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## Using design thinking and innovation camps to combat forced labour: A case example

### Myślenie kreatywne i obozy innowacyjne, jako instrumenty eliminowania pracy przymusowej - studium przypadku

**Abstract:** Educating young people on the risks of forced labour is not only one of the most critical duties in eradicating human trafficking, but due to its clandestine nature, it is also one of the most challenging. Drawing on practical experiences in Colombia, the authors exalt the value of integrating co-creation and innovation tools to promote a more effective, meaningful, and impactful knowledge transfer on forced labour between education disciplines. This article, therefore, begins by presenting a descriptive overview of the application of design thinking and innovation camps. Next, the article approximates the application of those methods and instruments in teaching the issue of human trafficking, including forced labour. Then, it examines the opportunities of using design thinking and social innovation camps to educate a new generation with the knowledge, skills, and power to disrupt forced labour. Finally, this article concludes that design thinking and innovation camps are practical methods and instruments to create alternative learning environments to educate the next generation of young changemakers capable of disrupting forced labour through innovation, entrepreneurship, and technology.

**Keywords:** design thinking, innovation camps, forced labour, education, technology

**Abstrakt:** Nauczanie młodych ludzi o zagrożeniach związanych z pracą przymusową jest zarówno jednym z najważniejszych, jak i jednym z najtrudniejszych zadań w zakresie zwalczania handlu ludźmi. Trudność ta wynika z charakteru zjawiska – ukrytego i niewidocznego gołym okiem. Opierając się na doświadczeniach z Kolumbii, autorzy podkreślają znaczenie zintegrowania narzędzi współtworzenia

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i innowacji w celu promowania bardziej efektywnego przekazu wiedzy na temat pracy przymusowej pomiędzy różnymi stylami uczenia, mającego jednocześnie na nie realny wpływ. Dlatego niniejszy artykuł rozpoczyna teoretyczny przegląd dwóch metod i narzędzi nauczania – myślenia projektowego oraz obozów innowacyjnych. W dalszej części artykułu przybliżono sposoby zastosowania tych metod i narzędzi do nauczania o problematyce handlu ludźmi, w tym pracy przymusowej. Następnie analizie poddano możliwość wykorzystania ich do przekazania nowemu pokoleniu wiedzy i umiejętności w zakresie przeciwdziałania pracy przymusowej. W podsumowaniu podkreślono, że myślenie projektowe i obozy innowacyjne są praktycznymi metodami i narzędziami do tworzenia alternatywnych środowisk nauczania młodszych pokoleń, które będą zdolne do przerywania powielania zjawiska pracy przymusowej poprzez wykorzystanie innowacji, przedsiębiorczości i technologii.

**Słowa kluczowe:** myślenie projektowe, obozy innowacyjne, praca przymusowa, edukacja, technologia

## Introduction

Educating young people on the risks of forced labour is one of the most critical duties in preventing and eradicating this and other forms of human trafficking. The Protocol of 2014 to the Forced Labour Convention states that it is necessary to promote educative programmes and measures to change behaviour and practices that can lead to forced labour and related abuses. Educating young people emerges as an opportunity to form a generation of citizens with the knowledge, skills, and power to disrupt forced labour. Young people are an important risk group ‘susceptible to false job offers that lead to forced labour’ (ILO 2018: 46), but given the opportunity, they are a population that can lead impactful actions anti-trafficking field all around. As the UN Youth Strategy (2018) highlights, it is only by engaging and working with the young people and supporting them in standing up for their rights and creating the conditions to play an active role that the international community will be able to achieve peace, security, and justice.

While the education in forced labour in graduate programmes is comprehensive, most of the current educational efforts on forced labour aimed at young people in non-specialised university contexts are mainly focused on awareness-raising. According to the ILO (2018), in recent years, there has been significant progress in awareness-raising educational activities targeting young people in countries such as Peru, China, Ethiopia, Croatia, Hungary, and Mauritania. In those countries, education manuals, mentoring materials, workshops, and campaigns have been developed to educate teachers and students at schools on preventing forced labour. Also, social media channels, theatre productions, and songs are becoming other essential tools for informing young people about the dangers of forced labour. However, their educational content can sometimes be diffuse.

Although the efforts mentioned above are essential, education aimed at preventing forced labour is limited in its scope and assessment. On the one hand, those educational programmes on forced labour aimed at young people are intended to

inform them about the crime and its risk factors; thus, the content of those lessons generally tends to be necessary and provides a better, though partial, understanding of the issue. On the other hand, evaluating the impact and knowledge acquisition of awareness-raising education has always been challenging. Often, such prevention activities do not generate tangible outcomes and lack standard criteria by which to measure their impact. Actually, 'few awareness-raising initiatives to date have generated evidence of their impact on knowledge, attitudes, and practices relating to forced labour' (ILO 2018: 46).

Consequently, to support and complement the ongoing educational efforts on the risk of forced labour, it seems necessary to explore new methods and instruments that allow richer learning environments – beyond current awareness-raising activities – to be created in non-specialised university programmes. Those learning environments should equip the youths with the essential knowledge and skills to identify risk factors, to protect themselves, and to become conscious citizens prepared to disrupt forced labour from different roles. They should also contemplate assessment strategies that improve the organisations and experts' capacity to measure the impact of education on the issue and continue building effective educational programmes.

This approach raises several critical questions: What alternative methods and instruments can be used to educate young people on forced labour? How can conscious, motivated young citizens be trained to disrupt forced labour? How can the scope of current education on forced labour be expanded and its impact assessed? This article argues that design thinking and social innovation camps are practical methods and instruments to create alternative learning environments to educate the next generation of young changemakers capable of disrupting forced labour through innovation, entrepreneurship, and technology.

With this objective in mind, this article introduces design thinking and innovation camps and provides a general view of using those in education. It also approximates the integration of those methods and instruments in teaching about forced labour, addressing some concrete initiatives and emphasising a three-year experience led by the authors in Colombia. Finally, it examines the opportunities to use design thinking and innovation camps to educate young people on forced labour and offers some conclusions.

## **Design thinking and social innovation camps in education**

Design thinking originated in the 1960s when different researchers and theorists studied how designers create innovative designs (Clarke 2019). In fact, Nobel Prize laureate Herbert A. Simon is credited with being the first to mention design

thinking in his 1969 book, *The Sciences of the Artificial*. Simon subsequently contributed many ideas to its principles.

