

# A Whole New World - Integration of New Editors into the Serbian Wikipedia Community

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## Abstract

Integration of new editors can be quite challenging, and some of them drop out after only making a couple of edits. This research will focus on the experiences of new editors on Serbian Wikipedia, and it will help us understand why new editors start editing Wikipedia in the first place, what factors motivate and demotivate them to contribute to Wikipedia, and in what ways they participate in the Serbian Wikipedia community. However, in order to understand the experiences and motivation of new editors, we also need to know what drives and discourages editors, in general, to commit to Wikipedia. Therefore, this research will be carried out in two stages. In the first one, we will test how different (extrinsic and intrinsic) motivational and demotivational factors affect various activities of editors on Wikipedia (such as content contribution and community participation) using SEM. In the second stage, we will interview new editors about their experience on Wikipedia as newcomers and we will analyze the data by using interpretative phenomenological analysis. The goal of this study is not only to lay out what the driving forces that influence editors' activity are and showcase the experience of new editors in-depth, but also to provide guidelines for the integration of newcomers into the Wikipedia community in the best possible way.

## Introduction

One of the main features of the Wikipedia community is its democratic nature as members vote on almost everything regarding Wikipedia (Konieczny, 2009). Therefore, it is beneficial for editors to be part of this community and take part in its activities because that gives them the opportunity to be part of the decision-making processes. However, upon joining Wikipedia, editors are faced with the difficult task of getting familiar with technical aspects, finding their place within the community, and learning the specific rules and norms.

Empirical data points out that many newcomers have a hard time dealing with those tasks (Butler, et al, 2008; Morgan et al, 2011); that 60% of new editors quit Wikipedia after only 24 hours and never return, and the fact that only 8% of newcomers end up becoming active Wikipedians (Panciera et al, 2009) also illustrates this. One of the main challenges that they face are the reverts of their articles, which can be followed by negative feedback. Even though reverts are important for maintaining the quality of articles, data shows that they can be stressful and that they can significantly affect retention (Faulkner et al, 2012; Halfaker et al, 2013; Zhang et al, 2019). Additionally, it has been pointed out that the increased popularity of Wikipedia was associated with an upsurge in rejections of changes made by new editors, and those rejections were significant predictors of retention (Halfaker et al, 2013).

In addition to this, even though Wikipedian communities are spread across the world, the majority of them are still homogenous in terms of gender (Morgan et al, 2013). Namely, several studies pointed out that the participation of female editors on Wikipedia is quite low (Glott et al, 2011; Cabrera et al, 2018). It is possible to assume, therefore, that it is especially challenging for new female editors to be integrated. Previous studies have pointed out that female editors reported feeling uncomfortable about hostile communication, and they mentioned conflicts as one of the main reasons why they stopped contributing to Wikipedia as often as they did (Collier & Bear, 2012).

One empirical study pointed out that editors who edit Wikipedia frequently from the beginning are likelier to stay on the platform than casual editors (Pancieria et al, 2009). Because of that, it would be beneficial to study the motivation of new editors to frequently edit Wikipedia from the beginning. That knowledge can, later on, be implemented to design better approach strategies and welcoming policies. Furthermore, that knowledge can help us understand how best to attract more editors to Wikipedia and other Wikimedia projects, and how to assure that they stay on for a longer time. Additionally, the proper integration of new editors is especially important in the context of the Wikipedia Educational Program, since it gathers many new volunteers through its activities.

In accordance with previous research in this field (Reboot & Wikimedia Foundation, 2017), the aim of our research is to cover the following research questions:

- Theme 1: Thoughts about the Wikimedia Movement:
  - How do new editors perceive the Wikimedia Movement? Why

is it important to them? Did their perception change as they become more involved?

- How do they perceive Wikipedia and has it changed over time? What would they change?
- How do they feel about the Wikipedia Community? Did their opinions and feelings change? In what ways?
- Theme 2: Contribution to Wikipedia:
  - Why did they start contributing? What was their experience like at the beginning?
  - In what ways do they contribute to Wikipedia and how often?
  - What motivates/demotivates them to contribute?
- Theme 3: Interaction with the community:
  - How did they come in contact with the community for the first time? How did they feel about that interaction? Did they receive some sort of support at the beginning?
  - What impact did those first interactions have on them?
  - How did they learn the norms and rules on Wikipedia? What did they think of and how did they feel about them? How do they usually interact with other editors?
  - Do their interactions with the community impact their contribution to Wikipedia?

