

Application of Social Media in a Regional Design Competition – A Case Study in the Netherlands

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1 Introduction

Many scholars argue for significant stakeholder involvement in landscape planning and design¹ (for instance STEINITZ, 2012; BOOHER & INNES, 2002; CRAIG, 1998). Facilitating public engagement can be a challenging task, which involves the sharing of information, enabling citizens to form opinions, the exchange of opinions, and community building to create trust and acceptance (MACINTOSH, 2008). When applying traditional methods for participation – such as participation meetings and workshops – accessibility and inclusiveness of the process can be problematic due to boundaries in time and space. Web-based methods offer participants the opportunity to engage without being physically present, at a time and place that suits them, and anonymously if necessary (BRABHAM, 2009; MACINTOSH, 2008; VAN LAMMEREN et al., 2007). Moreover, new technologies allow interactions with the public at relatively low cost and high levels of efficiency (MACINTOSH, 2008; KAPLAN & HAENLEIN, 2009; BRABHAM, 2009, KINGSTON et al., 2000).

Several publications explore the potential use of web based technologies to enhance public involvement in spatial planning and design, for instance in the form of online visualization tools (VERVOORT et al, 2010; SHEN, 2009), serious games (POPLIN, 2012), so-called argumentation maps (RINNER et al., 2008) and crowdsourcing (JEANSSON et al., 2012, LIGTENBERG & VAN LAMMEREN, 2012; HAMMON & HIPPER, 2012; BRABHAM, 2009); all advocating further development of such technologies to enable online participation and collaboration in planning and design. The extent to which existing platforms, such as social networking sites of MySpace and Facebook, can support participation and collaboration is rather underestimated in planning and design literature and practice. As we are witnessing increased use of social media in society – and the impact of social media on society – their use as a means to enable citizen participation and collaboration needs to be explored. In this paper, we analyse the role of social media in the Eo Wijers regional design competition in the Netherlands, which provides examples of the use of social media from the perspective of integrated design/ planning teams. We studied A) which social media the teams proposed and applied in the competition entries and B) the level of interaction with the public that the teams aimed for. By analysing competition entries, we aim to give insight in the knowledge and attitude of the professional designers and planners concerning

¹ Although landscape planning and design vary in their approaches, to many of us a combination of both seems most fruitful for finding solutions to wicked problems such as planning and design of sustainable landscapes (see STOKMAN & VON HAAREN, 2012; STREMKE et al., 2012; DE JONGE, 2009). The desire to create solutions for existing or projected spatial problems, in collaboration with the people involved, is what both disciplines have in common and what we focus on if we talk about ‘planning and design’ in this paper.

the use of social media in interaction with the public, and the possible value of social media as a tool for collaborative creation in landscape planning and design.

Social media are characterized by Kaplan and Haenlein as “*a group of Internet based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content*” (2009, p. 61). To specify ‘user generated content’, they distinguish between:

- Social networking sites (e.g. Facebook, Twitter)
- Collaborative projects (e.g. Wikipedia)
- Blogs (e.g. Blogger, WordPress.com)
- Content communities (e.g. Flickr, YouTube)
- Virtual game worlds (e.g. SimCity)
- Virtual social worlds (e.g. Second Life)

Social networking sites are platforms that people use to present themselves on the web and sustain relationships with others. These sites often allow many forms of content, such as photo’s, video’s and text. In the context of social media, collaborative projects are platforms which enable joint and simultaneous creation of content, which should lead to better results than each participant could achieve on his own. A well-known example of an online collaborative project is Wikipedia, where members can add, change and remove content. Blogs, or weblogs, are websites where date-stamped content is placed in reverse chronological order. Content communities, such as YouTube and Flickr, offer platforms to share content between users. To conclude, virtual game worlds and virtual social worlds offer three-dimensional environments in which people can respectively game or simulate themselves.