The academic work around design thinking analysed the design action, revealing that creation and innovation result from a process and not from a spontaneous act. According to [Dschool.stanford.edu](http://Dschool.stanford.edu) (n.d.), design thinking is currently understood as a methodology for creative problem-solving that combines empathy, creativity, and rationality, promoting a holistic and multidisciplinary approach to seeking, developing, and implementing any solution.

Although the design thinking methodology can take different forms, its more common structure comprises six phases: empathise, define, ideate, prototype, test, and implement. The entire process illuminates the problem and the people affected by it and explores creative ways to tackle ill-defined or unknown issues (e.g. human trafficking and forced labour). The process is structured to help inform possible solutions through prototyping, implement the solutions, and begin the cycle by applying modifications or solving an adjacent problem. Clarke (2019) pointed out that design thinking methodology can be used to create physical, digital, and intangible intellectual solutions: from artifacts and software to curricula, processes, and policies.

Design thinking has been part of many businesses for years and most recently has taken hold in different sectors, including education (Koh et al. 2015). In industrial and commercial activities, design thinking has been used to create user-centred products and services and to continuously improve business models and production lines, among other things. The interest in how agile methods, including design thinking, could be applied in all areas of education emerged in the late 1990s, when the societal and global economic demand for professionals with appropriate skill sets for solving contemporary challenges, creating and innovating intensified.

The demand for professionals with more skills arose, as did the need to rethink traditional learning environments based merely on transferring knowledge that falls short of educating people with required capacities (Scheer, Noweski, Meinel 2012). Since then, design thinking has been recognised in education for its potential to contribute to the transition from an educational model based on transferring fragmented knowledge to one where equipping students with '21st-century skills' and promoting interdisciplinary learning are the priorities.

On the one hand, as Binkley et al. (2012) stated, 21st-century skills are a set of abilities – such as creativity, critical thinking, flexible problem-solving, and social responsibility – that young people need to succeed at work. According to Berman and McCartney (1995), most of those skills are meta-competencies that cannot be traditionally taught; they are acquired when people face and solve personal, academic, and professional challenges. Design thinking offers teachers a concrete approach to foster those skills in their students and learners, motivating them to face real-life problems within hands-on projects and following some or all the design thinking phases as a continuous practice and assessment method. Going

through the design thinking process pushes the learner to apply their knowledge and be creative, deal with different points of view, make decisions, and face difficulties.

On the other hand, and linked to the above, design thinking promotes interdisciplinarity and reduces subject fragmentation. Interdisciplinarity entails the collaboration and integration of disciplines (Darbellay, Moody, Lubart 2017). Therefore, seeking innovative solutions based on the design thinking phases makes it intuitive for students and teachers to overcome disciplinary boundaries and explore how all disciplines can be integrated and applied towards problem-solving. It is particularly relevant considering that 'splitting up a complex phenomenon into subjects and only examining isolated facts makes it hard for the student to recognise links between facts and phenomena' (Scheer, Noweski, Meinel 2012: 10).

Like design thinking, innovation camps have long been a well-known method used in private companies and non-profit and public organisations to move people to temporary camps (i.e. retreats) to solve problems or create new products and services (Bager 2010). Therefore, it is not surprising that most of the documented experiences on the use of innovation camps in education are linked to entrepreneurship education. They have been recognised as valuable tools to develop essential skills by direct experience. According to Rissola, Kune, and Martinez (2017), innovation camps are a condensed process in which economic, social, technological, cultural, and environmental challenges can be addressed, tackled, and solved innovatively at the policy, strategic, or operational levels.

Innovation camps are intensive workshops that provide a platform for changing the educational structure and its content by moving learners and educators from traditional learning contexts to an interdisciplinary and project-based format. Changing the educational structure implies taking students/learners and educators from their usual learning environments to another location or creating new atmospheres within traditional educational facilities. The camps also signify modifying the group's composition by including external students, teachers, and experts and assuming different teaching/learning processes. As Bager (2010) wrote, teachers become facilitators of specific knowledge orientated towards the camp's real-life challenges. The learners take the role of problem-solvers by applying that knowledge to innovative solutions to challenging issues/problems.

Regarding the content, instead of transferring established general knowledge like in traditional learning contexts, the curriculum of innovation camps focuses on providing the participants with relevant information to solve the camp challenges. As Rissola, Kune, and Martinez (2017) observed, 'it combines an entrepreneurial way of thinking and working with a concrete process for developing breakthrough ideas and insights, aiming at producing real-world impact' (p. 15). Thus, innovation camp programmes are based on agile methodologies and include skill-building sessions on pitching ideas, working as a team, and communicating effectively. Moreover, Kwong et al. (2012) assert that camps are a crucial complement to classroom education once those foster student skills such as independent thinking,

opportunity recognition and exploitation, readiness for change, risk-taking, and self-confidence.

In practice, innovation camps in education adapt competitions commonly referred to as boot camps, hackathons, and data jams – with the last two being used when referring to tech-based camps. Innovation camps have a structure composed of one or more challenges that need to be solved within a limited time frame. A pre-determined number of participants and teams use agile methodologies such as design thinking. Several external experts help facilitate the camp's objectives to act as mentors, facilitators, and evaluators.

In summary, design thinking and innovation camps are two different methodologies and processes. Still, at the same time, complementary practices have taken root in education in the past few decades (see Rissola, Kune, Martinez 2017). Both methods have raised expert's interest in pedagogy, entrepreneurship, and innovation, as the methods represent concrete ways to rethink educational dynamics and their content. The two methods favour the creation of richer learning environments focussed not only on learning essential knowledge but also on acquiring individual meta-competencies to face the challenges and demands of the 21st century.

## **Application of design thinking and innovation camps for human trafficking and forced labour**

There is a shortage of academic research about integrating design thinking and innovation camps in young people's education on forced labour and other forms of human trafficking. However, according to Enrile and Smith-Maddox (2018), a paradigm shift has taken place where technological innovation, entrepreneurship, and collaboration represent the new efforts for dismantling the complex trafficking ecosystem. A growing number of schools, universities, non-profit organisations, companies, and other stakeholders have started to recognise the potential impact of integrating alternative tools and methodologies in the education, prevention, and disruption of human trafficking.

