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Layout: Maija Merimaa

ISSN-L 2242-5241

ISSN 2242-5225 (verkko)

ISBN: 978-951-799-529-0

ISBN: 978-951-799-530-6 (verkko)

Laurea Julkaisut | Laurea Publications | 121

Virpi Kaartti & Auli Guiland

SERVICE INNOVATION AND DESIGN

STORIES OF THE EMERGING
THEMES AND IMPACT OF THE
EDUCATION

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1. INTRODUCTION – LAUREA AS A FORERUNNER IN SERVICE INNOVATION AND DESIGN EDUCATION

Katri Ojasalo

Laura University of Applied Sciences has been a real trailblazer in the field of service innovation and design. This publication is devoted to the 10-year-old service innovation and design (SID) Master's degree programme at Laurea. It includes stories in which SID alumni and SID faculty members discuss emerging themes related to service innovation and design and provide examples on how SID education has affected them and the fields in which they work. In this introduction, my aim is first to show the roots of service innovation and design education at Laurea, and then to briefly guide readers to the interesting articles of this publication. To understand the present and anticipate the future, it is important to look briefly back at the history. For this reason, I start the story of Laurea's service innovation and design journey from the beginning of the 2000s.

At the beginning of the new millennium, the service development and research field expanded rapidly with an expansion of literature worldwide and increasing numbers of conferences, centres and networks (e.g. international Service Design Network) bringing practitioners and academics together (see Ojasalo & Ojasalo 2009). An essential reason for that was the fundamental transformation in the economic environment, demographics and new technologies that drove businesses in all industries to seek sustainable efficiency and effectiveness through new kinds of service-based business models. The new models aimed at applying scientific and practical understanding to advance the ability to design, improve and scale service systems for business and societal purposes (e.g. Maglio & Spohrer 2008). The service-dominant logic approach (e.g. Vargo & Lusch 2008) gradually replaced

the traditional view of goods-versus-services or manufacturing versus pure service business, with a view of service as value co-creation that involves both tangible things and intangible activities. At the same time, service design from the point of view of designers emerged as a fresh research and development area and several publications that focused on service design from this new viewpoint came out (e.g. Mager 2004; Moritz 2005; Miettinen 2007).

Thus, in the transforming business environment the demand for service innovation and design competencies rapidly increased among companies and other organisations across all industries (e.g. *Succeeding through Service Innovation* 2008). More emphasis had to be placed on the ability and sensitivity to anticipate changes in customers' behaviour and expectations, and in the consequent competence to design better value propositions and new definable, repeatable and scalable service concepts. It was increasingly important to understand customer value and experiences, and entire service systems, concepts, processes and service encounters (Ojasalo 2009). Still, no university provided then any degree programmes comprehensively addressing these kinds of service innovation and design competencies.

To respond to the identified competence development needs, four Laurea faculty members, with a strong background in service research, established Laurea's service design team and kick-started the design process for a new degree programme at the beginning of 2007. To accelerate the development work, Laurea's first international Service Innovation & Design seminar was organized in 2007. All this work was strongly supported by Laurea's new strategy that focused on service innovation and internalisation. During the following two years, the design of the new degree programme went through a truly collective process involving a great number of stakeholders, research reports and events. For example, in November 2008, seven of Laurea's faculty members took part in the international Service Design Network conference in Amsterdam where they further developed the SID curriculum in a workshop with international conference participants. The curriculum was also processed with international experts in January 2009 when Laurea arranged its second international Service Innovation & Design seminar.

After two years of intensive development work, Laurea – as the first institution in the world – launched the Master of Business Administration degree programme in SID, and the first students began their studies in September 2009. When beginning the studies, SID students are already quite experienced professionally: they all hold a Bachelor's or Master's level degree and have acquired at least three years of relevant work experience after graduation. They complete their Master's studies alongside a full-time job in about one and a half to three years. Thus, it is important to take the professional expertise of students into account and have a mechanism that allows knowledge sharing, learning from each other and creating new knowledge together. In line with innovation theories, the aim has been to reach heterogenic groups of SID students with different educational backgrounds, different employment histories and jobs, different cultural backgrounds and nationalities. The varying,



multidisciplinary backgrounds of the SID students have been a fruitful ground for innovation and creative thinking and thus been a significant strength of the programme. The heterogeneous groups spend three days per month together and co-create new competencies by discussing, sharing and further developing the individual assignments they have carried out between the contact sessions (Ojasalo 2012).

After the launch of the degree programme in 2009, updating the SID education has continued intensively until the present day. For example, the third international ServDes Conference was organized at Laurea in 2012 as part of the Helsinki World Design Capital 2012 programme. The SID faculty members were in the key role of organizing the conference, and SID students presented papers and posters and organized workshops in the conference. After that, SID students, faculty members and alumni have actively continued participating in subsequent ServDes Conferences as well as in annual Service Design Network conferences all over the world. In line with the service design approach, there has always been and still is a strong involvement of students and other stakeholders in the design and further development of Master's level education at Laurea (see e.g. Ojasalo 2015).

Now, after years of intensive development work in the field of service innovation and design at Laurea, it is rewarding to see how much has actually been achieved. A great body of knowledge and new service design methods and tools have been created (see e.g. Ojasalo et al. 2015; Ojasalo & Ojasalo 2018). There have been dozens of influential research and development projects, and SID students have published more than 120 impressive theses on the topic of service innovation and design (see www.theseus.fi). In their own blog (<https://sidlaurea.com/>), the SID students have posted hundreds of interesting articles on their learning assignments and events in which they have participated. Today, all Laurea's degree programmes include elements of service design, and all the Bachelor's and Master's students, from nursing to social services, safety and security to information technology, etc., learn the basics of the service design approach. This is very important since, currently, service innovation and design are globally at the forefront of research and practice priorities and they have become core competencies in all professions.

For this publication, nine SID alumni have written about their experiences on topical themes related to the service innovation and design field. Anniina Antinranta and Jaakko Porokuokka have conducted experiments with humanoid service robots to see how people react to and feel about them. In their article, they discuss how to explore human-social robot interactions. Martin Jordan discusses the rise of the service design approach and practices in government. He shows that government organisations all over the world are now taking a radically human-centred approach to create policies that are more effective, deliver better services and improve outcomes for citizens. In his article, he describes interesting examples of service design in government from the United Kingdom. In her article, Marika Järvinen highlights that healthcare organizations need service design competencies for various reasons in order to survive in the rapidly changing environment. In her SID thesis, she has developed an in-house concept for boosting innovation and development and she summarizes it in the article in this publication.

In their article, Minna Koskelo and Anu K. Nousiainen discuss the role of foresight in service design and share the pragmatic tips they have learned as their best practices for futures design, including business, design and foresight approaches. In addition, they propose next practices based on their experience, continuous learning and the development of sciences. Erkki Salo has examined service design in the fundraising of non-governmental organizations. He highlights that service design offers a participative approach to field work to solve humanitarian crises and environmental problems in an entirely new way. In his article, Mikael Seppälä discusses his continuing explorations and shares interesting views on service systems design and network design. Jane Vita focuses on designing digital services. She stresses that understanding the feasibility of digital creation was never so required, especially in the early stages as well to enable a smooth and seamless customer journey.

SID faculty member Tarja Chydenius illustrates how SID alumni and students have been strengthening the Service Design Network. As she mentions, for many students, one core take-away from Laurea's SID Master's studies has been networking with

like-minded professionals – not only individual contacts but also various working life-related networks and communities. In her article, she shows how Laurea has taken many initiatives to establish networks or liaise with many regional and global organizations, most importantly the global Service Design Network. This publication is concluded by Head of the SID degree programme Virpi Kaartti, who discusses the current state of the versatile and flexible programme. She highlights that studying in a multi-disciplinary and cross-cultural group of professionals opens up novel insights that are highly important in today's working environment. I want to thank all the authors for the very inspiring and insightful contributions covering a number of contemporary aspects of service innovation and design. I hope all readers will have an impressive learning experience when reading this publication. Lastly, I want to warmly thank all the active SID faculty members, SID Advisory Board members and the other stakeholders involved in the SID programme for your important contribution in making Laurea a forerunner in this increasingly important competence area.



