# Digital social work practice through groupwork on social networking sites:

A case study with users of Social Services Community Centre from Malaga (Spain) on Facebook

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Abstract: Isolation is a clear indicator of social exclusion. To tackle it, we wondered if it would be possible to improve and strengthen bonds through online groups on a social networking site. This paper presents the results of an experimental study carried out in Malaga (Spain) with unemployed users of social care services. From the perspective of digital social work practice with groups, this study aims at strengthening bonds and mutual help. This was carried out using a Facebook group as a shared space for community empowerment. To know the impact of these interactions, netnography and social network analyses were employed, as well as algorithms, to identify communities and assess cohesion. Results showed that Facebook groups may be effective fora in which to promote active learning and mutual support and which can be used effectively by social workers.

**Keywords**: digital social work; social networking sites; interaction; communities; groupwork; social network analysis; group work; netnography

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#### Introduction

Society's digital transformation is having an impact on people, their habits and their behaviours. In the digital context, individuals spend large amounts of time building relations and accessing information, and, in many occasions, disinformation. Some people are being particularly affected by this phenomenon and are being excluded from accessing information and participating in society through such digital means. Therefore, the concern arises about the increasing levels of digital exclusion and the lack of necessary skills to interact successfully in the digital world (Hanson, 2010). Along with digital accessibility issues, digital participation and guidelines for the use of these means must be dealt with (Correa, 2016). Digital exclusion occurs because there are individuals who are unable to transform resources available on the internet into advantages, due to not having digital skills (Robles Morales, Antino, De Marco, & Lobera, 2016).

This context of acceleration of the process of digitalization requires the attention of the discipline of social work. The so-called digital social work is an emerging field of specialisation that is defined as the ability of social work to analyse, find and develop solutions to social problems with the support of technology. It is not aimed, in any case, at replacing in-person activities but rather at benefiting from the potentialities of digital means in order to complement in-person activities, thus establishing strategies for digital inclusion (Castillo de Mesa, 2019).

## Social work practice through social networking sites

Social networking sites are an embedded feature in society and social life. Facebook, the most used social networking site worldwide, has more than 2 billion users (more than 30% of the world's population), who connect an average of 8 times a day (Clement, 2019), thus reaching an average frequency of use of more than 2 hours per day (Roth, 2018). Social networking sites have become a parallel universe of socialization where bonds are built and strengthened (Wilson, Gosling, & Graham, 2012), enabling the progressive shortening of social distances (Edunov et al., 2016; Bakhshandeh, Samadi, Azimifar, & Schaeffer, 2011).

There is controversy regarding the benefits and harm that using social networking sites can cause. Some dystopian opinions suggest that using

these means can lead to addiction which causes isolation from reality. Conversely, there is scientific evidence that proves that social networking sites allow individuals to create bonds, promote communities, improve information exchange and mobilisation of resources (Castillo de Mesa, Gómez-Jacinto, López-Peláez & Erro-García, 2020). Paradoxically, at a time when loneliness is being identified as the main epidemic of the 21st century (Cottam, 2015; Linehan et al., 2014; Worland, 2015), the power of interconnection in social networking sites is enabling new interactive dynamics that are key to tackling social emergency situations, such as catastrophes, natural disasters, humanitarian crisis or public health crises such as COVID-19.

Beyond a dichotomic approach regarding social networking sites (dystopian and utopian), social work is a discipline that is based on the creation and strengthening of relations in order to face adversities (Addams, 1902). Therefore, social work cannot avoid being present in such complementary spaces of socialization or benefiting from the potentialities of such means. Furthermore, social service users might include those who use social networking sites quite intensively (Correa, 2016).

#### Groupwork on social networking sites

Different people, from different places and with different social levels and status, as well as organisations, build ties on social networking sites, thus creating groups and communities. The online groups and communities that are thus created constitute sociability hubs that are built based on shared interests, values, similarities and projects, and they take place in a shared online space (Dunbar, Arnaboldi, Conti, & Passarella, 2015). The substitution of place-based communities by the above mentioned networks, which are now the main ways of sociability, has led their own transformation. As a result, a historical process of dissociation between location and sociability for the creation of communities and groups has been reached (Wellman et al., 2001).

Such online networks are different from offline networks. However, this does not make them less intense or effective when it comes to connecting or mobilising community members. Based on relationships building on social networking sites, there are two types of online communities: explicit and implicit (Arora, Ge, Sachdeva & Schoenebeck, 2012). Explicit online communities are those to which

we belong knowingly and which we can identify clearly, such as being a member of a certain group on Facebook or LinkedIn or a list on Twitter. Implicit online communities, conversely, are those to which users belong based on their connectedness with other users, without being necessarily aware of it. These communities can be generated within social networking sites in general or even within the groups created on Facebook.

In the context of social networking sites there are different functionalities to create explicit communities, that is, spaces that are oriented toward sharing specific interests. In the case of Twitter, lists can be created, whereas on LinkedIn or Facebook online groups can be created. For example, Facebook groups are efficient tools that support learning (Manca & Ranieri, 2013, 2016), as they promote active learning and cooperation (Meishar-Tal, Kurtz, & Pieterse, 2012) as well as higher social connectedness (Duncan & Barczik, 2013).

