

## ‘Demand Driven Development of Public e-Services’

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# 'Demand driven development of public e-services'

## – Dominant, hidden and contrasting stories

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**Abstract.** The idea of participation and demand driven development is not unique for the applied area of development of public e-services, it has for long been an issue in development stands and has moved relatively unchecked from the margins to the mainstream of development since mid 1980s. The promise of empowerment and transformative development has though been severely questioned during the past decade in development research and practice in lack of sufficient evidence that the idea is living up to the expected standards. However, in eGovernment, demand driven development of public e-service is on the contrary growing. Expectations such as enhanced use, better services and more efficient resource utilization are expressed in different contexts. In this article the idea of demand driven development of public e-services is analyzed discursively in order to gain a deeper understanding of how the narrative is told, re-told and challenged. The results show that from a design perspective it is rewarding to acknowledge both the dominant, hidden and contrasting stories in order to understand challenges in development work.

**Keywords:** Demand driven development, public e-services, critical design approaches, discursive levels of design

## Introduction

In 2010 IDC Government Insight published a study [1] which describes IT spending and market-sizing forecast for the Western Europe government sector for 2008–2013 for hardware, software, and IT services in Western Europe will increase from \$56.6 billion in 2008 to \$68.5 billion in 2013. At the same time Europe is struggling with low usage of what is actually developed; “the majority of EU citizens are reluctant to use them [the public e-services]” [2 p. 3] and the European eGovernment Action Plan 2011–2015 stress, as several earlier documents have, the imperative of “involving users actively in design and production of eGovernment services” [2 p.7] as an important path to deal with this relation. Throughout the document the importance of a user presence is repeated over and over again in different shapes: involvement, empowerment, collaboration, flexible and personalized, user satisfaction etc. From

reasoning it is understood that user participation is perceived as fundamental. The line of thought is expressed as a strong need to “move towards a more open model of design, production and delivery of online services, taking advantage of the possibility offered by collaboration between citizens, entrepreneurs and civil society” [2 p. 3]. So, the logic being that the citizens would use the e-services if they could be part of their creation and the underlying reason for the existence of e-services (and government IT spending) at all is articulated as “[public e-services] help the public sector develop innovative ways of delivering its services to citizens while unleashing efficiencies and driving down costs” [2 p.3]. The relation between these two statements and their interdependent logic; citizens would use the e-services if part of their creation and e-services would enhance service delivery and drive down costs, is though not further problematised.

The solution to this dilemma is though expressed as making the development of public e-services demand driven, based on the thought of ensuring the usage by letting the users-to-be to state what services they want, need and will use (even though these three elements not always corresponds) which is the starting point of this paper; the idea of demand driven development as the knight in shining armor solving many of the challenges eGovernment is facing today. The empirical context that will be addressed is based on the Committee terms of reference for the eGovernment Delegation ToR 2009:19 (decided upon at a Government meeting on 26 March 2009) stating the remit of the Swedish eGovernment Delegation. In this remit it is stated that “eGovernment, which is intended to simplify contacts with citizens and companies, should always be conducted on the basis of user needs and benefits...” [3 p. 6]. The statement in the remit is regarded as one such instance (among many) where demand driven development is irradiated. What is put forward in this paper is that it is of great interest to explore in greater depth how the thought of demand driven development of public e-services is then conducted at a later stage. The design process of trying to put the idea of demand driven development of public e-services into practice is analyzed stepwise with a focus on the how early phases i.e. interpretations of overall goals into practical undertakings. In order to do so a discursive analysis of narratives is performed in a specific setting.

However, first, the paper is placed in the theoretical stream of ‘critical design orientations’ as a background to unseal the interpretative flexibility of IT-development and its practical undertakings, to actively reflect on the relation to existing politics and culture, and remove objects from the automatism of instant perception. Second, a methodology section presenting ‘defamiliarization of taken for grantedness’ as a method for enhanced critical reflection and deconstruction of taken for granted perceptions is put forward. Third, the case is presented and the three different stories that are unveiled (dominant, hidden and contrasting) are put forward, followed by a discussion on possible implications for eGovernment development work and ways forward. Thereafter the paper is closed with a conclusion and contribution section.