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2. TRANSFORMING PUBLIC SERVICE, SHAPING PUBLIC VALUE: SERVICE DESIGN IN THE UK GOVERNMENT

Martin Jordan

In the past, public services have not been well known as an area of groundbreaking innovation. Thousands of designers, hired by governments around the world, are helping to change this. Inspired by tech startups' successes and digital transformation stories in the private sector, government organisations from Helsinki to Taipei and Canberra to Ottawa now take a radically human-centred approach to create more effective policies, deliver better services and improve outcomes for citizens (Mergel 2019; Miessner 2019; Chang 2019; Pankhania 2019; Govias 2018). Their goal is to create public value. While motivations for taking innovative approaches differ from country to country – ranging from cost saving and increasing trust in democratic systems to fulfilling constituents' demands – governments in dozens of countries have brought in or trained up design-minded professionals to rethink how administrations operate (Dribbisch & Jordan 2018a). Multidisciplinary human-centred teams research user needs, prototype responses, and test and iterate simpler, clearer, faster ways for people to interact with government (Government Digital Service 2019a; Government Digital Service 2019b).

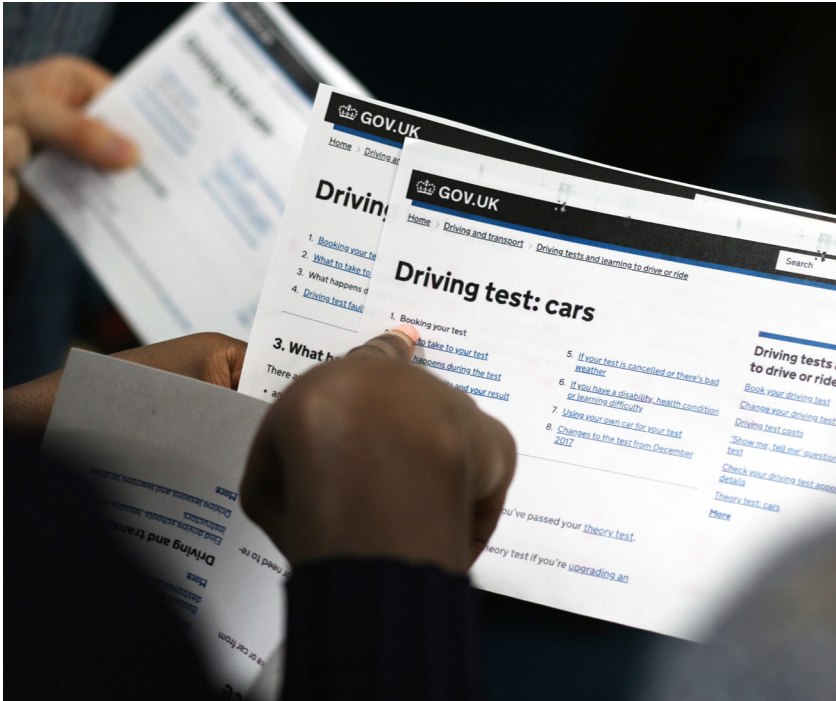


Image 1. Designers discussing improvements for existing government services.

The rise of service design in government

In the United Kingdom, the latest and most successful wave of digital transformation was initiated in 2010 with a report by Baroness Martha Lane-Fox recommending that “*revolution not evolution*” was the path to take. It called on the incumbent government to utilise the internet to improve citizen’s interactions with government (Lane-Fox 2010). In the following years, a new and unified front-door for public services was created: GOV.UK. Soon after, 25 exemplary services were transformed in a thoroughly human-centred way (Government Digital Service 2013). As part of new in-house teams, designers and user researchers investigated what citizens’ contexts and needs, pain points and goals were and developed prototypes in response (Government Digital Service 2012). Initially, the things they worked on were mostly online services like register to vote, find an apprenticeship or renew your passport. These services are now used by millions of Brits. 37 million people were confirmed on the new electoral register in the first year after the service went live (Government Digital Service 2013). More than 90% of users access the register to vote service via an online form instead of the old paper form (Government Digital Service 2019c). This saves people significant time, allows them to use it at whatever time of day they want and makes the service more accessible for people with disabilities or impairments. At the same time, providing the service over the internet instead of on paper lowers

the cost for the department – taxpayer’s money that can be well used in other areas. And more than 92% of the users are either satisfied or very satisfied with the voter registration that’s offered online today (Government Digital Service 2019c).

Admittedly, providing public services over the internet instead of paper, telephone or face-to-face isn’t the most radical idea. But the work of digital transformation goes far beyond the channel it is delivered through. By redesigning online services complex, decade-old paper logic is removed, duplicated effort is eliminated and isolated transactions are joined up. Legacy systems and old contracts are receiving long overdue review (Downe 2016a). This accumulates in compelling case studies that benefit users and departments equally and creating seamless cross-channel experiences is something most private sector organisations struggle to achieve.

This kind of work requires specialisms with very particular skills. A digital profession capability framework has been created in the UK Civil Service, complementing existing ones like policy and operations professions. It includes user research as a distinct specialism, next to content, graphic, interaction and service design (Digital, Data and Technology Profession 2017; Downe 2016b). Service design is one of the youngest disciplines and the community of practice is still relatively small, however this is changing quickly both in the UK and in various other nations’ governments (Jordan 2019). Service designers are starting to reshape public services in Argentina, Australia, Canada, Finland, Germany, Portugal, Taiwan and elsewhere (Dribbisch & Jordan 2018a).

The difference service designers make

The service designers employed by governments today often need to first identify what the real problem is – that includes conducting user research, business analysis and many kinds of data wrangling to synthesise these learnings and distil insights (Douglas Howie 2019). Complex organisations often lack a big picture view when it comes to their service offerings. Mapping and visualising the current experience from the service users’ point of view and depicting how it relates to layers of in-house functions can be a powerful activity to increase internal understanding and show opportunities for a revised future state. Service designers often act as facilitators within their teams and for external stakeholders. They help establish a shared understanding and create a common purpose. By building knowledge and making it visual and explicit, they spot opportunities for reducing cost and complexity (Douglas Howie 2019). Services designers make structural and procedural waste visible and therefore help increase the efficiency and usability of an offering. Together with service managers, they help define the scope of the service and ensure even its simplest version it is answering key user needs. Like their interaction and graphic design peers, they explore and prototype various solutions to a problem (Alsop 2014). Testing prototypes reduces the risk of service failure, validates assumptions early on and allows teams to learn from users in following iterations (Ivey-Williams & Thistlethwaite 2019).



Image 2. Designers and product managers from across the UK government working on a service journey map.

Service designers work towards an end-to-end service that addresses a user's whole problem, and a service that is effective and efficiently designed from front to back and in all channels (Downe 2016c). This is no simple task as the structure of government isn't designed to meet user needs. Many services cut across organisational structures. Different transactions within a service are delivered by different government departments who operate independently from each other (Service Communities team, 2019). Inside the individual departments and ministries, there are often further silos; professions not collaborating with each other and programmes following different goals and objectives. In consequence, a person needs to interact with up to 12 different parts of the UK government if they want to start a business. As different government departments operate isolated and separately, users are asked the same questions again and again (Downe 2016a).

Service design as a discipline helps bridge gaps between disjointed transactions to bring them together in holistically transformed services. Its key goal is to make services work for its users and support people to achieve their goals (Foreshew-Cain 2016). In the process of re-orienting government to focus on holistically transformed services, service design as a discipline steps on a lot of toes. Service designers ask long-serving civil servants difficult questions and challenge the status quo, which can be quite threatening to people in charge of the current offering (Douglas Howie 2019). Some people embrace these changes, but often the questioning of responsibilities, power structures and ways of working and thinking causes discomfort. To mitigate this effect, service design takes a collaborative and participatory approach (Dale & Orellana 2018). It encourages diverse voices and disciplines to contribute, and

promotes iteration based on evidence and data. Taking a service design approach means becoming aware of all important stakeholders early on and embedding them in the process – and educating them about why and how decisions are made so that they have a stake in the proposed change.

How public service design is different

In contrast to private companies, public organisations need to serve everyone. Private businesses may decide to only cater to a specific type of customer or target a client group of certain affluence (Carpenter 2019). However, government and public institutions by law cannot discriminate against anyone as people do not have a choice when using a public sector website or digital service. No citizen or constituent can be excluded. The people who are most reliant on public services are often those who find them hardest to use.

In the UK, the Equality Act is the piece of legislation that ensures public services are accessible for everyone and that makes it unlawful to discriminate against so-called protected characteristics like age, disability, race, religion, sex or sexual orientation (Duggin 2017; Carpenter 2018). Other countries have similar laws in place. And since 2018, all public sector websites in member states of the European Union have to meet accessibility requirements (Ilona 2018). Making services more accessible usually benefits all users (Henke 2019). For example, simple and clear language on government websites not only makes services easier to understand for users with dyslexia or cognitive impairments, but also for people who are stressed, distracted or who don't speak English as their first language.

