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# **CONTEXT OF THE INTRODUCTION OF “FROGANS SITES” ON THE INTERNET**

July 2013

**OP3FT**

**Organization for the Promotion, Protection and Progress  
of Frogans Technology**

# **Organization for the Promotion, Protection and Progress of Frogans Technology**

## **PREFACE**

**This document is published by the OP3FT, the non-profit organization whose purpose is to hold, promote, protect and progress the Frogans technology in the form of an open standard for the Internet, available to all users, free of charge.**

**This document presents the context of the introduction of Frogans sites on the Internet.**

**This document is intended for all those who are interested in the introduction of Frogans sites on the Internet, regardless of their role in the ecosystem: end users, publishers of on-line content, intellectual property attorneys, lawyers, graphic designers, developers, hosting service providers, etc.**

**This presentation is published and archived on the official Web site of the Frogans technology at the following permanent URLs (Uniform Resource Locators):**

**- in English: *<https://www.frogans.org/en/resources/context/access.html>***

**- in French: *<https://www.frogans.org/fr/resources/context/access.html>***

## INTRODUCTION

**The forthcoming introduction of Frogans sites on the Internet represents a new step in the development of the Internet.**

**Frogans sites are a new type of site on the Internet that provide publishers of on-line content and end users all over the world with key advantages in terms of security and simplicity.**

**The Frogans project was started in 1999. Since 2012, it has been led by the OP3FT, a non-profit organization acting in the public interest.**

**Following the example of what happened with the Web between 1994 (creation of the World Wide Web Consortium) and 1997 (passing the threshold of a million Web servers on line), the OP3FT aims that an ecosystem flourish on top of the Frogans technology, fostering employment, innovation and economic development.**

**The primary objective of this document is to provide the different stakeholders of the ecosystem with essential information to allow them to understand the context in which Frogans sites are introduced on the Internet, so that they can benefit from them, if they wish, for their activities.**

**This document has two parts: 1) the current situation concerning the publication of content on the Internet before the introduction of Frogans sites and 2) the place of Frogans sites on the Internet and the problems they will solve.**

**This document will be updated periodically.**

**The OP3FT welcomes suggestions for improving the content of this document. Suggestions, questions and comments on the content of this document should be posted on the mailing list: “early-questions@lists.frogans.org”.**

**The language of this mailing list is English.**

**Subscription to this mailing list is free of charge. It is accessible at the following permanent URL: *<https://lists.frogans.org/early-questions/>***

**The archive of posts to the list is publicly accessible at the same URL.**

# TABLE OF CONTENTS

## **1 CURRENT SITUATION**

- 1.1 GLOBAL FUNCTIONING OF THE INTERNET
- 1.2 THE PROBLEMS FACED BY PUBLISHERS OF ON-LINE CONTENT

## **2 THE INTRODUCTION OF FROGANS SITES ON THE INTERNET**

- 2.1 A NEW SOFTWARE LAYER ON THE INTERNET
- 2.2 A SIMPLE SOLUTION TO MAINTAIN RELATIONS WITH END USERS

# **1 Current situation**

## **1.1 Global functioning of the Internet**

Before considering what Frogans sites provide Internet users and the problems they will solve, it is worth recalling how the Internet as a whole works:

- (1) The Internet, whose development was initiated in the early 60s, is a network for transporting data between connected devices (computers, tablets, smartphones, etc.).
- (2) A software layer on the Internet is a system, in the service of users, which uses the Internet to transport data.
- (3) The two most well-known software layers on the Internet are E-mail and the Web. These software layers use the Internet to transport messages and Web pages respectively. They are made available to all, free of charge and in perpetuity.
- (4) The existing software layers on the Internet such as E-mail and the Web have greatly contributed to the dissemination of the Internet around the world, and led to the emergence of new economic players who have taken advantage of new opportunities (Yahoo!, Amazon, eBay, Google, Facebook, etc.).
- (5) Due to the massive use of these software layers around the world, especially the Web, most people have lost sight of the fact that the Internet continues to be an open space for technological innovation and that it is possible to freely introduce new software layers on the Internet to meet the changing needs of users.
- (6) The introduction of a new software layer on the Internet is possible so long as those responsible for this introduction can cope with the sheer number and diversity of users. [Note 1.]

## **1.2 The problems faced by publishers of on-line content**

In recent years and especially since the advent of mobile devices, content publishers who publish Web sites on the Internet face increasing difficulties maintaining relations with end users.

Indeed, end users, who are more and more frequently using their mobile devices to access the Internet, also increasingly favor the use of mobile apps over Web sites. [Note 2.]