Creating these types of spaces in social networking sites enables the strengthening of mutual support between social service users, which can be beneficial in terms of social capital, and therefore, access to new options and opportunities (Del Fresno, 2015). Social intervention in these spaces provides users with spaces for interaction, which can subsequently lead to in-person relations. It is a reverse sequence which consists of providing a space to interact that allows users to meet new people without the need to connect with them and without mutual intromission, so they can later establish these relations both in the online and offline universe. To meet other users in such new digital spaces allows them to establish networks of mutual support that can help them overcome their situations collectively.

Furthermore, these spaces allow users with negative histories of social interaction to have the opportunity to build new relationships and try out new social roles, as well as becoming the drivers of change in their own lives. The ability to use strategic skills of connectedness and interaction enables users to use social networking sites effectively, to participate in the digital society proactively, to develop higher resilience (Castillo de Mesa & Gómez Jacinto, 2020), higher levels of personal well-being (Castillo de Mesa, Gómez-Jacinto, López-Peláez, & Erro-Garcés, 2020) and higher tolerance to diversity (Castillo de Mesa & Gómez Jacinto, 2021).

# Interaction on social networking sites

Interaction on social networking sites is currently part of our daily lives, so these digital means cannot be considered as minor or expendable aspects of social relations (Giffords, 2009). Individuals use social networking sites to find and obtain social support (Ellison, Steinfield, & Lampe, 2011; Wright & Bell, 2003). Interaction on social networking sites is considered as a type of support and according to the intensity of interactions, the nature of the support provided varies. Using social networking sites with higher intensity promotes emotional support (Kim & Lee, 2011). The intensity of use (Ellison, Steinfield, & Lampe, 2007) and social support, however, are not expressed in the same way. A Facebook-type user interacts directly with a core group composed of strong ties by sharing information through comments, private messages or 'likes'. In a parallel way, this user follows a majority of weak ties by observing their updates (Burke, Marlow & Lento, 2010), and these weak ties may generate a higher volume of contacts compared to interactions with strong ties. These weak ties can be a source of support for more diverse information and advice (Granovetter, 1973). They tend to provide bridging social capital (Ellison et al., 2007), which provides aperture. This generates the so-called bridging social capital (Ellison et al., 2007), which occurs when nodes move from one group to another carrying information and ideas, thus bridging between the so-called structural holes (Burt, 2005). In a parallel way, frequent social support is provided through 'likes' on Facebook (Rozzell et al., 2014). Conversely, strong ties provide higher emotional support, in which ideas and information flow between group members, based on trust between equals. This type of social capital bonding is probably more favourable to get more emotional support than weak ties (Kramer, Guillory, & Hancock, 2014).

According to Burke & Kraut (2016) there are three types of interactions in social networking sites: (a) written communications addressed to a specific person, such as a publication on a user's timeline or a comment; (b) 'one-click' communications, which provide low-effort feedback, such as 'likes' or 'favourite'; and (c) written communications to be spread, such as updating a status, which is addressed to a wider audience. These types of communications also have symbolic values that can help to maintain relationships regardless of the content exchanged. Comments made by users on social networking sites to answer to each

other have higher symbolic importance than 'one-click' interactions, such as 'likes', which imply lower effort.

This paper presents the results of an experimental practice carried out in Malaga (Spain) with unemployed clients of social care services. It addresses a basic objective from the approach of social work practice with groups and communities: to strengthen ties and mutual support, particularly through communities created in the frame of a Facebook group. From the perspective of digital social work practice, strengthening bonds through social networking sites can promote interaction with others, thus increasing information exchange, improving social service users' skills.

Given the characteristics of Facebook groups and their potential for digital empowerment, we wondered, from a research point of view, whether digital intervention based on a Facebook group with unemployed disadvantaged individuals, who also had issues of social isolation, could help them create new relations and interaction thus giving rise in a reverse sequence, online-offline, to enhanced social capital. We posed the following questions: 1. How and why do individuals interact with one another when looking for a job in a Facebook group? 2. How does the structure of the online network work and affect the behaviours of its members?

#### **Participants**

In order to choose participants, 230 users aged from 19 to 59 years old, gender and occupation were interviewed. Most of the participants (90%) reported that they already had personal profiles on social networking sites before this programme commenced. All these users had difficulties to overcome in their personal situations and lacked ties with people who could help them. Many of the participants mistrusted public institutions and social services (despite being users of such services). Participants were randomly divided into two groups, each group comprising 115 users. One of the groups was randomly chosen for the experimental intervention and the other group as a control group. Based on this information, groups of no more than 15 participants with similar digital skills were created, where in-person meetings were successively called. It was divided into smaller groups to facilitate interaction between the participants.

#### **Procedure**

Given they shared the feature of belonging to the same social networking site, in this case Facebook, we decided to work using this network to strengthen the participants' associative capacity and mutual help capacity through group dynamics. The purpose was to create social support networks on Facebook based on mutual support, where such contributions were seen as a way to cooperate and receive support and other contributions from other participants in return.

