Design Thinking as a Framework for Identifying, Examining and Addressing Wicked Problems and Challenges Related to Migration

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What is the role of culture in challenging the narrative structures that characterize the European imaginary on migration? And, specifically, how can performing arts support diversity in European cities? Through different research and curatorial experiences, the volume offers new insights on the ways in which artistic practices build spaces of resistance, forms of subversion, and counter-hegemonic discourses on migration. In particular, it represents a collection of studies, methodologies and artistic practices which explore the role of performing art as a space of participation and alternative citizenship in contemporary cities. Research and artistic experiences that not only open new possibilities for theoretical and methodological reflection, but also enhance the creation of alternative social imaginaries on diversity and spaces of creative coexistence, deconstructing mainstream paternalistic and neocolonial attitudes towards migration.

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Design Thinking as a Framework for Identifying, Examining and Addressing Wicked Problems and Challenges Related to Migration

by *Marta Pachocka, Magdalena Proczek, Ewa Osuch-Rak*

1. Introduction

Recent decades have seen the emergence of social and public policy problems and challenges characterised by a high degree of complexity and interdisciplinarity, difficulty in finding solutions, and limitations in the objective assessment of the solutions adopted. Several of these challenges can be classified as so-called wicked problems, which are difficult to define in an unambiguous way, do not have a single solution, and require the involvement of many stakeholders. To solve such problems, a constructivist approach closely related to the application of theoretical knowledge in practice may be used, as it recommends dealing with issues related to everyday life, treated holistically, taking into account the initial pool of knowledge and experience of the actors involved. In this regard, constructivism can be practised using the design thinking (DT) method, which is human- and user-oriented throughout the entire design process. DT can serve as a useful framework to identify, address, and attempt to solve a variety of problems, in particular the already mentioned wicked kind. Contemporary migration and refugee challenges, such as those related to the integration of immigrants, can be included in this group. The aim of this chapter is to examine DT as a useful framework to identify, study, and address selected challenges related to migration, considered wicked problems, by involving diverse stakeholders such as intergovernmental organisations (IGOs), non-governmental organisations (NGOs), local authorities and decision-makers, as well as students and academics from various disciplines (and countries). This paper is composed of three main sections. First, we briefly explore the concept of DT; second, we elaborate on wicked problems; third, we provide and discuss the application of DT in identifying, analysing, and addressing wicked problems in the field of migration and refugee studies using selected examples. In this regard, we

show the importance of the art-/design-based research and collaborative work in studying important social challenges, including those related to migration.

2. Design thinking

The term "design" has been used more and more frequently in various contexts for several years. Its meaning has been long expanded beyond the notion of artistic design, e.g., by graphic artists, architects, or artists. Nowadays, terms such as user-oriented design, experience design, social design, integrated design, legal design, service design, etc. are commonly used. Design has, therefore, become the domain of almost all professions and is rapidly gaining popularity in new areas.

There are several definitions of design thinking developed by researchers, practitioners, and experts, and the literature on the subject is very rich. Although there is no one common understanding of DT, many works in this area refer to a book[1] by Tim Brown (2009; 2013). For the purpose of our paper, we also found this approach to be the most useful. As Brown wrote (2009, p. 10): "Design thinking begins with skills designers have learned over many decades in their quest to match human needs with available technical resources within the practical constraints of business. By integrating what is desirable from a human point of view with what is technologically feasible and economically viable, designers have been able to create the products we enjoy today. Design thinking takes the next step, which is to put these tools into the hands of people who may have never thought of themselves as designers and apply them to a vastly greater range of problems. Design thinking taps into capacities we all have but that are overlooked by more conventional problem-solving practices. It is not only human-centered; it is deeply human in and of itself. Design thinking relies on our ability to be intuitive, to recognize patterns, to construct ideas that have emotional meaning as well as functionality, to express ourselves in media other than words or symbols".

Meiner and Leifer (2011, p. XIV) stress human-centric methodology of DT which draws from various disciplines including design, social sciences, engineering, and business. This allows "multidisciplinary collaboration and

[1] This book was first published in English in 2009 (Brown, 2009). The recent updated and revised edition was released in 2019. The book was also published in Polish, including the first edition from 2013 (Brown, 2013) and the second one from 2016.

iterative improvement to produce innovative products, systems, and services" (Meinel, Leifer, 2011, p. XIV).