This section addresses some concrete initiatives integrating design thinking and innovation camps in education on human trafficking, including forced labour. Although they do not exclusively address forced labour, there is no doubt they constitute interesting practices that can be adapted and applied to education on the subject. First, some remarkable initiatives led by different sectors are approached, reviewing their application and the context of their objectives. Second, using the three-year innovation competition on human trafficking led by the first two authors as a case study/example, we provide a descriptive overview of the design thinking methodology's main elements and the innovation camps' model. We also

described how it was applied to enhance the teaching/learning process of how best to combat human trafficking.

Incorporating design thinking and innovation camps in education on human trafficking has created an opportunity to generate innovative strategies and protocols to develop short-term proposals and promote entrepreneurship and leadership on more complete and long-term projects. Regarding design thinking, it is used as a tool for educating young business leaders on human trafficking at schools and motivating university students to apply their knowledge to develop legal and policy solutions to trafficking. In the innovation camps model, hackathons, data jams, and technological innovation competitions bring together different stakeholders, including young people, around anti-trafficking solutions. The combination of design thinking and innovation camps has developed hybrid initiatives that strengthen participants' learning processes and streamline programme activities, dynamising people's interactions.

Design thinking learning schemes have been integrated into traditional education to advance decision-making and strengthen students' adaptive capacities, where imaginative scenarios have allowed inter-institutional collaboration between academic programmes. Examples such as the Law Schools of the University of Arizona, the University of San Diego, Duke University, and Harvard University use design thinking and systemic thinking to map the needs of trafficking survivors; the Human Freedom Entrepreneurial Leadership Program of Babson College seeks to educate the next generation of business leaders and entrepreneurs on the issue of human trafficking. Both represent the institution's willingness to incorporate design thinking and agile methodologies into educational programmes at secondary and higher education. In other words, educational programmes have been adapted to contemporary dynamics to improve students' learning processes, being part of young people's interest in breaking with the traditional knowledge acquisition methods to create more competitive professionals.

In comparison, initiatives that respond to the innovation camp modality have focussed on developing proposals to solve trafficking challenges mainly with the technological objectives represented in competitions like Hacking4Humanity2019, Hack4World, #hacktrafficking4good, YPT Stop Human Trafficking Hackathon, and five other hackathons against human trafficking with the multi-agency collaboration of universities, institutes, research centres, technology companies, not-for-profit organisations, and governmental institutions such as George Mason University, the George Mason University Schar School of Policy and Government, the University of Pittsburgh, the Ford Institute for Human Security, Google, HackerEarth, Blue Compass, Garage48, Visorix Information Technology Park, Youth Professionals in Transportation Sacramento, Erase Child Trafficking, Thorn, Whatever It Takes, AfriKo, the US Department of State, and the City of Austin, Texas.

The previous technological competitions with an innovation camp structure mainly were developed and implemented in the United States and Europe. However, there are cases in other regions and on different continents that understand the

need for initiatives and the innovation component's potential. Hack4World in 2018 represented the first such event in Lithuania. The camp sought to empower tech-savvy young people to participate in challenges in human trafficking and sustainable energy, organised as a competition of student teams with expert guidance. Similarly, in October 2018, IBM, the National Secretariat of Justice, GLO. ACT, and the Brazilian Association for the Defence of Women, Childhood, and Youth ran Brazil's first hackathon against human trafficking, being encouraged by the success of the authors' initiative months before. Although experience is limited in the rest of the world, progress has been made in incorporating other countries' successful models and applying them in different social and economic realities.

It is essential to mention that several of the initiatives discussed above may have components of both design thinking and innovation camps. Still, given the limited information available about them, it is not clear to what extent these events incorporate them. For example, Hacking for Freedom – run by the MIT Innovation Initiative in partnership with Uncharted, Freedom Lab, Childsafe.ai, and Seattle Against Slavery – experimented with the power of technology and creativity models to stop sex trafficking. Additionally, the Manhattan District Attorney's Office, Cornell Tech, Twilio, and the Entrepreneurship at Cornell run an End Human Trafficking Hackathon using expert conferences and training materials in forced labour and trafficking to improve participants' knowledge acquisition. Both examples are complemented by the Bluehack Against Human Trafficking of IBM, Stevens Institute of Technology, Fundación Pasos Libres, and the United Nations Office on Drugs and Crime (UNODC), a hackathon aimed at developing technologies to combat human trafficking. These initiatives directly reveal the use and joint implementation of the innovation camp model and incorporate agile methodologies such as design thinking in their management.

Despite those initiatives' main objective being related to the compliance of technological, non-technological, and innovative solutions development, there is a striking educational component. Firstly, their agendas include training and workshops on human trafficking, forced labour, technological tools, marketing, and social and economic approaches. Secondly, experts and advisers guide the participants throughout the competition to respond to any concerns, strengthen knowledge in multiple areas, refine the proposals presented, and direct the teams' educational approaches from their areas of expertise to achieve the event's objectives. Thirdly, design thinking and innovative methodologies help teams better understand the problem and key points of interest, generate a whole world of ideas and application perspectives for their solutions, and improve the proposal prototyping and testing processes.

Finally, these methodologies and their dynamics are based on understanding the issue to look for solutions. The agile educational methods on human trafficking and forced labour at the competitions reinforce a more in-depth understanding because the process 'can be incorporated into the learning context to enhance project-based learning, collaborative experiences, and student-led learning, and can



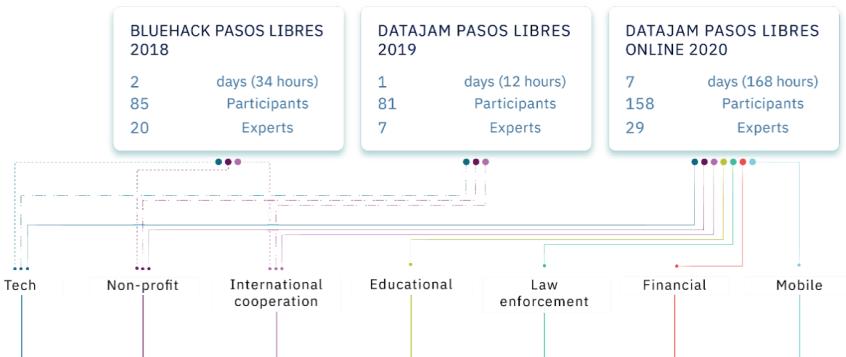
support learning that is goal-driven rather than plan-driven’ (Parsons, MacCallum 2019: 6). As learning and training scenarios, these competition approaches are significant to participants’ careers and educational programmes.

