

Being Involved in the Neighborhood through People-Nearby Applications: A Study Deepening Their Social and Community-Related Uses, Face-to-Face Meetings among Users, and Local Community Experience

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Abstract. People-Nearby Applications (PNAs) social and community-related uses could represent an alternative way to live urban spaces and sociability when citizens experience offline constraints in doing so in their city or neighborhood. Indeed, the features of PNAs suggest that they could represent reliable tools to glue local social fabrics, enhancing their local community experience. Thus, this study aims at deepening whether PNAs social (i.e., for friendship/network) and specifically community-related (i.e., for location-based searching of new people to meet) uses can improve citizens' local community experience through fostering face-to-face meetings with other users nearby and a more involved way of living their neighborhoods at last. An online questionnaire was administered to 302 Italian PNAs users. The results show that only PNAs the community-related use associates with more frequent face-to-face meetings with other users nearby and with a more involved way of living one's neighborhood via this frequency. Conversely, no significant association emerged for PNAs social use. These results suggest that PNAs can improve users' local community experience as they seem able to enhance local social relationships and their users' feeling of involvement in their neighborhood through fostering new local acquaintances and interactions and further opportunities to live local common places and socialize. Moreover, this supports the insights about PNAs role and potentialities as an alternative path to rely on for users having unmet aggregative needs yet experiencing constraints in straightly living their neighborhood through enjoying urban spaces and local sociability.

Keywords: People-Nearby Applications (PNAs), location-based applications, social media community-related uses, local communities, neighborhoods.

1 Introduction

People-Nearby Applications (PNAs) are mobile applications relying on mobile devices Global Positioning System (GPS) to allow their users to *discover* new people nearby to meet and interact with according to their physical location or geographical proximity [1]. Since the most known and used PNAs are Tinder, Grindr, and other similar dating applications, this kind of mobile applications has been mainly studied with reference to romantic and/or sexual needs, motives, and outcomes [e.g., 2, 3, 4, 5]. Nevertheless, PNAs can also provide their users with social and community-related gratifications, like extending their social networks, meeting new people nearby, entering the local social network, and feeling part of the surrounding community [1, 6, 7]. Indeed, through exposing their users to new places, people, pieces of information, and social gatherings [6, 8], PNAs allow a *remapping* of the surrounding social and physical spaces [7, 9, 10], which can now be enriched by what is known and seen through the lens of these applications [1]. Consistently, they can produce new social connections among community members and between them and their life places and contexts, fostering wider local social networks at last [8, 11]. Due to these peculiarities, these applications have huge potentialities for creating new connections among members of the same local community (i.e., city or neighborhood), since they can foster social interactions among unknown people from different social groups being nearby [1, 10] and, potentially, face-to-face meetings among them at last.

These represent critical challenges within modern local communities, whose traditional social functions have been weakened. Indeed, recent global phenomena have brought about a gradual instrumentalization of urban spaces and sociability, which are mainly lived through interacting with already known people, even though they often offer wider social opportunities and gatherings [12, 13, 14, 15, 16, 17, 18, 19, 20]. Consistently, local social interactions, traditionally providing community members with physical and social resources to rely on [21] and an open-minded, interested and inclusive behavior [22, 23] at the individual level while enhancing reciprocal proximity and acknowledgment and shared meanings and visions at community level [22, 24, 25, 26], have become more hardly attainable.

Taking into account these challenges modern local community features pose to community members, it has recently been suggested that PNAs social and community-related uses could represent alternative strategies adopted by citizens feeling that their local community has some constraints weakening its social fabric and traditional social functions [17, 27]. Indeed, everyone chooses which social media to use and how based on their unmet needs and goals and on how the specific features and uses of each social media promise to meet them [28, 29]. Consistently, when the neighborhood is somehow hindering its members' opportunities to meet new people in local common spaces, citizens feeling that their social and aggregative needs have been left unmet by their local community and social relationships may use PNAs with social and/or community-related aims as an alternative path to rely on to satisfy these needs. Specifically, in partially closed neighborhoods, where social opportunities are available yet hardly attainable for community members due to some neighborhood features [30], PNAs could represent a reliable tool to reconnect the local social fabric and

foster more involved and active ways of living the surrounding physical and social context [1, 10, 17], since they could play a catalyst role for local social encounters and interactions to happen anyway. Nevertheless, since this is a relative new perspective which is still underlining, to authors' best knowledge no study has already deepened the outcomes of PNAs social and community-related uses.

