# Acta Catallactics

časopis za ekonomska i opšta društvena pitanja

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Svako dobro,
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Acta Catallactics

# Sadržaj

# THE IMPACT OF NEW MEDIA IN PRACTICING CATHOLICISM: THE CASE STUDY OF CROATIA'S CATHOLICS

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## Abstract

The rapid growth of digitalization made many institutions to use digital media in presentations of their work, including the Catholic Church. New media has opened numerous opportunities to achieve a lot with limited financial resources.

However, the new media is also a challenge for the Catholic Church, especially in the process of spreading evangelization. The aim of this research is to create an insight into the influence of new media on communication within Catholic community of Croatia and answer the question whether the new media and evangelization through them have affected alienation of Croatia's Catholics from the Church. The authors are trying to answer this question by analyzing scientific articles, and through a poll on a representative sample. Another specific goal is to examine the transparency of communications and the effect on the image of the Church through new media.

Data gathering was done through a questionnaire polling of a sample of questions. Current status and viewpoints on the questions are presented through descriptive statistics.

**Keywords:** *Church, new media, Internet, evangelization, communication*.

## 1. Introduction

In order to spread evangelism throughout history, the Catholic Church has used classical communication channels – either oral or written communication. The church has been known throughout history for always striving to use all available means and models to spread preaching. Although initially distrustful towards the new media, the Church still recognized it as important channel in spreading evangelism and improving its communication. "Whoever has become involved in media communication will never return to the world of simple souls", stated Niklas Luhmann, paraphrasing the relationship of the media in the perception of the world (Malovic, 2014). According to Novak and Valković (2016) online communication brings to the Church a major change because "the Internet – with its organization and mode of communication – develops top-down communication style". These are major changes, which is why the world religions are using the Internet as a new means of evangelistic activity. While using it, they apply traditional institutional logic. Hence, a top-down communication style seems to be the most appropriate. Strujić (2017) sees the Internet as an important mean of contemporary proclamation of the gospel messages of salvation, the evangelization of culture, and the inculturation of the faith of exposure. Internet activities in these fields, for him, are a "kind of pastoral and cultural re-examination, in order to keep up with the historical changes we live in". Furthermore, Strujić (2017) believes that the Church uses the new media in the spread of evangelism insufficiently. The Church should step in and abandon the old exchanges of truth and ideas under the authority of the Church, in order to adopt a new method of proclaiming evangelism by using social networks that have "arguments, talk, appreciation and an ability to listen".

## 2. Theoretical Framework – the New Media and the Church

According to Jurčić (2017), the notion of media is defined as a mean by which communications are achieved, information to the public on all topics relevant to the social community are transmitted, and as mediators between the public and the authorities. All these subcategories of Jurčić's definition have the same denominator – to properly inform public opinion. Street (2003) considers that the media is established as business institutions that need to serve a particular market by reporting in order to fit the needs of that market. With the rapid growth of digitalization, more and more institutions are beginning to use the digital media in presenting their work, including the Catholic Church. Many new opportunities have just opened up with the new media, where a limited scope can be achieved with limited financial resources. Labas (2009) emphasizes the extent to which the boundaries between old and new media are blurred. He studies data processing in digital form, their multimedia, interactivity and hyper - textuality as characteristics of new media. New media have introduced new forms of communication into the communications sector, and, thus, a faster dissemination of messages from the sender to the user. The Catholic Church also recognizes the importance of presence in the new media. In order to confirm aforementioned, Strujić (2017) refers to Pope Benedict XVI, who emphasizes "how all modern technologies must be put to the service of the holy good of the person and of all humanity " and to the pope Francis, who „sees a great and exciting challenge in the development of communication techniques, which requires fresh strength and a new imagination to transmit God's beauty to others". However, the new media also presents a kind of challenge in spreading evangelization. According to Novak and Valković (2016) „the Church is aware that online communication means a new communication paradigm, that it provides different ways of communicating within the Church and the Church with the world, but it is also a new way of presenting the Church in public ". In conclusion, the advantage of new media, especially internet media, is in two-way communication which means that it is possible to interact with the audience and the content owner. What makes them competitive is their user-friendliness – they can be accessed via PCs, mobile phones, tablets, from anywhere in the world with Internet access. The definition of the new media is numerous, but what is clear is that the new media have introduced major changes in the communications sector, thereby accelerating the flow and availability of information in all sectors, including in the Church.

## 3. Online Church

The Church's presence on the Web dates to 1995, when it introduced the Pope's Christmas message online and opened an official website (Strujić, 2017). Duvnjak (2014) points out that, from a religious point of view, „the internet provides religious communities with an opportunity to get to know a wide range of people about their mission, opens space for the free exchange of ideas between members of a particular religious community, and has the potential to develop inter-religious dialogue and grass root ecumenism". Strujić (2017) emphasizes the potential of social networks for their recipients, stating that they can mediate „Christian experiences, meditation and prayers, foster the greatest interconnectedness of Christians and, as Benedict XVI points out, „share spiritual and liturgical riches" through a mature and open dialogue with others in order "to affirm the importance and place of religion in public and social debate," and, thus, to demonstrate the clarity and testimony of the Catholic digital profile". In their work, Novak and Valković (2016) introduce terms *religion online* and *online religion*. „The term *religion online* refers to religious communities that communicate within virtual spaces, and the aim of such communication is to inform religion, religious subjects, or persons, while the term *online religion* is to understand the Internet as an interactive virtual space where rituals are performed" (Novak and Valkovic, 2016).

Looking at these quotations, it can be concluded that authors agree that, although the Church has recognized the many opportunities offered by the virtual world, its advantages are underused today. The potential for spreading evangelism through social networks remains underutilized. Starting from the fact that the youngest population is the largest user of social networks, and it is, at the same time, the population that is the most vulnerable, exposed to the illusions of social networks. In the wake of that, Pope Francis in a message for the 53rd World Means of Social Communication Day 2019 cited statistics: one in four young people is a victim of cyberbullying. Social networks, on the one hand, help youth by providing opportunities of virtual socialization. On the other hand, they are used to manipulate personal data, which aims are to gain political or economic benefits that exclude respect for the person and his or her rights. In addition, Pope Francis points out that on social networks "identity is often based on opposing another person, the one outside of a group". Individuals define themselves by defining what separates us, not from what unites us, creating space for doubt and expression of all kinds of prejudice (ethnic, sexual, religious and other). What is supposed to be a window into the world is becoming a showcase where individual narcissism is exposed. It is up to the Church to harness the potential of the new age and become a proactive institution in the virtual world by promoting faith and positive dialogue.

## 4. The Subject and Method of Empirical Research

Since researches about new media and Catholic Church are obscure, this paper focuses on the Croatian public`s views on these issues. In other words, the focus of the paper is to analyze the attitudes of Croatian public on the influence of the new media on communication in the Catholic community and to answer the question whether the new media and the consumption of evangelism through them influenced the alienation of Croatia's

Catholics from the Catholic Church. In addition to the primary objective of the research, a specific objective is imposed – to explore the transparency of communication and the impact on the image of Catholic Church through the new media. The analysis of the public response is intended to give an insight into the public's attitude to the topic. The survey was conducted online in the period from March 1 to March 12, 2020, by means of questionnaires which included a sample of 292 of the adult population of Croatia. The survey was conducted among an adult population who denounce themselves as Catholics. All the surveyed users are Internet users and many of them are social network users (Facebook). Descriptive statistics presents the current status and attitudes of the respondents. Some of the most relevant issues being analyzed are: the Catholic Church's communication through digital media, the work of Catholic sites, how often individuals use the Internet to access religious content, whether communicating online and generally through social networks is an extraordinary means of spiritual connection and communication, is the Church delayed in the use of new means of communication, and whether consuming spiritual content through new media has lost the need for man to go to church.

## 5. Results and Discussion

47.60% of men and 52.40% of women participated in the survey. *Table 1* below shows the distribution by age, gender, education and working status.

Table 1: Research sample

| Sample | | f | R (%) |
|---|---|---|---|
| | | **292** | **100%** |
| Gender | Male | 139 | 47,60% |
| | Female | 153 | 52,40% |
| Age | From 18 to 29 | 189 | 64,73% |
| | From 30 to 39 | 56 | 19,18% |
| | From 39 to 49 | 23 | 7,88% |
| | More than 50 | 24 | 8,22% |
| Education | PhD. | 8 | 2,80% |
| | Mr. Sc. | 9 | 3,15% |
| | Primary School | 10 | 3,50% |
| | High School | 123 | 43,01% |
| | Postgraduate Degree (all except of a Ph.D.) | 6 | 2,10% |
| | Master's Degree | 62 | 21,68% |
| | Bachelor's Degree | 68 | 23,78% |

| | | | |
|---|---|---|---|
| Working status | Unemployed | 21 | 7,32% |
| | Retired | 6 | 2,09% |
| | Students | 123 | 42,86% |
| | Employed | 137 | 47,74% |

When asked about practicing religion, 64.04% of examinees said they were practical Catholics, while 35.96% said they are believing, but not practicing. The respondents were asked if they practice their faith by going to a church, and those results are presented in *Table 2*. We can conclude that Croatians who practice Catholicism go to church more often (52.94% go to church once a week) while Croatians who are believers, but do not practice religion tend not to go to the church (53.33% said they never go to the church).

Table 2: Practicing faith

| How often do you go to the church? | Number | Percentage |
|---|---|---|
| **I believe and I practice my faith** | **187** | **64,04%** |
| Every week | 99 | 52,94% |
| Several times in a year | 37 | 19,79% |
| Once a month | 35 | 18,72% |
| Every day | 13 | 6,95% |
| Never | 3 | 1,60% |
| I believe, but I don't practice my faith | **105** | **35,96%** |
| Never | 56 | 53,33% |
| Several times a year | 44 | 41,90% |
| Once a month | 3 | 2,86% |
| Every week | 2 | 1,90% |
| TOTAL | **292** | **100,00%** |

When asked if the way of belief has changed recently, the respondents answered as follows.

Table 3: The change of belief

| Has your way of belief changed recently? | Number | Percentage |
|---|---|---|
| I strongly disagree | 58 | 19,86% |
| I partly disagree | 58 | 19,86% |
| I neither agree nor disagree | 50 | 17,12% |
| I partly agree | 72 | 24,66% |
| I strongly agree | 54 | 18,49% |
| TOTAL: | **292** | **100,00%** |

The next question is for those respondents whose beliefs have changed, that is, for those respondents who answered “I partly agree” or “I strongly agree” to the previous question. Respondents were asked how the change affected their beliefs.

Table 4: Impact on belief change

| How the change affected your beliefs? | Number | Percentage |
|---|---|---|
| **I strongly agree** | **54** | **42,86%** |
| It has shaken my beliefs | 29 | 53,70% |
| My beliefs remained unchanged | 5 | 9,26% |
| It has strengthened my beliefs | 20 | 37,04% |
| I partly agree | **72** | **57,14%** |
| It has shaken my beliefs | 24 | 33,33% |
| My beliefs remained unchanged | 11 | 15,28% |
| It has strengthened my beliefs | 37 | 51,39% |
| TOTAL: | **126** | **100,00%** |

In case of 45.24% of the respondents, the change strengthened the belief, in case of 42.06% of the respondents the change weakened the belief, while the belief remained unchanged in 12.70% of the respondents. The following question was answered with more than one answer.

The question was "What persons or institutions were the influences on your change of faith (skip if no change)". The answers are below.

Table 5: Influence of persons or institutions on changing beliefs

| What persons or institutions were the influences on your change of faith (skip if no change)? | Number | Percentage |
|---|---|---|
| The Institution of Church | 105 | 27,70% |
| A priest | 102 | 26,91% |
| Social Networks | 41 | 10,82% |
| Internet Pages | 41 | 10,82% |
| Catholic Influencers | 29 | 7,65% |
| Television | 25 | 6,60% |
| Something else | 35 | 9,50% |

*Table 5* shows the impact of internet media. This table does not show whether the change strengthened or weakened belief, but it presents who had an impact to it. Respondents who stated that the church as an institution influenced the change in their beliefs, a total of 54.41% stated that it weakened the belief, 16.18% that the belief remained unchanged and 29.41% that it strengthened the belief. Respondents who stated that a priest influenced the change in their beliefs, 54.41% in total believed that their belief was weakened, 16.18% remained unchanged and 29.41% believed that priests strengthened their belief. While respondents who stated that it was social networks that had the greatest influence on changing their beliefs, 32.26% believed that their faith was weakened, 6.45% felt that their religion remained unchanged, while 61.29% believed that their faith had strengthened. Thus, the answers apply only to those respondents who have stated that there has recently been a change in their belief.

The respondents were further asked how they rate the communication of the Catholic Church through digital media. They are rated from 1 to 5. A rating of 1 means that communication is poor. A score of 5 means that communication is excellent. The results obtained show an average rating of 3.767123.

Table 6: Rating Catholic Church's Communication

| Grade | Number | Percentage |
|---|---|---|
| 1 | 55 | 18,90% |
| 2 | 53 | 18,21% |
| 3 | 58 | 19,93% |
| 4 | 33 | 11,34% |
| 5 | 20 | 6,87% |
| I can't make an estimation | 72 | 24,74% |
| TOTAL | 291 | 100,00% |

We can conclude that social networks straightened the belief in more respondents than they have weakened it. When asked about visiting the archdiocese's pages, 63% of respondents answered that they did not visit the archdiocese's web pages. Only few responded that they visit the archdiocese's pages daily.

Table 7: Visits to archbishop sites

| Responses | Number | Percentage |
|---|---|---|
| Daily | 12 | 4,15% |
| Weekly | 24 | 8,30% |
| Monthly | 28 | 9,69% |
| Twice or thrice a year | 43 | 14,88% |
| I don't visit those sites | 182 | 62,98% |
| TOTAL | 289 | 100,00% |

Similar answers were obtained when we examined the attendance of the parish web pages. The question was: - How often do you visit the parish sites? 50% of respondents do not visit parish web sites at all, 22.76% of respondents visit them two to three times a year, 11.3% of respondents visit them monthly, 12.76% visit them weekly, while only 3.76% visit them on a daily basis.

When asked about the Catholic Web sites' updates, we received the following answers as shown in *Table 8*. Answer 1 means that the page is not updated and answer 5 means that the page is updated frequently. The average grade for an update is 3.08.

Table 8: Catholic Church Web Sites' updates

| Answers | Number | Percentage |
|---|---|---|
| 1 | 20 | 6,92% |
| 2 | 24 | 8,30% |
| 3 | 49 | 16,96% |
| 4 | 39 | 13,49% |
| 5 | 19 | 6,57% |
| I can't make an estimation | 138 | 47,75% |
| TOTAL | 289 | 100,00% |

The following question relates to the frequency of visiting religious content on the Internet. Over 20% of respondents stated that they visit religious content daily, while over 34% said they did not visit religious content on the Internet at all.

Table 9: Visiting religious contents on the Internet

| Answers | Number | Percentage |
|---|---|---|
| Daily | 59 | 20,34% |
| Weekly | 39 | 13,45% |
| Monthly | 38 | 13,10% |
| Twice or thrice a year | 54 | 18,62% |
| I don't visit religious contents online | 100 | 34,48% |
| TOTAL | 290 | 100,00% |

There was an open type of answer to the following question and the respondents were required to write which religious content websites they visit. It has been answered 114 times in total. Less than 10 responses were provocative, while 5 responded by not visiting them at all. Among the most influential media it is certainly the internet portal bitno.net, which was mentioned in 61 responses, or in over 50% of all responses. We will list some other media that are mentioned: Dnevno.hr, IKA, Glas koncila, Mladi katolici, Hrvatski katolički radio, Međugorje, Laudato, YouTube, Facebook, various parish pages and several foreign pages. When asked about the frequency of monitoring Catholic influencers, we received the following answers:

Table 10: Catholic Influencers Monitoring

| Answer | Number | Percentage |
|---|---|---|
| Daily | 25 | 8,68% |
| Weekly | 20 | 6,94% |
| Monthly | 26 | 9,03% |
| Twice or thrice a year | 18 | 6,25% |
| I don't follow them. | 199 | 69,10% |
| Total | 288 | 100,00% |

From the answers, we can conclude that a very high percentage of people do not follow Catholic influencers, while they are monitored daily by over 8.5% of people.