Increasingly, service teams in the UK government take an inclusive approach to service provision. This goes beyond web accessibility for people with disabilities or helping people with low digital skills to do things online (Carpenter 2018). An inclusive services approach does not focus on certain types of inclusion specifically. Instead, it means centring around all users and their barriers. Research shows that there are universal barriers to access and use services (Carpenter 2019). These range from not having the time and money needed to access a service, lacking awareness, trust, or comprehension of the service, and lacking the self-confidence or emotional readiness to access a service. Poor people living in remote areas of the country with an unstable internet connection could face multiple barriers at once. But equally, people in well-off and well-connected places might not be psychologically strong enough to take on a task or lack the right documents to apply for a service they are entitled to. By conducting user research, service teams are getting to understand how such barriers exclude people from their service and how they must change the service to remove barriers (Carpenter 2018).

Working on public services means carrying a large responsibility for the people served. In most countries, government is the largest service provider, directly affecting the lives of millions of people and their well-being. But working at such a

scale also allows taking the learnings and experience gained from one service area and applying them to another one. Designers working on services create design patterns, which allows a team creating a new online application for a social housing scheme to reuse a structure, form elements and language that are well-tested with users of many other services (Bruce & Poyzer 2017; Dale & Orellana 2018; Ward, Canella & Thai 2019). Designers from across the UK government and its dozens of departments and agencies have created the GOV.UK Design System. By utilising its styles, components and patterns, service teams can make their service consistent with existing ones on GOV.UK and avoid repeating work that has already been done (Noakes & Hupe 2018). Patterns like asking for someone’s date of birth are well researched and even optimised for assistive technology like screenreaders – mainly used by people with disabilities (Paul 2014).

The challenges of service transformation

Government as a service provider is big and old. Its departmental structure makes it hard to fundamentally redesign services that work well for users (Downe 2019). But that’s what is needed—there are rarely any brand-new services. Most public services are founded on decades-old laws, policies and regulations. Work that started with fixing the digital front-ends of services has grown deeper and deeper into the organisational fabric of public administration. Service transformation means government transformation.

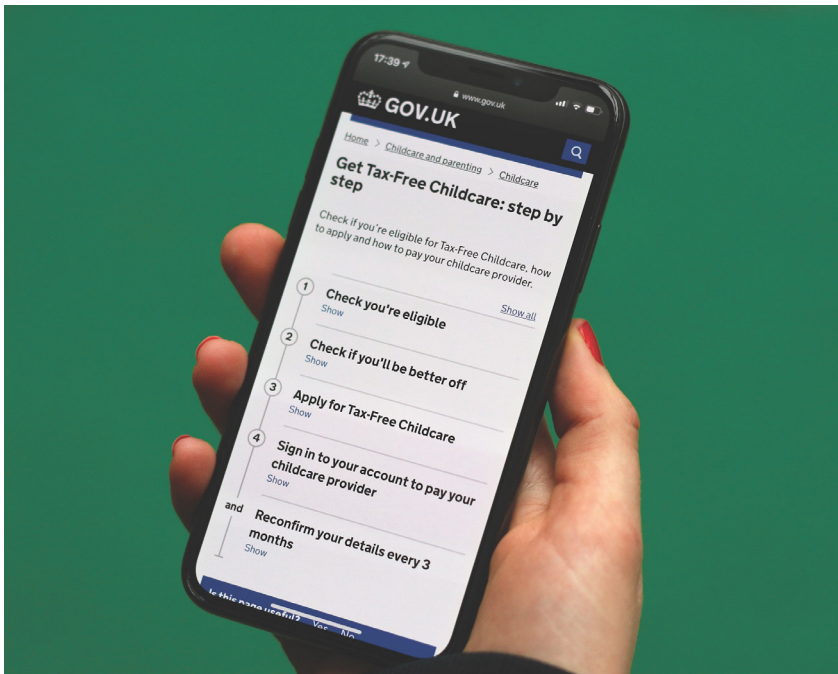


Image 3. A step by step navigation on GOV.UK for the getting tax-free childcare service.

From various ends, designers are working towards big, often slow change. On the citizen-facing side – the GOV.UK website – service and content designers are stitching together the many separate transactions and bits of content that make up an end-to-end service like getting tax-free childcare or learning to drive a car (Ivey-Williams & Dub 2017; Dub & Acosta 2018). For those services, step by step navigation helps users understand what it is they have to do to achieve their goal and in which order. Millions of people have used such stepwise guides, written in simple language, to understand and follow what government demands them to do (Government Digital Service 2019d). To design these navigation guides, designers have run service mapping workshops with colleagues from the various departments and government agencies involved in providing the different bits of the service, as usually there are many various organisations involved in the provision of a larger service (Dub & Acosta 2018). But the different parties often use different words and descriptions for the same things and they are rarely talking to each other or exchanging data. Service designers help facilitate, bridge and bring together stakeholders to make complex services easier to comprehend for users.

Another vehicle for instigating collaboration and exchange between departments is service communities (Wynne-Morgan & Harmer 2018). Initiated by service designers at the Cabinet Office’s Government Digital Service, these include monthly workshops in specific service areas like getting health benefits or starting a business. Through these workshops, the various parts of government involved in providing the larger service have a format for getting together to solve common problems, discuss opportunities for cooperation, and align active projects (Bartwicki 2019). The attending policy advisors, service managers and business analysts from different organisations use service as a lens to reflect on their common work – as opposed to a technology, process or business capability lens. It makes them spot fundamental problems that result in costly and wasteful service failure. An output of their collaboration can be the previously described step by step navigations, followed by deeper work into fixing underlying policies (Service Communities team 2019). The work is comparably slow, but has the potential to enable large cost savings by reducing duplication, fixing root causes of failure and facilitating standardisation.

The design and delivery of joined-up end-to-end government services are outlined in the UK’s Government Transformation Strategy which defines key actions until the year 2020 (Cabinet Office 2017). End-to-end services that stretch beyond the responsibilities and boundaries of individual departments are difficult to change as they don’t have a single owner. But users often rely on them in life-changing events – for example, when trying to find work, getting divorced or registering the birth of a child. The strategy paper proposes that the development of policy and delivery of services should happen in tandem, in an agile and iterative fashion where it is informed by user research (Cabinet Office 2017). Human-centred design plays a central role in demonstrating the benefits of qualitative, evidence-based, and experimental ways of working to parts of government and thereby improves service experiences for people – enabling public value creation. In various departments of the UK government, user-centred policy teams have been established. There, policies

are sketched with service designers involved to test quickly if the service might lead to the intended result of the policy. If not, they can be iterated promptly (Diaz 2017).

Almost 1,000 designers are working in the various UK Government departments. Some – like the Tax and Revenue department or the Ministry of Justice – employ up to a hundred of them (GDS team 2018). Other smaller organisations – like local councils or arms-length bodies, far away from central London – might only have a handful or fewer. Communities of practice help their members, even when scattered across the country, support each other. This happens constantly via digital channels like mailing lists or online chats, and bi-monthly at face-to-face meetups in various regions (Kane & Jordan 2018). In addition, an elaborate learning offering consisting of training courses, design critique sessions, mentoring and coaching schemes helps people move into service design roles, grow as professionals and give back to the community (Yun & Teoh 2019; Jordan 2019). Even though service design is now a recognised profession and discipline in the UK Civil Service, relatively few of the 420,000 government officials understand and utilise its potential to the fullest. And with the government in charge of over 10,000 services, there is plenty of work for years to come.

What education in service design and innovation can bring

The Service Design and Innovation programme (SID) at Laurea is 10 years old. It's therefore slightly older than most of the service design initiatives in governments around the world – including Finland's and that of the United Kingdom. In the past 10 years, most students and later graduates work for and in the private sector. Less than a dozen are working in administration and trying to shape public services from within. With more design-minded people than ever now working in the public sector around the globe, the background of Laurea students also seems to change. And while some modules are clearly biased towards the private sector, there is a lot the SID programme has to offer to current and future public servants.

Firstly, applying a service lens to government is immensely valuable and comes naturally at the same time. Government has rarely made products in a tangible sense. The management of services is – or at least should be – at the heart of what governments and administrations do. Service design processes and methods can help improve public services significantly – supported by insights into the needs of service users. While there are not that many all-new public service offerings created, many need to be entirely re-developed for the digital age. That includes revising the business models or operating logic behind a service. With years of austerity in Europe since the 2008 financial crisis, cost-benefit analysis and cost recovery plays a significant role in departments with shrinking or frozen budgets. Public servants equipped with both design and business skills are more versed than others in ensuring that invested taxpayers' money results in the creation of public value. As governments have a tremendous responsibility in ensuring the wellbeing of their nations and people in the long-term, Laurea-specific study units like futures

thinking and foresight methodology can become invaluable for public servants zooming in and out and shaping their country's future.