The social worker who participated in this digital intervention was present during the processes of interviews, recruitment and delivery of offline workshops and the online group. His participation in the process of each participant's recruitment was key in order to become acquainted with the users and their life histories. During the delivery of offline workshops and the Facebook group, his role consisted of sharing information about employment, answering doubts and questions from participants and ensuring that information unrelated to the object of the group was not disclosed inappropriately, as well as intervening in any difficult interactions. The aim was for this mediator to have a more active role at the beginning and then slowly make participants be more active themselves once they started to feel confident and familiar with the online space. The social worker who facilitated these actions was in permanent communication with the research team. Every three months, he reported information about interactions, the measurement of networks and detected communications between participants. He also used this information in order to energise the group dynamic.

During the workshops, there was an initial phase of introduction, meeting and pedagogy on how to use social networking sites to improve the participants' digital skills as well as their employment finding skills. In this sense, the search for employment was also a shared feature between all participants. The employment finding objective was taken as a core around which group dynamics were designed in order to strengthen the social ties of participants. All participants had already certain levels of knowledge regarding the use of Facebook, so once they were in front of the computer during in-person workshops, they were informed about the creation of a Facebook group and they were invited to participate in it for the purpose of improving social connectedness, mutual support and the exchange of information to find employment.

Once they were in the online group, they received guidance on

how to interact in this group. Participants were given information on what to share and how to share it, as well as for what purpose. During these workshops, participants were encouraged to describe themselves so they could introduce themselves to the others. They were also encouraged by social workers to share their own coping mechanisms. By receiving validation and acceptance from others in social groups, people become more able to tackle personal problems. After the face-to-face introductions, participants were asked to write content in the section on professional activity in their online profiles. They were advised to be as specific as possible, that is, to express the type of job they were looking for, for instance, carpenter or shop assistant, and this remained posted on the information section of their Facebook profile. These steps aimed to teach the participants how to use online networking sites and to develop self-presentation skills, digital employment search skills and strategies to look for employment on the internet websites, as well as how to share such digital information. Participants were also informed about the trend among employers who are increasingly using Facebook to assess candidates (Karl, Peluchetter & Schlaegel, 2010a, 2010b; Kluemper, & Rosen, 2009). They were advised to present themselves in a professional way, as this would increase their chance of being selected for a job (Bohnert & Ross, 2010).

While participants looked for jobs for themselves, based on specific professional profiles, they also looked for jobs that could fit other profiles, which they were encouraged to share on the Facebook group created for this purpose. They were told to inform on the Facebook group whenever they found a job so that other participants could be instilled with hope. Furthermore, those participants who found jobs were asked to keep working with the group, thus representing a success model and links for other job offers that might come up at the companies these participants had found. The aim was for these participants to build ties with all participants in the group, thus increasing their empathy and solidarity.

#### Ethical criteria

The mental and psychic capacity of participants was assessed and considered for their recruitment, as well as any other circumstance that could incapacitate them to understand the nature of these services,

their advantages and their potentialities. Once the intervention was initiated, all participants were explicitly informed about the aims of the intervention and they were requested to indicate their informed consent to be part of this programme. For the purpose of leading the groups and exchanging information a neutral Facebook profile was used by social workers, thus avoiding mutual interference (Reamer, 2013).

Confidentiality and personal data protection were maintained during the research process as well as during the exposition of the research. Data were anonymised and fundamental ethical requirements were complied with. Online communication and interaction with participants observed was avoided by researchers to comply with ethical information extraction and handling criteria, according to the Institutional Review Board of University of Málaga (Spain.

## Methodology

To analyse the data collected from this project, we used three mixed research methods: social network analysis, community detection and netnography.

### Social network analysis

Different relational properties were measured through the social network analysis. The analysis of social networking sites focuses on relational characteristics, rather than attributes. In order to do so in this case, we followed a socio-centric approach, which investigates the interactions (represented by lines, the so-called ties in social network analysis) that exist between all participants (represented by dots and nodes in social network analysis).

Based on the interactions observed, it was possible to represent interaction networks, which enable examination of rich information on the frequency of interaction, leadership and mediation roles in the sample observed. In this case, input and output degrees were observed, according to the number of interventions performed by users (timeline publications, comments and 'likes'). In order to analyze the interaction networks, and verify which users share the most interactions and who receives these interactions, the metrics of indegree and outdegree centrality were considered, being represented with the larger size of nodes. Directed

interactions can be of indegree, the sum of interactions that a user receives from others, or outdegree, the sum of interactions that users send to others. Moreover, the highest frequency of interaction is represented with the larger size of ties between nodes in all the figures, and the highest capacity of influence and leadership with a higher size of the nodes.

Another measurement used was the so-called edge betweenness, which is defined as 'a count of the number of times an edge lies on a geodesic path between a pair of nodes. Hence, as in the vertex case, we take all the pairs of nodes and simply count in the same way the number of times each edge is part of a geodesic path' (Borgatti, Everett, & Johnson, 2013, p. 195). Edge betweenness algorithm, as a variant of the measure of betweenness centrality, was used to calculate the average distance between nodes and rank the actors according to their position in the network and interpreted as the prominence of actors embedded in a social structure (Brandes, 2001). Edge betweenness measures the ability to control information and mediate based on the position that the node holds within the social structure analysed. The nodes with the highest level of betweenness are able to connect communities, causing openness, bringing and information between closed groups.

