

Developments and Opportunities for Facial Recognition Technology in the Smart Retail, Transport, Financial Services, and Automotive Applications Industry

https://marketpublishers.com/r/D855EE149CFEN.html

Date: October 2018

Pages: 70

Price: US\$ 5,000.00 (Single User License)

ID: D855EE149CFEN

Abstracts

Facial recognition technology has been commercialized since the late 1990s. However, it did not quite get the attention it deserved until the September 11 attacks. Since then, market demand for advanced human-machine interaction interfaces soared in national security and personal property security in light of the rising awareness on anti-terrorism, the change in economic activities from traditional offline transactions to e-commerce and the lifestyle evolution which now craves for smart living. This report provides an overview of the facial recognition development in the smart retail, transport, financial services, and automotive application industry; examines advantages and disadvantages of the technology in the abovementioned industries; highlights the use cases and applications that have the highest growth potential in driving the implementation of facial recognition in these four industries.



Contents

1. INTRODUCTION TO FACIAL RECOGNITION TECHNOLOGY

2. THE RETAIL INDUSTRY HAS STRONG DEMAND FOR DATA WHILE TRANSFORMING

- 2.1 Transformation Underway
- 2.2 Customer-centric Retail Model Needs Data Support

3 DEMAND FOR DATA BRINGS NEW OPPORTUNITIES FOR FACIAL RECOGNITION

- 3.1 Winning Back Lost Consumers as the Start Point of a Consumer-centric Retail Model
 - 3.1.1 Execution is the Key
- 3.2 Online Retailers Seize Potential Consumers with Retargeting (Data Analytics)
- 3.2.1 Big Data Analytics as a Major Means for Retailers to Retarget Consumers
- 3.3 Physical Retailers to Better Compete with E-commerce Retailers with More Precise Data via Facial Recognition
 - 3.3.1 Facial Recognition Makes Consumer Identity and Attribute Information Available

4. FACIAL RECOGNITION REINFORCES PHYSICAL RETAILERS' ADVANTAGES AND REDUCE DISADVANTAGES

- 4.1 Facial Recognition Enhances In-store Shopping Experience
 - 4.1.1 Turn Shopping into an Experience
- 4.1.2 Facial Recognition Helps Collect Consumer Behavior Data and Optimize Shopping Experience
- 4.2 Facial Recognition Helps Physical Retailers Reduce Operation Costs
- 4.2.1 Data and Automation as Key to Effective Allocation and Reduction of Human Resources
 - 4.2.2 Data and Logistics as Key to Warehouse Inventory Management

5. MATURE SOFTWARE AND HARDWARE SYSTEMS REDUCE INTRODUCTION COST

5.1 Enhancement in PC Performance and Maturity of Recognition Technology Drives Facial Recognition towards Commercialization



6. PRIVACY A STUMBLING BLOCK TO FACIAL RECOGNITION

- 6.1 Winning the Hearts of Consumers with Practical Benefits to Reduce Objection to Facial Image Collection
- 6.2 Retailers' Brand Image Influences Consumers' Acceptance of Facial Recognition

7. APPLICATION CASES OF FACIAL RECOGNITION TECHNOLOGY IN TRANSPORT INDUSTRY

- 7.1 Transport Management System
 - 7.1.1 Immigration Inspection: Automated Gate System at Japanese Narita Airport
 - 7.1.2 Crime Tracking: Security System at China's Hohhot Railway Bureau
- 7.2 Air Transport Industry
 - 7.2.1 Passage Management: KLM's Boarding System
- 7.3 Land Transport Industry
 - 7.3.1 Crime Prevention: Uber's Driver Verification System in the US
 - 7.3.2 Permission Management: Chinese Didi Chuxing's Car Rental System
- 7.4 Car and Automotive Electronics Industries
 - 7.4.1 Driver Alerts: Japanese Omron's Driver Concentration Sensing Technology
 - 7.4.2 Behavior Analysis: German Bosch's Concept Car

8. APPLICATION OF FACIAL RECOGNITION IN THE TRANSPORT INDUSTRY

- 8.1 Mainly Used in Public Transport and Infrastructure for ID Authentication Purposes
- 8.2 Online Car-Hailing Service Providers Use Facial Recognition to Prevent Crimes
- 8.3 Car Industry Widely Use Facial Recognition for Car Design

9. OPPORTUNITIES FOR FACIAL RECOGNITION IN THE TRANSPORT INDUSTRY

- 9.1 National Policies Accelerate the Adoption of Facial Recognition in Public Transport Worldwide
- 9.1.1 Facial Recognition Leapfrogs Ahead as Iris and Fingerprint Recognition Fail to Meet Expectations
 - 9.1.2 ICAO's Implementation Ensures Facial Recognition Development
- 9.1.3 Adoption of Facial Recognition from Passports to e-Gate Systems is Progressively Done
- 9.2 Smart Cars Create New Opportunity for Facial Recognition



