The IKEA x UTS Future Living Lab as a Learning Laboratory

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Abstract

This article introduces the IKEA x UTS Future Living Lab, a design research collaboration between IKEA Australia and the University of Technology Sydney (UTS), founded in 2018. Authored by the Lab's two directors, the article traces the pedagogical and methodological approach of the IKEA x UTS Future Living Lab. Situated within the Educational Design Research (EDR) discourse, this article demonstrates the development of a productive dialogue between two contrary operating principles: that of infinite creativity afforded to design students, and that of rigorous design development towards mass manufacturing and market distribution by a major global player in the design industry. This article outlines how co-creation principles as practised by IKEA and peer-critique as a long-established pedagogical design school tool accelerate students' understanding of the complex processes involved in contemporary design and provide "real world" experiences in the production of design concepts and outcomes.

Keywords: IKEA, UTS, co-creation, interior, educational design research

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Introduction

The IKEA x UTS Future Living Lab is a design research collaboration between IKEA Australia, the University of Technology Sydney (UTS), local and international design communities, and the general public. It operates as a regional, outward-facing design hub. The Lab engages in co-creation between researchers, industry, design students, and the interested public in four main formats; namely design studios with input and guest critique by IKEA co-workers and designers, academic conferences and publications, as well as exhibitions and panel discussions open to the general public. This collaboration, while constituting IKEA Australia's only continuous engagement with an academic institution, falls within a recent pattern of "IKEA x" design collaborations that IKEA has engaged with, including IKEA x Lego, IKEA x Adidas and IKEA x Virgil Abloh.

Since its launch in November 2018, the IKEA x UTS Future Living Lab has realised a collaborative space for research and innovation loosely aligned to IKEA's central themes of sustainability and wellbeing in the home in coalescence with the recent IKEA *Life at Home* reports from 2018 and 2019 with their focus on *Place, Space, Relationships and Things* and *The Power of Privacy* respectively (IKEA, 2018, 2019). Aligned with critical concepts of Educational Design Research (EDR), the lab engages with real-world issues through an educational lens developing new knowledge and innovative solutions through a phased approach of analysis, design and critique. By developing distinct departure points, iterative design strategies and articulating the practice and theory dialogue, the lab acknowledges EDR methods through collaboration, intervention, ideation and optimisation (McKenney and Reeves, 2019).

Figure 1
IKEA x UTS Future Living Lab, Sydney, Australia (Photograph by Lawrence Wallen)

Thea Brejzek, Lawrence Wallen

Central to the IKEA x UTS Future Living Lab's innovation trajectory is the notion that domestic space or the home is an essential building block in creating desirable sustainable futures in Australian cities and beyond. If we regard domestic space as a microcosm of the community we live in, careful crafting of our familial relationships and mindfulness of the spaces and things that comprise our home should have a positive and measurable effect on the environment, community and structure of a global culture. The Lab recognises and articulates the importance of the relationship that local and hyperlocal practices have on society and the environment. In this regard, the Lab simultaneously examines the domestic and its impact on the broader world (and vice-versa), while seeking to identify (diagnose) and adopt (implement) options to promote adaptive strategies relevant to life in Australian life and society. The physical existence of the Lab in a street-facing studio at UTS's Faculty of Design, Architecture and Building (DAB) in inner-city Sydney ensures its visibility allowing for changing exhibitions of the Lab's research and students' design work.

The authors aim to give insight into the Lab's trajectory by presenting two design studio's as case studies, namely the *Future of Sleep* and the *Future of Privacy* and an international conference that engaged with the enduring impact of the historic Bauhaus and IKEA on contemporary design practices and methods in the year of the Bauhaus' 100th anniversary, 2019. The emphasis in this article is on the Lab's evolving design methodology and studio practices as these emerged first during the creative collaboration between IKEA Australia and UTS Interior Architecture academics and students from both Interior Architecture and Product Design programmes in several rapid design workshops during 2018 and 2019, including an international studio in 2019 (see Figure 2). In their discussion of EDR, Anderson and Shattuck (2012), point to the utilisation of "multiple iterations" and "mixed methods" (pp. 16–18) to apply, synthesise and diversify methods within a design studio. Multiple iterations allow for non-linear paths from ideation through iteration to prototype.
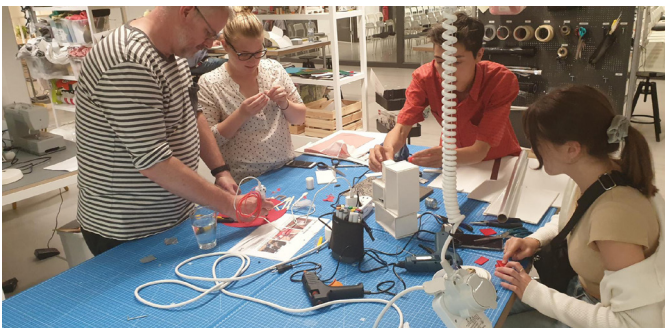