### The Colombian Experience – Fundación Pasos Libres

Pasos Libres is a not-for-profit organisation based in Bogota, Colombia that seeks to revolutionise how to prevent and disrupt human trafficking through the design, development, and implementation of innovative strategies, methodologies, and technologies. Since its creation in 2017, the organisation has been advancing to formulate innovation camps and a curriculum based on the rigorous integration of co-creation and innovation tools. The purpose is to enhance teaching/learning on the human trafficking issue within non-traditional educational environments where young people and experts can acquire the necessary knowledge and skills to assume an active role in proposing, designing, and developing solutions to face trafficking challenges.

Guided by the non-traditional goal, Pasos Libres established a partnership with the global technology company IBM to create a technological innovation competition format. The industry’s young people and experts can learn, transfer knowledge, and collaborate to develop tech-based solutions to disrupt human trafficking. The organisation came up with a competition model that combined IBM’s cutting-edge technologies and a training curriculum on human trafficking developed by Pasos Libres (see Figure 1).

Figure 1: General metrics of Pasos Libres technological competitions



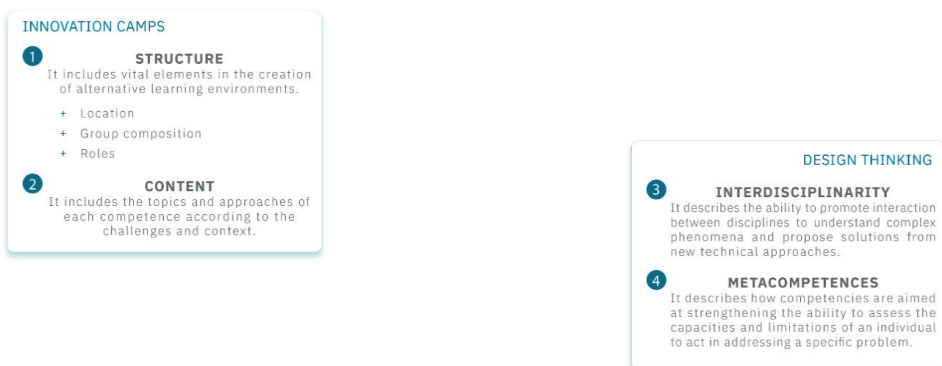
To date, the organisations have run three contests that have brought together 324 young participants representing 48 universities, 56 industry experts, and 15 partners and have generated 12 advanced winning solutions and 68 prototypes.

The initiatives include Traffik Analysis Hub, Western Union, Stop The Traffik, Platzi, Movistar, One Young World, The Future Society, Minderoo Foundation's Walk Free Initiative, the Office of the Attorney General of Colombia, The Think Tank of Disruptive Ideas Against Organised Crime, UNODC, and the British Embassy in Colombia.

In 2018, Pasos Libres and IBM created the BlueHack Pasos Libres, the first hackathon against human trafficking (which included forced labour) in Colombia and Latin America. The initiative sought to develop apps, gadgets, and web platforms to tackle three challenges in preventing and investigating human trafficking and identifying victims. Born out of the Hackathon's success, Pasos Libres and IBM moved to a Data Jam format to create the DataJam Pasos Libres. DataJam is a technological innovation competition that seeks to develop data-based solutions and data use cases to identify human trafficking patterns, networks, and hotspots. This event was run face-to-face in 2019 and online and globally in 2020. The initiative became the first-ever global competition to fight all forms of human trafficking. The competition attempted to address different sets of challenges around developing predictive models and natural language processing tools.

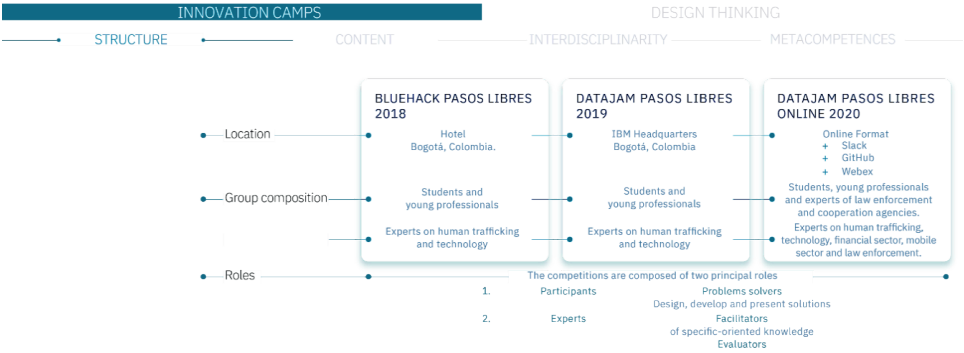
Creating the format for BlueHack Pasos Libres and DataJam Pasos Libres involved the challenge of formulating a condensed and balanced programme. The participants could acquire as much valuable knowledge about human trafficking as possible to apply it effectively to the development of innovative tech-based solutions. In this scenario, while the innovation camp model was used as a practical tool and guide for developing the competition format structure and content, the design thinking served to position interdisciplinarity and the acquisition of meta-competencies as its guiding pillars. The integration of design thinking and innovation camps has materialised in specific competitions' characteristics, evolved based on every year's experience, and adapted to each version's particular needs. Figure 2 describes what the application of those tools has signified in practice.

**Figure 2:** Components of innovation camps and design thinking competition



The integration of the tools shapes the competitions’ structure in terms of location, group composition and roles, and vital elements in creating alternative learning environments. Although they may not seem like necessary logistical and operative arrangements, they are crucial to creating an appropriate atmosphere with the power to convene participants, make them feel part of something out of the ordinary, and motivate them to engage actively (see Figure 3).

**Figure 3:** Structure of Pasos Libres’ innovation competitions



Since the project is novel and has demonstrated relative merit and benefits, we provide a descriptive overview of the competition process’s significant elements below.

**Structure**

**1. Location**

The three events took the young participants and experts from their usual learning and work environments to neutral, interactive, and engaging physical and digital locations. While the BlueHack Pasos Libres 2018 took place in a hotel with access to work and game rooms and side activities, the DataJam Pasos Libres 2019 brought the participants closer to a cutting-edge technological ecosystem at the IBM headquarters in Colombia. The 2020 version of the DataJam was online and used several digital tools, allowing cooperation between participants and experts from several countries and continents.

