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# Gender gap in the Digital Society: a qualitative analysis of the international conversation in the WYRED project

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## ABSTRACT

The objective of this research is to know the opinion of young people about one of the main current issues: gender stereotypes and equality. The research has been developed in the context of the WYRED project. Specifically, the information has been obtained from an international conversation about stereotypes and equality on Internet carried out on the WYRED Platform between February and March 2019. The content analysis has been done with the Nvivo software following a qualitative analysis method. The most important results are the importance of technology in the perpetuation of stereotypes, the criticism towards traditional gender stereotypes, and the defense of education in breaking stereotypes in order to achieve an egalitarian society. In short, the opinion of young people concludes in a critique of traditional stereotypes and the need for change in society.

## KEYWORDS

Gender gap, Digital Society, Knowledge management, Interpretative phenomenological analysis, European project.

## 1 Introduction

The present work focuses on the problem that currently exists in the participation of young people in society. This group is not yet considered with the recognition it deserves in order to make decisions in society. Furthermore, most of the decisions that are made do not have the opinion of young people into account. A reflection of this is that, according to the latest United Nations global report on youth, a large part of the young population feels disillusioned with politics and does not see their interests represented in legislative processes [1].

In contrast to this fact, is the so-called citizen science which defends the participation of all citizens to create common knowledge and allow everyone to actively contribute to the decision-making in society in this way [2-5]. It is, therefore, a tool that allows for compensating the invisibility of young people and involving them in some outstanding scientific activities.

In this context, the WYRED project is developed, whose main objective is to give voice to young people from all over Europe in a space where they can talk about the topics that interest them the most. A methodological framework supported by a technological ecosystem was developed to achieve this objective and allow the interaction of children and young people across Europe [6-9].

Different activities were carried out in the project involving children and young people, with the support of stakeholders and facilitators from the different participant countries. Noteworthy the social dialogues, the stories in the project website and the international conversations.

The topics addressed in the project are related to the digital society. In particular, the analysis of a set of the stories shows that the most interesting topics for the children and young people involved in the project are the use of new technologies, the environment, democracy and citizens' rights, functioning of the educational system and gender stereotypes and equality.

Among these topics, the analysis highlights the issues related to gender in digital society are one of the most addressed. Gender equality is a very up to date issue supported by feminist movements from all over the world. The concept of gender is one of the most debated within feminist movements. It began to be used within feminist theories to distinguish it from that of 'sex'. In this way, the cultural is distinguished from the biological by separating both concepts. Many authors have defined the term from the feminist perspective, but all agree on the essential role of culture in the construction of gender identities. Lamas [10] defines

it as a set of practices, beliefs, representations, and social prescriptions that arise among the members of a human group based on symbolization of the anatomical difference between men and women.

Society and culture have a lot to do with the conformation of identity, and at the base of society is the organization by gender through which subjects are classified depending on whether they are men or women to assign certain attributes and specific lifestyles within the community. This is where the so-called 'gender stereotypes' is located. Gender stereotypes could be defined in a simple way as those ideas preconceived by a society or group linked to the gender of the people. These representations are used to explain the behaviour of men and women and determine the different roles they must play in society.

When talking about gender stereotypes, the most common is to think about female stereotypes, although these preconceptions affect both men and women. This happens since in society the stereotypes that affect women have a greater negative effect because historically, they have been assigned less socially valued ideas and secondary and inferior roles than men.

In recent years, a change of thinking that rejects the traditional roles of women as housewives or caregivers and defends the shift towards an egalitarian society is taking place. Some of the traditional stereotypes that are noted by authors such as Ortega [11] or Lagarde [12] have negatively affected the female gender as they have to do with the concept of beauty, affectivity or the development of physical abilities. It may seem that these stereotypes are overcome in the 21st century. However, the reality is that they are still deeply rooted in our society, and they are often the basis of discriminatory or sexist behaviour.

As it could not be otherwise, young people are a fundamental base in the fight against discrimination and the gender gap, since they form part of the ideological base of the future. That is why it is considered essential to know their ideas on equality.

Therefore, the main objective of this research is to analyse the opinion of young people about the gender gap on the Internet through the analysis of an online international conversation within the framework of the WYRED Project.

This work is set out in six sections. The second section provides some details about the WYRED project in order to have information about the context of the analysis. The third section presents the methodological framework that support the interaction among young people in Europe. The fourth section describes the methodological design to carry out the qualitative analysis. The fifth section presents an overview of the results. Finally, the last section summarizes the main conclusions of the analysis.