Figure 2
UTS students working at the IKEA co-create lab, Älmhult, Sweden (Photograph by Demet Dincer)

The IKEA x UTS Future Living Lab as a Learning Laboratory

The Future of…

The 2018 collaboration with IKEA on the *Future of the Living Room* realised at the Museum of Contemporary Art (MCA) in Sydney as part of IKEA's internationally occurring *Democratic Design Days* (IKEA DDD) was foundational for the Lab's developing rationale and approach and constituted its first outward-facing project. The workshop introduced students to IKEA's design practices and allowed for both formal and informal conversations between the directors of the IKEA x UTS Future Living Lab, UTS design students, IKEA Sweden in-house designer Andreas Fredriksson, and then IKEA design director Marcus Engman. Engman was in Australia as part of IKEA's *Democratic Design Days* and besides working with UTS had spent time conducting home visits in Sydney—a strategy developed by IKEA and central to the research underpinning the company's annual *Life at Home* reports that involved IKEA designer and researchers visiting people's homes in different cities across a wide range of different living conditions from shared households, inner-city apartments to country houses and social housing. In 2017, 22,000 people in 22 countries hosted IKEA designers in visits to their home that informed IKEA designers as to how people live in different parts of the world, how they organise their homes and live their daily lives and confirmed IKEA's strong interest in acknowledging the vast differences possible within a single city and the diversity of people, societies and cultural practices (IKEA, 2017).

Titled *The Future of the Living Room,* this design workshop operated within IKEA's Sydney DDD. It was undertaken by ten UTS students paired across the disciplines of interior architecture and product design. Student teams produced five proposals over a 48-hour design marathon and were guided by the Lab's directors Thea Brejzek and Lawrence Wallen, as well as postdoc Demet Dincer. Aligned with McKenney & Reeves' 2019 EDR processes, the DDD workshop comprised a closed working session focused on literature review and design precedents to do with living together today held in the lab and, following on from there, a public exhibition and guest critique session with Frederiksson and Engman conducted in the museum. In the public critique session where students presented their designs related to the futuring of the domestic living room, Engman and Fredriksson rigorously applied the five elements of democratic design as articulated by IKEA that echo the Bauhaus principles proposed one hundred years earlier by Walter Gropius and colleagues, namely form, function, quality, sustainability and affordability. Students were challenged to redesign their projects for these to adhere to IKEA's five elements of democratic design within a set time frame and to represent. Sharp and eloquent critics,

Engman and Frederikssen, did not hesitate to offer strong feedback to the students' projects using the language and criteria that have become synonymous with IKEA. "Do we need this product?", and "How much will this product cost?" were two of the questions that catapulted students out of their institutional design "bubble" into the reality of the challenges of both designing for and bringing products to a global market. Projects were dissected and evaluated by the two prominent IKEA designers at a professional level and the students, equally nervous and excited, passionately defended their project's intent and design while at the same time conceding that they had not been taking processes of fabrication and costing into account. With the five principles outlined clearly to them, they set to work and redesigned their projects towards an industry reality with astounding results achieved in a matter of hours. In the final presentation and critique session, Engman and Frederikssen unanimously praised the students' creativity and their agility in adapting their designs to the IKEA principles while acknowledging the different roles of the design studio and the design industry.

The Lab's involvement in IKEA's *Democratic Design Days* uncovered fundamental differences in the approach to design between a university and a global design company: the university's pluralist approach that allows for a multiplicity of design strategies driven by individual design academics with often highly speculative methodologies lies in sharp contrast to IKEA's focused and consistently applied design methodology. This apparent disjunct is one of the noticeable disparities between design education internationally and design-based industries like IKEA and was something the Lab's directors have sought to bridge with the implementation of student-driven studios working directly with IKEA in the IKEA x UTS Lab in Sydney or the IKEA Co-creation Lab at IKEA Sweden's headquarters in Älmhult, Sweden. In articulating the Lab's direction and methodology, the directors, in close dialogue with key representatives from IKEA Australia, formulated their approach to the Lab as combining a design school's layered approach to design education with the highly focused approach that is central to IKEA.

