

SPECIFICITY OF COMMUNICATING WITH THE DOCUMENTS PREPARED BY INFRAREDESIGN© TECHNOLOGY

SPECIFIČNOST KOMUNICIRANJA S DOKUMENTIMA PRIREĐENIM INFRAREDESIGN© TEHNOLOGIJOM

Ivan Pogarčić

Sveučilište Jurja Dobrile u Puli, Zagrebačka 30, 52100 Pula

ABSTRACT

The paper deals with the features of Infraredesign© technology in communicating media and materials prepared with this technology. The emphasis is on communication as a phenomenon and a message that communicates. Preparing to prepare messages in the way that Infraredesign© technology offers opportunities for communication participants to provide more ways to prepare the message. All necessary rules of communication are respected. The specificity of communicating such messages is, inter alia, the extension of the security frameworks of communication. The paper tries to point to a specific moment in communicating such messages. This is a moment of surprise caused by the receipt of a message / picture / object prepared with Infraredesign© technology. That is the moment of the first encounter of the user with such messages. Work is, among other things, a presentation of many years of author's experience in tracking exactly those perceptions of participants with such communicative messages. Also, the work is based on personal experiences and views of the author, and as such is subject to other and different interpretations.

Keywords: *Infraredesign©, Communication, Perception, Media, Motivation, Information*

SAŽETAK

Radom se razmatraju svojstva Infraredesign© tehnologije pri komuniciranju medijima i materijalima koji su pripremljeni ovom tehnologijom. Naglasak je na komunikaciji kao fenomenu i poruci kojom se komunikacija ostvaruje.

Kad se poruka pripremi na način kao što je to Infraredesign© tehnologija nude se mogućnosti koje učesnicima komunikacije osiguravaju više načina pripremanja poruke. Pri tome se poštvaju sva nužna pravila komuniciranja. Specifičnost komuniciranja takvim porukama je, između ostalog, proširenje sigurnosnih okvira komuniciranja. Radom se pokušava ukazati na jedan specifični moment u komuniciranju takvim porukama. To je trenutak iznenađenja izazvan primitkom poruke/slike/objekta pripremljenog Infraredesign© tehnologijom. Odnosno trenutak prvog susreta korisnika s tako oblikovanim porukama. Rad je, između ostalog, prikaz višegodišnjeg iskustva autora u praćenju upravo takvih percepcija učesnika s tako pripremljenim porukama u komunikaciji. Također, rad je zasnovan na osobnim iskustvima i viđenjima autora pa je kao takav podložan drugim i drugačijim tumačenjima.

Ključne riječi: *Infraredesign©, komunikacija, predodžba, medij, motivacija, informacija*

1. INTRODUCTION

1. UVOD

Communication is often defined as the transfer of information and / or data from one place to another, with the help of means known to the communication participants. Means usually include participants of each other well-known and understandable signs and symbols individually and / or arranged by special rules. For the sake of simplicity, this term uses the term message as a synonym for any form that is an object of information or data transfer. In this, the message considers individual information as well as any and any combination of individual information.

Also, the terms user, participant, and actor in communication for work purposes are considered synonyms especially when the message or object of communication relates to them personally. A special form of communication is communicative behavior where message is the way of transferring meaning from one object to another through the use of mutually understandable patterns of behavior.

Starting from Shannon's definition of communication [1], it may, for the purposes of this consideration, be insisted on individual steps or phases more than on others without diminishing the significance of the definition. Accordingly, encoding the message, its transmission through the communication channel, the susceptibility to various forms of noise, reception and decoding are important for communication. But for the purposes of this consideration, these steps remain in the second plan. The first interest is the motivation and understanding of the message, in particular, the medium in which the message will be transmitted and the recognition, interpretation and understanding of the original message. [2]

As far as Infraredesign© technology is concerned with the way media is prepared to transmit messages, it is instructive for readers to read some of the following works by authors such as [3], [4]

However, the first and last steps in communication, motivation, perception, interpretation and understanding are of particular interest to this consideration.