#### Community detection

Once the position held by users in the online structure was analysed, the modularity algorithm was used in order to detect communities in the network (Girvan & Newman, 2002). This method allows identification of dense conglomerates of relations in wide social networks (Girvan & Newman, 2002). Modularity is defined as a measure of quality of a particular division of a network into k communities (Girvan and Newman, 2002). Modularity compares the number of internal links in the communities to what you would expect to see if they were distributed at random. Higher values mean that the algorithm has found more significant communities. Negative values are possible, indicating that the communities are less cohesive than a purely random assignment

The approach from the algorithm by Girvan & Newman (2002) consists of optimising the distribution of nodes, thus detecting communities based on the maximum level of connectedness found for each pair of nodes. This algorithm compares iteratively all the pairs of nodes, adjusting their distribution within the network and in each community according to

the most optimal centrality of degree, thus revealing the most important communities in terms of structure. As the algorithm is executed, different divisions are obtained, identifying the limits between communities, calculating the distance between the nodes and the complete network and finally determining the number of k of cohesive subsets that form the resulting communities. The global result is a measurement called modularity, denoted by Q, whose optimal value must be between 0.3 and 0.7. All these methods have been developed by using the Gephi software (Bastian, Heymann, & Jacomy, 2009), in its version 0.9.2.

## Netnography

Once the group on Facebook was formed, participants' interactions were observed by two researchers for one year, paying attention to how their ties strengthened to a higher or lesser extent as well as mutual support between each other.

Interactions in online networking sites were analysed through netnography, 'a specialised form of ethnography adapted to the computing contingencies of today's social worlds' (Kozinets, 2015, p.l). Netnographers preserve their socio-cultural vision and try to examine and explore communicative interactions that arise in digital contexts (Murthy, 2008). The participation of users in social networking sites provides rich and spontaneous information about them, their connections, the communities to which they belong and the interests they share with others.

During the netnographical immersion, interactions and publications from users on the Facebook group were observed in detail and the fluctuating patterns of relations were subsequently analysed. The systemic observation of users' online activity enabled us to find and understand the information extracted from their connectedness and interactions. Behavioural patterns were observed, which gave shape to the digital identity of each user and their roles in the core of the communities detected, as well as the online structure analysed. Observations were shared between researchers and despite not being the same individually, consistency and agreement was found regarding the insights about the patterns of interaction of each user.

Since the volume of information obtained was considerably high, a series of conceptual categories to organise and differentiate the types of

information obtained was established (Valles, 2000). According to the type of information an organised classification was thus obtained. The level of participants' interaction was differentiated by informative and affective interactions. Informative interactions were those considered as containing useful information for the purpose of employment search, and those interactions indicating that content shared by users was accepted were considered affective. Data regarding the latter were obtained through analysing the so-called 'likes' and comments showing acceptance.

#### **Results**

This section sets out the findings from the social network analysis, detection of communities and netnography.

#### Social network analysis

The positioning of nodes based on the type of interaction can be observed in interaction networks. The level of interaction is obtained by analysing the size of each node. We observed the level of posts made by nodes, identifying who received and sent more support according to nodes with larger size (Figures 1 and 2). We can observe indegree level of posts, identifying what nodes received more support according to nodes with larger size (Figure 1) and, on the other hand, outdegree level of posts, which visualise what nodes sent more posts according to larger nodes (Figure 2). Figure 3 shows how node 3, due to its large size, has a high level of interaction. However, since it is poorly connected to the rest of nodes, its influence is therefore low. Figure 4 shows that sharing larger amounts of content does not imply an increase in the node's influence. In fact, those nodes that have higher connectedness hold bridging positions between different communities (35, 2, 7, 17, 113, amongst other).

After analysing interactions such as comments and 'likes', Figures 3 and 4 show how node 113 stands out as being the node which provides more support through its continuous interactions (whether through comments or 'likes'). This means that node 113 is a key node when it comes to strengthening the conversation on the Facebook site.