The mastering of operating in a mode of *infinite creativity* offered by design school principles while simultaneously bringing the design ideas into a realisable frame with the ambition to bring them to production proved a highly desirable skillset recognised by the students and became a critical influence in the way we structured workshops, design and global futures into the teaching and learning framework of the Lab. As Vincent Tsang, product design student at UTS and participant in *The Future of the Living Room* studio and

the Global Studio visit to IKEA Sweden, remarked, "I learnt so much about IKEA's process and the IKEA way of working. I will remember this immersive experience for a very long time" (Lin, 2019). Tsang's keyword was "immersion", and it is this idea of short intensive, immersive studios that was the key strategy taken up in structuring the future teaching in the Lab. The Lab's intention was not to uproot the lineage of studio-based design and architecture education but instead, provide the students with a "real world" experience that was not rigid but allowed them a journey through the process of a university studio-based design studio utilising methodologies tested within the IKEA framework.

In early 2019, the IKEA x UTS directors and two research interns undertook a trip to IKEA's global Headquarters in Älmhult, Sweden, facilitated by IKEA Australia and Na Lin, the University Collaboration Leader for Co-Create IKEA Sweden, to gain more insight into the workings of the Co-Create Lab. In Älmhult, the authors had tours of the Co-creation Lab, the adjacent IKEA Museum and the IKEA product testing centre, caught up with designer Andreas Fredriksson in the Product Development Centre and engaged with the directors and staff of the Co-creation Lab discussing and formalising the global studio that was to take place there later in the year. The travel proved inspiring for the projects that were planned and had a direct influence on the structuring of the *Future of Sleep* design studio back at UTS in February 2019.

Figure 3
Emilia Lin and Alexander Andronikos— student work from the *Future of Sleep* studio (Photograph by Emilia Lin)
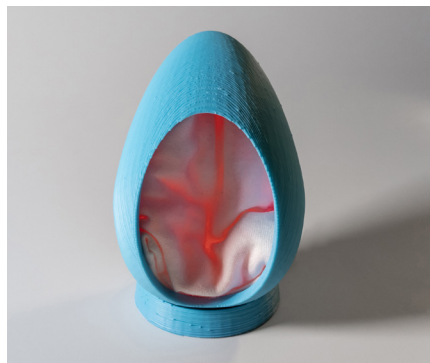
The Design Studio: The Future of Sleep, February 2019

The first credit-bearing Design Studio in the framework of the newly formed IKEA x UTS Future Living Lab in February 2019 was inserted into a subject named *Atmosphere and Emotive Design* and conducted as a two-week intensive studio for 16 students from Interior Architecture and Product Design programmes. The studio was conceptualised and realised by lab director Lawrence Wallen

and the IKEA x UTS Lab postdoctorate fellow Demet Dincer. Within the frame of the IKEA x UTS Lab, the studio aimed to research and explore new design approaches to atmospheric, multi-sensory and emotive design in the Australian domestic context. Using IKEA Co-creation principles as a basis for the two formal student exercises of the studio we used the IKEA term, "problem statement," around the functional, emotional and social impact of a design for a non-domestic near-vertical sleeping concept as the first component. The second component was the design of future sleep rooms that integrated new technologies, embraced differentiated needs and changes in user experiences. Both projects were set in 2030 to allow for the inclusion of fictional technologies, materials and societal shifts. Students were paired across the disciplines and over two weeks developed design solutions that fused object and spatial design to create spaces and artefacts that focused on sleep.