Further, for the purpose of consideration it is necessary to accept the working definition of some terms. These are the sequences:

- Motivation - a motive for a specific activity with defined goals and the express readiness of the person who intends to realize that activity. This motif is defined as a motif that is most often the result of satisfying the wishes and needs arising from the personal needs of the individual or group or circumstances imposed, the influence of culture, society or lifestyle, the environment in which an individual exists. or may come from an individual (internal motivation). Motivation is the result of interaction and conscious and unconscious factors. [6]

- Perception - the way of organizing, identifying and interpreting sensory information to present and understand the displayed data or the environment. [7] All perceptions include nerve signals that are the result of physical or chemical stimulation of the sensory system. In this case, the sensations resulting from light effects and the sensation of sensation are important. Concerning perceptions, in this context, the concept of the notion that is most often the consequence of the perception must be mentioned and can not be used as a synonym

- Surprise - a sense of astonishment, wonder, or astonishment that is the result of a sudden or unexpected act. The surprise experience depends on the relevance of the outcomes as well as the outlook beliefs. Some authors find the surprise of a cognitive assessment based on the likelihood of an event occurring, while others feel emotional. If it is a surprise emotion, then it can be positive or negative and significantly affect the experience and the knowledge of other emotions. In this way surprise makes it easy and encourages curiosity and learning and forming beliefs about other events. Surprise is most often the result of unexpected events or experiences. The mathematically unexpected event is an event with a small probability of appearances. Surprise is usually the state of the person (or system as a whole) that follows a particular event. [8], [9]. Also a surprise may be the result of an event that falls into a group of expected events but with less chance of appearances. Examining such possibilities is not the subject of this consideration.

2. INFRADESIGN© DOCUMENT AS A CAUSE OF SURPRISE

2. INFRADESIGN© DOKUMENT KAO UZROK IZNENAĐENJA

In ordinary communication with printed materials, such as messages prepared by the usual printing process, the communication participants are focused primarily on the visual perception of the document / message and consequently on the idea of what the message is in the semantic sense. After receiving such a message, the user of the message does not expect anything special. This

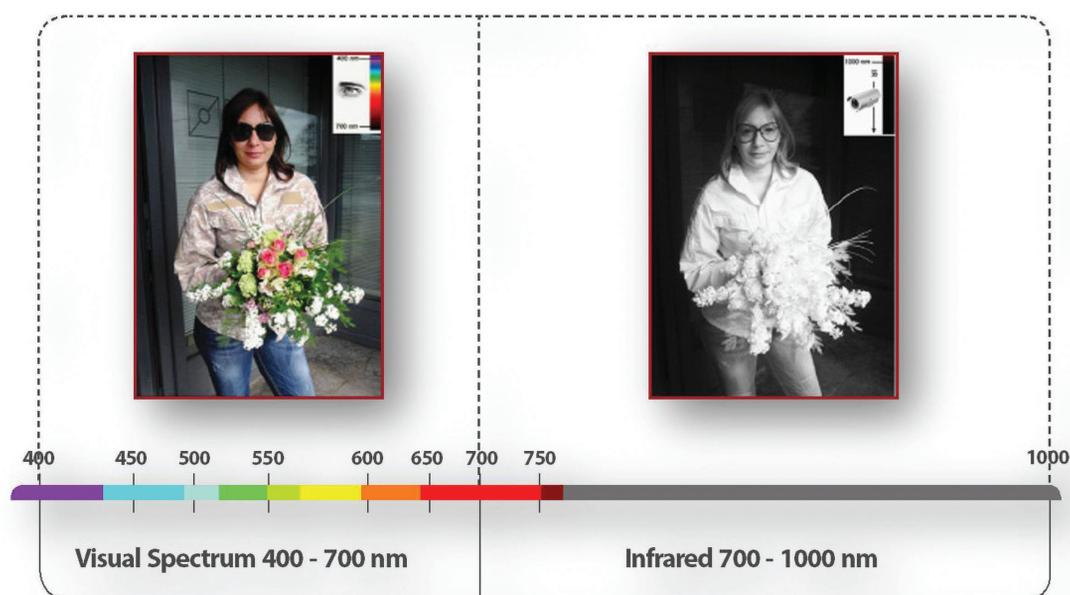


Figure 1 View an image created with Infraredesign© technology with a view of both images

