

RELEVANCE OF WEBSITES AND EVENTS IN SCIENTIFIC COMMUNICATIONS

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Abstract: Higher education institutions (HEI) are constantly urged to use diverse set of communication tools in order to deliver their messages to various target groups. In the modern market, characterized by the fast changes, strong competition and abundance of stakeholders, all actors need to find new ways to reach out their audience. In that sense, the use of the integrated approach is essentially significant, enabling the maximum results of the utilization of online and offline communication tools. The aim of this study is to shed the light on the relevance of the HEI's websites and workshops, for the achievement of optimal communication aims. The case study of the "Methodology guide for innovation" workshop is presented, while websites are analyzed from the conceptual point of view. Both organizational and content aspects are explored, while the specific recommendations are provided both for practitioners and scholars who perform in this field.

KEY WORDS: MARKETING COMMUNICATIONS, WEBSITE, EVENT, SCIENTIFIC COMMUNICATIONS

JEL CLASSIFICATION: M31, M14

1. INTRODUCTION

In the same manner that data get their purpose only when they are interpreted to information, the information achieve their meaning only when they are communicated to the target groups. Therefore, analyses and various studies deliver value only in the process of their communication to interested public (Young & Quinn, 2012).

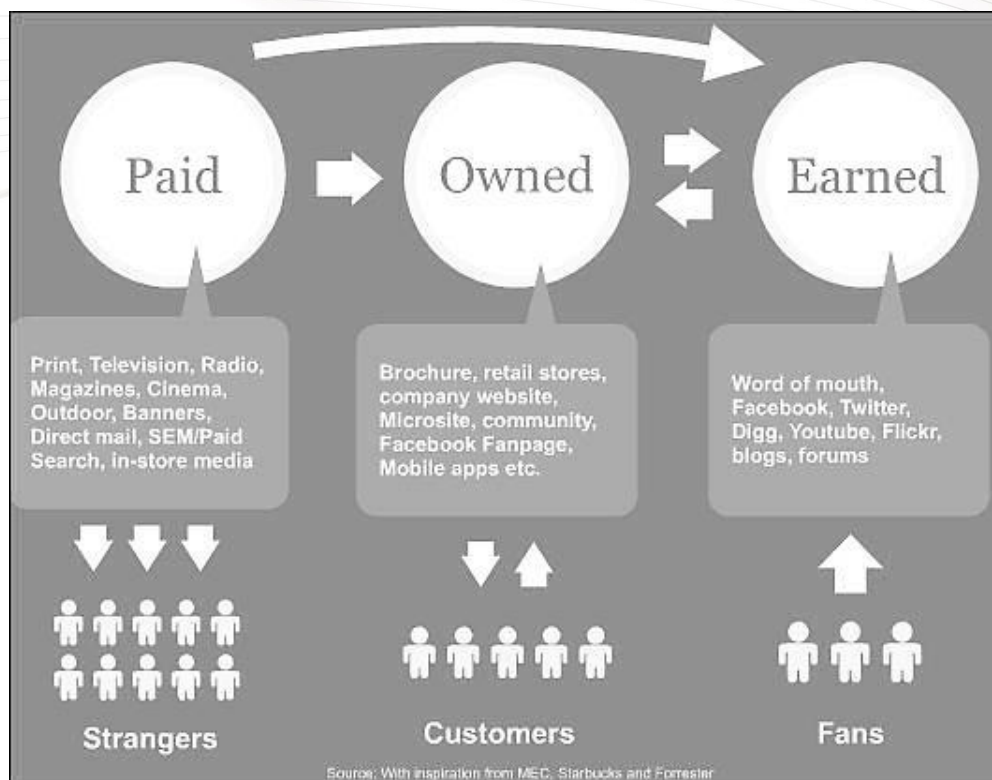
There are numerous tools that can be employed for the dissemination of information, while the most used ones by HEIs are: print, online media and events. The overall recommendation is to apply all media integrally, in order to achieve synergistic effects (Tuman & Eng, 2011). However, the cost of the use of certain media usually hinder HEIs and research teams to consider them, while in the most of the cases, they rely on either owned or earned media, rather to paid ones.