The studio's content complemented IKEA's 2019 focus on the spaces and products surrounding sleep (launched in March 2019). The studio looked at the quality of sleep as a central (but unconscious) part of the day. The specifications of the student's visual output formed an integral part of the launch of the IKEA Sömn [Sleep] Studio in March 2019. Before starting the studio, students were provided with a small cardboard box and asked to build a model of the memory of their childhood bedroom within the confines of the box, and thus to explore the memory of spaces explicitly relating to the sleep-room of their childhood. As a pedagogical low-threshold tool to engage students with the Future of Sleep, this simple task and subsequent artefact is remarkable in eliciting the narratives of the student's pasts and achieved the desired effect as an icebreaker and indirect introduction into the thinking and aesthetic language of each of the students. The studio leaders argued spatial memory and spatial autobiography as strong determinates in the student's final design concepts; hence the deliberate connection made between the memory of past sleeping rooms and projections of future sleep-rooms.

In parallel to the primary design tasks, lectures, and exercises around emotional design, atmosphere, immersion, representation, multi-sensory design, light, sound and smell were delivered by studio leaders as well as conducting a daily anonymous "sleep survey" to track the length and quality of the participants sleep playfully. Narrative scenarios were built up around imagined clients to give a sense of urgency and realism to the design projects. While the design exercise on the non-domestic near-vertical sleeping concept produced a diverse range of responses from wearables, sleep pods, autonomous vehicles to private train and aircraft solutions, the

second exercise around the sleep-room of the future proved to be significantly more homogenous in output with some striking convergences. All but one of the projects in the future-sleep room integrated sleeping with work; all projects proposed theatrical transformations of space to differentiate usage. One student's design for a one-bedroom apartment in Singapore transformed from prayer space to workspace to a sleep space through highly theatrical devices of kinetic technologies and lighting. Wall screens, immersive and interactive propositional technologies and fascinating relationships between technology and nature all emerged out of the students' work. While the first exercise on vertical sleeping was visually more exciting, the projected sleep spaces were more profound in their projections and predictions of the future.

The studio produced an impressive range of projects and research and included surveying of the students in terms of their learning experiences and their opinion of specific pedagogic strategies that we employed. Interior architecture student Emilia Lin is quoted extensively here as a representative of the students' learning experience as a whole: On the question of Co-creation within the studio, Emilia remarked that the studio's approach "helped me put my practice into perspective. It has enabled a kind of self-awareness, allowing me to see the practice of interior architecture as it was taught as deliberate processes and deliberate ways of doing things," and she goes on to say "that it can be often important to ground an idea in reality throughout the design process" (Lin, 2019). On issues of the material body, Lin claimed to now understand that the role of materiality was functional to the body rather than her previous thinking about how materiality is only functional to space and how important it is for a spatial object to maintain cohesion to the space but not necessarily to the body (Lin, 2019). As a first exercise in exploring the intersections between academia and industry through a cross-discipline approach to Co-creation, this studio showed that external interventions into the privileged bubble of a design and architecture school are critical not only for impact and relevance but for the intellectual and artistic development of the students and their professors. The studio lay the groundwork for continued engagement with IKEA and informed the emerging educational approach.

The Conference: Impact! From Bauhaus to IKEA, September 2019

In line with establishing the Lab as an agile design research space, an academic conference followed in September 2019 that reflected on the impact of both Bauhaus and IKEA in their enduring and global influence over the way we live (Impact!, 2019). The Bauhaus had, 100

years prior, for the first time, articulated design principles for the better good of the people by democratising design and developing modular architecture. The conference was open to the public as well as forming the theory part of a master studio on modernism led by Lawrence Wallen and Deborah Ascher-Barnstone from UTS. Titled *Impact! From Bauhaus to IKEA*, the conference examined historical and contemporary design theories, philosophies and practices of making into the future as they related to the Bauhaus and IKEA. Sponsored by the School of Design, University of Technology Sydney (UTS), the IKEA x UTS Future Living Lab and the Goethe-Institut, the conference was held over three days at UTS and provided a forum for internationally renowned art, design and architecture theorists, practitioners and students to discuss the impact of the Bauhaus and IKEA on the way we live together today and in the future.

Claudia Perren, CEO and Director Bauhaus Foundation Dessau opened with a keynote that spoke to the contemporary relevance of the Bauhaus and presented the newly completed Bauhaus museum in Dessau as a contemporary design laboratory and exhibition venue for the Dessau collection. At the same time, product designer Axel Kufus from Berlin University of the Arts (UdK) tackled the controversial notion of global fabrication and distribution networks in his keynote address "*Global Thinking and Hyperlocal Practices*" where he introduced his Berlin design practice as a counterposition. Andrew McNamara from QUT Brisbane reflected on the Bauhaus pedagogy of both disciplinarity and interdisciplinarity and Shanghai-based Iina Vuorivirta reflected on her creative journey and professional responsibility as one of IKEA's in-house designers. Keynote speakers were joined by a wide range of international presentations and interdisciplinary roundtables and discussions that aimed as much for a scholarly exchange as for an introduction to the format of the conference as a discursive and networking format for the participating group of students.