DT is an intuitive and, at the same time, structured method of working and problem-solving in which teams, often interdisciplinary, develop broadly defined innovations. The method originates from the Stanford University in California, where it was developed and disseminated by David M. Kelley. Its origins are connected with designing products and services for technology companies in Silicon Valley. Currently, DT is more and more often used by NGOs (in the United States, e.g., the Rockefeller Foundation or the Bill and Melinda Gates Foundation), UN agencies (e.g., the Office of the United Nations High Commissioner for Refugees, UNHCR) or public administration units (e.g., the Łódź City Hall or the Wrocław City Hall in Poland). The success of the method started the commercial activity of the IDEO design office, which created, among others, a computer mouse project for Apple and Microsoft, a computer monitor, TV set, and mobile phone project for Samsung, and a modern tomograph for children for General Electric (DesignThinking, n.d.) (Serafiński, 2009). In 2005, DT became part of the curriculum at Stanford University, where the d.school (Institute of Design at Stanford) was founded (Stanford University, n.d.). In recent years, DT-based curricula have also been introduced by many other universities and colleges around the world.

The DT process is often described as a series of five phases, including (re)defining the problem, need finding and benchmarking, brainstorming, prototyping and testing (Meinel, Leifer, 2011, p. XIV). Ingle (2014, pp. 3-5) also distinguishes five phases of DT which encompass: understanding, defining, ideating, prototyping and testing. Even if DT is a process in which the stages of work progress are defined, each phase may differ depending on the type of challenge and, thus, may bring many possible options for further action, the choice of which is the responsibility of the project team and the user. Therefore, it reduces the risk of potential failure and allows for modifications and upgrades to be introduced as early as in the initial phase, that is, the possibility of taking into account the necessary corrective measures to achieve the expected results and continuous improvement. A high degree of versatility and flexibility in the application of the concept is definitely a positive aspect, which makes it accessible and applicable to all stakeholders (Studzińska, 2017, p. 472). In addition, DT can be considered a social process which entails the necessity of undertaking multidimensional cooperation with the external environment and drawing on practical experience in solving problems (Arabasz, Sińczuk, 2016).

DT is a human- and user-oriented method that is applied throughout the entire design process. It assumes that the central point of the design process

is the person – the recipient or user – for whom the result of the design work is dedicated. It is also based on including users for whom the work result is directed in the design process. A key element of the method is, therefore, listening to the needs of these potential users and their active involvement in the design (Brown, 2013). The philosophy of the DT method can be summarised in four rules as (Meinel, Leifer, 2011, p. XV):

1. the human rule: all design activity is ultimately social in nature,
2. the ambiguity rule: design thinkers must preserve ambiguity,
3. the re-design rule: all design is re-design,
4. the tangibility rule: making ideas tangible always facilitates communication.

DT refers primarily to the ability to think in terms of solutions, that is, creative thinking and acting, focusing on people's expectations and needs; and therefore, humanity is its main focus. In order to find an answer to the question concerning the expectations of future beneficiaries or users, it is necessary to employ a sense of deep empathy to identify needs that have not yet been articulated directly (Lockwood, 2009). This often requires thinking "outside the box", a change in thinking and in the perception of the issue in question. This has a significant impact on the design process as a whole – from the initial concept to the final solution to the problem.

DT is strongly associated with a constructivist approach which emphasizes the activity of people and the application of theoretical knowledge in everyday life. Constructivism proposes experimentation, research based on ideas, and the creation of different models and hypotheses. It recommends dealing with issues related to everyday life, treated holistically, taking into account the initial pool of knowledge and experience (Czujko-Moszyk, 2015). Constructivism can be practised using DT, which motivates going out to the user, e.g., by conducting field research; encourages the use of knowledge, skills, and competences, combining and configuring them according to the project challenge; allows for experimenting and multiple testing of hypotheses; and, requires the generated solutions to be confronted with potential users and other groups.

DT combines divergent thinking, which relies on searching for multiple solutions to the same problem, generating original ideas and their different variants, and convergent thinking, whose role is to choose and adjust the best solution. Both methods of thinking are applied in the analytical phase and in the creative phase of the design process. In the analytical phase, divergent thinking concerns the exploration of the problem using the broadest possible cognitive contexts. Convergent thinking, on the other hand, focuses on the precise definition of the problem (synthesis, operationalisation). In the

creative phase, divergent thinking is responsible for generating as many potential solutions to the problem as possible, and then selecting and developing those that are most relevant to the defined problem. It is also important to confront ideas, doubts, and assumptions of the project team with other people, such as peers, parents, other family members, etc. (Brown, 2013). Design thinking allows one to undertake complex, ambiguous tasks, resulting in unique solutions. The result is achieved using a creative or even abstract approach.