2 Aim of the study

Building on what is already known about PNAs, the present study aims at taking a further step towards a better understanding of their social and community-related uses and whether they can improve citizens' local community experience – that is how they live their local community and relate to other members within it – through fostering face-to-face meetings among nearby users and a more involved way of living their neighborhoods at last. Thus, it has been led by three main research questions:

1. do PNAs social uses positively associate with the frequency of face-to-face meetings with other users nearby met through these applications (*H1*)? Specifically, the considered social uses are: (a) a solely social one, that is, using PNAs to look for friendship and extend one's social network, and (b) a social yet specifically community-related one, that is, using PNAs for location-based searching of new people to meet in the same area. They have been selected among those identified in previous studies [1, 6, 7] since they were the ones showing their potential in reconnecting the local social fabric; conversely, PNAs uses mainly relying on individual dimensions (e.g., gaining social approval, looking for entertainment) or explicitly being romantic or sexual ones have been excluded from this study;
2. do PNAs social uses positively associate with users' perception about them being involved in their neighborhoods via the frequency of their face-to-face meetings with other users nearby (*H2*)?
3. do PNAs social and community-related uses show different patterns of associations with the frequency of face-to-face meetings with other users nearby and with users' perceptions about being involved in their neighborhood?

3 Method

3.1 Participants and Procedures

The participants were 302 Italian PNAs users (57.6% female), aged between 18 and 75 ($M = 30.99$; $SD = 10.79$). To achieve a non-college sample, they were recruited via snowball sampling through sharing the questionnaire in some Facebook groups about Italian PNAs users (e.g., I Gentlemen di Grindr, Tinder and the City, Tinder Italiano) and through word of mouth among PNAs users. They received no compensation for participating in the study. The questionnaire was introduced by an explanation about confidentiality and anonymity issues, wherein the participants had to express their informed consent to take part in the study. No IP addresses or other identifying data were retained.

Most of the participants were heterosexual (74.5%), while 13.2% were homosexual, and 10.3% bisexual; six respondents (2%) did not provide this information. About half of them (43.4%) lived in a major city and 21.9% in a city, while 16.9% in a place near a major city, 15.2% in a village, and 2.6% in a rural area. They had been living in their neighborhood for 17.89 years on average ($SD = 12.05$). Most of the participants were single (70.2%) and did not have children (86.1%), while 14.2% were married or lived with their partner, 7.6% were involved in an unmarried and non-cohabitant relationship, 7.6% were separated or divorced, and one participant was widower.

Of the participants, 41.1% had a High School diploma as their highest educational title and 26.2% a bachelor's degree, while 12.9% had a post-degree title, 10.9% a Secondary School diploma, and 8.9% a master's degree title. As of their employment, 36.8% were employees and 32.8% students, while 13.9% were freelance professionals, 3% business owners, and 2.3% had managerial positions; only one participant was retiree and 9.9% were unemployed.

3.2 Measures

The questionnaire included a socio-demographic section, followed by these measures.

PNAs Use for Friendship/Network. Five items (e.g., “*Build my social/friendship network*”) by Van De Wiele and Tong [7] were adapted so that they did not specifically refer to gay men and used to detect this PNAs use. Respondents were asked to rate their agreement with each item on a 7-point Likert scale (1 = *Strongly disagree*; 7 = *Strongly agree*).

PNAs Use for Location-Based Searching. Three items (e.g., “*Meet other people in the area*”) by Van De Wiele and Tong [7] were adapted so that they did not specifically refer to gay men and used to detect this PNAs use. Respondents were asked to rate their agreement with each item on a 7-point Likert scale (1 = *Strongly disagree*; 7 = *Strongly agree*).

Frequency of Face-to-Face Meetings with Other Users. The frequency with which the respondents were used to meet face-to-face the people they had met through these applications was detected through the item “*How often do you meet offline the people you meet through PNAs on average?*”, whose answer was on a 7-point Likert scale (1 = *Never*; 7 = *Very often*).

Living the Neighborhood in an Involved Way. Participants' feelings about being part of their neighborhood and participating in it was detected through the item “*How much do you feel part of and participate in your neighborhood?*”, which required an answer on a 7-point Likert scale (1 = *Nothing at all*; 7 = *At all*).