However, to gain an in-depth understanding of Serbian Wikipedia's new editors' motivation, it is important to find out what generally drives

editors to contribute and engage with the community. Even though several studies focused on the motivation of Wikipedia editors (Baytiyeh & Pfaffman, 2010; Asadi et al, 2013; Xu & Li, 2015; Arazy et al, 2017), there are no studies on the motivation of Serbian Wikipedia editors.

**Date:** The research will be carried out from 1st July 2023, until 30th April 2024.

## Related work

This research project will focus on two different but related questions, one about the general motivation of editors on Wikipedia to contribute, and one about the individual experiences of new editors.

### *The motivation of Wikipedians*

Several researchers dealt with the topic of editors' motivation, and their findings indicate that a large number of extrinsic and intrinsic motivational factors affect the willingness to contribute to Wikipedia (Nov, 2007; Peddibhotla & Subramani, 2007; Oreg & Nov, 2008; Cho et al, 2010; Yang & Lai, 2011). The identified extrinsic factors are career opportunity, knowledge, skill learning (Nov, 2007), reputation building, self-development (Oreg & Nov, 2008), reciprocity (Peddibhotla & Subramani, 2007; Cho et al, 2010), and utilitarian motives (Peddibhotla & Subramani, 2007). When it comes to intrinsic motivational factors, studies singled out: enjoyment (Nov, 2007; Peddibhotla & Subramani, 2007), altruism (Nov, 2007; Peddibhotla & Subramani, 2007; Prasarnphanich & Wagner, 2009; Cho et al, 2010), social needs and a sense of belonging (Nov, 2007; Peddibhotla & Subramani, 2007; Cho et al, 2010), among others. However, the limitation of those studies was that they focused either on motivation to contribute to writing content on Wikipedia, or to participate in the community, not both. Unlike them, Xu and Li's study

explored the relationships between content creation, community participation, and motivational factors based on the Self-Determination Theory<sup>1</sup> (Xu & Li, 2015), which will be the framework for the interpretation of our results as well. Their findings showed that intrinsic factors, such as altruism and a sense of belonging, were strongly associated with community participation, while extrinsic factors, such as reciprocity and self-development, were correlated with content contribution. Enjoyment was found to have a stronger correlation with content contribution than community participation, while reputation and ideology had no impact on either behavior. Put simply, the study highlights the importance of considering both intrinsic and extrinsic motivations in understanding online behavior (Xu & Li, 2015).

Xu and Li's study examines relations between various forms of motivation and the two most common types of behavior on Wikipedia, but it focuses on the Chinese Wikipedia. To confirm their generalizability, it is worth testing whether the same results will be found with different language versions of Wikipedia, like Serbian Wikipedia. Additionally, most of the previous studies focused either on motivational or demotivational factors, and there are not many studies that focused on both. The goal of our study is to determine how different (extrinsic and intrinsic) motivational and demotivational factors influence content creation and community participation.

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<sup>1</sup> This theory proposes that various types of motivation, which differ in the degree to which they are self-determined, can affect and explain human behavior (Deci & Ryan, 1985). Additionally, Deci and Ryan outline the structure of motivation as the continuum of self-determination – on one end is intrinsic motivation, which can be understood as the highest form of self-determination, and on the other end is amotivation, presented as a lack of motivation due to the feeling that the individual is not capable of making a free choice about the situation and believe that their actions have no effects in achieving desirable outcomes. In the middle of this spectrum, we can find extrinsic motivation (Deci & Ryan, 1985).

Based on all previously said, we propose the following hypotheses:

The motivation of editors to contribute to the content on Wikipedia will be affected by a mix of extrinsic and intrinsic factors such as reciprocity, self-development, and enjoyment (H1).

Community participation will be mostly influenced by intrinsic factors such as altruism, a sense of belonging, and possible ideology (H2)

Even though demotivational factors would probably affect both content creation and community participation, it is possible to assume that there would be differences in the ways different demotivational variables affect two behavioral variables (H3).

Going off of them, we propose the following specific hypotheses:

H1a: Reciprocity has a stronger effect on content contribution than community participation.

H1b: Self-development has a stronger effect on content contribution than community participation.

H1c: Enjoyment has a stronger effect on content contribution than on community participation.

H1d: Reputation has a stronger effect on content contribution than on community participation.

H2a: Altruism has a stronger effect on community participation than on content contribution.

H2b: A sense of belonging has a stronger effect on community participation than on content contribution.

H2c: Ideology has a stronger effect on community participation than on content contribution.

