

Age estimation by facial analysis based on applications available for smartphones

Thais Uenoyama Dezem ¹

Ana Luisa Rezende
Machado ²

Ricardo Henrique Alves
da Silva ³

¹PhD Student, Forensic Odontology, Dental School, Piracicaba Campinas State University

²DDS, University of São Paulo, School of Dentistry of Ribeirão Preto

³PhD Professor, Forensic Odontology, University of São Paulo, School of Dentistry of Ribeirão Preto

Corresponding author:
ricardohenrique@usp.br

ORAL PRESENTATION

J Forensic Odontostomatol
2017 Nov 1; Supp1(35): 53
ISSN :2219-6749

ABSTRACT

For the clarification of civil and criminal liability issues in the identification of living persons as well as dead people the age estimation plays an important role in Forensic Dentistry. The methods of age estimation by teeth have been widely used for these issues because they are conservative, easy, fast, low cost and high reliability methods. The classical methods such as clinical radiographs are used for this purpose. With the advent of technology new methods are being studied and tested so that the age estimation becomes increasingly accurate and fast to execute. Currently the use of smartphones is increasingly common in this digital era. With the advent of social networking and increasing social inclusion the popularization of the use of these devices for face registration, through selfies, and casual smile photographs has been growing every day. The face and the smile are usually the central part of a visual examination. A crucial aspect that impacts the perception of attractiveness is age, since attractiveness and age are often socially related. One way to investigate these aspects without the subjectivity of the human being is to use the applications of cell phones or computers. The aim of this study was evaluate the use of some different apps: "How Old Do I Look? - Age Camera" (Lucky Studio Games, USA), available for the Android system, and "How Old Am I? - Age Camera, Do you look like in the face of Selfie Pic?" (Liu Wang, China), found in iOS software, in the analysis of age estimation and its utilization in forensic dentistry expertise. As well as the factors that influence on image processing for applications such as facial expression change. A sample of 100 individuals, 50 females and 50 males were used. Six photographs were taken in the total of each individual, sitting, in a straight position with white background, being 3 of them smiling and 3 with natural expression. The results show great reliability when used for males, whereas for females there is no equivalent between the actual age and the estimated age. It can be concluded that this procedure can be used as an auxiliary method in estimating age, since it is limited to changes in the facial appearance of environmental and/or genetic origin.