Communication in Urban Planning

How quality of communication can facilitate constructive citizen participation

Trine Rydningen Kirkhaug Department of Product Design Norwegian University of Science and Technology

ABSTRACT

City planning processes are complex, with numerous stakeholders, legal and political processes and bureaucracy, which makes them difficult to comprehend for citizens. There is an initiative among municipalities to increase participation in city development processes, nevertheless, there is still too little participation, and the engagement from citizens seems to come in at a point of the process where it is difficult to make changes to plans. This is not necessary due to lack of engagement among citizens, but rather a result of poorly communicated plans, where citizens are not able to comprehend its consequences before later stages when the window for participation is closing in. Facilitation for participation in planning processes can lead to deeper understanding, earlier engagement, and increased ownerships towards plan propositions among citizens. Citizen participation can also enrich analyses, with valuable input at a human level, instead of data based on merely technical and statistical insight. This is why this paper will look into how municipalities can improve quality of communication, through open and accessible information presented in a tone of voice citizens can relate to, opening up for dialogue and cooperation.

KEYWORDS: Citizen Participation, Quality of Communication, Human Centered Urban Planning

1. INTRODUCTION

The diversity of societies that comes naturally to a city can both be a challenge and an opportunity for urban planners. Many actors, equals many views, but one of the many qualities of cities is that its concentration of people provides a natural hub for diversity, and it is an excellent collaboration setting [1]. This provides a foundation for citizen participation in urban planning. Today, most of the planning authorities in urban planning keeps the citizen involvement equivalent to the minimum of legal requirements [2]. Citizen participation is by some actors seen as a burden, something that must be done in order to proceed, rather than an opportunity for valuable input [3]. Research have shown that especially developers seems to share this opinion, whereas planners and politicians think of participation as more important to ensure democratic processes and hearing of all parties in the society [3]. This paper argues that earlier citizen participation can provide valuable input for planning processes, however, the planning authorities must be better at facilitating for participation than today. The paper will explain some main principles of the urban planning process, discuss viewpoints of literature concerning participation in planning processes, and literature about how the quality of communication can be improved, so that it does not require technical or professional backgrounds from citizens to comprehend its meaning. It will also be discussed what urban planners can learn from the design discipline, where participation and human centered methods are a common to practice. The research will be the basis to discuss some challenges with achieving participation today, and suggestions to how they can be solved.

2. URBAN PLANNING

Urban planning is defined as preparation of plans for partial or complete development of cities, with the current situation, as well as future scenarios in mind [4]. This is to ensure that land use, transportation, buildings, landscapes, open places, infrastructure, economic investments, jobs and businesses are included in plans for development of communities [5].

In Norway, regulations in urban plans goes through the following steps [6]: 1) Initiation 2) Start-up meeting 3) Project start-up 4) Public announcement 4) Data collection 5) Plan draft 6) Planning committee – political treatment 7) Public inspection/scrutiny 8) 2nd treatment - planning committee 9) Closeout.

The start-up meeting is a required, closed meeting, between politicians, planners,

landowners and developers where technical requirements are discussed. In preparations to the start-up meeting, the plan consultant must inform other stakeholders about their rights, and come with suggestions on how participation could be ensured [6].

During the project start-up, notifications are both public governmental sent to stakeholders and other interested parties, including infrastructure and governmental agencies, neighbors and interest organizations. The public announcement must be published in at least one local newspaper, and at a municipal online medium. The reader should be able to understand the consequences of a plan, who are responsible, and where to gain more information. It is also required to send out a notification letter to landowners, neighbors and governmental stakeholders, with more thorough information, understandable for people without technical insight [6].

In the fourth stage, relevant data, such as geotechnical and historical data, is collected, before a plan draft is made. The draft is treated in a political planning committee, where the democracy rules. During public scrutiny citizens have at least six weeks to formally give suggestions to or criticism of the plan. Next, the plan goes through a new hearing in the planning committee, where it is decided whether or not to proceed with the original plan and if changes are required [6].