H3a: Reverse edits have a stronger effect on content contribution than on community participation.

H3b: Negative feedback has a stronger effect on content contribution than on community participation.

H3c: Conflict has a stronger negative effect on community participation.

#### *Experiences of new editors*

Bryant and colleagues conducted a study in which they, using Activity theory as a framework, described the transformation process of a novice into an experienced editor on Wikipedia. Their findings showcase that at the beginning, new editors focus on writing articles without many attempts to join the activities of the community, however, after a while, they start being active members, in some cases even becoming administrators (Bryant et al, 2005). One limitation of this study is that they haven't defined how long a person has to be active on Wikipedia for them to be classified as a new/experienced editor. Furthermore, some participants in the study were active on Wikipedia for over a year, and they might have forgotten some important details about their early days because of that. Not to mention that, in their study, the authors didn't focus on the experiences of specific subgroups, such as women.

In our study, we will use specific criteria for recruiting participants: 1) that they open their accounts no longer than 6 months ago, and 2) that they made at least one edit in the past month. Additionally, half of our sample will include female editors, since we want to focus

on their experiences and see if it is different from the experiences of male editors.

## Methods

Considering that our research will be carried out in two stages, this section will also include two parts: the quantitative and qualitative methodology.

### *Motivational and demotivational factors of content contribution and community participation*

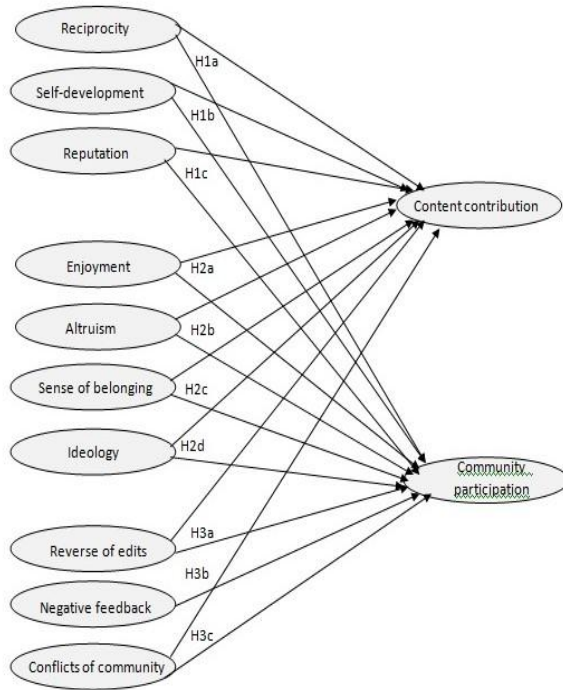
Our study will use a correlational research design. We plan to examine relationships among several constructs or latent variables. The focus is going to be on the following latent variables: extrinsic motivational factors in the context of Wikipedia (reciprocity, self-development, reputation), intrinsic motivational factors (enjoyment, altruism, sense of belonging and ideology), and demotivational factors (reverts of edits, negative feedback, and conflicts within the community), and two types of behaviors on Wikipedia (content contribution, and community participation). Furthermore, we plan to use an online self-report survey to collect data and measure each construct. The construct will be measured on the 5-point Likert scale and we plan to formalize the questions based on the previous studies. Specifically, the questions about content contribution will be adapted from the study conducted by Cho and colleagues (Cho et al, 2010), while behavioral questions about community participation will be adapted from the studies done by Wasko and Faraj (Wasko & Faraj, 2000), and Koh and Kim (Koh & Kim, 2003). Questions related to extrinsic motivational factors will be adapted from Cho et al (Cho et al, 2010), and a study conducted by Nov (Nov, 2007). Intrinsic motivational factors will be adapted from Agarwal and Karahanna (Agarwal & Karahanna, 2000), Stewart and Gosain (Stewart & Gosain, 2006), and Cho et al (Cho et al, 2010). The demotivational factor will

be adapted from Asadi and colleagues' study in which several demotivational factors were mentioned by participants (Asadi et al, 2013). Lastly, to test if participants pay attention to the questionnaire, we will also add two attention check questions.

Since the target population for this research is the Wikipedia community, we will use purposive sampling. Potential participants will be informed about the study and recruited through posts on Village Pump and communicational channels such as email and Discord.

To test the hypotheses, we will construct the Structural equation modeling (SEM) using Amos software (see Barnidge & De Zúñiga, 2017). This statistical technique will help us estimate the effect of extrinsic and intrinsic motivational factors, as well as demotivational factors on the two behavior constructs, content contribution and community participation (Ullman & Bentler, 2012). The model that we plan to test can be seen below.