A classic work on public involvement is Sherry Arnstein’s ‘Ladder of Citizen Participation’ (1969), which represents levels of power that citizens can have. Arnstein placed ‘manipulation’ and ‘therapy’ on the lowest rungs and summarized these as non-participation. On rungs three to five we find ‘informing’, ‘consulting’ and ‘placation’, summarized as ‘tokenism’. She concludes with ‘partnership’, ‘delegated power’ and ‘citizen control’ on rungs six to eight, which enable ‘citizen power’. For studying nowadays policy practice in the Netherlands, Pröpper (2009) translated and updated Arnstein’s classification, laying more emphasis on interaction with citizens than citizen power. He distinguished between the levels ‘no interacting’, ‘informing’, ‘consulting’, ‘advising’, ‘co-creating’ and ‘co-decision making’, which we visualised in a scaffold-like figure (see fig. 1).

When adjusting Pröpper’s distinction for the purpose of our analysis, we come to five possible levels of interaction: ‘no interaction’, ‘one-way communication’, ‘two-way communication’, ‘collaborative decision making’ and collaborative creation’ (see fig. 1 again). If interaction is defined as “reciprocal action or influence” (Oxford Dictionaries Online), the levels no interaction and one-way communication can technically not be called interaction, but for analysing the usefulness of social media in the competition it is valuable to distinguish them. Two-way communication is communication that takes place in two or multiple directions, for instance on the exchange of local knowledge, narratives, ideas and so on. Collaborative decision making means that the public can inform and influence decisions to be taken in the planning and design process, for instance on the programme or

allocation of projects. Finally we distinguished collaborative creation, whereby creation is defined as the act of “putting elements together to form a novel, coherent whole or make an original product” (KRATWOHL, 2002, p. 215). Acts of collaborative creation can range from the level of ideas for activities or interventions to their actual implementation.

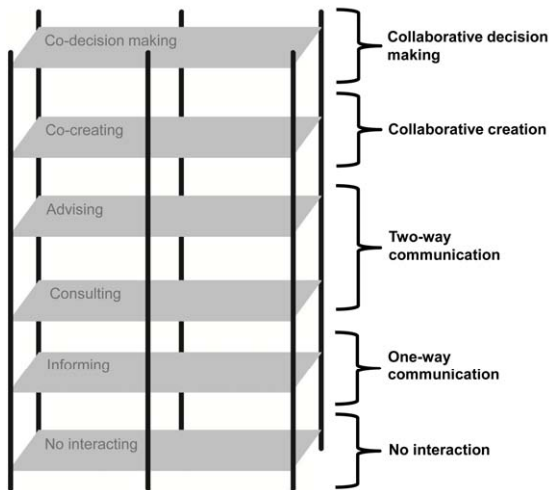


Fig. 1: Levels of interaction with citizens after PRÖPPER (2009), placed in a scaffold-like figure and regrouped into five levels of interaction

In section 2 we further describe the Eo Wijers competition and its assignment, followed by our methodology in section 3. The results are presented in section 4, beginning with an overview of the different social media platforms that were proposed and applied in the design competition (4.1), followed by an analysis of the levels of interaction to which the proposals should lead (4.2). One of the two entries that actually applied social media is then studied closer, to evaluate implications and perspectives of the use of social media for interaction with the public in planning and design (4.3). In section 5 we describe our conclusions and an outlook for further research and practice.

2 The Eo Wijers Competition for Regional Design

This paper presents a case study on the 9th EO Wijers regional design competition which took place in 2011/2012. The Eo Wijers competition is the most prestigious competition for regional design in the Netherlands and has significant influence on both the development of the profession as well as the development of particular regions (DE JONGE, 2008). This 9th edition focused on finding innovative solutions for energy transition, population shrinkage, agriculture development and water management in the Veenkoloniën, a region in the North of the Netherlands. For specific information on the competition and its organisation, see table 1.