A complementary concept to DT, and a fundamental one in contemporary design studies, is a participatory design related to co-creation and co-design (Kopeć *et al.*, 2017; Sanders, 2002; Sanders, Stappers, 2008; Szebeko, Tan, 2010). Even if all these concepts are human-centred, "there is a small but significant distinction between traditional user-centred design and participatory design: the former refers to the process of designing for users, while the latter is related to design process with potential end-users" (Kopeć *et al.*, 2017, p. 1086). The user-centred design process prioritises the thing being designed, such as the object or the service, so as to meet the needs of the user, with the researcher being between the user and the designer. Participatory design goes much further, with users actively involved in the design development process and becoming part of it (Sanders, 2002, pp. 1-2). To state it clearly, the active participation of various stakeholders, often end-users, in developing solutions to a given problem/challenge is at the heart of participatory design.

3. Wicked problems

A distinct signature of recent decades is the emergence of new types of problems and challenges characterised by, among other things, a high degree of complexity, difficulty in finding solutions, or limitations in the objective assessment of the solutions adopted. The concept of "wicked problems" was first formulated by Rittel in the 1960s when design and planning methodology was a subject of increasing interest (Buchanan, 1992, p. 15). Wicked problems can be understood as a "class of social-system problems which are ill-formulated, where the information is confusing, where there are many clients and decision-makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing" (Buchanan, 1992, p. 15; Churchman, 1967, pp. B-141). Rittel and Webber (1973) used the term "wicked problems" in the sense of "vicious-circle problems", in contrast to "tame problems", that is, those considered easy and solvable. These wicked problems can occur on a local, national, or global scale and

concern climate, environmental protection, and socio-economic issues such as poverty and public health. The following properties (attributes) of wicked problems are identified in the literature (Buchanan, 1992, p. 16; Rittel and Webber, 1973, pp. 161-167):

1. "There is no definitive formulation of a wicked problem.
2. Wicked problems have no stopping rule.
3. Solutions to wicked problems are not true or false, but good or bad.
4. There is no immediate and no ultimate test of a solution to a wicked problem.
5. Every solution to a wicked problem is a "one-shot operation" – because there is no opportunity to learn through trial and error, every attempt counts significantly.
6. Wicked problems do not have an enumerable (or an exhaustively describable) set of potential solutions, nor is there a well-described set of permissible operations that may be incorporated into the plan.
7. Every wicked problem is essentially unique.
8. Every wicked problem can be considered a symptom of another problem.
9. The existence of a discrepancy representing a wicked problem can be explained in numerous ways – the choice of explanation determines the nature of the problem's resolution.
10. The planner has no right to be wrong".

When it comes to wicked problems, the priority challenge is to define them. It is particularly important to identify their causes. However, the differences in positions and perspectives that the international community uses to define the same problem become clear already at this stage (Chrisidu-Budnik, 2017, pp. 35-36). The cause of these problems is non-linear – their unpredictable interactions and dynamics may result from a number of reasons (Zybała, 2013, p. 36); therefore, a wicked problem is very difficult to define precisely and unambiguously, as each one is unique (Peters, 2017).

Similarly, there is no single, specific method of solving a wicked problem. Sometimes, the solution may even have undesired repercussions. The solution of each wicked problem creates new conditions that determine the situations and decisions taken at a later stage. Additionally, it is impossible to verify the developed solution, and its implementation causes multiple unpredictable economic, social, and political consequences. Each wicked problem can, therefore, be a symptom of another, even more serious problem. In view of the abovementioned features, the expected outcome of the actions taken in order to address these problems is never certain, though,

at the same time, it is irreversible and causes consequences (Chrisidu-Budnik, 2017, pp. 35-40).

There is also difficulty in determining the point at which a given wicked problem can be considered definitively solved. As a result, the solution to a wicked problem is usually one-sided and does not reflect its full complexity. Furthermore, in some cases, solutions are numerous and in another, no solution to a given problem is possible. This is because each problem is set in a specific context and requires different material and non-material resources to be solved, while its potential solution is not unequivocally satisfactory for all entities. Solving them creates a discrepancy between the real and the desired state. Actors involved in the process of anticipating the desired state may adopt different positions and perspectives. The discrepancy between the real and the desired state becomes particularly pronounced when a particular wicked problem is global in nature. In such cases, the mechanisms of developing and agreeing on common positions, cooperation, and international coordination between the entities become critical (Chrisidu-Budnik, 2017, pp. 35-40).

Although Rittel and Webber (1973) did not explicitly point to migration issues as those falling into the category of wicked problems, they can be implied as such as with many other social or public policy problems. As both authors stressed, wicked problems "include nearly all public policy issues – whether the question concerns the location of a freeway, the adjustment of a tax rate, the modification of school curricula, or the confrontation of crime" (Rittel, Webber, 1973, p. 160). In this context, migration and integration processes and corresponding policy responses seem to fit into the definition of wicked problems. It should be emphasized, however, that migration issues have rather the nature of constant social challenges that must be addressed regularly rather than that of one-off cases to solve.