Changes in the stages 6-9, could send the process back to stage four. Change of course this late could be both expensive and time consuming, compared to going straight to project closeout [7]. If the plan is not

anchored in citizens, the resistance towards the plan could become more prominent, which could be one of the reasons for that changes are required in first place [2]. This is why the paper will focus on increasing citizen participation in the stages 1-4, where the plan still is dynamic and developed according to input [6].

3. STAKEHOLDERS IN URBAN PLANNING

Stakeholders are defined as individuals or groups who have an active stake in the project and can potentially affect, either positively or negatively its development [7].

In addition to citizens; developers, planners, politicians and local organizations are the main stakeholders in urban planning [3]. The interrelation between stakeholders, and how the communication and information flow, must be considered when trying to improve the quality of communication between them.

In the practice handbook «Stakeholders Engagement» from IFC, eight components of stakeholder engagement are listed [8]. These are: 1) Stakeholder identification and analysis 2) Information disclosure 3) Stakeholder consultation 4) Negation and Partnership 5) Grievance management 6) Stakeholder involvement in project monitoring 7) Reporting to stakeholders 8) Management functions.

These components can make planners aware of how stakeholders can be administrated to achieve stakeholder alignment, meaning that different actors work towards a common goal, instead of towards individual interests of each party [7].

4. CITIZEN PARTICIPATION IN URBAN PLANNING

The Norwegian plan and building act, §5-1. Participation, says [9]; «Anyone who promote a plan proposal, should facilitate for participation. The municipality must ensure that these requirements are fulfilled in planning processes undertaken by other government agencies or private actors. The municipalities have a special responsibility to ensure the active participation of groups that require special arrangements, including children and adolescents. Groups and individuals who are not able to participate directly must be ensured good opportunities for participation in other ways. ».

According to the Ministry of Local Government and Modernization, participation is understood as individuals and groups right to influence decision-processes. The goal is to ensure solutions that take citizens needs into consideration, promote creativity and engagement, and facilitate for a democratic arena in local communities [2].

There are two main reasons for citizen participation [2, 10]. The first is the normative functions of participatory planning, which is related to direct democracy. The arguments are that the voice of citizens should be listened to, thus enlarge the legitimacy of decision-making. This could also empowers citizens, by providing them with means to influence decisions, and even out the power balance to some extent. [10].

Second, the instrumental function for participatory planning is related to making planning more effective and efficient. If citizens are able to influence decisionmaking, they also gain more control of the development, and the decision foundation will usually become more profound and the process more transparent. Problems and challenges should not be hidden, but presented realistically, inviting different stakeholders to participate in the problem solving [2]. This might lead to fewer difficulties with implementation, and less objections. It could also contribute to making city development more visible, which in itself can lead to greater citizen engagement [10].

The Ministry believes citizen participation can result in quality in plans, a common belonging to plans, and a mutual learning experience between citizens and planners [2]. Citizens know the local areas best, and shared knowledge between citizens and planners can help develop the local democracy, and build up under an open and alive community [2, 10].

4. CHALLENGES WITH PARTICIPATORY CITY PLANNING

There are multiple challenges regarding participation in city planning. Here three topics will be elaborated, namely the level of complexity that comes with urban planning, the quality of communication, and why the intent of participation is difficult to carry out.

4.1 Complexity

The most obvious challenge with participatory planning is the complexity of urban planning. Ensuring that needs of different stakeholders are met, and that all citizens have the opportunity to participate and speak their opinion, requires willingness to facilitate for participatory processes among planners, developers and politicians [3]. It also requires resources, both in term of funding and manpower [7, 8], which could be difficult to defend since the long-term effects are uncertain, and the expenses will show on short term budgets [10].