## 2 Context

This research is part of the WYRED project (Table 1) [7, 13, 14], a project funded by the European Union and coordinated by the University of Salamanca through the Research Group in InterAction and eLearning (GRIAL). The WYRED project is funded through the European Horizon 2020 program. This program

finances research and innovation projects in various areas within the European context. Its main objectives are to address the main social challenges of today, promote industrial leadership and reinforce the excellence of the scientific base in Europe. This program integrates the entire innovation process from the generation of knowledge to activities close to the labour market and companies. Within this program, the main objectives of the WYRED project are [7]:

- Amplify the voices of youth.
- Strengthen the opinions of young people through the development of research led by them.
- Connect young people with stakeholders in decision-making processes.
- Expand understanding of the Digital Society.
- Give value to the opinions and points of view of young people.

**Table 1. Project details**

<b>Title</b>	netWorked Youth Research for Empowerment in the Digital society
<b>Call</b>	Horizon 2020. Europe in a changing world – inclusive, innovative and reflective Societies (HORIZON 2020: REV-INEQUAL-10-2016: Multi-stakeholder platform for enhancing youth digital opportunities)
<b>Reference</b>	727066
<b>Coordinator</b>	University of Salamanca (Spain)
<b>Partners</b>	Oxfam Italia (Italy) PYE Global (United Kingdom) Asist Ogretim Kurumlari A.S. - Doga Schools (Turkey) Early Years - The organisation for young children LBG (Ireland) Youth for exchange and understanding international (Belgium) MOVES - Zentrum für Gender und Diversität (Austria) Boundaries Observatory CIC (United Kingdom) Tel Aviv University (Israel)
<b>Budget</b>	993.662,50€
<b>Dates</b>	01/11/2016 - 31/10/2019
<b>Web</b>	<a href="https://wyredproject.eu">https://wyredproject.eu</a>

Therefore, the philosophy of this project is based on the concept of citizen science and seeks to motivate the participation of young people to create joint knowledge and share ideas on current issues [4].

Regarding the methodology, the project is based on a research-action methodology [15-17] in which the researcher has a double role of researcher and participant. The process includes four phases through which the dialogue between the participants is established, the main topics of interest are defined, different research projects related to common interests are developed and, finally, the results obtained are explained.

All this is carried out within a technological ecosystem composed by a set of software components whose definition and development are guided by the WYRED methodology [18, 19]. In particular, the main component is the WYRED Platform, an online private space that allows participants to share their ideas and opinions anonymously through avatars. In fact, one of the keys of the Platform is the security of all the participants, both young and experts, so that everyone can freely say what they think without fearing for their privacy. In this way, it seeks to promote inclusion and respect for all ideas.

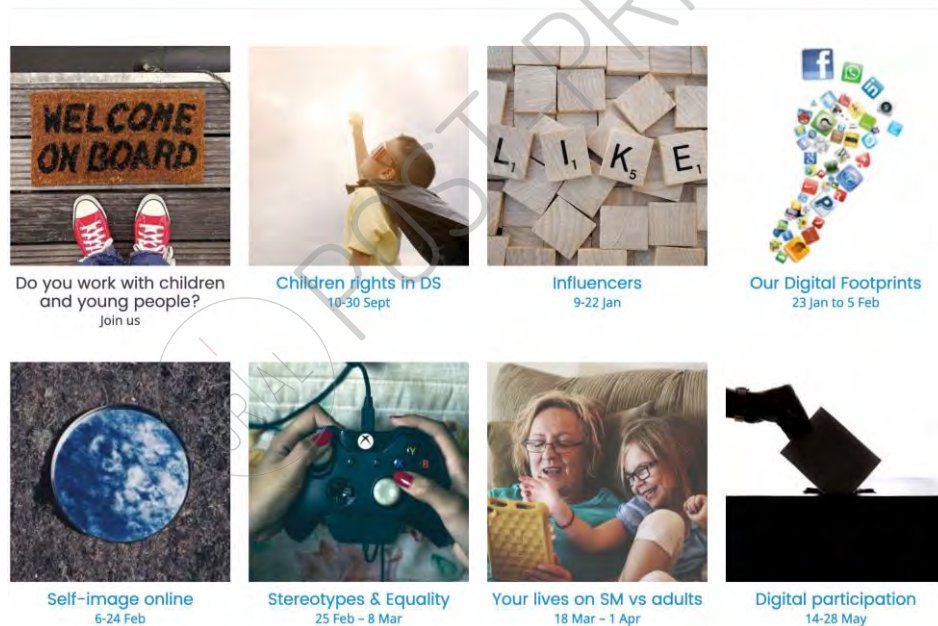
Inside the ecosystem, there are different forms of participation. Among them, it stands out the communities and the space for

research projects (both available in the WYRED Platform) or the public section of stories that are conceived to expose ideas publicly (available in the project website).