The literature on the abovementioned subject is quite limited. A definition of "a wicked problem" is mentioned in the context of immigration federalism in Canada and Australia (Paquet, 2017). Paquet (2017, p. 453) states that: "Immigration federalism in Canada is rooted in the wicked problem of societal development in the heterogeneous context of the Canadian federation. Indeed, the survival of subnational societies and economies was central to the mobilisation of provinces toward immigration in Canada. This survival imperative was and continues to be framed as a matter of fairness, justice, and equality for the federation's constituent units". In the case of Australia, "regional survival and interstate equality were central to the problem of immigration federalism". Here, it was the Commonwealth Government that "associated the dire situation of the states with the uneven presence of immigrants: large receiving poles were suffering from this

population's presence while less popular destinations were not accessing the population they needed" (Paquet, 2017, p. 457). As mentioned above, immigration federalism seems to correspond to the role of the states and localities in making and implementing immigration law and policy.

Referring to the approach of Rittel and Webber, Raadschelders (2017, p. 1) points to international migration as a wicked problem *per se*, as "it involves many different stakeholders, concerns issues of which the causes are multiple and layered, and it can only be resolved partially and temporarily since changing time and context will demand continuous adaptation of policy". Special attention in this paper is paid to refugee migration.

Following this logic, one can assume that the whole phenomenon of international migration is a wicked problem on a global level. This is true even as migration and its causes and effects may also generate various specific problems on the national level (e.g., the country's capacities to receive large numbers of migrants in terms of access to housing or the labour market) and on the local level (e.g., relations with local communities). These can be big and small challenges but all of them are important for the people and actors they concern. Therefore, DT – a method of solving problems by means of project thinking – becomes here an effective framework to identify, analyse, and address contemporary wicked problems and challenges, including those related to migration and integration processes with the involvement of diverse actors such as local governments, decision-makers, NGOs, etc. (Buchanan, 1992, p. 17). The core component of this method is working in teams, creatively designing various solutions, especially complex problems, and responding as much as possible to the needs of recipients and users.

4. DT and wicked problems and challenges: selected cases

DT already has been applied in different areas related to migration issues. Norway is one of the forerunners in the application of DT regarding the integration of immigrants. This approach was used to investigate gaps in the asylum and integration system of foreigners in the municipality of Austrheim that enabled the participants of the project to better understand the complexity of the local system and to identify the key success factors of the integration programme. Representatives of many involved actors took part in the project, including some from the municipality (including the mayor, deputy mayor, and office directors) and the Integration and Diversity Department, and employees of asylum centres. In the design process, the interview technique was applied first. The leaders conducted interviews with

the participants of the project, during which they were asked to identify the most important subjects of the local asylum and integration system, as well as factors for the success of integration, and then visualise the structure of the system by means of a diagram as perceived by the participants. The DT process resulted in conclusions regarding gaps in the local asylum and integration system. First of all, differences were identified in the perception of successful integration by participants depending on their position in the system. Local authority stakeholders were more interested in long-term solutions for the social and cultural settlement of immigrants in a given geographical area (on a local level). National officials defined integration broadly as functioning in Norwegian society and not only in a given geographical area. Second, it was found that participants in the project process, mainly bureaucrats and decision-makers, do not think about the integration of immigrants in a systemic way. The only participants who showed a broad understanding of the diversity of elements of the system, the links between them and their role, were the mayor and the deputy mayor. This may be due to the limited and inefficient flow of information between different levels of the system (from political leaders to offices in the municipality) or a lack of motivation and specific priorities among office managers. Participants in the project process were not aware of how their position and tasks affect the integration process of immigrants. DT helped to identify the main gaps in the asylum and integration system in the municipality of Austrheim and put in place appropriate corrective measures (Percy, Nielsen, 2014).