To the students, the complex interactions between design and society throughout the 20th century became visible, and the Bauhaus emerged to them as a pioneer in design thinking and design education. To be able to speak, discuss and question the speakers on their take on the role of art, design and architecture in a rapidly changing urban environment amidst dramatic environmental concerns was central to the students' engagement during the three-day conference. They concluded that a critical engagement with Bauhaus principles could serve to underline the potentiality of design to be an active agent towards responsible and sustainable design, fabrication and distribution processes.

The conference discussed the impact of the Bauhaus and the global presence of IKEA on the Future of Living Together and on methods of making. It looked at IKEA's co-design practices and the specific challenges of design for manufacture. Speakers addressed the Bauhaus' impact on pedagogy and expansion of knowledge beyond institutions. The Bauhaus' impact on society and its contemporary articulation through IKEA, structured around the two key terms "universal design" and "democratic design" was another focus of the conference. At the time of writing, the authors are preparing an edited volume based on the conference while expanding its focus to some of the intercultural, experimental and performative practices that today characterise the most significant contemporary translations of the Bauhaus principles and ideas at a time where many of us live with the influence of the Bauhaus and the products of IKEA.

The Design Studio: *The Future of Privacy*, February 2020

In planning the Lab's program for 2020, the authors, in dialogue with IKEA Australia, chose two overriding themes to engage with over the year. The first thematic area was an exploration into *The Future of Privacy* and the second thematic focus was *The Future of Water*, chosen at a time when large parts of Australia were already suffering from severe drought, and when it was inevitable to scientists that the coming summer season 2019/20 was going to see extreme temperatures with no rain relief in sight for several months to come. This international studio offered by the IKEA x UTS Future Living Lab offered to explore themes of water in all its various states and manifestations with a design emphasis on water usage in the domestic environment at IKEA headquarters in Älmhult, Sweden and the Venice International Architecture Biennial.

The studio planned to spend three days in Älmhult, Sweden, working with IKEA designers in the IKEA Co-creation lab on water usage and conservation. In Italy, the studio aimed to visit the Venice Architectural Biennale directed by Hashim Sarkis, with the theme *of how we will live together*. Water scarcity internationally is seen as a vital factor in shaping future geopolitics with pressing concerns surrounding supply, conservation and ownership that will become critical over the next decades. The studio planned to look at *water* on a personal scale within a global context that spans politics, socioeconomics, climate change, rising sea levels, landscape, health, technology, culture, climate refugees, etc. The second studio location, Venice, as a city is at the forefront of cities under threat from rising sea levels. Venice has been a laboratory for technical solutions to mitigate rising sea levels over the past 20 years and presented

an ideal case study for the theme of the studio. From water in the home, strategies employed in Venice to Indigenous knowledge in regard to water, the studio planned to research the *Future of Water* from a domestic to an urban scale. Notably, both topics, "*Privacy*" and "*Water,*" were of immediate global and national (Australian) relevance and thus allowed for a wide range of precedents and research to be actively considered. The Lab's activities again were to be varied in format and encompass academic, pedagogical and outreach events.

Figure 4
The Future of Privacy Studio, IKEA x UTS Future Living Lab, Sydney (Photograph by Emilia Lin)

In the following reflection on the design studio, *The Future of Privacy,* the authors emphasise its dialogical structure that utilised and expanded existing IKEA research on the topic, its pedagogical premise, realisation and final outcomes. The two-week intensive studio's distinct interdisciplinary character posited that the related disciplines of interior architecture and product design in coalescence could respond to the studio's thematic challenges in a new and convincing way. Design studio leader and Lab director Thea Brejzek aimed to explore the future of privacy in the home (and beyond) in the digital age through the lens of the young designers and their life experiences. The studio program comprised of three creative packages or design tasks and concluded with a public exhibition of students' works. At the onset of the studio, it was established by Brejzek and her collaborator, furniture designer Tom Fereday, that privacy's confirmed links to wellbeing often conflict with the reality of urban living and that our desire and need for privacy in conjunction with the complex roles that we occupy in our private and professional lives compounded by close and constant interaction with digital technologies is one of the main challenges

of contemporary life. As a pre-studio-task, and to be conducted at home, students were asked to create a short video for presentation to the class on the first day. The three-minute video was to comprise a soundtrack, associative imagery, spoken language and text addressing the following leading questions: What is privacy for me in the digital age? Where do I experience privacy? Which spatial/atmospheric/social factors are important for me to be able to experience privacy?