End users' enthusiasm for mobile apps can be explained by the fact that they are much easier and more convenient to use than Web sites, even when the latter have been adapted for browsing from a mobile device. Indeed, mobile apps can draw directly on the resources of the mobile device and have access to all its features.

However, for on-line content publishers, the development, distribution and maintenance of a mobile app is a much more complex and costly project than publishing a Web site.

Regarding updates for example, updating a Web site is instantaneous: once the relevant Web pages have been modified, these can simply be uploaded to the server where the Web site is hosted. By contrast, updating a mobile app is painstaking: it first requires the development of the new version of the mobile app – a complete software in itself – then inviting users to download and install the new version on their device. And this operation has to be carried out for each type of mobile device, using separate programming languages that are mutually incompatible, in a context where new devices are appearing all the time. Moreover, in the case where the update must be approved by an application distribution platform (“Store”), additional time is required before users can download and install the new version of the mobile app.

These difficulties account for the fact that, proportionately, very few mobile apps are being developed in comparison with the number of Web sites on the Internet. [Note 3.]

In any case, even if these mobile apps were created en masse, end users probably could not install thousands on their device. Indeed, besides the problem of storage (mobile devices having a limited storage capacity), several factors deter end users from installing many mobile apps on their devices.

For example, the time it takes to download and install a mobile app before it can be used is a real constraint for end users on the move, who are often in a hurry. Furthermore, it is often necessary to be connected to a Wi-Fi network to install or update certain heavy mobile apps, and this type of network is not always accessible. Another deterring factor for the end user is that each installation of a mobile app comes with the risk that it may introduce malware (malicious software) onto his mobile device. This risk is difficult to mitigate. And even when the author of the mobile app is known, the end user knows that by allowing the mobile app to access his personal data on the device, he is exposed to the risk that his personal data will be passed on and used without him being aware of it.

Around the world, only a few hundred thousand publishers (at most) of on-line content have the means to invest in projects to develop mobile apps in the long term.

The vast majority of content publishers publishing Web sites, in their tens of millions, have neither the time nor the means allowing them to create mobile apps.

Neither do these publishers of on-line content have the time nor the means allowing them to create and maintain dozens of versions of their Web site in view of the number and range of devices, present and future, that will display their site. [Note 4.]

For all these reasons, publishers of content on the Internet are becoming increasingly isolated from end users.

Paradoxically, in a world of thriving and constant technological innovation, the means at the disposal of content publishers allowing them to publish freely, i.e. outside the confines of spaces owned and managed by commercial companies (known as “walled gardens”), are becoming increasingly inaccessible due to their complexity and cost.

This situation has become a concern for publishers of on-line content and services since they know that their presence on the Internet is vital in today's world, whatever their activity.

## **2 The introduction of Frogans sites on the Internet**

### **2.1 A new software layer on the Internet**

In this context, a project for the introduction of a new software layer on the Internet, referred to as the Frogans layer, was launched in 1999 with a view to allow the publication of a new type of site on the Internet.

After 14 years of research and development, Frogans sites are about to appear on the Internet. [Note 5.]

The users of this new software layer will be, on one hand, the publishers of Frogans sites who will publish content and services using this new type of site on the Internet and, on the other, end users who will browse these Frogans sites by means of specific software, Frogans Player, which will be downloadable free of charge from the OP3FT.

### **2.2 A simple solution to maintain relations with end users**

A key advantage of Frogans sites is that they provide publishers of on-line content with a simple solution allowing them to maintain relations with end users across all devices, present and future.

In a context where the number of device types is increasing, publishing a Frogans site is much easier than publishing a Web site. Unlike Web sites, it is not necessary to make several versions of a Frogans site in anticipation of the different devices that will display the site, including different screen sizes. [Note 6.]

A Frogans site is developed only once, and it will be rendered in exactly the same way, down to the pixel level, on all devices, fixed and mobile, present and future. Unlike Web sites, it is quick for a publisher of on-line content to validate the publication of a Frogans site, since a single test is sufficient on the device of his or her choice, fixed or mobile.

For end users, Frogans sites are very simple and enjoyable to use. All they need to do to be able to browse Frogans sites is install a free-of-charge software on their device. This software, Frogans Player, makes it possible to browse Frogans sites just as a Web browser makes it possible to browse Web sites.

The way of browsing Frogans sites is intuitive and won't require any additional learning.

For example, on mobile devices with a touch screen, once a Frogans site has been opened, a hand and a finger are all that is needed to browse. Another example: Frogans sites can be opened simply by entering the Frogans address that identifies the site or by clicking on a link that contains this address (hyperlink in a Web page, QR code, etc.). A final example: unlike URLs that are used to identify Web pages, Frogans addresses are short. And they do not include any



character with a technical meaning, except the asterisk “ \* ” that characterizes a Frogans address, in the same way that the at sign “@” characterizes an E-mail address.