Table 1: Specific information on the 9th edition of the Eo Wijers competition
(Sources: EO WIJERS-STICHTING, 2012; KEMPENAAR et al., 2012)

Competition title	Nieuwe Energie voor de Veenkoloniën, op zoek naar regionale comfortzones [New energy for the Peat Colonies, in search for regional comfort zones].
Associated competition principals	Province of Drenthe, Agenda voor de Veenkoloniën [a cooperative of local governments in the region].
Time period	June 2011-March 2012.
Region	De Veenkoloniën [Peat Colonies], in the northeast of the Netherlands.
Number of entries	36
Average team size per entry	Six team members.
Team composition	Multidisciplinary. Most participants had a background in urban planning, landscape architecture, spatial planning, and/or architecture. Also disciplines like history, management consultancy, economy, industrial engineering, energy consultancy, communication and social service were represented.
Requirements per entry	<ol style="list-style-type: none"> 1) Three A0 posters to represent the physical designs on local, regional and supra-regional scale level. 2) An essay of max. 1500 words to explain and amplify the physical and process design, and a proposal to communicate this with citizens and business in the region. 3) A medium free to choose to facilitate communication with the region.

Participants were asked to devise a method for regional development, capable to include local initiatives and involve the inhabitants of the region (Part A of the competition assignment, see text box below). Further, participants were explicitly asked to take the stories and experiences of the inhabitants and users of the region into the account while creating their entry (Part B of the assignment, see text box below). The emphasis on public involvement was so strong due to the little lasting success of earlier development plans and investments for this region (EO WIJERS-STICHTING, 2011).

Competition assignment (translated from Dutch; see Eo Wijers-stichting, 2011):

- A. *Develop a method for sustainable value creation to come to 'regional comfort zones' in the Veenkoloniën. Utilize with that the identity and uniqueness of the region, and the opportunities in the energy, agricultural and water systems, in order to enhance the independence of the region and empower its inhabitants.*
- B. *Depart from the narratives and experiences of the inhabitants and users. Take these into account in developing the method.*
- C. *Investigate and visualise your ideas on the possible outcome of the method on three scale levels:*
 - *Radius approx. 5 km: The local scale of projects and local initiatives.*
 - *Radius approx. 20 km: The scale of the 'regional comfort zone'.*
 - *Radius approx. 100 km: The regional scale of the Veenkoloniën and beyond.*
- D. *Clarify how you want to proceed when you win the competition, and give a matching planning for 2012 and further. Specify the implementation strategy you advocate, as well as an accompanying strategy for in- and external communication.*

Although it was not specified in the assignment that social media should be considered by the teams, twenty out of thirty-six entries *proposed* application of social media as tool for interaction with the public in the competition area (see fig. 2). Going further than proposing social media, two of these teams *actually* tried out social media for planning and design, to base their entry on. Sixteen entries did not apply social media at all; these entries were not further analysed for this paper.

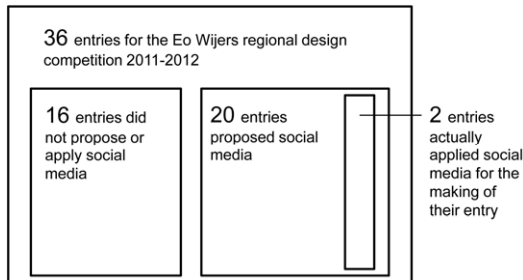


Fig. 2: Overview of social media proposals and application in the Eo Wijers design competition entries

3 Methods

In this case study, we analysed A) which social media the teams proposed and applied in the competition entries and B) the level of interaction with the public that the teams aimed for by proposing social media in their competition entry, or even realised in making their competition entry.

For analysing the different types of social media that were proposed in the Eo Wijers competition, Kaplan and Haenlein's categories have been used (see introduction). We adopted an interpretive approach to study the competition entries, making use of a textual coding technique (see for instance SCHWARTZ-SHEA & YANOW, 2012; CROTTY, 2009). First, we added Kaplan and Haenlein's categories (i.e. collaborative projects, blogs, content communities, social networking sites, virtual game worlds and virtual social worlds) to a codebook, plus their synonyms and additional terms (for instance 'Facebook' for social networking sites and 'YouTube' for content community). Next, we used this collection of terms to scan the texts in the entries on words and phrases which could indicate use of the different social media platforms. This has been done manually, and checked by using the search function in Adobe Acrobat X Pro to determine whether the analysis was complete. Finally, we added up occurrences of the different social media platforms and summarized the findings.