Additionally, students were asked to create a conceptual model that visualised a notion of privacy from materials of their choice. Both pre-studio tasks were presented to the studio community on day one. They had been devised as both a pedagogical strategy to have students engage with the topic in a self-directed way and as a social strategy where students could get to know each other through presentation and group discussion. The teaching team of Brejzek and Faraday understood their task primarily to be that of facilitators, providing input and guidance, both theoretically and practically where needed while fostering a collaborative atmosphere among the students. Importantly, selected IKEA interior designers were to act as guest critics at the final design presentation, providing feedback from an IKEA perspective.

The studio was conceptualised with a flexible modular structure that allowed for certain design exercises and activities to be expanded and for others compressed or skipped altogether depending on the interests, skills and engagement of this group. The three creative packages operated as formative assignments and framed the topic of privacy: the first comprising a reworking of the conceptual model of a notion of privacy that had been presented on the first day of the studio, the second an interdisciplinary group assignment focused on visual research into privacy, and the third and final design task was to be presented in the form of a scaled prototype, sketches and plans as well as the presentation of associated research, design process and documentation panels.

On the studio's kick-off day and seated around one large table, students firstly presented their short video. The videos shown fell into either of two key imageries and related spatial concepts, namely featuring either peaceful nature sequences of open spaces offering privacy and restoration, or students' bedrooms and studies representing intimate spaces of privacy and safety. A different picture, however, emerged through the students' conceptual models and corrected the studio leader's assumption that the term "conceptual model" was equally known and practised in the design development of both disciplines. Interior architecture students

Thea Brejzek, Lawrence Wallen

were indeed familiar with the notion, creation and purpose of a conceptual model as communicating an idea rather than presenting a preliminary design and presented models in a variety of materials, textures and deliberately working with abstraction. This group ignored scale, functionality and (architectural) program. In contrast, product design students grappled with the term. They predominantly presented small-scale cardboard models of (private) interiors.

After clarification of the productive potential of the conceptual model as a first approach towards a design topic, students were paired across the disciplines and asked to arrange all models on two tables according to degrees of what they perceived as "conceptual thinking," "materiality," and "scale." This exercise, namely the arrangement of objects according to formal or aesthetic parameters, was designed as a rapid exercise to evoke a flowing conversation about abstraction, realism, conceptual thinking, materiality and scale and to allow students to become more comfortable in the use of design terminology. The exercise also assisted students in comprehending the discursive potential that a conceptual model provides in interdisciplinary design collaboration.

Following on from this group exercise, the teaching team offered individual in-depth guidance to each student team and focused on the communication of clear ideas through form, material, and scale. Intermittently, students were encouraged to offer peer critique practising the new design terms and methods they had been introduced to in the class discussions in a continued spirit of student-lead co-creation and self-directed learning. With the establishment of an exploratory methodology through the introduction of the conceptual model as an ideation tool, further methodologies and theories were introduced. These included the concept of proxemics, a term coined by anthropologist Edward T. Hall during the 1950s and 60s that has since found entry into sociology, environmental psychology and environmental architecture. Hall describes proxemics (as) "the study of how man unconsciously structures micro-space—the distance between men in the conduct of daily transactions, the organisation of space in his houses and buildings, and ultimately the layout of his towns" (Hall, 1963, p. 1003). By measuring typical distances between people relating to different experiences of individual comfort, Hall developed four spatial zones, that he termed "intimate, personal, social and public" (Hall et al., 1968, p. 92). By adding to his chart, the subjectively and culturally perceptive categories of kinaesthesia, thermal receptors, olfaction, vision, oral and aural, Hall presents proxemics as a highly complex yet instinctively practised cultural technique (Hall et al., 1968, p. 92).