As much as Laurea education is shaping public sector students, there lies a good opportunity in them feeding their experience back to inform future development of the programme. The public sector has different drivers than the free-market economy. Service platforms and their actors work under different circumstances and with different objectives and motivations. The programme itself and all other students can benefit from the adaptation of divergent perspectives. Furthermore, engaging in discourses around co-creating public value and co-production of public services affecting everyone in society might be of interest for many. It might lead to more graduates wanting to serve their countries by improving its public services. They are needed as there is much to fix, improve and design in the public sector.

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3. BOOSTING INNOVATION AND DEVELOPMENT IN AN ORGANIZATION

Marika Järvinen

Service design was the missing piece

Market research, customer satisfaction measurement, spontaneous customer feedback system, received quality and brand research were the subjects I was working with from the beginning of my career. I felt that these all were important, yet, at the same time, I had a feeling that something was missing. Insights of customer needs, expectations, and experiences, which were gained from the different sources, did not lead to a process that would have changed either the service offering or delivery process or both in a systematic and innovative manner. I remember trying to create a sort of poor man's service innovation and development concept myself, succeeding in some parts and failing in others. Having deep discussions with people from a network of enthusiastic developers set me on the right track. In 2009, I read about service design for the first time. Service design seemed to be the missing piece, or rather the missing framework, I was looking for. A concept that is systematic yet iterative. A concept that is human-centric but also takes account of the business perspective. A concept that is analytic, collaborative and creative. A concept that encourages experiment and allows failure.

The first service design pilot was carried out with sarcoma-type cancer patients

In 2010, Tampere University Hospital started a large renewal programme in which the central aim was to develop services and hospital premises with a patient-oriented

approach. This opened up an opportunity to experiment with service design in practice. The first pilot was carried out with a group of sarcoma-type cancer patients. The project was carried out in collaboration between Aalto University and Pirkanmaa Hospital District, and was co-funded by the Finnish Innovation Fund Sitra and Aalto Service Factory.

This was a true learning by doing experiment. While proceeding with the project, we tried to figure out how service design can be utilized in designing specialized health care services. There were no examples to follow. We did not know how healthcare professionals would react to the method. Nor did we know how patients and their next of kin would deal with the inquiries or how they feel about co-developing a service that their own or their loved one's health, possibly even their life, could depend on.

The first pilot was a success. Patients were willing to share their stories and experiences through in-depth interviews and participate in co-design workshops. We did not expect to learn that the workshops for patients also served as an opportunity for patients' peer support in addition to service development. The staff also reacted positively to the pilot. The group of professionals working with sarcoma patients were excited about customer journey visualization. The director of the unit was delighted to see that the incremental changes suggested could be done without massive resourcing or efforts. Three preliminary concepts that were also presented as results were seen as important development targets and were taken under further planning by the staff.

Service design is a suitable method for healthcare

After the first pilot, doctors, nurses and other hospital stakeholders were interested to hear about the service design and the results that were achieved. New units with different patient groups and specialty areas were willing to experiment with the method. Interest towards service design increased year after year, both inside and outside the organization. For me as an in-house consultant, this meant busy times. It also meant lots of new learning: what works and what doesn't, how to market this human-centric approach to doctors and nurses, and how to create new tools that are suitable for the context, etc.

The fact is, healthcare organizations need new capabilities in order to survive in a rapidly changing environment. The changes are, among other things, due to technological development and arise out of digitalization, resource crunch and public policy challenges. Healthcare organizations need to be adaptable and have the capability to develop and innovate services that respond to the changing needs and expectations of customers. After doing service design intensively for years, I

am convinced that service design is especially suitable for service innovation and development in the healthcare sector for the following reasons. In healthcare:

- there are complex systems and processes;
- there are high boundaries between different organizations, specialties and professions;
- the operating models are old and professional-focused;
- the coordination of a whole service system from the customer point of view is low;
- the service is often far from the customer's daily experience, but the patient's emotions play a big role;
- traditional customer research methods do not provide information on how the service should be improved; and
- the lack of resources challenges current ways of working.

The in-house concept for boosting innovation and development is needed

During my busy service design years, I learned that if we want to make a change that has a major impact, we need to get as many staff members as possible interested and involved in the development and innovation efforts. Supportive structures are needed as most employees do not have basic knowledge of innovation and development work or they do not have any former experience of it. One doctor formulated this as follows:

“Doctors and nurses know how to treat patients, but they have not received training in the development work.”

For example, most of the staff are not familiar with the vocabulary, processes and tools used in development. The other challenge is that there is no unified system for managing and utilizing tools for development and innovation activities. One director commented on this:

“The instructions and tools for development are in bits and pieces.”

The roles of the director and manager cannot be overemphasized. Several service design cases in which I have been involved have not led to any changes in the service because the director or manager had no clue about their role. A culture that supports innovation and development is of great importance. Innovations require a new kind of leadership and culture, and it must also be reflected in how things are done, how they are spoken about, rewarded and so on.

Due to my learning and experiences, I felt that within the organization it should be easier to develop the services. The question that was going around my head was: “How can the innovation and development capability of the organization be supported by internal service provider?” While I was studying in the SID programme, I finally had

the time, place and professional support provided, so I could orientate myself to this question. As an objective of my thesis, I decided to develop an in-house service concept to boost innovation and development activities at Tampere University Hospital.

The purpose of the thesis was to study the service innovation capabilities at the strategic and practical levels, and from the perspectives of competence and know-how. The theoretical framework explored service-dominant logic, dynamic capabilities, jobs-to-be-done and service design through the lens of service innovation and development capability. The empirical part of the thesis concentrated on what customers, i.e. personnel (employees, managers, directors) need in order to enhance innovation and development. The service concept was co-created with customers and with innovation and development experts by following the service design process and by using methods such as focus groups and co-creation workshops.

The empirical part of the thesis showed that in order to promote the capability to innovate and develop, the staff need tools for systematic monitoring of the operating environment, structures for development, capability to collaborate and communicate about the development work. An organizational culture that is open, trustworthy and supports staff innovation and development initiatives provides better service solutions for both customers and employees. The role of each employee also includes the role of the developer, whose most important tasks include identifying development needs and concretizing the development. The key role of the manager is to enable development. The director's most important task is to take care of the big picture of the development. The leader, who supports the development, can be a part of the director's, manager's or developer's role.

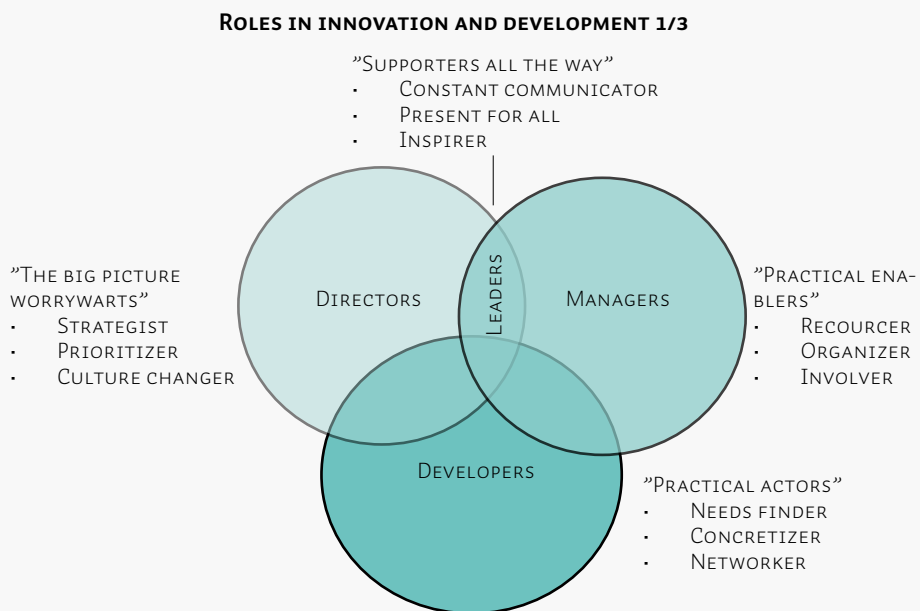


Figure 1. The roles of directors, managers, developers and leaders in service innovation and development (Järvinen 2019, 60).

The preliminary concept was created by building upon the theoretical framework the solutions for the in-house customer's needs found in the empirical part. The proposed concept is presented by the illustration, where solutions work as the building blocks of the concept. The illustration of the concept is shown in Figure 2.