The DT approach is also present in the activity of such important international refugee organisations like the UNHCR. Its Innovation Service aims to facilitate and promote different innovation and experimentation linked to refugee issues and situations to make the UNHCR more efficient and to support and document innovation pertaining to refugees. In addition, it assumes collaboration and opening to various and complementary stakeholders such as NGOs, academic partners, and the private sector. The UNHCR Innovation Service offers its *A brief innovation glossary* of key terms in this field, including DT. Its innovation- and DT-based approach is well reflected in the pilot project Ideas Box, dedicated to Somali refugee children and youth staying in refugee camps in the Dollo Ado region of Ethiopia close to the Somali border. It was initiated by the UNHCR Sub-Office Melkadida and implemented in December 2015 in two refugee camps, Malkadida and Bokolmany, by Save the Children and Libraries Without Borders, in coordination with the UNHCR Innovations Service in Geneva. Ideas Box is a multimedia library containing books and ICT devices such as tablets, laptops, and audio and cinema components. It aims to provide access

to information, culture, and education to refugees and people in refugee-like situations, especially children and youth, to empower them and promote their rights (UNHCR, 2015; UNHCR, n.d.; Ideas Box, n.d.). However, the Ideas Box programmes are present in many other places and offered as pop-up libraries and media centres to users and beneficiaries other than refugees. In 2019, ongoing implementations around the world included Senegal, the US, Colombia, Australia, France, Germany, Greece, Jordan, and Iraq, and among the recipients were refugee populations, street children, inhabitants of underserved and local communities, and low-income city districts (Ideas Box, n.d.).

The Ideas Box concept was launched by Bibliothèques Sans Frontières/Libraries Without Borders (LWB) (Bibliothèques Sans Frontières, n.d.), one of the leading international organisations dealing with access to culture and information in development, humanitarian, and emergency contexts, supporting libraries in France and in other countries. The story of Ideas Box started in 2010 when the LWB team was operating in Haiti after the earthquake to support internally displaced persons (IDPs) in camps. Ideas Box was conceived as "a pop-up multimedia centre and portable library that could withstand the most difficult circumstances" and "an innovative tool that expands access to information, education, and cultural resources to places that desperately need them – refugee and IDP camps, rural and isolated communities, and underserved urban spaces or indigenous communities around the world" (Bibliothèques Sans Frontières, n.d.). It was designed as a highly durable and energy-independent toolkit, customised each time thanks to the close cooperation and partnership with global and local actors. In this context, Ideas Box fully fits with the logic of DT.

To this end, DT was the key axis of the migration-oriented project ALIEN (*Advanced learning and inclusive environment for higher education through greater knowledge and understanding of migration)*, implemented in 2016-2019 and co-financed by the European Union within the framework of the Erasmus+ Programme (Key Action 2: Cooperation for innovation and the exchange of good practices: Strategic partnership for higher education). The international consortium was managed by the Polish-Japanese Academy of Information Technology (Poland) in cooperation with different European partners, including universities – SGH Warsaw School of Economics (Poland), Aalto University (Finland), University of the West of Scotland (the UK), Glyndwr University (the UK) – and one non-academic institution, Technopolis City of Athens S.A. (Greece). The idea behind the project was to combine the knowledge and expertise of diverse stakeholders representing different scientific disciplines, such as economics, social work, education, social sciences, and art and design studies, to face important social problems

and challenges related to the migration situation in Europe and its consequences. The project aimed to "contribute to greater equity and social cohesion within Europe through a series of knowledge-exchange activities with diverse stakeholders (academics, national and local authorities, migrant community organisations), and through the understanding of the complexity of the flow of migration" (PJATK, n.d.). It was inspired by the recent migration and refugee crisis, which led to an increasing interest in migration issues in the EU Member States. Two main objectives of the ALIEN project were (PJATK, n.d.):

1. "To advance young people's intercultural competences, knowledge, and understandings of migration through the transnational, multi- and inter-disciplinary collaboration of academic staff, migrant organisations, and postgraduate students;
2. To develop engagement of Higher Educational Institutions (HEIs) with local and international migrant organisations, as well as regional authorities, to build bridges and share knowledge, good practices, and raise awareness of issues around migration".

The project's scope, various activities, events and deliverables were prepared by the consortium. One of them, which deserves special attention in this paper, is the elaboration and implementation by the project's partners of Living Labs (LL) and follow-up workshops, which are strongly rooted in DT. Living Labs, also called Living Laboratories, though still quite a new and innovative concept, are already discussed in the literature (see, e.g., Kopeć *et al*., 2017) and on the internet, such as on blogs or thematic websites (The European Network of Living Labs (ENoLL), n.d.). The definition applied by the Directorate General for the Information Society and Media of the European Commission in one of its publications stated that Living Labs mean "a user-driven open innovation ecosystem based on a business–citizens–government partnership which enables users to take an active part in the research, development and innovation process" (European Commission: Directorate General for the Information Society and Media, 2009, p. 7). Obviously, the parties engaged in LL may represent, depending on the specific purpose, different sectors and be involved in various configurations. These parties can include business entities, public administration institutions, international organisations, NGOs, local communities, or specific interest groups. Living Labs provide an experimental, cross-sector environment in which users (stakeholders) are engaged as co-creators during the whole development process, and this open and collaborative framework draws from the practice of participatory design (Kopeć *et al*., 2017, p. 1086).