## **Analytical framework: Critical interpretative flexibility**

This article draws upon the tradition in the information systems (IS) discipline which focuses on interpretation, enactment and technological frames in relation to technology in the making [4][5] in which our interpretations of technology are central to the understanding of our interaction with technology and how technology is constructed [6][7]. This gives that there is a need to address the design methodological limitations; social structures, culture, economy and institutional prerequisites etc. which impinge upon the design choices and the focus of the methodology. The view of the design process is then that it starts earlier than that often represented in traditional ISD understandings and that several delimitations are already constructed when IS designers traditionally enter the scene. What is interesting is then, not to continue searching for 'the right' requirements, but to create a deeper understanding of the nature behind normative constructs in order to design in a more reflective manner [8][9]. The basic assumption is a more inclusive apprehension of design actions in which design actions are seen as stemming from perceptions, notions and ideas of a possible futures and the result of such actions are closely connected to these perceptions. They are co-created in multi-diverse contexts and often non-linear and complex, but still, they are design actions [10]. They are not always deliberative, conscious and elaborated upon, they might hide underneath formal and socially accepted norms with reference to development paths and possible futures, but, they will nevertheless, be unveiled during their creation. In the making of digital technology, highlighting, elaborating and analyzing these conscious and unconscious notions and ideas, creates a platform and structure from which to take constructs and situated meanings into account. As competing constructs of meaning are available it is important for interpreters to develop their skills to critically invest 'the taken for granted' and not uncritically accept 'ideas' because they are put forward by authority as being 'true'. A pre-design phase, not as in developing conceptual frameworks, but as in creating understandings of a vision, a goal on a more general level, not as a bridge between "technological research at the concept stage and social research at the impact stage" [11] but as the bridge between social research, at the understanding stage, and the technological research at the design stage i.e. to understand what the goal is.

How technology becomes enacted according to different interpretations is as such explained by the term 'interpretative flexibility' [4][5]. The concept of interpretative flexibility discloses the complexity regarding how different people interpret and create meaning in relation to technology and how these interpretations determine how digital technology is used and how it can contribute to the context [5]. In such an understanding, a critical base is important in order to understand the relationship between frames of reference and different interpretations; we are not equally positioned in relation to our possibilities to interpret, translate or enact technology. This also implies that empirical closeness and analysis of practice is of great importance and that the interpretations and enactments must be analyzed and judged in relation to the symbolic logic; "...practice needs to be criticized, analyzed and reinterpreted." [12 p.124]. This paper is linked to the critical tradition in terms of questioning existing forms of production of knowledge and especially hegemonic discourses, taken for

granted character, and its embodiment in different processes, giving the concept of 'false consciousness' a central position. This is more in line with Orlikowski and Baroudi's understanding of the critical stance as the focus is on the taken-for-granted assumptions and the objective is to expose deep-seated structures [13] and Walsham's [14] emphasis on construction and enactment, and historical and cultural contingencies.

Furthermore, it links the critical tradition more closely to design methodological understandings as in 'critical design' [15 p.11] highlighting deconstruction and defamiliarization [16] as a rewarding pathway for empirical studies. By focusing on a broad conceptualization of design practices, i.e. information systems' and or digital artifacts' in their making, the process of designing starts, in the first instance, from the standpoint that information systems and technological artifacts are linked to a certain discourse. The importance of 'defamiliarizing' and 'making strange' is linked to the "ideological dimension of everyday technologies" [15 p.2] and the objective of questioning "a culture of relentless innovation for its own sake" [15: introduction]. To defamiliarize is to provoke, making ambiguous, and making strange is in order to discuss hidden social meanings. If not, we might be "superimposing the known and comfortable into the new and alien" [15 p.17]. Defamiliarizing could then be used as a methodology to break free of structures, in line with rethinking the assumptions that underlie technology [17]. Making the constructs (discourses) strange provides designers with the opportunity to actively reflect on existing politics and culture, and develop new alternatives for design [16] i.e. to remove objects from the automatism of perception. Questioning the naturalized assumptions inherent in the design opens up design spaces, and is a critical endeavor for two reasons: it (i) questions the taken for grantedness and (ii) reveals possibilities for transformative redefinition. Bell et al describes defamiliarizing as being essentially a rich description which renders strange the familiar [16].