The following table shows the answers to the question about a trust in the Catholic Church. We weight the answers as follows. 1 - Very negative, 2 - Mostly negative, 3 - Neither positive nor negative, 4 - Mostly positive, 5 - Very positive. The average rating is 3.1.

Table 11: A trust in Catholic Church

| Answers | Number | Percentage |
|---|---|---|
| Very negative | 53 | 18,34% |
| Mostly negative | 45 | 15,57% |
| Neither positive nor negative | 53 | 18,34% |
| Mostly positive | 76 | 26,30% |
| Very positive | 51 | 17,65% |
| I can't make an estimation | 11 | 3,81% |
| Total | 289 | 100,00% |

The following table shows the impact of social media on the image of the Catholic Church in Croatia. About 32% of respondents believe that the image of the Catholic Church has not been affected by social media, while 35.5% of respondents believe that social media has significantly influenced the image of the Catholic Church in Croatia. This question does not examine whether the image has changed positively or negatively.

Table 12: The image of Catholic Church

| Answers | Number | Percentage |
|---|---|---|
| No | 93 | 31,85% |
| Slightly | 101 | 34,59% |
| Significantly | 98 | 33,56% |
| Total | 292 | 100,00% |

The following group of questions is shown in *Table 13*. Respondents were asked to state to what extent they agreed with the claims.

Table 13: Catholic Church and the new media

| Questions/Answers | I strongly disagree | I partly disagree | I neither agree nor dis-agree | I partly agree | I strongly agree |
|---|---|---|---|---|---|
| The church is late in using new means of communication. | 11,42% | 19,21% | 27,43% | 27,74% | 32,58% |
| The church today is underutilized by new media. | 10,86% | 19,54% | 25,69% | 36,13% | 26,52% |
| The church ceremony can be attended via virtual reality. | 23,78% | 24,83% | 13,89% | 14,84% | 14,39% |
| Consuming spiritual content through new media, an individual has no longer needs to go to church. | 29,03% | 17,22% | 14,93% | 9,68% | 12,12% |
| Communion on religious platforms is the same as communion in real life (the Church). | 24,91% | 19,21% | 18,06% | 11,61% | 14,39% |
| By using the Internet, the church could improve communication and people's experience of religion. | 22,09% | 13,18% | 21,43% | 30,72% | 30,08% |
| The Catholic Church should be more "open" to the public. | 12,79% | 20,93% | 23,93% | 26,02% | 35,59% |
| Using information technologies can strengthen the practice of faith. | 34,88% | 33,33% | 30,36% | 21,94% | 11,44% |
| An individual can be alienated from faith via Internet. | 30,23% | 32,56% | 24,29% | 21,32% | 22,88% |

From the answers we can see that a significant percentage of respondents believe that religion can be consumed through digital media. A large number of respondents, 60.32% of them, believe that the Church is late in using new means of communication, while 62.65% think that the new media is underutilized. While a greater percentage of respondents believe that a church ceremony cannot be attended via virtual reality, 48.61% think otherwise. Furthermore, the most of respondents (46.25%) disagree with the assumption that by consuming spiritual content through new media, an individual no longer has to go to church. A large number of respondents (61.61%) believe that the Catholic Church should be more "open" to the public. The majority of respondents (68.21%) disagree with the statement that using information technology can strengthen the practice of faith. A significant percentage of respondents (62.79%) believe that they cannot be alienated from faith via Internet.

## 6. Recommendations and Final Remarks

The Internet and social media have become increasingly important and prevalent communication channels lately. The aim of the research was to gain insight into the impact of new media on communication in the Catholic community of Croatia and to answer the question of whether the new media and the consumption of evangelism through them influenced the alienation of Croatian Catholic believers from Catholic Church. By analyzing the aforementioned answers, we can conclude that there are several interesting facts.

One of them is that the social media reinforced the belief in a larger number of respondents than weakened their belief. This conclusion can be explained by a postmodern approach to human communications. Within the arising and fast-growing trend of virtualization of every aspect of our lives, the Catholic Church also follows the trend and easily moves to viral world. The Croatia's Catholics recognized this trend as an important asset that reinforces their believes. With this, it is important to remind that the majority of the respondents who stated that it was the social networks that had the greatest influence on changing their beliefs believe that their faith has strengthened. This confirms the importance of the social networks in the world in general as they ensure that the social networks' spaces are yet another aspect of social gathering. Accordingly, the Croatia's Catholic Church should use these virtual spaces to actively support their followers' needs and be present there for them.

In the case of respondents who have changed their beliefs in the negative direction, the Church and the priests are the main reasons for the weakening of their beliefs. This comes as a no surprise, as the international reputation of the Catholic Church has been seriously damaged by pedophilia scandals, corruption, non-transparency and some controversial social and dogmatic views of the Catholic Church, such as the LGBTQ rights, the clerical celibacy, a position of women in the Church hierarchy, etc.

Although the new media has influenced to a positive change in beliefs, the respondents believe that evangelism cannot be consumed through them. Here, it is important to stress out the importance of a balance between being there for their followers and using benefits of the new media for wrong causes, such as propaganda. The new generations of Catholics can virtually access to any knowledge, and a plain Catholic evangelism sometimes can seem like a propaganda and often insults average intelligence. Thus, the Church should follow the spirit of the time and adjust their online content to the contemporary trends to be more appealing to their followers. Great examples are the Catholic memes, the Catholic YouTube influencers who vlog their reactions to different popular culture contents, or the testimonies of travel bloggers and Instagram celebrities who visit Marian apparitions such as Fatima, Lourdes or Međugorje. Due to the lack of these approaches to the Catholicism within the Catholic Church of Croatia, many respondents of our research believe that the church is late in using the new media and that it is not sufficiently transparent in its communication with the public.

A large number of respondents believe that the image of the Catholic Church in Croatia has been significantly influenced by the social networks, whilst there are very few who visit the archdiocese's web pages, parish pages and religious content on the Internet. Hence, further improvements in the online communication between the Church and the Croatian Catholics should be encouraged, while the further modernization of this communication is essential.

In order to improve its online communication, the Catholic Church of Croatia must conduct more proactive and transparent communication and have well-designed PR. A survey conducted in the United States in 2010, which found that using the Internet can destroy your faith and lead to a decline in the number of believers in the United States (Bogešić, 2019). If compared to our research, which was conducted with right before the paradigm changes caused by the pandemic of COVID-19 disease, the opposite trends are noticeable. Contrary to the US survey from 2010, our research shows that in the 2020 Croatia the use of the Internet has strengthened the faith of Catholics included in this research.

Accordingly, it can be stated that the new media and the spread of evangelism through them did not affect the alienation of believers from the church. Based on our sample, the new media has strengthened the belief of some Croatia's Catholics, but while the Church is criticized for underutilizing the internet, the Catholics rarely visit religious content on the web. In the future researches in this field, a different method of data collection should be applied to explain relations between the two variables. The scope of our research shows that the latter conclusion, however, indicates a paradox – the Croatia's Catholic Church is being criticized for not going viral sufficiently by people who do not use existing viral advantages in the first place. Still, the Croatia's Catholics are more inclined to search for religious content on influencer sites, social networks, and some portals, rather than official Church sites. Hence, the latter could be seen as the weakest viral link of the Croatia's Catholic Church and should, therefore, be updated more frequently. It is up to the Church to use these potentials and "messengers of the new age" in spreading evangelism. Surveys conducted so far by Hootsuite and We Are Social (Q4 Global Digital Statshot Report) show that as many as 44% of the population use social media.

This paper concludes by stating that the social media are very important communication channels for Catholic Church and have a great influence on believes. Due to the close ties between Croatia's Catholics and Bosnia-Herzegovina's Catholics, a similar research in that state would be an interesting asset in exploring these phenomena further and then comparing the results. Furthermore, in the upcoming times of the post-COVID19 disease pandemic, these types of researches can give as a new insight about the new media and the Catholic Church not just in Croatia, but also other predominately Catholic states of the EU largely affected by the pandemic – Spain, Portugal or Italy. In the end, through the new media the Church can come closer to every individual and become a proactive institution in the virtual world by promoting faith and positive dialogue, especially towards those who are far from faith. This final remark has never been more accurate as it is in this post-coronavirus pandemic period.

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# KAKO BIHEVIORALNA EKONOMIJA MOŽE OBJASNITI POPULIZAM?

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Živimo u svijetu čiji medijski, politički, ali i širi socijalni život sve više kontaminiraju populističke ideje, pokreti i partije. Njihova pojava je historijska konstanta, imaju različite ideološke prefikse, metode i instrumente djelovanja, često i apsurdne, te uglavnom bivaju nakon izvjesnog vremena zamijenjeni nekim drugim populizmima na način koji je ponekad buran i dramatičan, ali se može raditi o njihovoj mirnoj eutanaziji i nestanku.

Šta je to što birače navodi na to da im populističke ideje postaju prijemčive i da ih tako zdušno prihvataju?

## Ekonomija i populizam

Većina posmatrača i komentatora populizma će kao esencijalni faktor okretanja birača prema ovakvim političkim konceptima označiti dešavanja vezana za ekonomsku sferu društva. Jasno je da u bilo kakvoj raspravi o populizmu i uzrocima rasta populističkih ideja i pokreta nije moguće isključiti ekonomska pitanja i ignorisati ekonomska kretanja, naročito krizna ekonomska dešavanja. Ekonomske krize, prvenstveno krize i slomovi finansijskog sistema, se tu pokazuju kao važni katalizatori procesa jačanja populističkih tendencija, koje ne nastaju u momentu pojave kriza, one su uvijek prisutne, ali su često do kriznih dešavanja bile marginalne. Finansijske krize su moćan okidač izlaska populizma na površinu političke i društvene scene. Nakon ovih kriza, glasače posebno privlači politička retorika ekstremne desnice, koja je često okrenuta negativno prema manjinama ili imigrantima. U prosjeku, ekstremne desničarske stranke povećavaju svoj udio glasova za 30% nakon finansijske krize. Čini se da su upravo ove krize disruptivne u političkom smislu, jer takva politička dinamika jačanja ekstremne desnice nije ovako izraženo prisutna u slučaju normalnih ekonomskih recesijskih kretanja ili nakon ozbiljnih makroekonomskih šokova koji nisu finansijske prirode (Funke et al., 2015). Potvrdu ovoga nalazimo i u bujanju desnog populizma, prvenstveno u zapadnoj Evropi i SAD-u, nakon posljednje svjetske finansijske krize. Spašavanje propalih banaka i drugih finansijskih kompanija novcem poreznih obveznika, bez kazne za odgovorne, često praćeno isplatama visokih bonusa ljudima koji su doveli do kraha finansijskog sistema, je snažno utjecalo na raslojavanje društva i ogorčenost "običnih" građana naspram ponašanja i djelovanja političkih i ekonomskih elita. Ovakva disproporcija odgovornosti i posljedica je utjecala na jačanje populizma kao ideologije koja smatra da je društvo u krajnjoj liniji podijeljeno na dvije homogene i antagonističke grupe, "čisti ljudi" u odnosu na "korumpiranu elitu", te koja tvrdi da politika treba da bude izraz opće volje naroda (Mudde, 2004).

Sve izneseno je apsolutno logično i predstavlja jasnu argumentaciju koja pokazuje da pojavi populističkih ideja i pokreta prethode negativna ekonomska dešavanja u društvu. Međutim, ovakvo objašnjenje uzroka ove pojave se čini prejednostavno i možda malo naivno, jer ne odgovara kompleksnosti društva koje je determinirano nizom faktora, međuodnosa i interakcija. Zar, uostalom, opći i racionalni ekonomski argument ne bi onda predstavljao univerzalno objašnjenje za sve odluke i dešavanja u ljudskom životu, od odabira studija, radnog mjesta, zemlje i grada življenja, do odabira čak i životnih partnera?

Nikako ne treba umanjiti ili negirati utjecaj negativnih ekonomskih kretanja na pojavu populizma bilo kojeg ideološkog predznaka. S druge strane, pojava i jačanje desnih populističkih partija u zemljama zapadne Evrope koje spadaju među najrazvijenije i ekonomski najmoćnije zemlje svijeta pokazuje da ovako pojednostavljen pristup i objašnjenja nisu dovoljni da nam rasvijetle ključne mehanizam i uzroke koji su doveli do okretanja birača u ovim zemljama prema populističkim, antiestablišment i antimigrantskim partijama. Da li je moguće isključivo ekonomskim argumentima objasniti činjenicu da je jačanje desnopopulističkog biračkog tijela danas tako izraženo u zemljama zapadne Evrope čiji BDP per capita iznosi preko 50.000 USD (Švicarska, Švedska, Danska, Holandija ili Austrija) pri čemu ove države i nisu bile drastično pogođene velikom finansijskom krizom iz 2008. godine (BBC News, 2019)? Zašto se birači u zemljama s jakom i stabilnom ekonomijom odlučuju da ulaze u neizvjesno područje populizma?

U mogućem shvaćanju uzroka pojave populizma, naročito desnog populizma u ekonomski razvijenim zemljama, moguće je krenuti od isticanja razlika u gledanjima na ponašanje donosilaca odluka onako kako ih prezentiraju klasična ekonomija i bihevioralna ekonomija. Jasno je da iz perspektive stanovnika neke zemlje na jugoistoku Evrope ponašanje birača u bogatim evropskim zemljama nema racionalnu osnovu. Zašto kvariti sistem koji im donosi u prosjeku znatno kvalitetniji život u odnosu na ostatak evropskog kontinenta. Racionalnost podrazumijeva da birači, odnosno donosioci odluka, nastoje maksimizirati svoju korist. U osnovi klasična ekonomija smatra da su ljudi racionalni i da su njihove odluke u skladu s time racionalne. Da bismo mogli donositi savršeno racionalne odluke bitan preduslov je i savršena informisanost. Teško je povjerovati da su pojedinci kao donosi ekonomskih ili političkih odluka savršeno informisani i upoznati sa svim okolnostima i faktorima koje utiču na taj proces. Takve super racionalne pojedince je nobelovac Richard Thaler nazvao ekonima (Thaler, 2008). I sami shvatamo da ljudi, ili barem većina njih, ne odgovara takvom obliku ponašanja. Nasuprot klasičnoj ekonomiji racionalnih ekona, bihevioralna ekonomija shvaća i uviđa da naše odluke, bile one ekonomske ili političke, nisu uvijek savršeno racionalne. Bihevioralna ekonomija je disciplina koja se bavi istraživanjem utjecaja psiholoških, kognitivnih, emotivnih i socijalnih faktora na donosioce ekonomskih odluka. Nastanku i recentnom usponu bihevioralne ekonomije najviše su doprinijela dvojica psihologa Daniel Kahneman i Amos Tversky, te ranije spomenuti ekonomista Richard Thaler. Rezultati istraživanja bihevioralnih ekonomista i uočeni obrasci ponašanja koje su oni prezentirali u svojim radovima, a koji se odnose na donosioce ekonomskih odluka, mogu se primijeniti i u objašnjenju ponašanje birača koji se okreću populističkim partijama i pokretima. U osnovi ovog pristupa razumijevanju donošenja odluka stoji sama organizacija sistema ponašanja, odnosno uma. Naš um se sastoji ustvari od dva sistema koje Kahneman naziva Sistem 1 i Sistem 2. Dok je Sistem 2 usmjeren na mentalne aktivnosti koje zahtijevaju trud i pažnju, Sistem 1 djeluje automatski uz malo ili nimalo truda i pritom ljudi nemaju osjećaj kontrole (Kahneman, 2011). Njihova istraživanja pokazuju da se ljudi u nedostatku informacija, znanja ili vremena prilikom donošenja odluka služe heuristikama, koje možemo pojednostavljeno označiti kao mentalne skraćenice ili prečice. Primjeri nekih opaženih heuristika, odnosno iracionalnih oblika ponašanja koji mogu, barem u jednom dijelu, objasniti okretanje birača prema partijama koje svoj program grade na populističkim idejama će biti prezentirani u nastavku.