It is observable from the following picture (figure no. 1) that the weakness of that approach lies in the fact that the reach is quite smaller compared to the option that the paid tools are used. Nevertheless, given that many programmes (e.g., Erasmus plus, Horizon 2020, Interreg, RRPP, etc.) increasingly highlight the importance of the project visibility (Danube Transnational Programme; European Commission, 2018a; European Commission, c), we may conclude that this notion will be translated to practice through the increasing budgets allocated for communication activities.

Nonetheless, one should not underestimate the power of earned and owned media, since they usually gather the fans of the particular HEI or of the certain topic that a project pertains to, while these fans are usually perceived as the opinion leaders (i.e. influencers) in their own communities. Consequently, they can serve as the brand ambassadors, who will spread the positive word about the project/HEI and therefore, they should be continually informed and appreciated. One of the most effective ways to perform this activity is to create database of fans, by offering of the possibility to subscribe for the newsletter or e-brochure at the specific website.

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Figure 1: Reach of various types of media



Source: Online Marketing Institute (2013), 5 Critical Steps for Integrating Paid, Owned, and Earned Media, <https://www.onlinemarketinginstitute.org/blog/2013/11/integrating-paid-owned-earned-media/>

According to law, subscription to media have to be consensual, meaning that e-mail addresses or other private information of users can be collected only upon their acceptance of the Terms of use and provision of the consent to receive the newsletters/brochures. Starting from the March of 2018, new law has been put into force in EU (European Commission, 2018b), stipulating that the consent received by users have expiry date, i.e., they need to be revisited in regular periods of time (depending on the sector in which organization works, it varies from a few weeks to few years) and asked to reconfirm their willingness to receive the promotional materials.

2. HEI'S WEBSITE AS THE COMMUNICATION TOOL

The second stage of the strategy and, later on, of the tactical plan should be understanding of the values that the website of the HEI should offer to its different target groups.

Actually, communication strategists and administrators should answer to the questions: Why would the user would come and stay at our website? What reasons would make them to return to our website? What kind of information they are looking for? How can we incite them to share their positive word of mouth with their community? Naturally, the answers to all of these questions will differ regarding to the situation factors and sector in which HEI operates in. Nevertheless, there are some guidelines that can be effectively applied in the majority of cases. The website needs to be: i) user-friendly; ii) interactive; iii) with a layout that users expect to see; iv) continually fed with the current and interesting information; v) integrated with social media (Filipović, 2017). In the previous table the main requirements of website are depicted according to the major target audiences of HEIs, but these lists should not be regarded as the exhaustive, but more as the necessary parts of the successful website. Provided that new generations are digital natives, while they prefer visual to verbal manner of communications, this kind of content should be put forward in the process of developing and publishing of web materials for HEIs.

Table 1: Values of the HEI website for diverse target groups

	Students	Researchers	Public	Administrators
Content requirements regarding Third Mission	<ul style="list-style-type: none"> • Legal acts and by-laws on studying • Volunteering opportunities • Calls for mobility, competitions and entrepreneurship possibilities • Workshops, training and other LLL activities provided at their HEIs • Calls for startup centers and collaborative projects 	<ul style="list-style-type: none"> • Legal acts and by-laws on teaching and research work • Volunteering opportunities • Calls for mobility, visiting lectureship and other CE opportunities • Workshops, training and other LLL activities provided at their HEIs • Patent protection and spin offs 	<ul style="list-style-type: none"> • Press room at the website • Video gallery (with interviews and coverage in media and YouTube) • Contacts of PR officer and other relevant staff • Web-shop with HEI's (project) memorabilia • FAQ 	<ul style="list-style-type: none"> • Regulations on the HEI's visual identity elements • Website map • Templates to be used for the submission of content by researchers, students and general public • Frequently asked questions on technical issues
Technical requirements	<ul style="list-style-type: none"> • integrated with social media • visual content • highly-responsive • adjusted for the use on the cell phones 	<ul style="list-style-type: none"> • efficient browsing • usual layout • verbal content 	<ul style="list-style-type: none"> • professional appearance • attractive design • easily-read news (without scientific vocabulary) 	<ul style="list-style-type: none"> • back-end platform easy to use • time-saving maintenance • suitable capacities for traffic and type of content