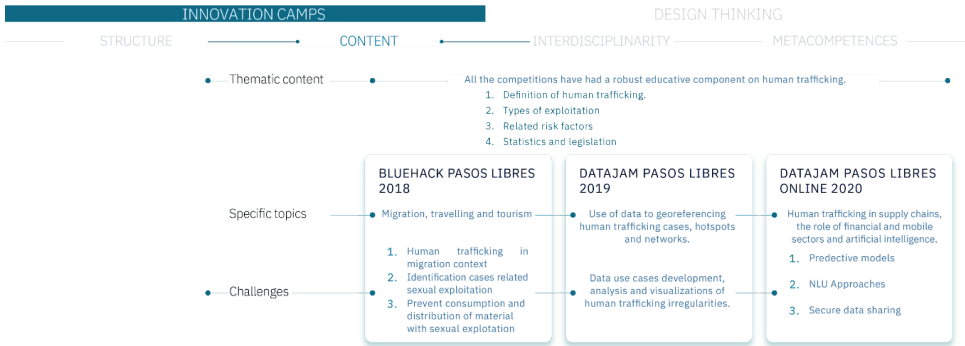
**2. Group composition and roles**

The competitions are composed of two principal roles: participants and experts. The participants are the problem-solvers, designing, developing, and presenting solutions for the competition’s challenges. The experts become mentors and facilitators of specific knowledge about human trafficking, technology, design,

and other related topics. Additionally, the experts with more experience in the event’s challenges serve as judges in selecting the best solutions. While the first two events focussed on bringing together university students and young professionals as participants, the third expanded the call to include industry experts from law enforcement agencies and international cooperation organisations.

Secondly, every competition’s thematic and technical content has changed alongside the challenges to provide the participants with relevant, valuable, and context-suited knowledge to develop their solutions. The thematic and technical content has served to inform the curriculum, resources, talks, and mentorships. The content adaptation positively impacts participants’ capacity to overcome the challenges, but the interest of those to do more in-depth investigation and learn for themselves (see Figure 4).

**Figure 4:** Content and challenges of Pasos Libres’ innovation competitions



## Content

### 1. Thematic content

All three competitions have had a robust educative component on human trafficking, each with a different emphasis. The three events’ base curriculum included introducing the basics of human trafficking – the definition, types of exploitation, related risk factors, statistics, and legislation. Regarding the emphasis, while the first two competitions focussed on trafficking in Colombia, the third approximated the issue from a Latin American perspective and included some global context. Moreover, as Figure 5 shows, the 2018 version focussed on human trafficking in the context of migration, travelling, and tourism. The 2018 competition also centred on victim identification, online sexual exploitation, and the challenges of collecting reliable and valid data from the two subsequent events, which addressed more specific human trafficking issues, such as trafficking in supply chains and financial and mobile data in the anti-trafficking field.

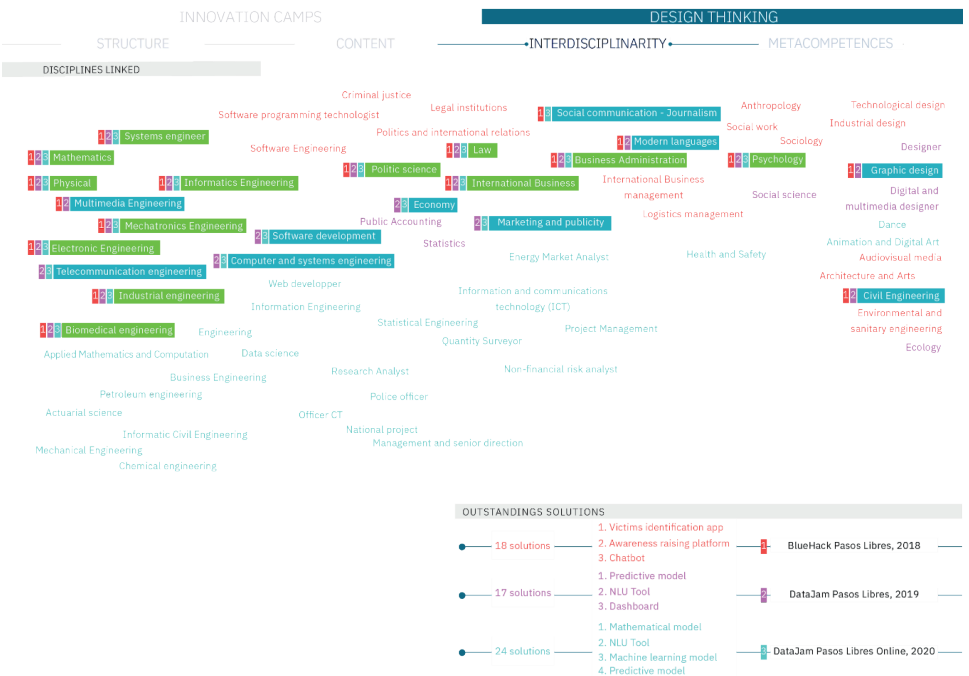
### 2. Challenges

The competition challenges have been defined based on the changing human trafficking dynamics, the needs of the victims and anti-human trafficking organisations, and a prioritisation of the problems that can be solved through tech-based solutions. The peculiarities of the challenges have varied from event to event, but they have remained open enough to allow participants to be genuinely creative. In that vein, the challenges of the 2018 competition focussed on victim identification and management of alerts. In 2019, the competition introduced a more general challenge regarding data-use cases, analysis, and human trafficking irregularities. The last round set three challenges about developing predictive models, natural language processing tools, and solutions to encrypt, store and share information.

### 3. Interdisciplinarity

Thirdly, the integration of design thinking has allowed us to position interdisciplinarity as a pillar of the competitions. The interdisciplinary nature of design thinking and its classic six-phase process can only be materialised to the fullest when the people use and apply it within a framework of teams with multiple backgrounds.