## Teorija izgleda (Prospect Theory)

Psihološka vrijednost dobitaka i gubitaka nije jednaka. Ljudi pokazuju veću emotivnu osjetljivost na gubitke u odnosu na jednake dobitke. Psihološki eksperimenti su pokazali da ljudi gubitke između 1,5 i 2,5 puta u prosjeku teže emocionalno doživljavaju u odnosu na istovrsne dobitke. U primjeru izbora između dobitka i gubitka ljudi pokazuju averziju prema riziku, odnosno nisu skloni da riskiraju. S druge strane kada su suočeni samo s negativnom opcijom odnosno gubitkom, oni pokazuju sklonost ka riziku (Kahneman, 2011). Dakle, u slučaju da biraju između očekivanih ili sigurnih dobitaka i većih neizvjesnih dobitaka (npr. 50% šansi za veći dobitak i 50% šansi da je on nula) ljudi preferiraju sigurne dobitke, dok radije biraju neizvjesne gubitke (npr. 50% šansi za veći gubitak i 50% šansi da je on nula) u odnosu na očekivane sigurne gubitke. Prevedeno na jezik birača, ako ih suočimo s vladinim mjerama štednje, povećanja poreskog opterećenja, liberalizacije tržišta rada za strane radnike, liberalizacije uvoza i sl., a što oni mogu percipirati kao siguran gubitak u budućnosti, oni u tom slučaju postaju spremniji na rizik. To će pokazati tako što daju povjerenje populističkim partijama unatoč tome što ove često nude put u nepoznato, odnosno nude neizvjesnost u budućnosti koja može rezultirati i većim gubicima u odnosu na očekivane, ali nude i određenu vjerovatnoću da gubici budu manji od očekivanja (uostalom to i obećavaju), nasuprot sigurnim gubicima koje mogu očekivati ako postojeća vlada ostane i provede najavljene mjere. Gledajući iz perspektive ljudi u siromašnim zemljama, teško je objasniti činjenicu da birači u razvijenim zemljama, koji u prosjeku imaju znatno bolji standard života, pri tome vjerovatno i percipiraju da su njihove zemlje bogatije od ostatka svijeta, ulaze u rizik birajući neizvjesne populističke projekte. Prema teoriji izgleda stavovi pojedinaca o dobicima i gubicima ne proizilaze iz njihove procjene sopstvenog bogatstva. Ljudi jednostavno ne vole gubitke izraženije nego što vole dobitke (Kahneman, 2011).

## Zadovoljstvo kažnjavanja

Asimetričan stav ljudi u odnosu na dobitke i gubitke u značajnoj mjeri utiče i na motivaciju kada je riječ o djelovanju u političkoj sferi društva. Ljudi su više motivisani i entuzijastični kada je riječ o odbrani stečenih prava, nego što je to slučaj kada se radi o stjecanju novih prava. Svjedoci smo da su u slučajevima provođenja određenih reformi, koje u konačnici imaju za cilj povećanje prosječne dobrobiti svih pojedinaca, u medijima, ponekad i na ulici, najglasnije one grupe čija su prava ili interesi ugroženi. S druge strane, nikada na ulici ne vidimo grupe koje su pomenutom reformom došle u bolji položaj da se bore za vladine reforme, a pri tome su možda i mnogobrojnije. U slučaju da je percepcija mjera koje dovode do gubitaka pojedinaca takva da se one smatraju nepravičnim, to može biti rizično po one koji ih provode u situaciji kad oni koji se osjećaju pogođeni njima imaju mogućnost da se osvete. A birači tu mogućnost imaju svaki put kada izađu na izbore.

Jedno istraživanje koje je provela grupa naučnika u Švicarskoj, a predstavlja modificirani eksperiment "igre povjerenja" je pokazalo da su ljudi spremniji pokazati povjerenje prema drugim više nego što to predviđa racionalna ekonomija. Međutim u slučaju izigranog povjerenja, ljudi koji imaju priliku da se osvete to čine veoma oštro čak i ako pri tome gube vrijeme, novac i energiju. Ovako iracionalno ponašanje navodi na zaključak da su smisao za pravednošću i želja za osvetom instinktivne prirodne osobine ljudi. Interesantno je da su neurološka istraživanja pokazala da se prilikom odluke da se nekome, ko nam je učinio nepravdu ili narušio naše povjerenje, osvetimo u mozgu aktivira centar koji je odgovoran za način na koji doživljavamo i nagrade. Odluka o osveti za narušeno povjerenje možda čak izaziva i osjećaj zadovoljstva kod ljudi. Dakle, mi smo instinktivno povjerljivi, ali i skloni da se svetimo za narušeno povjerenje. Ovakve ljudske reakcije su jasno iskazane u gnjevu javnosti nakon finansijske krize iz 2008. godine, nakon čega su građani izgubili povjerenje u političke elite koje su reagovale na krizu spašavanjem propalih finansijskih giganata bez traženja njihove odgovornosti i normalno je bilo očekivati da se pojavila želja za osvetom (Ariely, 2010). Stoga je jasno da je jačanje desnih populističkih partija u značajnoj mjeri uslovljeno postojanjem instinktivnog poriva birača da se osvete političkim elitama zbog izgubljenog povjerenja i straha od gubitka određenih stečenih prava.

## Ljudi su lijeni da misle (kognitivna lakoća)

Ranije je spomenuto da našim ponašanjem upravljaju dva sistema. Možda je teško priznati, ali većinu našeg ponašanja određuje aktivnost intuitivnog, automatskog Sistema 1, dok misleći Sistem 2 predstavlja neku vrstu kontrolora odluka Sistema 1. Pri tome je Sistem 2 i prilično lijen. Većina ljudi je pri tome i pretjerano pouzdana u snagu svoje intuicije i mnoge odluke donosi intuitivno, a lijeni Sistem 2 ih kao takve ne provjerava te ih prihvata i procesuira. Prilično je jasno je da prilikom odluke o tome za koga da glasamo na narednim izborima ne provodimo dane u proučavanju programa koje nam nude različite stranke, izučavanju ekonomskih statističkih biltena i čitanju političke historije. Istovremeno, svatko će od nas vjerovatno relativno brzo u sebi da odgovor na pitanje za koga će glasati. U odgovorima na teška pitanja koja traže trud um djeluje tako što teže pitanje zamijeni lakšim pitanjem. Na primjer, kada postavimo složeno pitanje "Kakvi su izgledi za uspjeh poreske reforme?", mi ga intuitivno mijenjamo za lakše pitanje, "Koliko će se meni povećati porez?". Ova zamjena pitanja predstavlja mentalnu heuristiku koja je jedan od načina kao formiramo intuitivna mišljenja o složenim pitanjima. Ti odgovori su nekad zadovoljavajući, ali su nekad i potpuno pogrešni.

Naš um ne voli napor, on voli jednostavne priče i jasne aktere priča, jer mu takve poruke daju osjećaj kognitivne lakoće. Ako želimo da nas smatraju pouzdanim i inteligentnim onda ne treba izražavati svoje misli i stavove previše koristeći složene riječi tamo gdje su dovoljne i jednostavnije. Ako šaljemo poruku ne treba da primaoce te poruke opteretimo bilo čime što podsjeća na ulaganje mentalnog truda, uključujući i naziv onog ko je izvor poruke (Kahneman, 2011). Kada pogledamo nastupe populista oni su upravo takvi, oni šalju konzistentne poruke koristeći jednostavan vokabular ("Mi ne želimo migrante u našoj zemlji" ili "Evropska unija nas iskorištava") koje ljudi lako i intuitivno prihvaćaju. Istovremeno se političke elite često zarobe u intelektualnim razmetanjima, čime samo produbljuje dualizam (mi i oni) koji čini srž populizma. Čak i imena populističkih partija su često lako pamtljiva (npr. Sjeverna liga i Pokret 5 zvjezdica u Italiji ili Živi zid u Hrvatskoj) što doprinosi lakoći slanja i prihvaćanja njihovih poruka. Iako je vjerovatno većina ljudi svjesna da su društveni problemi znatno kompleksniji mi smo nažalost jednostavno neskloni mentalnom naprezanju.

Problem predstavlja činjenica što mi nerado provjeravamo naše intuitivne odluke. Tim više što je našoj prirodi da dajemo veći značaj dokazima koji podupiru naše stavove i vjerovanja u odnosu na dokaze koji im proturječe, čime potvrđujemo naše često intuitivne odluke. To predstavlja konfirmacijska pristrasnost.

## Sve je relativno

U razumijevanju odgovora na pitanje zašto se ljudi u razvijenim zemljama, koji iz ugla gledanja ostataka svijeta žive prilično kvalitetno, značajnije okreću populizmu, može pomoći razumijevanje još jednog od načina kako funkcioniše naš um. Mi na stvari koje nas okružuju gledamo kroz odnos prema drugim stvarima, naš pogled je relativan. To se ne odnosi samo na materijalne stvari nego i na poglede, stavove i osjećaje. Takav relativan pogled na svijet je često iracionalan, što potvrđuju brojni eksperimenti i predstavlja još jednu mentalnu heuristiku koja nas utiče u procesu donošenju različitih odluka u životu, uključujući i odluke o odabiru političke partije (Aierly, 2008). Na primjer, ako stavimo na jednu stranu vage partije koje su po svemu za što se zalažu populističke, a na drugu stranu vage postavimo ekstremno desne ili lijeve partijama čiji programi su veoma bliski fašizmu ili staljinizmu, ove prve nam se u tom slučaju mogu učiniti puno prihvatljivijim.

Stalno poređenje s drugima kod nas često izaziva ljubomoru i loš osjećaj, jer mi svoju poziciju posmatramo u odnosu na druge. Pri pogledu na plate i beneficije političara, direktora korporacija i sl. naše plate, koje su možda i iznad prosjeka, se čine male što u nama izaziva jači osjećaj nezadovoljstva nego što bi se to moglo racionalno objasniti. Ovo je također u skladu s teorijom pravednosti Stacy Adams. Ona polazi od pretpostavku da pravdu pojedinac gleda kao relativan pojam uspoređujući sebe i druge. Ta činjenica da sve posmatramo u relativnom odnosu prema drugima predstavlja dodatni izražen psihološki impuls koji doprinosi jačanju podrške populističkim pokretima koji upravo ciljaju na to naglašavajući odnos običnih građana i elite, uz stalno isticanje (ne)pravednosti.

## Dostupnost

Psiholozi zu bili jako zainteresovani za istraživanja načina kako ljudi procjenjuju vjerovatnoću događaja ili pojava. Pokazalo se da je to složen proces i da se ljudi, u nedostatku potrebnih informacija ili vremena i ovdje koriste mentalnim skraćenicama, a pri tome često prave pogreške. Uglavnom vjerovatnoću nekog događaja ili pojave procjenjujemo na osnovu lakoće prizivanja tog događaja ili pojave u našem umu. Tako, na primjer, često precjenjujemo rizik od pada aviona u odnosu na neke manje medijski eksponirane rizike. To se naziva heuristika dostupnosti. Kada populisti istaknu parolu protiv migranata govoreći da će nam oni uzeti radna mjesta ili da predstavljaju prijetnju našoj sigurnosti, procjenu tih događaja ljudi vrše na osnovu lakoće prisjećanja takvih događaja koji su se desili u njihovom okruženju. S obzirom na to da se u medijima svakodnevno ističu upravo ovakvi negativni primjeri vezani za migrante ili druge skupine koje su meta populista, ne iznenađuje da sve veći broj ljudi procjenjuje pomenute opasnosti vjerovatnijim da će se zaista desiti, nego što je to realnost, a to ih onda može značajno usmjeriti na odluku da na izborima daju povjerenje onim partijama koje zaštitu od migranata ili drugih skupina ističu kao svoje političke prioritete.

## Zaključak

Ovdje smo naveli samo dio heuristika koje su zapažene u ljudskom ponašanju, a koje su našle svoje mjesto u bihevioralnoj ekonomiji, ali i političkim naukama,kao dokaz da ljude nije moguće posmatrati samo kao racionalne ekone. Mi smo u svojim svakodnevnim odlukama i procjenama često iracionalni i u tom procesu se vodimo mentalnim skraćenicama. Nema razloga sumnjati da takav obrazac naš um slijedi i kada su posrijedi odluke i procjene vezane za politiku. Dakle, kada biramo političku partiju nismo svjesni da našu odluku u određenoj mjeri uslovljava naš automatski intuitivni dio uma i urođena kognitivna lijenost. Treba jasno istaći da nikako ne treba pomenute psihološke faktore posmatrati kao jedine ili najvažnije u odluci birača kome dati glas, ali ih ne treba niti podcjenjivati. Ovdje se može istaći da je važna i politička kultura i okruženje u kojime se populizam pojavljuje. Populizam nije ekskluzivno vezan samo za zapadna društva, on je itekako prisutan i u zemljama istočne i srednje Evrope, bolje rečeno u cijelom svijetu. Danas je zapadni populizam u središtu interesa medija, jer politička kultura zapada je prilično razvijena i demokratske vrijednosti su čvrsto ukorijenjene. Politički populizam u zemljama sa nižim stepenom političke kulture je, može se reći, konstanta i možda zato danas "ne upada u oči" javnosti, ali to ne znači da nije ništa manje opasan. Na kraju je važno istaći, da u politici, kao i ostalim društvenim oblastima, nema smisla tragati za čarobnim formulama uspjeha. Egzaktnost je osigurana za prirodne nauke. U društvenim naukama treba poštovati brojnost i kompleksnost varijabli koje oblikuju društvene odnose i težiti da se o njima i njihovim međuvezama što više sazna, a ovo je bio pokušaj da neke od njih rasvijetlimo.

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# MAKROEKONOMSKI POPULIZAM – INSTRUMENT ZA BRŽI RAST ILI PUT U PROPAST

***Faruk Hadžić***

## Populizam – definicija i nastajanje

U oktobru 1945. godine, hiljade demonstranata u Buenos Airesu marširalo je na glavnu argentinsku zgradu, Casa Rosada, kako bi zatražilo povratak potpredsjednika Juana Peróna, koji je bio prisiljen dati ostavku sedmicu ranije. Dan je bio vruć, a mnogi muškarci skinuli su jakne, pa čak i majice. Prozvani su zbog toga podrugljivim nazivom "los descamisados–bez majica". Kada se Perón kandidirao za predsjednika na izborima 1946. godine kao populista, obišao je zemlju u vozu koji je nazvao El Descamisado po svojim sljedbenicima.

Descamisados i slični njima bili su sastavni dio populizma koji je dominirao južnoameričkom politikom od 1930-ih do nedavno. Počevši od brazilskog predsjednika Getúlio Vargasa, koji je prvi put preuzeo vlast 1930. godine, pa sve do Bolivijskog predsjednika Evo Moralesa, koji je na dužnost stupio 2006. godine, južnoamerički čelnici su u više navrata iskoristili moć nekada isključenih masa i obećavaju prosperitetniju budućnost svojim sljedbenicima.

Populizam sam po sebi je kontraverzan koncept. Naučnici su dugo bili u dilemi kako ponuditi razumljivu i preciznu definiciju populizma. Drake (1982), je npr. naglasio tri elementa definicije populizma. Po njemu, populizam koristi "političku mobilizaciju, ponavljajuću retoriku i simbole namijenjene nadahnuću naroda", te se oslanja na heterogenu koaliciju usmjerenu prvenstveno na radničku klasu, ali uključujući i vođenu značajnim sektorima iz srednjih i gornjih slojeva.

Conniff (1982) je smatrao da "populistički programi obično se preklapaju sa programima socijalizma", dok Dornbusch i Edwards (1990) smatraju da je "ekonomski populizam" pristup ekonomiji koji naglašava rast i preraspodjelu dohotka, ali zaobilazi rizike inflacije, finansiranje deficitom i vanjska ograničenja. Po njima, makroekonomija različitih iskustava gotovo je ista, čak i ako se politika značajno razlikovala, jer na kraju populističke politike ne uspijevaju, a taj neuspjeh dolazi na kraju sa zastrašujućim troškovima.

Najkraću, ali možda najprecizniju definiciju populizma, ponudili su Kaufman i Stallings (1990), koji kažu da populizam uključuje set ekonomskih politika namijenjenih za postizanje određenih političkih ciljeva. Ti politički ciljevi su (1) mobilizacija podrške unutar organizovanih skupina rada i niže srednje klase; (2) dobivanje podrške od domaćih poslovnih subjekata; i (3) politička izolacija ruralne oligarhije, stranih preduzeća i velikih domaćih industrijskih elita. Ekonomske politike za postizanje ovih ciljeva uključuju, ali nisu ograničene na: (1) budžetski deficit radi poticanja domaće potražnje; (2) povećanje nominalnih plata sa kontrolom cijena radi postizanja preraspodjele dohotka; i (3) kontrola deviznog kursa.