It is generally known that we live in the world of information overload, in which countless number of media struggle to draw user's attention. In that sense, it becomes even more indispensable to create and offer content that is individually customized, relevant and provided on different platforms (Mollet et al, 2017). Therefore, HEIs must be present on at least the most used social media (namely, Facebook, Twitter, LinkedIn and Instagram) and be in the constant correspondence with their target audiences. They need to update their content at least on the daily basis and to provide them adjusted to the each of the platforms (e.g., it should be noted that Instagram features pictures, while Twitter put more weight on the verbal message, while LinkedIn offers blogging opportunities). The web sites adjusted to the preview and usage on the smart phones are imperative in the world of modern communications.

Finally, for the purpose of the preservation and growing of the community around a HEI, the most prominent members need to be rewarded. They can be honoured in multiple ways, such as: by giving them some of the HEI's memorabilia, offering them discounted prices to certain courses of LLL offered at HEI, mentioning them or interviewing them for the online media run by the HEI, offering them to promote their examples of good practices, etc. In this way, their loyalty will increase, while they become even more dedicated brand ambassadors and help building the larger member-base.

3. EVENTS AS THE PART OF THE COMMUNICATION MIX: CASE STUDY OF THE METHODOLOGY GUIDE FOR INNOVATION

Modern manners of communications and audience's needs and wishes require constant integration of the "real" and "virtual" communication platforms. Even though some traditional forms of communications, such as fairs, evolved to their virtual manifestations, they still both exist, not being able to replace older forms by newer ones. One of the most prominent types of "offline" communications is certainly the event. In the realm of higher education and science, different sorts of events are organized regularly: public lectures, seminars, conferences, congresses, symposia, demonstration classes, exhibitions, etc. (Bucchi, 2014). Nevertheless, one of the format that has been particularly represented in the scientific communications in the previous decade is a workshop. Workshop is a training class or seminar in which the participants work individually and/or in groups to solve actual work related tasks to gain hands-on experience (Davis et al., 1999). The application of the theoretical knowledge into practical life is the core of this concept.

One of three main pillars of University's Third mission is the dimension of the transfer of technology, which closely relates to the innovation management. Aiming to support the development of technology transfer and innovation dimension within the third mission, to encourage and involve students and researchers in ideas development and bringing to the market and to open public debate on challenges that HEIs face with in innovation processes, two days workshop was organized. Workshop "Methodology guide for innovation" was held at the University of Belgrade, gathering professors, researchers and students, in order to understand the innovation cycle.

Given multidimensional nature of the topic, teachers from various disciplines gave lectures. First set of presentations covered issues of basic principles and definitions of innovation and innovation cycle, innovation modeling (market research, analytical design-technical feasibility, detailed design, test and redesign, production, distribution and marketing). Since IF4TM project support innovation processes on HEIs in Serbia, issues of the national legislative covering innovation and role of HEIs are important part of project. In the second lecture, an overview of the place of innovation in new Laws covering higher education and innovation was addressed. Moreover, the display of the European funding programs was provided, detailing the features of each of them. At the end of the first day, the trainer presented framework for management of innovation processes in Serbia, as well as university innovative platform for Western Balkans as example of good practice.

Second day of the workshop started with the presentation of the importance of the market in the innovating ecosystem. Relations between creativity and innovation, why to innovate and how to produce ideas and innovation were thoroughly elaborated and showcased on the appropriate real-life business cases. In the focus of the following presentation, the relationship between continuing education and innovation was emphasized and elaborated. After that, legal expert presented rules and procedures for protection of intellectual property. Furthermore, existing national models of financing were presented: Innovation fund programs (transfer technology program; Program for cooperation of science and economy), Program of early development (for micro and SME); Balkan venture fund; Ministry of economy program for supporting development of entrepreneurship. The light was also shed on new ways of financing innovation like crowd funding, and challenges which innovator from Serbia face when try to use this type of financing. Finally, the closing presentation was on opportunities for innovation development in Scientific Technological Parks and Business Incubators in Serbia, highlighting the most important case studies from the practice of the Business Incubator of Technical Faculties in Belgrade.