In this case, the most interesting space is that of the communities in which the different international conversations between the participants take place. This space is formed, mainly, by a set of forums organized into threads of debate in which you can collaborate extensively. The communities are always a private and closed environment for the participants of the project in order to guarantee freedom of opinion.

### 3 International conversations

As already mentioned, one of the activities that take part of the WYRED ecosystem are international conversations. This activity is designed for participants to share ideas and lay the groundwork of new research projects related to the digital society. The international conversations have a public part available in the project website (<https://wyredproject.eu/international-conversations>) (Figure 1) and a private part inside the WYRED Platform, specifically, each conversation is developed in a community in the Platform.



**Figure 1: Public space about international conversations in the WYRED website.**

To participate in the conversation, children, young people, and persons who work with these people below 30 years old must request to join through the project website. In each conversation, there is a contact form, and there is a person in charge of attending each request and send an invitation to complete the registration process in the Platform. Once inside, there is an inclusion questionnaire that allows gathering anonymous demographic information about the participants. Within the Platform, there are many communities that participants can join to interact with

others, but each conversation has a community with the same title. In the communities you can participate in the different forums, where the activities and conversations related to the topic take place. The discussion topics are chosen by the WYRED consortium considering the main topics of interest of young people. In addition, a specific opening period for each conversation is set. Some of the topics are: 'digital participation', 'self-image online' or 'influencers on Social Media'.

The international conversation chosen for this research is 'Gender stereotypes and equality on the Internet.' This activity has been developed around International Women's Day (March 8) and aims to share opinions and ideas about gender-related stereotypes on the Internet across Europe. To do this, participants shared all types of information (images, videos, news, etc.) related to stereotypes on the Internet, comment on the content added by other participants and discuss the different forum threads published in the community (Figure 2).



Figure 2: Community about gender stereotypes and equality on Internet inside the WYRED Platform

#### 4 Methodological design

The methodology used is within the interpretive paradigm the design used is based on the phenomenological method of exploratory nature [20]. Through this design, the aim is to identify the experiences, perceptions and beliefs of young people from their own perspective.

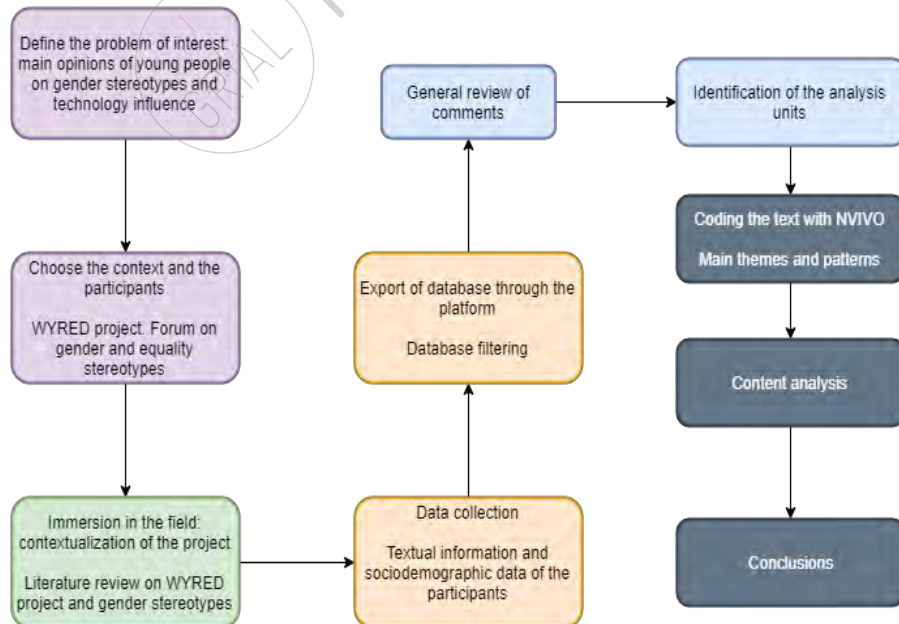


Figure 3: Scheme of the analysis process.

First, it has been defined as the problem of interest that is wanted to be investigated. In this case, it's to know what the opinions of young people are about gender stereotypes and how technology influences them. Once this has been done, the context and participants of the research have been defined, and a theoretical contextualization has been made. In this step, the WYRED project has been described, and the current main ideas about gender stereotypes have been analysed. Subsequently, data analysed in the research has been collected and exported to an Excel database. At this point, both the socio-demographic data of the participants and the comments published in the forum have been exported from the Platform.