Dornbusch i Edwards (1990) također navode da populistička paradigma ima tri ključne stavke, a to su:

**Početni uslovi** - Kreatori populističke politike i stanovništvo uopće, duboko su nezadovoljni funkcionisanjem ekonomije, tako da postoji snažan osjećaj da stvari mogu biti bolje. Obično je zemlja doživjela vrlo umjeren rast, stagnaciju ili izrazito depresiju kao rezultat prethodnih pokušaja stabilizacije. Prethodno iskustvo stabilizacije često je, iako ne nužno, uvijek provedeno u okviru programa MMF-a i rezultiralo smanjenim rastom i nižim životnim standardom. Pored toga, visoko neravnomjerna raspodjela dohotka obično predstavlja ozbiljan politički i ekonomski problem, što dovodi do radikalno drugačijeg ekonomskog programa.

**Odsutnost ograničenja** – Kreatori politika izričito odbacuju konzervativnu paradigmu i zanemaruju postojanje bilo koje vrste ograničenja makroekonomske politike. Postojeće devizne rezerve i mogućnost utjecaja na devizni kurs, stvaraju dodatni prostor za ekspanzivne politike bez rizika da naiđu na vanjska ograničenja. Rizici finansiranja deficita naglašeni u tradicionalnom razmišljanju prikazuju se kao pretjerani ili u potpunosti neutemeljeni. Prema populističkim političarima, ekspanzija nije inflatorna (ako nema devalvacije), jer rezervni kapacitet i smanjeni dugoročni troškovi ostavljaju dodatni prostor za smanjivanje profitnih marži kontrolom cijena.

**Prijedlozi politika** - U svjetlu gore opisanih početnih uvjeta, populistički programi ističu tri elementa: reaktivaciju, preraspodjelu dohotka i restrukturiranje ekonomije. Ovdje je uobičajena nit "reaktivacija redistribucijom". Preporučena politika je aktivno korištenje makroekonomske politike za preraspodjelu prihoda, obično velikim povećanjima realnih plaća koja se ne trebaju prenijeti na veće cijene. Međutim, čak i ako se razvijaju inflatorni pritisci, populistički kreator politike odbija devalvaciju zbog uvjerenja da smanjuje životni standard i zato što će imati daljnji inflatorni utjecaj bez pozitivnog utjecaja na vanjski sektor. Ekonomija se mora restrukturirati kako bi se uštedjela na devizama i podržala veći nivo realnih plata i veći rast.

## Šta je makroekonomski populizam?

Populizam u ekonomskom smislu prepoznatljiv je za zemlje Južne Amerike. Mudde i Kaltwasser (2017) primijetili su da Južna Amerika ima "najtrajniju i najrašireniju populističku tradiciju na svijetu". Oni su sugerirali da je to tako jer je to bila regija s dugom tradicijom demokratskog upravljanja i slobodnim izborima, ali s visokim stopama društveno-ekonomske nejednakosti, što je stvorilo odbojnost koju političari mogu artikulirati kroz populizam.

U nekim zemljama populizam je fiskalno podržan u Južnoj Americi u periodima rasta kao što su 1950-e i 1960-e i tokom rasta cijena robe, poput nafte i plemenitih metala. Politički lideri mogli su okupljati sljedbenike među popularnim klasama sa širokim redistribucijskim programima u doba procvata. Suprotno tome, u drugim zemljama populizam je historijski povezan sa suzbijanjem relativnog pada izvozne poljoprivrede i deficitom potrošnje, te politikom supstitucije uvoza usmjerenim na razvijanje unutrašnjeg tržišta industrijskih proizvoda široke potrošnje (Vieira, 1998). Populizam u Južnoj Americi ponekad se kritizirao zbog fiskalne politike mnogih njegovih vođa, ali je također branjen jer je dopustio nerazvijenim državama da postignu podnošljiv stepen stabilnosti, istovremeno pokrećući industrijalizaciju velikih razmjera. Populističku fiskalnu i monetarnu politiku, Dornbusch i Edwards (1990) nazvali su makroekonomski populizam.

Dornbusch i Edwards (1990) su također razvili i faze populističkog makroekonomskog ciklusa. Početak populističkog ciklusa uglavnom dolazi nakon stabilizacijskog programa. Budžet i vanjska ravnoteža ostavljaju prostor za ekspanzivnu politiku. Faze u populističkom makroekonomskom ciklusu su:

- Prva faza uključuje značajno povećanje javne potrošnje, realnih plata i zaposlenosti. Bruto domaći proizvod raste i mali je utjecaj na inflaciju. Nedostatak roba se nadoknađuje uvozom. Dolazi do smanjenja deviznih rezervi ili do neservisiranja vanjskog duga.
- Druga faza uključuje porast inflacije, iako plaće ostaju iste. Dolazi do pojave uskog grla, koji vodi ka kontroli cijena i razmjene. Budžetski deficit značajno raste kao rezultat subvencija. Ekonomija dolazi u stagflaciju.
- Treću fazu obilježava nestašica, ekstremno ubrzanje inflacije (moguće hiperinflacije) i bijeg kapitala. Pad prihoda od poreza u kombinaciji sa visokom inflacijom rezultira povećanjem budžetskog deficita (Olivera – Tanzi efekt). Pokušaj stabilizacije smanjenjem subvencija i devalvacije dovodi do pada realnih plata.
- U četvrtoj fazi nova vlada provodi ortodoksne politike za stabilizaciju ekonomije. Jednom kada se ekonomija stabilizira, realne plaće će biti manje nego na početku prve faze.

Više je primjera iz Južne Amerike, gdje se mogu prikazati makroekonomski efekti populističkih politika. Početkom mandata Néstora Kirchnera, argentinska ekonomija bila je potaknuta porastom cijena roba i vladinim uspjehom u pregovorima o velikom dijelu duga od 100 milijardi dolara. Iskoristivši rast ekonomije, Kirchner je povećao minimalne plaće, penzije, proširio socijalne programe i utrostručio plate javnog sektora. Do 2015. godine, država je zapošljavala svakog petog radnika. Sva ova potrošnja stvorila je ogroman fiskalni deficit, dovela do burne inflacije i pomogla da se ekonomija gurne u recesiju.

Ekonomska politika je posebno predmet problema onoga što ekonomisti nazivaju vremenskom nedosljednošću: kratkotrajni interesi često narušavaju provođenje politika koje su dugoročno daleko poželjnije. Tipični primjer je diskreciona monetarna politika. Političari koji imaju moć štampanja novca po volji mogu stvoriti "iznenadnu inflaciju" kako bi povećali proizvodnju i zaposlenost u kratkom roku - recimo, prije izbora. Međutim, inflacije se odmah ne osjete, jer firme i domaćinstva prilagođavaju svoja očekivanja u vezi s inflacijom. Na kraju, diskreciona monetarna politika rezultira samo višom inflacijom bez postizanja bilo kakve dobiti ili zaposlenosti. Rješenje je neovisna centralna banka, izolirana od politike, koja djeluje isključivo na svoj mandat da održi stabilnost cijena.

O tome da li je ekonomski populizam nužno loš za ekonomiju, govorio je i Rodrick (2018). Populizam koji uništava liberalne, pluralističke, demokratske norme – drugim riječima političku varijantu populizma - gotovo je uvijek opasan. Ali ekonomski populizam je drugačiji. Postoje slučajevi kad je neki ekonomski populizam u stvari jedini način da se spriječi njegov mnogo opasniji rođak, politički populizam.

U mnogim od ovih slučajeva možda je poželjnije ublažavanje ograničenja ekonomske politike i vraćanje autonomije politike izabranim vladama. To je posebno ispravno u vremenima kada je politički populizam u porastu. Izuzetna vremena zahtijevaju slobodu tumačenja ekonomske politike. Kao dobar primjer takvog načina vođenja ekonomske politike pružio je Franklin Roosevelt i njegov New Deal. Roosevelt se 1932. godine pozvao na "smjela i uporna eksperimentiranja" tvrdeći da je za ispravljanje grešaka prevladavajućeg ekonomskog sistema potreban entuzijazam, mašta i hrabrost da se uspostave drugačiji aranžmani. Ali za eksperimentiranje mu je trebalo da riješi mnoge poteškoće u ekonomskoj politici.

Roosevelt je došao na funkciju tokom najgoreg ekonomskog pada u ekonomskoj historiji SAD-a. Na početku je podržavao tradicionalne politike poput uravnoteženog budžeta. Ali ubrzo je promijenio način razmišljanja. Mnoge Rooseveltove ekonomske inicijative bile su ogrnute populističkim mjerama.

Populizam i populističke mjere nisu samo geografski vezano za Južnu Ameriku. One su prisutne gotovo svugdje u svijetu, pa čak i kod nas u Bosni i Hercegovini.

## Makroekonomski populizam u BiH

Bosna i Hercegovina, kao država, također nije imuna na populističke pokušaje miješanja u domenu makroekonomske politike, jer je u pitanju zemlja koja ima spori ekonomski rast, visoku stopu nezaposlenosti, masovno iseljavanje stanovništva i nizak nivo plata.

Kao primjer može se navesti Centralna banka BiH, koja funkcioniše prema modelu Valutnog odbora, rigidnog mehanizma monetarne politike. Osnovni ciljevi i zadaci Centralne banke su utvrđeni Zakonom saglasno Općem okvirnom sporazumu za mir u BiH. Centralna banka Bosne i Hercegovine održava monetarnu stabilnost u skladu s currency board aranžmanom što znači da izdaje domaću valutu uz puno pokriće u slobodnim konvertibilnim deviznim sredstvima po fiksnom kursu. Upravo je ovaj mehanizam uveden kako bi se spriječio politički utjecaj na ovu instituciju, čime bi moglo doći do ekonomskih poremećaja nekontrolisanim korištenjem monetarne politike.

U posljednjih nekoliko godina bilo je više pokušaja uplitanja politike u nezavisnost Centralne banke, u cilju ostvarivanja dnevno-političkih ciljeva, što je moglo ostaviti ozbiljne ekonomske posljedice na ekonomiju Bosne i Hercegovine. Iskustva drugih država to potvrđuju. Tako je 2015. godine Predsjedništvo Bosne i Hercegovine zatražilo analizu rada te institucije, kako bi vidjeli da li "postoji mogućnost angažiranja viška sredstava", eventualno kroz neki fond preko kojeg bi ti viškovi bili investirani u privredni razvoj. Početkom 2017. godine, nekoliko lidera političkih stranaka u Bosne i Hercegovine tvrdili su "da u Centralnoj banci Bosne i Hercegovine ima 700 miliona KM koji stoje, te da ih treba iskoristiti u infrastrukturu i zapošljavanje ljudi, umjesto da se novac posuđuje i plaćaju kamate stranim bankama." O ugroženosti nezavisnosti Centralne banke Bosne i Hercegovine u svom pismu upozorili su i iz MMF-a prema vlastima države Bosne i Hercegovine.

Iako se značajan broj ekonomista u Bosni i Hercegovini slaže da ulaganje viška sredstava preko 100% pokrića može imati pozitivne efekte, ukoliko bi se novac stavio u razvojnu funkciju, prevladava ipak mišljenje da bi taj novac političari ipak iskoristili za pokriće budžetskih rupa, te da bi se novac umjesto u investicije, usmjerio u tekuću potrošnju, što bi dovelo do inflatornih efekata.

Drugi primjer, iz domena fiskalne politike, a koji ima elemente makroekonomskog populizma vlasti, odnosi se na prelazak penzionog sistema na trezorski način poslovanja. Domena fiskalne politike u Bosni i Hercegovini je podijeljena između države i nižih administrativnih jedinica – entiteta i kantona. Nadležnost entiteta jeste da reguliše oblast penzijsko – invalidskog osiguranja. U Republici Srpskoj, entitetu u Bosni i Hercegovini, penzioni sistem je prešao na trezorski način poslovanja još 2015. godine, dok će prelazak u Federaciji Bosne i Hercegovine, drugom entitetu, desiti 2020. godine. Pojednostavljeno, prihodi i obaveze PIO sistema postaju prihodi i rashodi entiteta. Razlog za prelazak na trezorski način poslovanja utemeljen je da činjenici, da buduća stabilnost sistema zavisi od broja osiguranika koji će uplaćivati novac. S obzirom da broj korisnika raste, dolazi do deficita sistema. Rješenje je pronađeno na ovaj način, gdje bi se nedostatak finansijskih sredstava osigurao porezima, umjesto doprinosima. Iako ova mjera može kratkoročno imati pozitivne efekte na redovnost i povećanje isplata penzija, opasnost ovog načina funkcionisanja jeste da dolaskom ekonomske krize, može doći do ugrožavanja funkcionisanja isplate penzije, koje bi kroz vanbudžetski fond bile zaštićene. Ne sumnjajući u dobre namjere kreatora politike, da se osigura redovnija isplata i povećanje penzija, koje nije zasnovano na većim uplatama doprinosa, već na porezima, pozitivni kratkoročni, možemo reći i populistički potezi, mogu dovesti do negativnih dugoročnih posljedica.

Jedan nedavni primjer možda najbolje pokazuje efekte makroekonomskog populizma na primjeru usvajanja dodatnih akciza na naftu u BiH. Tokom 2017. godine, pokrenula se politička kampanja pojedinih stranaka kako bi se izmijenio postojeći Zakon o akcizama u BiH i povećao namet na gorivo, u cilju "pokretanja cestogradnje u BiH". Prema tada važećem zakonu, putem litre goriva se prikupljala akciza u iznosu od 0,30 KM po litri dizela, namjenska putarina za ceste u iznosu 0,15 KM po litru goriva, namjenska putarina za autoceste u iznosu od 0,10 KM po litri goriva i PDV. Prikupljene akcize, putarine za ceste i PDV po litri goriva, su se usmjerili prema Jedinstvenom računu Uprave za indirektno oporezivanje, a sa njega prema državi, entitetima, kantonima i općinama, drugim riječima u budžetsku potrošnju. Jedino je namjenska putarina za autoceste išla na poseban podračun i namjenski se usmjeravala u izgradnju autocesti.

Umjesto rasprave u političkim i ekonomskim krugovima, o tome koliko je novaca od 2009. godine prikupljeno po osnovu raznih poreza na gorivo, te zbog čega taj prikupljeni iznos nije usmjeren namjenski, već u budžete, rasprava se odvijala zbog čega je potrebno povećati akcize, tj. putarine za autoceste, po litri goriva za 0,15 KM po litri + PDV, kako bi se "pokrenuo novi investicijski ciklus u cestogradnji".

Veći dio struke je upozoravao da će povećanje cijene goriva, do kojeg bi došlo zbog uvođenja novih nameta, dovesti i do lančanog rasta cijena na tržištu, primarno prijevoza, rasta troškova poljoprivredne proizvodnje i generalno troškova hrane, a da se prikupljeni iznos neće usmjeriti u cestogradnju i investicije. Struka je upozorila da je po osnovu akciza i putarina na gorivo, u periodu 2009-2017. godine, prikupljeno sedam milijardi KM, a da je od tog iznosa namjenski usmjereno 1,1 milijarda KM, a ostatak je otišao u budžete, uz prijedlog da se u sklopu postojećeg modela raspodjele, poveća izdvajanje za cestogradnju, a manje u budžet, čime ne bi došlo do rasta cijene goriva i troškova života.

Ipak, većina u Parlamentu BiH, usvojila je povećanje putarina na gorivo, što je bio okidač za još veće povećanje cijena goriva. Cijene goriva su rasle tokom cijele godine, što je dovelo do rasta prijevoza, troškova života i poljoprivrednih proizvoda. Po osnovu novih putarina, prikupljene su stotine miliona KM, koje nisu usmjerene u cestogradnju. Umjesto da se taj novac usmjeri u gradnju, vlast je krenula sa intenzivnim dizanjem kredita za gradnju autocesti tokom cijele 2019. godine u stotinama miliona EUR-a, sa najavom novih kreditnih zaduženja.

