ELECTRONIC DEMOCRACY SPACES (EDSs)

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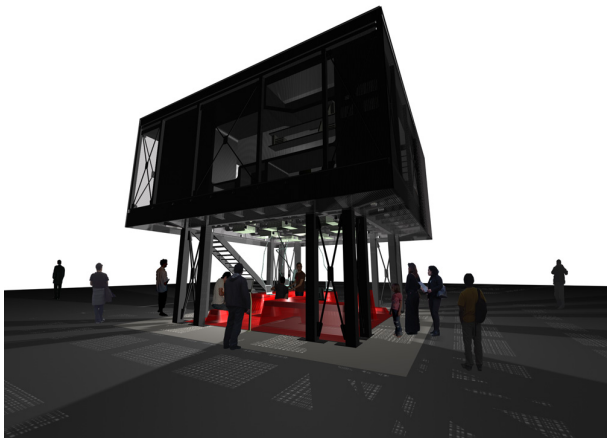
1. TOWARDS THE REALIZATION OF SPACES CAPABLE OF HOSTING AND AUGMENTING POLITICAL PARTICIPATION

The spaces of electronic democracy are organized and function as two parallel networks that coexist in constant interaction: the urban network, which refers to the city and the digital network, which refers to the cyberspace. Groups of people come together and create subsequently multiple combinations of collective activities. The project investigates the possibilities of creating actual generators of political actions by placing EDSs close to sites of existing public flows and perceiving them as the means of physical and digital convergence.

The virtual space, as it is expressed and represented in the internet, augments their tactile, physical entity, while physical space supports the digital interaction, by ensuring the interpersonal contact, a necessary factor for meaningful democratic dialogue. Those two spaces, digital and physical, must coexist in order for the EDSs to be accessible by everyone. Obviously spaces where public dialogue takes place, like squares and markets, already exist in the city net. There are also virtual equivalents like chatting groups or forums on the internet. In the first case the information is just an instance expression of personal speculations and in the second the information is lost in the chaos of networked places. Political reactions on the subjects that are discussed are rare and therefore all those social dynamics go into hibernation. In the digital and physical space of the project the information of the dialogues is recorded, published and provided to the public in order to be manipulated and redefined.



The *"vima"* is transformed into a hyper-space, a spatial hypertext, accessible to anyone. The word *"vima"* is generated from the ancient Greek word "βήμα" for tribune in the ancient market where Athenians could express their political ideas. As *"vima"* we understand the singular entity of a digital or physical node of the networks, while their intermediate space of interaction is the actual *"space"* of the EDSs.

2. DIGITAL AND PHYSICAL SPACE AS AN INSEPARABLE WHOLE

The digital and the physical space are studied as a unity, while the importance of the design is in enhancing the relation between the two. The online and the urban sites are considered as nodes of equal importance, as the one supports and completes the other in such a way that it would be meaningless for each one to exist by itself. The digital network interconnects the localities of e-democracy spaces (*"vima"*) and offers multiple combinations of cooperation and coexistence. Internet augments the remote interconnection, importing the whole project in an indefinable scale in cyberspace. All digital - online nodes are interconnected through a central webpage. The structure of each site refers to the scale of the collective interconnection but also to the small scale of each node independently. Therefore each selected physical location in the city has its digital *"vima"* simulation as a node on the network, while on the central site a virtual space exists that represents the totality of connections. We understand this virtual space as the simulation of the structure of information. This space help the user to navigate by using a more direct and understandable interface through interaction. In addition each *"vima"* is extended into a parallel virtual space that hosts some of its initial, predefined characteristics like telecommunication, publications, databases, collective activities and administrational information.

3. CYBERDEMOCRACY - HYPERDEMOCRACY

"As politics moves into the space of mass media, the right to direct public media access, the right to broadcast, is becoming increasingly important."