For each of the twenty competition entries in which social media were proposed, we analysed the level of interaction with the public that was aimed for, based on the description of the levels as given in the introduction (no interaction, one-way communication, two-way communication, collaborative decision making and collaborative creation).

Finally, we illustrate how application of social media actually led to collaborative creation in the process of making a competition entry. Based on a study of the entry itself, and the interactions on the social media platforms that were created for this entry, we describe:

- The target groups for interaction.
- The purpose of interaction.
- The social media platforms applied.
- Other ways to interact with the public proposed and used.
- Purpose of social media application (such as crowdsourcing for narratives, ideas).
- Aimed levels of interaction and to what extent this was realised.
- How social media application is embedded in the wider planning/design process.

4 Results

4.1 Different social media categories

In the twenty entries that proposed social media to facilitate interaction with the public (see fig. 2), a total of thirty-one platforms is proposed (see table 2). This means that several teams proposed a combination of two or more different platforms. Next, interaction via social media is often proposed in combination with more traditional ways for public involvement such as personal meetings and communications.

Table 2: Proposals for social media in the competition entries, divided into the 6 categories of social media as described by Kaplan and Haenlein (2009)

Social media categories	Occurrence in entries
Social networking sites	10
Collaborative projects	9
Blogs	8
Content communities	4
Virtual game worlds	0
Virtual social worlds	0

The category of social networking sites occurred most frequently. The platforms that were proposed (i.e. Facebook, Twitter, LinkedIn and Hyves) are the most popular of their kind in the Netherlands. Social networking sites were proposed to share information with the public, but most of all, to let the public form and share their opinion online. Also collaborative projects have been proposed often. In this category, the teams tended to devise platforms themselves rather than using an existing platform, such as Wikipedia or uploading photos to Google Maps. An example of a self-devised collaborative project can be found in the entry 'Boeren, Burgers & Buitenlui' ['farmers, citizens and country people'] of TU Delft students Wouter Keizer and Ule Koopmans. Keizer and Koopmans present 'Index'; a 'knowledge and communication centre' which consists among other things of a digital interactive map². 'Index' works and looks a bit similar to uploading photo's to Google Maps.

² For the purpose of the competition, this application and its working is imagined and not (yet) developed.

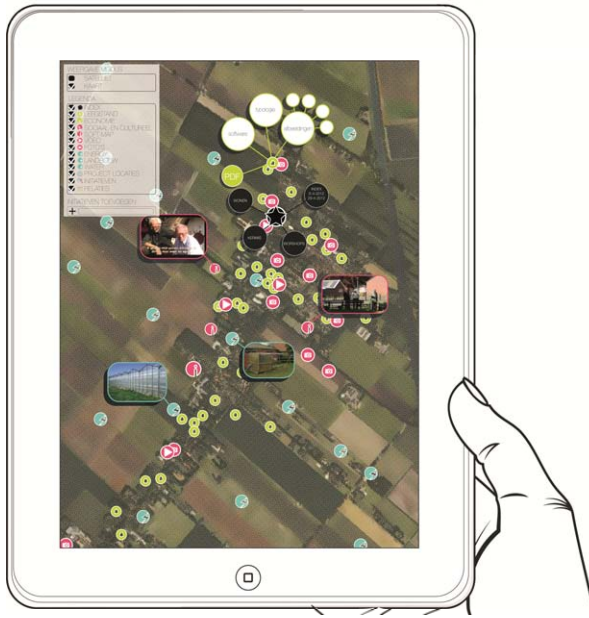


Fig. 3:

Image of 'Index', the interactive digital map from the 'Boeren, Burgers & Buitenlui' entry. Source: Wouter Keizer and Ule Koopmans.

