

THE AWARENESS OF ETHICAL DESIGN PRINCIPLES IN MEDIA DESIGN EDUCATION

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Abstract: *Designers today, through the creation of media content, do not only create a media construct, but they also participate in the creation of social values, norms, and common patterns of communication. When reading books, manuals and design instructions, a design practitioner often encounters the term "good design". If we take the "good design" concept of industrial designer Dieter Rams, then the term will be describing the product that is useful and understandable, innovative, aesthetic, unobtrusive, honest, long-lasting, thorough to the last detail, environmentally friendly, and involves as little design as possible. His principles of "good design" can be applied to the field of media design, applications, user interfaces and so on. Or, if we change the paradigm towards the ethics, is "good design" design which is not only aesthetically pleasing but also that strives to do good - to be socially responsible in order to improve the social environment? This approach is the basic of this article. The basis and starting point for the discussion was the article "Redefining design ethics" by Phil McCollam published in Design and Culture, 6: 3, 2014. The author argues that designers have a legal obligation to be aware of and to follow accessibility laws and standards, but also, more broadly, they have an ethical obligation to focus on the needs of the people who will use their designs, even when the law does not explicitly require it of them. Furthermore, he says that future professionals must be challenged to develop solutions that are human-centric. The research is based on a questionnaire and discussions with the students of graphic design. Therefore, the goal of this research is to explore the existence of awareness of the ethical and social role of design in contemporary society through individual awareness of students.*

Key words: ethical design, vocational ethics, citizen designer, media education

1. INTRODUCTION

Developing a definition of what is ethical is problematical because there is no one negotiated definition upon which to rely. The word itself is problematic, because people define it differently - some equate it with legality, some associate it with religion, some are guided by personal feelings in evaluating ethics. Many people are unclear about what is or is not ethical until they are asked to respond to actual case scenarios. Even then, not everyone will agree because the determination of what is ethical is socially constructed, and therefore varies from one discourse community to another and from one rhetorical situation to another. Ethical decision-making models grounded in ethical frameworks comprehend elements of moral philosophy such as utilitarianism, deontology, and virtue ethics. It has always been difficult to clearly define what good design is but determining what constitutes good design praxis is maybe burdened with lesser challenges (Boradkar, 2004). Good design therefore should extend beyond just form and function to those of society and culture. It should take into consideration the needs of many – users, employers, minorities, states, nations, future and past generations and all of this in spite of pressures of economy and profit. Value Sensitive Design (Friedman, 1996), Ontological Design (Fry, 1999, 2012), Transition and Pluriversal frameworks (Escobar, 2015; 2018; Irwin et al., 2015; Noel, 2020) all deal with the designing of values, rather than of artefacts, services, and systems. Design's aesthetic function has evolved into a tool to focus on people and technology (user-experience design); as a differentiation tool to support branding; as a business tool for fueling innovation; and finally as a cultural tool enabling transformation (Hernández et al., Cooper, 2018; Gardien & Gilsing, 2013). Ethical issues arise from gender, political and racial biases, to discrimination and profiling, from hidden exploitative labor to hidden environmental destruction (Luján Escalante et al., 2022). Luján Escalante et al. (2022) built Ethical, Legal and Social Implication (ELSI) guidance around a constellation of values that have been raised as important with the ISITEthical?Exchange Network. In their work they argue that an ethical framework should be unique for each project, co-designed by developers and practitioners. In his attempt to apply traditional approaches to ethics in the field of design, d'Anjou (2011) starts from ethical decision-making models also draw upon some sort of traditional moral philosophy such as utilitarianism, deontology,