Figure 5: Diagram of the interdisciplinarity of Pasos Libres’ innovation competitions



# Interdisciplinarity

## 1. Teams and experts

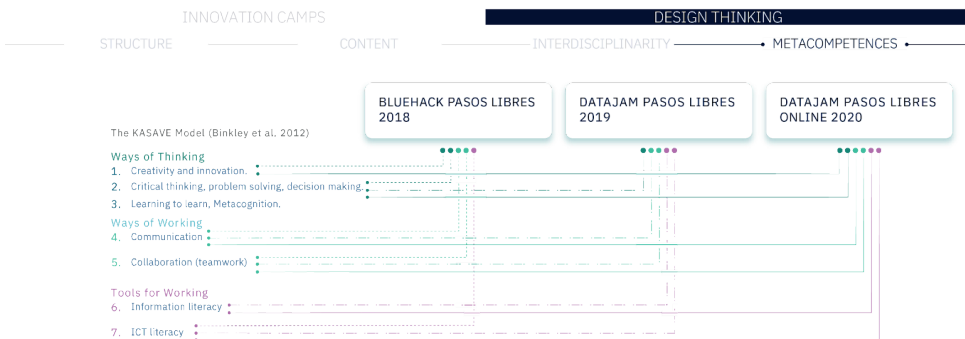
The Pasos Libres competitions are based on the multidisciplinary nature of design thinking. The three events established selection criteria that promote teams composed of members from different disciplines and professions to overcome subject fragmentation. The interested participants had to form groups of 4 to 5 members from distinct domains and experience in the social, applied, and formal sciences. In functional terms, it allowed the participating teams of the three competitions to understand the challenges and their implications from multiple points of view, explore ways to solve the problem, and propose comprehensive and concrete solutions.

## 2. Solutions

The teams’ interdisciplinary work directly impacts the solutions developed in the competitions, offering concrete responses to the challenges, and integrating engineering, business administration, design, and law approaches. The participants successfully integrated elements such as the proposals’ scalability, transferability design, usability, and effectiveness. Critical aspects can only be correctly developed through the interaction of multiple domains.

Lastly, the integration of design thinking has contributed to fostering meta-competencies by motivating young people to face real human trafficking challenges (see Figure 6). The design thinking methodology has made it possible to teach about human trafficking and to foster the participants capacity to understand the decisive role they can play in the fight against human trafficking, as well as how they can contribute to it from their areas of expertise.

**Figure 6:** Pasos Libres’ technological innovation initiatives – competition meta-competencies



## **Meta-competencies**

### **1. Ways of Thinking**

The competitions themselves explore innovative approaches that promote and encourage participants to think ‘outside the box’ to create disruptive and non-traditional proposals. The challenges have made it possible to guide the teams with the different initiatives’ objectives enhancing the information acquired to exceed expectations. As noted above, throughout the three competitions, the participants have used innovative technologies and methodologies known from their educational or work programmes and the platforms and methods presented during the events to strengthen the generation of ideas and the construction of proposals. Design thinking sessions and expert talks have improved critical thinking skills, understanding of the essential elements of human trafficking, and technology use and have fostered problem-solving skills.

### **2. Ways of Working**

The Pasos Libres competitions have been built through a collaborative ecosystem where young innovators, experts, organisers, and partners converge. Although it is a competition, creating an innovation community focussed on developing ideas and proposals with social impact has been promoted. Therefore, the acquisition of teamwork skills has been prioritised to allow the participants to appropriately communicate their ideas, explore new horizons, and understand the problems first-hand. Moreover, the initiatives create appropriate terms to discuss, analyse, and develop teamwork diversity through the participants’ multidisciplinary nature and effective interaction to devise, plan, and execute projects.

### **3. Tools for Working**

All the competitions integrated training and mentoring on using technologies and digital tools to reach a practical tech resource application. The participants’ knowledge and expertise are continually supported by experts in human trafficking and technology from the Fundación Pasos Libres and IBM. Likewise, the teams are provided with large volumes of data and information to strengthen proposals, apply technological resources, and enhance their ideas’ potential. The tools, data, and mentoring are provided for free and allow teams to appropriately target their skills and inputs to make the right decisions and increase the probability of developing winning products.

As shown in this section, a growing number of organisations from multiple sectors have started to use and integrate design thinking in the development of social and technological innovation competitions with an essential educational component and the education of human trafficking and forced labour itself. Fundación Pasos Libres and IBM's experience demonstrates how the different design thinking elements and the innovation camp model have supported the creation and development of an innovation competition format that has evolved over the three years. The BlueHack Pasos Libres and the two versions of the DataJam Pasos Libres have created a robust educational component and set a unique precedent on the field, bringing together young people, global experts, and partners from all sectors.

## **Opportunities of using design thinking and innovation camps to educate young people on forced labour**

Forced labour is one of the most complex forms of human trafficking and a phenomenon that requires a multidimensional approach (see *An Introduction* 2008). Virtually all sectors of society, such as business, the financial industry, consumers, governments, and third sector organisations have both the responsibility and the opportunity to disrupt forced labour. Therefore, young people's awareness of the issue should match the complexity of the phenomenon in question to ensure they can progress beyond engaging in basic awareness-raising activities. This section will address the opportunities of using design thinking and innovation camps to educate the next generation of young changemakers capable of disrupting forced labour.

The innovation competition format developed by Pasos Libres has been consolidated as an alternative learning scenario that integrates design thinking and innovation camps as practical tools to educate young people on human trafficking. In that format, technology has been the means to incorporate new content, resources, and ways of solving problems and motivating young people to assume an active role. Therefore, the Pasos Libres experience in Colombia is a significant contribution to advance in the design of a programme based on the rigorous integration of co-creation and innovation tools in education on forced labour.

The DataJam Pasos Libres 2020 had a first approximation of the competition format's potential impact on educating about forced labour. The inclusion of human trafficking in supply chains as a topic and one of the challenges in the competitions' programmes have revealed an opportunity to establish multisector dialogues with the stakeholders that have a direct influence on the phenomenon. Moreover, it has reaffirmed that the design thinking methodology and the innovation camp



model could effectively educate young people about forced labour. The teaching based on hands-on projects and the search for specific solutions that is promoted by design thinking and innovation camps can lead to a better understanding of complex problems, the acquisition of meta-competencies, assessment strategies, and interdisciplinary, multi-stakeholder participation.

Developing solutions to specific challenges implies an understanding of the complex problem and approaching it comprehensively. Instead of teaching general or decontextualised knowledge about forced labour in traditional learning, a curriculum based on the innovation camp model can provide young people with relevant information to solve challenges. In practice, it would facilitate moving from general definitions or statistics without any objective beyond memorising information to exploring study cases, victims' statements, and business reports with a specific goal in mind.