It is also difficult to manage the power and influence balance between stakeholders. Even though there is an initiative to increase the level of influence among citizens [2, 9], they will not have power to make decisions, and both landowners, politicians and planners will almost always be in a position where they have more power and means to influence than citizens [7]. This must be declared for citizens, making them aware of exactly which rights they got and how much they can influence a plan, to avoid false expectations. Broad citizens participation also requires that anyone can participate, but with the complexity we see today, many citizens becomes perplexed, and it is usually either well educated or resourceful citizens who participate, leaving the voice of the less resourceful unheard [3, 10].

A solution that often has been presented to tangle up complexity in vast and complex systems, is the diversion of task into specific teams guided by experts in their field. This is called functional organization structure [7]. This structure can lead to silo-mentality, where different departments focuses on internal goal, neglecting the overall goals, leading to lack of direct ownership to the overall project and often leading to little cross-functional cooperation and slower communication between departments [11]. The complexity is also tried solved with topdown approaches, where experts are in charge of decision-making without being much influenced by citizens [3]. There are arguments for that both top-down approaches, where decisions are made by municipalities, planners, or professionals and where contributions bottom-up, from citizens influence decisions, have their strengths and weaknesses. In general, bottom-up should be a part of local decision making, while regional matters should be left to planning authorities and experts [12]. Democracy implies that citizens have trust in the government to make binding decisions to commit resources to societal goals [13], and citizens cannot be an essential part of every process.

4.2 The Intent of participation is not reached

The debates risen about and local media coverage of urban planning, is an indication of that there is not a lack of engagement towards urban planning among citizens, the engagement is merely misplaced. Too often citizens' engagement comes in after stage five in the planning process, when the plan proposal is detailed and easier to comprehend. At this stage plans are difficult to change due to the amount of work put in to them, and due to the fact that the political planning committee already have voted and approved the plan [6]. In other words, the intent of participation is not being reached.

Norway has a highly democratic society [14] where transparency is valued [13]. There is an intent and obligation for participation at governmental level embedded in our laws [2, 9], and all substantial and useful information is shared publically, and the process is open for public scrutiny [6]. The problem,

however, is not that information is not shared, but that it is difficult to get overview, and comprehend the purpose of plans, especially in early stages.

The negative attitude, among especially developers, is another challenge. Some think participation will only slow down the process, not contribute [2]. This can make it beneficial to control who gets which information or leave out information, by only following absolute minimum requirements to participation. This is a form of gatekeeping [15], done to achieve minimum resistance to plans. It can lead to suspicion, mistrust and resignation towards the system among citizens if detected, and citizens might also feel perplexed if they have to fight stakeholders at the top of the system to engage. The government might have intentions of participation, but as long as developers or other planning authorities do not see the value, they will not follow up the intention to a larger extent than required.

The engagement which follows when citizens are brought in to the planning process too late, is seldom very constructive, but rather embossed by resentfulness and negativity towards the planning authorities and plans [3]. This can further provoke negative attitudes among planning authorities for participation because they associate participation with negativity. A classic snowball effect. This is one more reason for engagement to be lit earlier. It will require some more resources, but at least it contributes stakeholder alignment bv underbuilding of the data-foundation, and it can require less resources later, if citizens are invited contribute to the process earlier [6].

4.3 Lack of Quality in Communication

The meaning of the word communication is to share, make common, or impart [16, 17]. Communication can either be auditory, visual or tactile, and is a core mechanism for engagement, and it should be clear and concise, focused on the context, and sensitive to different opinions [18]. Poor communication is a common failure factors for projects [17], which illustrates the importance of high quality communication.

The basics of communication is that a message is sent through a chosen medium to a receiver which decode it [19]. To avoid misunderstanding, the tone of voice, must be one both can relate to. In two way-communication the sender and receiver switch places swiftly, leaving a dynamic dialogue. However, one of the problems with communication in urban planning processes, is that communication, where information is sent without any attempt of making a dialogue out of it, leaving them without means to respond or express their opinion, or even aware of that the message is sent.