### **Research methodology: Defamiliarization of taken for grantedness**

In order to do so, reflexive defamiliarization [16] is put forward, not only as a theoretical concept (as done above), but also as a methodological approach. Defamiliarization offers a means of criticizing presuppositionless representations and filters out subjective contaminants in order to enter into a dialogue with them. As such, it consists of different techniques for unveiling hidden structures, and enables a conversation about their concealed symbolic logic. This is in line with what Ceces-Kecmanovic calls 'demystifying technological imperatives' in order to expose hidden structures, reveal interests of privileged groups, and how they (mis)use IS [18]. As Bijker points out, what is imperative today in order to understand how technology is made is rather to focus on 'technological culture' as a unit of analysis (as opposed to the 'singular artifact') since; "technologies do not merely assist in everyday lives, they are also powerful forces acting to reshape human activities and their meanings" [19]. We need to understand the closed-in-hardness and the closing-out obduracy [19]. The closed-in-hardness occurs when we are significantly included within the

associated frame (we are so intertwined with the frame that it is difficult to determine alternatives outside it) whereas the closing-out obduracy acts when we are excluded from the associated frame (we are so alien to the frame that it is difficult to determine alternative interpretations inside it and therefore lack the possibilities to intervene). As such Bijker argues for a conceptual framework for politicizing technological culture; show hidden political dimensions, putting issues on the political agenda, opening issues up for political debate [19].

In this paper ‘defamiliarization’ is conducted by firstly performing the analysis in two contrasting steps; by identifying the obvious (what is repeated, what is often supported, what goes unquestioned) and then by challenging it from two aspects (what is not said, when silence occurs and when streams of arguments are interrupted and the opposite of what is said, by using the obvious as a mirror image). As such it is possible to create a dialogue in between the dominant and the hidden stories; a space in between them is created and an opportunity to relate them to each other evolves, which constitutes the third step. Taken together these three steps assist in relating the theoretical ideas on defamiliarizing in order to provoke, making them ambiguous, making them strange and discussing hidden social meanings, and to create deeper understandings of the ideological nature regarding how our everyday social and cultural experiences are mediated by digital artifacts. This is in order to, touch upon the complex nature of design activities and to contribute to a perspective in relation to digital technology and social change “from within”, i.e. digital technology in the making.

### **The case: The idea of demand driven development of public e-services**

As is often the case associated with public development, different delegations, investigations, working groups, and spheres of responsibilities are created and re-created through periods of political shifts and organizational changes; in this case, the eGovernment Delegation was formed after the eGovernment Action Plan was decided upon in 2008. The Delegation was established in order to “strengthen the development of eGovernment and create good opportunities for inter-agency coordination, a delegation for eGovernment is being established” [3]. It consists of the sixteen director generals and two experts, and, as support, there is, in addition, a secretariat. The first task of the Delegation was to propose a strategy for the government agencies work on eGovernment which was delivered in 2009 (As simple as possible for as many as possible - from strategy to action for eGovernment, SOU 2010:62) [20]. A proposal in this document was that responsibilities were to be divided into four different developing areas (business and business enterprise; geo-information and property information; private citizens; vehicle and drivers) with one appointed responsible public authority linked to each developing area. This structure was approved of and the Swedish Companies Registration Office (hereafter referred to as SCRO) was appointed as the responsible authority for one of this responsibility areas; business and business enterprise.

In order to accomplish this, they set out to have so called 'dialogue meetings' as an initial activity in order to have the opportunity to listen to the stakeholders (other public authorities and different interest groups). These dialogue meetings took place during the autumn of 2011 (four meetings were held during September and October) and they constitute the primary context in which the observations were performed. The objective of these meetings was to reach the foundation SCRO needs "to decide upon how to proceed with action plans and continued dialogue". Each meeting lasted for four hours (starting with a joint lunch), had between 11-28 participants, and was based upon six questions (which had been previously given to the participants) and one of these questions was explicitly: - How can we ensure a customer and demand driven development? reinforced by the additional remit from the Minister of IT; "to make IT serve the citizens". As such these dialogue meetings could be seen as one location (among others) during which the idea of demand driven development is performed and translated, and will therefore constitute the context of this study. The participants at these dialogue meetings are, in this study, all considered as being part of the making of 'demand driven development' in terms of translators and communicators of the idea. They are also key actors in terms of their leading positions in their respective organizations and are therefore interesting to close in on as early translators with specific conditions to influence later development phases.