Slika 1 Prikaz slike izrađene Infraredesign© tehnologijom s prikazom obaju slika

moment is important for communicating with messages prepared with Infraredesign© because it usually causes surprise. Especially when this happens for the first time. Though it can be said that each time a user leaves a message (or event) for the first time, a special impression with Infraredesign© documents is different. Such a document is a subject of surprise even when the actors of communication formally know how to prepare it.

The specificity of such a document is that there are two different documents in the same place with special graphic preparation - two different messages. The messages may be interdependent and / or independent. It is extremely important to emphasize that the messages can be complementary, which, with an informational standpoint, provides much broader possibilities for communication. Especially this applies to economizing with the amount of information stored in an individual message.

The specificity of such a message is contained in the ability (or inability) of common access to the entire document / message. One part of the message is visible in the daylight ie it is a common sense sensation through the sense of the eye, while the second part of the message is visible but only with the use of technological data such as an infrared filter camera.

An example of such printing is given in Figure 1. (Figure 1. Viewing an image made with Infraredesign© technology that displays both images)

It is clear from the possibilities offered by this technology to talk about the message and the messages. Of course, everything depends on the needs and the concrete situation in which communication is realized. It is equally important to note something that can be termed as the duration of the document. If the document is prepared so that it can be used repeatedly with an unlimited number of uses then its use is such that the consummation of the document can be utilized for its importance once or more times. In such frameworks the surprise effect can be consumed in the first appearance or every time in use when the participants are each time new to the communication.

It is particularly important to note that the moment and the situation of surprise is only possible on the recipient side. The intensity of surprise, when talking about intensity as a measurable size, will depend on several different factors.

As the situation or communication can vary from simple forms and informal customer relationships to very sophisticated forms, there is no time or space for detailed analysis and descriptions of all possible forms of communication.

Especially because the taxonomy requires a definition from many different points of view and with the appreciation of many different factors. Below you will find a few randomly selected cases in which the Infraredesign© presentation document was subject to "surprises" for formal and informal communication actors. Surprise was simulated with the intent to detect the reaction of the recipient of the message, whether it was a purely informative presentation of such documents or a proposal for the use of such documents for quite specific purposes.

Otherwise, the application of Infraredesign© technology already exists in more human activities than the military industry, the pharmacological industry to the protection of securities and so on

3. EXAMPLES OF INFRAREDESIGN© DOCUMENTS DISPLAYED IN DIFFERENT SITUATIONS

3. PRIMJERI PRIKAZA INFRAREDESIGN© DOKUMENATA U RAZLIČITIM SITUACIJAMA

The first case of Infraredesign© documents appeared at a symposium that covered the issue of traffic in all its aspects. The intention was to propose the use of Infraredesign© technology

to prepare auto-maps. [10] So the suggestion was to work with auto-maps, or geographically generic maps, which will contain information in the infrared that the maps might not cover. In the time of satellite navigation the proposal to the majority who listened was somewhat deplausal. The interest in the technique was suddenly a "hit" after the presentation of a couple of documents. The location of the portraits of Ruđer Bošković (visible part) and Nikola Tesla (infrared) as well as the combination of Mona Lisa (visible part) and portrait of Leonarda da Vinci (sketch in the infrared) are shown for the location. (Figure 2. Potential of Mona Lisa in the visible part and self-portrait of Leonardo da Vinci in the infrared part)

The second case of the presentation was also related to maps or cartography as a science related to geodesy and geodetic work. Again, it was a situation where GPS tracking techniques went far beyond the paper maps for geodetic measurements. The authors have positively insisted here on the advantages of the technique and the combination of parts (visible and infrared) that can individually represent each and every one of the independent or dependent information. After the presentation, Japanese colleagues asked her to look more closely at the documents and tried to look at the background document and its translucency. The surprise was even bigger when specimens of different materials were shown. [11]