In order to clean the comments' data, a filtering has been carried out leaving only the content of textual type. Then, all the comments have been reviewed to obtain an overview of the topics of the forums and to identify the main units of analysis. Taking that into account, the text has been coded by categories using the Nvivo software and subsequently, the content analysis has been carried out taking into account the frequency of the terms that appear and the relationships between the different categories. Finally, these results have been interpreted and contrasted with the ideas that appear in the theory on the subject. Figure 3 shows a summary of the analysis process.

#### 5 Analysis

Of the different spaces conceived inside the WYRED ecosystem, one has been chosen to perform the data analysis for this investigation. The data has been extracted from the conversations developed in the community about gender stereotypes and equality on the Internet. A total of 275 comments published between February 25 and March 7, 2019, have been reviewed and coded.

The information has been coded, considering several categories and subcategories. First, four main categories related to gender stereotypes have been defined: whom they affect, agents that influence, effects on society and types of stereotypes. Within each of them, there are several subcategories:

From this classification, the content analysis in Nvivo is carried out following the indicated methodology.



The number of references to women and men is quite similar; that is to say, the existence of stereotypes is related to both genders. In fact, both categories are almost equal in the number of total references (69 for women and 63 for men). As for the stereotypes that are related to both genders, the feminine gender is related to pink colour, the importance of beauty, playing with dolls, doing housework, and taking care of the family. For its part, the masculine gender is associated with blue colour, strength, or cars.

“I think that technology greatly influences the expansion of stereotypes, especially in adolescents” (Ancaloti)

“Since stereotypes have always existed, but with the Internet this situation is increasing, making many more stereotypes appear” (aliciabf)

On the other hand, we find that the main agent with positive influence that is pointed out is education that is associated with the break of stereotypes and the defence of equality.

Regarding the effects of stereotypes on society, the rejection towards inequality and the permanence of stereotypes is striking. For example, some of the participants say:

“We need to put an end to these stereotypes” (aliciabf)

“We must end with this, by means of coeducation, promoting an equal education of children and girls” (Emilia)

“We want more women doing jobs as firefighter, and more men performing trades as a nurse” (Ancaloti)

Finally, it should be noted that the two most talked about subjects are colours and toys.

As for colours, there are many references to traditional stereotypes that associate blue with men and pink with women. However, most of these associations are made in a way that criticizes the prevailing stereotypes and the change is defended in order to stop this situation.

As for the use of toys, there are also many references that associate dolls with women and cars with men and, again, it is criticized that this continues to be the case. Most of the participants affirms that there are no toys or colours for boys and girls, but rather they are associated gender stereotypes that society reproduces and perpetuates and that must be changed.

In conclusion, traditional stereotypes are still present in society, however, there is a concern to change this situation and eliminate the gender gap that still exists. Young people are a group committed to change and it is important to take their opinions into account in order to know which path to follow. It is important to focus on the importance of new technologies to achieve equality, since it is identified as one of the factors that most negatively influences. So, to break the gender gap, it must be considered what happens on the network.

## 6 Discussion and conclusions

As it has already been pointed out, it stands out the fact that the stereotypes traditionally indicated by the theory are still valid today, as can be seen in the analysis of the content of the comments. However, not all of these have appeared in the analysis, probably those that do are indicated in the forums' comments are those that are most deeply rooted in society and the most influential. These are those related to the body, colours, fashion, forms of leisure, affection, toys and work. These include conversations about stereotypes linked to toys and colours and how they affect the development of stereotypes throughout life.

The main opinions that are given on these issues are connected to the criticism of the maintenance of social stereotypes and the need for a change to achieve equality. This agree on what is suggested by the theory, since most current studies seek to study the change in beliefs and evolution towards values of equality [10, 21, 22].

The main effects that are indicated in society are negative, so we can say that the general opinion is that gender stereotypes are

dangerous for the achievement of an egalitarian society. Some of the effects that are indicated are the presence of gender discrimination, the inequality of opportunities due to the perpetuation of gender roles or social conditioning in areas such as education or work.

Finally, unlike what is found in the review of traditional theoretical works in the comments of the forum mention is made almost equally to both male and female stereotypes to reject both. This fact is stranger because gender stereotypes are usually linked to women and the influence, they have on men is not considered. In part, this coincides with the most current trend in studies on gender stereotypes, as more and more attention is being paid to the visibility of male stereotypes.

In short, what these data indicate is that one of the main concerns of young people in the framework of the WYRED project is equality between men and women and that there are good prospects for improvement. In this task, education and training in values from an early age play a crucial role and, in addition, the awareness of the whole society in terms of equality. Only this will ensure that future generations have the same academic and work opportunities and the same rights without depending on their gender. From education, for example, the best solution could be to opt for coeducation to avoid gender discrimination in the classroom.

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