The analysis is, in accordance with the methodological framework conducted in three steps: (1) to listen to the dominant stories; what is repeated, what is often supported, what goes unquestioned, (2) to challenge these dominant stories in two ways; listen to what is not said and (3) the contrasting stories; actively searching for the opposite of the dominant stories.

### **1.1 Dominant stories**

During the observation, and confirmed during the reading of the notes, five dominant stories surfaced very explicitly. They were repeated over and over again, often confirmed by the other participants and almost never questioned. The first and strongest was (i) the easy-argument. It was presented in the introduction (with reference to the Minister of IT and the document "As simple as possible for as many as possible - from strategy to action for eGovernment", SOU 2010:62) and returned to by many of the participants in different forms. It was talked about as: "one-stop-shop", "one-way-in", "it should be easy", "the importance to simplify the processes", "as simple as possible", "to simplify every day activities", "simplicity as the keyword", "a really easy way in", "preferably performed without effort at all", "easier", "one task one time". In all but two of these instances, these statements were never questioned.

The second and next strongest was, (ii) the need of cooperation and shared efforts. This was also presented in the introduction without any clear reference, but, was somewhat related to the remit of the eGovernment Delegation to coordinate and standardize. Cooperation and coordination were talked about in two slightly different ways, the need for cooperation and the complicatedness of being coordinated: "to cooperate is important", "important that we are able to coordinate us", "synchronize", "everybody builds their own solutions" (stated as something they all needed to stop

doing), “the responsibility to be coordinated”, “to coordinate the infrastructure”, “the importance of us talking to each other in order to coordinate”. But also: “let oneself be coordinated”, “to choose to accept to be coordinated”, “we ask for coordination and steering but we are having trouble in accepting to be steered”.

The next three were present in equal force. The third was (iii) the need of a shift of perspectives. The participants often returned to how this should be made as a shift in perspectives; “an enhanced customer orientation will change it”, “making change in attitudes”, “all authorities should have the company perspective”, “to try to understand the companies’ perspective”, “the company perspective”, “we are changing the perspectives”, “we have to view this from the entrepreneur’s perspective”. The fourth, (iv) concerns the importance of listening in order to understand the needs: “the importance of listen and learn”, “how do we pick up the need”, “how do you pick up the point of views”, “it is hard to get hold of the entrepreneurs’ point of views”, “hard to reach”, “the importance of dialogue to listen and get hold of good ideas”, “dialogue is a keyword”. Finally, the fifth story, was (v) how to ensure demand driven development; “we need to ensure demand driven development, but how”, “we often talk about this, but how do we do it?”, “how do we pick up creative and forward-looking solutions?”, “how are you doing to get a customer focus?”, “the trick is the methodology in this, can we find a collective way?”, “how do we ensure this?”, “how do you do?” (addressing the whole group), “it is hard to get hold of the viewpoints”.

The five dominant stories appeared to be incorporated, or on their way to being incorporated with the help of the dialogue meetings. Some ‘how-questions’ were touched upon while stressing the importance of listening in terms of “how do we...” and “it is hard to...” but they were left untouched and did not render any further attention. Only on one occasion did one of the participants quite silently state that: “maybe it should not be that terribly simple, an amount of slowness is constructive”.

## 1.2 Hidden stories

After analyzing the material with the objective of identifying the dominant stories, the material was returned to with a counter objective; searching for what is not said and what the opposite is of what is said and three very interesting stories were present in their absence. When returning to the material it was quite noticeable that they were left out. The most absent story (i) was the taken-for-grantedness of the idea of demand driven development of public e-services in itself. None of the participants reflected upon whether there were any difficulties, threats or complexities intertwined with the image of demand driven development of public e-services that might require attention. This awakens several interesting interpretations, for example the power relations between the participants and the organizers and between the participants. The organizers highlighted the idea of demand driven development of public e-services in the introduction of the dialogue meeting as an already agreed upon goal, not explicitly referring back to the remit (“eGovernment, which is intended to simplify contacts with citizens and companies, should always be conducted on the basis of user needs and benefits...” [3p. 6] but vaguely, as something ordered from above, and it might, as such, imply that there should be some uneasiness to be questioning the organizers.



Furthermore it is possible to interpret the silence being as if the participants did not want to be the one questioning something that all the other participants obviously agreed upon, in other words, to be the odd one out.