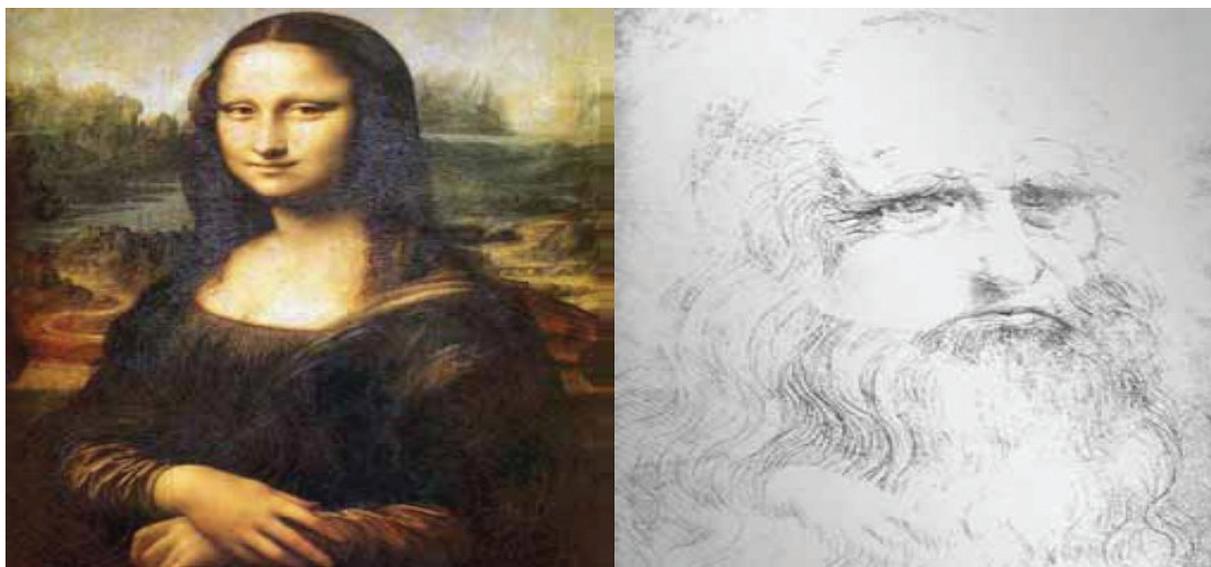


Figure 2 Mona Lisa view in visible part and Leonardo da Vinci self-portrait in infrared image

Slika 2 Portret Mona Lisa u vidljivoj dijelu i autoportret Leonardo da Vinci u infrared dijelu

The third case was the presentation of Infraredesign© docs within the teaching (Erasmus +) students of the St. Paul's Apostle University in Ohrid, Macedonia where one of the presented documents was designed to include portraits of well-known, historical and / or current Macedonian people or sights or events. The proposed combination was delighted by the students. The visible image was screened by St. Mother Teresa, and on the infrared image was the famous Macedonian singer Tose Proeski. An interest has been shown for other documents that included images of Macedonian sights and portraits of people from Macedonian history.

The heat case is similar to the third only other location. It was again Erasmus + teaching, but now at the University of Nicosia, Cyprus. Re-presented documents are designed to include portraits of well-known, historical and / or current Cypriot people or sights or events. As we were in possession of the images of the employees of the University, we have made combinations of the same with the pictures of the students.

The fifth case was the presentation of Infraredesign© documents as promotional materials for a tourist agency. Portraits of agency staff, logo-type agencies and pictures of some landmarks in the country where the agency operates are used. Given the location and the specific circumstances in which the agency operates, and the exoticism (for European metrics), the presentation was, although informally organized, again "hit".