**Figure 1**  
*Research model*



### *The experiences of new editors*

The semi-structured interviews will be used to collect data as this allows participants to bring attention to some aspects of their experiences that were not included in our research questions, and that can give us better insights into the topic. The agenda that will be used during the interview will be constructed based on the research questions and previous studies in this field.

In the second stage of the research, we will use purposive sampling as well since we're interested in the experiences of new editors. We will recruit participants using the snowball technique, emailing potential participants and reaching them through Discord, and posting about the research on Village Pump. The sample size will be between 10 to 12 participants and is defined following the principle of theoretical saturation (Guest et al, 2006). During the recruitment, we will make sure that female editors make up half of the sample for the research. Additionally, only editors who made their accounts in the 6 months prior to the

research, wrote or improved at least one article, and made at least one change in the past month will be selected for the research.

The data will be analyzed using interpretative phenomenological analysis (Smith, 2004). Firstly, the individual experiences of new editors will be analyzed to understand specific dimensions of their experiences. Secondly, the individual analysis will be integrated to look for mutual elements and get the bigger picture of the new editors' experiences.

## Expected output

Our expected outputs are:

- 1) *New guidelines on dealing with new editors*, based on our findings on the motivational/demotivational factors.

The primary audience, in this case, is the Wikipedia community, both the Serbian and the wider one. We hope that the guidelines for the integration of new editors will help with the retention of newcomers, which can be beneficial for the sustainability of the community. Considering the historical context, and language similarities, the findings of our study can also be useful to communities on Bosnian, Croatian, Serbo-Croatian, and Macedonian Wikipedia.

- 2) *A research paper on the motivation of editors on Serbian Wikipedia* (likely published in the *Journal of Personality and Social Psychology*) and a second paper on the integration of new editors on Serbian Wikipedia (likely published in the *New Review of Hypermedia and Multimedia* or the *Journal of the Association for Information Science and Technology*).

The target audience of this output is the academic community, both in Serbian and internationally. The goal, in this case, is to introduce the Serbian Wikipedia community as a specific social group to academic circles and inspire other scholars to research this topic.

- 3) *A poster presentation on the quantitative study presented at the CEE Meeting in 2023, and a presentation of the entire study at the next year's CEE Meeting and Wikimania once we finish it.*

Various Wikimedia affiliates and Wikipedia user groups will be the primary audience for this output. We hope that our findings and guidelines on the integration of the new editors, which would be based on them, will be beneficial to them, especially those in the CEE region, and that they can help them in designing initiatives aimed at increasing the retention of the new editor of their languages versions of Wikipedia. Our guidelines will be especially helpful to Wikimedia chapters and user groups who run Wikipedia Educational or GLAM programs and want to attract new editors for the activities within those two programs.

## Risks

The only risk that can jeopardize the success of the research is a lack of respondents for the survey; given the relatively small number of interviews, finding editors interested in participating shouldn't pose a problem. However, we believe that finding survey responders won't be that big of a challenge either since we know that the Serbian Wikipedia

community is very active. That said, should we encounter this potential problem, we will deal with it by changing the methodology: in case the sample in the quantitative study is not big enough for testing our research model, we will use canonical covariance analysis which gives reliable results even with a smaller sample (Momirović et al, 1988).

## Community impact plan

Generally speaking, the findings of this study will be useful for drafting new guidelines on how to deal with new editors. That is, by understanding what motivates and demotivates (new) editors, the Serbian community gets a chance to make the “integration process” a lot better and so make the platform more inviting, thus, hopefully, lowering the number of people who start editing but stop doing it. For example, through the Wikipedia Educational Program in Serbia, which is led by Nebojša Ratković, a large number of students and teachers/professors learn how to edit Wikipedia, so our findings on how to include newcomers and make their first encounter better could directly be implemented and, hopefully, help get more of them interested in editing Wikipedia, thus contributing to it longer. Of course, this was just an example, and it goes without saying that the Serbian Wikipedia community would directly benefit by using our findings, as stated at the begging of this section, and so could other communities by using our model.

## Evaluation

The success of this research project can and should be evaluated based on data collection, timeliness, and impact.

- 1) *Data collection*: a successful collection of high-quality and complete data.
- 2) *Timeliness*: adherence to the project timeline.

- 3) *Impact*: the impact of our study on our understanding of (new) editors' experiences.

## Budget

## Response to reviewers and meta-reviewers

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