online] <https://consumerist.com/2015/08/26/amazon-launches-app-store-that-claims-to-show-other-actually-free-apps/> (page consulted on April 24, 2016).



VS.



Jetpack Joyride on
underground

Jetpack Joyride on
Google Play

FREE	Download the game	FREE
FREE	25 Quick Revives	\$2.39*
FREE	Flying V Jetpack	\$3.99*
FREE	COLLOSATRON	\$4.78*
FREE	Coin Ultimate Pack	\$29.99

Actually Free
PRICE
\$41.15

*Costs are estimated based on a 50,000 Coin Pack purchase.

Source: Amazon.com

In the course of our research, we conducted a field survey of how, when freemium apps are downloaded and used, problems arise from in-app purchases we identified by reviewing the literature. The following paragraphs present the results of that field survey.

4. Field Survey and Analysis

Our field survey aimed at analyzing in-app purchase apps more thoroughly by directly experimenting with the acquisition processes. Our goal was first to evaluate disclosures of in-app purchases made during the app's advertisement and during its acquisition. Then we wanted to identify, while using the app, the notices and prompts regarding in-app purchases, as well as the information provided while an in-app purchase was made.

4.1 Methodology

The apps on which our analysis focused were chosen, with one exception, among those offered by the three most important providers of mobile apps, i.e. Google Play, the Amazon Appstore and Apple's iTunes App Store, and among those ranked most popular by the app stores. Obviously, we cannot certify that this classification reflects the full reality; but it did seem to provide a sufficiently simple indicator for making our choices. That being said, some authors have expressed concern about the apps' classification by the companies distributing them:

The way apps are ranked and displayed within app stores influences which apps are eventually purchased (licensed) or downloaded. The ranking of apps in app stores is indeed the result of a complex system which involves various factors, but the methodologies need to be more transparent for the benefit of users and developers. App rankings should provide relevant and objective information concerning the way apps are being ranked, in order to provide a reliable measure to guide consumer purchases. It is increasingly important that rankings and end-user participation in reviews reflect the actual products and services offered, particularly if governments favour a self-regulatory approach to app ecosystems²⁰².

All the games and apps we chose are presented as freemiums, i.e. apps that can be downloaded and used for free, without any functional limitation, and that offer supplements for a fee. With one exception, we chose apps intended for smartphones and tablets.

a) A few methodological limitations

We limited ourselves almost exclusively to examining games and apps intended for portable and mobile devices, because this sector has shown the most growth in recent years, and because those devices are commonly linked to payment instruments. This link seemed to us likely to facilitate in-app purchases and, as the media have frequently reported, to cause problems. Focusing on those apps and choosing the ones distributed by the most popular app stores seemed conducive to a more cogent analysis of this sphere of the vast market of apps and games.

²⁰² *Op. cit.*, note 20, **OECD**.

We made an exception in including the game recognized as one of the most popular in the world, with a monthly pool of online gamers that reportedly numbers more than 65 million²⁰³: the game League of Legends (hereinafter LoL), available only for personal computers (PC or Mac). Access to this game and to its in-app purchases follows a different approach from that of app stores or their apps. We will thus analyse this game separately.

Our investigators did not make transactions in every case – at times for technical reasons (refused transaction or others), at times because the price seemed exorbitant given the limited funds made available to our investigators. The transactions having still been initiated in those cases, the various notices and confirmation requests could be verified. So payment confirmations are missing in a few cases. Given that such confirmations are issued by the app stores, those few aborted transactions do not affect our findings.

A few of the selected apps were not examined. After listing the selected apps, we name those we did not examine and explain why.

4.2 The Different Categories of Applications

The apps were selected so as to represent the categories considered most popular among consumers. To determine those categories, we relied on OECD data²⁰⁴.

Educational Apps	Games
Entertainment	Information (public sector)
Personalization	Health and physical fitness
Weather	Geo-tracking (maps, navigation, etc.)
Lifestyle	Music
Social networking	Business
Travel	Books and reference

We then tried to select the freemium apps most popular among Canadians in each category, while consulting the data analytics website App Annie. Given a lack of transparency regarding the criteria of the app stores' popularity rankings, we thought an objective data analytics website would be more reliable. The app stores' rankings do not correspond perfectly with our categories, since not all categories were represented in all the app stores.

After the data collection done on November 24, 2015, we selected the following 33 apps for our field survey (an app's name is followed by the developer's). Our list of apps reflects the fact that the data analytics website draws two distinct categories for apps: downloaded on iPad and iPhone.

²⁰³ According to the producer, Riot Games, the game League of Legends attracts "67 million playing every month, 27 million playing every day, and over 7.5 million playing at the same time during each day's peak play time."

RIOT GAMES, *Our Games*. [Online] <http://www.riotgames.com/our-games> (page consulted on October 28, 2015). The Business Insider reported that the game had earned in 2015 more than \$1 billion in micro transactions. (page consulted on May 15, 2016).

BUSINESS INSIDER, *Gamers are spending thousands of dollars a year on this 'free' video game*, March 20, 2015. [Online] Via VENTUREBEAT, *Top 10 MMOs by Worldwide Revenue for 2014 YTD*. [Online] http://venturebeat.com/wp-content/uploads/2014/10/2014_1022-top10mmo-final.jpg (page consulted on October 29, 2015).)

²⁰⁴ *Op. cit.* note 20, **OECD**, p 16.

Educational Apps 1. Amazon – Kids Academy (Kids Academy Company); 2. Google Play – Lumosity (Lumos Labs, Inc.); 3. iTunes for iPhone and iPad – Duolingo (Duolingo)	Games 4. Amazon - Candy Crush Saga (King); 5. Google Play and iTunes for iPhone – Pixduel (FEO Media AB); 6. iTunes for iPad – Blossom Blast Saga (King)
Entertainment Apps 7. Amazon – Colorfy : Coloring Book for Adults – Free (Fun Games for Free); 8. Google Play – Akinator the Genie (Elokence); 9. iTunes for iPhone and iPad – Netflix (Netflix, Inc.)	Information Apps (public sector) <ul style="list-style-type: none"> No such category at Amazon, Google Play and iTunes
Personalization Apps 10. Google Play – GO Launcher (GO Launcher Dev Team) <ul style="list-style-type: none"> No such category at Amazon and iTunes 	Health and Fitness Apps 11. Amazon, Google Play, iTunes for iPhone and iPad – MyFitnessPal (MyFitnessPal Inc.)
Weather Apps 12. Amazon – Weather + (International Travel Weather Calculator); 13. Google Play – Amber Weather Widget (Amber Mobile Limited); 14. iTunes for iPhone – Marée.info (Bolo informatique); 15. iTunes for iPad – AccuWeather (AccuWeather International, Inc.)	Geo-tracking Apps (maps, navigation, etc.): 16. Amazon & Google Play – GPS Navigation & Maps (Sygic a.s.); 17. iTunes for iPhone – Navmii GPS Canada (Navmii Publishing Ltd.); 18. iTunes for iPad – Explorer for Google Street View on Google Maps (Yunhe Shi)
Lifestyle Apps 19. Amazon – Tinderly – Tinder Liker!; 20. Google Play and iTunes for iPhone – Tinder (Tinder); 21. iTunes for iPad – Player for Musical.ly Acapella & DubSmash (Rita Najm Khattar)	Music Apps 22. Amazon – TuneIn Radio (TuneIn); 23. Google Play and iTunes for iPhone – Spotify Music (Spotify Ltd.); 24. iTunes for iPad – GarageBand (Apple)
Social Networking Apps 25. Amazon – TextNow (Enflick, Inc.); 26. Google Play – Snapchat (Snapchat Inc.); 27. iTunes for iPhone – Skype for iPhone (Skype Communications SARL) 28. iTunes for iPad – Skype for iPad (Skype Communications SARL)	Business Apps (office): 29. Google Play – Polaris Office + PDF (POLARIS OFFICE Corp.); 30. iTunes for iPhone and iPad – Adobe Acrobat Reader (Adobe) <ul style="list-style-type: none"> No such category at Amazon
Travel Apps 31. iTunes for iPhone – World Phone (Norwood Systems) 32. iTunes for iPad – Flight Tracker Free (Smart Mobile Software) <ul style="list-style-type: none"> No such category at Amazon and Google Play (see geo-tracking) 	Books and Reference Apps: 33. Amazon, Google Play & iTunes for iPhone and iPad – Wattpad – Free Books and eBook Reader (Wattpad)

To make in-app purchases in the course of our survey, we bought app store prepaid cards as well as Visa and MasterCard prepaid credit cards, which the investigators linked to the accounts of the app stores where the selected freemium apps were obtained.

We prepared and gave the investigators an analytical grid specifying the elements to verify and note while acquiring and installing an app (i.e. notices and information given about in-app purchases), while they used the app, and while making purchases within it. The following account reproduces in chronological order the elements of that grid.

The iTunes and Google Play apps were downloaded and used on a tablet and on a smartphone. The Amazon apps were downloaded and used only on a tablet.

League of Legends was downloaded and used on a PC. The in-app purchasing process of *League of Legends* is so distinct from that of the apps related to app stores that the summary of its investigation must be presented apart, at the end of this section.

The app stores' default settings (see section 3.6 of this report) and the Apple devices' original settings, with regard to in-app purchases, were reinitialized before the apps were downloaded.

A few of the selected apps were not examined:

- **WattPad:** Despite three investigators' close examination of the app downloaded from three different app stores, it proved impossible to find any in-app option in WattPad, the "books and reference" app selected for the three app stores.
- **SnapChat:** Despite an indication of in-app purchases when the app was acquired, the investigator did not find or receive any offer of in-app purchase in the tablet app acquired from Google Play. In April 2016, Snapchat reportedly, without much fanfare, eliminated the possibility of making in-app purchase when updating the app²⁰⁵. Critics think users simply didn't want to pay to view their friends' "snaps" and use certain distorting lenses²⁰⁶.
- **TextNow:** Despite an indication of in-app purchases when the app was acquired from Amazon, the investigator did not find or receive any offer of in-app purchases payable with real money in the app. Necessary credits for using the app can be obtained by downloading other apps, viewing ads, completing surveys, etc.
- **Pixduel:** This game (acquired from Google Play) could not be tested on a tablet, due to incompatibility with the device used.
- **Tinderly:** The app's description on Amazon revealed that it was not freemium, but paymium. We thus chose to exclude it from our survey.
- **Kids Academy:** The test of the educational app from Amazon had to be aborted due to excessive freezes on the tablet.
- **GarageBand:** Despite its classification in this category by iTunes, GarageBand is not a free app.
- **Marée.info:** Although we referred to classification for Canada, this weather app provides data only for France, Belgium and the Channel Islands.

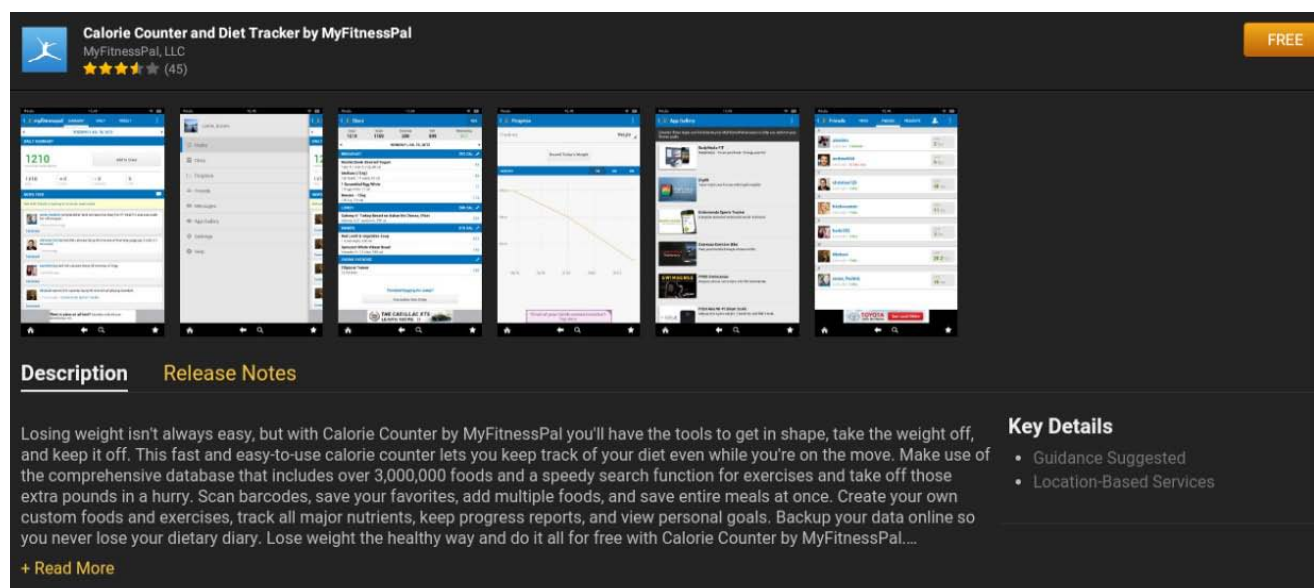
²⁰⁵ VALINSKY, J., *Snapchat Quietly Kills In-app Purchases Option*, digiday.com, April 22, 2016. [Online] <http://digiday.com/platforms/snapchat-shelves-snap-replays/> (page consulted on May 23, 2016).

²⁰⁶ *Ibid.*

- **World Phone:** As soon as the app was opened, it proved difficult to navigate and access features. The app froze a few times. The investigators thus chose not to continue with an in-app purchase.

4.3 Description – Sentence or Text Describing an Application

App descriptions vary greatly, of course. We observed that app stores use different approaches to their initial descriptions. While Amazon commonly uses superlatives (Candy Crush: “addictive puzzle adventure, Ain’t it the sweetest game ever?”; GPS: “l’application de navigation GPS hors ligne la plus installée au monde”; ===== Tuneln Radio: “world’s largest collection”); Google Play’s descriptions generally remain very sober (“Luminosity - Brain training - We’re a team of scientists”; “Calorie counter – Lose weight with MyFitnessPal”; “Akinator can read your mind and tell you what character you are thinking about”). At iTunes, the apps’ initial description is at times summary in the extreme (sometimes a simple screenshot of the app), but at other times includes an excerpt of the more complete, and more subjective, description accessed by the “Details” hyperlink.



Calorie Counter and Diet Tracker by MyFitnessPal
MyFitnessPal, LLC
★★★★★ (45)

Description **Release Notes**

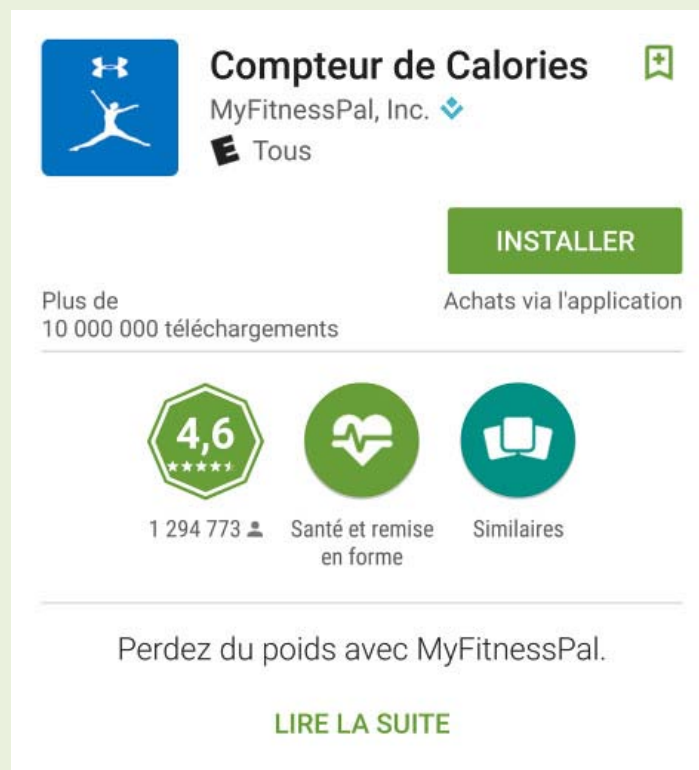
Losing weight isn't always easy, but with Calorie Counter by MyFitnessPal you'll have the tools to get in shape, take the weight off, and keep it off. This fast and easy-to-use calorie counter lets you keep track of your diet even while you're on the move. Make use of the comprehensive database that includes over 3,000,000 foods and a speedy search function for exercises and take off those extra pounds in a hurry. Scan barcodes, save your favorites, add multiple foods, and save entire meals at once. Create your own custom foods and exercises, track all major nutrients, keep progress reports, and view personal goals. Backup your data online so you never lose your dietary diary. Lose weight the healthy way and do it all for free with Calorie Counter by MyFitnessPal...

[+ Read More](#)

Key Details

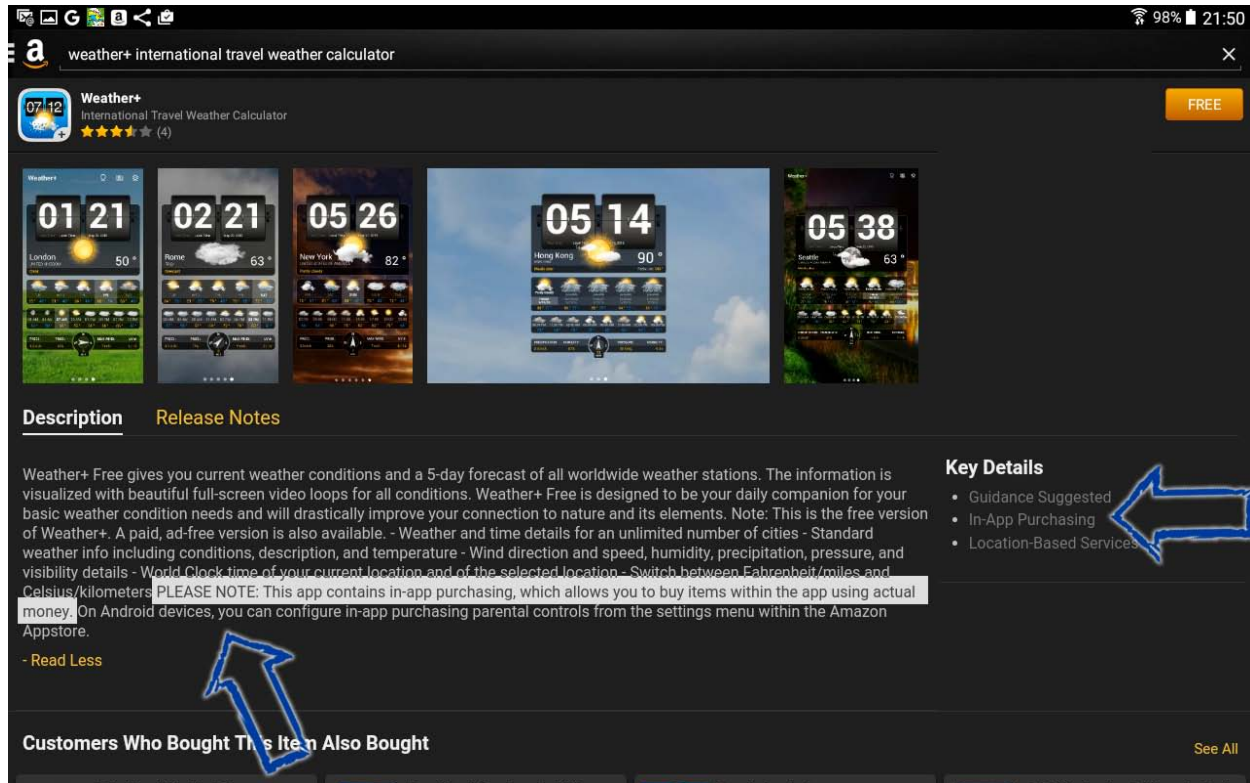
- Guidance Suggested
- Location-Based Services

Source: Amazon



Source: Google Play

As mentioned above and as can be seen on the screenshots, the app stores generally indicate on the initial presentation page that the app includes in-app purchases, without the indications being uniform. Curiously, Amazon does not indicate on an app's presentation page that in-app purchases are offered (i.e. a premium version), whereas the app store, as we have seen (section 3.1), generally multiplies such notices, as shown on the screenshot below, where we have used arrows to indicate those notices.



Source: Amazon

Google Play and iTunes thus offer additional details (“details” or “read more” hyperlinks), which in addition to a sales pitch, at times mention in-app purchases. Here are a few such mentions, excerpted from detailed descriptions:

*** JOUE PLUS, SANS AUCUNE CONTRAINTES ! ***

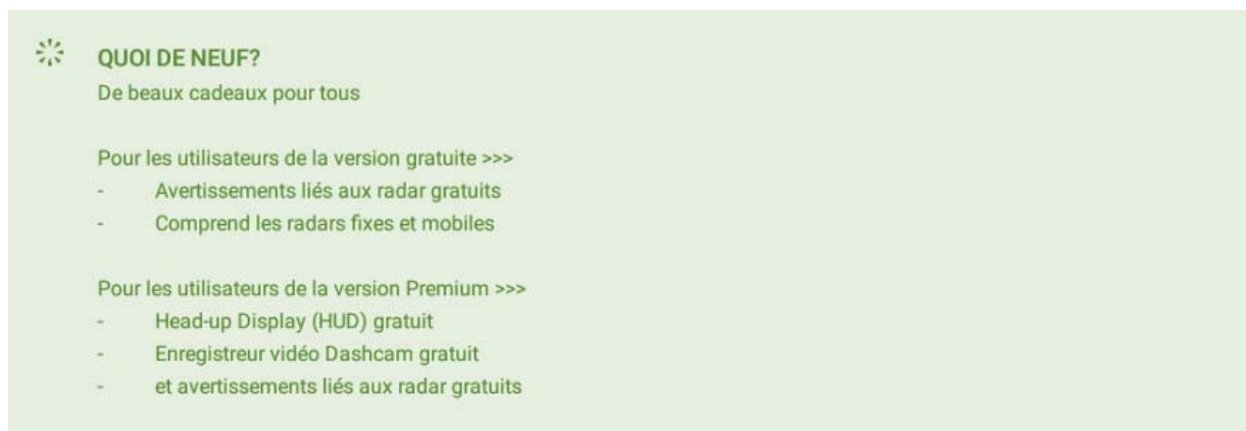
Akinator t'ouvre les portes de son labo et te propose des potions miracles (payantes), plus farfelues les unes que les autres.


- La potion survitaminée te permet de débloquer plus de personnages. Seras-tu assez fort pour tromper Akinator ?

- La potion rayonnante supprimera la publicité de l'application.

LA POTION ULTIME ! Donne le meilleur à Akinator avec cette potion qui regroupe les effets de toutes les autres et qui te permet en plus de personnaliser ton personnage pour bluffer à ton tour tes amis.

Source: Akinator, Google Play



 **QUOI DE NEUF?**
De beaux cadeaux pour tous

Pour les utilisateurs de la version gratuite >>>

- Avertissements liés aux radar gratuits
- Comprend les radars fixes et mobiles

Pour les utilisateurs de la version Premium >>>

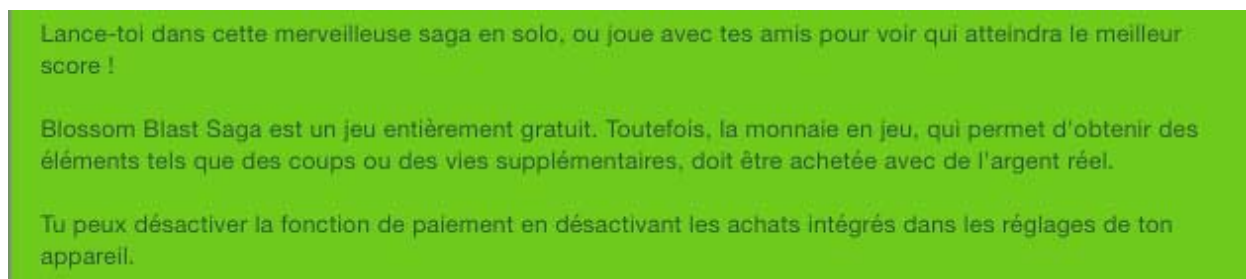
- Head-up Display (HUD) gratuit
- Enregistreur vidéo Dashcam gratuit
- et avertissements liés aux radar gratuits

Source: GPS-Navigation, Google Play



ACHATS INTÉGRÉS À L'APPLICATION
Convertissez, modifiez et organisez les documents PDF en déplacement en vous abonnant à l'un des services en ligne Adobe. Vous pouvez commencer sans avoir à quitter votre application. Les abonnements fonctionnent sur tous les ordinateurs et appareils.

Source: Adobe Acrobat Reader, iTunes



Lance-toi dans cette merveilleuse saga en solo, ou joue avec tes amis pour voir qui atteindra le meilleur score !

Blossom Blast Saga est un jeu entièrement gratuit. Toutefois, la monnaie en jeu, qui permet d'obtenir des éléments tels que des coups ou des vies supplémentaires, doit être achetée avec de l'argent réel.

Tu peux désactiver la fonction de paiement en désactivant les achats intégrés dans les réglages de ton appareil.

Source: Blossom Blast Saga, iTunes

4.4 Target Audience

As part of an examination of in-app purchases, the issue of freemium apps' target audience seems important at the outset. Indeed, a four-year-old child is more likely than an adult or teenager to make purchases simply by clicking a button in an app without realizing that the account holder's real money is being spent.

Moreover, the indication, during an app's purchase, of the audience for whom the app or game is intended will ultimately have little influence if its design, particularly the type of images, the colour palette and other aspects are attractive to young children.