Blogs were also frequently proposed and mainly used to share information with the public about the competition, or the entry in progress. At itself, a blog is not interactive, but many blogs in the competition were combined with possibilities for giving feedback and/ or opinion polling, which lend themselves for interaction. Content communities were less frequently proposed; only four entries propose YouTube to share video content with the public. Since this was a regional design competition, in which pictures and design images play an important role, one could have expected more proposals for photo sharing sites such as Flickr. To conclude the list of different social media categories, no virtual social worlds were proposed and only one entry made reference to the possibility of creating virtual games.

4.2 Levels of interaction

The proposals for facilitating interaction with the public via social media, as categorised in section 4.1, aim for different levels of interaction. For each of the proposed platforms we analysed whether they could lead to one or more of the five levels of interaction that we distinguished in the introduction (no interaction, one-way communication, two-way communication, collaborative decision making and collaborative creation). It became clear that facilitating one- and/ or two-way exchange of information is much more aimed for than collaborative decision making and collaborative creation (see table 3).

These outcomes support that, for the purpose of this competition, the majority of the teams deemed the use of existing social media effective to provide and/ or exchange information. In several entries, it is mentioned that social media have been applied to understand 'what the people want'. In that sense, the entries responded well to the assignment which asked to 'depart from the narratives and experiences of the inhabitants and users'. Two entries

Table 3: Levels of interaction aimed for by social media proposals in the Eo Wijers competition

	No interaction	One-way: sending of information	Two-way: exchange of information	Collaborative decision making	Collaborative creation
Proposals for application of social media in future planning and design in the region	–	20 entries	18 entries	2 entries	11 entries

propose collaborative decision making but only via online polls, concerning small and unambiguous issues. In these entries, it is not made clear how this process should relate to formal decision making. Eleven teams tried to use the potential of social media to organise collaborative creation. Among these were the nine entries that proposed collaborative creation by means of a collaborative project (see table 2). Next, two of the ten entries that proposed social networking sites did it in such a way that not only provision and exchange of information was facilitated, but that the public could also form and share their opinions, bring forward ideas and start up activities and initiatives with others.

The digital interactive map from the entry ‘Boeren, Burgers & Buitenlui’ (see also section 4.1), is one of the collaborative projects that aims to facilitate collaborative creation. The self-devised ‘Index’ offers social, economic and sustainable energy stakeholders the possibility to upload ideas and initiatives to the interactive map, which would enable them to connect, exchange and collaborate. The platform aims for one- and two-way communication and collaborative creation by connecting citizens, providing them with information and knowledge (among others about sustainable energy) and a place where they can share their own knowledge and ideas, to eventually implement (some of) these. In other words, a form of crowdsourcing is organised here for finding optimal and supported solutions for the transition to sustainable energy, one of the core themes of the competition. This entry, like many others, is not specific about how their proposal for collaborative creation is to be embedded in current planning and design procedures. It is only indicated that ‘Index’ is a government initiative which should lead to bottom-up initiatives’.

4.3 Implications and perspectives

‘Ondermekoar’ [‘by ourselves’] is one of the two entries that not only proposed social media, but *actually* used social media for the making of their competition entry. The public could learn about, inform, influence and collectively create parts of the entry via a blog, Facebook, Twitter and YouTube (for an overview of their activities, see table 4).