3.3 Data Analyses

For the items about PNAs uses [7], the back-translation method was used since there was no Italian translation available. Thus, previously to hypotheses testing for each measure Confirmatory Factor Analyses (CFA) were run with Structural Equation Modeling (SEM) using the maximum likelihood estimator. To evaluate the model fit, the Comparative Fit Index (CFI) and the Standardized Root Mean square Residual

(SRMR) were observed [31]. For CFI, values equal to or higher than .90 e .95 reflect respectively good or excellent fit indices; for SRMR, values equal to or smaller than .06 e .08 reflect respectively good or reasonable fit indices [32]. The reliability was checked through Cronbach's alphas.

To test all the hypotheses, a multiple mediation model was run using SEM. It included the two PNAs uses (i.e., friendship/network and location-based searching of new people to meet) as the independent variables, users' perceptions about living their neighborhood in an involved way as the dependent one, and the frequency of face-to-face meetings with other users met through these applications as the mediator. To evaluate the model fit, CFI and SRMR were observed again [31]. In the face of significant direct and/or indirect effects of both uses on the frequency of face-to-face meetings and/or on the perceptions about living their neighborhood in an involved way, Wald's test would have been used to determine whether the effects of the two considered PNAs uses significantly differed, in order to answer the third research question: if the test returns a significant result, the considered effects are different.

Bootstrap estimation with 10,000 samples was used to test the significance of the results [33] and the bias-corrected 95% confidence interval (BC 95% CI) was computed: the effects are significant when the 0 is not included in the CI.

4 Results

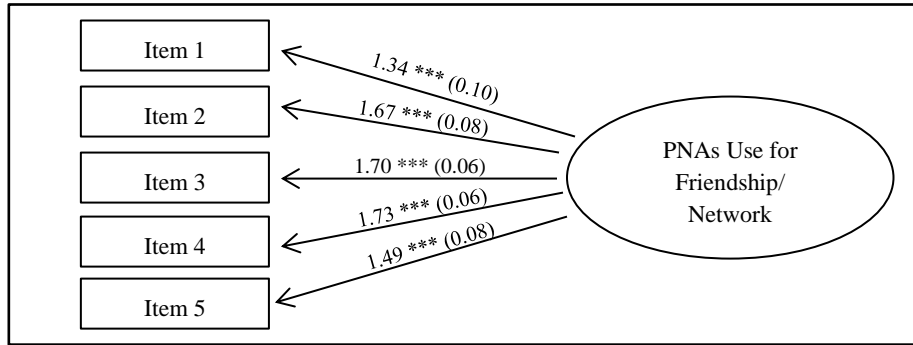
Both PNAs uses confirmed their one-factor structure with good fit indices: for friendship/network, CFI = .96, SRMR = .04; for location-based searching, CFI = .99, SRMR = .001. For factor loadings, see Figures 1 and 2.

Reliability indices, descriptive statistics, and correlations for all the measures are in Table 1.

Model results are summarized in Table 2 and shown in Figure 3. The model showed good fit indices, CFI = .94, SRMR = .05, yet H1 and H2 were only partially confirmed. Indeed, PNAs use for location-based searching of new people to meet was the only one showing a direct, positive, effect on the frequency of face-to-face meetings with other users met through these applications and an indirect, positive, effect on users' perceptions about living their neighborhood in an involved way via the frequency of these meetings. Conversely, PNAs use to look for friendship and to extend one's social network showed no significant effect. Thus, no Wald's test was run.

5 Discussion

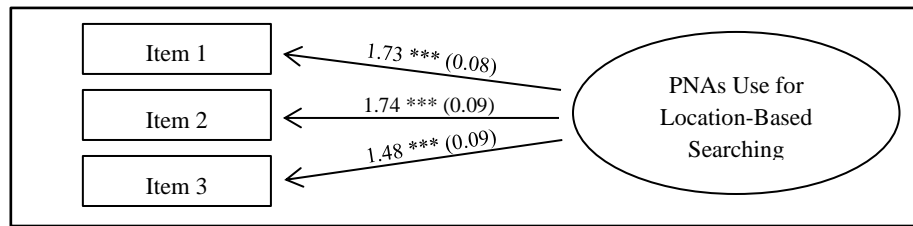
The present study was aimed at shedding light on PNAs social and community-related uses, specifically tackling their potentialities in fostering a more involving local community experience through the opportunities they create for face-to-face meetings among neighbors who did not know each other before. Indeed, returning to community members manageable opportunities to create new local connections and interactions represents a critical challenge in modern communities, whose traditional social and aggregative functions have been weakened due to the gradual privatization of

Figure 1. Factor loadings for the PNAs Use for Friendship/Network items.