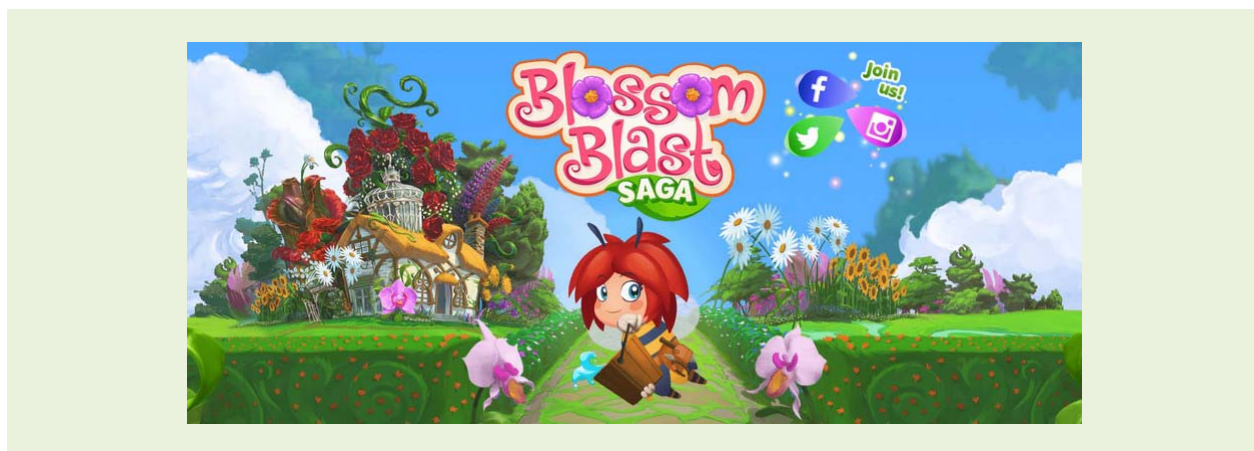
For example, the game *Blossom Blast Saga* indicates a discreet "4+" on the presentation page.



Source: Blossom Blast Saga

This game thus seems clearly intended for young children (as the presentation indicates²⁰⁷, along with the game's characteristics). Nevertheless, the in-app purchase options will allow the user to spend from \$1.39 to \$54.99 for virtual purchases.

²⁰⁷ The visual presentation may be misleading, however: the Candy Crush Saga's design, produced, like Blossom Blast Saga, by the developer King Digital Entertainment (acquired in 2015 by Activision for almost \$6 billion), appears to indicate that this game is also intended to attract young children. But in an interview, Tommy Palm, one of the creators, stated that "One target group that have not had as many games made for them before is women in the age of 25- 55." (Interview with SOFTONIC, published on April 16, 2013. [Online] <http://features.en.softonic.com/candy-crush-saga-publisher-talks-sweet-success>. Reported notably on the website Le Bien Public. [Online] <http://www.bienpublic.com/grand-dijon/2013/07/29/candy-crush-ce-jeu-qui-rend-completement-accroc>) (pages consulted on June 20, 2016).



Source: Blossom Blast Saga – website home page of the developer, King

However, a game such as *Smurfs' Village* (from which we took numerous examples in the course of our research) is rated for “all ages.” So is *Kids Academy*, found at Amazon in the “preschool” section.

This “all ages” classification is also used for movies, but to limit access to audiences for whom a movie is clearly not intended.

It remains that if a specific regulation for in-app purchases were considered, to limit their use in apps already intended for children, the app industry's ratings would not be very helpful.

4.5 In-App Purchase Notices before or during Downloads

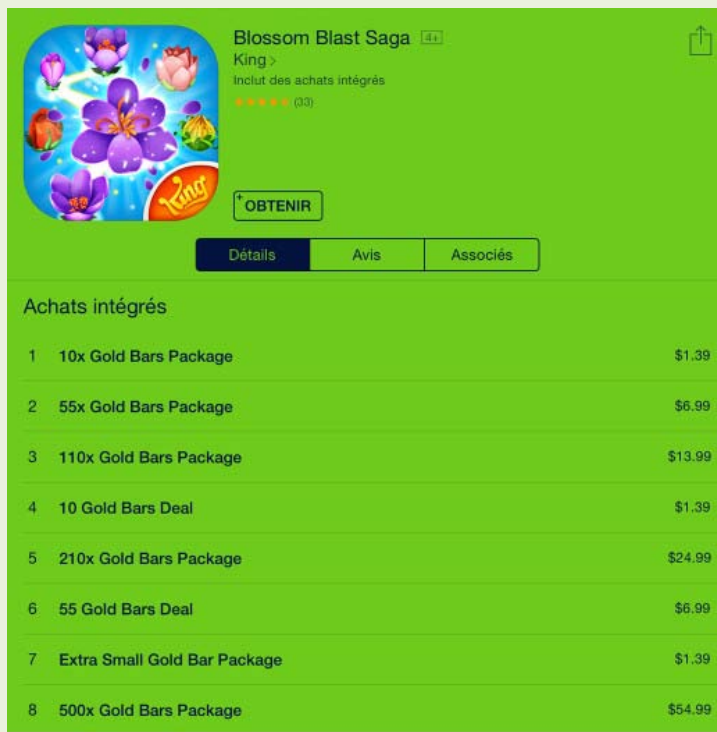
We mentioned above the hyperlinks “details” and “read more,” which lead to texts in which the presence of in-app purchases is at times indicated. After following those links and reading those pages closely, we sometimes find details of what can be obtained by in-app purchases, notably the price and product description.

To that end, the app stores use specific techniques.

At the very end of the apps' presentation text, Google Play mentions a simple price range: “\$0.99 - \$9.99 per item,” for instance; of course, the range varies according to the app.

We found no such indication at Amazon.

By contrast, when we click the mention “in-app Purchases” at the very end of the presentation text, iTunes describes in detail the products or services offered and their price. We can see this in the illustrations below.



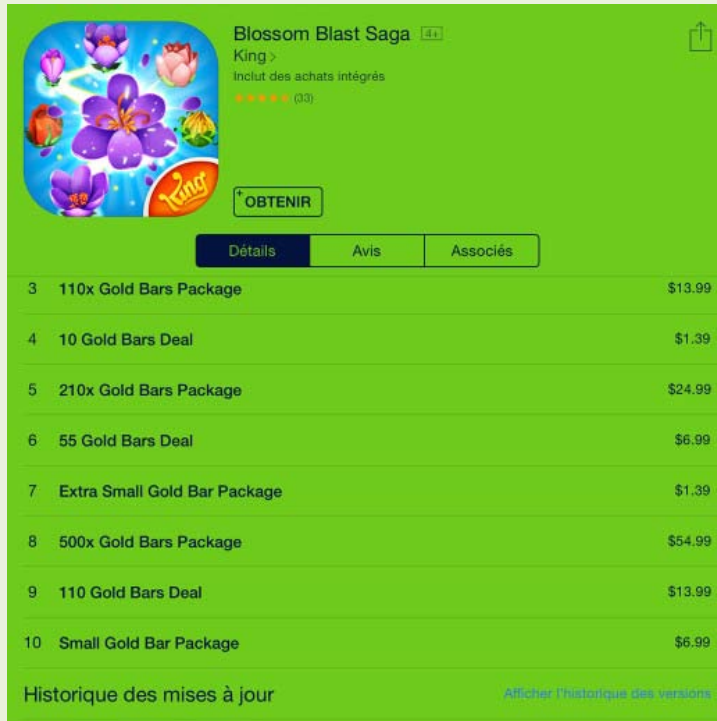
Blossom Blast Saga 4+
King >
Inclut des achats intégrés
★★★★☆ (3.3)

OBTENIR

Détails Avis Associés

Achats intégrés

1	10x Gold Bars Package	\$1.39
2	55x Gold Bars Package	\$6.99
3	110x Gold Bars Package	\$13.99
4	10 Gold Bars Deal	\$1.39
5	210x Gold Bars Package	\$24.99
6	55 Gold Bars Deal	\$6.99
7	Extra Small Gold Bar Package	\$1.39
8	500x Gold Bars Package	\$54.99



Blossom Blast Saga 4+
King >
Inclut des achats intégrés
★★★★☆ (3.3)

OBTENIR

Détails Avis Associés

3	110x Gold Bars Package	\$13.99
4	10 Gold Bars Deal	\$1.39
5	210x Gold Bars Package	\$24.99
6	55 Gold Bars Deal	\$6.99
7	Extra Small Gold Bar Package	\$1.39
8	500x Gold Bars Package	\$54.99
9	110 Gold Bars Deal	\$13.99
10	Small Gold Bar Package	\$6.99

Historique des mises à jour [Afficher l'historique des versions](#)

Source: Blossom Blast Saga

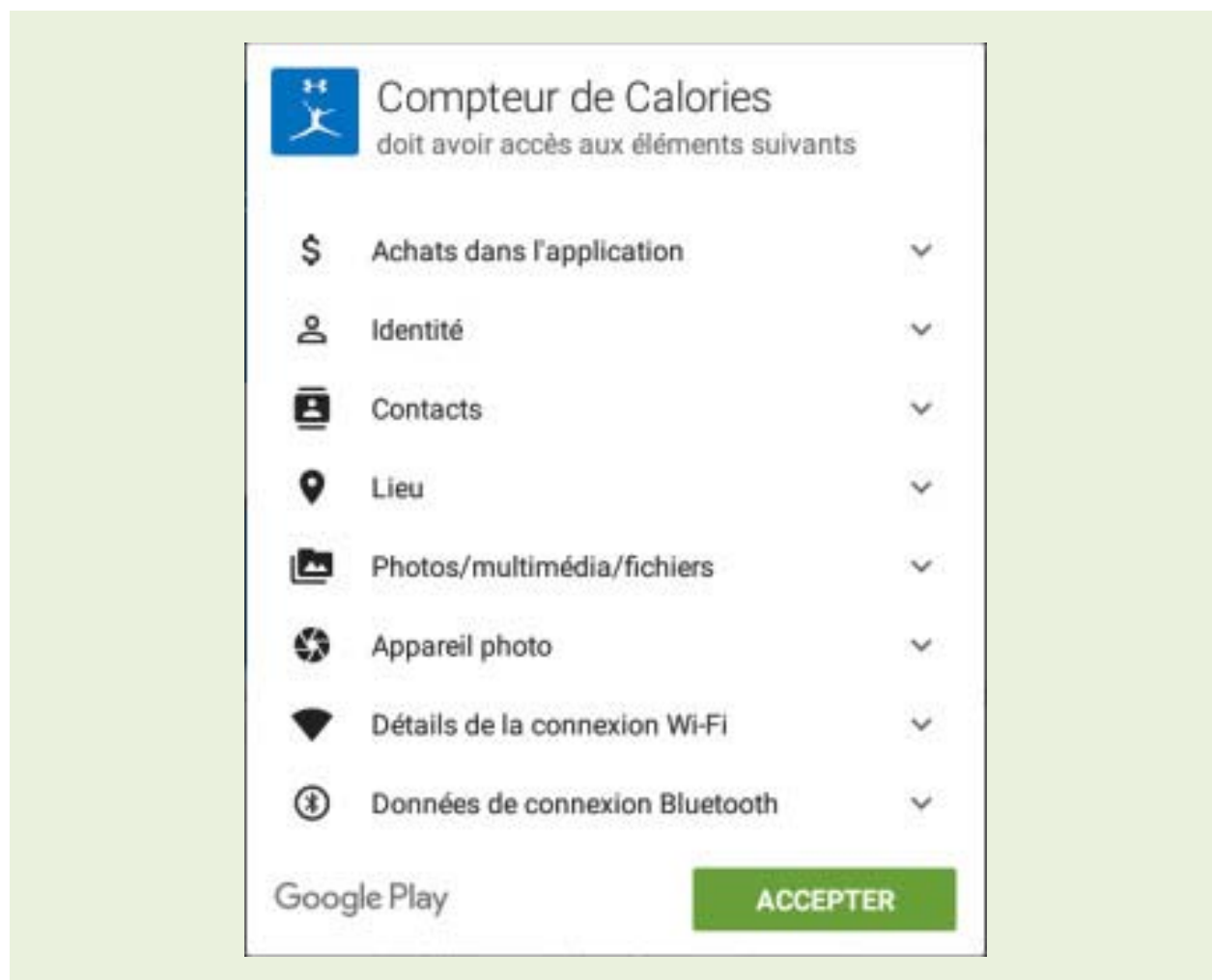


Source: Adobe Acrobat

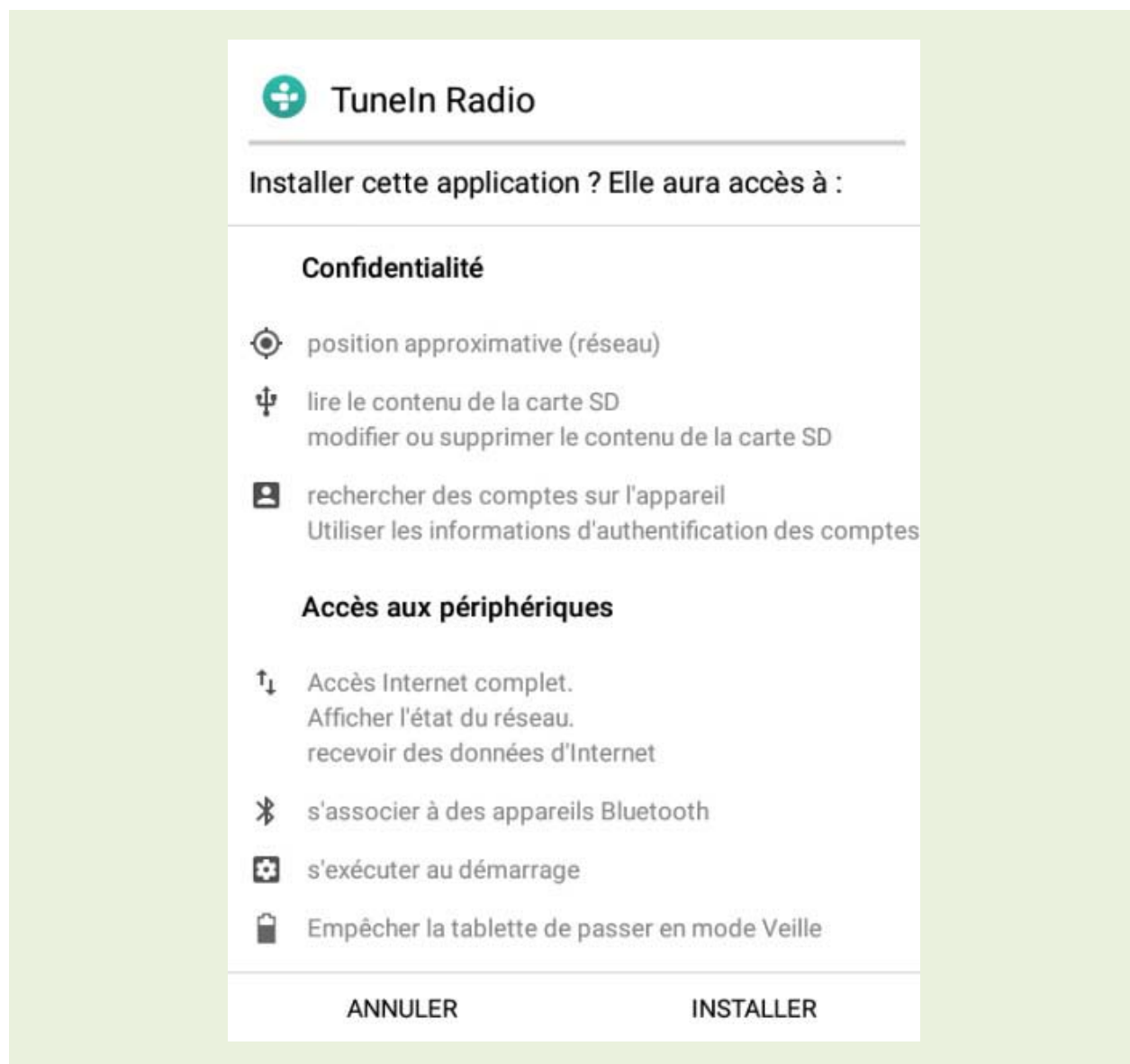
Before the installation from Google Play and Amazon, a confirmation request appears, summarizing certain important characteristics of the accesses required by the app during its installation or use.

As opposed to Google Play, Amazon does not include the presence of in-app purchases in that list of important characteristics.

iTunes does not present such a list.



Source: Google Play confirmation



Source: Amazon confirmation

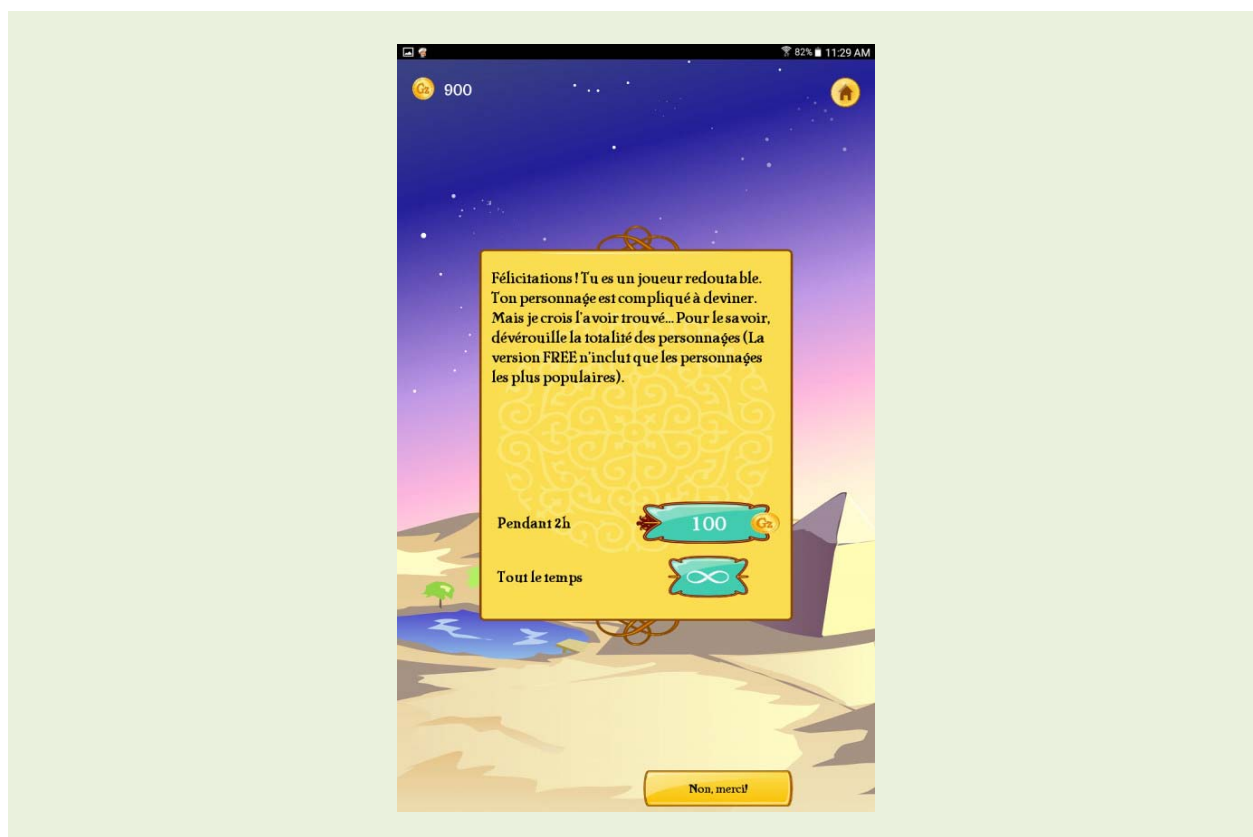
4.6 Moment and Circumstances of the First Announcement or Offer of In-App Purchases

The moment and circumstances of the first in-app purchase offers vary enormously according to the type of application and the type of product or service offered. The app stores' relatively standardized presentation and content rules for entering the universe of the apps themselves do not apply here.

Some offers are related to necessity. For example, in the game *Candy Crush Saga*, a player who fails to complete a level (and loses the five “lives” allocated to him) must either wait (cumulative 30-minute periods per life) before being able to restart at that level, or pay in “gold bars” (the game’s virtual currency) that he must purchase with real money to advance in the game.

Some offers are presented as the user is waiting for a result: he is told that he will have to pay for access to certain results. We observed this approach, for example, in *MyFitnessPal*: once the user requests the data, the app gives a summary evaluation and offers access to “advanced tools, better analysis, no ads” through a Premium subscription.

The game *Akinator* (a genius asks questions to discover the character chosen by the user) gives the user the following notice:



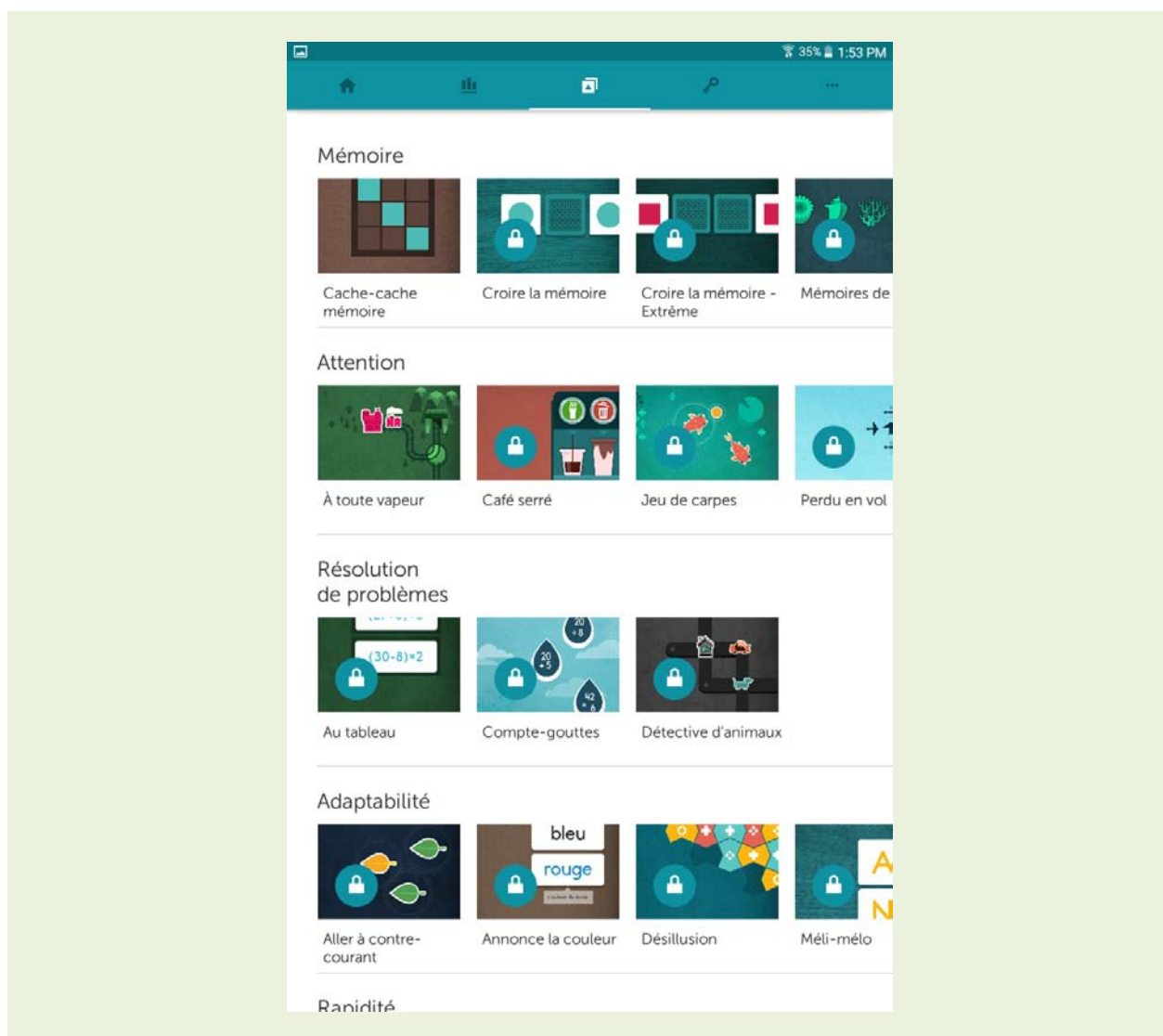
Source: Akinator

Other notices indicate during installation that certain features are restricted, and an offer is made to “unlock the features.” This is the case with *GPS Sygic*, for example, which makes the following purchase offer 30 seconds after the maps are downloaded.

Many apps state on the home page that a premium version is available. That prior notice doesn't prevent the app from repeating the offer at certain moments, convenient or not.

Some apps multiply the ads and other frustrations (the obligation to play a demo game or answer a survey before being able to continue), followed by purchase offers to eliminate those obstacles. Other apps, more subtle, leave on-screen an icon accessible at all times that gives access to the Premium offer.

In some cases, the offers are made in the app's store itself, which states that certain features are locked and are accessible only at a price.



Source: Luminosity – Google Play Tablet

4.7 Type of Item Purchased / Total Price

As mentioned in a preceding section (see section 1.4), the content of in-app purchases can vary in the extreme. It generally belongs to four categories: 1) subscription (access to the app's features for a given period); 2) the Premium version ("complete," "Pro," "Smart" or "Platinum" version: removal of restrictions, additional content, etc.); 3) direct access (to virtual products or to features or services. For example: in *Sygic GPS*: maps, features [frontal display]; in *Amber Weather*: widgets for screen display; 4) purchase of credits (at *Skype*, for example) or of virtual currency (to purchase real products, remove restrictions, add features, etc.).

One of our investigators reported that a geo-tracking app, *Explorer for Google Street View*, offers a Pro version as an in-app purchase and indicates the price, but specifies nowhere – not before, after or during the purchase – what differentiates the Pro version or what additional features will be available after the purchase.