virtue ethics and then he proposes an Sartrean approach in which he emphasizes a total engagement and acceptance of both freedom and responsibility on the part of the individual involved in such process, and implies that it has to start over again for each individual case since there is no universal or objective truth; subjectivity is constitutive and intrinsic. His model is built upon five central tenets in Sartre's existentialism that form the core of his thought. They are: projectiveness, freedom, subjectivity of values, the subjectivity of experiences, and 'authenticity'. The model's emphasis is on the designer's awareness of his/her design freedom, design responsibility, prior design choices, existential projects, external and contextual demands, and the practical limitations of the design situation. For Sartrean ethics, freedom is the prevailing ethical value (d'Anjou, 2011). The model, which is heuristic and not absolute, is based on the core themes of Sartre's philosophy and ethics. In the design field, a more structured approach about ethics has been noticed in human computer interaction (HCI). For example, VSD (Value Sensitive Design) advocates organizing a process in which different stakeholders can express and negotiate their perspectives on these values in order to integrate these productively. VSD accounts for human values in the design process through an iterative tripartite design approach that examines conceptual, empirical and technical issues (Cummings, 2006). When applying the VSD approach, twelve specific human values have been determined to have ethical import that should be considered in the design process: human welfare, ownership and property, privacy, freedom from bias, universal usability, trust, autonomy, informed consent, accountability, calmness, identity, and environmental sustainability (Cummings, 2006). Although the VSD approach is one of the most reviewed one, some authors (Manders-Huits, 2009) emphasized its shortcomings: (1) it does not have a clear methodology for identifying stakeholders, (2) the integration of empirical methods with conceptual research within the methodology of VSD is obscure, (3) it runs the risk of committing the naturalistic fallacy when using empirical knowledge for implementing values in design, (4) the concept of values, as well as their realization, is left undetermined and (5) VSD lacks a complimentary or explicit ethical theory for dealing with value trade-offs (Manders-Huits, 2009). Stuhlfaut and Farrell (2009) made a very extensive study of the curriculum in the field of advertising that deals with ethics, law and the social dimension, and they observed that unlike the core courses, in this area there are great differences in the course names, their outcomes and goals, the literature used, the ways in which students are evaluated in this area. It is generally agreed that the primary objective for discussing ethical issues in class is to teach the students how to incorporate their values into the decision-making process (Menzel, 1997).

The purpose of this study was to assess the influence of ethics intervention within formal education on graphic and media design students' level of ethics awareness by asking them to rate their perceived importance towards 34 ethical issues. Despite the general consensus that ethics education is crucial to the development of an individual and a professional and that academia should take a proactive role, efforts made by the graphic design institutes in cultivating professional ethics are fragmented. For this investigation, teaching ethical issues about graphic design is defined as pedagogy related to the behavioral conduct of people in the design field and to their relationships with peers, clients, audiences, and greater society.

2. METHODS

2.1. Instrument

This study makes use of a questionnaire survey based on the Ethical Issues Rating Scale developed by DuFrene, Elliott-Howard, and Daniel (1990). The original instrument includes brief descriptions of 52 business issues that are designed to have ethical significance (Daniel et al., 1997) and respondents record their reaction to the items by indicating the degree to which they feel the issues are important. The instrument was developed for use on business students and professionals, but it is also applicable to a large extent in other professional fields. Daniel et al. (1997) propose use of the instrument for determining the ethical development of students over time, for example students could be administered the instrument both before and after formal instruction in ethics. The instrument is one of the methods for quantifying students' ability to recognize the importance of different ethical issues with which they can meet in their professional environment. However, to ensure all issues are highly relevant to industry relevant in this research, a revised questionnaire with 54 issues (the 52 original issues plus three issues added by the researchers), was given to 20 professionals in design field. They were asked to answer

either “yes” or “no” for each issue, a “yes” answer indicating that the issue is applicable to the industry and should be included. It is decided that if the percentage of professionals answering “yes” is less than 50%, the issue will be deleted. Using this dichotomous selection test, a total of 20 issues are excluded, with only 34 issues remaining (Table 1). The questionnaire, at the end, contained 34 ethical issues and the respondents were asked to indicate the perceived importance towards each issue in the design industry. Respondents were asked to indicate their perceived importance of each issue to the graphic design industry using a 5-point scale, ranging from “1” (extremely unimportant) to “5” (extremely important).