Note. $n = 302$.

Unstandardized coefficients (B) are shown; standard errors (SE) are in brackets.

*** $p < .001$ (2-tailed).

Figure 2. Factor loadings for the PNAs Use for Location-Based Searching items.

Note. $n = 302$.

Unstandardized coefficients (B) are shown; standard errors (SE) are in brackets.

*** $p < .001$ (2-tailed).

Table 1. Summary of reliability indices, descriptive statistics, and correlations.

Variables	α	Range	M	SD	1	2	3
1. PNAs Use for Friendship/Network	.87	1-7	3.39	1.60	-		
2. PNAs Use for Location-Based Searching	.83	1-7	3.16	1.69	.403 ***	-	
3. Frequency of Face-to-Face Meetings with Other Users	-	1-7	3.94	1.91	.132 *	.292 ***	-
4. Living the Neighborhood in an Involved Way	-	1-7	3.87	1.66	.022	.009	.168 **

Note. $n = 302$.

*** $p < .001$ (2-tailed); ** $p < .01$ (2-tailed); * $p < .05$ (2-tailed).

α = Cronach's alpha; M = mean; SD = standard deviation.

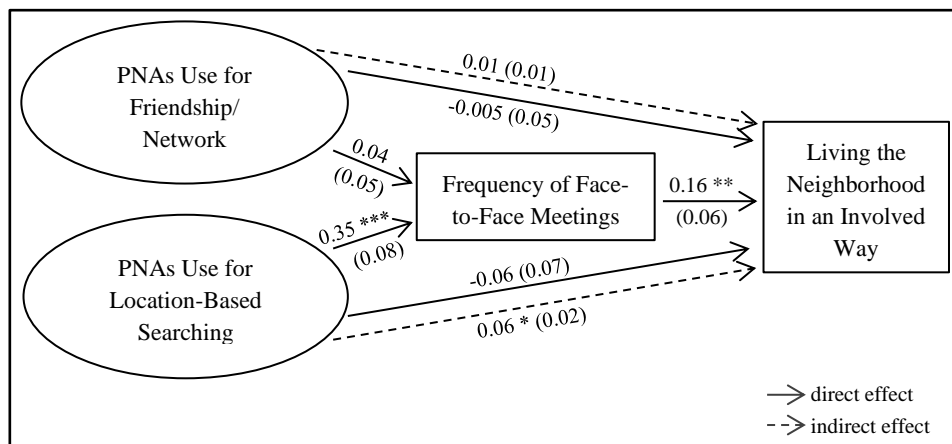
Table 2. Mediation model results.

Paths	<i>B</i> (SE)	BC 95% CI
<i>Direct effects</i>		
PNAs Use for Friendship/Network → Frequency of Face-to-Face Meetings with Other Users	0.04 (0.05)	[-0.06, 0.15]
PNAs Use for Friendship/Network → Living the Neighborhood in an Involved Way	-0.005 (0.05)	[-0.10, 0.09]
PNAs Use for Location-Based Searching → Frequency of Face-to-Face Meetings with Other Users	0.35 *** (0.08)	[0.19, 0.51]
PNAs Use for Location-Based Searching → Living the Neighborhood in an Involved Way	-0.06 (0.07)	[-0.20, 0.09]
Frequency of Face-to-Face Meetings with Other Users → Living the Neighborhood in an Involved Way	0.16 ** (0.06)	[0.04, 0.27]
<i>Indirect effects</i>		
PNAs Use for Friendship/Network → Frequency of Face-to-Face Meetings with Other Users → Living the Neighborhood in an Involved Way	0.01 (0.01)	[-0.01, 0.03]
PNAs Use for Location-Based Searching → Frequency of Face-to-Face Meetings with Other Users → Living the Neighborhood in an Involved Way	0.06 * (0.02)	[0.02, 0.12]

Note. $n = 302$.

*** $p < .001$ (2-tailed); ** $p < .01$ (2-tailed); * $p < .05$ (2-tailed).

B = unstandardized coefficient; SE = standard error; BC 95% CI = bias-corrected 95% confidence interval.

Figure 3. Mediation model results.

Note. $n = 302$.

Unstandardized coefficients (*B*) are shown; standard errors (SE) are in brackets.

