## BABEŞ-BOLYAI UNIVERSITY CLUJ-NAPOCA

# FACULTY OF MATHEMATICS AND COMPUTER SCIENCE SPECIALIZATION DISTRIBUTED SYSTEMS IN INTERNET

#### **DISSERTATION THESIS**

## **Thesis Title**

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June 10, 2018

## UNIVERSITATEA BABEŞ-BOLYAI CLUJ-NAPOCA

FACULTATEA DE MATEMATICĂ ȘI INFORMATICĂ SPECIALIZAREA SISTEME DISTRIBUITE ÎN INTERNET

#### LUCRARE DE DISERTAȚIE

## Thesis Title

Absolvent: BREBAN Sergiu Conducător științific: Dr. COJOCAR Dan, Lector Universitar

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## Abstract

# FACULTY OF MATHEMATICS AND COMPUTER SCIENCE SPECIALIZATION DISTRIBUTED SYSTEMS IN INTERNET

Master's degree

**Thesis Title** 

by BREBAN Sergiu

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## Chapter 1

## Introduction

#### 1.1 Parental controls

#### 1.1.1 Overview

Parental controls developed in the digital era as a means to allow parents to restrict the access of content to their children and may be included in digital television services, computer and video games and mobile devices. The content may not be appropriate for their age and is aimed more at adult audiences. The characteristics of inappropriate content depends for each parent, and is also correlated with the child's age and maturity level and includes information and images that can upset the child, inaccurate information or information that can cause dangerous behavior. Some of this content could be:

- pornographic material
- content containing swearing
- sites that encourage vandalism
- pictures, videos or games which shows images of violence
- gambling sites
- unmoderated chatrooms

It is very easy for the child to stumble upon unsuitable sites by accident on any internet enabled device, like mobile phone or tablet and it can be difficult to monitor and filter the content. (*Inappropriate Content*)

Parental control solutions fall into four categories:

- content filters, which limit access to different types of inappropriate content
- usage control, which works by constraining the usage of certain devices by placing time-limits on usage or forbid some types of usage
- computer usage management tools, which enforces the use of certain software
- monitoring, which can track the activity when using the devices

The rising availability of the Internet increased the demand for methods of parental control that restrict content. Mobile phones offer the most convenient and constant method for content access, and teens ages 13 to 17 are going online frequently. A study by Pew Research Center found that 92% of teens report going online daily, 24% of which are using the internet almost constantly, 56% going online several

#### Frequency of Internet Use by Teens

% of teens ages 13 to 17 who use the internet with the following frequencies



Source: Pew Research Center's Teens Relationships Survey, Sept. 25-Oct. 9, 2014 and Feb. 10-Mar.16, 2015. (n=1,016 teens ages 13 to 17).

PEW RESEARCH CENTER

FIGURE 1.1: Frequency of Internet Use by Teens

times a day and 12% reporting once a day use. Only 6% go online weekly and 2% less often. (Lenhart et al., 2015)

The same study finds that nearly three-quarters have or have access to a smart-phone and only 30% have a basic phone and 12% of teens 13 to 17 have no cell phone of any type.

#### 1.1.2 Techniques

#### 1.1.3 Content filters

The increased use of mobile devices has created a demand for parental controls for these devices. The first carrier which offered age-appropriate content filters was Verizon, in 2007. With the release of iPhone OS 3.0 in 2009, Apple introduced a mechanism to create age brackets for users, to block unwanted applications from being downloaded.

### 1.2 A self regulation approach

# **Chapter 2**

# Content-control software and providers

# **Chapter 3**

# A self regulation approach

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