The next problem, is that communication of characterized urban plans are bv bureaucratic prose and formality. [19]. Acts, regulations and formal announcement letter are examples of this. Formal communication is often rigid, and meant to make conditions tidy to enhance a common understanding of the underlying mechanisms. However, its technicality can be confusing for citizens. Informal communication on the other hand, is based on semantics and interpersonal relations. It often subjective, and dependent on the dynamic between people [19].

Lack of formal communication can lead to uncertainty, while lack of informal communication, can lead to ambiguity [7]. Both uncertainty and ambiguity can lead to mistrust among citizens to the planning processes [20]. Citizens must feel confident that planning authorities is committed, take considerations, and have the required competence.

It is also important to consider where information is presented. Citizens are a complex and varying target group. Reaching everyone is close to impossible, however, if a broad section of the society ought to be reached, it is important to choose right communication channels [19]. In today's digitalized society, there is a myriad of channels distributing information. Traditional communication channels such as printed and online newspapers, streamlined television, and radio are losing recipients to streaming and online services [15]. If planners and municipalities want to reach a larger variety of their citizens, they must identify where they receive information in their daily-life, and distribute their information through these channels, and let citizens respond in ways they are accustomed too and comfortable with.

5. HOW BRAODER AND EARLIER PARTICIPATION CAN BE ACHIEVED

The fact that most citizens who participate in planning processes today are either well educated or resourceful, is a challenge that must be addressed [3]. The same goes for the engagement, which usually comes in too late. These are both partly products of poorly communicated processes, where it is difficult to perceive know-how of how to contribute. It is important to engage anyone who have an interest in the outcome of a plan. Earlier engagement can be achieved by motivating citizens for participation earlier, which makes it relevant to discuss the basics of motivation and some practices for motivation.

The complexity of urban planning can be partly broken down when presented to citizens by addressing visual communication, as it is one of the best practices to provide overview over complicated structures and processes. This will also be further discussed.

5.1 Motivation for Participation

Motivation is usually divided in two parts; intrinsic and extrinsic motivation. Intrinsic motivation, is embedded in interest for the work, by having an emotional connection through curiosity, enjoyment, or personal sense of challenge. External forces, such as rewards, feedback or recognition, drive extrinsic motivation. Fulfilling the objective can for example become a mean to reach the extrinsic goal. Often there is a combination of both that drives people to complete a mission, but a number of studies have shown that intrinsic motivation factors primarily are most conductive for creativity [22].

In urban planning intrinsic motivation will often be the foundation for citizens' engagement. Semantics, or personal beliefs makes people interested in how their local areas are developed. However, there are some exceptions that seems to make extrinsic motivation factor in combination with intrinsic motivation to have even more positive effects on engagement [22]. The first is if the intrinsic motivation already is high, and you get a reward for extra efficiency. Second, some types of rewards, feedback and recognitions seems to have better effect than others, like feedback on something you have done well, or constructive feedback on how to do something better, also referred to as 'information extrinsic motivators' [23]. Third, timing seems to make a difference. In the ideation phase of a project, while testing novelty, extrinsic motivation does not seem performance, but increase in conceptualization, when searching for validation, it can help determine the appropriateness of an idea [22].

Extrinsic motivation factors, can be what triggers engagement earlier in the process. Planners can also reach a new audience, like vouths and children, if extrinsic factors are used [24]. Gamification of the process could be one way to achieve this [25]. Gamification is the concept of applying game mechanisms to contexts that usually do not have these mechanisms, to engage and motivate people to reach an external goal [26]. It can contribute to making sturdy topics funnier and more engaging, if done correctly. It could also help tangle up the complexity of planning for citizens through giving them a tool to explore the planning processes in a safe and interesting manner where rewards, challenges, or explaining graphics, have a prominent and balanced role [27].