Table 1 : Used Issues in the questionnaire

1	Disposal of hazardous waste
2	Acceptance of bribes or gifts by employees
3	Sexual harassment on the job
4	Employees disclose corporate information or trade secrets
5	Theft by employees of company property
6	Remove a product from market due to potential health/safety risks
7	Communication to the public of sensitive information, e.g., bomb threats and product contamination
8	Pollution of air and water
9	Protection of natural resources
10	Export products that do not meet home country safety and/or quality standards
11	Honesty in the advertising and labeling of products or services
12	The issue of company loyalty versus public responsibility
13	Use of insider business information for personal profit
14	Employees provide fail-proof quality products and services
15	Communication by company to the media of true and complete information
16	Restrictions on legal actions against company by damaged or dissatisfied consumers
17	Fair and complete media coverage of business issues to consumers
18	Equal pay for comparable jobs
19	Use of computers for illegal purposes
20	Disregard home country trade sanctions in the sale of goods, services and technology to foreign countries
21	Protection of specified groups by equal employment laws
22	Hiring practices based on personal connection and favor
23	Employee abuse of company benefits, privileges, facilities, etc.
24	Use in foreign countries of advertising and promotional techniques that are illegal at home county
25	Making available to the market products or services that have the potential to save lives or reduce suffering, but which will likely be unprofitable
26	Removal or withholding of a product from the market due to potential health or safety risks
27	Use of electronic devices to monitor employee activity on the job
28	Provide free/discounted services to friends/relatives without company's knowledge
29	Illegal copying of registered software
30	Use of electronic tracking techniques to monitor computer use by employees
31	Use of low-paid foreign labor
32	Influence by business on the content of television program which they sponsor
33	Protection of minorities and underprivileged social groups
34	Copyright protection

The second section of the questionnaire collects demographic information of the respondents such as gender, age, area of study... data were collected, but not specifically analyzed, since the students in the sample are the same age, from the same year of study, so these data are not relevant for the interpretation of the results.

2.2 Sample

The questionnaire (DuFrene et al., 1990). was administrated to a cohort of graduate students (n= 120) enrolled in courses Communication of Graphic Design and Business Communication at Faculty of Graphic Design in Zagreb. This data was collected during regular and online class sessions and 100% of the returned questioners were usable.

2.3 Procedures

Since there is no course at the Faculty of Graphics Design that would offer students' knowledge and information from the field of ethics, the research could not be conducted in the proposed manner. According to the GRF curricula (ISVU, 2022), there is not a single course dedicated to ethics, but ethics appears fragmentarily in the content of several courses, and in teaching using case studies. Instead of the proposed use of the instrument, the research sample was divided into two groups that filled out the questionnaire - one group (n=67) filled out the questionnaire without any previous formal familiarization with ethical topics, while the other group (n=53), before filling out the questionnaire, was familiarized with the basic theories of ethics. This group of students, as presented in Table 2, was given information about basic ethics theories, they read the article "Redefining design ethics" by Phil McCollam published in Design and Culture, 6: 3, 2014., which deals with ethics in design and after that, they participated in a joint structured discussion on ethical dilemmas in design. Arfaoui et al. (2015) argue that programs in moral education with a dilemma discussion produce significant increases in moral development and that the magnitude of the increase in moral development is related to exposure to Kohlberg's stage theory of cognitive development. According to Rest (1986), interventions that occur over less than 3 weeks do not result in increases in moral development, whereas interventions of 3–12 weeks result in increases in moral development (Rest, 1986), so the ethics topics were processed in 4 weeks period.