The very selection of the challenges is crucial, considering that the curriculum of an educational environment based on the innovation camp model responds directly to the challenges' topics. Therefore, it is essential to continuously update the challenges based on the current forced labour dynamics, the critical stakeholders' needs, and the specific gaps of the field to keep the content relevant and guarantee that the students are receiving a context-appropriate education. Additionally, the content based on the innovation camp model itself would promote the incorporation of forced-labour-related information and valuable additional resources from diverse domains, including technological and digital tools such as software and datasets.

The diversity of content and resources implies interdisciplinarity and multi-stakeholder participation. On the one hand, the design thinking methodology offers a concrete guide to promoting interdisciplinarity and reducing subject fragmentation. The development of solutions to forced labour requires multiple points of view and several knowledge areas. The innovation camp format also brings together key stakeholders around an initiative with clear objectives and roles in the teaching/learning process. Thus, young people learn in a national or international learning environment where multiple perspectives converge on local, regional, and international interests. Additionally, innovation competitions open the possibility of strengthening academic exchanges and consolidating networks to influence the field.

It is essential to emphasise that design thinking is a favourable methodology for meta-competency acquisition – a skill set that forced labour education should always foster. The knowledge about forced labour gains much more value when the learners acquire the tools to use and apply what they learn in their personal, academic, and professional lives. Thus, this practical approach brings participants closer to understanding their current and potential roles, either as consumers, entrepreneurs, businesspeople, or overall, as citizens who can assume a role in preventing and fighting forced labour.

Educational environments based on design thinking and innovation camps allow knowledge acquisition to be assessed through solutions' ideation, design, development, and presentation. For example, the summations or pitches typical in an innovation competition such as a hackathon follow a basic structure with minimal evaluation criteria. The jury can validate the participants' learnings and measure a specific topic's domain and understanding.

In summary, design thinking and innovation camps represent multiple opportunities to reinforce young people's learning processes with new and precise educational content and valuable knowledge generation that help them understand forced labour dynamics in greater depth. Similarly, the solutions and proposal development are guided by innovative approaches and technical application tools that help to facilitate individual and collective capacities to face current and future challenges, gaining an active role as community problem-solvers and anti-human trafficking leaders. Despite representing a highly vulnerable population exposed to a higher probability of forced labour, young people are decisive in ensuring assertive decision-making, generating bold proposals, and promoting innovation to create social impact solutions.

## **Conclusions**

Design thinking and innovation camps have taken root in education over the past 10–15 years as reliable approaches to rethinking educational dynamics and content and creating richer learning environments. A growing number of schools, universities, non-profit organisations, companies, and other stakeholders have started to recognise the potential impact of integrating those alternative tools and methodologies in education, prevention, and in helping to think differently about disrupting the blight of human trafficking. There is a shortage of academic research on integrating design thinking and innovation camps in human trafficking and forced labour. Still, this article shows how such a project can be used to educate and combat human trafficking by capitalising on a proven protocol and utilising young people's potential through a robust, interdisciplinary educational component.

Furthermore, the current practices in Colombia led by Pasos Libres in partnership with IBM have demonstrated that design thinking and innovation camps are practical tools to create alternative learning environments. The Pasos Libres project is an example of educating the next generation of young changemakers capable of disrupting forced labour through innovation, entrepreneurship, and technology. The Pasos Libres' innovation competition format and the three years of experience running the initiative in Colombia and globally are significant contributions to advance the design of programmes based on the rigorous integration of co-creation and innovation tools in forced labour education. Virtually all sectors of society have

the responsibility – and the opportunity – to help disrupt human trafficking and forced labour. The teaching of young people on the issue must be up to the problem's dimension and go beyond awareness-raising activities to form a generation of citizens with the knowledge, skills, and power to disrupt forced labour.

As illustrated in the articles in this Special Issue, forced labour trafficking has been and continues to be an enigma for researchers and policymakers in their efforts to address the growing problem effectively (see Robertson 2008; Zimmerman, Kiss 2017). Although this article is a descriptive account of an initiative that has demonstrated its usefulness in other domains, the authors hope that in sharing some insight into the programme that its relative merits will prompt others to explore the protocol as a mechanism for helping to educate and resolve the challenges of combatting human trafficking and forced labour trafficking.

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## References

- Asquith L., Dorst K., Kaldor L., and Watson R. (2013). 'Introduction to Design+Crime'. *Crime Prevention and Community Safety* 15, pp. 169–174. Available online: <https://doi.org/10.1057/cpcs.2013.7>.
- Bager T. (2010). 'The camp model for entrepreneurship teaching'. *International Entrepreneurship and Management Journal* 7, pp. 279–296. Available online: <https://doi.org/10.1007/s11365-010-0149-9>.
- Bain C. (2017). 'Entrepreneurship and innovation in the fight against human trafficking'. *Perspectives on Human Trafficking and Modern Forms of Slavery* 5(2), pp. 81–84. Available online: <http://dx.doi.org/10.17645/si.v5i2.924>.
- Berman R. and McCartney S. (1995). 'Competence is not enough: Meta-competence and accounting education'. *Accounting Education* 4(1), pp. 43–53. Available online: <https://doi.org/10.1080/09639289500000006>.