*** $p < .001$ (2-tailed); ** $p < .01$ (2-tailed); * $p < .05$ (2-tailed).

urban spaces and sociability [12, 13, 14, 17]. Consistently, a solely social use (i.e., for friendship/network) and a social and specifically community-related one (i.e., for location-based searching of people to meet) were considered, to test their association with the frequency of face-to-face meetings with other users met through these applications and with users' perception about living their neighborhood in an involved way via the frequency of these face-to-face meetings. The hypotheses were only partially confirmed, since the community-related use showed both the expected positive associations yet the solely social one showed none of them.

These results provide some interesting hints about the needs underlying these two similar yet different PNAs social uses. Indeed, building on the acknowledgment that social media users actively select which social media to use and how based on their unmet needs and on how the features and uses of each social media are considered able to meet them [28, 29], PNAs social uses had been hypothesized as relying on both social and aggregative unmet needs, traditionally satisfied by friendly and neighborly relationships in local communities which are no longer exerting this role [17, 30]. However, what emerges from this study suggests a further specification of this main idea: indeed, only the specifically community-related use associates with more frequent face-to-face meetings with other users and with a stronger feeling of being involved in one's neighborhood, while the solely social one proved not to associate with either of them. Consistently, it seems reasonable to rather tackle separately the social and the aggregative needs underlying these two PNAs uses. Indeed, the different patterns of relationships emerged suggest that these two uses bring about different local outcomes and interactions, presumably in the attempt to satisfy the different needs they rely on. Specifically, the positive association with face-to-face meetings suggests that when users have a local focus and wish for more local acquaintances and interactions they mean PNAs not as an "easier" way to relate with others through taking advantage of online communications but rather as a complement to their already existing yet unsatisfactory offline opportunities to meet new, not-yet-known, people nearby [17]. Conversely, the lack of association of the solely social use could suggest that it rather relies on a more specific yet abstract need to communicate with new people and feel part of a wider social network, which can also be *virtual*.

Moreover, the present results suggest that PNAs community-related use could represent a modern reliable tool to enhance users' active and involved experience of their local community through fostering a higher frequency of face-to-face meetings with other people in the same area. Indeed, when using PNAs with the specific aim to meet new people nearby, users may be more inclined to set face-to-face encounters with the users they come in contact with and this could in turn bring them to meet in local common spaces. This could in turn increase their perception about being involved in their neighborhood in terms of meeting other community members face-to-face in common places, participating in shared activities, and feeling a part of the neighborhood community at last [16, 24].

What emerges seems consistent with the suggestions about the rise of a new kind of local socialization process [6, 34] based upon the integration between interactions and shared social spaces within local communities and online environments and opportunities, which could become possible taking advantage of ubiquitous mobile ap-

plications, like PNAs [17]. This new socialization process could break the boundaries between online and offline spaces and dynamics, but also those between different subgroups and subcultures within the same local community, which could be due to mistrust, indifference, and lack of reciprocal acknowledgment [12, 13, 14, 15, 16].

Altogether, since mobile social applications are always more frequent in daily lives and relationships [35], deepening the social processes and dynamics rising from their intersection with offline physical and social environments in terms of benefits and risks for their users seems a critical issue. Specifically, the present results support the insights about the potentialities that PNAs community-related use could have in enhancing the relationships among nearby users and between users and their local communities meant both as physical shared spaces and as social contexts [1, 8, 10, 11, 17]. Indeed, through fostering new opportunities for local encounters among neighbors this specific PNAs use could enhance citizens' reciprocal support and acknowledgment, the perception about neighbors respecting each other, common spaces, and shared norms, and the one about being involved in their neighborhood community, which are all compounding elements fostering the adoption of a more responsible way of living together and interacting within one's local community [13, 36].

5.1 Limitations and Future Directions

This study is not free from limitations. First, the findings rely on self-reported data, which can be distorted by memory bias and response fatigue. Moreover, the sampling strategy allowed to reach a broad range of PNAs users yet may have led to a sort of self-selection bias. However, even though the sample is not representative, it goes beyond student samples providing validity to the results.

Lastly, since the study has a cross-sectional design, the described relationships should be considered carefully and cannot allow inferences on the direction of causality.