Gamification engage by encouraging people to achieve mastery through problem solving, which trigger chemical reactions in our body [24, 28]. This can make people perform chores they usually would consider boring, distant or unchallenging [24, 25]. Dopamine, oxytocin, serotonin, and endorphins are different hormones and signal substances released while gaming, which makes people feel pleasure due to rewards, connectedness to each other due to accomplishing tasks together, happiness over having achieved something and feel-good for overcoming an obstacle [28]. An update in 'citizen status', prizes for participation, or rewards and recognition are some mechanisms that can give people a fun and rewarding gateway to urban planning participation [27].

5.3 Information Visualization

Instead of having to read the bureaucratic prose, presented in a tone of voice citizens can not relate to, information visualizations can communicate a message by linking the quantitative and qualitative data, and make the receiver capable of learning without having to conduct an in-depth study of a topic [29]. Visualization can make the intangible more comprehensible.

As the government is focusing more on digitizing to simplify processes, the way digital interfaces are presented will become more important. It can help planning processes to be more efficient, transparent and standardized [30]. Visualizations can help by providing easy and assessable information, in a comprehensible way, making the purpose and consequences of the clear [18]. Visualizations should plan facilitate insight, not just show pictures, and provide a foundation for understanding. Visualization could also triggers peoples curiosity, and engage people merely because of intriguing graphics [24]. All together this can facilitate the thinking process of citizens, and make them formulate valuable opinions, which makes them able to contribute to debates and discussions, without being experts on the topic.

The way visualizations facilitate learning, have much to do with how symbols are presented. Symbols can range on a scale from sensory to arbitrary [29], where sensory symbols are independent of culture, and does not require learning, typically explaining graphics. Arbitrary symbols requires learning to be used properly, and is easy to forget, like mathematical symbols. This must be taken into account when the process of urban planning is communicated to citizens who are not necessarily experts on the field. By providing sensory symbols visualizations will be easier to understand [29]. Graphical elements should be used to show structural relationships, while natural language should be used to explain complex and detailed logic. A combination of both will often be best to facilitate deeper learning [29].

Visualization must be well thought trough. It is a handcraft which requires skills and knowledge to make trustworthy, and credible. It must be 'ergonomic', or provide a practical functionality, in a sense that provides legibility. In Norway, any ICT, both public and private follows the legal requirements for universal design, so that anyone can participate [31]. This solves parts of the problem, but it is still recommended to use the expertise of graphic or information designers, text composers or other with a professional background in the making of visualizations.

Visualizations can improve the quality of communication of urban planning processes through presenting information graphically in

ways that facilitate understanding among citizens. It can break down the complex structure into comprehensible elements where the bureaucratic prose are replaced with illustration of the process providing citizens with knowledge, and tools to explore it. Citizens should be presented with information relevant for them there and then, with possibilities to immerse if needed.

6. HUMAN CENTERED DESIGN

In the end, the reason why processes should be participatory, is that this makes them anchored in the opinion of citizens, by adding a human factor to the planning foundation. With this in mind it is interesting to look at what planners can learn from other fields of practices that are more used to participation as an important element in problem-solving, like human-centered design where participation is essential.

Human centered design, or HDC, is a collection term for different design methods meant to involve end-users, in this case citizens, and other relevant stakeholders in the problem-solving, to avoid focusing merely on the opinion of experts and researchers. Ethnographic studies, empathic design, co-design, contextual design and lead user approach are some examples of HDC methods [32], who all are participatory design methods, to some extent. Some of these method aim to solve problems related to current situations, other focus on being prepared for future scenarios. The different methods also vary in the degree off which they emphasis the researcher/designers opinion versus end-users knowledge [33].

In HCD you can look at what people say, to discover explicit needs [33], like in ethnographic studies, which studies people's culture [32]. Second, you can study what people do, to observe what they needs are, which is the essence of contextual design, where research are conducted in a real context. On a higher level you can study what what people make, which brings in tactics and the latent needs of users. One example of this is co-design [33]. Co-design is the design discipline which have high focus on empowering end-users, by letting them participate in the creation of the solutions [33]. It has many benefits like ownership towards the solution, and improved efficiency and improved creative processes [34].