- Binkley M., Erstad O., Herman J., Raizen S., Ripley M., Miller-Ricci M. and Rumble M. (2012). 'Defining Twenty-First century skills'. In P. Griffin, B. McGaw and E. Care (eds.) *Assessment and Teaching of 21st Century Skills*. Dordrecht: Springer, pp. 17–66.
- Degnegaar R., Degnegaar J. and Coughlan P. (2015). 'How to design for large-scale multi-stakeholder co-creation initiatives: Reframing crime prevention challenges with the Police in Denmark'. *Journal of Design, Business & Society* 1(1), pp. 7–28. Available online: [https://doi.org/10.1386/db.1.1.7\\_1](https://doi.org/10.1386/db.1.1.7_1).
- Endrissat N. (2018). 'Hackathons: A field of dreams for 'collaborative innovation'?'. *Entreprendre & Innover* 38, pp. 69–75. Available online: <https://doi.org/10.3917/entin.038.0069>.
- Enrile A.V. and Smith-Maddox R. (2018). 'Social innovations in human trafficking: Solutions to a wicked problem'. In A.V. Enrile (ed.) *Ending Human Trafficking and Modern-Day Slavery: Freedom's Journey*. Thousand Oaks: SAGE, pp. 289–312.
- Konst T. and Jagiełło-Rusiłowski A. (2017). 'Students' and Higher Education stakeholders' concepts of resilience in the context of innovation camps'. *Dyskursy Młodych Andragogów* 18, pp. 19–33. Available online: [https://innopeda.turkuamk.fi/uploads/2020/06/a41fab86-02\\_konst\\_jagiello-1.pdf](https://innopeda.turkuamk.fi/uploads/2020/06/a41fab86-02_konst_jagiello-1.pdf) [19.09.2020].
- Kwong C., Thompson P., Cheung C. and Manzoor H. (2012). 'The role of environment in fostering conducive entrepreneurial learning: Teaching the 'art' of entrepreneurship in boot camps'. *Journal of General Management* 38(1), pp. 45–71. Available online: <https://doi.org/10.1177/030630701203800103>.
- Lara M. and Lockwood K. (2016). 'Hackathons as community-based learning: A case study'. *TechTrends* 60(5), pp. 486–495. Available online: <http://dx.doi.org/10.1007/s11528-016-0101-0>.
- Lodato T. and DiSalvo C. (2016). 'Issue-oriented hackathons as material participation'. *New Media & Society* 18, pp. 539–557. Available online: <https://doi.org/10.1177/1461444816629467>.
- Robertson B.C. (2008). *Forced Labor: What's Wrong with Balancing Work and Family*. Spence Publishing Company.
- Wrigley C. and Straker K. (2015). 'Design thinking pedagogy: The educational design ladder'. *Innovations in Education and Teaching International* 54(4), pp. 374–385. Available online: <https://doi.org/10.1080/14703297.2015.1108214>.
- Zimmerman C. and Kiss L. (2017). 'Human trafficking and exploitation: A global health concern'. *PLoS Medicine* 14(11). Available online: <https://doi.org/10.1371/journal.pmed.1002437>.

## Internet sources

- An Introduction to Human Trafficking: Vulnerability, Impact and Action* (2008). Vienna: UNODC. Available online: [https://www.unodc.org/documents/human-trafficking/An\\_Introduction\\_to\\_Human\\_Trafficking\\_-\\_Background\\_Paper.pdf](https://www.unodc.org/documents/human-trafficking/An_Introduction_to_Human_Trafficking_-_Background_Paper.pdf) [19.09.2020].
- Clarke I. (2019). *Design Thinking, ALA Neal-Schuman, Chicago*, Serch.ebscohost.com. Available online: <http://search.ebscohost.com.ezproxy.uniandes.edu.co:8080/login.aspx?direct=true&db=e000xww&AN=2433506&lang=es&site=eds-live&scope=site> [19.09.2020].
- Darbellay F., Moody Z. and Lubart T. (2017). *Creativity, Design Thinking and Interdisciplinarity*. Singapore: Springer. Available online: [https://www.researchgate.net/publication/322202870\\_Creativity\\_Design\\_Thinking\\_and\\_Interdisciplinarity](https://www.researchgate.net/publication/322202870_Creativity_Design_Thinking_and_Interdisciplinarity) [19.09.2020].
- Dschool.stanford.edu (n.d.). *Dschool.stanford.edu*. Available online: <https://dschool.stanford.edu/> [19.09.2020].
- ILO (2018). *Ending forced labour by 2030: A review of policies and programmes*. Available online: [https://www.ilo.org/global/topics/forced-labour/publications/WCMS\\_653986/lang--en/index.htm](https://www.ilo.org/global/topics/forced-labour/publications/WCMS_653986/lang--en/index.htm) [19.09.2020].
- Koh J., Chai C., Wong B. and Hong H. (2015). *Design Thinking for Education Conceptions and Applications in Teaching and Learning*. Singapore: Springer. Available online: <https://www.springer.com/gp/book/9789812874436> [19.09.2020].
- Kwek S. (2011). *Innovation in the Classroom: Design Thinking for 21 st Century Learning*. Master's thesis. Available online: <https://web.stanford.edu/group/redlab/cgi-bin/materials/Kwek-Innovation%20In%20The%20Classroom.pdf> [19.09.2020].
- Liedtka J. (2018). *Exploring the impact of design thinking in action*. Available online: <https://designatdarden.org/app/uploads/2018/01/Working-paper-Liedtka-Evaluating-the-Impact-of-Design-Thinking.pdf> [19.09.2020].
- Parsons D. and MacCallum K. (2019). 'Agile education, lean learning'. In D. Parsons and K. MacCallum (eds.) *Agile and Lean Concepts for Teaching and Learning. Bringing Methodologies from Industry to the Classroom*. Singapore: Springer, pp. 3–23. Available online: <https://www.springer.com/gp/book/9789811327506> [19.09.2020].
- Rissola G., Kune H. and Martinez P. (2017). *Innovation Camp Methodology Handbook: Realising the potential of the Entrepreneurial Discovery Process for Territorial Innovation and Development*. Publications Office of the European Commission. Available online: <https://ec.europa.eu/jrc/en/publication/innovation-camps-methodology-handbook-realising-potential-entrepreneurial-discovery-process> [19.09.2020].
- Scheer A., Noweski C. and Meinel C. (2012). 'Transforming constructivist learning into action: Design thinking in education'. *Design and Technology Education:*

- An International Journal* 17(3), pp. 8–19. Available online: <https://ojs.lboro.ac.uk/DATE/article/view/1758> [19.09.2020].
- Sweeny S. (2016). *Babson to Hold First Annual Multi-school Business Plan Competition for Human Freedom Entrepreneurial Leadership Program*, Blogs. babson.edu. Available online: <http://blogs.babson.edu/news/2016/05/11/babson-to-hold-first-annual-multi-school-business-plan-competition-for-human-freedom-entrepreneurial-leadership-program/> [19.09.2020].
- UN Youth Strategy (2018). *Youth 2030 Working with and for Young People*. Available online: [https://www.un.org/youthenvoy/wp-content/uploads/2018/09/18-00080\\_UN-Youth-Strategy\\_Web.pdf](https://www.un.org/youthenvoy/wp-content/uploads/2018/09/18-00080_UN-Youth-Strategy_Web.pdf) [19.09.2020].
- University of Arizona (2019). *Four law schools launch collaboration to support human trafficking survivors*, Law.arizona.edu. Available online: <https://law.arizona.edu/news/2019/08/four-law-schools-launch-collaboration-support-human-trafficking-survivors> [19.09.2020].