The interpretation was thus that it was not felt that the dialogue meetings were the appropriate forum for the participants to have such open discussions. Even so, by not questioning and scrutinizing the idea in relation to demand driven development, the opportunity to discuss shared challenges was missed. Another interesting reflection on the absence of questioning is in relation to how easily these kinds of ideas might travel on different levels. Of course, it is also possible to interpret the absence as if the idea of demand driven development of public e-services has already been identified, acknowledged and entrenched in each participating organization. Their participation is then, in itself, only a confirmation of their shared interest.

The second absent story was (ii) the absence of technology. A great many hopes and goals were expressed and, in a way, all of them involve technological solutions, but the technology in itself was never touched upon. One interpretation of this might be a view on technology as being uncomplicated, as a device that makes everything possible, and that the participants shared a trust in technology to solve all the issues. In one instance, one participant reflected upon the possibility that innovation might not be as quick and easy as is often claimed and that they might be rather too technologically Utopian in their expressed hopes, but, nobody reacted to that statement and it remained uncommented upon. The absence of technology at these dialogue meetings is interesting since much of what is conducted in the next step is both very technologically intense and focused, and the participants represent important positions as they hold different leadership roles in relation to technological development in the organizations they represent. The fact that technology is not touched upon in this more visionary phase awakens an interest in knowing when and how it actually surfaces later on.

Thirdly (iii), there was not a complete silence but a very modest attention given the relation between wishes and complex roads to goal fulfillment. The dominant stories of easiness, cooperation, shift of perspectives, importance of listening and the importance of ensuring a demand driven development were very seldom accompanied by reflections on a possible complexity in achieving them. It was almost as if the participants interpreted the meetings as an opportunity to encourage each other that they needed to do this. If and when they were to discuss roads to fulfilling these goals, was not actually touched upon.

### **1.3 Contrasting stories**

To then perform the second form of defamiliarization and contrast the dominant stories with their opposites, several interesting images develop. The contrasting stories are similar to the hidden ones but with an important distinction; they take the dominant stories as a starting point attempting to actively search for their opposite (whereas the hidden stories are not as closely linked to the dominant stories). By using the dominant story as the take-off-point, certain limitations are present which are not present in listening in relation to what is not said (as in the hidden stories).

The five dominant stories; (i) the easy-argument, (ii) the need of cooperation, (iii) the need of shift of perspective,(iv) the importance of listening and (v) the search for methods to ensure that the development is demand driven and are made strange in the analysis. They are interpreted as strange statements and their opposites are made familiar i.e. put forward as less strange and more possible. By doing so, five new stories emerge, the contrasting stories (see table 1 below):

**Table 1.** Contrasting stories of demand driven development

Dominant story	Contrasting story
The easy-argument	<i>The complexity-argument:</i> It is not as easy as it sounds to create easiness for the users; there is an inbuilt complexity that needs to be taken into account.
The need of cooperation	<i>We could do it separately:</i> There is no need of, or too hard, to cooperate. The development is done separately by each organisation.
The need of shift of perspectives	<i>Tunnel vision:</i> There is no need of, or too hard, to shift perspectives. The development is done by narrow definitions.
The importance of listening	<i>In house centricity:</i> There is no need of, or too hard, to listen to stakeholders outside the own organization. The development is done in house with no openness to needs and perspectives from outside the own organisation.
How to ensure demand driven development	<i>No need to ensure:</i> There is no need of, or too hard, to ensure a demand driven development i.e. it is possible to talk about demand driven development but no need to ensure that it is done.

In summation, the combination of the contrasting stories provides a picture of a development process that is more likely to be complex, they are doing it on their own, they stick to the accustomed view of their users, their apprehensions are that there is hardly any use in listening to the users and if they were to perform demand driven development it is not that important to ensure that they are actually working in such a way.

This picture might be somewhat exaggerated but at the same time it addresses several interesting challenges for practitioners to deal with. If, (i) the dominant stories are the stories that are performed and reinforced in public, (ii) the hidden stories are those that are possibly performed in disguise, and (iii) the contrasting stories are those that are not actively talked about. In the next section these three different logics will be analyzed in relation to their consequences for IS design practitioners.