Sikiaridi, Vogelaar ([1])

"People will meet in cyberspace, as in the past in a Greek city at the agora, in order to decide about common matters. The possibility of an electronic vote by the whole body of citizens on the issues presently decided by the representative bodies is obvious. The only complications are: the procedure for the preparation of bills in these circumstances, and the question of bills introduction to vote."

Kaczmarczyk ([2])

"Cyberdemocracy, sick child of Hyperdemocracy"

Stagliano ([3])

Networked, on-line communities seem to increase continuously and the demand for political participation becomes more and more urgent. Virtual communities, social forums, initiatives for social action and alternative communication media emerge. Electronic democracy should allow the active participation of citizens in common issues and should be a direct democracy, experienced as a democracy of dialogue. The aim is the transition from the present condition to Hyperdemocracy and not to Cyberdemocracy, the latter been advertised as an ideal situation. The danger of imposed predefined directions, by the oversimplification of political processes into electronic voting is evident and imposes a structure less democratic than today's governing system. In addition, the misuse of the meaning of electronic democracy from institutions and political parties misleads the public and leads to erroneous conclusions about the possibilities of information technology.

At the same time there is confusion about the meaning of electronic democracy and electronic governing: The latter represents the interaction between the citizens and the government and the first the interaction of people among them. In his article about electronic democracy, Stagliano ([4]) suggest that if the procedure is solely based on the pressing of a button then we don't have democracy but a deceleration of volunteers, while in the same time the direct interaction looses its importance and is transformed into a dangerous multiplier of inertia. The participation of the people in electronic voting refers only to the answering of questions imposed and decided by third persons. In contrary the participation in common problems, in the decision making and in collective activities, through the interconnection of everyone with everyone, reflects the fundamental notions of Hyperdemocracy.

4. DESIGNING A MEDIUM OF COLLECTIVE INTELLIGENCE

Intermediate rules - adaptive system: "the function of an object, as a mediator of collective intelligence, presupposes always a bond, a game rule; a convention... the object itself is not enough to cause the emergence of collective intelligence."

Levy ([5])

The main principles of collective intelligence according to Pierre Levy are:
-Recreation of social bond through knowledge exchange.
-Acknowledgement, acceptation and award of particularities.
-More direct and participial democracy.
-Invention of new forms of open collaboration for the solutions of problems.
-Management of software and cultural infrastructure of collective intelligence.

The project is structured along the following scheme: collective intelligence > intermediate rules-adaptive system > network structure > hybrid public spaces > urban network- digital network.

4.1 Proposed network structure

Hybrid public spaces: "Public media event spaces and public "hybrid" (media and urban) interfaces are proposed as an infrastructure for urban / regional planning, for developing communal visions of our worlds. These communication spaces for urban issues could develop into very important forums for the mediatised, regionalized and globalized politics of the future."

Sikiaridi, Vogelaar ([6])

The network is a structure that embodies two dimensions: the local and translocal. Those two should be in equilibrium in order for the network to operate properly. The nodes of the networks are proposed while their interconnection provides the new possibilities. Without those nodes the network would be meaningless and would consist only by lines that carry information. At the same time the nodes by themselves, without the existence of their connections are just isolated localities referring only to their proximate environment. It becomes obvious that the connection of the objects tend to be more important than the objects themselves. The network reinforces and cultivates collective intelligence and its nodes are public spaces that absorb social dynamics. Is a space accessible to everyone that can be altered and modifies but not appropriated. Is the result of numerous heterogeneous actions and activities and doesn't consist the outcome of a specific functional program as the public forces through time shape and alter the initiative proposal.

In the nodes the digital and the urban network come together and coexist in a constant interaction. The on-line communities by default constrain the physical coexistence of the users. In contrast we propose a multiple space where collective intelligence evolves in

the inverse: the digital connection supports and encourages the physical contact. The spaces of electronic democracy are expressed into two equal networks: The *urban* and the *digital*.