Table 2: Adjusted framework approach for the delivery of ethics topics based on IFAC (2006)

Stage	Objective of stage	Focus of content
Stage 1	To develop ethical intelligence by attaining the necessary knowledge of ethical concepts and theories related to the designer's work	Traditional theories of ethics, virtues, and moral development
Stage 2	Sensitise learners to ethical issues and threats	Case study based on the article "Redefining design ethics" by Phil McCollam published in Design and Culture, 6: 3, 2014.
Stage 3	To integrate knowledge of ethics with sensitivity to develop competence in ethical judgment and decisions	Application of ethical theories, social responsibilities, code of professional conduct, and other ethical decision models to ethical dilemmas
Stage 4	Ethical Issues Rating Scale	Students' reaction to the ethical items by indicating the degree to which they feel the issues are important

3. RESULTS

3.1 Respondents' Profile

A total of 120 students enrolled in the courses *Graphic Design Communication* and *Business Communication* participated in the research. 64% of females and 36% of males were represented in the sample. More women than men are enrolled at the Faculty, so this ratio in the sample is expected and justified.

Table 3: Gender of the respondents

Gender	Group 1	Group 2	Total
F	47	30	77
M	20	23	43
Total	67	53	120

$$X^2(1, N = 10) = 2.3614, p = .124 \quad (1)$$

A chi-square test of independence was performed to examine the relationship between gender and belonging to group 1 or 2. The relationship between these variables was not significant, $X^2(1, N = 120) = 2.3614, p = .124$ at $p > .05$ (Table 3).

3.2 Mean Scores of All Statements

Initial analyses of the collected data include a summary of means and standard deviations for the responses on all 34 ethical issues. The mean scores are used to reveal the central tendency measure of the degree of importance of the statements and the standard deviations to explain the dispersal of scores around them. The mean scores in the two groups (Table 4) are used to reveal the central tendency measure of the degree of importance of the statements and the standard deviations to explain the dispersal of scores around them. As presented, the lowest mean score in Group 1 is 2,21 and in Group 2 2,79. The highest average score in group 1 was 3,90 and in the Group 2, the highest average score was 4,34. In both groups, no statement was rated as completely unimportant (1), but none was also marked as extremely important (5). Although in individual cases there was an importance rating of 5, the measure of central tendency shows that in both groups, on average, all values are in the interval between 2 and 4.

Table 4: Mean scores of all issues

Group 1			Group 2				
N	Mean	Std. Deviation	N	Mean	Std. Deviation		
Issue1	67	3,04	,928	Issue1	53	3,45	,695
Issue2	67	3,51	,842	Issue2	53	3,26	,684
Issue3	67	3,73	,709	Issue3	53	4,04	,706
Issue4	67	2,90	,606	Issue4	53	3,30	,696
Issue5	67	2,97	,651	Issue5	53	3,11	,751
Issue6	67	3,90	,606	Issue6	53	3,91	,838
Issue7	67	3,87	,672	Issue7	53	3,62	,657
Issue8	67	3,63	,487	Issue8	53	3,85	,718
Issue9	67	3,60	,494	Issue9	53	3,85	,718
Issue10	67	3,28	,623	Issue10	53	3,34	,478
Issue11	67	3,84	,373	Issue11	53	4,15	,718
Issue12	67	3,85	,821	Issue12	53	4,13	,590
Issue13	67	2,84	,373	Issue13	53	3,75	,515
Issue14	67	3,37	,487	Issue14	53	3,74	,524
Issue15	67	3,54	,502	Issue15	53	3,74	,593
Issue16	67	2,66	,478	Issue16	53	3,28	,455
Issue17	67	3,21	,410	Issue17	53	3,72	,455
Issue18	67	3,52	,503	Issue18	53	3,57	,500
Issue19	67	3,64	,483	Issue19	53	3,62	,489
Issue20	67	3,22	,420	Issue20	53	3,66	,478
Issue21	67	2,21	,509	Issue21	53	2,49	,576
Issue22	67	3,28	,454	Issue22	53	3,32	,471
Issue23	67	2,82	,386	Issue23	53	2,72	,455
Issue24	67	3,43	,499	Issue24	53	3,51	,505
Issue25	67	2,72	,486	Issue25	53	3,49	,505
Issue26	67	3,78	,420	Issue26	53	3,49	,505
Issue27	67	3,09	,484	Issue27	53	3,26	,593
Issue28	67	2,54	,502	Issue28	53	3,04	,678
Issue29	67	3,60	,494	Issue29	53	4,04	,759
Issue30	67	3,00	,550	Issue30	53	3,25	,434
Issue31	67	2,28	,454	Issue31	53	3,23	,609
Issue32	67	3,27	,447	Issue32	53	3,66	,478
Issue33	67	3,18	,737	Issue33	53	3,79	,689
Issue34	67	3,76	,430	Issue34	53	4,34	,478