It might not be necessary to bring every planning process as far as to co-design, as it requires a lot of resources and facilitation. Other HCD methods, such as ethnographic fieldwork, contextual design and emphatic design could benefit the early stages just as much getting to know citizens, their culture, and preferences, adding the human layer to analysis [33], especially if the methods are triangulated [35]. This provides a more nuanced picture, where evidence from several methods can back each other up, providing a more thorough foundation for decision-making. It does not provide citizens with much more power, and professionals will still be responsible for the final decisions, but it facilitate for a greater level of influence, and the plan proposal will be embedded in not only technical analysis [6], but also anchored in citizens' values.

7. DISCUSSION

There are many challenges with participatory planning processes, but also many benefits if carried out successfully. Today citizens easily gets perplexed of the complexity of the planning processes [3]. Without knowing their role, it is difficult to contribute constructively. Participatory processes can contribute to more human-centered plan proposals [32], and let planners get insight about not only technical requirements, but also the quantitative requirements anchored in citizens, which can contribute to positive development of communities, especially on a local scale [12].

The first thing that must be in place, is better knowledge and understanding of the planning process among citizens. This requires quality in communication from the planning authorities. Lack of understanding leads to ambiguity, and possible mistrust towards the processes [7, 19]. People must be able to comprehend the extents of the plan, and understand their rights, and what their contributions are worth in terms of power and influence. Citizen participation are not meant to deprive experts of their roles, is it meant to enrichen the foundation of which they base their decisions on. If the suggestions of citizens are respectfully considered, opposition to change and disagreements are likely to decrease [2]. It is important for planners to listen and be open for input throughout the entire process. Transparency, openness and willingness can be the key to collective problem-solving [2].

Information must be easy to retrieve, and it must be presented in a way that not requires for citizens to have an expert knowledge of the planning processes. Today citizens who participate are usually resourceful or well educated [3], this is an indication of that the regular citizens are not comfortable with participation, probably due to lack of understanding. There is a time and place for when technical jargons are needed, and when they should be avoided and discarded for more informal communication. The communication should however be clear and concise, and ideally backed up with explanatory visualizations that map out the process, enhance the understanding, and triggers the curiosity of citizens [29]. At last, the information must be spread through communications channels and mediums that citizens are accustomed to, and it must be opened up for dialogue among citizens and planners [19].

It must also be facilitated for input from citizens earlier in the process, preferable before the plan proposal is made [6]. For this, human centered design methods can be adapted to the planning processes, and provide it with tools that facilitate for input early on. Gamification is another take that can contribute to earlier engagement by providing extrinsic motivation factors. Especially for local plans, where it seems to be beneficial to facilitate bottom-up processes to some extent, this could be beneficial [19].

There will always be a discussion of if the suggested efforts to achieve participatory processes are worth it in terms of resources spent on it, compared to the winnings. There are indications or that it indeed is worth it, but it is required further investigation to conclude with something at this point.

8. CONCLUSION

Citizens knows their local area's best, and can contribute to the analysis with observations and knowledge which is difficult to retrieve otherwise, but for it to be worthwhile, it must happen early in the process, where plans still are dynamic and open for input. Quality of communication, seems to be key to achieve this.