4.2 Digital Network

"Online meeting places can simultaneously strengthen others, and even create new ones. And they are clearly creating a condition under which individuals position themselves less as members of discrete, well-bounded civic formations and more as intersection points of multiple, spatially diffuse, categorical communities."

Mitchell ([7])

"Images on a computer screen, as opposed to video or even "live" TV, are not mere "replays", like photography, but "remakes" of reality. In fact they are the ideal laboratory for ideas and design because they are like imagination itself, free and fluid, but, like the real world, objective, published, shareable."

de Kerckhove ([8])

"Interaction, between the users and the pieces of information they handle, may become information itself. It is the automatic translation of these interactions that is taken over in the fuzzy interfaces. Accordingly, it is not only the interface graphic design that has to be conceived, but also the design of the structure of information itself."

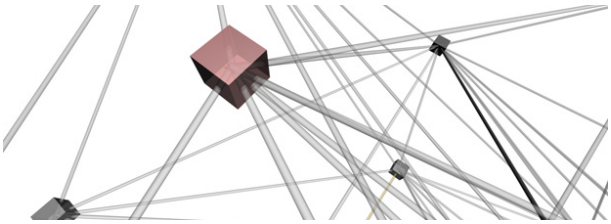
Levy ([9])

The central website that connects the nodes of the virtual network can be altered according to the needs of the users. At the same time the relation of each *"vima"* with the network has transformable character. The virtual extension of the physical space is depended upon the users that manage it at any given time, while each node has its own digital and physical memory that is connected with multiple social groups. The human factor is the most important parameter for the layout of each *"vima"* on the internet. The isotropic behaviour of the system is obtained by it scale-free character. The main features that are provided by the digital space are:
-*Action*: asynchronous procedures
-*Real-time*: synchronous procedures
-*Archive*: database
-*Administration*: ways of distribution

4.3 Virtual space as an Interface

"The interface, as an interaction tool between user and information, must act as a filter whose adjustable mesh eliminates the noise generated by information overload. The interface only retains the signs interpretable by its user. The use of meta-languages allows for information structuration independently of the languages involved. Accordingly, the design of interfaces allowing for information manipulation through meta-languages essentially consists in interaction design and in information design."

Levy ([10])



The first level of navigation is based on the traditional text based exploration of a website. It is indicative of the intentions of the interaction of the users at any given time and is susceptible to changes in order to host possible future needs. As a result, the first level of navigation could be altered in the future, if an increase of complexity or expansion of e-democracy spaces occurs. A site map provides an easy overview of the whole.

The second level of navigation is about the interior of the network's structure of information. Nodes and interconnections are presented in order for the user to be able to navigate, explore and choose his areas of interest. In that case the virtual space of first navigation level could function as a topological mapping of areas of the included spaces, displaying areas with action and interest. The creation of a virtual space that would provide a visual interface, in addition to the text one of the first level, was considered important.

4.4 Urban Network

"Connectivity works best in face-to-face interactions, simply because heads and bodies are still the best available information-processing devices."

de Kerckhove ([11])

"Next to their "virtual communities" on the Internet, people might choose to experience community in their local neighbourhoods. This use of public space in the surroundings of the home will not be indispensable; it will be a choice. People will voluntarily situate activities in their local surroundings if the neighbourhood is attractive. And the neighbourhood is more attractive if it is lively. Therefore activity will attract activity."

Sikiaridi, Vogelaar ([12])

"Real space will change in character, its very specific qualities as an environment for direct physical encounter and experience, as a generator of (intuitive)

trust needed for social cohesion, becoming more pronounced."

Sikiaridi, Vogelaar ([13])

As physical interaction is indispensable, e-democracy spaces develop simultaneously as a physical network in the city. This proposed infrastructure consists of stable nodes and has defined scale. These nodes are environments where digital and physical converge and as a result their aggregation is the hosting environment of public collective life, where the dynamics of the neighbourhood are absorbed. The dynamics of this network is augmented with the co presence of the digital network. Groups of people come together and create subsequently multiple combinations of common activities. These spaces are located in proximate areas in order to communicate more easily and directly. The urban network is able to response to a potential need of physical interaction and activation of digitally interconnected groups.