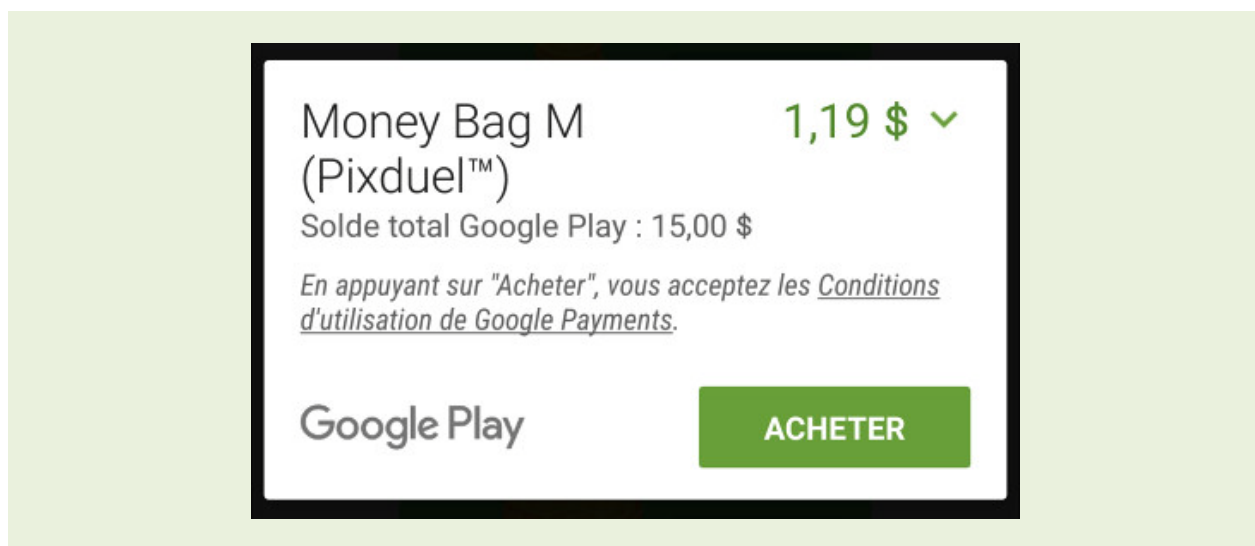
After each user failure, the game *Candy Crush Saga* imposes a long waiting period before any new attempt, unless the user agrees to pay nine (9) "gold bars" (the game's virtual currency). Interestingly, those in-app purchases of "gold bars" are offered only in bundles of ten (10) or more (other multiples of ten). Also interestingly, a bundle of ten costs \$1.06, while a bundle of 50 sells for \$5.36 (whereas five bundles of ten would of course only cost \$5.30) and a bundle of 100 costs \$10.73 (rather than \$10.60 for 10 bundles of 10, or \$10.72 for two bundles of 50).

4.8 Notice/Content at the Time of the Acquisition (e.g. Presence of In-App Purchases) and Purchase Confirmation Mechanisms

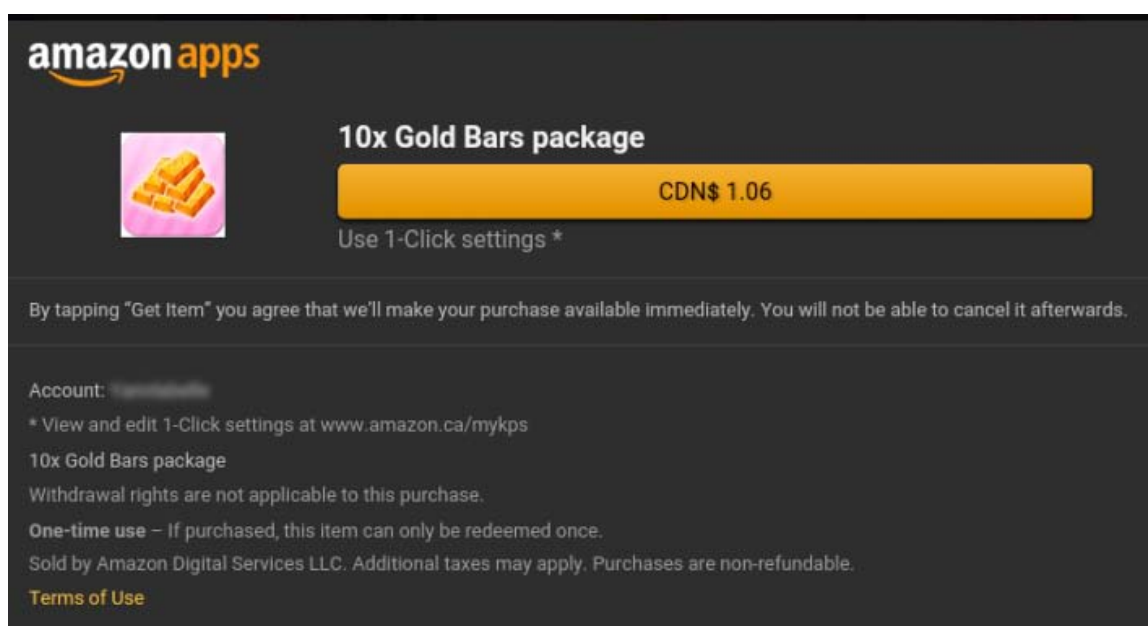
We encountered during our survey no flagrant case of an in-app purchase not indicated as such at the time of acquisition. Section 1.1 of this report explains the relations that exist at the time of acquisition between the app, the app store, its payment service if applicable, and the user's account.

As mentioned above, the investigators ensured before the survey began that the default settings of their devices and their customer accounts in the various app stores were those applied to their transactions; and they were instructed not to change those settings during the survey, despite app stores' suggestions during purchases.

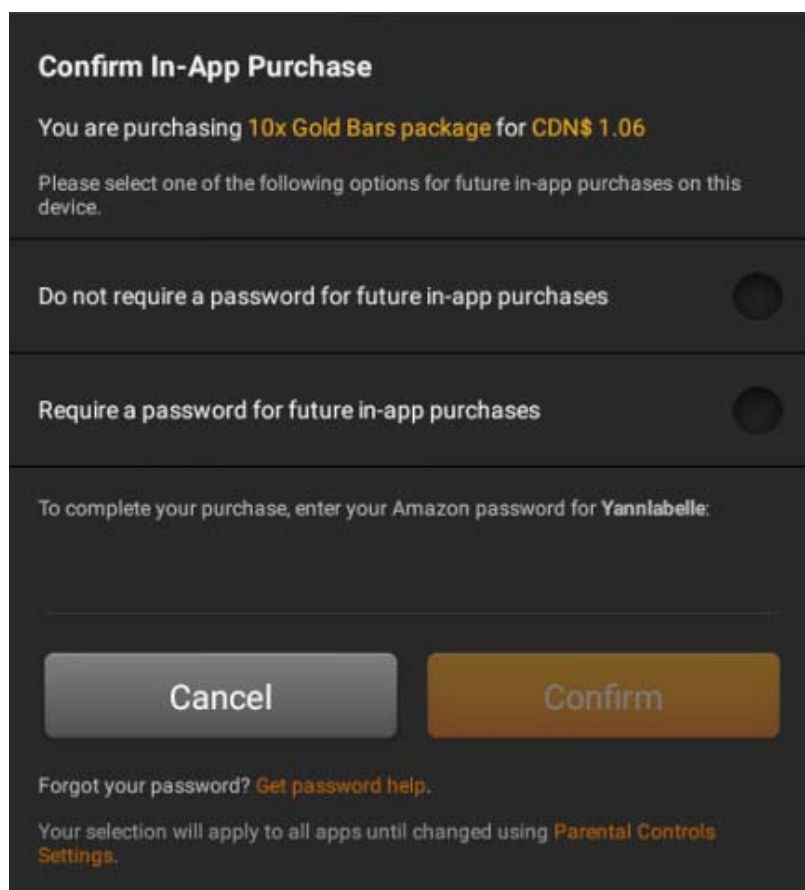
iTunes' notification process is much more summary than the other app stores'.



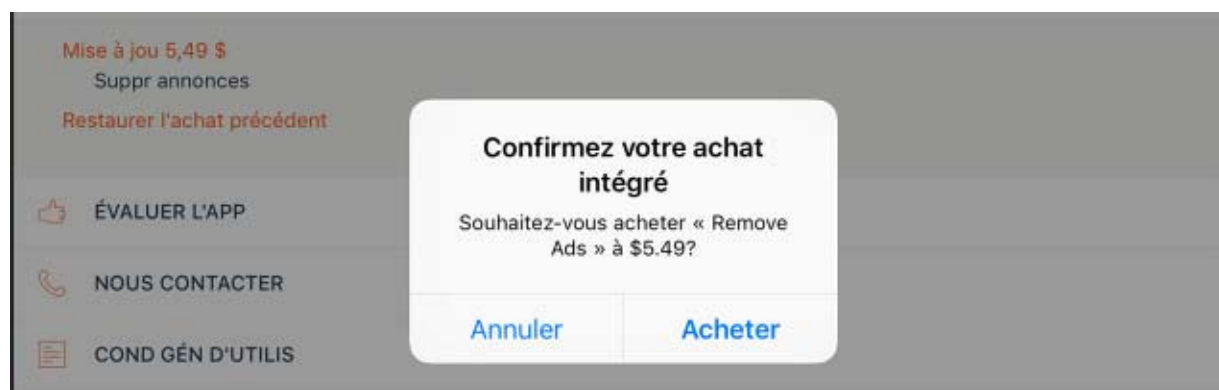
Source: Money bag M



Source: Amazon Appstore



Source: Amazon Appstore



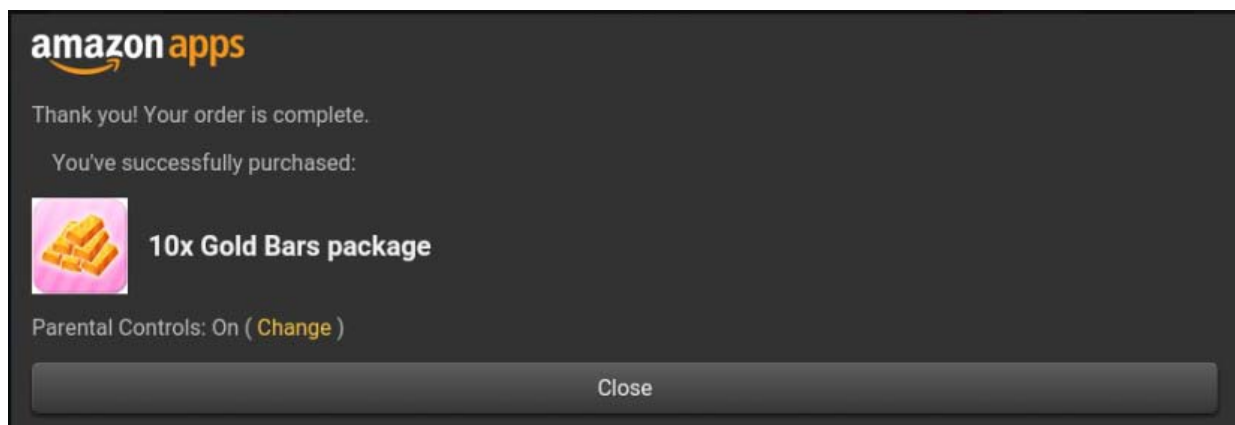
Source: Amazon Appstore

Our investigators report only one case of an in-app purchase – on Amazon (Weather+) – made without any request for confirmation.

The app stores' payment confirmation notices follow the same model as their purchase confirmations.



Source: Google Play



Source: Amazon Appstore



Source: Amazon Appstore

4.9 Extra Charges

The investigators had received instructions to use the apps until the first in-app purchase offer. They made the first in-app purchase transaction at that moment. We observed, for the in-app purchase's item, no fees other than those indicated. No suspect fees were collected either by the various payment instruments.

4.10 Additional Comments

We asked the investigators to give us other comments about the process of acquiring apps or in-app purchases, using the apps, and others. We suggested that they report, for example: aggressively made requests, impossibility of advancing in the app without purchasing, waiting periods imposed, the impossibility of using certain essential features, etc.

We obtained from our investigators comments about aggressive advertisements, notably in the games *Pixduel* and *Akinator* (full-screen ads and ads integrated directly in the app's pictures), and in the app *Go Launcher Theme* (which our investigator found particularly frustrating due to many freezes, and to elements that proved impossible to uninstall without... reformatting the device).

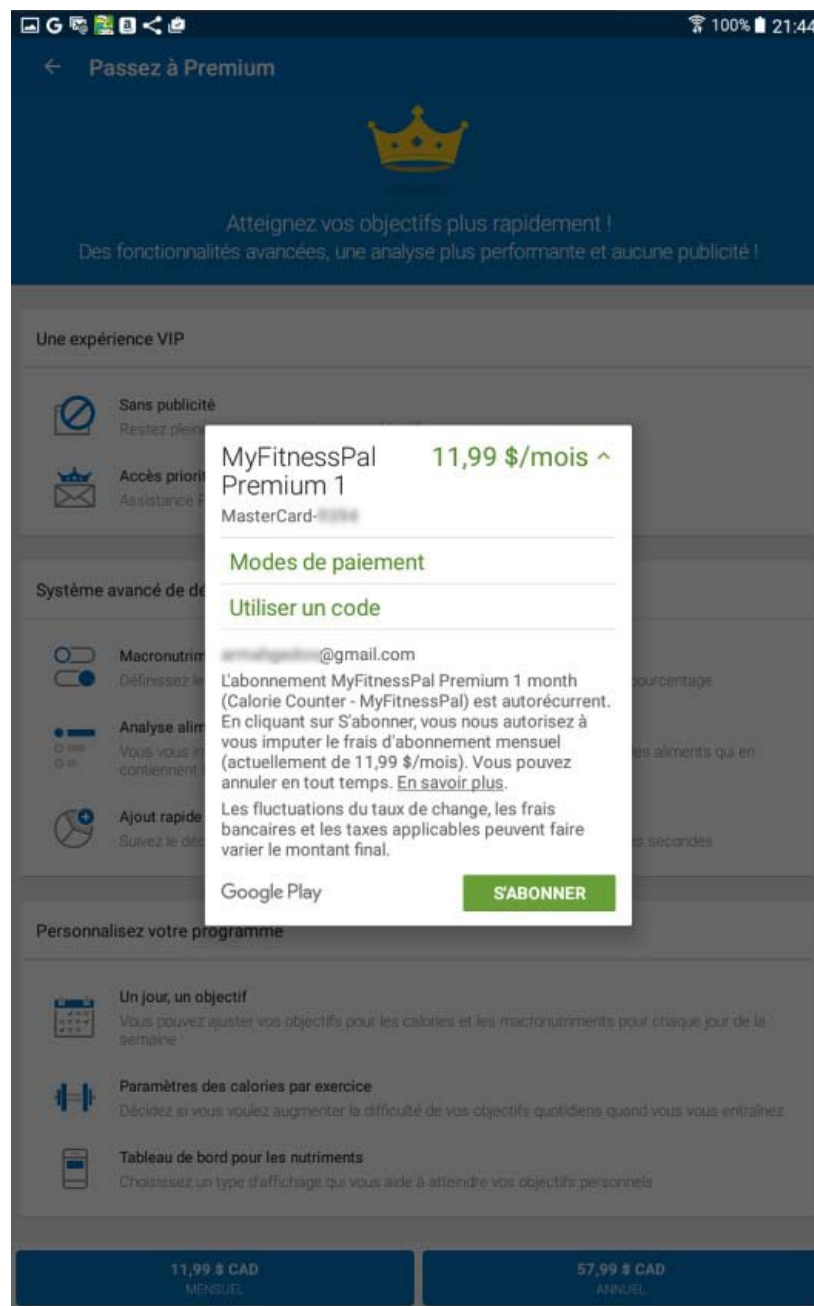
An investigator informed us that one of the features purchased in an app (*Amber Weather*) could function only if the user downloaded another app. Two investigators reported the acquisition of non-functional features (a widget in *Amber Weather*, and the Head-up Display of *Dygic GPS*, which projects on the windshield the itineraries and instructions displayed on the mobile device placed on the vehicle's dashboard, but without inverting them, which makes the projection totally unusable, and even dangerous).

An investigator refused to finish installing *Tinder*, because of privacy intrusions judged clearly excessive that the user had to authorize before finishing. Indeed, the app collects and distributes to other users all of the user's Facebook data and more (e.g., educational institutions attended, friends in common, employer in common, etc.). Another investigator mentioned aggressive requests for location information by the app *AccuWeather*.

The investigator tasked to explore the app *Musical.ly Acapella Triller & DubSmash* found the app "intolerable" due to incessant aggressive ads. In addition, the app's free version is unusable without features available only through in-app purchases.

Although it is offered for free with an indication of in-app purchases, it appears that the *Netflix* app is absolutely unusable without one of the subscriptions offered as in-app purchases.

One of our investigators mentioned troubling payment irregularities: purchases made in an app acquired on Amazon (*FitnessPal*) but with automatic payment to Google Play, whose payment method differs (credit card vs. prepaid card). This incongruity can be explained by the fact that the app was likely downloaded from both app stores, twice on the same device. But the investigator was not able to complete payment of in-app purchases in the app store of his choice.



Source: Amazon

The Amazon Appstore indicates that the app *TuneIn Radio* contains in-app purchases. During installation and registration, the app states that Premium content is offered (radio stations) and that a Pro version is available. However, the Pro version cannot be purchased within the app. By clicking the offer to upgrade to *Radio Pro*, the user arrives on Amazon's Appstore, where he can purchase that app.

Can it be called an in-app purchase when the offer alone is actually integrated in the app? This peculiar approach leads us to discuss *League of Legends*, a game that also adopts unconventional in-app purchase methods.

4.11 League of Legends

With 27 million players daily, the online game *League of Legends* is certainly a case apart. The free game, available only for personal computers (PC or Mac²⁰⁸), is known to contain in-app purchases, but the system adopted by the company tests the limits of the definition of in-app purchases.

League of Legends (or *LoL*) is a multiplayer game of combat and strategy intended for persons over 13 years of age. The game can be downloaded and played for free, subject to the user registering and creating an account, but without having to link it to any payment method.

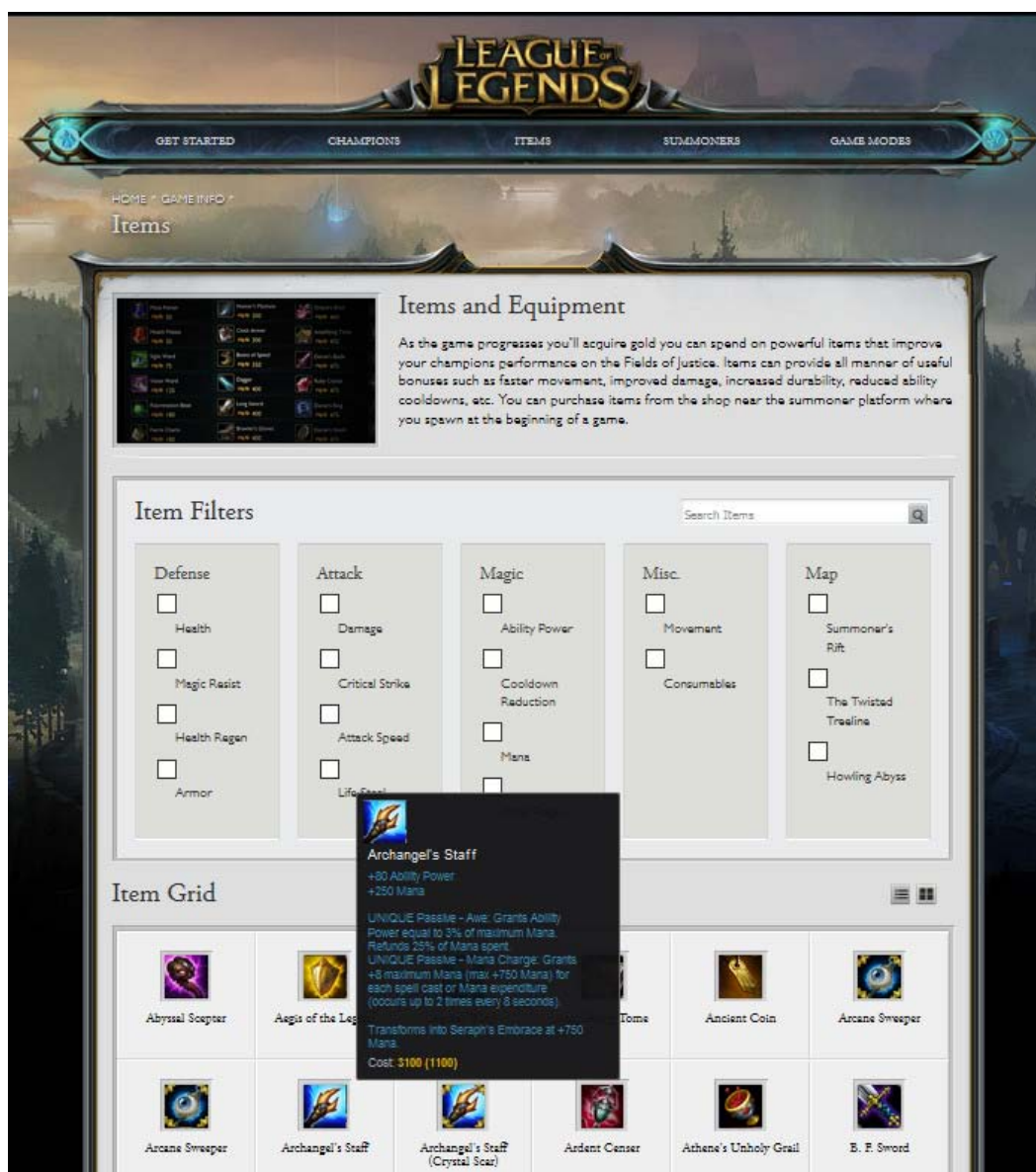
The simple fact of spending time playing accumulates "influence points," one of the game's virtual currencies. Those points are used for acquiring, in the game's in-app store accessed by the avatar, weapons and powers to better fight more and more dangerous enemies. The influence points can also be used for acquiring warriors of varying strengths and skills ("champions"). Of course, amassing enough points to acquire champions can take time. But there's a solution: the user is offered the option to purchase "riot points," a second virtual currency, which must be bought with real money. Riot points can be purchased in the *LoL* store, and even (according to the terms of use displayed during download and installation as well as during the game's first use) from various retailers in the form of prepaid "Riot Games Game Cards". A "Prepaid Cards" link, on the *LoL* website, gives the prices of riot points, the list of retailers where the prepaid cards are available, and the *LoL* customer's acquisition method (from a previously opened account). Some accessory elements can be purchased only with riot points.

The peculiarity of two distinct virtual currencies cohabitating is reflected in those currencies' acquisition method and method of use. Whereas in-app purchases are generally designed to make the process as fluid as possible, *LoL* complicates the process by requiring the player to quit the game and go to the store, found on the interface's home page (to guarantee a direct connection between account and game), in order to acquire riot points or "unlock" the champions or accessories he wants. By unlocking them, the user can henceforth have access to them in the in-app store to which the avatar has access.

²⁰⁸ A few months ago, the designer launched a mobile application related to its game.

LEAGUE OF LEGENDS. News. *Download the free League Friends mobile app!* [Online] <http://na.leagueoflegends.com/en/news/game-updates/features/download-free-league-friends-mobile-app> (page consulted on June 20, 2016).

Before even downloading the game, the *LoL* website's "Items" tab gives an overview of accessories (almost 200) the player may acquire; moving the mouse reveals the description and "cost" of an item. But at this stage, it's impossible to understand what items are referred to by the amounts appearing beside the mention "cost." This page indicates that as the game progresses, the player can acquire gold to spend on acquiring those items.



Source: League of Legends

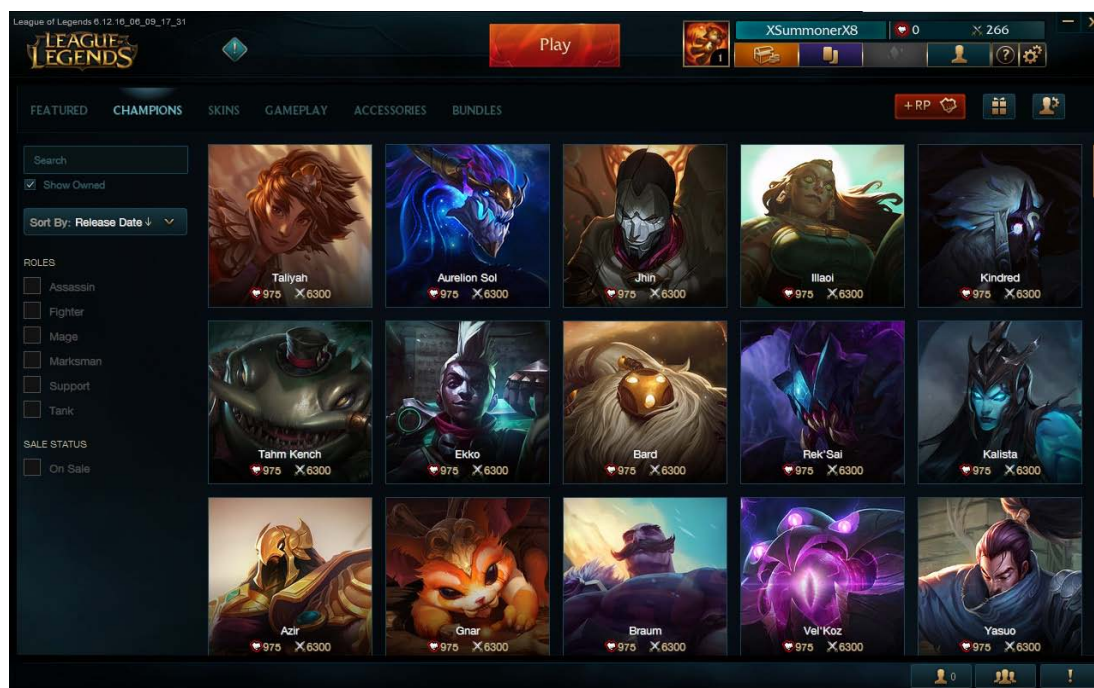
A Champions tab presents 125 characters, described in detail on pages accessed with a click. No cost is mentioned for those champions. Later we understand that they are the game's basic avatars.