Consequently, in the ALIEN project, Living Labs were conceived as international, interactive, mobile, inter- and multi-disciplinary think tanks within which issues, topics, problems and challenges of public concern related to migration were discussed and examined. They served as temporary and flexible meeting points for different stakeholders, such as academic teachers, researchers, students, representatives of local authorities, NGOs, and migrant communities. Living Labs, followed by the workshops, allowed for the exchange of ideas, gaining new experience and knowledge, collecting data, discussing/proposing the new common research methodology, working on students' projects, prototypes, and tests, formulating some conclusions and recommendations, and preparing specific products and teaching materials.

The Polish team of researchers from SGH Warsaw School of Economics involved in the ALIEN project was composed of Jan Misiuna, Marta Pachocka and Magdalena Proczek. They were dealing with socio-economic and demographic aspects of migration and integration processes using the example of the EU and selected Member States. They were focused on the issues of international migration from an interdisciplinary perspective, with an emphasis on the social sciences, including economics.[2] SGH Warsaw School of Economics was the lead institution for two rounds of Living Labs dedicated to the socio-economic aspects of migration and integration, which were implemented in 2016-2017 (Round 1) and 2017-2018 (Round 2). The whole project activity was planned as an international, interdisciplinary, cross-sector event composed of two parts: Living Lab in Athens and a follow-up workshop in Warsaw. For example, in Round 2, the research area was defined as *Economic and demographic aspects of migration and the integration of immigrants*, with the specific topic – *Socio-economic integration of immigrants in the EU and its Member States*. The two subtopics proposed to students involved in Round 2 were: 1. *Access to social services (social assistance, healthcare, education, housing, etc.)* and 2. *Access to the labour market (rights, obligations, procedures, labour market situation, institutions, consequences, etc.)*. Following the project framework, the students were asked by SGH researchers to submit two different products, including a multimedia presentation based on the specified template and a social design product in which students were offered more freedom and space for creativity. According to the key guidelines, the multimedia presentation was to, among other things, draw on the selected research subtopic and correspond to the stakeholder's defined needs. In

[2] According to the Polish law on higher education and science, economics is a part of the social sciences.

addition, its aim was to provide an overview of the student team's work done in Athens, the research carried out, the results achieved, and conclusions formulated. Students were supported by teachers involved in the ALIEN project to the extent they needed. The social-design product was to be an extension of the work undertaken by each team based on data and information collected during the research phase and developed in cooperation with the stakeholder. Its practical dimension and usability for the stakeholder were of key importance. The art/design product could have the form of an information brochure, leaflet, infographics, poster, etc. The SGH researchers adopted two initial assumptions for team projects, aiming at the delivery of both aforementioned products:

1. the incorporation of local stakeholders from Greece and Poland into the event (both the Living Lab and workshop) so that the work of the students had a strong reference to reality and the project products could be used in practice by the stakeholders; and,
2. the selections of stakeholders dealing in their everyday work with different aspects of the socio-economic integration of immigrants.

In Round 2 of the ALIEN project, two groups of key external stakeholders were selected: public administration institutions on the local level, and NGOs working with migrants and refugees. Consequently, during the Living Lab in Athens in October 2017, the corresponding actors were the Athens Coordination Centre for Migrant and Refugee Issues (ACCMR) on behalf of the Athens City Hall and two NGOs: METAdrasi–Action for Migration and Development and We need books. The follow-up workshop in Warsaw in January 2018 was joined by the Warsaw Family Support Centre, which is a subject of the Warsaw City Hall and the Association for Legal Intervention, also operating in Warsaw. In total, there were five mixed international and interdisciplinary teams composed of students of economics and art and design recruited by the consortium's partners. Due to their diversified interests, some students were involved in more than one team project. Each team was supposed to work on a selected subtopic within a given research area with one stakeholder in Athens and later on, one stakeholder in Warsaw, from the same sector (local authorities or NGO). The student teams aimed at conducting comparative research between Athens/Greece and Warsaw/Poland and preparing two types of products – a multimedia presentation and a design deliverable. In practice, some teams focused more on in-depth cooperation with one stakeholder. In general, the projects proposed by the student teams

in 2017-2018 concerned the following specific social or public policy problems[3]:

- Pitchbook, informing and promoting the initiative of *We need books: Providing multicultural spaces* in Athens (cooperation with NGO We need books in Athens);
- An awareness campaign – *What are we made of?* – for the inhabitants of Athens aimed at increasing the awareness of one's own origin and integrating the foreign population into the local society (in cooperation with the Athens City Hall);
- IT mobile application (prototype) for victims of violence (in cooperation with NGO METAdrasi in Athens);
- Performative art in Warsaw – *Detention camp–Box metaphor* – regarding the problem of asylum seekers in detention centres and alternatives to it (in cooperation with the NGO Association of Legal Intervention in Warsaw);
- Animation addressed to refugees in Poland informing them about the individual integration programme (in cooperation with the Warsaw Family Support Center).