There is not one single solution that will fit every individual planning process, and there should not be one rigid plan to follow for every planning process, but rather suggestions to tools and methods that can enhance the process. It is important to learn from earlier processes, get to know the citizens and adapt processes accordingly. This could contribute to solutions that do not

REFERENCES

- [1] da Cunha, I.V., Selada, C. (2009). Creative urban regeneration: the case of innovation hubs. *Int. J. Innovation and Regional Development*, Vol. 1, No. 4, pp.371–386.
- [2] Kommunal- og moderniseringsdepartementet (2014). Medvirkning i planlegging. Hvordan legge til rette for økt deltakelse og innflytelse i kommunal og regional planlegging etter planog bygningsloven, pp. 7-44. Retrieved September 26. 2015, from https://www.regjeringen.no/globalassets/uplo ad/kmd/plan/medvirkningsveileder/h2302b ve ileder_medvirkning.pdf

[3] Falleth, E. I., Hansen, G. S. (2011). "Participation in Planning: a study of urban development in Norway", Refereed article No. 42, European Journal of Spatial Development. Retrieved September 30. 2015, from http://www.nordregio.se/EJSD/refereed42.pdf

[4] Store Norske Leksikon (2016). *Definition of Urban Planning*. Retrieved September 16. 2016 from https://snl.no/byplanlegging

[5] Rydningen, U., Rolfsen, C. N. (2016). Making education on sustainable community planning tangible. Retrieved October 26. 2016, from <u>http://www.witpress.com/elibrary/wittransactions-on-ecology-and-theenvironment/204/35706</u> pressure planners to use extra resources unjustified, but let them rearrange their resources to be used in ways that support the process. Spending some more resources from the beginning, can be what avoids having to spend a lot of resources later to defend their plans due to objections.

Participation provides ownership to plans among citizens. By letting citizens take part in the development of their local areas, important factors will not be overseen, but brought daylight earlier in the process, which in the end should benefit all parties.

 [6] Miljøverndepartementet (2011). Veileder Reguleringsplan: Utarbeiding av reguleringsplaner etter plan- og bygningsloven. Retrieved October 1. 2016, from <u>https://www.regjeringen.no/contentassets</u> /0f066ff0c1b84446bc7a886402dca611/t-1490.pdf

- [7] Pinto, J. K. (2015) Project Management: achieving competitive advantage, 4rth edt. pp 61-70
- [8] International Finance Corporation (2007). Stakeholder engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets, pp 10-97
- [9] Lovdata (2008). Plan- og bygningsloven. Retrieved September 15. 2016, from <u>https://lovdata.no/dokument/NL/lov/2008-06-</u> <u>27-71/KAPITTEL 2-1-3#KAPITTEL 2-1-3</u>
- [10] Mohammadi, H. (2010). Citizen Participation in Urban Planning and Management. Retrieved November 5. 2016, from <u>http://www.uni-kassel.de/upress/online/frei/978-3-89958-884-2.volltext.frei.pdf</u>
- [11] Business dictionary (2016). *Definition of 'Silo mentality'*. Retrieved November 19. 2016 from: <u>http://www.businessdictionary.com/definition</u> <u>/silo-mentality.html</u>
- [12] Pissuourios, I. (2014). Top-Down and Bottom-Up Urban and Regional Planning: Towards a Framework for The Use of Planning Standards. Retrieved November 10. 2016, from <u>https://www.researchgate.net/publication/269</u>

476486 Top-Down and Bottom-

Up Urban and Regional Planning Towards a Framework for The Use of Planning Stand ards