In fact, apart from the “Prepaid Cards” link at the bottom of the page, which already suggests that real money may be at stake and which leads to price information, nothing is indicated in the *LoL* website's descriptions of the game that real money can be spent in this game²⁰⁹.

A “Play for Free” link leads to a page where the user can create an account (without any relation to a payment method) and download the app. The terms of use appear at the moment of download and installation, and during the game's first use, and mention (in Chapter 4, “Virtual Goods”) the existence and acquisition methods of the two types of virtual currency.

Only once the app is completely installed and launched does the user have access to the *LoL* store and can see (and understand) the interaction between the two currencies, and the prices of the various purchases.

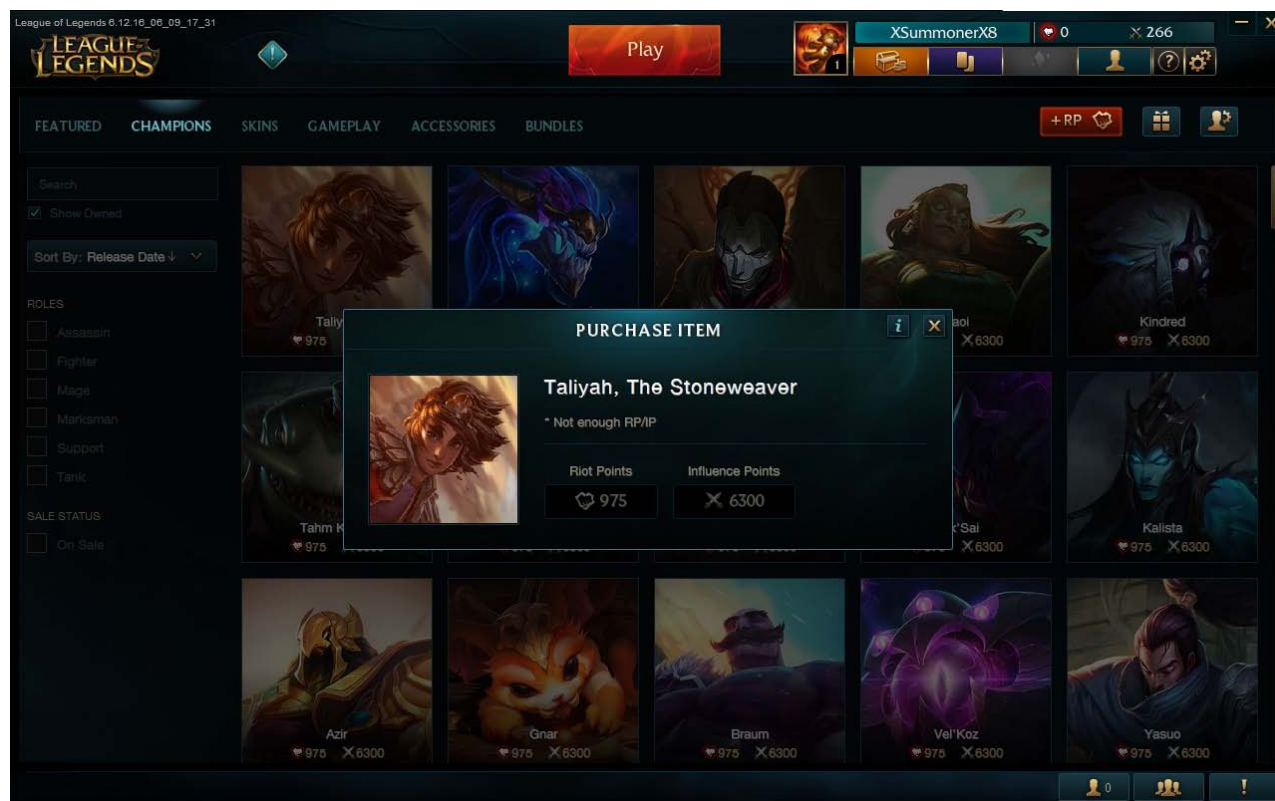
The user accesses the store by clicking the chest found under his username, at the top of the screen. He chooses a purchase category by selecting the appropriate tab.



Source: League of Legends

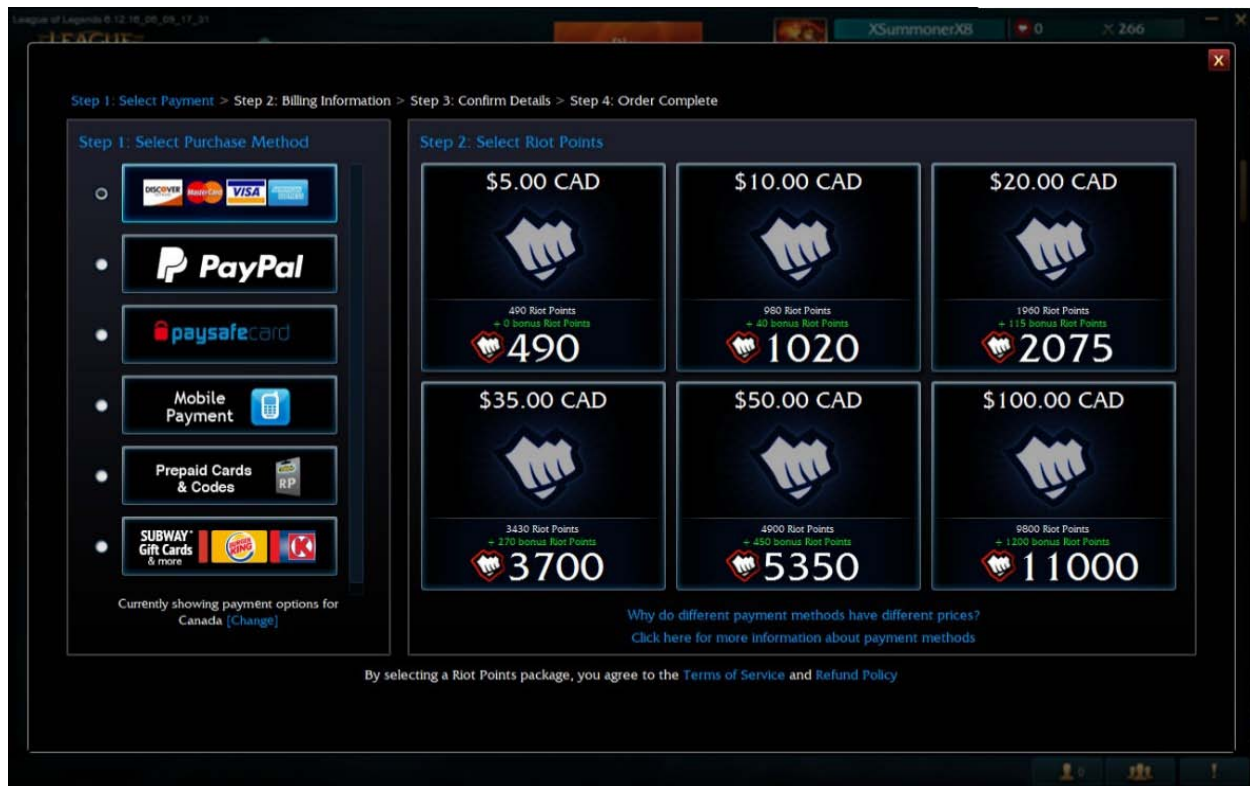
²⁰⁹ A thorough examination of the website might lead a curious user to click the “Support” tab, which leads to a page with a link to the terms of use; chapter 4, titled *Virtual Goods*, mentions the *Riot Points*. [Online] <https://support.riotgames.com/hc/en-us> (page consulted on June 20, 2016).

Each illustration indicates the champion's price. If an illustration is selected, a pop-up appears allowing the user to purchase it (with riot points or influence points) or, as the case may be, tells him that the available funds are not sufficient to make the purchase.



Source: League of Legends

Only by clicking the “+RP” icon can the user purchase the necessary points, after choosing a payment method. The points thus purchased are transferred to the user's account, and he can use them to make purchases.



Source: League of Legends

Another peculiarity: a user choosing mobile payment may be surprised to find a much higher price (280 points for \$5.00, 600 for \$10.00, 3,130 for \$50.00). The link "Why do different payment methods have different prices?" candidly explains that fees charged to the merchant for certain payment methods are higher, that Riot Games could have set an average price, but preferred not to penalize those using less costly payment methods, so they could benefit from the latter's advantages²¹⁰.

The purchase confirmation and payment confirmation appear in windows similar to the purchase window.

²¹⁰ **RIOT GAMES.** Why do different payment methods have different prices. "We could have given out Riot Points equally across payment methods by using an average of the different payout percentages, but we didn't want to penalize and raise prices on our 'cheapest' forms of payment, credit cards and PayPal. It also made sense for us to encourage players to use those 'cheaper' forms of payment, since we get a larger share of the money you spend. So what we do is, when a payment type is less expensive for us, we pass that benefit on to you in the form of more Riot Points. You get more Riot Points per Euro when we get a higher share of the amount of Euros you pay."

4.12 Survey Findings

App stores have adopted as a common practice the addition of a mention that in-app purchase apps include such purchases. Our survey revealed that this mention appears occasionally beside the description of apps that don't include them.

However, we observe that when an app is being acquired, unless consumers use the iTunes app store and read all the app information, they will not know precisely what in-app purchases are. What exactly are the products and services offered as in-app and in-game purchases? How much will they cost? And to what extent will an app actually be functional without the features offered as in-app purchases?

The issues surrounding in-app purchases are not the only ones that remain unanswered before an app is downloaded and used:

- How much mobile data will the app use?
- Does the app contain ads or other intentionally annoying aspects (obligation to complete questionnaires or surveys, for example)?
- To what personal information will the app have access?
- How will it use that information?
- Can the app be linked to social networks?

As mentioned in this chapter's section on "Notices regarding In-App Purchases in App Stores' " Terms of Use," the Google Play and Amazon app stores notify the user that the app will have access to various types of data. So when downloading the app, the consumer must agree to such access. Among the data accesses that apps may request are:

- Access to the user's identity;
- Access to photos, multimedia and other files;
- Taking photos and capturing audio and video;
- Approximate and exact location (network and GPS);
- Details about the Wi-Fi connection;
- Access to the device's identifier and data;
- Preventing the device from entering sleep mode;
- Receiving Internet data;
- Searching for accounts on the device;
- Access to the app store's billing service;
- Complete Internet access;
- Reading contact data;
- Accessing contact data in writing;
- Reading, modifying or deleting SD card content;
- Allowing purchases within the app.

Curiously, we found no notice of this type when downloading from iTunes. (The "notice" tab where our investigators believed they could find such notices gives access instead to consumer opinions about the app.) For apps downloaded from iTunes, access authorizations are requested piecemeal by the apps themselves when they need to access data.

By acquiescing to an app's access requests, the consumer allows the app to access a lot of personal information and to use it for purposes the consumer doesn't always know. As we have seen (section 3.10), that raises serious privacy issues.

5. Survey of Various Stakeholders

Union des consommateurs sent questionnaires to various parties concerned with the project, to obtain their viewpoints about in-app purchases. More specifically, we solicited the government consumer protection agencies (GCPAs) in the 10 provinces and 3 territories, industry representatives, and the Competition Bureau (CB).

The purpose of those consultations was to learn the following: from the government agencies, the number of complaints received, if applicable, as well as their conception of this business model and the approaches they advocate to counter the problems identified; from the industry, its positions on in-app and in-game purchases intended notably for children, as well as the number of complaints received and the steps taken to correct problematic situations reported by consumers; and from the Competition Bureau (BC), the intervention framework and methods it thinks possible to apply, based on the caution it published in 2014.

5.1 Government Consumer Protection Agencies

a) Methodology

We first sent a letter inviting Canadian GCPAs from the 10 provinces and 3 territories to take part in an eventual consultation as part of our research. The letter, sent on September 17, 2015, outlined the main aspects of our research, explained the consultation and invited the GCPAs to give us a resource person's contact information if they were willing to participate. Although only a few provinces confirmed their intention to participate in our consultation, we sent a questionnaire to the 13 GCPAs on October 26, 2015.

Our first question was whether the organization had received complaints or information requests in the last 5 years about in-app purchases or online apps. If so, we invited the organizations to identify the types of complaints they had received. We also requested information about the types of advice and information that a GCPA offers consumers who experience problems with in-app purchases. We also wanted to know whether the GCPAs had taken steps to raise awareness among consumers as well as companies regarding possible problems with in-app purchases. Our last questions concerned whether the GCPAs had taken legal action against certain companies in relation to in-app purchases.

We received the comments of four provincial GCPAs, i.e. Quebec's Office de la protection du consommateur du Québec, British Columbia's Consumer Protection BC, Ontario's Ministry of Government and Consumer Services, and New Brunswick's Department of Justice.

b) Comments by government consumer protection agencies

Quebec's Office de la protection du consommateur

Mr. Raphaël Thériault, assistant to the president of the Office de la protection du consommateur (OPC), sent the answers on behalf of the organization.

He informed us of 25 complaints about in-app purchases received between September 2013 (when the collection of complaints on the subject began) and November 2015. Those complaints or questions concerned:

- Lack of notices about possible fees (during an app's acquisition);
- Inadequate disclosure of fees (during an app's acquisition);
- Inadequate disclosure of fees (when they were applied);
- Inadequate disclosure of the billing or collection method;
- In-app purchases in apps/games intended for children;
- Billing or collection of fees without prior explicit consent;
- Default activation of the feature allowing in-app purchases;
- Obligations of the company/manufacturer/seller;
- Responsibility of the payment intermediary;
- Available remedies.

The OPC provided the following clarifications about complaints and information requests it had received:

- An expiry date and administration fees imposed when options were purchased with prepaid cards;
- Lack of information about certain subscriptions giving access to apps, notably regarding the activation period's renewal and duration;
- Non-compliance of distance contracts;
- False representations and omission of important facts (prohibited business practices);
- Advertising to children younger than 13 years.

In response to the concerns expressed, considering what is described as a very low number of complaints received on this subject, the OPC focused on information obtained mainly on its website from companies and consumers, and also when contacted by consumers making complaints.

Thus, according to the information given in answer to the questionnaire, the provisions of the *Consumer Protection Act* (CPA) that apply to in-app purchases pertain to distance contracts, to prepaid cards, to business practices including forced sales, to false representations, to the omission of mentioning an important fact, and to advertising directed at children younger than 13. For example: CPA section 219 prohibits false or misleading representations. Section 248 prohibits commercial advertising directed at children. The Act's Division on distance contracts also applies, enabling consumer to cancel a contract in certain situations, particularly when a company has not given the consumer all the information whose disclosure is required by the Act (CPA sec. 54.4).

Moreover, the OPC did not take specific steps regarding apps and in-app purchases. When consumers report problems with apps and in-app purchases, it gives those consumers information kits that apply notably to distance contracts or other CPA provisions. The OPC refers consumers to its website's content about Internet purchases²¹¹. And there has not been any specific awareness-raising or education campaign regarding in-app purchases.

Ministry of Government and Consumer Services (Ontario)

Ms. Bianca Pocanschi, the Ministry's coordinator, reports that there have indeed been complaints about in-app purchases, and that they have not been compiled as such, but rather in the more general category "computer software/apps," which has existed since 2013 and includes complaints about antivirus software.

It is thus impossible to know exactly how many complaints have been made on this subject. However, Ms. Pocanschi stated that those complaints concerned mainly the following problems, related to in-app purchases:

- Inadequate disclosure of fees (during an app's acquisition)
- In-app purchases in games/apps intended for children
- Request for information on possible remedies

More-specific examples pertain to expenditures of several thousand dollars by children who purchased points in an online game by using the credit card registered in the parents' account. A consumer complained about someone else's use of his personal information to purchase items on iTunes. Consumers also complained that the use of apps on Google Play gave Google inordinate access to their personal information (photos, messages or calls), without their consent.

Consumers who call to complain are informed about relevant provisions of the Consumer Protection Act, 2002. The organization advises them to try first to negotiate with the company. If the problem persists, they are advised to send the company a formal notice and then assert their rights in court if the company does not correct the situation.

In addition, Ms. Pocanschi gave us specifics about Internet purchases, notably about companies' contractual obligations: to provide written confirmation of the purchase, to offer the consumer the possibility of accepting or declining a contract or cancelling it within 7 days, etc.

Moreover, no information campaign for the general public has been organized regarding in-app purchases. Apart from online information, various guides have been produced to inform consumers of their rights and obligations, without specifically addressing the issue of in-app purchases.

²¹¹ **OFFICE DE LA PROTECTION DU CONSOMMATEUR**, *Online purchases*. [Online] <http://www.opc.gouv.qc.ca/en/consumer/topic/purchases-made-online-by-phone-or-by-mail/online-purchase/> (page consulted on April 23, 2016).

Due to the paucity of recorded complaints, Consumer Protection Ontario cannot comment about a trend toward unfair practices related to in-app purchases, or about the relevance of current legislation. But the organization informed us that given the explosion of new technologies, it is considering a revision of its legislation in the near future (without specifying when), and that it is interested in knowing the findings of Union des consommateurs' research.

Consumer Protection BC (British Columbia)

Ms. Joan Harmsworth answered the questionnaire on behalf of her organization, while informing us at the outset that it does not compile complaints about in-app purchases.

When consumers call about the subject, they are referred to and sent section 46 of the Business Practices and Consumer Protection Act, i.e. the provisions on distance contracts.

Consumer BC provides no information regarding the questionnaire's other questions.

Financial and Consumer Services Commission (FCSC), New Brunswick

New Brunswick's government organization reports not having received complaints about in-app purchases in recent years. In that regard, senior compliance agent Ms. Alaina Nicholson specified that no legal provision directly regulates in-app purchases and that her organization has not undertaken an information campaign on the subject among the general public or companies.

She wrote that a consumer who would call about the subject was advised to read his contract and its provisions closely. In case of billing without prior consent, the consumer was directed to his credit card company to stop payment.

c) Conclusion

Despite the low participation rate of Canadian GCPAs, we observe that they have received few complaints about in-app purchases and apps in recent years. This explains why the agencies have not planned to date any specific measures for this type of case. It also explains why they have not launched an awareness-raising or education campaign among consumers and companies.

The GCPAs refer either to general provisions – on prohibited practices, distance contracts, prepaid cards – or to the prohibition against advertising to children younger than 13, in Quebec, in order to identify protection measures applicable to the problems reported by consumers. Among the problems reported most frequently, we find the presence of in-app purchases in apps intended for children, and the inadequate disclosure of related information and charges. While government agencies receive few consumer complaints on this subject, is the situation the same for the industry?

5.2 A Flourishing Industry

a) Methodology

To obtain the viewpoint of all the stakeholders, we thought it essential to get the industry's comments. On October 26, 2015, we e-mailed, to companies and organizations of the entertainment and game software industry, a letter inviting them to participate in the consultation we intended to conduct as part of our research. We invited them to confirm their participation and send us the contact information of a resource person to whom we could send the questionnaire.

We thus sent a questionnaire to the following companies operating in the field of online games and applications, and to their national organizations:

Organizations and companies contacted

- Canadian Interactive Alliance (Alliance Interactive Canadienne)
- Entertainment Software Association of Canada (Association canadienne du logiciel du divertissement)
- International Game Developers Association (IGDA)
- TheAppLabb
- Ubisoft Montreal
- EA Sports
- Apple Canada- App apple Store
- Google Canada- Google Play
- Samsung- Galaxy apps
- Microsoft
- Riot Games
- Sago Sago

It took a lot of research and representations to find the names and contact information of the persons to contact in each of those companies and organizations, because the information was not easily accessible. During our initial approach, only the International Game Developers Association (IGDA) and, after a few telephone conversations and by e-mail, the Entertainment Software Association of Canada (ESAC), in October 2015, expressed a desire to take part in the consultation. According to the comments sent by Ms. Tanya Woods of the Entertainment Software Association of Canada, ESAC perceived Union des consommateurs' research project as an intention to criticize its industry and attack its members. We had to explain that the purpose of our research was to learn whether the existing legal framework protected consumers well, given their more and more frequent complaints and the exponential growth of in-app purchases in online apps and games; and that our goal was not to compel regulations of a sector, particularly if our finding was that legislation already protected consumers sufficiently well.

b) The industry's position on in-app purchases

Unfortunately, despite two participation confirmations and an e-mail reminder sent to the two organizations in March 2016, we received no duly completed questionnaire. Fortunately, our review of the literature gives us a portrait of the freemium business model's attraction for the industry, and of the issues reported by consumers.

5.3 The Competition Bureau

a) Methodology

In 2014, The Competition Bureau (CB) published on its website a caution regarding in-app purchases²¹², “to protect consumers, particularly parents and their children, against unauthorized or accidental ‘in-app’ purchases, which could result in significant charges to consumers, without their knowledge and permission²¹³.” The CB gave consumers the following five tips:

1. Check for in-app purchases;
2. Protect your password;
3. Turn off in-app purchases;
4. Turn on airplane mode;
5. Be aware that your mobile device is a payment platform.²¹⁴

The Competition Bureau is the only government body in the country to have given consumers tips and cautions specifically regarding in-app purchases, so we wanted to know what had induced the organization to publish such a caution. We also wanted this consultation to reveal what legal framework and intervention methods the CB thought it possible to apply in response to the problems experienced by consumers.

We sent the CB a letter of invitation in September 2015, informing it about our research and inviting it to send us the contact information of a resource person likely to participate in our consultation. Although our invitation remained unanswered, we sent the questionnaire in October 2015.

b) The Competition Bureau's answer

We received no answer from the Competition Bureau, despite having sent a questionnaire and having called back several times afterward. That's too bad, considering the cautions issued by the CB in 2014. Its viewpoint and perspective on the issue could have been relevant to our research.

²¹² **COMPETITION BUREAU**, *5 Tips to Protect Yourself from Unauthorized In-App Purchases*, February 25, 2015, Ottawa, Government of Canada. [Online] <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03676.html> (page consulted on September 2015).

²¹³ *Ibid.*

²¹⁴ *Ibid.*

6. Legislation of In-App Purchases in Canada

The issue of the regulatory framework applicable to apps and in-app purchases is relatively complex. In Canada, the interaction of the federal and provincial levels of government causes several different legislative frameworks to find application: consumer protection laws in the provinces and territories, telecommunications laws, laws for privacy protection and the collection of personal information, and competition laws.

We will focus here mainly on consumer protection. Given the similarities between consumer protection laws in Canada, we will discuss here only the provisions found in the Quebec and Ontario laws. This will enable us to circumscribe the protection measures regarding problems identified with apps and in-app purchases, both in a common law province and in a civil law province. The next section will thus pertain solely to Quebec measures found in the *Consumer Protection Act* (CPA-QC) and to Ontario measures found in the *Consumer Protection Act, 2002* (CPA-ONT). Then we will briefly discuss the *Competition Act*.

It should also be noted that, although our research identified various problematic clauses in the terms of use of both app stores and apps, the issue here is not the clauses that might be illegal or harmful to consumers. We did observe, in our analysis of documents regarding the terms of use of app stores and apps, numerous clauses we thought problematic – clauses for amending contracts unilaterally, clauses limiting or excluding liability, choice-of-court clauses, arbitration clauses and others. Although it would certainly be interesting to examine those clauses thoroughly, which appear to contravene consumer protection laws, that is not the object of our study. Our examination of legislative frameworks will focus solely on in-app purchases and on legal provisions that may apply to the problems identified or reported.

6.1 Quebec and Ontario Laws: Adequate Protection?

a) General provisions

Canada has no specific legislative framework for apps and in-app purchases. So consumers downloading apps and making in-app purchases must be protected by consumer protection laws. A consumer must invoke those laws if he sues to have a company fulfil its obligations, and to obtain the contract's rescission or termination or a reduction of his obligations²¹⁵. Under those laws, government consumer protection agencies can also seek criminal remedies when observing violations of the laws under their purview²¹⁶.

However, we must point out that seeking remedies under the consumer protection laws is not easy for consumers. Long delays, poor knowledge of the laws, complex legal proceedings, investments in time and energy, and low monetary incentives: those are a few of the access-to-justice barriers facing consumers who want to assert their rights.

²¹⁵ Sec. 272, CPA (QC) and sec. 91 and fol., *Consumer Protection Act, 2002* (ON).

²¹⁶ Sec. 277 and fol., CPA (QC) and sec. 116 and fol., *Consumer Protection Act, 2002* (ON).

The two provinces' consumer protection laws of course contain general provisions applicable to in-app purchases and to contractual provisions agreed to by the parties. In the next section, we will discuss a few of those consumer protection measures of general application.

Interpretation of consumer contracts

From the few examples of clauses excerpted from applications' EULAs or app stores' terms of use, we have seen that those two types of contracts are not very clear. Moreover, the contractual clauses concerning in-app purchases are buried in very long contracts and expressed in long sentences that consumers may find difficult to understand. Quebec and Ontario laws establish that in case of ambiguity (and in all cases under the Civil Code), contracts must be interpreted in favour of consumers²¹⁷.

The circumstances surrounding contracts for acquiring apps and in-app purchases make this type of provisions even more necessary. The consumer finds himself in a digital universe where contracts are concluded with a few clicks and where in-app purchases are acquired quickly within an app at opportune moments. In addition, those are adhesion contracts – with contractual clauses that companies write in advance and that must be accepted as such without any possibility of discussion or amendment; this makes the consumer protection laws and provisions even more relevant.