It is important to underline that, following the DT method, during the Living Labs in Athens and follow-up workshops in Warsaw, students involved in team projects obtained information, gained experience, and collected data in a variety of ways through, e.g.:

- study visits to the European Border and Coast Guard Agency (Frontex), Ministry of the Interior and Administration, the Warsaw City Hall (Centre for Social Communication), stay centre for foreigners (asylum seekers) in Linin, and the POLIN Museum of the History of Polish Jews in Warsaw;
- meetings/workshops with representatives of the UNHCR Poland and NGOs working with migrants, supporting migrants in Poland, and involved in integration activities such as the Ocalenie Foundation, Strefa WolnoSłowa, and Praktycy Kultury;
- lectures by researchers and practitioners such as Edgar Ghazaryan (ambassador of Armenia to Poland), Katarzyna Pisarska (director of the European Academy of Diplomacy) and Dominik Wach (social worker at the Warsaw Family Support Center);
- own research, discussions, etc.

[3] To learn more about the student project examples developed under the supervision of the SGH team and other partners (with other research areas), see (PJATK, n.d.).

To a large extent, the students decided the dynamics of the teamwork with the support of key consortium staff and in cooperation with stakeholders. The students were both researchers and designers. Stakeholder representatives participated in projects as co-creators to varying degrees.

5. Conclusions

DT is meant to find practical solutions to different social and public policy problems and challenges, more or less obvious, but especially those that are possible to tackle due to their scope and available resources. On the other hand, the main assumption of DT is the ability to look at a given problem from the point of view of those affected by the problem and for whose benefit a solution is sought. The DT method promotes and supports important 21st-century skills, such as critical thinking and action based on curiosity, attention, criticism, perseverance, flexibility, and commitment, as well as creativity, communicativeness, and teamwork skills. A few "hard" skills also could be added, such as analytical and synthetic thinking and design work skills.

However, it is worth emphasizing that DT is not and never has been just a mode of operation or a set of techniques. It is a special style of thinking and a set of skills focused on addressing problems and challenges that constitute the real needs of specific users or their entire groups. Thanks to promoting values and attitudes such as empathy, solidarity, creativity, curiosity, openness, or innovation, DT responds to the society's needs related to contemporary challenges. The most important of these include issues and problems related to migration. The 2015 migration and refugee crisis revealed many areas in which additional action is needed, including receiving migrants and integrating migrants with the new societies. However, these actions must be systematic in nature, taking into account the many different actors, interests, and global processes. DT can be an answer to the most complex challenges of the 21st century.

In this paper, we assumed that migration-related problems can be perceived as social or public policy wicked problems and challenges and, consequently, framed with the use of DT. After an overview of the concept of wicked problems and the DT approach, we discussed selected examples of using the method in everyday practice to identify, study, and address migration challenges, including the case study of the Norwegian municipality of Austrheim, activities implemented by the UNHCR, and the EU-funded project ALIEN, implemented by an international consortium. Especially in the last case, the art component played an important role.

Students identified and sought solutions using various forms of artistic expression, such as pitchbook, animations, multimedia presentations, posters, IT application, or performative art. This shows how DT can stimulate and contribute to art-based research and collaborative work in social sciences.

References

Arabasz M., Sińczuk M. (2016), *Design thinking*, Studio Graficzne Piotr Kurasiak, Olsztyn.

Bibliothèques Sans Frontières, *Ideas Box*, www.bibliosansfrontieres.org/ideas-box/, last access on: 15/01/2020.

Brown T. (2009), *Change by Design. How Design Thinking Transforms Organizations and Inspires Innovation*, Harper Collins Publishers, New York.

Brown T. (2013), *Zmiana przez design: jak design thinking zmienia organizacje i pobudza innowacyjność*, Uniwersytet Wrocławski/Wydawnictwo LIBRON, Wrocław/Kraków.

Buchanan R. (1992), "Wicked Problems in Design Thinking", *Design Issues*, 8, 2: 5-21.

Chrisidu-Budnik A. (2017), "Złośliwe problemy w otoczeniu administracji publicznej", *Przegląd Prawa i Administracji*, 111: 29-43.