Godišnji efekti novih putarina su isti kao da je stopa PDV-a povećana za 1%. Pored ovog povećanja, smanjena je potrošnja stanovništva, jer su prikupljena sredstva uzeta iz postojeće potrošnje, nisu povećane plate, došlo je do rasta troškova života, nije pokrenut investicijski ciklus, a došlo je do povećanja dugoročnog zaduženja i javne potrošnje.

## Zaključak

Populizam može biti moćna politika u rukama pogrešnih osoba. Vidjeli smo da populizam ne mora nužno značiti nešto negativno, jer u određenim situacijama, može pomoći razvoju zemlje. Ipak, te situacije su mnogo rjeđe u odnosu na negativne efekte koje populističke mjere izazivaju.

Ni BiH nije ostala imuna na populizam i negativne efekte populističkih mjera, koje one izazivaju, što smo vidjeli na nekoliko primjera, koje imaju obilježja makroekonomskog populizma. Ukoliko posmatramo faze makroekonomskog populističkog ciklusa, može se primijetiti da s BiH nalazi još uvijek u prvoj ili početku druge faze. Da su neke neki populistički potezi dozvoljeni, poput štampanja novca, već sada bi govorili o trećoj fazi u ciklusu. Ipak, negativni efekti još uvijek nisu toliko drastični, osim ako zanemarimo iseljavanje stanovništva kao rezultat neprovođenja neophodnih ekonomskih reformi.

Nekada, uz pravilno i pažljivo usmjeravanje može pomoći razvoju zemlje. Ipak, iskustva iz mnogih zemalja svijeta su pokazala da populizam na kraju donosi više problema nego koristi. Jednostavno, to je područje snova, ali vrlo klizavog parketa.

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# THE EFFECTS OF MULTIMEDIA ON THE VISIBILITY OF CULTURAL AND ART PROJECTS: THREE CASE STUDIES

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## Abstract

The emergence of multimedia has transformed cultural and artistic products from the ground up. Thanks to multimedia, formerly traditional media have been adapted to all generations of society, while thanks to constant innovation in the multimedia world, some projects have been fresh and current for many years. With its virtual spaces, the theater approaches science-fiction level, with visual and stage motifs music has become one complete experience for all senses, while multimedia assisted museums to become large classrooms for all ages. In addition to many controversies about its usefulness/harmfulness, multitasking today has become highly requested in areas where it did not exist before. This is the reason why multimedia is becoming an inseparable and integrative part of every cultural and artistic product that without it, cannot even exist.

To better represent the mutual development of media through multimedia, a case study of three major multimedia projects was conducted in three different media terms:

- Multimedia Theatrical Adventure by Natasha Tsakos - Multimedia in Theater Arts
- Another Brick in the Wall - Multimedia in the music medium
- Faust Vrančić in Multimedia environment - Multimedia in museum and exhibition activities

Today, multimedia is inseparable from any form of cultural, artistic, or any other way of communication, and has replaced meaningless, simple and one-way messages. The current approach to audiences has been successful in recent generations so far. Only by adapting to contemporary developments in the field of multimedia can one expect the success of generations born in this millennium, the audience of the present, while the audience of the future will probably look for the emergence of some new media, which will again be successfully found in the world of culture and art.

**Keywords:** *Multimedia, Natasha Tsakos, Pink Floyd, Faust Vrančić*.

## 1. Introductory considerations

Media enriches man's knowledge with the information. We can trace the evolution of humanity through the development of media and multimedia. The long-term role of the media, in which the communication process was reduced to a one-way message, was changed, and the newly created multimedia conveyed more meaningful messages faster and more effectively. At its inception, the human ability to simultaneously track different information sources using different senses was exploited, and that is the main goal of multimedia – to activate as many senses as possible to aim a full experience of the transmitted message.

In the history of media, it is obvious that new media include already existing ones, developing them further without compromising their existence. On the contrary, the emergence of the new media most often leads to a positive transformation of the media from which it developed – the older medium absorbs some of the resources of the new communication carrier.

From this, it can be seen that the recipient already receives each new medium's message as multimedia. The latest media, most notably the Internet and social networks, have developed multimedia, upgraded it with hypermedia and they support the transmission of almost unlimited media messages simultaneously. This way, the media takes on a new role, and while the man was completing the media to the limit when they activated all his senses in receiving the sent information, today the media is simultaneously sending a large number of messages changing the man and developing his ability to follow many different multimedia messages at the same time (multitasking).

## 2. Literature review

The notion of multimedia in art is often associated with computer technology. Observing it in that atmosphere, there is a great possibility of misperception of this significant part of many arts and the way of artistic representation. It is therefore not unusual that a large number of articles that problematize multimedia talk about multimedia in this way. One such approach is the article: "Communication model: multimedia art", in which two questions are asked at the very beginning: "What is multimedia?" and "What is artistic in multimedia?" (Srnić, 2003). In addition to a review of Richard Wagner's Gesamkunstwerk (a work of art created by the synergy of multiple artistic expressions) from the mid-nineteenth century and initial ideas "of "total artwork", the clash of art and religion" (Srnić, 2003), as well as the work of the Bauhaus school (Heidegger's philosophy) on the need for compassion (Einstellung), Laslo Moholy Nagy in the twenties of the twentieth century, the author of this text nevertheless limits multimedia to the computer environment.

As "artistic" in a multimedia environment recognizes the synchronicity and synthesis of multiple media "(images, music, text, speech, and even movement interpreted in space through the media)", as reasons for recognizing the problem of a small number of such works the author cites expensive technologies and "the lack of experimental spirit in the world of academic education of artists" (Srnić, 2003). In this way, however, she reduces multimedia to the framework of digital technologies, denying their existence outside that environment. The narrowed horizon of this approach, very often completely excludes some traditional art forms that are multimedia in their origin, while digital technologies only help them to become "more visible" and more accessible. Availability on networks brings another medium into these already multimedia forms.

Although it is limited to "digital delivery", the article "Traditional art in the delivery of multimedia and network communications" (Rutović, 2013) recognizes the contribution that digital technology makes to its communication environments of already existing traditional arts. "The world of multimedia networks communications and major technological upheavals results in the metamorphosis of the very concept and experience of the concept of art," says Rutović in his article "Traditional art in the age of multimedia and network communications." Rutović considers the forms thus created to be a new genre, which he marks with a common denominator – "virtual art" (Rutović, 2013).

The frequent attaching to computer technology required the recognition of multimedia in works that are not originally related to such ways of creation. In any case, new communication technologies can enrich existing expressions and make them more accessible. Such communication, however, does not diminish the already existing multimedia of original works created outside the digital environment.

The roots of this approach are found in the history and theory of art and media, multimedia patterns of individual artistic concepts, as well as the approach and analysis of the author's work and the author's review of his own work.

## 3. Theoretical considerations

From media to multimedia - continuous development, upgrading and synergy.

"Abstract thinking and syntactic language originated about 70,000 years ago, and language precisely meant a "dramatic" change in the behavior of the human species over its ancestors" (Lukić, 2013). If we accept that the emergence of the first medium of mass communication is related to this change, then the first multimedia is connected to the cavemen – according to some interpretations of the cave paintings there was a combination of the ritual dance and sound, which makes it the original form of the performance.

"A cave drawing in southern France shows a man "disguised as a deer" ("The Dancing Wizard" in the Les Trois - Frères (Ariège) cave, 14,000 BC., author`s comment.), who apparently became carried away by some hunting ritual - mimicking animals probably is the earliest form of acting!" (Banović Dolezil, 2004). Impressions of the original performances often depict masked people, probably wizards or mages during the game. Anthropomorphic depictions of wizards with anatomical features of various animals can be found on many sites, the oldest of which is the wizard or bison man in the Chauvet-Pont d'Arc cave in the French province of Ardèche, more than 30,000 years old (Amplius : Combier, Jouve, 2012). It is estimated that there are over seventy known cave drawings but the number is not definite. (Půtová, 2013). A wide range of artefacts (depictions of prehistoric figures of sorcerers – shamans, who masked themselves as animals for the rituals) show that there was a creative rise of material technology and artistic creativity in the Upper Paleolithic. (Půtová, 2013). This is why Professor Lukić Darko in his book "Introduction to Anthropology of Performance. Who needs theater?" along with the names: "Homo faber (user/creator of the tool), Homo erectus (upright), Homo ludens (playing) and Homo sapiens (reasonable)" (Lukić, 2013) also proposes the introduction of the name "Homo sceanicus" (Lukić, 2013). "With Homo sapiens, therefore, much more complex and varied forms of performance emerge, such as sophisticated visual expressions, symbolic representations, speech and language, developed forms of music and dance, religious practices and complex social performances of the ritual type that bring the community together. All these phenomena have been documented by archaeological findings and scientifically validated." (Lukić, 2013).

This form of performing art, essentially the original form of theater, as a complex and meaningful medium, can be considered as the first multimedia that has appeared in the World. Those artifacts which are either representational or provide evidence for being part of a symbolic code (by the repetition of the same motifs) belong to the elite group of the artifacts that we call Art. The ivory statuette from Hohlenstein-Stadel in Southern Germany, 30,000-33,000 years old figure of a man with a lion's head carved from the tusk of a mammoth, is a remarkable combination of technical expertise and powerful imagery and a great specimen of the representational art. (Mithen, 1996). Of course, cave paintings, as a witness of the time, are the first media in the world to witness a ritual and convey a message about the indications of the original theatrical act. There are at least three mental attributes that are involved in creating and reading visual symbols, having considered some of the properties:

1. "The making of a visual image involves the planning and execution of a preconceived mental template.
2. Intentional communication concerning some displaced events or objects.
3. The attribution of meaning to a visual image not associated with its referent" (Mithen, 1996).

A man`s pursuit of artistic expression right from the start included a man`s desire to use art products to send a message. The works of art found themselves at the heart of the communication process, in the role of the transmitter of information or media.

The first known public newspaper appeared in 59 BC as "Acta Diurna Populi Romani", literally translated: Daily Works of the People of Rome (Amplius: Standage, 2013/2014) - "roman official newspaper published by Gaius Julius Caesar. In 27 BC Acta Diurna became a daily newspaper" (Amplius: Acta Diurna in Croatian Encyclopedia, "Miroslav Krleža" Lexicographic Institute). "In 1452, Gutenberg began to print the Bible" (Rebić, 2003) and thus initiated numerous processes. The printed Bible is not just "the industry's first serial product" (Rebić, 2003), it is richly illustrated edition, which means that along with the words, it delivers pictures, too. The press has introduced technology to the media, and the latter development of the media depended largely on the development of the technology. The emergence of the photography will reform the press, and also become the basis of many other media. After 1826, when the first photography was created, or 1839, when the photography was officially recognized, the new media emerged in ever shorter intervals.

"The first of the questions that have been repeated throughout the history of the media concerns the fear that with the advent of a new media, the old ones will become extinct, or on the other hand, that some of the new media will not be able to survive by competing with those existing ones. As regards to the first part of the question, the historical logic, evident through the presented history of the media in this book, dictates that the new media, as a rule, has “additive” rather than “substantive” power. This is evident, for example, from the fact that the appearance of the Press didn’t affect the existence of the old media that used oral and manuscript communication, just as Press (the old medium) today (co) exists with the TV and Internet. Likewise, the emergence of television, that “universal eye”, did not seriously threaten then-flourishing cinema, nor did the emergence of the Internet threaten then-dominant television” (Kolar, 2011).

An increasing number of media outlets have been transmitting information faster and more accurately to an increasing number of people. In doing so, they educated these people in all segments of life, bringing previously unknown knowledge. The rapid development of human society happened only after the discovery of the first new media of mass communication. The media brought previously unavailable knowledge to the masses, thus enabling the continuous development of new insights, as well as the reduction of misinformation that is plentiful in the communities with fewer media outlets.

“Media and psychology have had an enormous influence on the development of Western cultures during the 20th century. Infiltration of the mass media in human everyday life reached almost every aspect of human interest...” (Ramić - Šabanić, 2016). The real revolution in the printed media is triggered by the possibility of perfect transmission of the image using technical means. Photography, which has been in daily use since the mid-nineteenth century, becomes an integral part of every subsequent medium. After the emergence of photography, which was the basis for the emergence of the film (initially silent), devices for audio recording that enabled the improvement of radio also appeared, as well as the first films with the sound. Such, complex information, was more acceptable to the human mind than separated information of static or motion pictures, or sound. “But, while each new medium has stirred controversy, the first debated about the usefulness or detriment of a medium in which the entire world participated, have been sparked by the emergence of film. This is due to the fact that the film was the first medium to put entertainment first among the holy trinity of social functions of media – information, education and entertainment – and unlike other media that were mostly invented to serve production, military or similar purposes, the film was the first one dedicated to the general population from the very beginning (Kolar, 2011). Afterward, several multimedia developed – a man understood them better and more easily than separate segments, as the multimedia is closer to the human way of perceiving the surrounding world.

“But the mass reception, the impact of capital, and the imbalance of social media functions in the early 20th century have hit other media outlets, and hybrid media content, combining information and entertainment, commonly referred to as infotainment, began to emerge. In the second half of the century media started to blend, phenomena called communications or a hybrid of computers and communications, while towards the end of the century multiple media convergence appeared. Similarly, in the early 20th century, the advertisers began to take on ever bigger media pie, although they had used the press before, but with the emergence of the radio, and later other visual and/or multimedia, they welcomed the media through which they could enter everyone’s home more easily” (Kolar, 2011). When a cultural or artistic product is at the center of a media message, we can find more ways to distribute it during or after its creation. Virtual reality technologies have enabled huge audiences to access even distant events at the same time. In any case, such an approach affects the gained experience. The shaping of the experience of the audience is influenced by the time and place of creation of the cultural product, as well as by the time and place of encounter of the created cultural product and its audience.

Different cultural expressions mean different cultural encounters. There are four categories that describe he distinction between the time and place of the creation of a cultural artifact or event and the time and space of their experience: creation and experience coincide in time and place, occur at the same time but in different places, happen at different times but in the same place, or, finally, are separated in time and place. (Sauter, 2000).

This division has become very current because of the great advances in virtual reality technologies and their increasing use in the modern world. Cultural events that were unique and related to the venue can today be distributed and/or preserved for replay purposes. There is no limit to the location and time of the distribution or replay.

## 4. Case studies

In order to better display the mutual development of the media through multimedia, research of case studies of three large multimedia project in three different media expressions was conducted, where alongside the original media of the particular project, in a multimedia environment in which it has grown, original media of the other two projects appear at the same time.

- The performing arts have been observed through new directions in the theater arts, as one of the oldest known media. Virtual reality media, multimedia and interactivity may impair the uniqueness and immediacy of contact between the performer and the audience, but these significant features of theater have not disappeared in the new environment. A significant change is accessibility, which is incomparably greater than without these new media, but also interactivity that completely breaks down even the imagined difference between audience and performer. Interaction puts the audience in the position of the performer, but also the performers in the position of the audience.

- The music arts have come out of the rigid framework of communicating with sound alone, and in conjunction with audiovisual performance and powerful text messaging, they form one extremely strong entity. Thanks to multimedia, the word “old age” cannot even be applied to projects that have existed for decades.

- History presentation and exhibiting have undergone major changes in the multimedia environment. Often the facts and exhibits presented in collections or exhibitions were unattractive or difficult to understand for a large number of uninitiated visitors. The danger of rejecting such messages was realistic. In these industries, multimedia has removed all barriers, and finally, those prone to the hypermedia environment, as well as virtual reality media, could truly fulfill these cultural needs.

As individual components of multimedia emerge on a specific matrix and involve the author’s work on different templates, the newly emerged expression inevitably leads to multiple inquiries and reveals any ill-known facts. This is another reason why multimedia messaging is often easier to understand than the individual components.