The team illustrated that in a relatively short time, and with almost no budget, local (and non-local) people can be reached by making use of existing social media platforms. The blog (<http://ondermekoar.wordpress.com/over-ons/>) provided information about the team and the competition, links to Facebook and Twitter to crowdsource ideas for the competition, and offered the possibility for giving feedback. On Twitter the team initiated

interaction between professionals and inhabitants among other things about wind energy and the local public transport (ONDERMEKOAR, 2012). The account had, just before the submission deadline, 150 followers. Facebook polls were used to survey opinions, about the local landscape, social securities, politics and so on. This resulted in 45 likes and over 50 responses on polls (ONDERMEKOAR, 2013a). Note that between the moment of starting up Facebook (1 December 2011) and Twitter (6 December 2011) and the competition deadline (6 January 2012) was only five weeks. Further, the team concentrated on current regional affairs in a short movie, as a trailer for a new regional soap, and shared this via Facebook and YouTube. By now, January 2013, this movie is viewed 604 times (ONDERMEKOAR, 2013b).

Table 4: Actual use of social media in ‘Ondermekoar’

Design team	<i>HKB stedenbouwkundigen</i> : Jeroen Leemans, Henk Bouwman, Dominic Tegelbeckers, Shingrong Wu, Sacha Schram. <i>De Mannen van Schuim</i> : Rico Zweers, Niels de Vries Humel. <i>Territoria</i> : Karin Peeters. <i>Fundament All Media</i> : Boris Geheniau.
Target groups for interaction	Citizens of the Veenkoloniën who are active on internet in general, Facebook and/ or Twitter.
Purpose of interaction	To develop ideas for their competition entry.
Social media platforms applied	Blog, Facebook (community page and polls), Twitter, trailer of regional soap on YouTube.
Other interaction	Interviews with inhabitants.
Purpose of social media	Harvesting local knowledge and narratives; let the public form and share opinions; harvesting and testing of ideas.
Aimed levels of interaction	Two-way communication happens on all platforms. Collaborative decision making and creation is aimed for by the design-team, but the number and content of reactions on the various platforms do not support this.
How is social media application embedded in the wider planning/design process	The team sees their entry as a new way for planning and design, but does not explicitly relate, or fit in, social media application to existing planning and design procedures. However, all platforms are kept alive after the competition deadline on 6 January 2012. In this way, the outcomes of interactions taking place on the several social media platforms can still inform planning and design processes going on in the Veenkoloniën the same as they informed the making of the ‘Ondermekoar’ entry.

The history of the interaction and communication through social media is still visible online, although not all interactions that the team refers to in their entry are traceable. For instance, the ‘Tank en proat plek’ [‘place to refuel and chat’] - is a central idea in the ‘Ondermekoar’ entry (see fig. 4) and the team claims in their entry that the idea originated from interactions with the public via social media. The ‘Tank en proat plek’ is presented in the short movie on YouTube, and the blog invited the public to react on the ideas shown in the movie. However, reactions on the movie are hard to find on the blog, Facebook or Twitter. Also it cannot be traced that the idea originated from earlier social media

interactions.³ Further, from the entry we know that the team of ‘Ondermekoar’ did face-to-face interviews with local inhabitants. The social media platforms in ‘Ondermekoar’ make no reference to this, nor is it clear how the outcomes of the interviews are related to the application of social media. Did the interviews provide input for, or were they conducted to verify or specify output of the social media interactions?



Fig. 4: Image of the ‘Tank en Proat plek’ [‘place to refuel and chat’] from the ‘Ondermekoar’ entry. Source: HKB stedenbouwkundigen, De Mannen van Schuim, Territoria and Fundament all media.

Although the process lacked openness on several aspects, ‘Ondermekoar’ shows how existing social media platforms can be applied to crowdsource local knowledge, narratives and ideas. Some of these have been localised and concretized in the process of making a design competition entry; a process that models real planning and design. By actually applying social media and not only proposing it, ‘Ondermekoar’ responded very well to the competition assignment which asked teams to depart from the narratives and experiences of the inhabitants and users. This was acknowledged by the competition jury who awarded this entry with an honourable mentioning for its innovative communication strategy.