5. *"Vima"*

The *"vima"* is the building unit and the physical expression of electronic democracy spaces. It is the medium of merging the physical and digital social activity. The network of those structures is expanded in free locations that are in direct or indirect relation to specific public spaces of the city. The specific morphological solution is only an indicative shell of the functional program and of the reasons of design. It doesn't emerge from the study of the architectural context of each area, as it would have to be subject to the judgment of each individual architect. It aims with the simplest solution to act as the generator of collective memory and intelligence of each local community, in order to transform them in actions. That is why the spaces of electronic democracy are situated close to public spaces. The outcome is not predictable as the spaces cannot by themselves generate political actions but only host and encourage those already existing or those that now in hibernation wait for their activation.

5.1 First Level - Public Space as an Interface

The first level of *"vima"* is the ground plane and is open to public flows. It is about a space accessible to anyone and can be adapted but not privatized. The transformable floor adapts to different scenarios and gives the opportunity to the users to interact with physical space and adjust it according to their needs. As a contemporary version of the ancient Greek Agora, an infrastructure of developing dialogue is offered. The dimension of time is involved in the design procedure of the *"vima"*. The variation that it provides offers the potential for a constant modification of space by the users. At the first level a transformable-adaptive floor gets modified under a matrix, which allows the development of several scenarios (seating, workspace lectures etc). Screens and projection walls that unfold from the roof provide the necessary infrastructure for short term and spontaneous usage of the space.

5.2 Second Level - Organized Participation

The second level provides the necessary space for further development of any processes that might take place at the first level. Here the provided infrastructure supports the conduct of specific and more mature activities, which concern the production of publications and political actions. The technical means are provided for elaboration and the subsequent publication of the discussed subjects. Alternative groups can manage the usage of the space and therefore there is not a single authority responsible for it. This is considered a necessary condition in order to achieve an equal, self – sustained and meaningfully free community.

5.3 The Technology Platform

The physical spaces are designed as a combination of light structure of steel and glass and contemporary digital components. The structural organism is built with metal beams, while inox-weaved grids provide the semi-transparent environment of the upper floor. On *the ground level* the transformable floor is controlled by an electro-mechanic platform composed of worm-screw mechanisms. Hydraulic pistons were rejected as they require a press tank that would increase the necessary area along with the energy consumption. The floor provides alternative scenarios for hosting different public actions. Its transformation is controlled by a central terminal on the ground floor where a graphical interface simplifies the process. The space is equipped with flexible terminal computers that unfold from the ceiling. On the *upper*, more enclosed *space*, each of the four walls is designed in a way to allow more organized and specific actions. Computers along with printers and plotters are used to publish the ideas that emerge from the combinatorial activities of the users. The design of the walls creates desks, libraries and closets in order to provide a more stable and friendly environment for more specified and long term dialogue. Nested in the width of one wall there are also water facilities: a small kitchen and a WC. The completed structural solution proves the realistic possibility of such a proposition.

6. INTERMEDIATE DIGITAL SPACES - From a digital network of e-democracy spaces to a network of intermediate digital spaces

"Intermediate space: this extraordinary space derived from the concept appears as a "gift" or "supplement":

a space where anything might happen; a place of experimentation; a place located on the margins."

Tschumi ([14])

The contact and interaction of individuals provide the potential for the creation of a network of intermediate digital spaces. In the future, the initial digital network will be affected by a parasite network, which will be developed in the intermediate space of the inter-connected EDSs. This type of evolution refers to the true implementation of electronic democracy, as perceived in this project, when completely undirected and impossible to predict political actions will emerge in between of the initial hosting networks.

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