### *Case Study 1:*
### *Multimedia Theatrical Adventure by Natasha Tsakos - Multimedia in Theater Arts*

The theater is one of the first media in human history and is an integral part of that history. We got to know the oldest cultures through the Old Nations Theater, among other things. This medium, often critically focused, has often been banned in history. Due to the inability to control what would be said on stage, the authorities often opted for complete bans. “At the mention of the word media, the majority of superficial and ignorant theater advocates are horrified and opposed, having no idea how impossible it is to oppose theater to the media because it is just one of the media, (multi )media complex and intermediate in its essence” (Lukić, 2010). The theater is a medium, a medium that contains multiple media, and thus we receive it through more of our senses. There is no real or technological barrier between the audience and what is happening on stage, and therefore it is truly a unique and immediate medium. “The unity of time and space between performer and audience is core to the theatrical performance that is different from the media performances and other artistic acts” (Lukić, 2010). The theater is also open to all new media, and its multimedia is not limited. In theater performances, we will often notice photography, film and other screenings, animations, and more recently 3D animations and virtual spaces, in addition to music and other sound recordings.

One example of the perfect collaboration between performers and virtual spaces and characters is found in the Swiss concept artist, director, performer and interactive designer Natasha Tsakos. In her original expression, which it calls “technoformances”, she combines motion studies, electronic music and virtual technologies (Tsakos, 2009./TED). She makes the perfect unity with the virtual 3D world she created herself. In this environment, she can meet the past or future, undergo a virtual pass and moves from one to the other World. This way, Tsakos becomes completely independent and multimedia in her director’s hands becomes an instrument and expression which helps her create a new space in which introduces the audience. The peculiarity and difference in regards to the sci-fi scenes in the film is that everything happens live, at the moment of the performance, and everything that is seen is inimitable and unique, as the theater itself, the medium in which everything happens. In fact, like any other theater, it would be inimitable and unique if the technology that allows for the repetition and distribution of works was not part of the theater of today. Multimedia technologies have entered the theater and irreversibly altered it, bringing it closer to today’s way of perceiving art and the time in which that art is created. The only truly unique thing is the experience of direct contact between the audience and the performer, since there is no real barrier between them. Natasha Tsakos says in her Multimedia Theater Adventure: “I love theater. I love the idea that you can transform, become somebody else and look at life with a completely new perspective. I love the idea that people will sit in one room for a couple of hours and listen. The idea that in that room at that moment, everyone, regardless of their age, their gender, their race, their color, their religion, comes together. At that moment, we transcend space and time together. Theater awakens our senses and opens the door to our imagination. And our ability to imagine is what makes us explorers. Our ability to imagine makes us inventors and creators and unique. (…) Technology is an instrument that allowed me to manifest my visions in high definition, live, on stage. So today, I would like to talk to you about the relationship between theater and technology. Let's start with technology. (...) "Upwake" lasts 52 minutes and 54 seconds. I project 3D animation on all the four surfaces of the stage which I interact with. The use of animation and projection was a process of discovery. I didn't use it as a special effect, but as a partner on stage. There are no special effects in "Upwake," no artifice. It's as lavish and intricate as it is simple and minimal. Three hundred and forty-four frames, four and a half years and commissions later, what started as a one-person show became a collaborative work of nineteen most talented artists" (Tsakos, - Transcript of Speech/ TED) Natasha Tsakos does not actually play in front of the projection that is behind her in this famous performance. She plays with that projection and she plays in that projection. Natasha thus became part of her virtual space. She has become a new unreal creature, thus giving a whole new dimension to multimedia in the theater. The question that arises before the viewer is whether the projection of multimedia as a virtual scene has become a real part of space or has the artist lost her reality and become part of the virtual world. All this is happening in real-time, before the eyes of viewers who are not confused by this unity of the virtual and the real. The time that passes by is a witnessto the new reality that happens before their eyes. The performances of Natasha Tsakos, as well as numerous performances of other conceptualists in modern multimedia theater, show precisely the importance of multimedia in the oldest forms of media.

### *Case Study 2:*

### *Another Brick in the Wall - Multimedia in the music medium*

The possibility of multimedia to enable the restart of projects already seen comes from entirely new perspectives opened up by other media. The examplesare some projects such as Pink Floyd's rock -opera, the album "Another Brick in the Wall", 1979 that came out as a double LP and achieved incredible success. In the '70s and early '80s, there were many excellent and very popular progress-rock releases. The main difference between Pink Floyd's album and other musical works was the fact that it carried a powerful personal message. Roger Waters, the author of almost the entire album, used this medium as a mediator in communicating with a huge number of listeners. Aside from that, Waters had a need to keep his media work alive, and for this purpose, he was willing to constantly innovate it and include all available technical improvements in it. As it turned out, it was a very elaborate concept that represented many of the biographical motifs of Roger Waters at its core, delivered on a double LP. He then encouraged the recording of one full-length movie, three live music albums, and an opera, which premiered in March 2017 at the Opéra de Montréal, and then in July 2018 at the Cincinnati Opera. This project showed how each new medium that brings new channels of communication, in its new form, retains all the achieved values of previous performances, which complements with new forms of creative communication with the audience. Originally musical expression, used as a medium to send a powerful message about the need for the erasure of, primarily communicational, barriers between people, was supplemented by visual media, then by a very complex form of feature-animated film, and finally by multimedia expression filled with scenic, interactive and engaging entities. Today's form that can be seen on tours is a very complex work in which numerous media intertwine, not creating confusion, but sending very readable information to all our senses. In this way, this already aged concept has kept its freshness and communication power to this day.

“Another Brick in The Wall” carries a timeless story of different people among us, of misunderstanding, of building walls that divide us from our surroundings, but also of today’s most up-to-date topics such as the awakening of German Nazism or British imperialism. This is a story that speaks of intolerance towards immigrants, about Skinheads and the shelter in which the individual (Pink), in the state of madness, situates himself.

Pink is constantly at war with himself and that is what causes his madness. He is a modern psychiatric patient. He is trying to redeem and change himself. He is trying to erase or limit parts of himself that he dislikes, doesn’t understand or can’t control. The rebels – skinheads, are depiction of Pink’s inner struggle in broader social setting – they have the same struggles because of the part of the society that doesn’t like them, doesn’t understand them due to cultural, economic and racial differences, and can’t control them. (Reisch, 2007).

Regardless of the globally successful album, the project needed to be refreshed and in 1982, they promoted the movie which was carrying many visual guidelines of meaningful moments that we could identify from the cover of the original double album. The movie was announced with the words: “The memories, the madness, the movies, The Wall” (Pink Floyd-The Wall Theatrical Trailer, 1982) and they described the main features of both the film and the overall project. Although the multimedia project of the film, which introduced animated characters along with the actors, and unique music-stage performance with already known rock- electronic music and songs from this rock- opera, was a great success, there was a split in Pink Floyd in which the rock-opera “the Wall” was awarded to Roger Waters, as it was his authored work and for the most part, it displayed his impressions.

The demolition of the “Berlin wall” was the reason for a whole new approach. Waters, in an interview regarding Pink Floyd’s latest performance of “The Wall”, when asked about a possible re-performance, said “Never!” and then jokingly added, “unless of course, the Berlin Wall comes down or something like that” (Waters - pers. comm., early 1980’s). The new release of a multimedia project and new communication with the audience took place on July 21, 1990.

“Alienation in the contemporary world” (O’Neill Surber, 2007) is a phrase that describes the concept behind Pink Floyd’s great performance piece. It involves building of the real wall that first obscures and then totally physically divides the audience from the band. (O’neill Surber, 2007).

Roger Waters and his band made a great and unique performance. In a former cross-border area between the Brandenburg Gate and Potsdamer Platz, in memory of the fall of the Berlin Wall, on its foundations, he again built and torn down the wall which represented not only Berlin wall, that separated East and west, but also a wall that separated Waters from his audience. For his concept, Roger Waters himself says, “If this concert is to celebrate anything, it’s that the Berlin Wall coming down can be seen as a liberating of the human spirit” (Waters - pers. comm., early 1980’s).

Waters used his own experiences to explore the failed efforts to connect and communicate with other genuinely, in all his creations. (Weinstein, 2007).

Years later, in a statement to The Wall Street Journal, Waters stays true to the original concept, stating that he designed that show because he became disaffected by playing in football stadiums and that's when he started with a show where he built a wall that represented the feelings of alienation that he had for the audience. The audience, being separated from the band, understood that it was also about separation between East and West, not just about them being separated from the band on the performance. (Davis, 2012, wsj.).

The Wall has become part of contemporary culture and has continued to live through the decades that followed. Today, as part of a tour called "Flash", it records the destruction of all divisions in the modern world. Today it is a multimedia project involving dozens of projection devices and it is perhaps the most complex interactive projection we can experience and combines many light effects, sound, animation displays and real objects such as large blocks to build a wall or airplane, and as such a multimedia project lives on even today, almost 40 years later - a lot more than the "Berlin Wall", on whose remains it was performed in 1990.

### *Case Study 3: Faust Vrančić in Multimedia environment - Multimedia in museum and exhibition activities*

An example of the application of multimedia in the areas in which it caused a real revolution is found in museum and gallery activities, which are closely related to particular forms of education. "Visiting the museum is one 'multimedia' experience. Ever since the first legend with a written explanation has been placed in the exhibition gallery, visitors have been receiving notices by looking at and reading about things. As multimedia is actually a combination of one or more different media, computerized multimedia systems are part of a long tradition of interpretation technologies and interpretation techniques such as slideshows, text boards, and dioramas" (ICOM / CIDOC, 2004).

Visits to museums and galleries have declined rapidly with the development of multimedia. The messages often received by visitors to the traditional settings of museums and galleries within their settings have become insufficiently informative, as new media often brought much more substantive information on the same subject. To restore the visitors, museums and galleries had to transform their exhibits to multimedia forms of communication with the audience. Traditional permanent setups in museums and galleries are often being replaced by multimedia exhibitions that can be transformed more easily and more quickly, constantly retaining their freshness, adjusting to new trends, thus constantly updating access, communication and educational function. Depictions of historical events and figures, complemented by multimedia content that brought them closer to modern channels of communication or virtual displays of works that, due to their value or uniqueness, are not accessible to the general public, attracted and some new audiences, that were not previously interested for those activities, to gallery and museum spaces. "Multimedia presents more than formatted data and text alerts to the visitor. It includes interactive multimedia, hypermedia, image showing programs, digital video, computer graphics, virtual reality, and computer-controlled interactive screens" (ICOM /

CIDOC, 2004: 32). The importance of the use of multimedia in museums was also examined by the Multimedia Working Group (CIDOC / MMWG) of the International Committee for ICOM Documentation and confirmed at its meeting in Stavanger, Norway in June 1995, that "multimedia has two distinct roles in the museum context. It serves as a communication tool for interpreting museum objects and collections, both within the institution (in an exhibition gallery or information kiosk), as well as exchanging mechanisms (such as published CD-ROMs or multimedia databases available on the Internet or the World Wide Web). Multimedia also serves as a tool for documenting and building integrated museum collections databases" (ICOM / CIDOC, 2004).

A work of Croatian scientist, Faust Vrančić, is a well known nowadays, and many people, not only from Croatia but also from surrounding countries, are familiar with the great work of this man from Šibenik, through many media messages about this work. To the general public outside the home country, he was still relatively unknown until the end of the first and beginning of the second decade of this century, when the artists, Croatian electronic media, the city of Šibenik as his hometown and his resting place in Prvić Luka, sent the message about his work, using their means of communication, mostly global network. The "Faust Vrančić Memorial Center" was opened in Prvić Luka in 2012, with its permanent exhibition offering "a collection of models of his inventions, some of which are of the right size, and his most significant written works" (Memorial Center "Faust Vrančić": Exhibition). This extraordinary multimedia exhibit included more multimedia content with interactive elements, the most popular being digital games from the Faust Vrančić Memorial Center on Prvić and a "real-size Vrančić parachute model that visitors could photograph" (Memorial Center "Faust Vrančić": Exhibition). This set the standard for presenting this great inventor from the late 16th and early 17th centuries, and in presenting his inventions, the most up-to-date methods were used, each time supplemented by some new approach, without diminishing the value already achieved. One of the artists who has devoted a great deal of her work to her fellow countryman is a visual artist and educator Zdenka Bilušić, head of the Visual Culture Department of the Šibenik City Library and president of the Šibenik City Cultural Council in 2015-2018. Even before the emergence of the Memorial Center, she dedicated the picture book "Faust, flying man" ("Juraj Šižgorić" City Library, Šibenik, 2008) to the work of Faus Vrančić, by which she sent valuable information to the youngest, but also her whole audience, about the life and work of her fellow citizen. In this book, she appears as the author of all textual and visual entities. She complemented this message with her exhibition featuring sculptures of small paratroopers, which show "Homines volantes" of Faust Vrančić in a stylized manner, and which continues not only her previous work but also her interactive displays and constructions within the Memorial Center. The sculptures on display are not a substitute for the images in the book, but rather they represent the 3D version of the "flying people" shown in the book. With this new approach, the book itself did not lose its significance, but was further updated and made even more meaningful. We must not forget that sculptures are also a medium. "Impression, and first of all, statues, were another important form of communication, even propaganda in the ancient world, especially in Rome, in the Augustan age" (Briggs, Burke, 2011). The author says of her work:

"Homines volantes, flying people or paratroopers are the motif of the exhibition that had its premiere at the Book Fair in Frankfurt in 2013. Five exhibits from this series were presented at the Interliber in Zagreb, at the same time as the Šibenik exhibition.

The exhibition - installation was originally made up of a group of twenty-one parachutists made of old books and different types of papers: newspaper, book, packaging, paus... Faust - a flying man, homo volans, a character from my first author's picture book went from literary to the third dimension and, because he was bored with himself, he got himself company. This is how flying people, hominess volantes, are created, as another memory of Faust Vrančić, and the never-ending dream of a flight that exists in each of us and makes us, despite the fear of falling, dream of new flights over and over again.

(...) Awareness of the temporal substance, (re) interpretation of increasingly rare scenes, and the combination of multiple media in the realization of layered projects, objects and installations, are at the back of my work. My recent Homines volantes and Libri cycles form a complex structure that at various levels touches, questions and explores the concept of duration, time, relationships between past and present, collective and selective memory, and constructed narratives. (…)" (Bilušić – pers. comm. 2018.). With this work, commemorating the four centuries of Faust Vrančić's work:" Machinae novae", the author educates the widest audience and opens the door to new insights as well as new media messages from other sources.

The exhibition "Faust Vrančić - Machinae novae" at the Technical Museum "Nikola Tesla", in April 2015, brings as a novelty the mockups and models of the reproduced descriptions of the invention which are shown as large illuminated slides. The second edition of the exhibition could also be viewed by the inhabitants of the city of Šibenik in the premises of the Juraj Šižgorić City Library from June to October 2017. Modern approaches to history representations should come as no surprise. "It should not be forgotten that the word modern (paradoxically medieval) has many meanings and a long history" (Briggs, Burke, 2011).

These exhibitions were followed by the exhibition "Machinae novae - 400 Years Later". "The National and University Library in Zagreb, in cooperation with its partners, has designed a series of accompanying events with the desire to show, in the most picturesque way, all the advantages of modern technology and multimedia, first of all, Vrančić's designs from Machinae novae, and then his life-long journey that exudes the spirit of Renaissance" (NSK 2015). At the opening of this exhibition, it was announced that the physical exhibition will be followed by the virtual exhibition of the National and University Library on the same subject.

Within the Open-Door Day of the Croatian Academy of Sciences and Arts in Zagreb, April 2016, a large multimedia exhibition was opened and it was dedicated to the publication of 400 years since the publication of the great work, Machinae novae, by Croatian Renaissance polymath (Homo universalis) Faust Vrančić, first published in Venice in 1615/1616. With this exhibition in the Strossmayer Gallery of Old Masters, at the HAZU Palace, the Croatian Academy of Arts and Sciences gave a contribution to the celebration of Vrančić's anniversary, which is highlighted by the UNESCO, by including it among the world's major anniversaries in 2015. The exhibition was realized in cooperation with the National and University Library in Zagreb, the Technical Museum "Nikola Tesla" in Zagreb, the Memorial Center "Faust Vrančić" in Prvić Luka, the City Library "Juraj Šižgorić" inŠibenik and the Museum of the City of Šibenik (Skuhala Karasman, 2016).

The authors of the exhibition, Marijana Boric and Vanja Flegar with the Department of the history of natural and mathematical science sat the Institute of History and Philosophy of Science of the Croatian Academy of Arts and Sciences designed this multimedia and interactive setting, so the visitors could follow the life and work of Faust Vrančić all in one place, guided by professional through the exhibition with Renaissance music in the background. There were specially arranged billboards, engravings depicting inventions and reprints of numerous published works by Vrančić with books by contemporary researchers dealing with his work and life.