## **Discussion: The discursive level of eGovernment**

As shown in the case above, by playing with different ways of hearing, listening and interpreting, several stories become visible; what is said, what is not said and what the 'is said' is making strange. What is said (the dominant stories) is important to recognize since it is probably the message that will be actively communicated forward in other situations. It is what the participants interpret as being important to

know and say and will be referred to as the 'result' of the workshop and the meeting with other leaders in the other organizations. The dominant stories are legitimate, and made legitimate. As such, the dominant stories will travel and be strengthened as normative visions of what should be done and how. The hidden stories are, on the other hand, what is not said, what will not be communicated. The hidden stories consist of things that the participants passively stay away from in relation to forward communication. They are not consciously avoided; they are merely hidden and forgotten about. They are, as such, not legitimized as being the dominant stories, they are rather forgotten and seldom touched upon, and do not exist in everyday practices as explicitly as the dominant stories (and sometimes the contrasting stories). The way the hidden stories travel is different from both the dominant and the contrasting stories (which are more similar), they are not kept alive since they are not touched upon, and they are not questioned or challenged, since they lead a concealed life. Lastly, the contrasting stories are the opposites of those being promoted as the dominant stories. The contrasting stories consist of aspects that the participants will actively stay away from in relation to forward communication and if they are to communicate them they will be very careful about who they are actually communicating with. They are threatening in several ways (to the individuals and to the organizations). They are, as such, not only hidden but also sometimes actively and collectively denied. The denial is, however, an effective way of keeping them alive, what is kept in the dark is often very vivid.

Thus, what are the consequences for eGovernment practitioners of the three different approaches (dominant, hidden and contrasting stories) and their inner characteristics (see table 2 below). The dominant stories are the 'from above communicated visions' the practitioner will meet in the phase of understanding the articulated goals of what should be done. They are often put forward as guidelines for the organization and translated and enacted upon at different levels in the organization in relation to the specific activities. As such, they appear as translated guidelines in the visions relating to the change work. However, for the practitioner they are not uncomplicated. They are often on a visionary level weakly linked to the organizational context. They are shared visions on the visionary level but, in practice; they seem to change and be challenged.

The hidden stories are more complicated, they are harder to discover early in the process, they are more often experienced down the road of the development work as things that the organization should have been aware of. They are somewhat challenging for the practitioner since he or she might feel the need to communicate them back to the organization but, at the same time, becomes aware that it might not be hers or his responsibility, and that it is a rather sensitive area in which to enter.

The contrasting stories are even more challenging; they are actively retained in disguise. Organizational members might have many strategies with which to deny their existence. This means that their discoveries often occurs at too late a stage in the development work, and also sometimes form part of the reason that the change process fails.

**Table 2.** Implications of different stories

<b>Design implications</b>	Type of story	Design phase	Design challenge
	Dominant stories	Early	Weekly linked
	Hidden stories	Quite early	Sensitive
	Contrasting stories	Late	Threatening

The above analysis is only one illustrative example of how reflexive defamiliarization might work in order to deepen the understanding of the discursive level of design. It illustrates several challenges that practitioners will experience sooner or later in the development work and that they might need to be aware of in a more knowledgeable and reflective manner.

### **Conclusions and contributions: What is not said is maybe what is done**

The line of argument in this paper is that it is of great interest to explore in greater depth how the thought of demand driven development of public e-services is conducted at a later stage. In order to do so a discursive analysis of narratives is performed in a specific setting and placed in the theoretical stream of ‘critical design orientations’ as a background to unseal the interpretative flexibility of IT-development and its practical undertakings. Defamiliarization of taken for grantedness is used as a method for enhanced critical reflection and deconstruction of taken for granted perceptions and three different stories are unveiled (dominant, hidden and contrasting) and their influence on practical development work is discussed.

The thorough analysis of constructs and situated meanings in relation to digital technology in the making, directs the attention to the early phases of transformative work in practice, highlighting the challenges that practitioners are facing later on. As such, methodologies aimed at ‘twist and turn the taken for granted’ are constructive. Defamiliarization and making strange place the ideological dimension of ‘technology in becoming’, in this case demand driven development of public e-services, in the limelight. It is argued here, that reflexive defamiliarization is not only a theoretical approach but also a hands-on methodology; a tool for practitioners to create a deeper understanding of the relation between the discursive level and the later phases of more tangible design decisions.

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