Fees undisclosed in contracts

Whether in the contracts for the apps we downloaded in our survey or in app stores' product descriptions, we very rarely found a list of possible in-app purchases or their prices. In fact, only iTunes' app descriptions contain a list of in-app purchases and prices, in a drop-down list titled "In-App Purchases." Google Play only indicates a price range, and Amazon nothing at all.

While downloading, a consumer will thus generally not know the cost of what could be offered in the app in the form of in-app purchases or "other" fees that may be required within the app to make it function optimally.

In Quebec, the CPA provides that "No costs may be claimed from a consumer unless the amount thereof is precisely indicated in the contract²¹⁸." It should be noted that the Ontario Act contains no similar provision. This provision aims at ensuring that the consumer has all necessary information before entering into a consumer contract, thus preventing fees of which he was unaware at the outset from being charged during the term or at the end of the contract.

Is this provision contravened by the offer of an in-app purchase during an app's use, without prior adequate information when the app is downloaded or installed? Or by the claim that a freemium app is free?

It's highly doubtful. In fact, the price (or fees) is indicated when the in-app purchase is offered to the app's user. And the consumer, being free to accept or reject the offer, will never be charged

²¹⁷ For Quebec: sec. 17, *Consumer Protection Act*, R.S.Q. c. P-40.1 and section 1432, *Civil Code of Québec*.

For Ontario: sec. 11, *Consumer Protection Act*, 2002, S.O. 2002, c. 30.

²¹⁸ Sec. 12, *Consumer Protection Act*, R.S.Q. c. P-40.1

fees to which he has not agreed beforehand. So if this transaction is distinct from the first, which pertained to downloading and installing the app, we must conclude that companies are not required to indicate the price of in-app purchases in the first contract between the parties.

This interpretation evidently does not favour consumers. And it becomes more unsustainable if the freemium app, which by definition must be functional in itself, is only half so or presents irritants that make it insufferable and can be eliminated only by paying fees.

Accordingly, we think it essential to ensure that before an app is downloaded, consumers are notified about the presence, nature and price of its in-app purchases; and ideally, to emphasize the importance of those purchases, about the restrictions imposed without them.

Regulations of distance contracts

With various approaches, all provincial and territorial consumer protection laws regulate distance contracts²¹⁹. The approaches are very similar regarding certain aspects, given that the regulatory frameworks of the provinces and territories are based on the *Internet Sales Contract Harmonization Template*²²⁰, ratified in 2001 by the federal and provincial governments. In a 2014 study, Union des consommateurs identified the seven key principles of all regulatory frameworks for Internet contracts concluded in Canada²²¹:

- Principle 1: Disclosure of information;
- Principle 2: Opportunity to accept, decline and correct;
- Principle 3: Copy of the contract;
- Principle 4: Right of cancellation;
- Principle 5: Effect of cancellation;
- Principle 6: Recovery of refund;
- Principle 7: Remedy and recourse.

All those principles likely apply to an in-app purchase transaction. We will review them briefly.

²¹⁹ **DELAPETA, Me Ioana.** *Regulating Distance Contracts: Time to Take Stock*, Union des consommateurs, Montreal, Quebec, Canada, June 2014, 181 pages.

p. 26. [Online] <http://uniondesconsommateurs.ca/docu/rapports2014/04-Contrats-a-distance-Eng.pdf>

²²⁰ **COMITE DES MESURES EN MATIERE DE CONSOMMATION,** *Internet Sales Contract Harmonization Template*, 2001. [Online] on the CMC website. [Online] [http://cmcweb.ca/eic/site/cmc-cmc.nsf/vwapj/Sales_Template.pdf/\\$file/Sales_Template.pdf](http://cmcweb.ca/eic/site/cmc-cmc.nsf/vwapj/Sales_Template.pdf/$file/Sales_Template.pdf), (document consulted on January 17, 2016).

²²¹ **DELAPETA, Me Ioana.** *Regulating Distance Contracts: Time to Take Stock*, Union des consommateurs, Montreal, Quebec, Canada, June 2014, 181 pages, on pp. 26-41.

Disclosure of information

One of the essential principles is that of precontractual disclosure of information. Our field survey of apps focused on disclosure of information on in-app purchases, so will mainly discuss precontractual disclosure in this regard.

Before the contract is entered into, a merchant must present several items of information listed in the Quebec and Ontario laws, and “must present the information prominently and in a comprehensible manner and bring it expressly to the consumer’s attention²²².” In addition to the merchant’s identity and contact information, payment methods and currencies, delivery methods and dates, the laws²²³ require disclosure of:

- “a detailed description of goods or services that are to be the object of the contract, including characteristics and technical specifications” (54.4 (d) CPA-QC); (the Ontario regulation refers to “A fair and accurate description” – sec. 32, subsec. 3, O. Reg.);
- “an itemized list of the prices” (54.4 (e)) CPA-QC; sec. 32, subsec. 4, O. Reg.);
- “a description of any possible additional charges payable to a third party, such as customs duties and brokerage fees, whose amounts cannot reasonably be determined” (54.4 (f)) CPA-QC; the Ontario regulation refers to “each additional charge that applies” – sec. 32, subsec. 5, O. Reg.);
- “the rate applicable to the use of an incidental good or service” (54.4 (g)) CPA-QC);
- “the applicable cancellation, rescission, return, exchange and refund conditions, if any” (54.4 (k) CPA-QC; sec. 32, subsec. 11, O. Reg.);
- “any other applicable restrictions or conditions” (54.4 (l) CPA-QC; sec. 32, subsec. 14, O. Reg.).

The purpose of those measures is to ensure that consumers have the necessary information before conclusion of a contract without that information being drowned in a sea of hermetic provisions within a long document such as the terms of use or the EULA. Burying that information in such documents would obviously contravene the obligations to present it “prominently and in a comprehensible manner and bring it expressly to the consumer’s attention” and to ensure that they are “clear, comprehensible and prominent.”

Whether or not downloading the app and acquiring its in-app purchases constitute a single transaction or two distinct ones, clearly the disclosure obligations are not met, either before the app is downloaded or before making an in-app purchase. Indeed, if the in-app purchase is a distinct contract, all the information required by law must be sent before the transaction is made. As we have seen, much of that mandatory information is not communicated when the in-app purchase is made (the merchant’s contact information, the detailed description, the terms or restrictions: information that would have been communicated, as the case may be, in the terms of use or the EULA).

²²² Sec. 54.4 2002, *Consumer Protection Act*, R.S.Q. c. P-40.1. Under the Ontario Act, all mandatory disclosure information must be “clear, comprehensible and prominent”: sec. 5(1), *Consumer Protection Act, 2002*, S.O. 2002 (ON).

²²³ In Quebec: sec. 54.4, *Consumer Protection Act*. In **Ontario**: sec. 38(1), *Consumer Protection Act, 2002*, S.O. 2002 (ON), sec. 32, *Ontario Regulation 17/5*. It is important to note, though, that Ontario regulation of online transaction does not apply to purchases under 50 \$. Sec. 31, *Ontario Regulation 17/5*. Other provinces (Alberta, Saskatchewan, Nova Scotia) also chose to apply the same exclusion.

The terms of use or the EULA that we have examined also do not provide the required information. We mentioned above the non-disclosure of freemium restrictions that an in-app purchase can remove. Those are certainly a contract's "applicable restrictions or conditions" that the merchant is required to disclose under the legal provisions quoted above.

Likewise, we think the obligation to provide "a description of any possible additional charges payable to a third party" should entail that of mentioning, for example, the fees that can be incurred by data transfers and imposed by the service provider.

We also think the obligation to mention "the rate applicable to the use of an incidental good or service" should compel the app store or the app developer to indicate in detail both the incidental goods or services available by in-app purchase and their prices.

Lastly, it should be emphasized that there is a certain laxity in the disclosure of the return and refund policies of developers and app stores; those policies are found only in the terms of use, when they can be found.

The right to cancel

As we have seen, under the terms of use of app stores and certain apps, sales are final and the right to a refund, limited to specific situations, is at the merchant's sole discretion. And yet, the Quebec and Ontario laws provide that consumers benefit, in certain circumstances, from a right to cancel a distance contract²²⁴, notably if the merchant has omitted information whose disclosure is required by law²²⁵.

Nowhere in the terms of use that were the object of our analysis or our survey did we find an explicit mention of the right to cancel under applicable Canadian laws. In certain terms of use, we nevertheless find vague mentions that sales are final unless legislation provides otherwise, or within the limits provided by law (see section 3.9 of this report).

Unfortunately, the information contained in the terms of use may lead consumers to believe that they benefit from less rights than those recognized by the Quebec and Ontario laws.

Clearly, the merchants offering in-app purchases are far from complying with the protection measures provided by regulations for distance contracts, and consumers are not as well protected as the legislators intended. Is this because the regulatory framework is not adapted to this technology and to the peculiar environment of apps and in-app purchases?

²²⁴ Sec. 40 of the *Consumer Protection Act, 2002, S.O. 2002 (ON)* provides that "A consumer may cancel an internet agreement at any time from the date the agreement is entered into until seven days after the consumer receives a copy of the agreement if the supplier did not disclose to the consumer the information required [...]" Sec. 54.8 of the CPA (QC) provides a similar right of cancellation. The Quebec Act also grants consumers a right of cancellation at all times before the merchant meets his main obligation (sec. 54.9, CPA (QC)).

²²⁵ Sec. 40(1)a, *Consumer Protection Act, 2002, S.O. 2002 (ON)* and sec. 54.8(1)a, CPA (QC).

Regulations for prepaid cards

Both Ontario and Quebec have chosen to regulate prepaid cards²²⁶, by prohibiting, for most of those cards, expiry dates²²⁷ and certain types of fees²²⁸. As we have seen, prepaid cards are a payment method accepted by app stores to supply customer accounts, which are notably used for payments of in-app purchases.

We did not observe problems reported in the literature or during our field survey with regard to this payment method, but the Office de la protection du consommateur du Québec tells us that this issue has been raised among complaints and information requests received in the last five years (see section 5.1.3). Without knowing the nature of the problems raised, we can still recall that legislation on prepaid or gift cards applies without restriction to app stores' cards, which are "*a certificate, card or other medium of exchange that is paid in advance*"²²⁹. But prepaid Visa and MasterCard cards can also be used for supplying app stores' customer accounts, and regulations provide certain exceptions for this type of cards. As opposed to most other cards, the issuers of this type of cards can charge fees to consumers and don't have to refund the remaining balance upon request, whatever the amount²³⁰.

b) Prohibited practices

False or misleading representations

To ensure that consumers have correct information before choosing to contract, Quebec's Consumer Protection Act provides that "*No merchant, manufacturer or advertiser may, by any means whatever, make false or misleading representations to a consumer.*" (sec. 219 CPA-QC); "representation" includes an affirmation as well as a behaviour or an omission (sec. 216). Ontario's Consumer Protection Act provides a prohibition of false, misleading or deceptive representations (claim, statement, offer, request or proposal) (sec. 14(1), 15(1), 17(1) CPA-ONT). The law considers this type of representations an unfair practice.

Is it a false or misleading representation to indicate that an app is free whereas its use can lead the user to pay certain amounts in the form of an in-app purchase? This question appears difficult to answer definitively. One thing is certain: adding systematically under the mention "free" the presence of in-app purchases is a step in the right direction, toward more-complete information.

²²⁶ Sec. 187.1 to 187.5, CPA (QC) and sec. 123, *Consumer Protection Act, 2002*, S.O. 2002 (ON) and 25.1 to 25.5 *Ontario Regulation 17/5*.

²²⁷ Sec. 187.3, CPA (QC) and sec. 25.3, *Ontario Regulation 17/5*.

²²⁸ Sec. 187.4, CPA (QC) and sec. 25.4(1)b), *Ontario Regulation 17/5*. Although this section mainly pertains to provincial legislation, the federal government also regulates prepaid payment products (see *Prepaid Products Payment Regulations*, SOR/2013-209. [Online] <http://www.laws.justice.gc.ca/fra/reglements/DORS-2013-209/TexteComple.html>). The federal regulations offer consumers less protections than the two provincial Acts to which we refer here. For example, the card's issuer may, under certain conditions, increase the fees related to this product (sec. 8).

²²⁹ Sec. 187.1, CPA (QC)

²³⁰ Sec. 79.6, *Regulation respecting the application of the Consumer Protection Act*.

In fact, it is difficult to state that the mention “free” is unfair or aims at misleading consumers. Most users benefit from the app or game without paying any fees. Can we really reproach the merchant for boasting that an app or game is free if consumers can download and use it without any cost, whereas they are offered the option to spend of their own free will?

The concept of a freemium app implies indeed that the app can be used without restriction and that in-app purchases offered therein are optional, bringing added value without being indispensable. If an app does not meet those conditions, but claims to do so, there would probably be cause for pleading false or misleading representations. This would apply for example to freemium apps whose features are so limited as to be useless for all practical purposes, or whose restrictions are so numerous that the irritation they provoke exceeds their usefulness.

It remains that qualifying as “free” applications likely to entail fees of several hundred or even thousands of dollars, if only to a few users, can be somewhat contrary to common sense. Should specific regulations be considered for reconciling the positions?

The European Union appears to think so, by deciding that possible grey areas should be clarified by a firm position. Taking a common position, the EU has concluded that using the word “free” should be prohibited for games that are not in fact entirely free, i.e. that offer the possibility of making in-app purchases, even on an optional basis²³¹. We will discuss this in the next chapter.

Prohibition against omitting an important fact

Each in its own way, the Quebec and Ontario laws prohibit merchants from omitting a material fact. CPA-QC section 228 contains the following provision:

228. No merchant, manufacturer or advertiser may fail to mention an important fact in any representation made to a consumer.

As mentioned above, the Ontario law states that making a false, misleading or deceptive representation constitutes an unfair practice. The Ontario lawmakers have taken care to mention that a false, misleading or deceptive representation is “*A representation using exaggeration, innuendo or ambiguity as to a material fact or failing to state a material fact if such use or failure deceives or tends to deceive*”²³². This applies to contractual clauses as well as statements and representations made before conclusion of a contract.

As we have seen, systematically indicating that an application contains one or more in-app purchases would solve one disclosure problem. It would be difficult to report that app stores omit that information, if they often multiplied, in descriptions of the apps, express notices to consumers that the “free” apps they download contain in-app purchases. Given that in-app purchases are normally at the consumer’s sole discretion, it could even be argued that the app’s

²³¹ **EUROPEAN COMMISSION**, *Common position of national authorities within the CPC*, 2013. [Online] http://ec.europa.eu/consumers/enforcement/docs/common_position_on_online_games_en.pdf (document consulted on October 23, 2015).

²³² Sec. 14(2)14, *Consumer Protection Act*, 2002, S.O. 2002 (ON).

offer of paid optional content does not necessarily constitute, if the app is perfectly functional without those options, a material fact that the merchant is required to disclose.

Failure to mention that an app will actually be, without the addition of features offered as in-app purchases, unusable for the purposes intended by the consumer on the basis of the app's presentation would certainly constitute a misleading representation by failing to disclose a material fact. It could thus be argued that announcing the presence of in-app purchases without mentioning, for example, the nature of the app's restrictions and the in-app purchases' capacity to eliminate them would also amount to omitting a material fact.

Moreover, does an app store omit a material fact by not mentioning that certain settings can allow purchases to be confirmed without authentication? It is true that authorization settings in the device or app store depend on the consumer, who can choose to change the default options. Still, given the complexity of that digital environment, should a more demanding disclosure obligation be imposed on those who operate within it with greater ease, i.e. the app stores?

Prohibition against advertising directed at children under 13 years of age (Quebec)

In a measure unique to Quebec, the law provides that “*no person may make use of commercial advertising directed at persons under thirteen years of age*”²³³. This prohibition, aimed both at companies advertising their goods and services and at the various participants in such advertising (advertisers, distribution agencies and broadcasters of those advertisements), has existed in Quebec for over thirty years.

To evaluate whether an advertisement is directed at children under 13 years of age, the following three criteria must be taken into account, to establish the context in which the advertisement is made. The evaluation will thus be based on:

- a) the nature and intended purpose of the goods advertised;
- b) the manner of presenting such advertisement;
- c) the time and place it is shown²³⁴.

It should be noted that all formats and media are targeted by that provision²³⁵.

In the context of games and apps, the third criterion first attracts our attention, of course. Clearly, no advertisement will be allowed in an app intended for children. In the universe of apps and in-app purchases, we observe that the lines are often grey. In the course of our field survey, we noticed that apps are rarely identified as intended for children. Whereas the majority of apps that may interest children are identified as “for all,” some (as we have seen with iTunes) carry the mention “4 years and over” (see section 4).

²³³ Sec. 248, CPA (QC).

²³⁴ Sec. 249, CPA (QC).

²³⁵ **OFFICE DE LA PROTECTION DU CONSOMMATEUR**, *Advertising Directed at Children under 13 Years of Age*, September 2012, p. 3. [Online] http://www.opc.gouv.qc.ca/fileadmin/media/documents/consommateur/sujet/publicite-pratique-illegale/EN_Guide_publicite_moins_de_13_ans_vf.pdf (document consulted on March 11, 2016). The OPC's interpretation is based on the decision *Irwin Toy v. Québec (Attorney General)*, [1989] 1 S.C.R. 927 rendered by the Supreme Court of Canada.

Still, it appears that many apps, particularly games, are intended for a target audience including children under 13 years of age. In fact, we observed this in the *Smurfs' Village* EULA:

If you are under age 13, you may use the Game only under the supervision of your parent or legal guardian, except where prohibited by law. If you are age 13 or over but under age 18, you may use the Game only with the consent of your parent or legal guardian²³⁶.

As we have seen, while using this app the user is often invited to acquire virtual items by paying with virtual currencies (gold bars and smurfberries). Can we qualify those entirely virtual purchases as commercial transactions? The question is not so absurd since those virtual currencies had to be purchased with real money and are merely in-game representations of the real money that was used to acquire them. To qualify them as commercial representations would imply that the invitation to make those virtual purchases does constitute an advertisement. While this peculiar situation seems within a grey area, the invitation to purchase smurfberries with real money is much less difficult to qualify. It is truly an advertisement, i.e. promoting a good for commercial purposes.

We may also ask if the advertisement is actually directed at children, since the game recommends the parents' supervision or consent.

According to the Office de la protection du consommateur (OPC), *"An advertisement that is broadcast or that appears in a place where both adults and children are present can still be considered as being directed at children if an analysis of the two other criteria leads to the conclusion that the advertisement is also intended for children²³⁷."*

Below is an example of advertising inviting the user to purchase smurfberries, in order to receive as a bonus the mushroom store he will be able to integrate with his village. The use of colours, lettering, the smurfs' presence in the advertisement – comic and cartoon characters intended for children – obviously signals that this advertisement was designed with children in mind.



Source: Smurfs' Village

²³⁶ Op. cit. note 171, **BEELINE**.

²³⁷ Op. cit., note 237, **OFFICE DE LA PROTECTION DU CONSOMMATEUR**, p. 7.

As for the nature and intended purpose of the goods advertised, we find ourselves again on a slippery slope. It seems obvious that an adult would not spend real money to purchase virtual berries, however smurf-like. When the advertised good is placed in context, it is not the berries that are actually offered, but an exchange currency that can be used for advancing in the game. To determine as objectively as possible the good's nature as well as its intended purpose, we have to navigate a much vaguer context here. Still, the good advertised is intended for the game's user, who in the end will determine its intended purpose.

It hardly seems foolhardy to conclude that given the young audience, the app's users, to whom the game appears intended (as demonstrated by the game's characters, the childlike presentation, and the caution issued by the designer) and given the game's design, this advertising is well and truly directed at children. In criminal proceedings, could these findings lead to a guilty verdict, given the required level of evidence? It's too early to say. But we observe how the task appears complicated because no regulation specifically covers the universe of apps. Lastly, the fact that this measure exists only in Quebec can lessen its scope, because companies are less likely to comply with it than if advertising directed at children were as clearly prohibited in all the provinces.

Warranties

Canadian law provides in legal warranty plans certain protection measures that apply to goods and generally to services and that, barring an express exclusion, should also apply to apps and in-app purchases. As we mentioned in a previous study²³⁸, legal warranty plans in Canada, although imperfect, protect consumers relatively well so long as their provisions are complied with and it is possible to implement the protections offered.

Although a few small differences exist between the regulatory frameworks of the provinces and territories, we can identify similar protective measures, which apply automatically with the acquisition of goods and generally of services²³⁹ in a commercial transaction²⁴⁰.

The Quebec and Ontario laws provide that a merchant must guarantee to the consumer the quiet possession of the goods he purchases²⁴¹. The goods that are the object of the contract must conform to the description made of them in the contract, the advertisements and the seller's representations²⁴². In Quebec and Ontario, the goods must serve their intended purpose²⁴³ for a reasonable period²⁴⁴. Do all those warranties apply to purchases of virtual goods? Could a consumer invoke the legal warranties to obtain a refund or a replacement of the virtual good acquired in this manner?

²³⁸ **UNION DES CONSOMMATEURS**, *Adequacy of Legal Warranty Plans in Canada*, Union des consommateurs, Montreal, Quebec, Canada, June 2012, 211 pages. [Online] http://uniondesconsommateurs.ca/docu/protec_conso/Garanties-Legales-en.pdf (document consulted on October 7, 2015).

²³⁹ QC: sec. 34 to 54, *CPA* (QC). ON: sec. 9(1), *Consumer Protection Act, 2002* (for services) and sec.12 to 16, *Sale of Goods Act*, R.S.O. 1990, c. S.1 (for goods). Section 9(2) of Ontario's *Consumer Protection Act, 2002* extends to rented or exchanged goods the warranties provided in the *Sale of Goods Act*.

²⁴⁰ Service is implied when the in-app purchase is a subscription service or a radio or music broadcast service without advertising, for example.

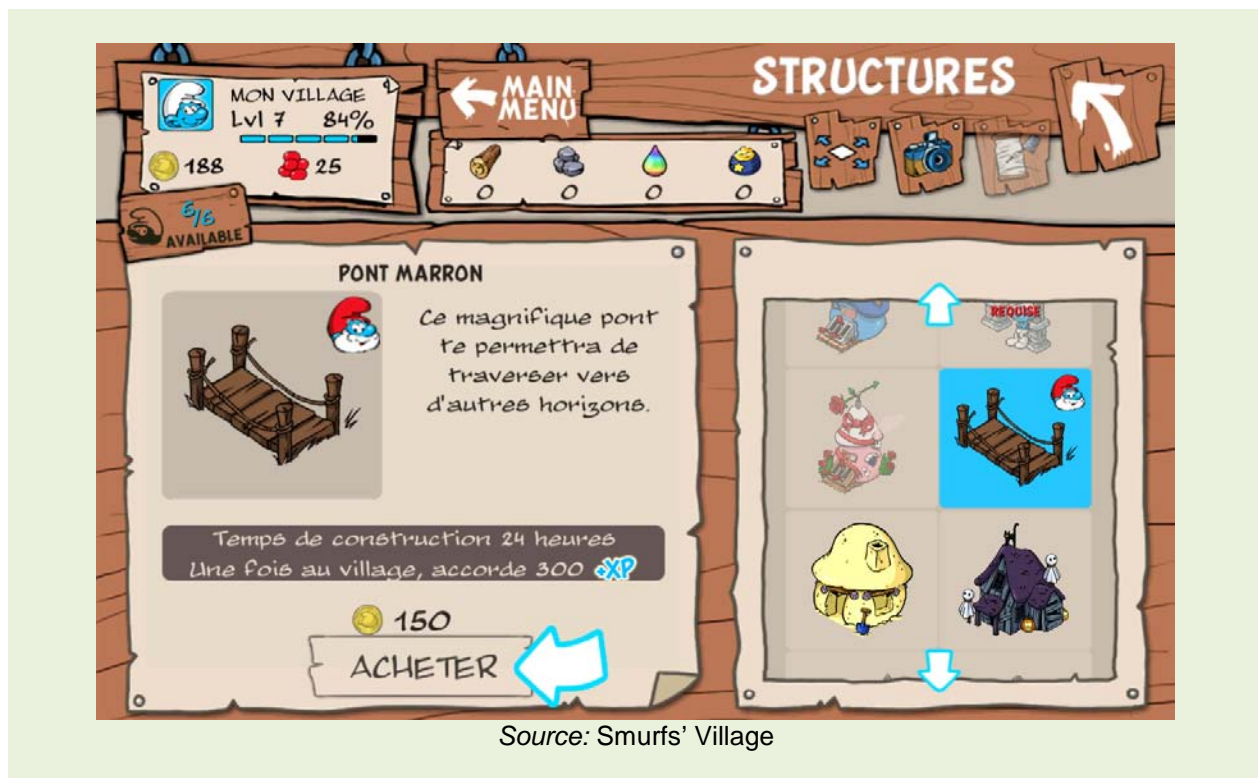
²⁴¹ Sec. 36, *CPA* (QC) and sec. 13(1), *Sale of Goods Act*, R.S.O. 1990, c. S.1 (ON).