This part of the exhibition has been enriched by a large number of exhibits from previous successful settings. Several museum pieces that belong to the exhibition from 2015, "Faust – Machinae novae", from the Technical Museum "Nikola Tesla" were displayed, together with aquarelles by Dijana Kočica, the academic painter whose paintings were used to illustrate the book "Faust Vrančić" ("Juraj Šižgorić" City Library, Šibenik, 2015), and sculptures of paratroopers Homines volantes by academic painter Zdenka Bilušić, that premiered at the 2013 Book Fair in Frankfurt (Bilušić - pers. comm. 2018.). Everything is accompanied by music from the Renaissance period, and visitors in Zagreb can see the model of parachutists (...) as well as a model of Vrančić's project Mill made by 3D printing" (Simic, 2016) which is the work of Ivan Reljić and Hrvoje Stančić.

- The modern aspect of the exhibition was particularly attractive. This part of exhibition included games related to Vrančić's creativity, the screening of the four-part series "A Dream About Machines" (Earth, Water, Fire, Air), screening of the film about Faust Vrančić's life at Prvić called "Dream" made by Kinoteka doo for the Faust Vrančić Memorial Center and educational workshops. Probably the most significant part of the exhibition was the model of the Vrančić parachute in life size which was available to examine and take photos with. (Skuhala Karasman, 2016).

This is another example that shows how the various media in multimedia are synergistic and how multimedia extends the "life span" of each of the media it contains individually.

After the episode of the series Croatian giants, "Faust Vrančić" aired in February 2017, the sequence of events related to the celebration of the 400th anniversary of the death of that Croatian inventor and constructor followed.

"An exhibition THE TRACKS OF FAUST VRANČIĆ was opened on the occasion of the 400th anniversary of the death of Faust Vrančić at the HAZU Library on Thursday, March 2nd. (…) This multimedia exhibition aims to comprehensively present Vrančić's contributions to Croatian and world science. (…) The exhibition was organized as a series of events organized by the project Meet the Croatian Scientific Heritage in which the Center (Faust Vrančić Memorial Center, Prvić Luka, Op. Aut.) participates as a partner" (Memorial Center "Faust Vrančić"- The Tracks of Faust Vrančić, 2017).

The exhibition "Renaissance Faustus Verantius " was opened in November 2017, and exhibition "Faust" that developed as a result of "the cooperation of the Department of Marketing and Communications, Department of Information Technology and the Croatian Institute of Library and National and University Library in Zagreb" (NSK, 2017) was opened in December 2017 in the National and University Library in Zagreb.

The celebration of anniversaries dedicated to the life and work of Faust Vrančić is an extraordinary example of the synergy of media in multimedia. The original media message is complemented and enriched with a number of other messages to the level where it has become clear and receptive to every layer of the audience.

The messages and information about this Croatian scientist made him widely known beyond the borders of his country of origin. This way its mission is fully fulfilled because the purpose of the media is to convey the sent message to as many consumers as possible.

## 5. Final considerations

Nowadays, computer-designed multimedia and hypermedia are not just a complement to an existing cultural or artistic product. They have become an inseparable and integrating part of a large number of such products and authorial communications to the audience. Although the field of culture and art, in the most part of the spectrum of its activities, often looks considerably closed and traditional, technological achievements in that field are being implemented with great success. The barrier to applying state-of-the-art (multi) media tools is set up only because these activities do not generate profits that could compete with large manufacturing or trading companies, and that the latest generation innovations are nevertheless reserved for the most profitable industries. The big avail for the cultural and arts sectors is that a growing number of innovations are leading to a steady decrease in the time gap between the creation of the latest multimedia products and their application in these industries.

In multimedia, computer projects represent a simultaneous, not a parallel, expression. Simply put, today's multimedia is inseparable from any form of cultural, artistic, as well as any other communication and has replaced the simplified, simple and one-way messages. The approach to the audience so far has proved unsuccessful in recent generations. To the younger consumers, the shows and exhibitions without multimedia (if they still exist), are simply too simple, and they very quickly feel saturated with such an «empty» product. For this reason, a pocket smartphone that provides a hypermedia atmosphere in many cases easily replaces the experience of a personally experienced artistic or cultural event.

## 6. Recommendations:

Multimedia and art, as a common overall experience, have to undergo many more transformations. This paper brings only three examples, while the field of multimedia in art is actually infinite. Every art form in the contemporary world also has its own multimedia form that ensured greater accessibility and visibility. The last events in the world of closed borders and isolation have shown how powerful multimedia is in art. It is necessary to find in every artistic expression multimedia possibilities that will be realized at the same time as the „original twin"of that work.

### 7. Recommendations for future research

In today's world of rapid and frequent migration, virtual reality technologies, with their multimedia approach, allow permanent presence in all locations of those who we interact with.

Multimedia thus provides a shared experience of the largest number of cultural and artistic events, while creating a group judgment about its quality. Only by adapting to modern developments in the field of multimedia, success can be expected in the generation born in this millennium, the audience present, while the time of the audience of the future is likely to look for the emergence of some new media, which will again be successfully found in the world of culture and art.

It is the multimedia arts that have made art possible even in the event of the complete isolation caused by the Coronavirus pandemic in early 2020. With the rapid response of museums, galleries, film centers and other art collectives, art in the pandemic era took on a whole new form and became more accessible. With numerous concerts in an online environment, top performances and hitherto unrecorded collaborations have become possible and available in every home. In future research in this field, special attention should be paid to this segment of multimedia arts, as well as to the possibilities for the survival and development of technologically supported art forms in special circumstances.

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# MONEY LAUNDERING, TERRORIST FINANCING AND TAX EVASION USING CRYPTOCURRENCIES

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## Abstract

In the modern era of technology services, cryptocurrencies have been extensively used for illegal activities such as money laundering, tax evasion and terrorist financing. An essential supposition in trading and owning cryptocurrencies is the principle of anonymity, which may range from complete anonymity to pseudo-anonymity. The anonymity principle, as it will be shown in the paper, enables cryptocurrency potential abuse for criminal purposes, obstructs proper transaction supervision from tax authority and eventually may lead to "clean cash" generated in an illegal way (Houben, Snyers, 2018). This paper gives an overview of the negative aspects of cryptocurrency financial activities and elaborates on the ways of preventing malpractice related to their use, all from European Union point of view. The paper aims to provide possible ways of preventing illegal financial cryptocurrency transactions. In order to do that, it is necessary to analyze the current European legal framework, i.e. the Fifth Anti-Money Laundering Directive, which represents a central legal instrument in preventing the use of the European Union financial system with the purpose of money laundering and terrorist financing. Inter alia, the analysis of the recommendations of the most relevant financial authorities involved in creation of financial politics on the same level will be elaborated on putting a special emphasis on the implications of preventing cryptocurrency financial crimes.

**Keywords:** *Cryptocurrencies, European Union, AMLD5 Directive, taxes, money laundering*.

## 1. Introduction

An overall market capitalization of a hundred cryptocurrencies peaked at the beginning of 2018 at over EUR 330 billion on a global level (Bratspies, 2018). Currently, the most well-known cryptocurrency is Bitcoin, which was first mined in 2009 and became widely known in 2013 when people cancelled their long-term saving agreements and started investing in buying Bitcoins. Bitcoin (hereinafter referred to as BTC) is a virtual, decentralized and (at first sight) anonymous currency which is not supported by any country or legal entity and which cannot be exchanged into gold or other commodities. BTC was created by Satoshi Nakamoto who might be a real person, a pseudonym or a group of hackers. The virtual character of BTC implies that it does not have a physical form. It is based on a Proof of Work (PoW) consensus mechanism and issued through a process called mining. The total number of BTCs created through mining is limited, i.e. at no point will there be more than 21 million BTCs. BTC is a prototypical example of an open, permissionless blockchain that can be joined by anyone with appropriate software. In addition to BTC, there are other cryptocurrencies (Litecoin, Stellar, Lumens) which will not be elaborated on because this paper aims to study illegal actions involving cryptocurrencies. Cryptocurrency values point to the need of greater cryptocurrency supervision due to money laundering, tax evasion, terrorist financing and hacker attacks. The European Union suggests reviewing the system of a voluntary registration and changing it into a mandatory registration thus solving the issue of anonymity. Pursuant to the aforementioned Directive, the EU has to extend a list of miners or so-called "players" who are weak links in the chain of fighting crimes using cryptocurrencies. *Providers engaged in exchange services between virtual and fiat currencies (coins and banknotes designated as legal tender and electronic money, of a country, accepted as a medium of exchange in the issuing country) as well as custodial wallet providers are under no Union obligation to identify suspicious activity. Therefore, terrorist groups may be able to transfer money into the Union financial system or within virtual currency networks by concealing transfers or by benefiting from a certain degree of anonymity on those platforms. It is therefore essential to extend the scope of Directive (EU) 2015/849 so as to include providers engaged in exchange services between virtual and fiat currencies as well as custodial wallet providers. For the purposes of anti-money laundering and countering the financing of terrorism (AML/CFT), competent authorities should be able, through obliged entities, to monitor the use of virtual currencies. Such monitoring would provide a balanced and proportional approach, safeguarding technical advances and the high degree of transparency attained in the field of alternative finance and social entrepreneurship* (Directive EU, 2018). Furthermore, the EU should consider introducing a special prohibition on cryptocurrencies aiming to disable their users' background check. The EU should also consider developing an adjusted and a comprehensive framework for cryptocurrencies to be aligned with the recommendations issued by the European Banking Authority (hereinafter referred to as EBA) and license requests for cryptocurrency issuers. For simplifying purposes, we will define cryptocurrencies by using European and international financial institutions that create financial policies, assess cryptocurrencies and deal with solving the issue of illegal activities, which is the purpose of this paper. It is important to emphasize that crypto-commodities are neither recognized by the EU Member States nor the European Banking Authority as fiat money – a currency with no intrinsic value but with legal tender in the form of coins, banknotes or deposits. That being said, EBA is trying to evaluate whether crypto-commodities can be categorized as electronic money or funds.

The European Central Bank (hereinafter referred to as ECB) defines cryptocurrencies as a subtype of virtual currencies. In their 2012 report on virtual cryptocurrency schemes, ECB defined cryptocurrencies as a type of unregulated, digital money usually issued and controlled by its developers and used and accepted among the members of a particular virtual community (European Central Bank, 2015).

In their updated 2015 report, ECB defined cryptocurrencies as a digital representation of value, not issued by a central bank or credit institution, which in some circumstances can be used as an alternative to money (European Central Bank, 2015). Cryptocurrencies like Bitcoin are decentralized bi-directional (bilateral) virtual currencies Likewise ECB, the International Monetary Fund (hereinafter referred to as IMF) categorizes cryptocurrencies as a subtype of virtual currencies; defines them as a digital representation of values issued by private developers. IMF covers a wide array of cryptocurrencies such as Bitcoin. EBA suggested labeling cryptocurrencies as virtual currencies are a digital representation of value that is neither issued by a central bank or a public authority nor necessarily attached to a fiat currency but is accepted by natural or legal persons as a means of payment and can be transferred, stored or traded electronically (EBA, 2014). However, only the World Bank and Financial Action Task Force (hereinafter referred to as FATF) can define virtual money as a digital representation for certain values one can use to carry out digital trades (ECB, 2012). The following requirements have to be met:

a.) virtual currency is a medium of exchange;

b.) it is a value unit;

c.) it is used for storing values but is not an official medium of exchange in any country.

Furthermore, FATF categorizes virtual currencies in two basic categories as follows:

a.) convertible virtual currencies which have an equivalent value in real currency and can be centralized or decentralized (they can have a single administrative authority that controls the system or no supervision at all);

b.) non-convertible virtual currencies intended for a particular virtual domain and cannot be exchanged for fiat currency (Virtual Currencies Key Definitions and Potential, 2014)

One can come to a conclusion that there is no universal definition of cryptocurrencies because policy creators avoided to define it more specifically.

## 2. Legal Cryptocurrency regulation in the European Union

Recommendations given by FATF are the foundation of both international and European framework to fight money laundering and terrorism financing. On June 10 1991, the European Union adopted its first Directive against money laundering (AMLD1) as well as defined money laundering and credit and financial institutions. It is frequently referred to as the first directive because it set high standards for protecting a (non) financial sector from consequences caused by illegal actions. The Directive's two main aims were to prohibit money laundering and encourage better cooperation between Member States in conducting investigations and legal prosecutions related to money laundering (Council Directive, 1991). In 2001, the European Parliament and Council adopted the second Directive (AMLD2) which obliges credit and financial institutions to report suspicious transactions to responsible authorities. This includes currency exchange offices, money transmission/remittance offices and investment funds in order to involve as many financial sector parties as possible (Directive, 2001). AMLD3 adopted the recommendations given by FATF in 2003 regarding the prevention of the use of the financial system for the purpose of money laundering and terrorist financing (Directive EU, 2005). AMLD4 (Directive EU, 2015) defined money laundering as a procedure of generating income by carrying out criminal activities introduced to legal economy for the purpose of concealing or disguising its illicit illegal origin. Property means assets of any kind (corporeal or incorporeal, movable or immovable, tangible or intangible, and legal documents in any form evidencing title to such assets). Terrorist financing means the provision or collection of funds, by any means, directly or indirectly, with the intention that they be used in order to carry out any of the offences within the meaning of Articles 1 to 4 of Council Framework Decision 2002/475. In addition to many other provisions such as a register on real property ownership, relationships with high-risk third countries etc., we wanted to know if cryptocurrency transactions were included in AMLD4. Even though it was not intended for cryptocurrencies, property and funds are defined as property of any kind making this definition wide enough to include cryptocurrencies as immovable assets. However, this cannot be realized due to a list of obliged entities. Ratione personae refers to so called obliged entities which are an entering point for money laundering and terrorist financing. AMLD4 applies to the following obliged entities – credit institutions, financial institutions, natural or legal persons acting in the exercise of their professional activities (auditors, external accountants, tax advisors, notaries and other independent legal professionals), estate agents, other persons trading in goods to the extent that payments are made or received in cash in an amount of EUR 10,000 or more and providers of gambling services. Additionally, the Member States may decide to include, in full or part, providers of certain services with high risk of money laundering or terrorist financing in the scope of this Directive. It implies continuous supervision of money laundering done by the Member States, running terrorism risk assessment on their territory and implementing measures when there are irregularities. Legal entities are frequently checked and given requests to meet such as finding financial information to prevent money laundering and terrorism financing. All suspicious transactions, regardless of the amount of the transaction, including attempted transactions to commit crime or finance terrorism, should be reported to a responsible Financial intelligence unit (FIU) that should be set up by every Member State in order to prevent, discover and combat money laundering and terrorism financing. Not meeting these requirements results in efficient, proportional and dissuasive punishment (Directive EU, 2015). Cryptocurrency transactions were not included in AMLD4 because none of the players in cryptocurrency scheme was involved in the provisions. To paraphrase, AMLD4 does not include cryptocurrencies, users and cryptocurrency transactions. In 2016, the European Commission pointed to this problem and initiated legal actions to include cryptocurrencies in AMLD, which is clear from EBA's 2014 report on virtual currencies. EBA proposed a comprehensive regulatory approach to virtual currencies by applying an adjusted regulatory approach. According to the Report, EBA's task is to supervise current and new financial activities and issue guidelines and recommendations to promote security and market stability. Virtual currencies are a digital representation of values that are neither issued by a central bank or public authority nor necessarily related to fiat currencies but are used by natural or legal persons as a means of exchange and can be transferred, stored or traded electronically. The main market participants are exchanges, trade platforms and e-wallet providers. Even though there are some potential benefits of virtual currencies, such as faster and more affordable transactions, they are less relevant in the EU due to the existing regulations and directives aiming at faster and more affordable transactions at increasing financial inclusion. Furthermore, EBA lists some individual benefits, such as security of personal data with virtual currency payment transactions (in the case of conventional payment methods, passwords or sensitive data like credit card data are required). In comparison, risks are manifold. More than 70 risks were identified across several categories including risks to users, risks to non-user market participants, risks to financial integrity emphasizing money laundering and other financial crimes, risks to existing payment systems and risks to regulatory authorities. The risks include the fact that a virtual currency scheme can be changed by anyone; that a payer and payee can remain anonymous; that virtual currency schemes do not respect jurisdictional boundaries and may therefore undermine financial sanctions and seizure of assets (EBA, 2014). Finally, risks are ranked into low, medium and high. The paper will elaborate only on those risks related to money laundering, terrorism financing and tax evasion. EBA ranks money laundering and terrorism financing as high risk because both a payer and payee engage in virtual currency transactions on the network with no personal identification (names or addresses) required. Additionally, there is no intermediary who could notify the authorities of suspicious transactions. It can be concluded that "criminals" are able to "launder" proceeds of crime because they can transfer virtual currencies anonymously. In order to carry out virtual currency transactions, one needs only to have the Internet access, which allows criminals to launder money because virtual currencies are deposited globally, rapidly and irrevocably. Infrastructure is global, which makes transaction intersecting almost impossible (EBA, 2014). Consequently, in June 2017, the European Commission published a report on money laundering and terrorist financing risk assessment which affect national markets and include international activities and Impact assessment (Commission Staff Working Document Impact Assessment, 2016) which highlights the problem that suspicious transactions made through virtual currencies are not sufficiently monitored by the authorities as well as the unregulated status of a virtual currency scheme and users. Impact assessment provides two options to the anonymity problem. The first option is through the mandatory registration of users and the second one is through the voluntary self-registration of users. Authorities combating financial crimes could rapidly verify identities of registered users. There is an option of setting up virtual currency exchange platforms under the revised Directive on Payment Services (PSD2) which, in addition to money laundering and terrorist financing, establishes a licensing obligation for regulated entities, minimal capital requirements, safeguarding requirements and consume protection rules, thus making the exchange more difficult. The third option targets custodial wallet providers, i.e. virtual currency anonymity is suggested to be lifted through the regulation under AMLD4 or PSD2. Custodial wallet providers hold both private and public keys of virtual currency users making them similar to financial institutions. The majority of the Member States decided to use AMLD regulation instead of PSD2 for virtual currency exchange platforms. Most Member States did not support PSD2 options because they believe it would give too much legitimacy to virtual currencies and lead users to believe that virtual currencies are safe, which, according to warnings issued by financial organizations, they are not. Options involving users' registration were clearly tested only on important participants (users/consumers, professionals), which resulted in optional registration. Finally, AMLD5 was adopted pursuant to the recommendations of the European Commission which accepts both virtual currency transaction modes (defined as "service providers that primarily and professionally deal with virtual and fiat currency transactions") and custodial wallet providers (defined as "service providers which offer in the virtual sphere the equivalent of a bank account to store one's virtual currencies"). Consequently, when exchanging virtual to fiat currency, custodial wallet providers should report any suspicious transactions to a responsible financial intelligence unit. Virtual currency transactions and custodial wallet providers will have to be licensed or registered. The European Commission gives legal entities a choice whether to use licensing or registration. For legal safety purposes, the European Commission proposes to define virtual currencies as a digital representation of value that is neither issued by a central bank or a public authority nor necessarily attached to a fiat currency but is accepted by natural or legal persons as a means of payment and can be transferred, stored or traded electronically (Commission Staff Working Document Impact Assessment, 2016).