References

1. Toch, E., Levi, I.: What can 'people-nearby' applications teach us about meeting new people? In: Proceedings of the UbiComp '12, pp. 802-803. Pittsburgh, ACM (2012).
2. Ranzini, G., Lutz, C.: Love at first swipe? Explaining Tinder self-presentation and motives. *Mobile Media & Communication*, 5(1), 80-101 (2017). <https://doi.org/10.1177/2050157916664559>
3. Sumter, S. R., Vandenbosch, L., Ligtenberg, L.: Love me Tinder: Untangling emerging adults' motivations for using the dating application Tinder. *Telematics and Informatics*, 34(1), 67-78 (2017). <https://doi.org/10.1016/j.tele.2016.04.009>
4. Timmermans, E., De Caluwé, E.: To Tinder or not to Tinder, that's the question: An individual differences perspective to Tinder use and motives. *Personality and Individual Differences*, 110, 74-79 (2017). <https://doi.org/10.1016/j.paid.2017.01.026>
5. Ward, J.: Swiping, matching, chatting: Self-presentation and self-disclosure on mobile dating apps. *Human IT: Journal for Information Technology Studies as a Human Science*, 13(2), 81-95 (2016). <https://doi.org/10.1080/1369118X.2016.1252412>

6. Miller, B.: "They're the modern-day gay bar": Exploring the uses and gratifications of social networks for men who have sex with men. *Computers in Human Behavior*, 51, 476-482 (2015). <http://dx.doi.org/10.1016/j.chb.2015.05.023>
7. Van De Wiele, C., Tong, S. T.: Breaking boundaries: The uses & gratifications of Grindr. In: *Proceedings of the 2014 ACM international joint conference on pervasive and ubiquitous computing*, pp. 619-630. ACM, New York (2014). <https://doi.org/10.1145/2632048.2636070>
8. Hsiao, J. C. Y., Dillahunt, T. R.: People-nearby applications: How newcomers move their relationships offline and develop social and cultural capital. In: *Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing*, 26-40 (2017). ACM, Portland (2017). <https://doi.org/10.1145/2998181.2998280>
9. Batiste, D. P.: '0 Feet Away': The Queer Cartography of French Gay Men's Geo-social Media Use. *Anthropological Journal of European Cultures*, 22(2), 111-132 (2013). <https://doi.org/10.3167/ajec.2013.220207>
10. Sutko, D. M., de Souza e Silva, A.: Location-aware mobile media and urban sociability. *New Media & Society*, 13(5), 807-823 (2011). <https://doi.org/10.1177/1461444810385202>
11. Mayer, J. M., Hiltz, S. R., Jones, Q.: Making social matching context-aware: Design concepts and open challenges. In: *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*, pp. 545-554. ACM, New York (2015). <http://dx.doi.org/10.1145/2702123.2702343>
12. Arcidiacono, C., Di Napoli, I.: Crisi dei giovani e sfiducia nei contesti locali di appartenenza. Un approccio di psicologia ecologica. In: *Krise als chance aus historischer und aktueller perspektive*, pp. 235-250 (2010)
13. Procentese, F., Gatti, F.: Senso di Convivenza Responsabile: Quale Ruolo nella Relazione tra Partecipazione e Benessere Sociale? *Psicologia Sociale*, 14(3), 405-426 (2019). <https://doi.org/10.1482/94942>
14. Procentese, F., Di Napoli, I., Iuliano, B.: Participative action and communities of belonging: an explorative study of young Italian students. In: A. Bokszczanin (ed.), *Social change in Solidarity*, pp. 359-374. Opole University Press, Opole (2007).
15. Procentese, F., De Carlo, F., Gatti, F.: Civic Engagement within the Local Community and Sense of Responsible Togetherness. *TPM - Testing, Psychometrics, Methodology in Applied Psychology*, 26(4), 513-525 (2019). <https://doi.org/10.4473/TPM26.4.2>
16. Procentese, F., Gatti, F., Falanga, A.: Sense of responsible togetherness, sense of community and participation: Looking at the relationships in a university campus. *Human Affairs*, 29(2), 247-263 (2019). <https://doi.org/10.1515/humaff-2019-0020>
17. Procentese, F., Gatti, F.: People-Nearby Applications and local communities: questioning about individuals' loneliness and social motivations towards People-Nearby Applications. *Journal of Community Psychology*, 47(5), 1282-1294 (2019). <https://doi.org/10.1002/jcop.22175>
18. Di Napoli, I., Arcidiacono, C.: The use of self-anchoring scales in social research: The Cantril scale for the evaluation of community action orientation. In Davino C., Fabbris, L. (eds), *Survey data collection and integration*, pp. 73-85. Springer, Berlin (2013).
19. Arcidiacono, C., Procentese, F.: Distinctiveness and sense of community in the historical center of Naples: A piece of participatory action research. *Journal of Community Psychology*, 33(6), 631-638 (2005). <https://doi.org/10.1002/jcop.20074>
20. Arcidiacono, C., Procentese, F., Di Napoli, I.: Qualitative and quantitative research: An ecological approach. *International Journal of Multiple Research Approaches*, 3(2), 163-176 (2009). <https://doi.org/10.5172/mra.3.2.163>