- [13] Marksteen (2006). Transparency and City Government Communications. Retrieved October 15. 2016, from <u>http://www.instituteforpr.org/wp-</u> <u>content/uploads/Transparency-and-City-</u> <u>Government-Communications.pdf</u>
- [14] The economist (2013) *Democracy Index 2013*. Retrieved November 4. 2016, from <u>https://no.wikipedia.org/wiki/Demokrati-indeksen</u>
- [15] Barzilai-Nahon, K. (2008). Toward a Theory of Network Gatekeeping: A Framework for Exploring Information Control.
- [16] Dictionary (2016).) Definition of 'communication'. Retrieved October 5. 2016 from<u>http://www.dictionary.com/browse/com</u> <u>municate</u>
- [17] Oxford dictionary (2016) Definition of 'communication'. Retrieved October 5. 2016 from<u>https://en.oxforddictionaries.com/definiti</u> <u>on/communication</u>
- [18] Matthew, C. N. (2015). Public Engagement Research and Major Approaches. Retrieved October 23. 2016 from <u>http://www.aaas.org/sites/default/files/conten</u> <u>t_files/Biblio_PublicEngagement_FINAL11.25.1</u> <u>5.pdf</u>
- [19] Grenness, C. E. (1999) Kommunikasjon i organisasjoner: innføring i kommunikasjonsteori og kommunikasjonsteknikker.
- [20] Bedford, T., Clark, j., Harrison, C.(2002). *Limits to new public participation: Practices in Local Land Use Planning*. pp 311-331
- [21] SSB (2016) Norsk mediebarometer 2015. Retrieved November 14. 2016, from <u>http://www.ssb.no/kultur-og-</u> <u>fritid/statistikker/medie/aar/2016-04-14</u>
- [22] Amabile, T. M. (1997) Motivating creativity in organizations. On doing what you love, and loving what you do. Pp 39-46
- [23] Bern, D. (1972). "Self-Perception Theory" in Advances in Experimental Social Phycology.

 [24] Thiel, S., Fröhlich, P. (2016). Gamification as Motivation to Engage in Location-Based Public Participation, pp 399-421. Retrieved November 24. 2016 from:

http://link.springer.com/chapter/10.1007%2F9 78-3-319-47289-8_20

- [25] Sanchez, P. (2016). If Urban Life is a Game, Smart Cities are the Playgrounds: Gamification and Civic Rewards Strategies for Connected Cities. Retrieved November 10. 2016, from <u>https://eusmartcities.eu/blog/if-urban-life-game-smartcities-are-playgrounds-gamification-and-civicrewards-strategies</u>
- [26] Bagdeville (2016). *Definition of 'gamification'*. Retrieved October 4. 2016, from <u>https://badgeville.com/wiki/Gamification</u>
- [27] Schell, j. (2008). The Art of Game Design: A Book of Lenses, 1st edt, pp 171-205
- [28] Vollan, I. (2016). Hva kan nyheter lære av spill? Adressa:works. Retrieved October 22. 2016 from, <u>adressa.works</u>
- [29] Ware, C. (2012) Information Visualization: perception for design, 3rd edt. pp 10-55
- [30] Kommunal- og moderniseringsdepartementet

 (2015). Nasjonale forventninger til regional og
 kommunal planlegging. Retrieved Oktober 9.
 2016, from

 https://www.regjeringen.no/contentassets/2f8
 26bdf1ef342d5a917699e8432ca11/nasjonale_f
 orventninger_bm_ny.pdf
- [31] Direktoratet for forvaltning og IKT (Difi), (2016). Retrieved Oktober 6. 2016, from https://uu.difi.no/
- [32] Sten, M., Kuijt-Evers, L., Klok, J. (2003). Early user involvement in research and design projects: A review of methods and practices. Retrieved September 25. 2016 from: <u>http://www.marcsteen.nl/docs/EGOS2007%20</u> <u>Early%20user%20involvement.pdf</u>
- [33] Elizabeth B., Sanders, N. (1999) From User-Centered to Participatory Design Approaches. Retrieved September 26. 2016 from <u>http://maketools.com/articles-</u> papers/FromUsercenteredtoParticipatory Sand ers %2002.pdf
- [34] Steen, M., Manschot, M., & de Koning, N. (2011). Benefits of co-design in service design projects. Retrieved October 23. 2016 from: <u>http://www.ijdesign.org/ojs/index.php/IJDesig</u> <u>n/article/view/890/346</u>
- [35] Hanington, b., Martin, B. (2012) Universal methods of design, pp 108-109
- [36] Fernandes, T. Remehle, P. (2015). How to engage customers in co-creation: Customers' motivations for collaborative innovation. Retrieved October 19. 2016 from <u>https://repositorioaberto.up.pt/bitstream/102</u> <u>16/81646/2/102047.pdf</u>