The European Commission's proposal was studied in the European Parliament in 2016 and 2017 when a revised and amended report was adopted. The Committee suggested to substantially increase AMLD's scope in terms of virtual currencies in a way to include virtual currency exchange platforms, custodial wallet providers, issuers, administrators, intermediaries, distributors, administrators and online payment service providers. The proposal is very wide and puts a wide array of cryptocurrency services under AMLD's scope. In order to fight anonymity, it is also proposed for national FIUs to have the option to connect virtual currency addresses with virtual currency owners' identities. On December 13 2017, the Parliament and Council reached an agreement on AMLD5 which came into force on May 30 2018.

## 3. Tax evasion - EU regulation

If the common system of value added tax and cryptocurrencies are taken into consideration, the Court of Justice of the European Union (hereinafter referred to as the Court) reached a decision in *Skatteverket versus David Hedqvist* case. The Court discussed whether transactions to exchange a traditional currency for the Bitcoin virtual currency or vice versa were subject to value added tax (VAT). Additional clarifications on VAT exceptions to financial transactions were requested (Čičin-Šain, 2017). Pursuant to Article 2, paragraph 1, item (c) of the Council Directive 2006/112/EC of November 28 2006 on the common system of value added tax (hereinafter referred to as the VAT Directive), the following transactions shall be subject to VAT: "(c) the supply of services for consideration within the territory of a Member State by a taxable person acting as such." Pursuant to Article 135, paragraph 1 of the VAT Directive, the Member States shall exempt the following transactions:

a.) transactions, including negotiation, concerning currency, bank notes and coins used as legal tender, with the exception of collectors' items [collector bank notes and coins], that is to say, gold, silver or other metal coins or bank notes which are not normally used as legal tender or coins of numismatic interest;

b.) transactions, including negotiation but not management or safekeeping, in shares, interests in companies or associations, debentures and other securities, but excluding documents establishing title to goods, and the rights or securities referred to in Article 15, paragraph 2;

c.) transactions, including negotiation, concerning deposit and current accounts, payments, transfers, debts, cheques and other negotiable instruments, but excluding debt collection.

The main part was related to purchasing and selling virtual currency BTC in exchange for a Swedish crown. According to the Court, private individuals and online sellers accept BTC as a means of payment. BTC is stored as data on a user's and service provider's computer and transactions are done electronically. They do not have a single issuer but are designed using an algorithm whose developer is unknown. No country accepts Bitcoin as legal tender. Before starting to carry out his business activities, *David Hedqvist* requested a preliminary decision from the Revenue Law Commission (Skatterättsnämnden) in order to establish whether VAT must be paid on the purchase and sale of BTC virtual currency units. In a decision made earlier, it was concluded that purchasing and selling BTC is an exchange service with compensation but shall not be subject to VAT because BTC is legal tender. The Swedish Revenue Law Commission appealed against the aforementioned decision. There were two main questions. The first question was related to taxable nature of the transaction according to the VAT Directive. The second question was related to whether such transactions are subject to VAT (Kokott, 2015). By its first question, the referring court asked whether Article 2, paragraph 1, item (c) of the VAT Directive must be interpreted as meaning that transactions such as those at issue in the main proceedings, which consist of the exchange of traditional currency for units of the Bitcoin virtual currency and vice versa, and consequently whether it is subject to VAT. According to the court, BTC is a means of payment and has no other purpose. Therefore, it shall be considered as legal tender. By its second question, the referring court asked, in essence, whether Article 135, paragraph 1 of the VAT Directive must be interpreted as meaning that the supply of services such as those at issue in the main proceedings are exempt from VAT. The referring court concluded that "Transactions involving non-traditional currencies, that is to say, currencies other than those that are legal tender in one or more countries, in so far as those currencies have been accepted by the parties to a transaction as an alternative to legal tender and have no purpose other than to be a means of payment, are financial transactions." (excerpt from the Judgement, item 49). This judgement points to the court considering Bitcoin as money so Bitcoin transactions are exempt from VAT pursuant to Article 135, paragraph 1, item 5 of the VAT Directive (Kokott, 2015). This judgement is beneficial to virtual currency market in the European Unions because users are not required to pay taxes twice. That being said, this judgement is in line with tax trends in other global fintech centers (Čičin-Šain, 2017).

Slovenia regulates the legal nature of Bitcoin by applying a negative definition. Pursuant to Article 4, item 7 of the Law on Payment Services and Systems (Zakon o plačilnih storitvah in sistemih), Bitcoin is not a means of payment or financial instrument. According to the UK HM Revenue and Customs Service, cryptocurrency has a unique identity which cannot be directly compared to any other investment activity or payment mechanism. Germany's Ministry does not recognize Bitcoin as electronic money but a measuring unit similar to the concept of private money. The Ministry of Finance of Austria does not recognize Bitcoin as a financial instrument; however the Ministry of Economy believes that "Bitcoin has properties of a currency or a means of payment; it serves for exchanging and misses another individual purpose." The Ministry of Finance of the Netherlands claims that Bitcoin cannot be recognized as legal tender because it does not have centralized supervision or necessary stability, hence it cannot be recognized as electronic money or financial product. Norwegian, Estonian and Finnish Tax Administrations believe that Bitcoin is not electronic money or loan stocks but goods (Čičin-Šain, 2017).

## 4. The attitude of the Republic of Croatia towards cryptocurrencies

An official opinion of the Croatian National Bank's Governor Boris Vujičić on cryptocurrencies in June 2019 is that using cryptocurrencies is risky and that people should be aware of risks if they decide to use it. He also does not believe that cryptocurrencies will replace currencies of central banks. Vujčić emphasized that Bitcoin and other cryptocurrencies are part of a digitalization process and that our banking system follows the trends in digital development (Vujičić, 2019).

In July 2019, the Croatian Post launched a pilot project to buy off cryptocurrencies in local post offices in Zadar. Given its success, the Croatian Post decided to apply this service in 55 local post offices in all Croatian counties. Since December 9 2019, all national and foreign users can exchange their cryptocurrencies in Croatian kunas in several easy steps. Upon request submission, you have to scan a QR code and collect your cash in a post office. Five most frequently used cryptocurrencies, namely Bitcoin, Ethereum, Stellar, Ripple and EOS, can be exchanged. The Croatian Post plans to introduce buying with cryptocurrencies, which will make post offices central places to carry out business activities in cryptocurrencies in Croatia.

On July 14 2017, the Tax Administration Office released its opinion that reads: "*Cryptocurrency transactions are financial transactions (…) the income related to cryptocurrency transactions is subject to a capital gains tax since such transactions are the profit realized on the sale of a non-inventory asset, which can be compared to instruments of money market. Tax refers to a difference between purchasing and selling prices reduced for prospective marketing costs*." Pursuant to the opinion issued by the Tax Administration Office, a tax payer is "*obliged to calculate and pay a capital gains tax no later than the end of February of the current year. It should include all capital gains realized in the previous year reduced if there were capital loses*." *The total tax rate is the sum of the basic 12% tax rate and local supertax.* A paid capital gains tax is a final tax which means that profit related to cryptocurrency trading will not be combined with other incomes (non-independent work, piece work agreement, etc.). To paraphrase, such profit does not result in a higher tax rate (Porezna uprava RH, 2017). In March 2018 (Class: 410-01/17-08/29; Reg. no: 513-07-21-01/18-4), the Tax Administration Office released its opinion that reads:

When exchanging one cryptocurrency to another: *"When exchanging one cryptocurrency to another, capital income is not calculated… because there is no money trail, i.e. a cryptocurrency is not exchanged to a currency which is legal tender."*

On calculating the cryptocurrency central rate: *"All cryptocurrency purchasing and selling activities need to be documented by providing authentic documentation… or a confirmation issued by an exchange office where cryptocurrency purchasing or selling took place."*

On purchasing cryptocurrency from another person: *"When purchasing cryptocurrency directly from another physical person, the process needs to be documented by providing a contract or other authentic documentation."*

Definition of mining: *"Mining is a process of confirming and recording transactions in the main book… therefore, there are <u>two types of income</u>." 1. Pursuant to Article 39 of the Personal Income Tax Act, a "miner's" income is to be considered as second income. If Bitcoins (or any other cryptocurrency) are used for stock marketing and are eventually exchanged into* *kunas, one has to pay a tax based on a difference between mining value and selling values. Bitcoin mining value is determined based on the leading stock market exchange rates on that day. If one sells mined Bitcoin straight away or exchanges into kunas, one has to pay 12% tax rate + supertax related to Bitcoin value pursuant to the difference of their value on a purchasing and a selling date. 2. If a tax payer continuously "mines" for a longer period of time and does it for a living, he/she is obliged to register independent business and determine one's income pursuant to Articles 30 and 35 of the Personal Income Tax Act. The problem is that "a longer period of time" is not clearly defined so it is difficult to determine when one should register mining as independent business. It might be assumed that one should register independent business when entering into the VAT system, i.e. when one earns more than HRK 300,000.00 by mining pursuant to Article 90, paragraph 1 of the Value Added Tax Act. Earning Bitcoin in other ways, such as participating in surveys, is considered as mining so the aforementioned regulations are to be applied.*

Selling assets for Bitcoins: *"Pursuant to Article 8, paragraph 2, item 4 of the Value Added Tax Act, income related to selling assets for Bitcoins is not subject to taxation. The transaction can be dome in Bitcoins, any other cryptocurrency or cash pursuant to Article 92, paragraph 3 of the Income Tax Regulations."*

Bitcoins as a donation: *A donation made in cryptocurrency is not subject to taxation. However, in order to consider Bitcoins as a donation, there has to be a document confirming that the donation (Bitcoins) was not made as a method of tax evasion.*

Taking the aforementioned into consideration, we can conclude that cryptocurrency related profit has to be registered. Profit implies kunas deposited on an account upon stock market or exchange office payout. To put it differently, if loses are higher than gains, there is no profit. Also, if you own a cryptocurrency longer than two years, you are not required to pay taxes (Porezna uprava RH, 2018).

## 5. Conclusion

According to research by *ChiperTrace* (Q4 2019 Cryptocurrency Anti-Money Laundering Report), whose main goal is to protect banks from money laundering through cryptocurrencies and the expansion of crypto-economy, losses in cryptocurrency investments caused by frauds and embezzlements are higher by 533% in 2019. compared to 2018. The value of the frauds connected to cryptocurrencies is $4.5 billion. $370.7 million was lost through money exchange thefts while more than $4.2 million comes from theft and fund embezzlement.

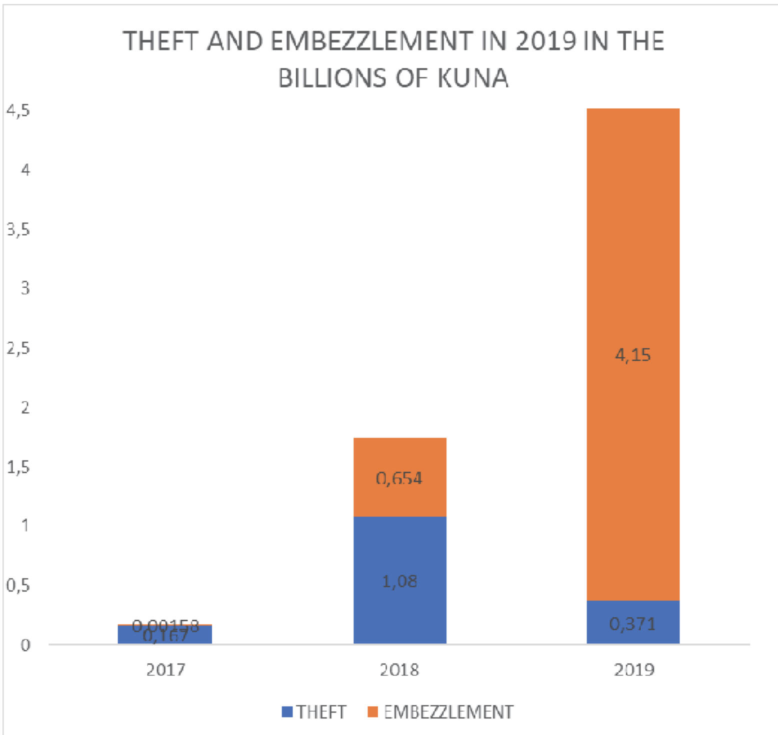


Figure 1. Losses of investors and users of cryptocurrencies
Source: https://ciphertrace.com/q4-2019-cryptocurrency-anti-money-laundering-report/,

Since we have touched on tax evasion through cryptocurrencies, we will mention the terrorism financing ChiperTrace researched. Hamas, a Palestinian Sunni-Islamic fundamentalist militant organization, which has been described as terrorist by a few world organizations and countries, uses Bitcoin as a way of collecting donations for their causes from their followers and sympathizers. Hamas sends videos which explain how to buy and share Bitcoin. If this continues, countries will lose the war on terrorism.

Considering all the negative and illegal traits of the cryptocurrency trade data, it is obvious that the members of the EU must control the trade off.

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