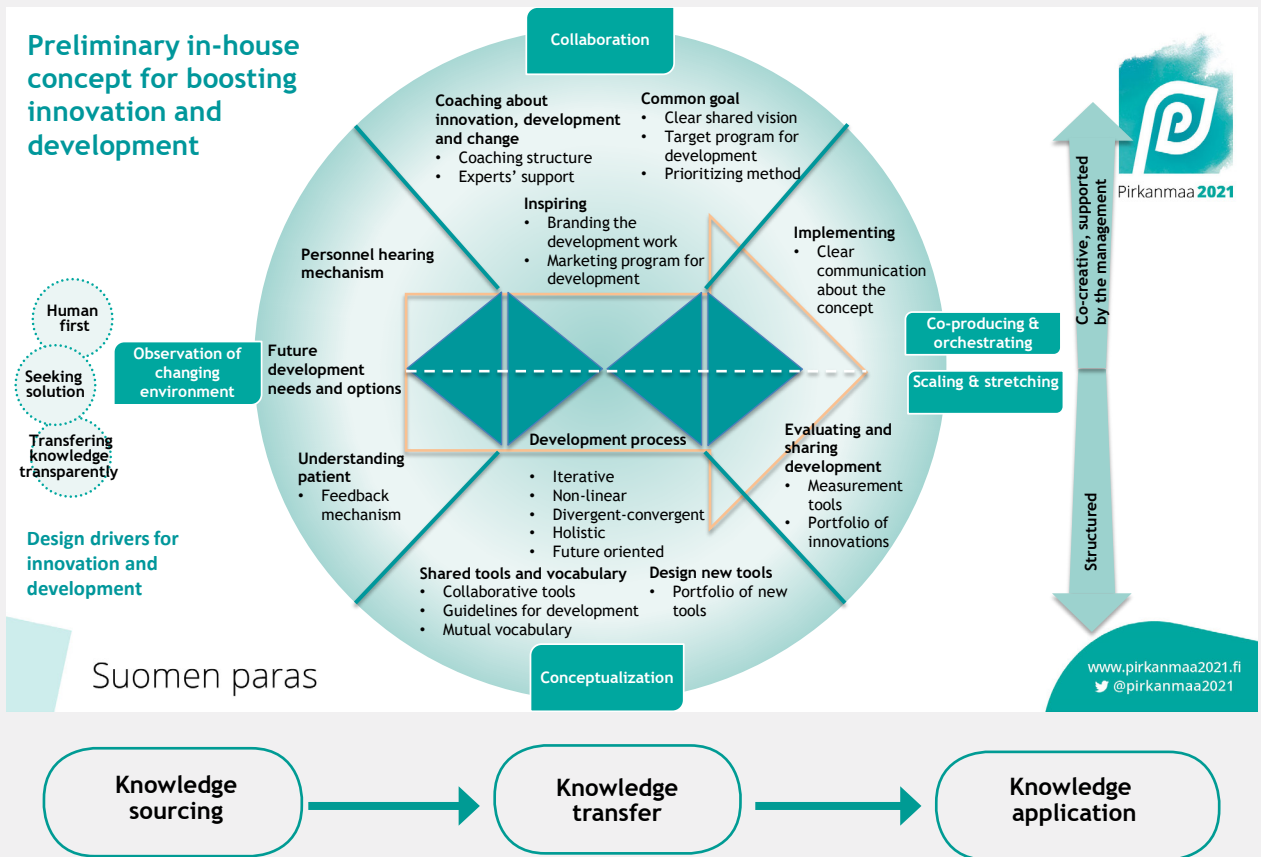


Figure 2: The preliminary in-house concept of boosting service innovation and development (Järvinen 2019, 88).

The concept is made up of building blocks. At the centre is the service development process. At the beginning of the development process, is the observation of changing environment that includes building blocks of a personnel hearing mechanism, understanding patient and future development needs and options. The core of development work is the capability of conceptualization and collaboration. In addition to the development process, the conceptualization is supported by the building blocks of the development toolbox and common vocabulary. Central to the collaboration is a clear common goal, the capability to develop and shared inspiration. Implementing development requires clear communication about the new or improved service. The lessons learned are understood by measuring the development done and shared by portfolio of innovations. In addition, three design drivers are proposed to remind the customer of the concept to always apply human-first-oriented thinking, seek solutions and transfer knowledge transparently.

The concept creates a unique view of the elements supporting the service innovation and development. Different organizations can use the concept to initiate and systematize internal development and create the necessary capabilities within the organization.

The concept works in a way that gives structure for innovation and development activities and the means for co-creation. Activities are not dependent on luck but follow a systematic innovation value chain. It connects the perspectives of directors, managers and developers into one, uses common language and offers a structure to create favourable innovation and development culture. Value is gained by increasing the understanding of the process, roles, tools and methods. Development is made possible as a part of daily work. The experiences and knowledge gained from innovating and developing are gathered for the capacity of the organization. Therefore, innovation and development are not dependent on individuals. The use of external consultants and the results gained from their work can be fitted to the overall map, thus avoiding vanishing results and the sporadic manner of using consultants.

Two big aims: implementing the concept in real life and researching further

My next big aim for the future is to implement this concept in a real-life context, again with learning by doing. Before implementation, the concept should be further developed using co-creation with the customers and with other possible stakeholders. Each building block is also a starting point of its own development process. There might be pieces of the building blocks already existing in the organization, which need to be identified. There are also boundless possibilities to use technology and digitalization as part of the concept to boost innovation and development. Benchmarking with other similar services could also give new ideas to the concept development. The concept has gained positive feedback from the public

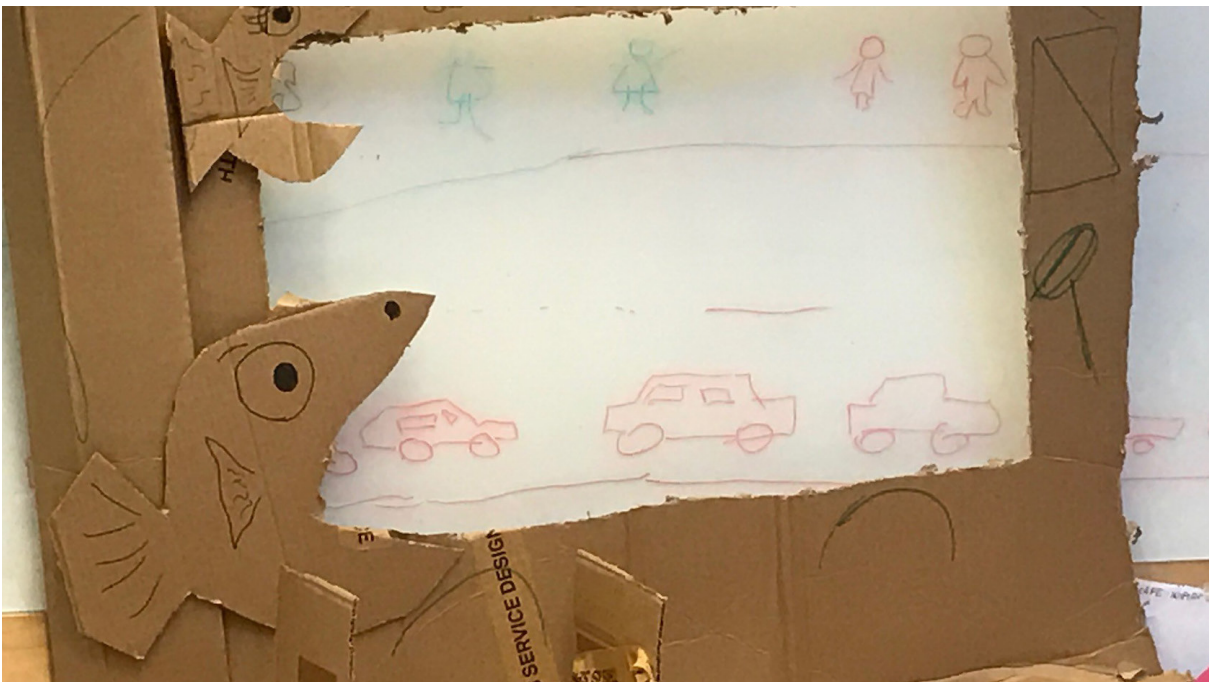
organizations where I have presented it. There have been some serious discussions about the possibility of implementing it on a large scale.