All presentations incurred interesting and lively discussions raised by both students and researchers, who were especially interested in the relationship between the entrepreneurship and innovations. The last open floor debate on challenges that HEIs face with in innovation processes concluded that many financial and legal measures need to be changed or/and established, but as the main obstacle that is needed to be overcome is distinguished to be the mindset, in order to encourage more academic innovators to bring their results to the market.

In order to assess the participants satisfaction with this event, and to identify possible avenues for the improvement of the future editions of the Workshop, the participants have been investigated and their answers are analyzed. The research instrument was developed within Quality control work package of the IF4TM project. Overall, 107 out of 112 participants have filled in the satisfaction survey, which comprised two parts, related to the content and technical execution of the event. Participants rated 17 statements on the 5-point Lickert scale, ranging from “strongly agree” to “strongly disagree”, as well as from “most satisfied” to “not at all satisfied”. In addition, respondents had opportunity to express their opinions in three open questions too. The results of the survey are provided in the follow up.

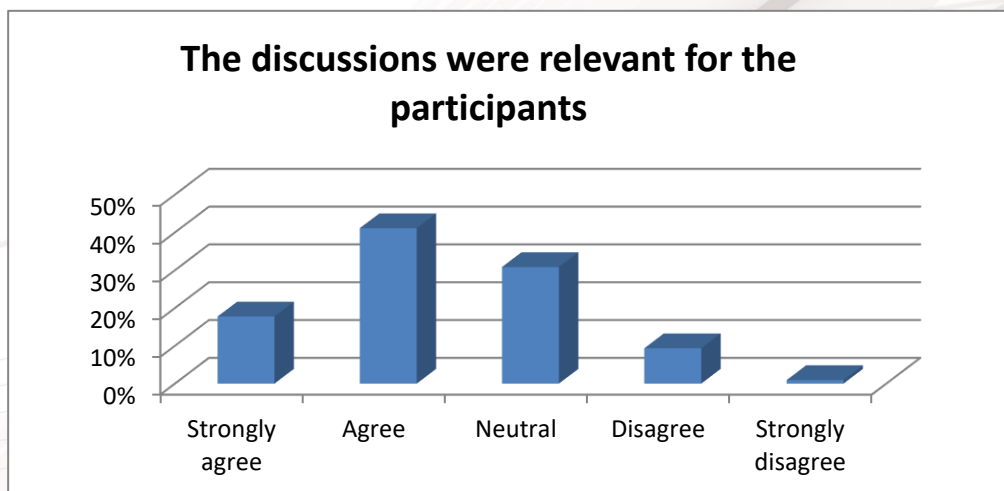
Data presented in the table no. 2 show that participants generally were satisfied with the Workshop, provided that in average 80% of respondents expressed their contentment. However, the discussion aspect was graded with the lowest mark among all, since one third of the respondents was only moderately satisfied and more than one tenth of them was rather dissatisfied.

Table 2: The level of satisfaction with different aspects of the event

	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
The event administration	32%	48%	17%	4%	0%
The structure of the programme	31%	44%	21%	3%	1%
The venue and facilities	39%	40%	17%	4%	0%
The presentations	39%	37%	16%	7%	1%
The discussions	24%	31%	33%	12%	0%