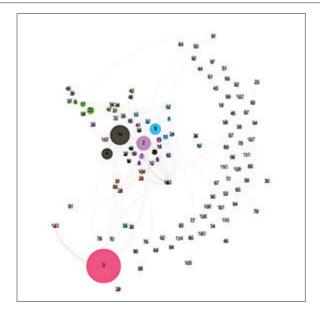


Fig 1

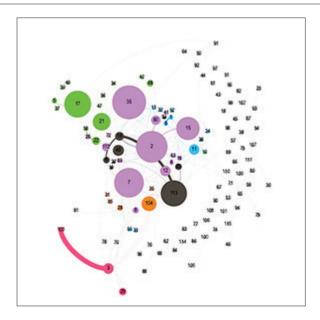


Fig 2

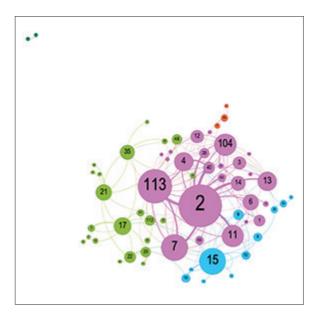


Fig 3

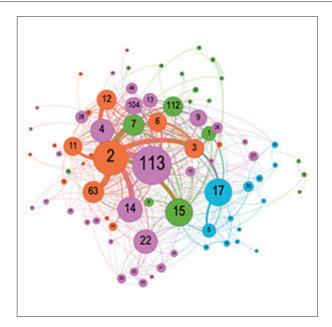


Fig 4

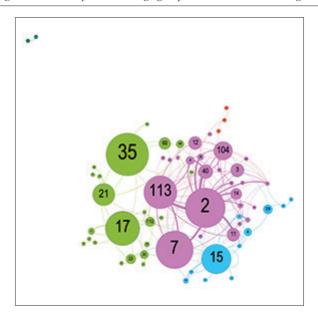


Fig 5

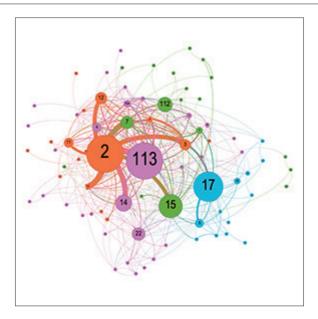


Fig 6

#### Detection of communities

Different communities were detected within the Facebook group, in particular 8 communities in each figure, which were identified by different colours. 5 of these groups comprised 92% of all interactions respectively (Figure 1 and 2). The modularity value obtained (0.68) was very positive, since appropriate values usually lie between 0.3 and 0.7 (Girvan & Newman, 2002). Despite showing a high level of homogeneity, the so-called bridging nodes (35, 2, 113, 7, 17, 15, 21 y 104) were able to convey information and promote openness as well as a certain balance in the structure thanks to their high rates of betweenness. On the other hand, the analysis of exchanging 'likes' and comments identified 4 communities (pink, green, light blue and orange). In this case, the modularity value obtained was very optimal (0,76).

#### Netnography

Participants performed a total of 2129 interactions in for one year. These interactions included posts, comments and 'likes'.

Posts on Facebook are interactions that imply a contribution, often linking to information. A total of 944 posts were registered, performed by 55% of participants (nodes with a larger size were more active in Figures 1 and 2). The remaining participants, as it can be seen in Figures 1 and 2 (grey nodes on the right side), observed such interactions actively. There was an average of 78% of content visualization, according to scores provided by Facebook. 904 'likes' were registered, implying acceptance of shared contents. These interactions are considered emotional-type interactions. 281 comments were posted. 92.5% of interactions (posts, comments and 'likes') were informative, 6.25% were emotional and only 1.16% were instrumental. We observed the level of comments and likes from nodes, identifying who received and sent support, being identified to be the nodes with larger size (Figures 1 and 2).

It must be noted that almost none of the interactions had negative content. If anything, there were some interactions that expressed complaint about the difficult situation they were living. These complaints were answered with unconditional support in the form of kind comments and 'likes' from other participants. When any participant informed about having found a job, there were affective

messages of congratulation. This type of solidarity shows the quality of the ties that was built between participants.

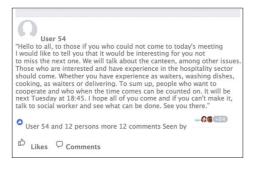
Several exchanges illustrate these experiences as in the following example:

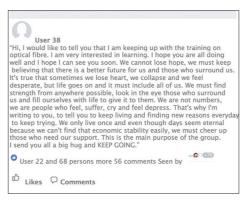
One morning, one participant had an appointment at the Employment Office for an interview to be selected for a programme entitled *Employment* Workshops. This programme is aimed at hiring people for one year from collectives at risk of exclusion. This was a very important incentive for the participant, particularly due to her difficult socio-economic situation. She had gone through a serious drug abuse situation that had left her socially isolated in a very significant way. Prior to the interview, she had worked very hard to learn how to cope with it. However, while she was waiting to be interviewed, she began to panic due to the pressure and she collapsed. She did not know what to do, so she went on Facebook and told her situation to the group's participants. Those participants who were online begun to cheer her up. There were messages such as 'don't worry, you will achieve it, you are very well prepared', or 'go, be strong'. These messages made a real change in the participant's attitude and mood. Social workers who saw her message on Facebook expressing panic also tried to calm her with messages of encouragement just before the interview. She was finally selected for the programme, which reflects how support provided in social networking sites could be successful, thanks to its ubiquity, immediacy and multiplexity.

The group dynamics established were not only pioneering because of the online context in which they took place, but also because they transformed the traditional professional-user dichotomy, leading to interaction between equals.

Interaction in the group strengthened participants' interest towards other members of the group. It helped overcome daily problems in individual assistance: to make users stop talking only about themselves (see overleaf.

Although in much less proportion, negative messages also appeared, sometimes about the precariousness of the labour market, at other times about what they perceived as poor service of social workers (Image 4). On those occasions, other members of the group responded by empathizing, calming, encouraging and advising.





The impact of social work practice on social networking sites was evaluated. 43% of online group members found employment in less than 4 four months. 27% of members found a job in 6 months. Among the rest of the members, 12% found employment in the next year and 18% continued as unemployed after one year and a half. Conversely, 18% from the control group found a job within 6 months, 10% within a year and 72% were still unemployed after one year.