3.3 Mann-Whitney test

To test the differences between two groups, Mann-Whitney test was performed for 34 issues. The test showed that the difference was statistically significant in 20 issues. The data for all variables is presented in Table 5. When we look at the Mean rank score, we can see that there is a tendency in a Group 2 (group with educational intervention) towards higher ranking of ethical issues. The exceptions are two issues – “Communication to the public of sensitive information, e.g., bomb threats and product contamination” and “Removal or withholding of a product from the market due to potential health or safety risks”. First issue, “Disposal of hazardous waste”, according to Mann-Whitney test was highly rated in Group 2, $U(N(G1)=67 (Mdn= 3), N(G2)=53 (Mdn=03))=1309, z=-2,694, p <.01$. All following issues were also graded higher with statistical relevance in the Group 2: “Sexual harassment on the job”, $U(N(G1)=67 (Mdn=4), N(G2)=53(Mdn=4))=1380, z=-2,274, p <.05$, “Employees disclose corporate information or trade secrets”, $U(N(G1)=67 (Mdn=3), N(G2)=53(Mdn=3))=1206,5, z=-3,331, p <.001$, “Honesty in the advertising and labeling of products or services” $U(N(G1)=67 (Mdn=4), N(G2)=53(Mdn=4))=1315, z=-2,943, p <.001$, “Use of insider business information for personal profit” $U(N(G1)=67 (Mdn=3), N(G2)=53(Mdn=4))=420, z=-3,644, p <.001$, “Employees provide fail-proof quality products and services” $U(N(G1)=67 (Mdn=3), N(G2)=53(Mdn=4))= 1173,5, z=-3,644 p <.001$, “Restrictions on legal actions against company by damaged or dissatisfied consumers” $U(N(G1)=67 (Mdn=3), N(G2)=53(Mdn=3))= 836, z=-6,057, p <.001$, “Fair and complete media coverage of business issues to consumers” $U(N(G1)=67 (Mdn=3), N(G2)=53(Mdn=4))= 873,500, z=-5,554, p <.001$, “Disregard home country trade sanctions in the sale of goods, services and technology to foreign countries” $U(N(G1)=67 (Mdn=3), N(G2)=53(Mdn=4))= 1000,5, z=-4,796, p <.001$, “Protection of specified groups by equal employment laws” $U(N(G1)=67 (Mdn=2), N(G2)=53(Mdn=3))= 1300,5, z=-2,901, p <.001$, “Making available to the market products or services that have the potential to save lives or reduce suffering, but which will likely be unprofitable” $U(N(G1)=67 (Mdn=3), N(G2)=53(Mdn=3))= 661, z=-6,761, p <.001$, “Provide free/discounted services to friends/relatives without company's knowledge” $U(N(G1)=67 (Mdn=3), N(G2)=53(Mdn=3))= 1088,5, z=-4,067, p <.001$, “Illegal copying of registered software” $U(N(G1)=67 (Mdn=4), N(G2)=53(Mdn=4))= 1209, z=-3,320, p <.001$, “Use of electronic tracking techniques to monitor computer use by employees” $U(N(G1)=67 (Mdn=3), N(G2)=53(Mdn=3))= 1405, z=-2,504, p <.001$, “Use of low-paid foreign labor” $U(N(G1)=67 (Mdn=2), N(G2)=53(Mdn=3))= 509,5, z=-4,273, p <.001$, “Influence by business on the content of television program which they sponsor” $U(N(G1)=67 (Mdn=3), N(G2)=53(Mdn=4))= 1080, z=-4,273, p <.001$, “Protection of minorities and underprivileged social groups” $U(N(G1)=67 (Mdn=3), N(G2)=53(Mdn=4))= 1075,5, z=-3,994, p <.001$, “Copyright protection” $U(N(G1)=67 (Mdn=4), N(G2)=53(Mdn=4))= 892,5, z=-5,897, p <.001$. On the 14 remaining issues, the Mann-Whitney test showed that there were no statistically significant differences between the groups.