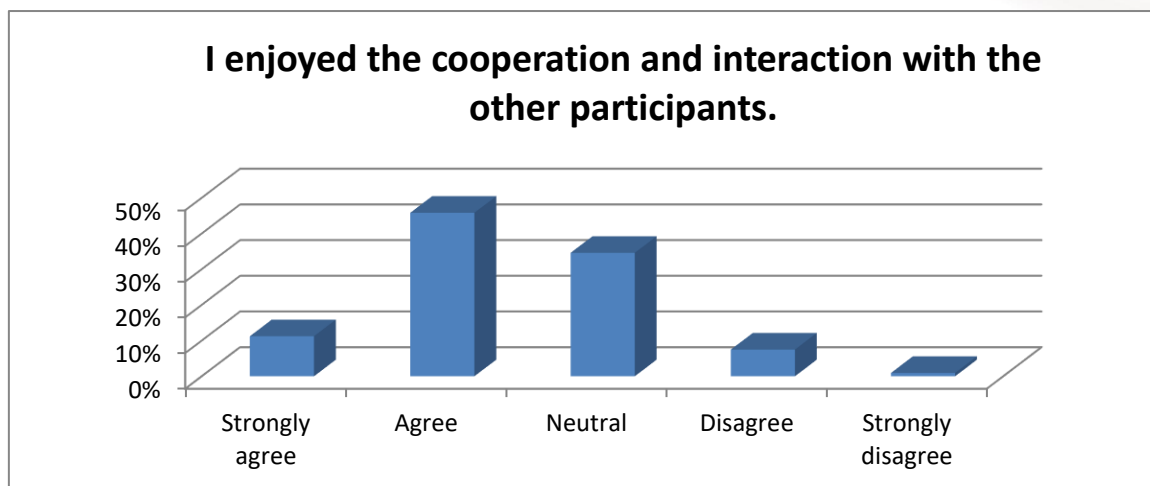
The same answers are obtained in the subsequent question which investigated whether participants found discussion to be relevant for them (Figure No. 2). In this case, slightly more respondents opted for lower grade (i.e. “agree”) than for the highest mark (“strongly agree”), comparing to the previous question.

Figure 2: The relevance of discussion for the participants



It is reasonable to assume that participants expected higher level of interactivity and their greater involvement in the workshop, which is distinctive feature of this format of the event, compared to e.g. lectures. This is particularly important with regard to the age of the attendants, given that young generations are used to interactive content and want to actively take part in all tasks to which they are exposed to. Nevertheless, as it is depicted in the figure no. 3, respondents were mostly neutral and satisfied with the collaboration with their workshop peers.

Figure 3: The satisfaction with interaction with other participants



In order to comprehend specific features that contributed to general satisfaction, more detailed questions have been asked and the research addressed particular aspects of the Workshop. Regarding the aim of this event, the most relevant issue to explore was the utility of the content provided in lectures. Therefore, the topics, information, methods and lecturing style have been estimated (presented in the table no. 3).

Table 3: Assessment of the content and methods used on the Workshop

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
The information I got will be of immediate use to me	19%	36%	35%	9%	2%
This event covered to a very high extent the topics I have expected.	17%	41%	32%	9%	1%
The materials distributed are useful and informative.	25%	30%	37%	4%	4%
The methods of working were suitable for the topics and for the participants.	18%	43%	31%	7%	2%
The style and level of communication between organisers and participants was professional.	42%	45%	11%	2%	0%

The analysis reveals that target groups were correctly selected and attracted to attend the event, given that the majority of participants found that the knowledge gained here would be of immediate use for them. It is especially encouraging that attendants estimated manner of communication as the appropriate and professional. Approximately one third of all participants opted for neutral answer regarding all questions, which was expected.

Besides content management, the administration of the event is also of the crucial importance. Pleasant surrounding and atmosphere are very important hygiene factors according to Herzberg's motivation theory (DeShields, Kara, & Kaynak, 2005), and even though they cannot influence the increase in satisfaction, they significantly determine the sense of dissatisfaction. It should be noted that technical elements of the event – the event administration and the venue and facilities, rated high scores (table 2), thus positively contributed to the perception of the whole event. Moreover, the time management was also assessed highly positive (figure 4).

Figure 4: The efficiency of the time management of the Workshop



Overall conclusion is that participants were highly satisfied with both content and organisation of the event. About two-thirds (67%) of them cited that they would recommend such an event to their colleagues, while only 11% stated the opposite.