As a result of the success of the online group, participants asked for further workshops and even requested to be provided with more time to use computers at the centre. This information was passed to the Head of the centre, who gladly agreed to provide a space for them to use computers, always under supervision. Participants began to hold group meetings in the space they had been provided with. Scholars acknowledge that the mutual sense of belonging group members receive in meetings fosters a positive sense of belonging. The success of the above mentioned sense of belonging reached such an extent that participants decided to form an association called Association for Employment and

Entrepreneurship. Finally, they were provided with a fixed space where they could manage the association in an autonomous way.

#### **Discussion**

From the approach of digital social work with groups, the main aim was to strengthen the ability of users to build ties between themselves, thus generating relationships in the context of intervention that would allow them to achieve their goals and possibly more. In this case by catalysing the sequence online-offline inversely, this level of group cohesion was reached.

This model of digital intervention suggests breaking with individual isolation in the search of solutions in the context of group support. Insights provided by the research team on the measurement of networks and detected communities can be useful for guiding the facilitation of future online groups. To know which users have higher leadership skills and which have higher influence can enable the strategic channelling of information and specific actions. To know the frequency of interactions allows the group facilitator to modulate their attention toward those who participate less and even to use this information to reach those who participate more and prompt them to encourage those who participate less. Community detection shows that similarities around the type of employment users were seeking was the main factor that made users interact more between them. This finding can usefully inform the design of future group support strategies.

Knowing which nodes are leaders and hence have more influence, as well as which nodes position themselves in the different communities and hence have more control over information, is very useful information to create group dynamics and channel information strategically in online group contexts.

Analysing interaction networks provides very useful information to social workers about the impact of a specific community intervention in a Facebook group. A great majority of the mutual support was informational, although we also found emotional reinforcement and conformity amongst the participants. Likewise, it can also be observed which users refrain from participating and which of them need further support.

Likewise, it was also observed that users improved their digital identity and skills on how to use social networking sites towards achieving a goal, on this occasion to look for employment. Participants learnt how to express useful information, give support, share time in a responsible manner and explore differences and similarities between them, both in the online and offline context. They even took advantage of this group to vent, sometimes posting negative comments, the result of despair, in relation to the social worker's response (after not having obtained financial or in-kind aid) or about the precariousness of the labor market. In any case, it was possible to observe how in these situations the rest of the participants came to the aid of the upset user by listening, encouraging and advising.

The results obtained allow us to conclude that using group dynamics through Facebook strengthens social connectedness and interaction, which can support useful and positive consequences in the personal lives of users. Those who participated in this study rebuilt their ties, by using an online tool they were familiar with. Relationships built during the online group on Facebook were subsequently maintained and strengthened in the offline world, thus giving rise to a continuum between online and offline relations (Del Fresno García, Daly & Segado Sanchez-Cabezudo, 2016).

# Limitations of the study

There were significant effects on users that have not been presented in the findings section. In fact, they could not be included in the article because it could not be empirically demonstrated. However, from a qualitative approach, the effect of the intervention on users was highly tangible. Online groups foster the feeling of not being alone in suffering since problems faced by different users are universalized. After learning how to use these means, participants felt more confident about their possibilities as well as more conscious about opportunities and disadvantages. Participants were able to learn how to share information and how to build strong ties, which led them to create an association and look for new resources together. In this sense, the increase of mutual help online and the strengthening of their sociability boosted their self-organisation ability. Thus, they were able to keep such ties built and

work together to achieve goals set by themselves. These effects will be an interesting topic to analyse in future studies.

#### **Conclusions**

In the current digital age, social workers should not underestimate the potential of digital interventions. Processes of digital inclusion towards teaching/learning digital skills to boost mutual support and strengthen bonds must be part of group and community practices.

It must be noted that those individuals who are more disadvantaged present higher levels of digital vulnerability, since they have lower training and are older in many cases and will not be familiar with the use of digital media. Furthermore, these individuals are those who employ more unproductive time when using social networking sites (Correa, 2016). In order to be able to tackle new digital needs, groupworkers must understand these new processes of digital inequality and exclusion.

All the professions and disciplines, which incorporate groupwork tasks must adapt and tackle these challenges, by reducing this inequality and finding new ways to use digital means, particularly because it is a discipline whose philosophy is based on its eminently relational nature (Cottam, 2015). This means that social work aims to provide solutions to social problems of individuals based on social work professionals' capacity to promote ties, build communities and foster mutual support. This relational dimension is a key feature of digital social work. Every tool that provides opportunities for socialization must be used by social workers who carry out their professional activity with groups and communities. Social networking sites can be thus considered as additional tools for social work, which from an online-offline sequence that helps to build ties between individuals, boost groups and communities, decrease isolation and favour the self-confidence of users.

Based on the results obtained, we propose the following strategies for digital social work, based on groupwork on social networking sites:

- To create strategic spaces on social networking sites to share useful information, promote self-confidence, strengthen ties, increase social capital and boost tolerance towards diversity.
- To help users cooperate together through these explicit communities

- on social networking sites which also strengthen associative and self-organization skills.
- Online group dynamics encourage the creation of associations from an indirect perspective, according to users' aspirations and goals.
- To leverage induction strategies that promote interaction between peers to improve the multiplying effect of natural networks in an inverse sequence, online-offline.
- Identifying leadership in online groups assists groupworkers to organize and promote mutual support and the sense of belonging.
- To detect communities with which it is possible to work online, promoting specific segments and bringing other segments forward.
- Social network analysis is a very useful tool to analyse the online group intervention, through participatory sociograms, or providing feedback with visualization of networks (Maya-Jariego & Holgado, 2015).