Table 5 (part 1): Mann-Whitney test results

	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Z	Asymp. Sig. (2-tailed)
Issue1	Group1	67	53,54	3587,00	1309,000	-2,694	0,007**
	Group2	53	69,30	3673,00			
Issue2	Group1	67	64,67	4333,00	1496,000	-1,614	0,107
	Group2	53	55,23	2927,00			
Issue3	Group1	67	54,60	3658,00	1380,000	-2,274	0,023*
	Group2	53	67,96	3602,00			
Issue4	Group1	67	52,01	3484,50	1206,500	-3,331	0,001**
	Group2	53	71,24	3775,50			
Issue5	Group1	67	57,56	3856,50	1578,500	-1,140	0,254
	Group2	53	64,22	3403,50			

Table 5 (part 2): Mann-Whitney test results

Issue6	Group1	67	60,73	4069,00	1760,000	-0,089	0,929
	Group2	53	60,21	3191,00			
Issue7	Group1	67	65,96	4419,00	1410,000	-2,137	0,033*
	Group2	53	53,60	2841,00			
Issue8	Group1	67	56,48	3784,00	1506,000	-1,613	0,107
	Group2	53	65,58	3476,00			
Issue9	Group1	67	55,84	3741,00	1463,000	-1,861	0,063
	Group2	53	66,40	3519,00			
Issue10	Group1	67	59,82	4008,00	1730,000	-0,278	0,781
	Group2	53	61,36	3252,00			
Issue11	Group1	67	53,63	3593,00	1315,000	-2,943	0,003**
	Group2	53	69,19	3667,00			
Issue12	Group1	67	55,96	3749,50	1471,500	-1,811	0,070
	Group2	53	66,24	3510,50			
Issue13	Group1	67	40,27	2698,00	420,000	-8,189	0,000**
	Group2	53	86,08	4562,00			
Issue14	Group1	67	51,51	3451,50	1173,500	-3,644	0,000**
	Group2	53	71,86	3808,50			
Issue15	Group1	67	56,16	3763,00	1485,000	-1,763	0,078
	Group2	53	65,98	3497,00			
Issue16	Group1	67	46,48	3114,00	836,000	-6,057	0,000**
	Group2	53	78,23	4146,00			
Issue17	Group1	67	47,04	3151,50	873,500	-5,554	0,000**
	Group2	53	77,52	4108,50			
Issue18	Group1	67	59,34	3976,00	1698,000	-0,475	0,635
	Group2	53	61,96	3284,00			
Issue19	Group1	67	61,01	4087,50	1741,500	-0,215	0,830
	Group2	53	59,86	3172,50			
Issue20	Group1	67	48,93	3278,50	1000,500	-4,796	0,000**
	Group2	53	75,12	3981,50			
Issue21	Group1	67	53,41	3578,50	1300,500	-2,901	0,004**
	Group2	53	69,46	3681,50			
Issue22	Group1	67	59,51	3987,50	1709,500	-0,439	0,660
	Group2	53	61,75	3272,50			
Issue23	Group1	67	63,25	4238,00	1591,000	-1,348	0,178
	Group2	53	57,02	3022,00			
Issue24	Group1	67	58,47	3917,50	1639,500	-0,832	0,406
	Group2	53	63,07	3342,50			
Issue25	Group1	67	43,87	2939,00	661,000	-6,761	0,000**
	Group2	53	81,53	4321,00			
Issue26	Group1	67	68,07	4560,50	1268,500	-3,243	0,001**
	Group2	53	50,93	2699,50			