4. CONCLUSIONS

The recommendations provided in the guidelines for various programmes in the domain of higher education and research emphasized the importance of customized communications to each target group, with respect to the field of study. Our research corroborate these conclusions, specifically highlighting the utility of the mix of the communications in online (website) and offline (event) spaces.

In both cases, two aspects are considered – content and administration. Even though the content is of the vital relevance for the satisfaction of the target groups, the organisational aspects are equally significant for the dissatisfaction management. Hence, both of them should be considered integrated, allowing sufficient resources for the efficient execution of each of them. Future studies should focus on the utilization of other electronic media (e.g. social media) and types of events (e.g. demonstration classes, exhibitions, seminars, etc.), as well as of their combination with traditional media (e.g. print ads and press releases). Considering the limited amounts for the communication purposes in science arena, the focus should be on the owned and earned media.

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EHTHUSIASM VS. SCEPTICISM: SERBIAN RESEARCHERS' VIEWS ON OPEN SCIENCE

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Abstract: *The paper describes a study based on the survey of Serbian researchers' attitudes towards open science. The attitudes on open access and users' preferences regarding institutional open science repositories were examined on a sample of 850 Serbian researchers. The results of the factor mixture analysis revealed three clusters of researchers (names The Sceptics, The Goal-Oriented, and Personal Motivation) based on five latent dimensions (named Negative attitudes, Personal scientific impact, Scientific communication and knowledge transfer, Efficiency of publishing procedures, and Visibility of repository content). Analyses of differences in class membership among researchers from five broad research fields suggested that the differences are largest regarding tendencies towards efficiency of publishing and personal scientific impact.*

KEY WORDS: OPEN SCIENCE, OPEN ACCESS, INSTITUTIONAL REPOSITORIES, ATTITUDES

JEL CLASSIFICATION: I2 Education and Research Institutions.

1. INTRODUCTION

Several aspects of open science have been recognized as the crucial constituents of the “Three pillars of the Third Mission of the University” (e.g. De Filippo, Bautista-Puig, Mauleón, & Sanz-Casado, 2018). However, despite its relevance on both global and local levels, the concept of open science has largely been an unknown to Serbian researchers. The aim of the BE-OPEN project (Erasmus + KA 2 project, funded by the European Commission; <http://beopen.uns.ac.rs>) is to provide support for the promotion, implementation, and development of open science practice in Serbia. BE-OPEN is a collaborative effort of Serbian state universities, government, and European partners, co-ordinated by the University of Novi Sad. At this moment, the project is in its penultimate year, with the initial screening studies completed, national platform for open science adopted², and the institutional repositories being implemented.

Establishing institutional repositories is arguably the greatest challenge for the project team. Namely, the repositories are envisaged not only as archives of research outputs, but as facilitators of communication between the stakeholders, including, but not limited to, the communication among researchers, industry, and citizens. This is possibly the most evident and most relevant link between open science practices and the “Third mission of the University”. The success of such a communication device, apparently, relies on researchers' recognition of the advantages of open science, and on their willingness to use the available capacities of institutional repositories. In other words, the importance of researchers' knowledge and attitudes on open science, as well as of their needs as users of institutional repositories, should not be underestimated.

Prior to the first phase of the BE-OPEN project, large-scale studies on attitudes on open science have not been systematically conducted in Serbia. Some results, based on the data obtained in other EU projects (Regional Cooperation Council, 2016), point to low levels of knowledge and awareness of open science practices. Similar conclusions can be drawn from the data obtained in the initial phase of the BE-OPEN project (BE-OPEN, 2017). Open data practices were shown to be largely unknown to the participants, and therefore were not considered in this study.

While these data provide insight into the state of affairs regarding the Serbian researchers' stance towards open science, several issues remain open. For instance, can more general patterns of attitudes and user needs be found in survey data? If so, can such patterns serve as foundations for

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² <http://open.ac.rs/vesti?id=87328781babfe70aad60429fad8f4feb>