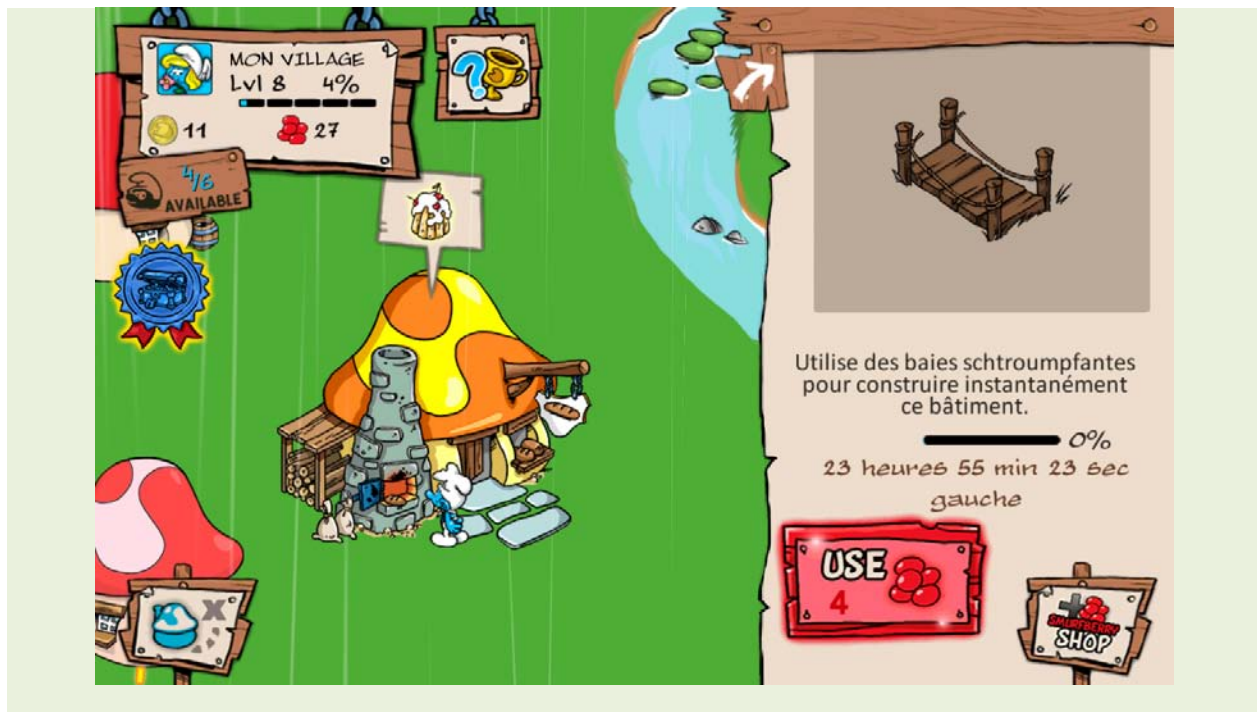
²⁴² Sec. 40 to 42, *CPA* (QC) and sec. 15, *Sale of Goods Act*, R.S.O. 1990, c. S.1 (ON).

²⁴³ Sec. 37, *CPA* (QC).

²⁴⁴ Sec. 38, *CPA* (QC) and sec. 15, *Sale of Goods Act*, R.S.O. 1990, c. S.1 (ON).

Within the *Smurfs' Village*, the app's store offered us the acquisition of a bridge, which we could obtain either for free after a period of 24 hours, or immediately upon payment of 150 gold bars. As we have seen, some apps use two types of virtual currencies: one – smurfberries, in this case – acquired through an in-app purchase made with real money, and another obtained simply by playing, by the passage of time or by advancing in the game. The *Smurfs' Village*'s gold bars belong to this second category. During our survey, we decided to purchase the bridge. Soon afterward, the game told us that the bridge had broken. Could the user invoke at this point the warranty of durability? And demand that the bridge be repaired? But the app tells us that the bridge will be repaired in 24 hours... Unless we agree to spend a few smurfberries, the virtual currency purchased with real money, to have the bridge repaired immediately. Is it not a contravention of the law to charge a price for repairing a good evidently affected by a hidden defect (whether that price is expressed in time/penalty or in “virtualized” real money)? Does the merchant have the right to voluntarily destroy a good he has offered to the consumer in exchange for virtual currency, and then invite him to acquire it again, this time for “virtualized” real money?





Source: Smurfs' Village

First, the laws draw no distinction between tangible and digital goods (music, apps, in-app purchases, etc.). So how do those warranties apply to in-app purchases? In theory, consumers benefit from the protections offered by in-app purchases. Thus, a consumer who receives an app or in-app purchase that does not correspond to the description made of it, or that does not function correctly, could in theory invoke the legal warranty to obtain applicable remedy.

Things evidently get complicated because Ontario law specifies that the contracts targeted are those whereby a good is transferred for a money consideration²⁴⁵. We should thus conclude that the warranty will not apply to the “free” app, but to the in-app purchase – in this case, to the acquisition of smurfberries. Does this mean that “purchases” made with those berries would not be covered, since they are not amounts of money? Would the merchant simply “virtualizing” the amounts paid to him thus enable him to evade the law? Indeed, the bridge’s purchase or repair, if paid directly with an in-app purchase (without the money first being converted into virtual currency), would unquestionably be covered by the law.

How to ensure that the protections created before the digital age can be implemented in these new contexts? If the laws themselves are not adapted to the new technologies, should legislators not intervene to ensure that legal warranties benefit everyone?

²⁴⁵ Sec. 2(1), *Sale of Goods Act*, R.S.O. 1990, c. S.1 (ONT).

The apps' terms of use generally aim at notifying consumers that those theoretical issues about the application of warranties are futile: in fact, the terms often provide total exclusions of any warranty, thus telling consumers that they have less rights than consumer protection laws recognize. Here is an example of this type of clause, excerpted from the EULA of the Smurfs' Village app:

No Warranty

YOU ACKNOWLEDGE AND AGREE THAT USE OF THE GAME IS AT YOUR SOLE RISK AND THAT THE ENTIRE RISK AS TO SATISFACTORY QUALITY, PERFORMANCE, ACCURACY, AND EFFORT IS WITH YOU. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE GAME AND ANY SERVICES PERFORMED OR PROVIDED BY THE GAME ARE PROVIDED "AS IS" AND "AS AVAILABLE", WITH ALL FAULTS AND WITHOUT WARRANTY OF ANY KIND, AND BEELINE HEREBY DISCLAIMS ALL WARRANTIES AND CONDITIONS WITH RESPECT TO THE GAME AND ANY SERVICES, EITHER EXPRESS, IMPLIED, OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES AND/OR CONDITIONS OF MERCHANTABILITY, OF SATISFACTORY QUALITY, OF FITNESS FOR A PARTICULAR PURPOSE, OF ACCURACY, OF QUIET ENJOYMENT, AND OF NONINFRINGEMENT OF THIRD-PARTY RIGHTS. NO BEELINE PARTY WARRANTS THAT THE GAME, OUR SERVERS OR E-MAIL SENT FROM US ARE FREE OF VIRUSES OR OTHER HARMFUL COMPONENTS. BEELINE DOES NOT WARRANT AGAINST INTERFERENCE WITH YOUR ENJOYMENT OF THE GAME, THAT THE FUNCTIONS CONTAINED IN OR GAMES PERFORMED OR PROVIDED BY THE GAME WILL MEET YOUR REQUIREMENTS, THAT THE OPERATION OF THE GAME WILL BE UNINTERRUPTED OR ERROR-FREE, OR THAT DEFECTS IN THE GAME WILL BE CORRECTED. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY BEELINE OR OUR AUTHORIZED REPRESENTATIVE SHALL CREATE A WARRANTY. SHOULD THE GAME PROVE DEFECTIVE, YOU ASSUME THE ENTIRE COST OF ALL NECESSARY SERVICING, REPAIR, OR CORRECTION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES OR LIMITATIONS ON APPLICABLE STATUTORY RIGHTS OF A CONSUMER, SO THE ABOVE EXCLUSION AND LIMITATIONS MAY NOT APPLY TO YOU²⁴⁶.

(Our underlined)

The text states of course that the exclusions cannot exceed the "maximum extent permitted by applicable law" and points out, in its last lines, that those exclusions may not apply. Obviously, it is quite difficult for the consumer to know precisely what applies or not in reality.

It should be noted that this same clause decrees that the representations of the company or its representatives create no warranty – also in contradiction to consumer protection laws, which are of public order²⁴⁷. We think this type of clause should be denounced and strictly prohibited.

²⁴⁶ *Op, cit.* note 171, **BEELINE**.

²⁴⁷ Sec. 262, CPA (QC) and sec. 7(1), *Consumer Protection Act, 2002*, S.O. 2002 (ON).

The right to contract with minors

Given that the majority of reported problematic cases concern billing in-app purchases made by children, we may question the actual capacity of a minor child to make such purchases and engage the account holder's responsibility²⁴⁸.

In this province, the Civil Code of Québec governs minors' capacity to contract:

157. A minor may, within the limits imposed by his age and power of discernment, enter into contracts alone to meet his ordinary and usual needs.

While a minor's discernment must be taken into account in determining whether or not he may contract an in-app purchase, we think it necessary to take into account scientific findings on children's capacity to distinguish between the real and the imaginary or virtual (see section 3.7 of this report). The conclusion appears to be that before a certain age, children do not have the necessary discernment. In any case, can it be argued that in-app purchases satisfy a minor's usual needs? Claiming that smurfberries or the purchase or repair of a virtual chestnut bridge are among a minor's usual needs could lead to highly contorted arguments. Since a contract entered into by a minor who did not have the capacity to do so may be cancelled²⁴⁹, it's not surprising that companies have preferred, in cases reported by the media, to settle out of court.

Existing regulations in the rest of Canada lead down the same path. There, the common law governs minors' capacity to contract. A contract entered into by a minor is a priori invalid²⁵⁰; however, a contract entered into by a minor in order to meet life's necessities will be deemed valid and binding if it benefits the minor who is a party to the contract²⁵¹.

6.2 The Competition Act

The *Competition Act* is also likely to find application in the context of in-app purchases. The purpose of this Act, in effect since 1986, is to "maintain and encourage competition in Canada in order to promote the efficiency and adaptability of the Canadian economy, in order to expand opportunities for Canadian participation in world markets" while ensuring "that small and medium-sized enterprises have an equitable opportunity to participate in the Canadian economy [and] provide consumers with competitive prices and product choices"²⁵².

The provisions that are of interest to us concern false or misleading representations. The Act indeed prohibits giving or allowing that be given to the public, in any manner whatsoever, a false or misleading representation on a material point. The Act involves criminal law in section 52 and civil law in section 74.01(1)a). To determine a representation's false or misleading nature, the general impression must be taken into account²⁵³. Those provisions aim at ensuring that

²⁴⁸ Although the issue of the capacity to contract with minors is very interesting in this context, it will not be addressed in detail here. UC has produced a study on the subject: **UNION DES CONSOMMATEURS**, *Minors, Contracts and Consequences*, Union des consommateurs, Montreal, Quebec, Canada, June 2011, 158 pages. [Online] http://uniondesconsommateurs.ca/docu/protec_conso/MinorsContractsConsequences.pdf

²⁴⁹ Sec. 163, *Civil Code of Québec*, R.S.Q. c. C-1991.

²⁵⁰ *Op. cit.*, note 250, **UNION DES CONSOMMATEURS**, p. 54.

²⁵¹ **POIRIER, D.**, *Les personnes physiques et les incapacités*, Cowansville, Yvon Blais, 1997, p. 87.

²⁵² Sec. 1.1, *Competition Act*, R.S.C., 1985, c. C-34.

²⁵³ Sec. 52(4) and 74.03(5), *Competition Act*, R.S.C., 1985, c. C-34.

representations made to the public about a product contain all the necessary information for the consumer to make an informed decision²⁵⁴. Representations will be considered false or misleading when, notably, they omit a material fact or attempt to conceal prices²⁵⁵.

As we have seen, the Competition Bureau issued in 2014 a caution intended for mobile device users, but particularly for parents, and containing five tips to protect oneself against in-app purchases²⁵⁶. On that occasion, the Competition Bureau invited consumers who thought they had been misled by apps to contact that government organization or file a complaint online²⁵⁷.

If the Competition Bureau pursues its investigations on the subject, it will be interesting to see whether it concludes that, in the light of the *Competition Act*, it is possible to qualify as a false or misleading representation the marketing and advertising of in-app purchase apps as free apps; and whether not disclosing a list of all in-app purchases and their prices before so-called “free” apps are downloaded must be considered a concealment of prices.

²⁵⁴ **COMPETITION BUREAU**. *False or Misleading Representations*. [Online] <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/00513.html> (page consulted on May 21, 2016).

²⁵⁵ *Ibid.*

²⁵⁶ *Op. cit.*, note 214, **COMPETITION BUREAU**. See in particular section 5.3

²⁵⁷ *Ibid.*

7. Specific Measures in Foreign Jurisdictions

7.1 Better Consumer Protection: Good Practices

In recent years, several European Union States have become interested in in-app purchases, mainly following problems reported by parents who have experienced bill shock from their children having made in-app purchases. In the following paragraphs, we will take a look at various initiatives taken abroad to better protect consumers in those jurisdictions.

a) The European Union: taking a common position

In *Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council* (hereinafter Directive 2011/83/EU²⁵⁸), the European Union (hereinafter EU) confers new rights to consumers regarding the distribution of digital content. The Directive notably recognizes a right of withdrawal without penalty and without giving any reason within 14 days following conclusion of the contract²⁵⁹. But article 16m) of that Directive provides an exception to that right of withdrawal for contracts concerning “the supply of digital content which is not supplied on a tangible medium if the performance has begun with the consumer’s prior express consent and his acknowledgment that he thereby loses his right of withdrawal.” It is unfortunate, given the important issues they raise about the consumer’s express consent, that in-app purchases escape such a regulatory framework.

That is not the only European legislation that applies to in-app purchases. *Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market* (hereinafter Directive 2005/29/EC²⁶⁰) as well as *Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market* (hereinafter the Directive on electronic commerce²⁶¹) also pertain to this type of product.

²⁵⁸ Directive 2011/83/EU on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council. [Online] <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:304:0064:0088:en:PDF> (document consulted on October 15, 2015).

²⁵⁹ Sec. 9-15, *Directive 2011/83/EU on consumer rights*.

²⁶⁰ Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market. [Online] <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32005L0029&from=EN> (document consulted on October 22, 2015).

²⁶¹ Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market. [Online] <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32000L0031&from=EN> (document consulted on October 22, 2015).

In July 2014, the European Union publicly announced measures adopted by some companies to better protect consumers using games with in-app purchases²⁶². Through common action – a procedure allowing consumer protection authorities in Member States to cooperate and discuss a specific problem in order to stop infractions to the laws of several Member States²⁶³ – that regional block's Members decided in 2013 to target in-app purchases in online games²⁶⁴.

The common position identifies the following problems as constituting violations of various regulatory frameworks in effect in the EU:

(i) **Deceptive advertising: apps announced as free:**

The common proposal deplores the use of the word “free” to qualify apps containing in-app purchases. The Member States think that *“The use of the word “free” (or similar unequivocal terms) as such, and without any appropriate qualifications, should only be allowed for games which are indeed free in their entirety, or in other words which contain no possibility of making in-app purchases, not even on an optional basis²⁶⁵.”* The European Commission thinks it is notably a violation of article 6(1)e) of Directive 2011/83/EU.

(ii) **Exhortations to children:**

In the common position, the European Commission enjoins the app stores to take measures to inform developers that the exhortation of children in games and apps they are likely to use is prohibited, notably under article 5(3) of Directive 2005/29/EC concerning commercial practices, which states the following:

[...]

3. Commercial practices which are likely to materially distort the economic behaviour only of a clearly identifiable group of consumers who are particularly vulnerable to the practice or the underlying product because of their mental or physical infirmity, age or credulity in a way which the trader could reasonably be expected to foresee, shall be assessed from the perspective of the average member of that group. This is without prejudice to the common and legitimate advertising practice of making exaggerated statements or statements which are not meant to be taken literally.

²⁶² **EUROPEAN COMMISSION**, *In-app purchases: Joint action by the European Commission and Member States is leading to better protection for consumers in online games*, July 18, 2014. [Online] http://europa.eu/rapid/press-release_IP-14-847_en.htm (page consulted on October 12, 2015).

²⁶³ *Regulation (EC) No. 2006/2004*, 29.12.2004, OJ L 364 of 9.12.2004. [Online] <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AI32047> (page consulted on October 21, 2015).

²⁶⁴ **EUROPEAN COMMISSION**, *Common position of national authorities within the CPC*, 2013. [Online] http://ec.europa.eu/consumers/enforcement/docs/common_position_on_online_games_en.pdf (document consulted on October 23, 2015).

²⁶⁵ *Ibid.*

In addition, article 4(1)b) of Directive 2000/31/EC concerning electronic commerce states the following about electronic content distribution platforms:

Article 14

Hosting

1. Where an information society service is provided that consists of the storage of information provided by a recipient of the service, Member States shall ensure that the service provider is not liable for the information stored at the request of a recipient of the service, on condition that:

[...]

b) the provider, upon obtaining such knowledge or awareness, acts expeditiously to remove or to disable access to the information.

Accordingly, the national consumer protection authorities enjoin the app stores to comply with the legal provisions and take necessary measures against any application in violation of European laws²⁶⁶.

(iii) Payment authorizations and consent

The common position invokes a series of provisions imposing stricter requirements than current ones for acquiring in-app purchases. The national authorities focus on the fact that consumers must give their explicit consent and be clearly informed of payment arrangements before each purchase²⁶⁷. This common position also invokes article 54(2) of Directive 2007/64/EC on payment services, which states the following:

[...]

2. Consent to execute a payment transaction or a series of payment transactions shall be given in the form agreed between the payer and his payment service provider.

In the absence of such consent, a payment transaction shall be considered to be unauthorised²⁶⁸.

²⁶⁶ *Ibid.*

²⁶⁷ Sec. 6(1)g), Directive 2011/83/EC on consumer rights and articles 7(2) and 7(4)d) of Directive 2005/29/EC on commercial practices.

²⁶⁸ DIRECTIVE 2007/64/EC of the European Parliament and of the Council of 13 November 2007 on payment services in the internal market amending Directives 97/7/EC, 2002/65/EC, 2005/60/EC and 2006/48/EC and repealing Directive 97/5/EC. [Online] <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:319:0001:0036:EN:PDF> (document consulted on May 10, 2016).

For the transaction to acquire in-app purchases to comply with European legislation, and to better protect consumers, the national authorities propose that the following mechanisms be adopted²⁶⁹:

- a- That automatic default settings allowing in-app purchases to be made within a certain period without authorization no longer be permitted;
- b- That consumers be offered instead a true choice between: requiring authentication for each purchase or allowing periods without authentication after a first authentication;
- c- That a consumer be able to set a maximum amount that can be billed without authentication for in-app purchases;
- d- That consumers be reminded regularly of payment settings, not only during the first purchase, and that such information be accessible and comprehensible.

(iv) The company's e-mail address

One of the last points raised in the common position concerns mandatory disclosure of the e-mail address of the company providing services to consumers²⁷⁰. The common position states that article 5(1)c) of the Directive on electronic commerce requires providing consumers with the provider's contact information, including its e-mail address, thus enabling them to contact the provider quickly and communicate directly and effectively with it. The national authorities want consumers to have easy access to the service provider, quickly, directly and effectively, and they want that information to be easily available to consumers.

What effect has this common position had on the protection of European Union consumers? Some say it has had very little effect, if any²⁷¹.

First, as we have seen, the common denunciation prohibited developers and app stores from using the word "free" to qualify in-app purchase apps. We pointed out (see section 3.1) that Apple has since replaced the "FREE" button with a "GET" button, and has added the "in-app purchases" notice under an app's name. Google Play is now using the "install" instead of the "free" button and displays the "in-app purchases" notice under the "install" button. Of course, the notices of the presence of in-app purchases are quite discreet. And the "free" mention has not disappeared; games with in-app purchases are still listed in the free apps section.

The common position's demands regarding exhortations to children allow the industry a wide margin of manoeuvre, according to lawyer Robert Miklos Babirad²⁷². As he reports, the service provider must "*act[s] expeditiously to remove or to disable access to the information*"²⁷³. What does "expeditiously" mean, in practice? And from whose viewpoint? The company can thus always claim to have acted as expeditiously as possible.

²⁶⁹ **EUROPEAN COMMISSION**, *Common Position of National Authorities within the CPC Network- Assessment of Proposals made by Apple, Google and relevant Trade Associations regarding in-app purchases in online Games*, 2014. [Online] http://ec.europa.eu/consumers/enforcement/cross-border_enforcement_cooperation/docs/20140718_in-app_cpc_common-position_en.pdf (document consulted on May 3, 2016).

²⁷⁰ *Op. cit.*, note 264, **EUROPEAN COMMISSION**.

²⁷¹ **BABIRAD, R.M.**, *Improving In-App Purchasing Protection for EU Consumers?*, December 4, 2014, King's Student Law Review (KSLR) Blog on European Law. [Online] https://blogs.kcl.ac.uk/kslreuropeanlawblog/?p=817#.V2IRG_krLIU (page consulted on May 2, 2016).

²⁷² *Ibid.*

²⁷³ Sec. 14(1)b) of Directive 2000/31/EC on electronic commerce.

Apple has decided to create a specific e-mail address enabling national authorities to advise the company of infractions to consumer protection laws and it assures that it is prepared to coordinate eventual discussions with the developer²⁷⁴. The company has also produced a guide intended for developers, which states Apple's requirements for the sale of apps in its app store, as well as specific measures that must be taken regarding children²⁷⁵. Google Play has reportedly planned to establish measures similar to Apple's²⁷⁶.

As for payment authorizations, the demands issued by the common position could certainly help consumers better protect themselves and establish processes putting them less at risk. However, those proposals are also ambiguous. For example, regarding the requirement to inform a consumer regularly about payment settings and how to change them: how to interpret "regularly"? According to whom? How frequently? Apple has answered that it will not standardize the payment settings and that the latter will continue to depend on the device and the operating system used²⁷⁷. In 2014, the European Commission reported that Google had begun implementing a series of measures, such as the choice of three settings during the first purchase ((i) password required at every purchase, (ii) password required every 30 minutes, or (iii) never requiring a password)²⁷⁸. In fact, we observed those options during our review of the literature and our survey.

Lastly, regarding the obligation to provide consumers with developers' e-mail address, the common position's demands again leave room for interpretation. The consumer must have at hand the service provider's contact information to contact it quickly, directly and effectively²⁷⁹. How to interpret the terms used? By what criteria? Companies can still benefit from a certain latitude in the standards supposedly protecting European consumers adequately. In 2014, Apple said it wanted to create and make public an e-mail address that consumers could use to report problems with their purchases²⁸⁰. The European Commission points out that Apple had specified no date for implementing that measure.

Are European consumers better protected than Canadians who use in-app purchase apps? As mentioned above, the app stores have taken certain measures better informing consumers of the presence of in-app purchases in applications ("in-app purchases" indications below the names of apps, in the details and under the heading "Key Features," with bold or highlighted text, etc.). We must emphasize that despite those measures, there appears to remain a lack of compliance with some of the legal provisions mentioned above – notably the prohibition against using the word "free" for products that are not so in their entirety. Moreover, the ambiguity of the common position's demands allows companies a very broad interpretation of certain terms, which minimizes the protections that could have benefited European consumers. Since 2014, the app stores have certainly implemented some measures, but neither the European Union nor any of the national authorities have taken legal action against the remaining lack of compliance in some regards. But it should be noted that there have been several investigations, and certain

²⁷⁴ *Op. cit.*, note 271, **EUROPEAN COMMISSION**, p. 2. We could not find information confirming that the address is operational as this report was being written.

²⁷⁵ *Op. cit.*, note 27, **APPLE**.

²⁷⁶ *Op. cit.*, note 271, **EUROPEAN COMMISSION**, p. 2.

²⁷⁷ *Ibid.*

²⁷⁸ *Ibid.* p. 5.

²⁷⁹ Sec.5(1)c), *Directive on electronic commerce*.

²⁸⁰ *Op. cit.*, note 271, **EUROPEAN COMMISSION**, p. 3.

agreements have intervened between the app stores and various national authorities responsible for applying European Union competition law²⁸¹.

b) The case of the United Kingdom

As we have seen, consumers have reported problems with in-app purchases in numerous countries. This is notably the case in the United Kingdom, where a father, a police officer, was compelled to make a fraud complaint against his son to obtain from Apple a refund of around £3,700 for purchases, including in-app purchases, made by his son²⁸².

After receiving consumer complaints and given the actions taken in the EU, the *Office of Fair Trading* (OFT) conducted an investigation in 2013 and then published the “*Principles for online and app based games*”²⁸³. The principles stated aim at cleaning up certain commercial practices that could be deceptive, aggressive or unfair. That regulatory authority raised the following concerns:

- *a lack of transparent, accurate and clear up-front information relating, for example, to costs, and other information material to a consumer’s decision about whether to play, download or sign up to a game;*
- *misleading commercial practices, including failing to differentiate clearly between commercial messages and gameplay;*
- *exploiting children’s inexperience, vulnerability and credulity, including by aggressive commercial practices;*
- *including direct exhortations to children to buy advertised products or persuade their parents or other adults to buy advertised products for them;*
- *payments taken from account holders without their knowledge, express authorisation or informed consent*²⁸⁴.

²⁸¹ This is notably the case in Italy. In 2015, the Autorità Garante della Concorrenza e del Mercato (AGCM) reached an agreement with Google Play, Amazon and Apple, among others, regarding default settings and the downloading of apps said to be free (see **GUERRINI, F.**, *Apple, Google, Amazon Settle with Italian Watchdog over In-App Purchase Worries*, ZDNET, February 2, 2015. [Online] <http://www.zdnet.com/article/apple-google-amazon-settle-with-italian-watchdog-over-in-app-purchase-worries/> (page consulted on March 3, 2016).

²⁸² **NEWS AGENCY** *Policeman turns in son who Ran £3,700 iPad Bill*, The Telegraph, Telegraph Media Group, Chatham, Kent, United Kingdom, March 25, 2013. [Online] <http://www.telegraph.co.uk/technology/apple/9952049/Policeman-turns-in-son-who-ran-3700-iPad-bill.html> (page consulted on October 27, 2015).

²⁸³ **OFFICE OF FAIR TRADING**, *The OFT’s Principles for online and app-based games*, 2014. [Online] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/288360/oft1519.pdf (document consulted on November 4, 2015).

²⁸⁴ *Ibid.* p. 2.