21. Ife, J. W., Smith, M.: *Community development: Creating community alternatives - Vision, analysis and practice* (Vol. 182). Longman, Melbourne (1995).
22. Putnam, R. D.: *Bowling alone: America's declining social capital*. In Crothers L., Lockhart C. (eds), *Culture and politics*, pp. 223-234. Palgrave Macmillan, New York (2000). https://doi.org/10.1007/978-1-349-62397-6_12
23. Williams, D.: On and off the Net: Scales for social capital in an online era. *Journal of computer-mediated communication*, 11(2), 593-628 (2006). <https://doi.org/10.1111/j.1083-6101.2006.00029.x>
24. Francis, J., Giles-Corti, B., Wood, L., Knuiman, M.: Creating sense of community: The role of public space. *Journal of environmental psychology*, 32(4), 401-409 (2012). <https://doi.org/10.1016/j.jenvp.2012.07.002>
25. Granovetter, M. S.: The strength of weak ties. *American Journal of Sociology*, 78(6), 1360-1380 (1973).
26. Sugiyama, T., Leslie, E., Giles-Corti, B., Owen, N.: Associations of neighbourhood greenness with physical and mental health: do walking, social coherence and local social interaction explain the relationships? *Journal of Epidemiology & Community Health*, 62(5), e9-e9 (2008). <http://dx.doi.org/10.1136/jech.2007.064287>
27. Procentese, F., Gatti, F.: From Gayborhoods to People-Nearby Applications: Sexual Minorities And Social Relationships. *Psicologia Sociale*, 15(1), 129-147 (2020). <https://doi.org/10.1482/96298>
28. McQuail, D., Blumler, J. G., Brown, J. R.: *The television audience: a revised perspective*. In McQuail, D. (ed.), *Sociology of mass communications*. Penguin, Harmondsworth (1972).
29. Wei, R., Lo, V. H.: Staying connected while on the move: Cell phone use and social connectedness. *New Media & Society*, 8(1), 53-72 (2006). <https://doi.org/10.1177/1461444806059870>
30. Gatti, F., Procentese, F.: Open Neighborhoods, Sense Of Community, And Instagram Use: Disentangling Modern Local Community Experience Through A Multilevel Path Analysis With A Multiple Informant Approach. *TPM - Testing, Psychometrics, Methodology in Applied Psychology*, 27(3), 313-329 (2020). <https://doi.org/10.4473/TPM27.3.2>
31. MacCallum, R. C., Austin, J. T.: Applications of structural equation modeling in psychological research. *Annual review of psychology*, 51(1), 201-226 (2000). <https://doi.org/10.1146/annurev.psych.51.1.201>
32. Hu, L. T., Bentler, P. M.: Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55 (1999). <https://doi.org/10.1080/10705519909540118>
33. Hayes, A. F.: *Introduction to mediation, moderation, and conditional process analysis: a regression-based perspective*. The Guilford Press, New York (2018).
34. Miles, S.: Sex in the digital city: location-based dating apps and queer urban life. *Gender, Place & Culture*, 24(11), 1595-1610 (2017). <https://doi.org/10.1080/0966369X.2017.1340874>
35. Procentese, F., Gatti, F., Di Napoli, I.: Families and Social Media Use: The Role of Parents' Perceptions about Social Media Impact on Family Systems in the Relationship between Family Collective Efficacy and Open Communication. *International Journal of Environmental Research and Public Health*, 16(24), 5006 (2019). <https://doi.org/10.3390/ijerph16245006>
36. Procentese, F., Gargiulo, A., Gatti, F.: Local Groups' Actions To Develop A Sense Of Responsible Togetherness. *Psicologia di Comunità*, 1/2020, 65-79 (2020). <http://doi.org/10.3280/PSC2020-001005>