#### References

- Addams, J. (1902) Democracy and social ethics. New York: Macmillan
- Arora, S., Ge, R., Sachdeva, S. & Schoenebeck, G. (2012)Finding overlapping communities in social networks: toward a rigorous approach. *Proceedings of the 13th ACM Conference on Electronic Commerce*, 37-54
- Bakhshandeh, R., Samadi, M., Azimifar, Z.& Schaeffer, J. (2011) "Degrees of Separation in Social Networks." in *Proceedings: The Fourth International Symposium on Combinatorial Search*, edited by Daniel Borrajo, Maxim Likhachev, and Carlos Linares Lopez. Palo Alto, California: AAAI. (pp. 18–23)
- Bastian, M., Heymann, S.& Jacomy, M. (2009) Gephi: An Open Source Software for Exploring and Manipulating Networks. *Third International AAAI Conference on Weblogs and Social Media*, 361–362
- Bohnert, D. & Ross, W. H. (2010) The influence of social networking web sites on the evaluation of job candidates. *Cybertechnology, Behavior, and Social Networking,* 13, 1–7
- Borgatti, S. P., Everett, M. G.& Johnson, J. C. (2013) *Analyzing social networks*. Thousand Oaks, CA: Sage
- https://us.sagepub.com/en-us/nam/ analyzing-social-networks/book237890.] Brandes, U. (2001) A faster algorithm for betweenness centrality. *Journal of*

- mathematical sociology, 25. 2, 163-177
- Burke, M. & Kraut, R. E. (2016) The relationship between Facebook use and well-being depends on communication type and tie strength. *Journal of Computer-Mediated Communication*, 21,4, 265-281
- Burke, M., Marlow, C. & Lento, T. (2010)Social network activity and social well-being. *Proceedings of the SIGCHI conference on human factors in computing systems*, 1909-1912
- Burt, R. S. (2005) *Brokerage and closure. An introduction to social capital.* New York: Oxford University Press.
- Castillo de Mesa, J. (2019) El Trabajo Social en la era digital. Madrid: Aranzadi, Thomson Reuters
- Castillo de Mesa, J., & Gómez Jacinto, L. (2020). Facebook groups as social intervention tools for improving digital skills. *Social Work Education*, 39, 1, 71-84. https://doi.org/10.1080/02615479.2019.1642867
- Castillo de Mesa, J. & Gómez Jacinto, L. (2021). Digital competences and skills as key factors between connectedness and tolerance to diversity on social networking sites: case study of social work graduates on Facebook. *Current Sociology*. First published online. https://doi.org/10.1177/0011392120983341
- Castillo de Mesa, J., & Gómez Jacinto, L. (2020). Facebook groups as social intervention tools for improving digital skills. *Social Work Education*, 39, 1, 71-84. https://doi.org/10.1080/02615479.2019.1642867
- Castillo de Mesa, J., Gómez-Jacinto, L., López Peláez, A. and Erro-Garcés, A. (2020). Social Networking Sites and Youth Transition: The Use of Facebook and Personal Well-Being of Social Work Young Graduates. *Frontiers of Psychology*, 11: 230, https://doi.org/10.3389/fpsyg.2020.00230
- Castillo de Mesa, J., Gómez Jacinto, L., López Peláez, A. and Palma García, M.O. (2019). Building relationships on social networking sites from a social work approach. *Journal of Social Work Practice*, 33:2, 201-215, https://doi.org/10.1 080/02650533.2019.1608429
- Clement, J. (2019) *Number of Monthly Active Facebook Users Worldwide as of 4th Quarter 2019 (in Millions)*. Facebook Statistics. [ Accessed February 15, 2020. athttps://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/]
- Cottam, H. (2015) Hillary Cottam: Social Services are broken [video file]. [Accessed at 15 march, 2019 at https://www.ted.com/talks/hilary\_cottam\_social\_services\_are\_broken\_how\_we\_can\_fix\_them?language=es]
- Correa, T. (2016)Digital skills and social media use: how Internet skills are related to different types of Facebook use among 'digital natives'. *Information, Communication & Society*, 19, 8, 1095-1107