During my studies at Laurea, especially while working on my thesis, I found a little researcher in me. I did not know that one can be so excited after finding an article that really hits the topic of interest. As a future research project, it would be interesting to repeat the focus group discussion in another public-sector organization. The study would give some understanding of whether the concept of boosting innovation and development could be taken up as a concept in another organization as it is. Another future research project could also be to repeat the study in another University Hospital or Hospital District and compare the results with the results of the thesis. This study would give interesting insights about the cultural differences in innovation and development and whether the needs of an in-house customer vary or are similar in an organization offering the same services. In order to find a new perspective on the matter, one could execute the research in a private business sector organization. Future research should be done to provide facts about how this concept enhances innovation and development after implementation.

In the future, the importance of design thinking will only grow as the need for organizations to react to change will not disappear. In my opinion, the prerequisites for innovation and development will become increasingly more strategic for business development.

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4. MY CONTINUING EXPLORATIONS FROM SERVICE SYSTEMS DESIGN TO NETWORK DESIGN

Mikael Seppälä

I'm what Richard Martin and Kenneth Mikkelsen (2016) call a neo-generalist, a multi-disciplinary domain spanner who is difficult to put into a box because of constant evolution that is driven by relentless curiosity. Rather than defining myself through my past, I recreate myself by projecting into the future.

I became interested in Service Design when I was working at Aalto University back in 2013 when I was working with digital university services and especially the data related to them. I transitioned into Enterprise Architecture in 2014 and noticed that the practices that guide enterprise- or organization-level strategic IT development were not informed by customer needs, which is central to service design. The outcome of this was that choosing how IT projects were designed and invested in was informed mostly by an organizational focus, meaning strategy and internal politics rather than customer and/or user needs.

I was highly inspired by Milan Guenther's (2012) book *Intersection: How Enterprise Design Bridges the Gap between Business, Technology, and People* that brings together the fields of branding, enterprise architecture and experience design. I started working on the topic of my thesis during a project with an Enterprise Architecture software and consulting company at the beginning of 2016. At the time, the consultancy was working with a large multinational company that has

customer centricity as one of its strategic drivers and was one of the first companies that was interested in adding service design perspectives to the development of their Enterprise Architecture. At the time, the combination of Service Design and Enterprise Architecture was rather new globally.

Elisa Oyj became interested in my work and I was lucky to get the opportunity to work on my thesis in a few projects that they were working on in which digital services were being developed in both a multi-organizational collaboration related to personal health data and a GDPR-related project in which Elisa wanted to explore the opportunities related to their customer data.

What I found while working on my thesis was that it was very difficult to find a common language between the concepts related to Service Design and Enterprise Architecture, the first stemming from an arts background and the second coming from an engineering background. I stumbled upon the academic field of Service Science that seeks to combine multiple fields, including Systems Engineering and Design, to create a conceptual basis for engineering socio-technical systems (Demirkan, Spohrer & Krishna 2011). Lusch and Vargo's (2014) Service-Dominant Logic is one of the theoretical bases of the field. Where the design of services is at the heart of Service Design, Service Science focuses on what they call Service Systems that are enabled by interactions of Service Networks that can consist of multiple collaborative parties.

In his seminal article *Wicked Problems in Design Thinking*, academic Richard Buchanan (1992) outlines four orders of design to depict the evolution of the field:

1. Symbolic and visual communication (e.g. graphic design)
2. Material objects (e.g. industrial design)
3. Activities and organized services (e.g. service design)
4. Complex systems or environments (e.g. systems engineering, architecture, urban planning)

Service Systems Design is one possible approach outlined in Buchanan's fourth order of design, meaning the design of complex systems or environments.

Whereas there is a lot of interest and enthusiasm towards Service Design at this moment, the intentional and collaborative design of Service Systems is still in its early days. That does not mean that it is not being done. For example, Anni Leppänen and Janne Pulkkinen (2019), from the Finnish Government's former D9 service design team, have experimented with combining Service Design and Enterprise Architecture to design solutions around citizens' life events rather than organizations. The Inland Design has also worked on exploring data sharing practices between governmental agencies that might enable seamless services for asylum seekers (Kantola 2019). Many consultancies that combine design and IT have also made the combination part of their services.

As for myself, I have continued my personal evolution by moving on to next, future practices. Prior to studying Service Design, I studied Social Sciences and Management. Whereas my exploration into Service Systems Design was informed by my prior work in Enterprise Architecture combined with Service Design, working as a freelancer during and after my studies made it possible for me to embed myself in the other fourth order design fields of Organization Design, Social Innovation and Systems Thinking.

Organization Design is a field that seeks to combine Management and Design approaches to create organizations that are not only able to design human-centric services but also handle constant change and adapt to customer needs better. Social Innovation is not necessarily a discipline itself but rather an applied area that seeks to enable social change. Systems Thinking is both a paradigm and discipline that seeks to frame and solve issues in their broader contexts.

I am currently working for the Finnish Innovation Fund Sitra's new initiative that seeks to strengthen Finland's capabilities in tackling Wicked Problems that are outlined and derived from the UN's Sustainable Development Goals. Richard Buchanan (1992, 16) cites Horst Rittel who back in 1972 explored the notion that design problems are Wicked Problems, elaborating on 10 characteristics that define them.

1. Wicked problems have no definitive formulation, but every formulation of a wicked problem corresponds to the formulation of a solution.
2. Wicked problems have no stopping rules.
3. Solutions to wicked problems cannot be true or false, only good or bad.
4. In solving wicked problems, there is no exhaustive list of admissible operations.
5. For every wicked problem there is always more than one possible explanation, with explanations depending on the Weltanschauung of the designer.
6. Every wicked problem is a symptom of another, "higher level," problem.
7. No formulation and solution of a wicked problem has a definitive test.
8. Solving a wicked problem is a "one shot" operation, with no room for trial and error.
9. Every wicked problem is unique.
10. The wicked problem solver has no right to be wrong – they are fully responsible for their actions.

From today's perspective, Rittel's definition still has its merits. However, it has become even more evident that Design is not sufficient alone for dealing with Wicked Problems. Most current organizations are not ready for being driven by something external to themselves, and especially solving global and social Wicked Problems requires collaboration not only between the silos in organizations but between organizations. You cannot start with design because designers do not own or can solve the problem.



Design veteran Don Norman and Eli Spencer (2019) propose an expansion from expert-based design to community-driven design in order to both help with the buy-in to solutions and deal with contextual issues better. Norman and Spencer outline this combination: “Experts provide the building materials, and build the communication structures. Local communities build upon these resources.”

British Innovation Fund Nesta’s CEO Geoff Mulgan with Tucker, Ali and Sanders (2007) define the three key dimensions of Social Innovation using the concept of “connected difference”, which means that they are: (1) usually combinations of existing elements; (2) their diffusion requires cutting across organizations, sectors and disciplines; and (3) they build new social relationships that help with diffusion and embedding the innovations.

Anna Birney (2016), director of the British School of System Change defines System Change as “the emergence of a new pattern of organization or system structure”. This

highlights that global and social Wicked Problems cannot be solved just by creating new services, products or apps but rather require impacting how we organize ourselves and create system structures.

Another feature of Systems Thinking in addition to taking a broader view to the issue is not to focus too much on the parts of the system but rather on the connections within the system. Given the definitions of Norman and Spencer, Mulgan, Tucker, Ali and Sanders in addition to Birney, the emphasis on relationships is central to doing fourth order design with complex systems or environments. The reason for this is that they cannot be solved by analysis, nor can they be tackled by central authorities such as governments.

In my practitioner work at Sitra with Wicked Problems and the capabilities that help tackle them, I have been highly influenced by Ann Pendleton-Jullian and John Seely Brown (2018) who outline a new type of fourth order design that they call Design for Emergence and Systems of Action. According to them, because the future cannot be predetermined, designers should design for emergence, which means incrementally laying the foundations for the desired forms that might emerge in the future. Systems of Action are seek to affect deep change within domains from the inside (Pendleton-Jullian & Seely Brown 2018, 77).

Pendleton-Jullian and Seely Brown (2018, 119) define the key capacities of operating with Systems of Action as:

- Amplified reading of context
- Shaping and working in extremely multidisciplinary spaces
- Metadesigning (designing the design processes, including the participants, methods and tools)
- Thinking through ecological lenses
- Embracing the role of designer as both leader and orchestrator
- Shaping critical and effective networks of partners

If we choose to view the world through the lenses of Systems Thinking, we begin to see it as interconnected and interdependent. In such a world, centralized approaches are not sufficient to deal with wicked problems. Rather, we must focus on the mechanisms that create the interconnectedness and interdependence, i.e. networks.