In addition to Hall's spatial zones, the first input lecture by Brejzek introduced the four main aspects of privacy, namely acoustical privacy: not being distracted by noise; visual privacy: not being distracted by visual factors; territorial privacy: claiming a space as your own; and finally, informational privacy: keeping content (analogue, digital as well as verbal) confidential. It was argued that the concept of privacy must be a dialectic model based on the level of control that the individual possesses over their surroundings. Students were encouraged to discuss which spatial zone and which aspect of privacy they wished to research further in preparation for their final design project. Precedents presented to the students positioned at the intersection of the disciplines of (interior) architecture and product design ranged from intricate face jewellery that refracts facial recognition software to a multi-platform school lobby that allowed solitude and togetherness side by side through modular configurations. Inputs to the student included the IKEA "way of designing from ideation to product" and the research collected and published in the 2019 IKEA Home at Life Reports, *The Power of Privacy* and *An Exploration of Privacy* respectively (IKEA, 2019). The reports not only relied on international and country-specific interviews and case studies but drew extensively from psychological and sociological perspectives and seminal studies in the field. IKEA's research confirmed to students that design research must reach far beyond product research but rather must engage with people's needs, dreams and desires on a global and local level. The reports identify a "privacy gap" and asks how we can close the privacy gap identified in the contemporary urban world. The researchers claim that, at home, we often do not ask for privacy and are forever bound up in our complex, multifaceted social roles.

A first step in closing the privacy gap, the report argues for a conscious reframing of privacy not as a passive refuge but as an enabler (IKEA, 2019, p. 4–6). This statement was positioned as a mission statement for the young designers in the "privacy" studio. These were firstly the articulation of a privacy gap and the identification of the users affected by it. Adhering to Hall's spatial zones, students were asked in which spatial zone the privacy gap occurred and how they felt they could "lift" the privacy gap through their collaborations. The reframing of "privacy" from solitary refuge toward an enabler came as a surprise to the studio participants. However, it became evident in the subsequent discussions that in fact, the dialectic between the desire of "wanting to be alone" and that of "wanting to be social" in both analogue and digital worlds presented a challenge to the young designers in their lives. Students were asked to reflect in pairs on this dialectic relationship that the studio came to term the dilemma "alone together" and choose a spatial zone based on

Hall's categorisation of spatial distances between people, namely, personal, private, social and public, and to research a privacy gap in the space they were looking at. As students commenced their research activities in eight groups, the teaching team strove to both guide the research by focussing on relevant privacy gaps in the chosen spatial zones but also to encourage wide distribution of zones and diversity of users affected by different privacy gaps. Students identified the area of privacy (acoustic, visual, territorial, and informational) that their design was engaged with and how the collaboration helped resolve privacy in their identified problem statements. Student teams finished the first week with research presentations and discussions around eight different privacy gaps, and potential solutions in areas ranging from a wearable to allow for privacy when making a phone call in public to the redesign of a submarine's sleeping area to let its staff have their "own" space.

Week Two was focused on design development, prototype construction and design/research statement and the inclusion of these in panels for the exhibition and presentation. Close collaboration between the two related disciplines required students to use each other's disciplinary differences and similarities to the project's advantage. While interior architecture students tend to work thorough precedent research and the spatial environments aesthetics and program, product design students tended to focus intensely on the development and functionality of the artefact. Each group expressed the benefits of such collaboration where object and environment in a spatial composition comprised the ultimate design outcome. Peer learning proved to be most evident in the areas of precedent and user experience. As was to be expected, not every 3D printing file was successful, laser cutting, while reliable, proved to be time-intensive, and every student team needed to review their primary methods of production several times. As a result, the teaching team's participation now needed to shift from design and research guidance in the first week to suggesting efficient, functional, aesthetic solutions that did not stray from the students' concepts but were manageable to realise in the remaining days. In parallel, students finalised their panels so they could be exhibited together with their prototypes. With last-minute amendments to their eight prototypes and a fast print run of eight A1 panels, Friday morning was a rush of nerves and excitement at the same time for all students. Students rehearsed their presentations in their small groups.