5 Conclusions and Outlook

In this paper we studied the role of existing social media platforms in the Eo Wijers regional design competition, which provides examples of the use of social media from the perspective of integrated design/planning teams. For the twenty competition entries that proposed social media to facilitate interaction with the public, we A) categorized the types

³ This invisibility might be related to the character of a design competition. Since other teams were in the same process of developing their entry, the authors might have kept central ideas to themselves.

of social media platforms and B) indicated the levels of interaction the teams aimed to facilitate via social media. The entry 'Ondermekoar' is further described to illustrate how, for the making of the competition entry, social media have actually been applied.

Our analysis was limited to the study of the proposals for and application of social media in the competition entries. Evaluating the value of social media compared to traditional ways of facilitating interaction, and with that public participation and collaboration, was beyond the scope of this paper. Next, the analysis was quite directed by the fact that we studied (the making of) entries for a design competition. Further study of the use of social media in practice is needed, to critically evaluate its additional value to public participation and collaboration in real planning and design processes. When practice would be under study, the framework for analysis should be able to address more criteria and evaluate higher levels of complexity. The framework could be added by criteria concerning the method(s) for interaction, such as flexibility and feasibility, clarity of its communication and to which levels of engagement the methods lead (see VERVOORT et al., 2009).

Nevertheless, in answer to the competition assignment that required that the entries should include local initiatives, involve the local inhabitants and users of the region and depart from stories and experiences of the inhabitants and users of the region, it appeared that more than half of the teams proposed social media for interaction with the public (twenty out of thirty-six). Next, the teams showed that they are aware of a variety of existing platforms in different social media categories and that they can imagine new platforms that would meet the demands for interaction with the public in this specific case (see section 4.1). When looked at the levels of interaction that the teams aimed to facilitate via social media platforms, it appeared that one and two-way communication was aimed for frequently, whereas collaborative decision making and collaborative creation were proposed much less (see section 4.2). Notwithstanding, two teams experimented with applying social media to collaboratively create their competition entry itself. The team 'Ondermekoar' initiated interactions and polls on their blog, Facebook and Twitter and shared a short movie via YouTube. From the accounts of these interactions we concluded that one- and two-way communication certainly took place. The processes of (informal) collaborative decision-making is kept vague, which makes it hard to judge the actual input from the public in the process of collaboratively create the competition entry. When we return to Kratwohl's definition of creation – "putting elements together to form a novel, coherent whole or make an original product" – we should conclude that none of the entries proposed or realised this synthesizing act via existing social media platforms. It may be due to the fact that existing social media platforms are not suited for this; they are directed to exchanging text and ready-made images but do not enable, for instance, sketching a design together. Other reasons can be that the teams were not aware of the possibility to outsource also this part of the process to the 'crowd', or that they did not wish to do so, which would be an interesting question for further research.

We would still argue however, that existing social media platforms can be very valuable for designers and planners to crowdsource for local knowledge and narratives in a relatively quick, easy and cost-effective way. Although collaborative creation of plans and designs as described above may go further, narratives brought forward by inhabitants and users of an area can form a rich base of knowledge and inspiration for planning and design (see also VAN HULST 2012; SANDERCOCK, 2003; POTTEIGER & PURINTON, 1998). We think that the

competition entries, including the endeavour of ‘Ondermekoar’, illustrate this potential of social media, and as long as sufficient attention is being paid to the openness and transparency of the process (for the importance of this for citizen engagement see also HEALY, 1997 and ARNSTEIN, 1969) social media have the potential to enable collaborative decision making and collaborative creation as well. This supports the conclusion that the potential for social media application in planning and design (see for instance MACINTOSH, 2008; KAPLAN & HAENLEIN, 2009; BRABHAM, 2009; KINGSTON et al., 2000) is recognized by many competition participants, but still not fully exploited by all. We suggest that options to support collaborative design intentions by social media embedded webservices should be extensively explored and communicated by landscape designers and planners.

6 Acknowledgements

We should like to thank the Eo Wijers-stichting for putting the competition entries to our disposal and the cooperation in our plan analysis process. Further, we are grateful to the competition participants whose entries we used and displayed. Last but not least, we should like to thank the anonymous referees for their useful comments.

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