Network Theory is a relatively new scientific field of the 2000s that seeks to combine approaches from multiple fields such as mathematics, physics, biology, computer science, social sciences, cybernetics and systems design. Whereas Service Science is more focused on the engineering of the systems themselves, Network Theory focuses on the patterns of connections within the systems. Social Networks, not those like Facebook but rather the patterns of connections between people, and their design could help us build agency in complex evolving contexts (Pendleton-Jullian & Seely Brown 2018, 213).

I believe this is very relevant since we cannot simply engineer a Service System that might solve Climate Change. Rather, we must influence organizations, institutions and people to change their routines and patterns of organizing so that contextual and aggregative solutions might emerge in time. With today's Internet Technologies, networks can be scale-free, meaning as large as the amount of participants that they garner. What if we had seven billion designers who have the ability to create shared purposes, connect and design solutions to their complex and evolving issues?

Network Design is something I'm beginning to grasp with my broad knowledge-base and creative intuition. Ann Pendleton-Jullian and John Seely Brown do a great job at outlining this burgeoning field of the 2020s and forward. We are still far from being able to do it at scale even though global forerunners are already working towards the vision. This is happening, for example, in the field of blockchain that seeks to create the infrastructure needed to not only automate but also decentralize applications and organizations that are incentivized to work towards a common purpose. Network Design is a field I am really keen on exploring in my current role and evolving with in the future.



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5. SERVICE DESIGN IN NON-GOVERNMENTAL ORGANIZATION'S FUNDRAISING

Erkki Salo

Over the past decade or so, fundraising in the Finnish NGO sector has taken major steps from receiving donations to a more professionally structured function of serving donors. To compete and be relevant, NGOs need to have strong fundraising processes and clear value propositions. Service innovation and design MBA studies provided me with a valuable platform for succeeding in fundraising.

I have been working with fundraising for NGOs for the past years. When I started as a fundraiser in 2007, the approach to building and executing fundraising was very similar to any for-profit companies. Fundraising plans were created by identifying target groups, calculating ROIs (return of investment) and finding the best ways to deliver the message. The traditional fundraising approach did produce results, but it lacked both understanding of who the customer really is and how to serve them optimally. Service design has proved to be a great platform and approach in my work to boosting NGOs fundraising.

NGOs form large value networks

We live in a complex world with larger and smaller systems tangled up and affecting each other. Non-governmental organizations (NGOs) are on the solution side and they create large value-creation networks with various stakeholders to make the world a better place.

NGOs are organizations that work independently of government. Most NGOs are also non-profit organizations (NPO), which means they do not generate a profit from their activities. Some NGOs do have for-profit funding elements, but NGOs are generally donation funded. Typical NGOs work in the field of humanitarian, health, development co-operation, education or the environment.

NGOs are value-based organizations and they are linked to larger value-creation processes. NGOs serve a stakeholder-network of donors, volunteers, other NGOs and government officials.

NGOs fight for their place in the pond in a way similar to for-profit companies. To succeed in competition, NGOs need good governance and a brand. To gain and retain donors, the purpose and impact of the donation has to be well communicated and the donor service experience well-designed. Most NGOs operate with minimal or small resources. The aim is to get as much as possible done with the resources available.

Fundraising as an enabler for donors to participate

Fundraising is a function that enables NGOs to acquire and retain donors. To accomplish this, fundraising combines the functions of marketing, sales, customer service and communications. Fundraising is a function that enables donors to support the cause they care about—and, by so doing, enabling organizations to operate.

Donors, who are the primary customers of fundraising, include various donor groups: private donors, corporate donors, legacy donors and institutional donors. All these donor groups have their own customer jobs with internal and external goals to accomplish.

In my experience, usually the most important part of successful fundraising is succeeding in fulfilling the internal goals. Successful fundraising needs to be able to address both of these needs. When the internal need is fulfilled, the external also needs to be addressed. People usually express first the external customer job, even though the internal is the dominant one for decision-making and loyalty.

A corporate donor for an NGO expects to support work with their values and purpose and possibly emphasize their corporate responsibility or brand value. Governments support NGOs with various programmes; these are also customer jobs to be accomplished. Governments grant funds for the NGO to fulfil their environmental, social, humanitarian or development programmes – and they expect to get results in line with the programmes.

NGOs are not different to the other customer experiences we experience daily – so NGOs are perceived in the same way as any other customer expectations. For example,

people are used to the ease of using, say, an online movie service to rent movies, which has to be the same experience when donating to an NGO. Understanding what people need is important in order to create a good donor experience.

Service design studies and fundraising

I have been working in the field of fundraising for NGOs for years. When I started as a fundraiser, the approach to fundraising was very similar to any for-profit companies. Already at the beginning of 2010, the largest fundraising organizations in Finland began to develop their customer understanding, marketing and analytics, and were gaining better fundraising results.

Our NGO was also growing and we needed to develop our fundraising processes. Our regular donation (called child sponsorship) served thousands of monthly donors with differentiated service paths depending on the project they were supporting. As something that had developed organically for decades, we needed to reshape and unify the process in order to continue growing and serving our donors.

Laurea MBA studies offered a way of combining studies with my work in fundraising. I was surprised at how hands-on the studies were and how practical they were for everyday fundraising. Close study days were full of laughter and energy and, best of all, a strong motivation to learn. The studies familiarized us with a wide variety of



useful workshop techniques and they challenged us to think bigger, to look beyond what the customer really wants and how to make things better.

We learned about service design theory and we were challenged to understand and think about the concept of value-creation within services: when is value is created who contributes to it, and how are large entities a part of it and, best of all, how to shape the value proposition. By visualizing the service process with a service blueprint and understanding customer jobs through interviews, we learned to understand what the internal and external motivation factors are for regular donation. A lot of elements were unnecessary, and some that were not yet recognized, were critical. Without service design, our NGO could not perhaps see all the development potential.

The studies helped me understand better the value-creation process, who the customers are, what they want and the role of co-creating. The Master's thesis was the highlight of the studies as it combined everything that had been learned. The outcome of the thesis process was a modernized fundraising process for our NGO with enhanced capability for growth and a new tool for any NGO to help co-create and evaluate their value proposition.



Service design suites NGOs

As time goes by, I have realized there is no magic solution to making fundraising better. Service design is certainly an approach that makes any fundraiser a better one.

Nowadays, four years after graduation, service design is no longer for me a constructed set of methods or chosen approach, but instead a part of my mind-set. I have found design thinking and service innovation are ways of finding solutions for customers, co-creating value with different people and, as a leader, supporting my team to succeed.

Fundraising is all about touching people's hearts and minds. Great fundraising speaks first and foremost to the heart, and also offers practical and enjoyable ways to contribute. As the service design mind-set is a human-centric approach, it helps to delve deeper into people's needs and motivations.

Service design also encourages braver testing and sketching, visualizing complex structures without trying to make perfect ones. This saves a lot of energy. Fundraising is also all about time and how well it is used. A design mind-set helps in finding usable solutions in a really fast way.

As a fundraiser, a co-creative approach also helps to empower a team's creative process and team work. The best innovations are found when there is space and freedom to create as well as structured facilitation and process. With service design, I believe I have more courage and skill with which to participate and hear what others have to say.

One thing is for sure, service design brings donor customers to the heart of fundraising. Explorative, holistic, curious and pragmatic, anything can be solved by combining the best parts of design and business. By understanding service design, it is much easier to collaborate with various stakeholders, from advertisers to corporate donors. Service design is the new global language of business co-operation.

Our planet is facing enormous challenges. Global warming, the rapid loss of nature biodiversity and new emerging environmental problems are threats to all of us. I believe we can save the planet, and service design can help us. With an SID mind-set, the cup is always half full rather than half empty.

6. DESIGNING DIGITAL SERVICES

Jane Vita

I joined Laurea's Service Innovation and Design Master's programme in 2012, intending to take a step forward in my career as a designer. What I learned helped me to not only advance my professional skills but gave me a new perspective on what to consider while creating digital services. After that, I started designing with a different mind-set, always zooming in and out, not only looking at the digital interface but all around it, which influences performance and can create a further impact. Additionally, students are diverse in their backgrounds, multiculturally and multidisciplinary, making the programme even more enriching. I made friends and I entered a community for life.



Picture 1. Jane Vita working on a summary of a workshop-day at Digitalist Studio in Helsinki.

As digitalization increases, more and more organizations are redefining themselves and taking full advantage of new business opportunities. Moreover, they are using digitalization to challenge entire business models in established market segments.

To successfully implement digital services, a complete digital transformation is needed, which means not only adopting new technology but changing the whole perception of the way we utilize and measure the impact of technology across the entire organization and on our customers' lives.