The principles stated by the OFT state how U.K. laws can apply to certain practices of that industry and to tell its actors which practices they must adopt to better comply with applicable laws²⁸⁵. In the document, the government organization states eight principles for adopting commercial practices in compliance with the laws in effect. The eight principles are²⁸⁶:

Principle 1

Information about the costs associated with a game should be provided clearly, accurately and prominently up-front, before the consumer begins to play, download or sign up to it or agrees to make a purchase;
[...]

Principle 2

All material information about a game should be provided clearly, accurately and prominently up-front, before the consumer begins to play, download or sign up to it or agrees to make a purchase.
[...]

Principle 3

Information about the game business should be provided clearly, accurately and prominently up-front, before the consumer begins to play, download or sign up to the game or agrees to make a purchase. It should be clear to the consumer whom he/she ought to contact in case of queries, complaints or to seek redress. The trader should be capable of being contacted rapidly and communicated with in a direct and effective manner.
[...]

Principle 4

The commercial intent of any in-game promotion of paid-for content, or promotion of any other product or service, should be clear and distinguishable from gameplay. The younger he/she is, the more difficult it is likely to be for a consumer to identify the commercial intent of a commercial practice in certain contexts, and the language, design and structure of the game should take that into account.
[...]

Principle 5

A game should not mislead consumers by giving the false impression that payments are required or are an integral part of the way the game is played if that is not the case.
[...]

Principle 6

Games should not include practices that are aggressive, or which otherwise have the potential to exploit a child's inherent inexperience, vulnerability or credulity or to place undue influence or pressure on a child to make a purchase. The younger a child is, the

²⁸⁵ *Ibid.* p. 19. Here are the laws that the OFT deems applicable to the online apps and games industry: *Consumer Protection from Unfair Trading Regulations* (2008), *Unfair Terms in Consumer Contracts Regulations* (1999), *Electronic Commerce (EC Directive) Regulations* (2002), *Consumer Contracts Regulations* (2013) and in certain circumstances, *Payment Services Regulations* (2009).

²⁸⁶ *Ibid.* pp. 3-17.

greater the likely impact those practices will have, and the language, presentation, design and structure of the game should take account of that
[...]

Principle 7

A game should not include direct exhortations to children to make a purchase or persuade others to make purchases for them.
[...]

Principle 8

Payments should not be taken from the payment account holder unless authorised. A payment made in a game is not authorised unless express, informed consent for that payment has been given by the payment account holder. The scope of the agreement and the amount to be debited should be made clear. Consent should not be assumed, for example through the use of opt-out provisions, and the payment account holder should positively indicate his/her express, informed consent.

Traders must ensure that, at the point of each purchase, the consumer explicitly acknowledges his/her obligation to pay.

(Our underlined)

We observe that those principles greatly resemble the measures proposed in the European Commission's common position and raise the same concerns we reported above (see section 7.1.1): the use of words that leave a lot of room for interpretation and give a great deal of latitude to companies, etc.

The OFT is not the only British regulatory authority to have focused on the issue of online in-app and in-game purchases. The *Competition and Markets Authority* (CMA), after monitoring apps intended for children, issued a document for parents and other guardians of children²⁸⁷. It provides consumers with tips to protect themselves against problems that in-app purchases can entail. In addition, following that monitoring, the CMA reported three apps intended for children to the *Advertising Standards Authority* (ASA) so that the latter consider whether it should investigate²⁸⁸. While in their common proposal, the EU Member States often enjoin the app stores to take measures against developers about whom they have received a consumer complaint and to be transparent regarding the sanctions taken²⁸⁹, the CMA does not show the same transparency; in its press release, the organization states that the names of applications will not be disclosed unless companies are found guilty of violating the *U.K. Code of Non-broadcast Advertising, Sales Promotion and Direct Marketing* or the *U.K. Code of Broadcast Advertising*²⁹⁰.

²⁸⁷ **COMPETITION AND MARKETS AUTHORITY**, *Children's app and online Games: Advice for parents and carers*, June 2015. [Online] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/432443/Children_s_apps_and_online_games.pdf (document consulted on November 1, 2015).

²⁸⁸ **COMPETITION AND MARKETS AUTHORITY**, *CMA Refers three Children's Online Games to the ASA*, June 4, 2015. [Online] <https://www.gov.uk/government/news/cma-refers-three-childrens-online-games-to-the-asa> (document consulted on November 3, 2015).

²⁸⁹ *Op. cit.*, note 271, **EUROPEAN COMMISSION**, p. 2.

²⁹⁰ *Ibid.*

After the CMA's report, the ASA rendered verdicts against two companies, in concluding they were in violation of the codes mentioned above by directly exhorting children to make in-app purchases²⁹¹. The ASA also says it works with the industry to remind it of applicable standards and of behaviours to adopt²⁹². In fact, the organization has made advice available to developers on its website²⁹³.

Lastly, British consumers benefit from a sustained effort by several government organizations to clean up the app industry's practices, particularly those involving in-app purchases and using the freemium model. The most recent government attempt to better protect consumers is the *Consumer Rights Act*, which took effect on October 1, 2015²⁹⁴. The government thinks notably that with this new law, "*Consumers will now be much better informed and protected when buying goods or services on the internet. They will now be entitled to get for the first time a free repair or replacement for any faulty digital content*"²⁹⁵. The press release also indicates that consumers will benefit from greater clarity, particularly regarding in-app purchases:

Digital content:

*You play a 'freemium' computer game – which means that the game was free to use when you started playing it 5 months ago. During that time you have spent money on in-app purchases to improve your game character. After your last character upgrade which you made via an in-app purchase, the game has stopped working. Under the Act you would be entitled to a repair or a replacement. If a repair is not provided within a reasonable time or is impossible to replace then you would be entitled to some money back*²⁹⁶.

The new *Consumer Rights Act* includes a complete chapter on digital content²⁹⁷. British consumers can henceforth obtain a replacement or repair of noncompliant digital content or a reduction of the price paid²⁹⁸. Moreover, the new regulatory framework contains a warranty of quality²⁹⁹, a warranty that a product is fit for a particular purpose made known by the consumer to the merchant³⁰⁰, and a warranty that a product matches the description made of it by the merchant to the consumer³⁰¹. What is the consumer protection effect of the approach taken by British legislators to classify digital content as a distinct category?

²⁹¹ **ADVERTISING STANDARDS AUTHORITY**, *In-game and in-app Purchases: Protecting Children*, August 26, 20165. [Online] <https://www.asa.org.uk/News-resources/Media-Centre/2015/In-app-purchases-and-protecting-children.aspx#.V2TlvfkrLIU> (page consulted on November 3, 2015).

²⁹² *Ibid.*

²⁹³ **COMMITTEE OF ADVERTISING PRACTICES**, *Children: Direct Exhortation*. [Online] <https://www.cap.org.uk/Advice-Training-on-the-rules/Advice-Online-Database/Children-Direct-exhortation.aspx#.V2TLfPkrLIV> (page consulted on November 4, 2015).

²⁹⁴ **DEPARTMENT OF BUSINESS, INNOVATION & SKILLS**, *Biggest Overhaul of Consumer Rights in a Generation*, March 27, 2015. [Online] <https://www.gov.uk/government/news/biggest-overhaul-of-consumer-rights-in-a-generation> (page consulted on November 10, 2015).

²⁹⁵ *Ibid.*

²⁹⁶ *Ibid.*

²⁹⁷ *Consumer Rights Act 2015*, c. 15, chapter 3. [Online] <http://www.legislation.gov.uk/ukpga/2015/15/part/1/chapter/3/enacted> (page consulted on January 13, 2016).

²⁹⁸ Sec. 43, *Consumer Rights Act 2015* (UK).

²⁹⁹ Sec. 34, *Consumer Rights Act 2015* (UK).

³⁰⁰ Sec. 35, *Consumer Rights Act 2015* (UK).

³⁰¹ Sec. 36, *Consumer Rights Act 2015* (UK).

First, the new warranties contained in chapter 3 are only a transposition of existing measures of the *Sale of Goods Act* of 1979. Consolidating those warranties in a consumer protection law certainly increases their comprehension and weight. It is now easier for British consumers to invoke this law, which clearly states the legislators' intention to protect digital content consumers by specific measures. This new law clarifies the regulatory framework, thanks notably to the following provision:

33 (2) This Chapter also applies to a contract for a trader to supply digital content to a consumer, if—

(a) it is supplied free with goods or services or other digital content for which the consumer pays a price, and

(b) it is not generally available to consumers unless they have paid a price for it or for goods or services or other digital content.

The provision clearly states that contractual clauses also apply to digital content provided to consumers for free and offering in-app purchases.

c) Australia: government investigation

As in Canada, apps used by Australian consumers are subject to myriad laws, particularly the *Australian Consumer Law*³⁰². This consumer protection law applies to all Australian territories and States. Although it contains no specific provision for in-app purchase apps or for digital content, its provisions apply to in-app purchase transactions. It contains legal warranties of acceptable quality³⁰³, a warranty that the good serves the purpose for which it is intended³⁰⁴ and a warranty that the good matches the description made of it³⁰⁵. The provisions prohibiting false and misleading representations³⁰⁶ also likely apply to freemium apps, as do those for mandatory disclosure of certain elements.

In 2012, following a series of denunciations by several consumer associations³⁰⁷, the Australian government decided to investigate in-app purchases in games intended for children, and issued the first report produced by *Commonwealth Consumer Affairs Advisory Council (CCAAC)*³⁰⁸,

³⁰² *Competition and Consumer Act 2010*- Schedule 2. [Online]

http://www.austlii.edu.au/au/legis/cth/consol_act/caca2010265/sch2.html (page consulted on May 12, 2016).

Among other regulatory frameworks that may cover apps, we find the common law of contracts may be subject, *the Electronic Transactions Act 1999* (Cth)), the laws of States and territories that apply to the sale of goods (for example the *Goods Act 1958* (Vic)); the laws of States and territories regarding minors' capacity to contract (for example the *Minors (Property and Contracts) Act 1970* (NSW)); laws governing precontractual practices and disclosure obligations for mobile payment (for example the *National Consumer Credit Protection Act 2009* (Cth)); and laws governing the collection of personal information (for example the *Privacy Act 1988* (Cth)).

³⁰³ Sec. 54, *Competition and Consumer Act 2010*- Schedule 2.

³⁰⁴ Sec. 55, *Competition and Consumer Act 2010*- Schedule 2.

³⁰⁵ Sec. 56, *Competition and Consumer Act 2010*- Schedule 2.

³⁰⁶ Arts. 29 and fol., *Competition and Consumer Act 2010*- Schedule 2.

³⁰⁷ **CHOICE THE PEOPLE'S WATCHDOG**, *Submission to 'App purchases by Australian consumers on Mobile and handheld devices* 2013. [Online] <http://ccaac.gov.au/files/2013/02/Choice.pdf> (document consulted on May 3, 2016); To view all the documents submitted to the *Commonwealth Consumer Affairs Advisory Council*, the reader can visit the following address: <http://ccaac.gov.au/2013/07/19/app-purchases-by-australian-consumers-on-mobile-and-handheld-devices/>.

³⁰⁸ **COMMONWEALTH CONSUMER AFFAIRS ADVISORY COUNCIL (CCAAC)**, *App purchases by Australian consumers on mobile and handheld devices*, December 2012. [Online] http://ccaac.gov.au/files/2012/12/121212-M-commerce-Final-Issues-Paper_publications.pdf (document consulted on December 14, 2015).

which had invited the parties concerned by the issue of apps downloaded on mobile devices to submit their comments³⁰⁹. The CCAAC investigated the experience of consumers when they download free or paid apps and when they make in-app purchases on mobile devices. The CCAAC examined the following aspects:

- *the characteristics, features and trends of app markets in Australia;*
- *consumer experiences when downloading and using such content, including when used by children;*
- *adequacy of the information being disclosed to consumers about the costs associated when downloading and using this content before and after it is downloaded;*
- *adequacy of existing measures to address any consumer concern, including the legal protections available to consumers, the adequacy of default settings to ensure consumers are making an active decision before incurring additional charges, the availability and ease of use of 'opt out' features, the adequacy of existing parental controls for app stores and how these controls are promoted to consumers, and any other industry initiatives; and*
- *actions that can be taken by consumers, industry and governments to help improve consumer experiences when making in-app purchases, including international approaches³¹⁰.*

A second report was submitted in 2013 concluding that the need to develop a regulatory framework specific to the app industry had not been established³¹¹. However, the government organization notes that more in-app purchases are aggressively offered to consumers and that this raises serious concerns among consumer rights groups³¹². The CCAAC report states that, according to a survey of consumers, less than 20% of "free" apps containing in-app purchases disclosed the possibility of making such purchases³¹³. The report concludes that it is necessary to continue monitoring this new market, particularly regarding issues of refunds and complaint-handling by certain app stores³¹⁴, and it proposes a set of improvements³¹⁵, notably in the way to inform consumers about in-app purchases³¹⁶. The government organization proposes that the industry change its practices *"to ensure that critical information, including about in-app purchases, should be provided to users before they purchase or download an app in a manner that achieves user understanding"*³¹⁷.

³⁰⁹ *Ibid*, p. 3.

³¹⁰ *Ibid*, p. 8.

³¹¹ **COMMONWEALTH CONSUMER AFFAIRS ADVISORY COUNCIL (CCAAC)**, *App purchases by Australian consumers on mobile and handheld devices- Inquiry Report*, July 2013, p. 60. [Online] http://ccaac.gov.au/files/2013/07/M-commerce-Final-Issues-Paper_publications.pdf (document consulted on December 16, 2015). The CCAAC states that it supports the industry if the latter chooses self-regulation and changes its business practices on its own initiative.

³¹² *Ibid*, p. ii.

³¹³ *Ibid*, p. 73.

³¹⁴ *Ibid*, pp. 22 and 79.

³¹⁵ *Ibid*, pp. 60 and fol.

³¹⁶ *Ibid*, p. 60.

³¹⁷ *Ibid*.

The CCAAC wants to pursue discussions with the various stakeholders in order to improve the consumer experience. It also points out that some app stores reported changes to their practices even before the report was published³¹⁸. Despite the Australian government's sustained monitoring of apps and in-app purchases, the industry's voluntary measures do not appear to have better protected Australian consumers – as demonstrated by the many warnings issued by the government and consumer rights groups³¹⁹.

d) The situation in the United States

American consumers also complained about in-app purchases in 2010 and 2011, to the point that in 2011, U.S. Representative Ed Markley asked the *Federal Trade Commission* (hereinafter the FTC) to investigate in-app purchases while verifying the acquisition process and the marketing to children³²⁰. The FTC followed up on that investigation request, to which were added more and more consumer complaints³²¹, and produced in 2012 two reports on apps for children in terms of privacy protection.

The first report, in February, was titled *Mobile Apps for kids: Current Privacy Disclosures are Disappointing*³²², and acknowledged major shortcomings in the disclosure and use of app users' personal information.

The second report, published in December of the same year, pertains more directly to in-app purchases. In *Mobile Apps for Kids: Disclosure Still Not Making the Grade*, the FTC focuses on the specific issue of disclosure in terms of privacy policies and the use of personal information in an app before it is downloaded. After reiterating its disappointment with child privacy protection measures in apps, it concludes that the industry should take more resolute measures to counter this grave problem³²³. In addition to conducting a survey, the FTC, as part of its investigation, downloaded and used 400 applications to examine data collection and sharing practices and to detect interactive features (chatting, access to social networks, advertising and options to make in-app purchases³²⁴.)

³¹⁸ COMMONWEALTH CONSUMER AFFAIRS ADVISORY COUNCIL (CCAAC), *App purchases by Australian consumers on mobile and handheld devices (Reviews)*, July 19, 2013. [Online] <http://ccaac.gov.au/2013/07/19/app-purchases-by-australian-consumers-on-mobile-and-handheld-devices/> (page consulted on December 15, 2015).

³¹⁹ For a few examples, see:

THE SENIOR, *Warning on premium mobile services and In-app purchases*, March 17, 2016. [Online] <https://www.thesenior.com.au/news/warning-on-premium-mobile-services-and-in-app-purchases/> (page consulted on May 5, 2016);

CASTLE, J., *Turning off In-app Purchases*, CHOICE, July 12, 2014. [Online] <https://www.choice.com.au/electronics-and-technology/phones/mobile-phones/articles/turning-off-in-app-purchasing> (page consulted on December 15, 2015).

³²⁰ CHENG, J., *FTC asked to Investigate Kids and In-app Purchases*, ARSTECHNICA, February 9, 2011. [Online] <http://arstechnica.com/apple/2011/02/ftc-asked-to-investigate-kids-making-in-app-purchases-on-ios-android/> (page consulted on January 12, 2016).

³²¹ LAMMI, G. *FTC's Actions On In-App Purchases Reflect Chilling Move Toward 'Mother-May-I' Paternalism*, May 28, 2015, FORBES MAGAZINE. [Online] <http://www.forbes.com/sites/wlf/2015/05/28/ftcs-actions-on-in-app-purchases-reflect-chilling-move-toward-mother-may-i-paternalism/#5a45d9e51aa5> (page consulted on June 7, 2016).

³²² FEDERAL TRADE COMMISSION (FTC), *Mobile Apps for kids: Current Privacy Disclosures are Disappointing*, February 2012. [Online] https://www.ftc.gov/sites/default/files/documents/reports/mobile-apps-kids-current-privacy-disclosures-are-disappointing/120216mobile_apps_kids.pdf (document consulted on September 16, 2015).

³²³ "[...] a disappointing picture of the privacy protections provided by apps for children. These findings should spur more resolute action by industry to address this important issue." *Op. cit.* note 322, FTC, p. 5.

³²⁴ *Ibid.*

Regarding in-app purchases, the FTC issued the following findings:

- 17% (66) of the apps examined offered the option to make in-app purchases of their virtual items³²⁵. This is an increase of 11% compared to the results of the previous survey conducted in 2011³²⁶.
- 84% (56) of the apps studied that contained in-app purchases were marketed as free³²⁷.
- The app stores iTunes and Google Play present certain notices that an app contains in-app purchases; Apple's app store includes a box titled "Top in-App purchases" on the apps' presentation page. By clicking that box, a consumer can consult a list of all available in-app purchases. The FTC thinks that although consumers can view those notices, which are not always displayed prominently, parents don't always understand what in-app purchases are and generally don't understand that their children can make such purchases frequently and that substantial expenditures can be incurred³²⁸.
- Some parents did not know that it was possible for their children to make purchases within an app; and advertising the apps as free adds to the confusion³²⁹.
- An explosion of this problem can be foreseen, given the increased use of the freemium business model; parents must have all necessary information to decide whether they should allow their children to use in-app purchase apps³³⁰.

The government organization concludes:

*[I]ndustry participants must work together to develop accurate disclosures regarding what data is collected through kids' apps, how it will be used, who it will be shared with, and whether the apps contain interactive features such as advertising, the ability to make in-app purchases, and links to social media*³³¹.

As opposed to the other jurisdictions we studied, there have been many lawsuits concerning in-app purchases in the United States. The FTC brought some of the lawsuits, for unfair billing practices contravening sections 5 and 45a) and n) of the *Fair Trading Commission Act*³³². Consumers have also brought class actions.

³²⁵ *Ibid.* p. 6.

³²⁶ *Ibid.* p. 18.

³²⁷ *Ibid.* p. 19.

³²⁸ *Ibid.*

³²⁹ *Ibid.* p. 19.

³³⁰ *Ibid.*

³³¹ *Ibid.* p. 21.

³³² *Fair Trading Commission Act*, 15 U.S.C. See for example the complaint filed against Apple – *In the matter of Apple Inc.-Complaint*. [Online] <https://www.ftc.gov/sites/default/files/documents/cases/140115applecmpt.pdf> (page consulted on January 22, 2016).

Apple

In the lawsuit against Apple, the FTC alleged that the company “*has billed for charges related to activity within software applications (“apps”) consumers download to their iPhone, iPod Touch, or iPad devices (“Apple mobile devices”) from Respondent’s app store*”³³³. The American monitoring organization reproached Apple for having adopted unfair billing practices³³⁴. According to the FTC, practices of billing customer accounts for in-app purchases made by children without the account holder’s prior express consent “*are likely to cause substantial injury to consumers that consumers themselves cannot reasonably avoid and that is not outweighed by countervailing benefits to consumers or competition*”³³⁵. The FTC notably reproached Apple for allowing in-app purchases without authentication within a period of 15 minutes without first informing the account holder³³⁶.

In January 2013, Apple decided to settle out of court with the FTC by paying at least US\$32.5 million to compensate American consumers who estimated they had been misled by Apple’s in-app purchase billing practices³³⁷. In a press release, the FTC Chairwoman declared this a victory for consumers wronged by unfair billing practices³³⁸. She also warned companies: “*whether you’re doing business in the mobile arena or the mall down the street, fundamental consumer protections apply*”³³⁹.

Google Play

The FTC filed a complaint against Google on the basis of the same violations for which it reproached Apple³⁴⁰: billing consumers for in-app purchases without obtaining their prior consent³⁴¹. In September 2014, Google agreed to pay American consumers at least US\$19 million to compensate them for expenses incurred due to in-app purchases made by children³⁴².

An application for authorization to institute a class action was also filed by a consumer who claimed that Google Play had deceived her with in-app purchase billing. Estimating that such a class action would duplicate the one brought by the FTC, the court refused to authorize a legal action that would injudiciously use justice system resources and cost the defenders undue expenses³⁴³.

³³³ *Ibid.* p. 1.

³³⁴ *Ibid.* p. 6.

³³⁵ *Ibid.*

³³⁶ *Ibid.*

³³⁷ *Ibid.*

³³⁸ **FEDERAL TRADE COMMISSION (FTC)**, *Apple Inc. Will Provide Full Consumer Refunds of At Least \$32.5 Million to Settle FTC Complaint it Charged for Kids’ In-App Purchases Without Parental Consent*, January 15, 2014. [Online] <https://www.ftc.gov/news-events/press-releases/2014/01/apple-inc-will-provide-full-consumer-refunds-least-325-million> (page consulted on January 23, 2016).

³³⁹ *Ibid.*

³⁴⁰ *Op. cit.*, note 332, *In the matter of Google Inc.—Complaint*.

³⁴¹ *In the matter of Google Play Inc.—Complaint*, p. 8.

³⁴² **FTC**, *Google to Refund Consumers at Least \$19 Million to Settle FTC Complaint It Unlawfully Billed Parents for Children’s Unauthorized In-app Charges*, September 4, 2014. [Online] <https://www.ftc.gov/news-events/press-releases/2014/09/google-refund-consumers-least-19-million-settle-ftc-complaint-it> (page consulted on January 26, 2016).

³⁴³ *Ilana Imber-Gluck et al. v. Google Inc.*, 5:14-cv-01070-RMW. [Online] <https://docs.justia.com/cases/federal/district-courts/california/candce/5:2014cv01070/275231/65> (document consulted on May 12, 2016).

Amazon

In October 2014, the FTC filed a complaint before the courts against Amazon, alleging the following:

Just weeks after Amazon began billing for in-app charges, consumer complaints about unauthorized charges by children on Amazon's mobile devices reached levels an Amazon Appstore manager described as "near house on fire[.]" In total, parents and other Amazon account holders have suffered significant monetary injury, with thousands of consumers complaining about unauthorized in-app charges by their children, and many consumers reporting up to hundreds of dollars in such charges³⁴⁴.

The lawsuit brought by the FTC in this case differs from the one it had brought against the two other app stores. This one was a request for an injunction under section 13(b) of the *FTC Act*, for violations of the same provisions previously invoked, i.e. sections 5a) and 45a) of the *FTC Act* with respect to the company's in-app purchase billing practices³⁴⁵.

The FTC petitioned the Court to find the following:

- A. Enter a permanent injunction to prevent future violations of the *FTC Act* by Defendant;
- B. Award such relief as the Court finds necessary to redress injury to consumers resulting from Defendant's violations of the *FTC Act*, including but not limited to, rescission or reformation of contracts, restitution, the refund of monies paid, and the disgorgement of illgotten monies; and
- C. Award Plaintiff the costs of bringing this action, as well as such other and additional relief as the Court may determine to be just and proper³⁴⁶.

As opposed to Apple and Google Play, Amazon decided not to reach an out-of court settlement with the FTC. The Federal Court heard the case and rendered a verdict on April 26, 2016³⁴⁷. The Court rejected the request for an injunction at first, estimating that the risk of a recurring violation was absent: "While unauthorized billing of customers, even for small purchases, constitutes part of the substantial harm that Amazon caused customers, and for which monetary damages should be assessed, the Court does not find this to represent a cognizable danger of a recurring violation. Accordingly, the Court finds that injunctive relief is not warranted here, and GRANTS Amazon's Motion for Partial Summary Judgment³⁴⁸."

However, in the end the Court concluded that Amazon is liable for in-app purchases made by children accidentally and unbeknownst to their parents³⁴⁹. The Court therefore ordered a refund of the amounts thus obtained by the company. No refund amount having been determined, the

³⁴⁴ *Federal Trade Commission v. Amazon.com Inc.—Complaint for Permanent Injunction and Other Equitable Relief*, Case No. 2:4-cv-01038, p. 3. [Online] <https://www.ftc.gov/system/files/documents/cases/140710amazoncmpt1.pdf> (document consulted on January 27, 2016).

³⁴⁵ *Ibid.* p. 2.

³⁴⁶ *Ibid.* pp. 11 and 12.

³⁴⁷ *Federal Trade Commission v. Amazon.com, Inc., Redacted Order Granting Amazon's Motion for Partial Summary Judgement and Granting the FTC's Motion for Summary Judgement*, April 26, 2016. [Online] <https://www.ftc.gov/system/files/documents/cases/160427amazonorder.pdf> (document consulted on May 25, 2016).

³⁴⁸ *Ibid.* p.12.