Table 5 (part 3): Mann-Whitney test results

Issue27	Group1	67	56,22	3766,50	1488,500	-1,858	0,063
	Group2	53	65,92	3493,50			
Issue28	Group1	67	50,25	3366,50	1088,500	-4,067	0,000**
	Group2	53	73,46	3893,50			
Issue29	Group1	67	52,04	3487,00	1209,000	-3,320	0,001**
	Group2	53	71,19	3773,00			
Issue30	Group1	67	54,97	3683,00	1405,000	-2,504	0,012*
	Group2	53	67,49	3577,00			
Issue31	Group1	67	41,60	2787,50	509,500	-7,305	0,000**
	Group2	53	84,39	4472,50			
Issue32	Group1	67	50,12	3358,00	1080,000	-4,273	0,000**
	Group2	53	73,62	3902,00			
Issue33	Group1	67	50,05	3353,50	1075,500	-3,994	0,000**
	Group2	53	73,71	3906,50			
Issue34	Group1	67	47,32	3170,50	892,500	-5,897	0,000**
	Group2	53	77,16	4089,50			

In this study, it is stated in the questionnaire that the more important the students rate an issue, the more important the topic to be for their profession. Respondents were also given the same instructions on how to fill out the questionnaire.

4. DISCUSSION

As the instrument used in this study was originally designed for students of business studies, there is a visible difference in the students' evaluation of the categories that are closer to them, i.e. that they can more easily connect with the application in their profession. They consider these categories to be more important, which indicates that the results would be clearer using a questionnaire fully adapted to the application in the corresponding business area. In this research, 34 issues were used and in 20 of them there was a significant change in valuation of topic importance. The results indicate that the intervention in education can have an impact in the field of ethics, more precisely, in raising awareness of the importance of ethical issues and decisions in professional life. The teaching of ethical issues is critical to a design education because the subject increase students' understanding of the field, raise their awareness of broader effects beyond the promotion of products and services, and inform students of their responsibilities as professionals. Applied ethics is a branch of ethics that focuses on general ethical principles and analytical approaches upon a particular discipline (Epstein, 1989). According to Epstein, the analyses can be divided into four levels. The first level involves the macro ethics pertaining to the norms and values of the total political-economic system, the second level is the intermediate ethics that focuses on the conduct of groups of business firms while the third level relates to the conduct of specific firms. For the final level of analysis, it focuses on individual ethics that deals with the conduct of individual persons. Given that ethics is really a combination of factors on several levels, it is not possible to effect on changes at all levels with such a simple education intervention, but it is possible to encourage an individual to think about the importance of ethics in professional life, and then perhaps, consequently, to apply ethical principles in personal action in a professional environment.

5. CONCLUSIONS

There is currently a big "ethical turn" in tech innovation, and the media is following cases related to social media, autonomous systems, facial recognition, bio cams and sensors, health apps, track and trace, and algorithmic political manipulation (Badawy et al., 2018). Because there is big potential for deception, conscious or unconscious, through graphic design, graphic designers should develop an ethical sense and

apply it to their design. In this context, the training of teachers must also be considered in addition to the training of students. Educators must adopt a leading role in training the new generation of designers who will incorporate ethical decisions consciously and reflexively in their practices. We cannot generalize ethical principles in design, trying to follow step-by-step predefined rules is almost impossible, because contexts change, people change and the technology changes. The design should try to direct changes in an ethical and human-centered direction. This research could potentially be expanded by analyzing and comparing ethics curricula in the European area with the aim of establishing common and mutually comparable foundations in education in professional ethics in the field of design and media design. By reviewing the literature, it was determined that, unlike education in some other fields, in the field of design education in the European area, there are no studies systematically dealing with this topic.

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