(Look at <http://jana.ziljak.hr/BaharSayedi.mp4>)

4. CONCLUSION

4. ZAKLJUČAK

All of this is an attempt by the author's personal vision and experience of all the above mentioned situations. It was not intended to describe Infraredesign© technology as a printing process nor to clarify the physical properties of so called dyed twins that edge into the infrared spectrum make "spell" (no) visibility.

The intention was to convey and describe the feelings of individuals in meeting with such documents.

Definitely a surprise for education and attempts to put the experience into the experiential framework. The author's impression is that the surprise was higher for people with a higher level of education, though interest was often hinned by the fact that they were on a somewhat new ground.

Particularly interesting people were all that looked like some miracle. I often became interested in the question of "What do you think Leonardo da Vinci knew about this technique or this color?" Or the question often imposed by himself. "Are there persons whose anatomy and physiology ensure the visibility of nested images without the use of technical aids? .

If such a possibility, and such a person, existed then different unusual visions could be explained! The theoretical possibility of such persons is within a certain probability. What, is it willing to decide who reads this ?!

5. REFERENCES

5. REFERENCE

- [1.] Shannon, C.E. "Matematička teorija komunikacije" (PDF) . Math.harvard.edu . Preuzeto 2019-01-09 .
- [2.] Pogarčić, I.; Infraredesign© tehnologija - potreba holističkog pristupa i šireg znanstvenog vrednovanja, Polytechnic and design, Vol. 6 No. 1, 2018. <https://doi.org/10.19279/TVZ.PD.2018-6-1-02>, Pregledni rad
- [3.] Bernašek, A., Žiljak, V., Žiljak Vujić, J., Uglješić, V.; Poistovjećivanje prirode i reprodukcije prirode u vizualnom i infracrvenom području // 19. Međunarodna konferencija tiskarstva, dizajna i grafičkih komunikacija / dr. sc. Miroslav Mikota, prof. v. š. (ur.).
- [4.] Friščić, M., Žiljak-Vujić, J., Žiljak, V. Pap, K.; Nevidljiva grafika na transparentnim materijalima s flekso tiskom // International scientific conference on Printing & design 2013 : proceedings = Međunarodni znanstveni skup Tiskarstvo i dizajn 2013 : zbornik radova / Žiljak-Vujić, Jana (ur.). Zagreb : Akademija tehničkih znanosti Hrvatske, Centar za grafičko inženjerstvo, 2013. 156-161

- [5.] Ryan, R. M.; Deci, E. L. "Unutarnje i vanjske motivacije: klasične definicije i nove smjernice". *Suvremena pedagoška psihologija* . 25 (1): 54-67, 2000. Kanal komunikacije može biti vizualni , slušni , taktilni (kao što je na Brailleovom pismu) i haptički , mirisni , elektromagnetski ili biokemijski .
- [6.] Ericsson, Karl Anders, *Peak: Secrets from the new science of expertise*, ISBN 9781531864880, OCLC 961226136
- [7.] Schacter, D, *Psihologija* . Worth Publishers. 2011.
- [8.] Mellers, BA (2000). Izbor i relativni užitak posljedica. *Psychological Bulletin*, 126, 910-924.
- [9.] Mellers, BA, & McGraw, AP (2004). Uvjerenja koja služe sebi i zadovoljstvo ishoda. U J. Carrillo & I. Brocas (Eds.), *Psihologija ekonomskih odluka*. Vol. 2: Razlozi i izbori (str. 31-48). New York: Oxford University Press.
- [10.] Pogarčić, I., Rudić, B., Pogarčić, M.; How to choose the right navigation device in traffic?, ICTTE, International Conference on Traffic and Transport Engineering, Beograd, 2012
- [11.] Žiljak Vujić, J., Matas, M., Pogarčić, M., Žiljak Stanimirović, I.; *Topographic maps with infrared colors*, DAAAM, Wien, 2014.

AUTHOR · AUTOR

Ivan Pogarčić - biography can be found in the *Polytechnic & Design* Vol. 6, No. 1, 2018.

Correspondence · Korespondencija

pogarcic@unipu.hr