10. USE CASES OF FACIAL RECOGNITION TECHNOLOGY APPLICATION IN THE FINANCIAL SERVICES INDUSTRY

- 10.1 MasterCard Focuses on Increasing Consumption and Preventing Unauthorized Use
- 10.2 China's Bank of Jiangsu Take Aims at Offering Convenient Withdrawal Service and Preventing Unauthorized Use
- 10.3 Japan's Daiwa Securities Group Aims to Enhance Work Efficiency and Personal Information Protection
- 10.4 China's Ping An Focuses on Shortening the Time for Credit Investigation and Lowering Loan Risks
- 10.5 US HSBC Works on Accelerating Financial Services Process
- 10.6 Japan's Mizuho Bank Take Aims at Marketing and Offering Customer Services

11. ANALYSIS ON THE APPLICATION MODEL OF FACIAL RECOGNITION TECHNOLOGY

- 11.1 Identity Authentication is the Major Purpose of Facial Recognition Technology
- 11.2 A Higher Proportion of Financial Services Industry in China Uses Facial Authentication
- 11.3 Facial Authentication is Commonly Used for Staff Management in the Japanese Financial Services Industry

12. FUTURE PROSPECTS OF FACIAL RECOGNITION TECHNOLOGY IN THE FINANCIAL SERVICES INDUSTRY

- 12.1 Fintech is Major Growth Enabler but It Does Not Particularly Favor Facial Authentication
- 12.2 Consolidating Facial Recognition Technology into Mobile Devices is Key 12.2.1 Vein Authentication is Mainly Used in ATM Machines. Iris and Facial Authentication are Joining the Game in Recent Years.
- 12.2.2 Smartphones have Become Major Means in Financial Services Development; Vein Authentication and Facial Authentication Have Great Potential

13. DEVELOPMENT OF FACIAL RECOGNITION TECHNOLOGY FOR AUTOMOBILES

- 13.1 Widespread Use of Biometric Technologies in Automotive Applications
- 13.2 Smart Cars Bringing New Opportunities for Facial Recognition



14. DEVELOPMENT OF FACIAL RECOGNITION PATENT APPLICATIONS

- 14.1 Patent Search
- 14.2 Trends in Patent Applications
 - 14.2.1 US and Japan Jointly Hold Over 80% of USPTO Patent Grants
 - 14.2.2 Majority of Assignees are Automobile Vendors

14. DEVELOPMENT TRENDS OF FACIAL RECOGNITION TECHNOLOGY AND APPLICATION AREAS

- 14.1 Applications Focus Mainly on Facial Detection
- 14.2 Majority of Patent Grants are for Security Purposes
- 14.2.1 60% of Patent Grants Are on Driving Safety Enhancement
- 14.2.2 Driver's Attention Level is Enhanced
- 14.2.3 Potential Causes of Distracted Driving is Reduced
- 14.2.4 System Operation Enhancement as Another Key Development Focus
- 14.3 Other Applications
 - 14.3.1 Entertainment
 - 14.3.2 Employee Performance or Insurance Fee Assessment for Private Companies

MIC Perspectives

Appendix

Glossary of Terms

List of Companies



List Of Tables

LIST OF TABLES

- Table 1 Facial Recognition Applications in the Transport Industry Worldwide
- Table 2 National Policies and Programs for Biometric Identification Systems
- Table 3 Automotive Product Manufactures and Their Biometric Technology
- Table 4 Case of Facial Recognition Technology in Financial Services Industry
- Table 5 Biological Feature Recognition in Financial Services Industry
- Table 6 Iris and Facial Recognition Technology for ATM Machines
- Table 7 Biometric Recognition Technologies Adopted in Automotive Industry
- Table 8 Patent Search Settings and Results



List Of Figures

LIST OF FIGURES

Figure 1 Applications of Facial Recognition Technology

Figure 2 Renting Process of DiDi Car Rental

Figure 3 Omron's Driver Concentration Sensing Technology

Figure 4 Facial Recognition Procedures of MasterCard Online Payment

Figure 5 Ten Plans Proposed by the Financial Supervisory Commission R.O.C (Taiwan)

for Fintech Development

Figure 6 Distribution of Facial Recognition Patent Grants by Country of Origin

Figure 7 Distribution of Patent Grants by Assignee

Figure 8 Major Purposes of Facial Recognition for Automotive Applications

Figure 9 Steps in the Facial Recognition Process57

Figure 10 Facial Recognition Patents for Automotive Applications by Technology Type

Figure 11 Facial Recognition Patents for Automotive Applications by Application

(Excluding Law Enforcement Applications in Public Sectors or Business Applications in Private Sectors)

Figure 12 Patent Title: Sensing and Managing Vehicle Behavior Based on Occupant Awareness

Figure 13 Patent Title: Adjusting Speakers Using Facial Recognition Technology



I would like to order

Product name: Developments and Opportunities for Facial Recognition Technology in the Smart Retail,

Transport, Financial Services, and Automotive Applications Industry

Product link: https://marketpublishers.com/r/D855EE149CFEN.html

Price: US\$ 5,000.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

Payment

First name:

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/D855EE149CFEN.html

To pay by Wire Transfer, please, fill in your contact details in the form below:

Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at https://marketpublishers.com/docs/terms.html

To place an order via fax simply print this form, fill in the information below and fax the completed form to $+44\ 20\ 7900\ 3970$