Overall, the studio structure followed closely the IKEA Co-creation method of identifying a problem, articulating a problem statement and outlining how design can "lift" the problem and thus contribute

to people's wellbeing. In the afternoon, three designers and co-workers from IKEA joined the studio and provided detailed feedback after each of the students' presentations. The three-hour session comprised a lively discussion between students and IKEA industry guests that saw our industry partner both excited at the collaborative design outcomes and stimulated by the exchange with the students. For the students, the intense collaboration between the disciplines and the speed at which they were required to work towards a final design proposition and prototype proved to be equally challenging and stimulating. Realising EDR principles of bridging between design school and industry (practice) resulted in what the authors call a "deep learning," a learning where the setting, communication and topic are student-centred, autonomous decisions are actively encouraged and where "real-life problems" are negotiated.

Figure 5
Vincent Tang—
UTS student work
from the IKEA
Co-create Lab,
Älmhult, Sweden
(Image by Vincent
Tsang)
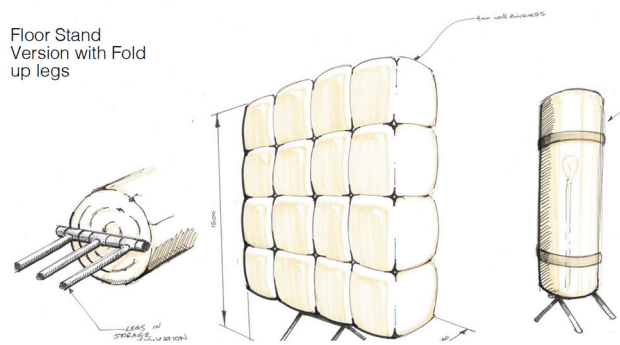
Summary

This article presented an insight into some of the recent educationally focused activities of the IKEA x UTS Future Living Lab since its launch in November 2018 by the Lab's two directors and outlined the various formats of engagement between IKEA Australia and UTS. Through the detailed tracing of the Lab's background and leading principles supported by close readings of two design studios, this reflection aimed to communicate the challenges and benefits of a dialogical design research collaboration between design academics, students, and industry partners such as IKEA. With pedagogical principles of immersion into real-life problems, participative design, rigorous peer critique and productive encounters with practising designers at the Lab's core, students were able to gain a perspective on their chosen path outside the close confines of the traditional design studio. Students felt activated and empowered through the collaborative character of the Lab

studios and a "deep learning" characterised by the opportunity to take autonomous design decisions and to be able to work together with peers from a related discipline, occurred. The principle of co-creation and peer critique, from ideation to multiple iterations to prototype and evaluation, as developed by leading researchers in EDR and as practised in IKEA, was shown in this article to be ideally suited to bridge design education and professional design practice and to act as the foundation of a learning laboratory beyond the specific case of the IKEA x UTS Future Living Lab.

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References

Anderson, T., & Shattuck, J. (2012). Design-based research. *Educational Researcher, 41*(1), 16–25. https://doi.org/10.3102/0013189X11428813

Hall, E. T. (1963). A system for the notation of proxemic behavior. *American Anthropologist*, *65*(5), 1003–1026. https://doi.org/10.1525/aa.1963.65.5.02a00020

Hall, E. T., Birdwhistell, R. L., Bock, B., Bohannan, P., Diebold, A. R., Durbin, M., … Vayda, A. P. (1968). Proxemics [and comments and replies]. *Current Anthropology*, *9*(2/3), 83–108. https://doi.org/10.1086/200975

IKEA (2017). *Life at Home Report 2017: Beating the battles.* https://lifeathome.ikea.com/wp-content/uploads/2019/09/Beating_The_Battles_2017.pdf

IKEA (2018). *Life at Home Report 2018: Beyond four walls.* https://lifeathome.ikea.com/wp-content/uploads/2020/09/Life-At-Home-Report-2018-Beyond-Four-Walls.pdf

IKEA (2019). *Life at Home Report 2019—In short: The power of privacy.* https://lifeathome.ikea.com/wp-content/uploads/2019/10/IKEA-LAHR_Summary-Report_2019.pdf

IKEA Life at Home Report 2019: Privacy in crisis (2019, October 7). https://www.ingka.com/news/ikea-life-at-home-report-2019-privacy-in-crisis/

Impact! From Bauhaus to IKEA (2019). http://www.ikeaxuts.org/

Lin, N. (2019, September 5). *Co-creating with Australia's future designers*. https://ikeacocreation.com/

McKenney, S. E., & Reeves, T. C. (2019). *Conducting educational design research*. Routledge.

We are live from Democratic Design Days 2018! - IKEA Today (2018, July 6). https://ikea.today/live-democratic-design-days-2018/