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FORMING THE DATABASE OF MEDICAL CLOTHING

Purpose. *The purpose of the study is to investigate the features of medical clothing in order to form the database of the images of medical clothes.*

Scientific novelty. *For the first time the method of semantic differential was used to investigate the perception of medical clothing of Ukrainian medical personal. It allows forming the database of medical clothing images taking into account impression of the clothes as well as its design elements.*

Practical value. *Practical value is database of images of medical clothing that cause specific impressions onto the person.*

Keywords: *medical clothing, Kansei words, perception.*

Objectives. The main objective of the study is to organize the database of properly labelled images of medical clothing of Ukrainian doctors, nurses and other medical personal. Such database is the first step to performing automatic reviews, online searching and forming descriptions of garments. Based on the results of previous work [1], it was considered advisable to use as labels specific features of the particular garment type rather than its name because the features are standard and can be determined specifically.

Methodology. Consumer impressions from medical clothes were assessed with the help of method of semantic differential, which is described in [2]. Categorical principal components analysis was used to graphically display the relationship between the garment features that result in significant differences in appearances or impressions of the medical clothes. The chosen method optimizes distances between objects and it is very useful for the primary interest is difference or similarity between the objects.

Research results. In order to use categorical principal components analysis, which would be performed with tools of the package PASW Statistics, every single garment was described with a code, which consisted of Arabian numerical codes of certain features of the garment (table 1). The list of the considered features is as follows: silhouette (S), length (L), form (F), toggle-fastenings (TF), fastenings (Fs), yoke (Y), pockets (P), hood (H), trimming (T), collar (C), seams (Ss), Cut (Cut), Garment type (Gt). The considered garments were coded according to the developed code system, example of which is displayed in the table 1.

Table 1 – **Example of the code system**

Code	Silhouette	Code	Sleeve	Code	Form
1	Fitted	1	Set-in sleeve, long	1	Rectangular
2	Semi-fitted	2	Set-in sleeve, elbow-length	2	Trapezoid (long base down)
3	Loose	3	Set-in sleeve, short
...

Besides that, photos of clothes were valued using valuation factors in bipolar scales defined by verbal antonyms of Kansei words. Thus, each image was represented as a list of the average meanings of the estimated coefficients of semantical differential, which is called psychographic profile, for six pairs of Kansei words: symmetry - asymmetry (SA), bright – soft (BS), casual – smart clothes (CS),



transparent – non-transparent (TN), folk – modern clothes (FM), trapezoid shape (long base down) – trapezoid shape (long base up) (TdTu).

The database of images along with their codes both of design features and of emotional impressions is formed in MsExcel and prepared to be used for the categorical principal analysis.

Conclusion. As a result of the current research, the database of medical clothing images was formed. Thus, the input data to apply deep learning in apparel design were prepared.

References

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