Churchman C.W. (1967), "Guest Editorial: Wicked Problems", *Management Science*, 14, 4: B141-B142.

Czujko-Moszyk E. (2015), "Phenomenon-Based Learning, Filozofia i Design-Thinking, czyli pomysł na kształcenie myślenia i metodę łączenia treści nauczania w polskim systemie edukacji", *Filozofia Publiczna i Edukacja Demokratyczna*, 4, 2: 163-184.

DesignThinking, *Design Thinking*, http://designthinking.pl/co-to-jest-design-thinking/#geneza, last access on: 15/01/2020.

European Commission: Directorate General for the Information Society and Media (2009), *Living Labs for user-driven open innovation. An overview of the Living Labs methodology, activities and achievements: January 2009*, Office for Official Publications of the European Communities, Luxembourg.

Ideas Box, *Programs*, www.ideas-box.org/index.php/en/programs, last access on: 15/01/2020.

Ideas Box, *Somalian refugees in Ethiopia*, www.ideas-box.org/index.php/en/programs/somalian-refugees-in-ethiopia, last access on: 15/01/2020.

Ingle B. (2014), *Design Thinking for Entrepreneurs and Small Businesses: Putting the Power of Design to Work*, Apress, New York.

Kopeć W., Skorupska K., Jaskulska A., Abramczuk K., Nielek R., Wierzbicki A. (2017), "LivingLab PJAIT: Towards Better Urban Participation of Seniors", in *WI'17: Proceedings of the International Conference on Web Intelligence*, The Association for Computing Machinery, New York, 1085-1092.

Lockwood T. (ed.) (2009), *Design Thinking: Integrating Innovation, Customer Experience and Brand Value*, Allworth Press, New York.

Meinel C., Leifer L. (2011), "Design Thinking Research", in Plattner H., Meinel C., Leifer L. (eds.), *Design Thinking: Understand-Improve-Apply*, Springer, Berlin/Heidelberg, XIII-XXI.
Paquet M. (2017), "Wicked problem definition and gradual institutional change: federalism and immigration in Canada and Australia", *Policy and Society*, 36, 3: 446-463.
Percy I., Nielsen B. (2014), *Sustainable integration in Norway: A social systems design approach*, OCAD University Open Research Repository, Faculty of Design, Toronto.
Peters B.G. (2017), "What is so wicked about wicked problems? A conceptual analysis and a research program", *Policy and Society*, 36, 3: 385-396.
PJATK, *About the ALIEN project*, https://alienproject.pja.edu.pl/, last access on: 15/04/2020.
PJATK, *Student project examples*, https://alienproject.pja.edu.pl/student-projects/, last access on: 15/04/2020.
Raadschelders J.C.N. (2017), "Refugee Migration as Wicked Problem: From Palliative Response to Governing Policy", www.aspanet.org/ASPADocs/Annual %20Conference/2017/Papers/RaadscheldersJos.pdf, last access on: 15/01/2020.
Rittel H.W.J., Webber M.M. (1973), "Dilemmas in a general theory of planning", *Policy Sciences*, 4, 2: 155-169.
Sanders E.B.N. (2002), "From User-Centered to Participatory Design Approaches", in Frascara J. (ed.), *Design and the Social Sciences. Making Connections*, Taylor & Francis, London, 1-8.
Sanders E.B.N., Stapper P.J. (2008), "Co-creation and the new landscapes of design", *Co-Design*, 4, 1: 5-18.
Serafiński B. (2009), "Design Thinking – Myśl rozwiązaniami!", www.thinktank magazine.PL, 2: 40-45.
Stanford University, *Hasso Plattner Institute of Design at Stanford University*, https://dschool.stanford.edu/, last access on: 15/01/2020.
Studzińska M. (2017), "Narzędzie wspomagające projektowanie usług. Design-Thinking", *Zeszyty Naukowe Politechniki Śląskiej*, 113: 469-479.
Szebeko D., Tan L. (2010), "Co-designing for Society", *Australasian Medical Journal*, 3, 9: 580-590.
The European Network of Living Labs (ENoLL): https://enoll.org/, last access on: 15/04/2020.
UNHCR (2015), *Unhcr initiated an innovative pilot project, the IDEAS BOX, in Dollo Ado*, https://data2.unhcr.org/en/news/10090, last access on: 15/01/2020.
UNHCR, *The Ideas Box, a multi-media library for Somali refugees in Melkadida Operation*, https://data2.unhcr.org/en/documents/download/30858, last access on: 15/01/2020.
Zybała A. (2013), "Polityki publiczne wobec wzorców zarządzania publicznego", *Zarządzanie Publiczne*, 26, 4: 34-48.

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