³⁴⁹ *Ibid.* p. 21.

Court invited the FTC and Amazon to make additional representations enabling it to establish the amount of the refund required of the company³⁵⁰.

Facebook

An American consumer brought a class action against Facebook, which had reportedly allowed her minor son to purchase credits with her credit card in an app accessible on that social network³⁵¹.

On January 15, 2016, Facebook and the consumer reached an out-of court settlement. Under that agreement, Facebook pledges to facilitate the refund request process for unauthorized in-app purchases³⁵². In particular, the company pledges to stop indicating in its terms of use that sales are final, but rather to state that “*all funding transactions are final unless required by law*”³⁵³. The company also pledges to inform developers henceforth that in-app purchase transactions may be revoked and to establish a complaint-handling system specific to in-app purchases³⁵⁴.

Although the situation appears far from settled in the United States, it does seem to be the only jurisdiction where consumers wronged by in-app billing practices adopted by app stores have succeeded in obtaining some kind of redress, thanks to the firmness demonstrated by the authorities.

³⁵⁰ **FTC**, *Federal Court Finds Amazon Liable for Billing Parents for Children's Unauthorized In-App Charges*, April 27, 2016. [Online] <https://www.ftc.gov/news-events/press-releases/2016/04/federal-court-finds-amazon-liable-billing-parents-childrens> (page consulted on May 27, 2016).

³⁵¹ *Glynnis Bohannon v. Facebook, Inc.*, Case No. 12-cv-01894-HRL, U.S. District Court, Northern District of California, San Jose Division.

³⁵² **LAFRENIÈRE, M.**, *Facebook Agrees to Settle In-App Purchases Class Action Lawsuit*, Top Class Actions, January 20, 2016. [Online] <http://topclassactions.com/lawsuit-settlements/lawsuit-news/317345-facebook-agrees-to-settle-in-app-purchases-class-action-lawsuit/#comment> (page consulted on February 4, 2016).

³⁵³ *Ibid.*

³⁵⁴ *Ibid.*

Conclusion

The universe of applications, particularly mobile applications, is complex, notably due to the products' intangible nature and great diversity, and to the multiplicity of actors. Device manufacturers, app developers, app stores, mobile or Internet service providers, advertisers and, in some circumstances, payment method managers, are all companies with which consumers using the apps are likely to interact. Among factors inducing consumers to obtain mobile apps, we find the growing use of mobile devices, i.e. smartphones and tablets, and the growing proportion of customers who acquire packages including mobile data. The types of mobile apps used by consumers are many: sports and health apps, games, music apps, etc.

To generate revenues, the app developers apply a variety of methods: selling apps (paymium), advertising, reselling personal information collected from users, and promoting digital goods. In addition to those traditional methods, we find a more and more widespread practice: the option offered to users to make purchases within an app itself. This method, now simply called "in-app" (for in-app purchase) or "achats intégrés," is used both in free and in paid apps. "Freemium" (a contraction of "free" and "premium") apps are downloaded for free, but allow optional purchases to be made within the apps themselves. Freemium differs from premium (a complete or improved version, offered in return for a fee, of a free app with limited features) in that a freemium app, by definition, is an app's complete version, offered without restrictions, but offering optional extras to "improve the user experience."

This new model appears to have become the one most prized by the industry, due to the advantages it offers the various stakeholders. Our research reveals that 72% of the revenues of app stores (through which in-app purchases are transacted, and which garner a percentage of the payments) came from freemium apps in 2013 and 2014.

We now find in-app purchase offers in all types of applications – weather, educational, health, travel, musical, etc.). The goods and services offered through in-app purchases cannot be classified easily, given their number and diversity (avatar clothing, virtual currencies, additional storage spaces, phone minutes, etc.). But we can identify certain constants: for example, in-app purchases of virtual currencies (used afterward in the app to acquire, for example, virtual goods) differ from in-app purchases directly of a good, a service, a feature (subscribing, unlocking a level, acquiring avatars, using without advertisements, eliminating a waiting period, etc.). In-app purchases may also be consumable (additional useful life or virtual currency, which is exhausted once spent) or permanent (the level or feature remains unlocked after purchase). And they may be subscriptions (renewable or not).

Given the popularity of mobile apps, the widespread adoption of the freemium model by developers, and the impressive revenues generated by this business model (already in 2014, daily revenues of \$800,000 from the "free" app *Candy Crush Saga*), it is interesting that only a small percentage of users actually make in-app purchases (according to the sources and the applications, 0.5 to 3%, or an average of almost 2%). Government consumer protection agencies in Canada report very few complaints, and yet the media frequently report cases of consumers denouncing this practice and the problems it has caused them, and several countries have focused on in-app purchases in the last 5 years, as demonstrated by lawsuits that companies have settled for several million dollars.

The process of acquiring in-app purchases is quite similar from one app to the next, whatever the app store from which the app was downloaded: the in-app purchase is made in the app itself and the payment is collected by the app store from which the app was downloaded. This ensures the consumer's continuous and fluid use of the app. The purchase authentication request depends on the settings indicated in the app store. The available options are: never requesting purchase authentication, always requesting authentication, or allowing access to the account without authentication for a given period (15 or 30 minutes) after a first operation. This last option is programmed by default by the app stores, and will apply unless the user changes those default settings. Additional options in the app stores and on certain devices also make it possible to prohibit in-app purchases, which are enabled by default. So we note that depending on the settings chosen, a device's third-party user (many reported cases concern minor children) can make purchases from a subscriber's account without having to enter any password or identification.

Our research revealed, in relation to in-app purchases, several consumer issues, including some that have been of concern to certain foreign jurisdictions. First, qualifying as "free" this type of apps that can lead some users to spend at times considerably can certainly be confusing. It is true that freemium apps can be downloaded and then used, at least in a limited way, absolutely free of charge. It is also true that a great majority of those apps' consumers use them free of charge, without any additional fees or purchases. Nevertheless, most people assume that using an app presented as free presents no possibility of entailing charges.

This risk of confusion having been reported, the main app stores have modified their practices and adopted certain measures to inform consumers (with a notice under the app's name, in the description, under the "key elements" tab, in a caution in the details, etc.). However, the possible benefits of those imperfect measures can be diluted by disclosures that remain insufficient. It is generally impossible to know before downloading apps (only iTunes provides such information) the list and price of the various in-app purchases that will be offered, and even less to obtain a description or information about how indispensable they will be to an app's adequate use.

If a consumer consults the app stores' terms of use or end-user license agreement (EULA) of the apps to find that information, he risks having a lot of difficulty finding it – none of the terms of use we consulted discuss the components or prices of in-app purchases. But our examination of app stores' EULAs and terms of use (documents containing a hundred pages in many cases) revealed clauses we think disadvantage the consumer clearly or lead him to believe he has less rights than in reality and as guaranteed, notably, by consumer protection laws. For example, we identified clauses stating that all sales are final and without any possibility of return (in some circumstances, the app store still grants itself the discretion to make certain refunds). We also identified mandatory arbitration and choice-of-court clauses – prohibited clauses in the consumer protection laws of some Canadian provinces. Of course, the app stores and the developers alike disclaim, contractually, any liability, warranty, etc.

The problems most often reported regarding in-app purchases are purchases made by young children without the account holder's consent. The app stores (and some devices) do make it possible to change settings in order to limit or eliminate that risk. But we must take into account consumers' lack of knowledge about the operation of apps and in-app purchases. Do consumers actually have a sufficient level of digital literacy to know how to access those settings and change them? Even to follow the instructions that could be given to that end? And

before experiencing bill shock, are they aware of the importance of managing those settings? Clearly, this issue of purchase and authentication settings urgently requires a simple and effective solution.

The marketing strategies used for inducing consumers to make in-app purchases are multiple and are broadly used in the apps we analysed. Even industry designers don't hesitate to publish lists of tricks and manoeuvres to develop the habits of mobile game users and thus have them feel an irresistible need to make purchases, remove restrictions, etc. Virtual currency, the "pay or wait" method, the use of colours and other flashy tricks are among the strategies for inducing consumers to make in-app purchases. Those strategies can have particularly pronounced effects on children, who have difficulty distinguishing between the apps' virtual world and reality, tend to want everything immediately, and can click a "buy" button repeatedly and uninhibitedly.

It must be acknowledged that those various methods for leading consumers to download an app, become attached to it and investing in it appear to be very effective. The addictive nature of the *Candy Crush* app, which uses several marketing strategies we mention in our study, speaks volumes on the methods' effectiveness³⁵⁵. And the revenues generated by in-app purchases clearly confirm this.

Those techniques are not new, though. Consumer psychology has been studied and used for a long time to stimulate sales. Overall, the problems experienced by consumers using in-app purchase apps are essentially the same as those they experience with "traditional" consumer transactions. Still, the effects and risks appear more acute in the universe of apps. So it seems important that the industry take note of the problems entailed by in-app purchases and thus adopt practices that, at the very least, don't exploit young children's credulity but rather meet the highest ethical standards.

Is a Canadian consumer who encounters problems with in-app purchases well protected by consumer protection laws in effect?

There are in fact a series of legislative provisions that likely apply to apps and in-app purchases: provisions for interpreting contracts, for regulating distance contracts, against prohibited practices (notably against false representations and, in Quebec, advertising directed at children less than 13 years of age), on legal warranties, provisions of the *Competition Act*, etc. Nevertheless, there appears to be a disconnect between those legal provisions adopted before the digital age and their implementation in the app universe. For example, it's difficult to see how a consumer can consider invoking the legal warranty of use when purchasing a wheelbarrow of smurfberries; or the warranty of reasonable utility or the warranty against hidden defects when purchasing a virtual bridge with virtual currencies acquired with or without payment in real money. It's also difficult to see how the consumer could go to court to demand a refund of virtual goods he has acquired, but then lost when an app froze. Acquisitions of apps and in-app purchases are evidently distance contracts; can we really expect, in the context of mobile communications, a scrupulous observation of legal requirements for precontractual information? And yet, those laws are of public order and should apply in entirety, whatever the technologies used in concluding the consumer contract, or the nature of the goods or services sold. Given the number of grey areas when mobile applications are involved, it should be

³⁵⁵ **SMITH, D.**, *This is What Candy Crush Does to your Brain*, The Guardian, April 1, 2014. [Online] <https://www.theguardian.com/science/blog/2014/apr/01/candy-crush-saga-app-brain> (page consulted In September 2015).

ensured that consumer protection laws are adapted or adaptable to that virtual universe, and can alleviate possible problems.

The problems experienced with in-app purchase apps have also attracted the attention of foreign jurisdictions. In Europe, the United Kingdom, Australia and the United States, increasing consumer complaints about in-app purchases have led to certain actions: studying the scope and causes of the problem, or bringing lawsuits, or adopting specific consumer protection measures. But have those foreign jurisdictions found a solution to the problems experienced with in-app purchases?

The European Union's common positions are merely proposals that appear to have yielded voluntary commitments by some app stores. Critics deplore that those positions are so ambiguous that the margin of manoeuvre left to companies compromises any possible positive effect. Still, some specifics have been brought in freemium descriptions made by app stores. The United Kingdom has favoured a collaborative approach; it published the *Principles for online and app-based games* in 2014 and has encouraged stakeholders to comply with those principles. But the United Kingdom also adopted the *Consumer Rights Act* in 2015, with an entire chapter on digital content. The consumer rights recognized in the Act are essentially those in the *Sale of Goods Act*.

Following several government investigations, the Australian authorities decided to hold discussions with the industry to ensure that consumers can have all the necessary information – including on in-app purchases – before downloading an app, so that consumers may gain a good understanding of their commitments and the app's operation.

In the United States, the *Federal Trade Commission* has taken a hard line and has filed complaints against Apple, Google Play and Amazon for unfair billing practices related to in-app purchases made and billed without the account holder's prior consent. The first two of those companies settled for minimum amounts of \$32 and \$19 million respectively. The Court, which has concluded that Amazon is liable for in-app purchases made accidentally by children unbeknownst to their parents, will determine shortly the amount the company must pay to compensate wronged consumers.

It is very surprising that all those companies, which appear to rely on contractual terms warning the account holder that he is responsible for all purchases made with his account, have still not established a very flexible policy for cancelling without discussion (and free of charge) disputed in-app purchases. And yet, this initiative would clearly demonstrate that a company is aware of certain problems experienced by consumers. And the company would likely not pay significant costs in the process, since the goods provided through in-app purchases are virtual and infinitely reproducible. By refusing to adopt this measure, those companies seem on the contrary to demonstrate that they think they're entitled to charge whatever they want, even from children who click a "buy" button without knowing what they're doing. Is it plausible that the developers expect, along with all legitimately expected revenues, all the amounts to be billed without the account holders' consent?

It's far from certain that consumer problems with in-app purchases would find a definitive solution in the eventual adoption of a specific legislative framework, or in lawsuits that would risk being settled out of court and would only resolve the problem's monetary aspect. The grey areas inhabited by in-app purchases imply that regulations risk lacking a practical effect on

several aspects. The debates about the term “free” to qualify freemium apps constitute a good example of this.

As stated by the FTC Chairwoman, “*whether you’re doing business in the mobile arena or the mall down the street, fundamental consumer protections apply*”³⁵⁶. But good consumer protection requires adequate laws protecting the most vulnerable and not only the majority, without uselessly prohibiting a business model that seems to provide benefits, whether to those who freely download and use those apps or to the minority who agree to pay because they estimate the rules of the game to be fair. The solution to this dilemma would evidently be easier to find if the market’s giants agreed to work in concert with the parties concerned with consumer protection, and tried to find practices acceptable to everyone.

We were able to identify a number of good practices, to better inform consumers about the existence of in-app purchases in apps they want to download and about the type and price of in-app purchases, and to prevent bill shock from unauthorized in-app purchases. The market’s widespread adoption of best practices would already be a step in the right direction (for example, the list that iTunes displays of in-app purchases and their prices at the time of downloading. Also, like Apple, all device manufacturers should provide the option to deactivate on the device itself the possibility of making in-app purchases, whatever the app stores’ settings).

Privacy protection issues were not the focus of our project. Still, in the course of our research we observed enough troubling facts to include this brief reminder in our report’s conclusion.

When installing a mobile application, a consumer has very little information about the personal information to which the application will have access, about the data it will collect among those stored in the device, about the social networks to which the device is connected, or about the use that could be made of all that information. As we have emphasized several times, that consent-based approach leaves a lot to be desired; but those are the rules that apply until further notice. The inadequacy of the apps’ timely disclosures of personal data collection and use is thus very troubling. Moreover, the information required of the consumer as he opens an account in an app store appears occasionally to exceed what should reasonably be necessary for that specific purpose. Privacy laws prohibit collecting personal information unless a company doing so justifies why it needs it. In this context, it hardly seems exaggerated to require mobile app stakeholders to comply scrupulously with those laws, and protect users’ personal information rather than viewing it just as a source of potential revenue.

Lastly, this market is young. If each stakeholder contributes, it should be possible to implement fair commercial practices and ethical marketing strategies – particularly when products are likely to interest children. This would ensure that consumers will not be deceived by in-app purchases, that app developers will make a good living from their work, and that app stores will not be faced with an avalanche of complaints and lawsuits related to in-app purchases.

³⁵⁶ *Op. cit.* note 340, **FTC**.

Recommendations

- Whereas the economics of applications is a complex environment;
- Whereas its actors are multiple and their roles often complementary;
- Whereas use of the freemium model is growing and is more and more popular among consumers;

With regard to qualifying some applications as free and the timely disclosure of in-app purchases

- Whereas according to many critics, advertising freemium apps as free is likely to confuse consumers;
- Whereas foreign jurisdictions have intervened to stop this practice that can lead consumers to believe that using this type of apps, qualified as free, will never entail charges;
- Whereas following those interventions, the app stores have since modified their disclosure practices as to the presence of in-app purchases within free apps;
- Whereas disclosure problems remain in the app stores' terms of use and the apps' EULAs, regarding the in-app purchases offered, their various characteristics and their prices, as demonstrated before an app is downloaded and during its use;
- Whereas it is impossible for a consumer to know, when downloading, to what extent the in-app purchases will actually be optional, i.e. whether the app can be used as intended without those in-app purchases;
- Whereas a consumer is not always able to know when downloading an in-app purchase app to what extent the app will be affected or limited if used without in-app purchases;
- Whereas, although an app is downloaded and used for free, a consumer will still invest time in the app, and in most cases will give access to his personal information and agree to its use in exchange for the app being "free" – a process from which the companies collecting such information can profit economically;
- Whereas freemium apps downloaded for free are found in a very wide variety of app categories;
- Whereas the types of products and services offered through in-app purchases vary in the extreme;
- Whereas the process of acquiring apps and in-app purchases is similar from one major app store to another;

1. Union des consommateurs recommends that the "free" qualifier never be used for marketing in-app purchase apps unless:

- the presence of in-app purchases has equal visibility at every mention that the app is free;
- a clear explanation of what constitutes in-app purchases is made available to the consumer and access to that explanation is simple and evident;
- downloading and using the app are absolutely free;
- the app is perfectly functional without in-app purchases;
- the in-app purchases offered are absolutely optional;
- any restrictions in that free version, compared to a paid version, are clearly indicated;

2. Union des consommateurs recommends that app stores add, to the apps' detailed description, a list of all possible in-app purchases within the app offered, as well as their prices and a short description of each in-app purchase;
3. Union des consommateurs recommends that app stores indicate clearly, when applicable, all the app restrictions that each in-app purchase would eliminate, so that a consumer may know the price for eliminating each restriction;
4. Union des consommateurs recommends that the industry adopt uniform practices so that consumers, whatever the app store or operating system used, may benefit from an equal amount of adequate and clear information when acquiring apps and in-app purchases;

With regard to the settings that allow in-app purchases without authentication

- Whereas the problem most often reported and publicized about in-app purchases is the billing of in-app purchases made without the account holder's consent;
 - Whereas the accounts of app store users are generally linked by default to the payment method designated by the account holder;
 - Whereas the default settings of the major app stores and of certain mobile devices allow that, during a certain period after a first transaction, other transactions, including in-app purchases, can be made from the same account without authentication;
 - Whereas consumers may not be aware of those default settings or of the scope and consequences of that default option;
 - Whereas consumers may lack the necessary digital knowledge for protecting themselves adequately against the risk of in-app purchases being made from their devices without their consent;
 - Whereas the app stores and device manufacturers have much more thorough knowledge than the great majority of users about the settings for purchase options and the relative risks of the various setting options;
 - Whereas the European Union has estimated that default settings allowing in-app purchases without authentication for a certain period should be prohibited and options offering better protection should be offered to consumers, and that the British Office of Fair Trading estimates that users should have to confirm their consent at each purchase;
 - Whereas the American Federal Trade Commission has brought lawsuits that have confirmed that app store account holders cannot be held responsible for transactions to which they did not consent;
 - Whereas it is important to adopt best practices in Canada;
5. Union des consommateurs recommends that the features of app stores and, when applicable, of mobile devices be set by default to prohibit any in-app purchase without authentication;
 6. Union des consommateurs recommends that the ways of modifying those settings be clearly explained to consumers when they open an app store account, when an app offering in-app purchases is being offered for downloading, or at the moment of the in-app purchase itself, and that the various setting options be clearly and objectively explained to the consumer in the setting options' descriptions, so that he can make an informed choice of the settings that will be safest for him;
 7. Union des consommateurs recommends that the app stores take specific measures to inform consumers, when they open a customer account, about the risks of the account being accessed by third parties, notably children, and that the app stores offer automatic secure access settings if the consumer identifies himself as being at risk;

With regard to marketing techniques, particularly for applications likely to be of interest to children

- Whereas developers use every marketing strategy available to them to induce users to make in-app purchases involving the most substantial revenue sources;
 - Whereas some of the marketing tools used can have perverse effects on young app users who don't have the necessary capacity for distinguishing reality from the virtual world;
 - Whereas those techniques used in applications intended for young children are likely to awaken irrepressible urges in them and provoke in-app purchases for which they are not able to make informed choices;
 - Whereas using those marketing techniques to induce children to make commercial transactions raises serious ethical issues;
 - Whereas apps intended for children or likely to be used mainly by them are not always clearly identified as such in the app stores;
 - Whereas commercial practices likely to alter children's economic behaviour substantially or exploit their vulnerability, inexperience or credulity are denounced, so that Quebec's *Consumer Protection Act* prohibits advertising directed at children, a European Union Directive prohibits the exhortation of children in games and apps, and the Office of Fair Trading has indicated that laws in effect in the United Kingdom prohibit the direct exhortation of children;
 - Whereas it is important to adopt best practices in Canada;
8. Union des consommateurs recommends that in-app purchases be banned in apps intended for children or likely to be used mainly by them;
 9. Union des consommateurs recommends that app stores and developers clearly identify as such those apps intended for children or likely to be used mainly by them;
 10. Union des consommateurs recommends that the methods or processes of making in-app purchases in apps likely to be of interest to children be designed and presented to make those methods or processes less fluid, thus limiting the in-app purchases' attractiveness and use for children;
 11. Union des consommateurs recommends that the industry adopt and apply high ethical standards for using marketing strategies and those intended to create habits, particularly regarding applications intended for or likely to be used by young children;

With regard to privacy protection

- Whereas mobile apps are likely to raise numerous privacy issues;
- Whereas our field survey revealed that the collection and use of personal information by app stores and apps are often too summary for consumers to give informed consent to such collection and use;
- Whereas our field survey revealed that collections of personal information can occasionally exceed what seems necessary for a service's sale or delivery;
- Whereas our field survey revealed that privacy policies are often found in long and complex documents that consumers must accept in totality;
- Whereas it is illusory to believe in this context that consumers read those documents in full, while understanding their implications and agreeing with their content, before checking the box that indicates their agreement and that must be checked before any operation can be performed;
- Whereas our field survey revealed that applications do not indicate systematically, even when indicating what data the application must access, why such access is necessary and what use will be made of data thus collected by the application;
- Whereas applications do not generally enable users to allow certain accesses and refuse others, while users most often must authorize the accesses in totality, under penalty of not being able to download or use the application;

12. Union des consommateurs recommends that app stores and developers restrict data access and collection to what is indispensable for delivering the service;
13. Union des consommateurs recommends that app stores and developers allow the consumer to choose which information he agrees to provide and which data access he agrees to authorize;
14. Union des consommateurs recommends that app stores and developers disclose to consumers in a timely manner all necessary information for their informed consent to their data being collected, used or accessed;
15. Union des consommateurs recommends that app stores and developers disclose such information in brief and digestible texts;

With regard to the application of the recommended measures:

16. Union des consommateurs recommends that the industry, i.e. app stores and developers, apply the recommended measures as soon as possible, in a concerted and uniform manner;
17. To assist the industry in implementing the recommended measures, Union des consommateurs recommends that government organizations responsible for consumer and privacy protection establish round tables in which consumer groups would also participate, in order to develop, in the best interest of the parties involved, viable practical solutions;
18. Should the industry fail to apply the recommended measures as soon as possible, Union des consommateurs recommends that governments intervene, in the interest of consumers, to resolve through legislation the problems raised in this study;

With regard to consumers' digital literacy

- Whereas many of the problems or risks identified in our research appear related to consumers' lack of knowledge, particularly of the app universe, their devices' settings, the app stores, and the payment instruments involved;
 - Whereas industry documents explaining how consumers can use the app stores and payment instruments are generally very long and complex, and often presented in formats that discourage reading;
19. Union des consommateurs recommends that governments invest in developing consumers' digital literacy, notably by encouraging and funding such projects as MediaSmarts (HabiloMédias);
 20. Union des consommateurs recommends that app stores and developers provide consumers in a timely manner all the information enabling them to better understand what they are committing to when opening an app store account or downloading or using mobile applications;
 21. Union des consommateurs recommends that app stores and developers provide that information in brief texts and in clear and precise language;

- Whereas provincial government consumer protection agencies receive few complaints about in-app purchases;
 - Whereas consumer protection laws applicable to “traditional” commercial transactions are also applicable to in-app purchase transactions;
 - Whereas various legislative measures exist for protecting consumers effectively, notably regarding distance contracts, legal warranties, misleading statements, and prohibited practices, such as the prohibition, in Quebec, against advertising directed at children under 13 years of age;
 - Whereas there is, however, a disconnect between those regulatory frameworks and the virtual transactions made within applications;
 - Whereas in this context it is difficult to apply and implement some of the consumer protection measures invoked in this study;
 - Whereas our field survey revealed that the apps’ EULAs and the app stores’ terms of use contain prohibited clauses and others leading consumers to believe they have less rights than actually recognized by Canadian laws;
 - Whereas foreign jurisdictions appear to have preferred a collaborative approach to the adoption of new regulatory frameworks specific to apps and in-app purchases;
 - Whereas more-aggressive interventions by American authorities have benefited consumers;
22. Union des consommateurs recommends that the industry, i.e. app stores and developers, review its practices and contracts as soon as possible, in a concerted and uniform manner, to ensure their compliance with the highest principles of consumer protection;
 23. To assist the industry and ensure that the current legislative framework is suitable for all the spheres and practices of that industry, Union des consommateurs recommends that government consumer protection organizations establish round tables in which consumer groups would also participate, to develop, in the best interest of the parties involved, viable practical solutions and to draw a list of best practices in view of their adoption by the industry;
 24. Should the industry fail to collaborate in bringing the necessary correctives to its practices and contracts, Union des consommateurs recommends that government consumer protection agencies undertake all available legal proceedings to penalize any infraction of the laws under their purview and to intervene, in the interest of consumers, to have new legislation resolve the problems raised in this study and for which the current consumer protection laws do not provide adequate solutions.

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ANNEX 1: Marketing Expertise, Saïd Zouiten

ANNEX 2: *Curriculum Vitae*, **Saïd Zouiten**

ANNEX 3: *Curriculum Vitae*, **Thiéry Adam**

ANNEX 4: Survey Questionnaires