- Del Fresno García, M. (2015) Connecting the Disconnected: Social Work and Social Network Analysis. A Methodological Approach to Identifying Network Peer Leaders. *Arbor*, 191, 771, e2091
- Del Fresno García, M., Daly, A. J. & Segado Sánchez-Cabezudo, S. (2016) Identifying the new Influences in the Internet Era: Social Media and Social Network Analysis. *Revista Española de Investigaciones Sociológicas*, 153, 23-40
- Dunbar, R. I., Arnaboldi, V., Conti, M. & Passarella, A. (2015) The structure of online social networks mirrors those in the offline world. *Social Networks*, 43, 39-47
- Duncan, D. G., & Barczyk, C. C. (2013). Facebook in the university classroom: do students perceive that it enhances community of practice and sense of community? *International Journal of Business and Social Science*, 4, 3, 1-14
- Edunov, S., Diuk, C., Filiz, I.O., Bhagat, S. y Burke, M. (2016) Three and a half degrees of separation. *Research at Facebook*.[ Recuperado el 18 de marzo de 2017 en www.facebook.com]
- Ellison, N.B., Steinfield, C. & Lampe, C. (2007) The benefits of Facebook "friends:" Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication*, 12, 4, 1143–1168
- Ellison, N.B., Steinfield, C. & Lampe, C. (2011). Connection Strategies: Social Capital Implications of Facebook-enabled Communication Practices. *New Media & Society* 13, 6, 873–892
- Giffords, E. D. (2009) The Internet and Social Work: The Next Generation. *Families in society: The journal of contemporary human services.* 90, 4, 413-418
- Girvan, M. & Newman, M. E. (2002)Community structure in social and biological networks. *Proceedings of the national academy of sciences*, 99,12, 7821-7826
- Granovetter, M. S. (1973)The strength of weak ties. *American Journal of Sociology*, 78, 6, 1360–1380
- Hanson, V. L. (2010) Influencing technology adoption by older adults. *Interacting with Computers*, 22,6, 502-509
- Karl, K., Peluchette, J. & Schlaegel, C. (2010a) A cross-cultural examination of student attitudes and gender differences in Facebook profiles content. *International Journal of Virtual Communities and Social Networking*, 2, 11–31
- Karl, K., Peluchette, J. & Schlaegel, C. (2010b) Who's posting Facebook faux pas? A cross-cultural examination of personality differences. *International Journal of Selection and Assessment*, 18, 174–186
- Kim, J. & Lee, J. E. R. (2011)The Facebook paths to happiness: Effects of the number of Facebook friends and self-presentation on subjective well-being. *CyberPsychology, behavior, and social networking*, 14,6, 359-364

- Kluemper, D. & Rosen, P. (2009) Future employment selection methods: evaluating social net- working websites. *Journal of Managerial Psychology*, 24,6, 567–580
- Kozinets, R. V. (2015) Netnography: redefined. Thousands Oaks. CA: Sage
- Kramer, A. D., Guillory, J. E. & Hancock, J. T. (2014) Experimental evidence of massive-scale emotional contagion through social networks. *Proceedings of the National Academy of Sciences*, 111, 24, 8788-8790
- Linehan, T., Bottery, S., Kaye, A., Millar, L., Sinclair, D. & Watson, J. (2014) 2030 Vision: The best and worst futures for older people in the UK. London: Independent Age and International Longevity Centre-UK. [Accessed 30 January 2018 atwww.ilcuk.org.uk/ files/2030-vision-report.pdf]]
- Manca, S. & Ranieri, M. (2013) Is it a tool suitable for learning? A critical review of thliterature on Facebook as a technology-enhanced learning environment. *Journal of Computer Assisted Learning*, 29,6, 487-504
- Manca, S. & Ranieri, M. (2016) Facebook and the others. Potentials and obstacles of social media for teaching in higher education. *Computers & Education*, 95, 216-230
- Maya-Jariego, I. & Holgado, D. (2015)Network analysis for social and community interventions. Psychosocial Interventions, 24, 121–124
- Meishar-Tal, H., Kurtz, G. & Pieterse, E. (2012) Facebook groups as LMS: A case study. *The International Review of Research in Open and Distributed Learning*, 13,4, 33-48
- Murthy, D. (2008) Digital ethnography: An examination of the use of new technologies for social research. *Sociology*, 42,5, 837-855
- Reamer, F. G. (2013) Social work in a digital age: Ethical and risk management challenges. *Social Work.* 58, 2, 163-172
- Robles Morales, J. M., Antino, M., De Marco, S. & Lobera, J. A. (2016) The new frontier of digital inequality. The participatory divide. *Revista Española de Investigaciones Sociológicas (REIS)*, 156, 97-114.
- Roth, P. (2018) *Nutzerzahlen: Facebook, Instagram, Messenger und WhatsApp, Highlights, Umsätze, uvm.* [Accessed 9 February 2020 at : https://allfacebook.de/toll/state-of-facebook]
- Rozzell, B., Piercy, C. W., Carr, C. T., King, S., Lane, B. L., Tornes, M., ... & Wright, K. B. (2014) Notification pending: Online social support from close and nonclose relational ties via Facebook. *Computers in Human Behavior*, 38, 272-280
- Valles, M. S. (2000) La grounded theory y el análisis cualitativo asistido por ordenador. En *El análisis de la realidad social. Métodos y técnicas de investigación*, authors?Madrid: Alianza, ( stet . 575-604)

- Wellman, B., Haase, A.Q., Witte, J. & Hampton, K. (2001) Does the internet increase, decrease, or supplement social capital? Social networks, participation, and community commitment. *American Behavioral Scientist*, 45, 3, 436–455
- Wilson, R. E., Gosling, S. D. & Graham, L. T. (2012. A Review of Facebook Research in the Social Sciences. *Perspectives on Psychological Science*, 7,3, 203–220
- Worland, J. (2015) Why loneliness may Be the next big public-health Issue. *Time Magazine*. [Accessed 12 July 2015 fat http://time.com/3747784/loneliness-mortality/]
- Wright, K. B. & Bell, S. B. (2003) Health-related support groups on the Internet: Linking empirical findings to social support and computer-mediated communication theory. *Journal of Health Psychology*, 8, 39-54