Browsing a Frogans site does not compromise the security of the device nor the privacy of its user. Hence, end users can explore Frogans sites published on the Internet without fear, exchange Frogans addresses among themselves and rediscover a sense of content discovery on the Internet.

End users are not restricted to a limited number of published content and on-line services since Frogans sites are not installed on the device. Just like Web sites, Frogans sites are accessed page by page.

## NOTES:

1. See the report of the ITU (International Telecommunication Union) of February 2013, entitled The World in 2013: ICT Facts and Figures (<http://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2013.pdf>), which predicts that the number of Internet users will reach 2.7 billion people, or 39% of the world population by the end of 2013. See also the report from Verisign Inc. of April 2013, entitled The Domain Name Industry Brief, Volume 10 (<http://www.verisigninc.com/assets/domain-name-brief-april2013.pdf>), which indicates that there were 252 million domain names in the world at the end of 2012, up 11.8% from the previous year.

2. See the report from Nielsen Norman Group of June 10, 2013, entitled The Cross-Platform Report: A Look Across Screens (<http://www.nielsen.com/us/en/reports/2013/the-cross-platform-report--a-look-across-screens.html>), in which it is stated that U.S. smartphone users spend about 25 hours per month on mobile apps, and just 4 hours on mobile Web.

3. See Netcraft survey of June 2013, entitled June 2013 Web Server Survey (<http://news.netcraft.com/archives/2013/06/06/june-2013-web-server-survey-3.html>), which shows that the number of active Web sites is estimated at 187.9 million. See also the press release of the Apple company, of May 16, 2013, entitled Apple's App Store Marks Historic 50 Billionth Download (<http://www.apple.com/pr/library/2013/05/16Apples-App-Store-Marks-Historic-50-Billionth-Download.html>), which indicates that there are 850,000 mobile apps for iPhone, iPad and iPod. See also the figure of 700,000 mobile apps for Android provided by the Google company in March and June 2013 (<http://officialandroid.blogspot.fr/2013/03/celebrating-google-plays-first-birthday.html> et <http://play.google.com/about/apps/>). These data show that taking into account the two platforms that currently dominate the market, the proportion of the number of mobile apps in relation to the number of active Web sites is merely 0.8%.

4. A publisher of on-line content who wants to adapt his Web site for browsing from mobile devices needs to create and maintain as many versions of his Web site as there are types of mobile devices. He needs to take into account, for example: the size of the screen, its pixel density (“dot pitch”), the means of interaction with the user, Web functionalities that are not supported by all Web browsers, etc. He also needs to test each version of his Web site on the mobile devices concerned to ensure that the results are fully consistent with his expectations. To

*simplify the carrying out of these tasks, dozens of development environments (“frameworks”) have been created on top of HTML, CSS and Javascript. Many examples of frameworks can be found by typing the terms “mobile”, “javascript” and “frameworks” into Web search engine, such as Google for example (<https://www.google.com/search?q=mobile+javascript+frameworks&ie=utf-8>).*

*However, the use of these frameworks poses a variety of problems for content publishers. For example, Web sites for mobile devices that are generated by these frameworks tend to look similar, limiting the creative possibilities of publishers of on-line content and preventing them from distinguishing themselves from each other in the eyes of end users. Another example: using a framework leads publishers of on-line content to be dependent on the individuals or organizations who develop this framework, a situation which can become critical if these individuals or organizations stop its development or maintenance. The solution of “responsive design”, which consists in integrating technically within a main Web site the different versions of the Web site created for mobile devices, does not reduce the complexity and costs of developing and maintaining these different versions of the Web site – whether the “responsive design” is implemented at the level of the Web browser, i.e. directly in the code of the Web pages, or on the fly at the level of the Web server.*

5. See the OP3FT Bylaws (<https://www.op3ft.org/en/resources/bylaws/access.html>), which include, in the preamble, information on the origin and history of Frogans project.

6. Even if the publisher of a Frogans site had the intention to adapt the content of his or her Frogans site to the type of device used by the end user, he or she could not do so automatically. See the OP3FT Bylaws (<https://www.op3ft.org/en/resources/bylaws/access.html>), which describe, notably in the preamble, the basic principles of functioning of the Frogans technology. In respect of the privacy of end users, these principles establish that the Frogans Player software does not communicate to the servers that host Frogans sites any technical information regarding the type of device used by the end user. By means of the content on his or her Frogans site a publisher of on-line content is, nevertheless, free to ask end users which type of devices they use, and end users are free to respond or not.