The digitalization journey

Not so long ago, digital platforms, services and tools were merely functional, usable and convenient; ways of performing day-to-day work better and more efficiently and getting the information needed from service providers. Knowledge of the web and mobile design patterns, usability testing and understanding business goals, were enough to achieve great results. In addition, there was very little competition in the market and lots of unserved areas for organizations to explore. Something was better than nothing.

Although times have changed, competition increased, and customers are demanding better experiences that can positively impact their lives. They are engaging more, browsing, comparing and analyzing more, they are aware of the technical possibilities. They know how valuable their information is for organizations in this new digital era, and they are looking for an integrated, intelligent and pleasant customer journey, easy to use products and more collaborative services, in exchange for their data.

For more traditional organizations, it is difficult to perceive this changed behaviour caused by the progress in technology and its usage, which is not only applied to customers but also extended to employees, and people in general. Managers might feel satisfied with the "it is working" projection of their digital services and tools, blinded to the benefits and opportunities of more engaging and pleasant digital relationships.

Those organizations might try to catch up on the technology by adopting more agile and lean processes to achieve quick results. They might move forward without looking at the other end, how technology is changing the way customers interact with services, and how this impacts the way services are delivered.

Adopting new technologies is not enough; organizations need to understand technology as an enabler to deliver exceptional experiences. To do that they need to go forward and discover context, culture and the motivations that engage people with their service offering. They need to create value in digital services that affect how their brand is positively perceived. Agile and lean processes alone never succeed in results without having decisions made in a more holistic, strategic and incremental approach based on people's feedback.

Delivering exceptional and sustainable digital experiences requires embracing Innovation Culture and tackling customer-centricity from multiple levels across the organization. The image o2 by Stefan Klocek, 2013, shows at a high level the role of design and more specifically digital design at all these considered levels. Starting from a process that enables visual consistency and simplification, and going all the way up in an organizational pyramid reaching a more customer-centric culture.

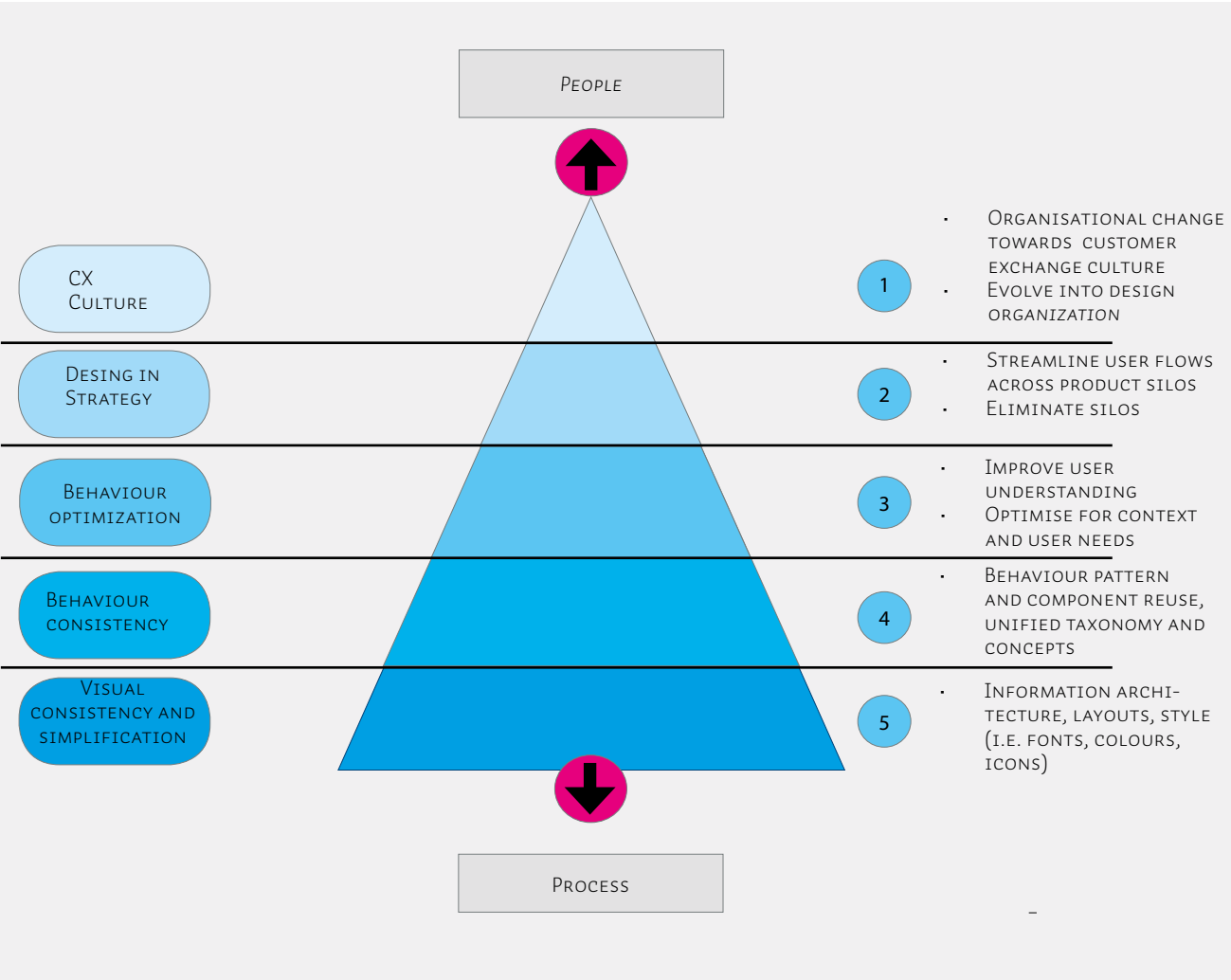


Figure 1. The hierarchy of effort to fix a broken user experience by Stefan Klocek. (Image drawn by Jane Vita 2019).

Understanding a service's digital touchpoints

Let's consider "digital touchpoints" as any moment in a journey where the customer interacts with a smart device. Also, let's define the "smart device" as any machine that can respond directly or indirectly to any information or input generated by the customer, such as desktops, laptops, sensors, mobile phones, tablets, smartwatches, smart TVs and many others.

Digital services can break through the physical boundaries and add possibilities to enhance the customer experience by making present what is remote, removing bureaucracies, and speeding up communications that are challenged by time frames. How we define each of these interactions profoundly influences the outcome of the service and how people engage with it.

Moreover, considering interactions as an instrument for communication and access enable these digital touchpoints to perform synchronous, asynchronous, instantaneous, social, private, predict, prevent, and many more.

Next, we look at the relation between digital solutions and service experience:

Digital processes in services: The business model and the core values are present in a physical journey, and digital touchpoints help to enhance the experience by bringing better performance, efficiency and can extend the connection between customers and organizations in multiple ways. However, the service still performs even if the digital touchpoint fails or does not exist. Examples are digital customer support, online payments, online enrolments and registrations, service settings and preferences, schedule appointments, to anticipate sales or even to give feedback about how the service was delivered.

Service applications: Many applications are considered services when they alone represent most of the entire service, as e-banks and web-based financial advisors, shopping lists, infotainment apps or even some of the dedicated service delivery apps. The main characteristics in this digital category are that the organization entirely provides the content and that the customer only tailors preferences. Moreover, the primary revenue comes from a digital business model. Many of these services are part of a digital service ecosystem and requires a dedicated team to operate and incrementally improve it.

Service Platforms: Service Platform is a business model that uses technology to connect people and businesses, where the value creation is an exchange between who needs a service and who

offers it. The service works as a platform, and the goal is to increase communications and facilitate business transactions through the service. Great examples of this kind of model are YouTube, Airbnb, Twitter, Spotify, Google, Amazon and Netflix.

Digital tools: Also called digital products, are systems that help customers to be more efficient in completing tasks, managing, analyzing, performing and monitoring. They can work online and offline. Also, to maximize the potential of these digital tools, organizations create a series of digital channels that support customers to learn and engage further with the tools, such as training and tutorials, customer support, add-ons, service extensions, among others. Great examples of digital tools are InVision, Adobe Creative Cloud and Microsoft Office Suite.

Internet of Things and robots: Technology is not always connected to a screen and can be embedded in spaces and objects; still, they can collect data and provide valuable information to enhance the customer experience. They can interact directly via voice commands and gestures or indirectly via sensors that can capture movement, temperature, among other things. The information gathered from the customer and environment can be laid out in many relevant parts of a service system, enabling the delivery of relevant information at any point of a customer journey. See smart homes, smart offices, smart buildings, intelligent routes, voice assistants, among other things.

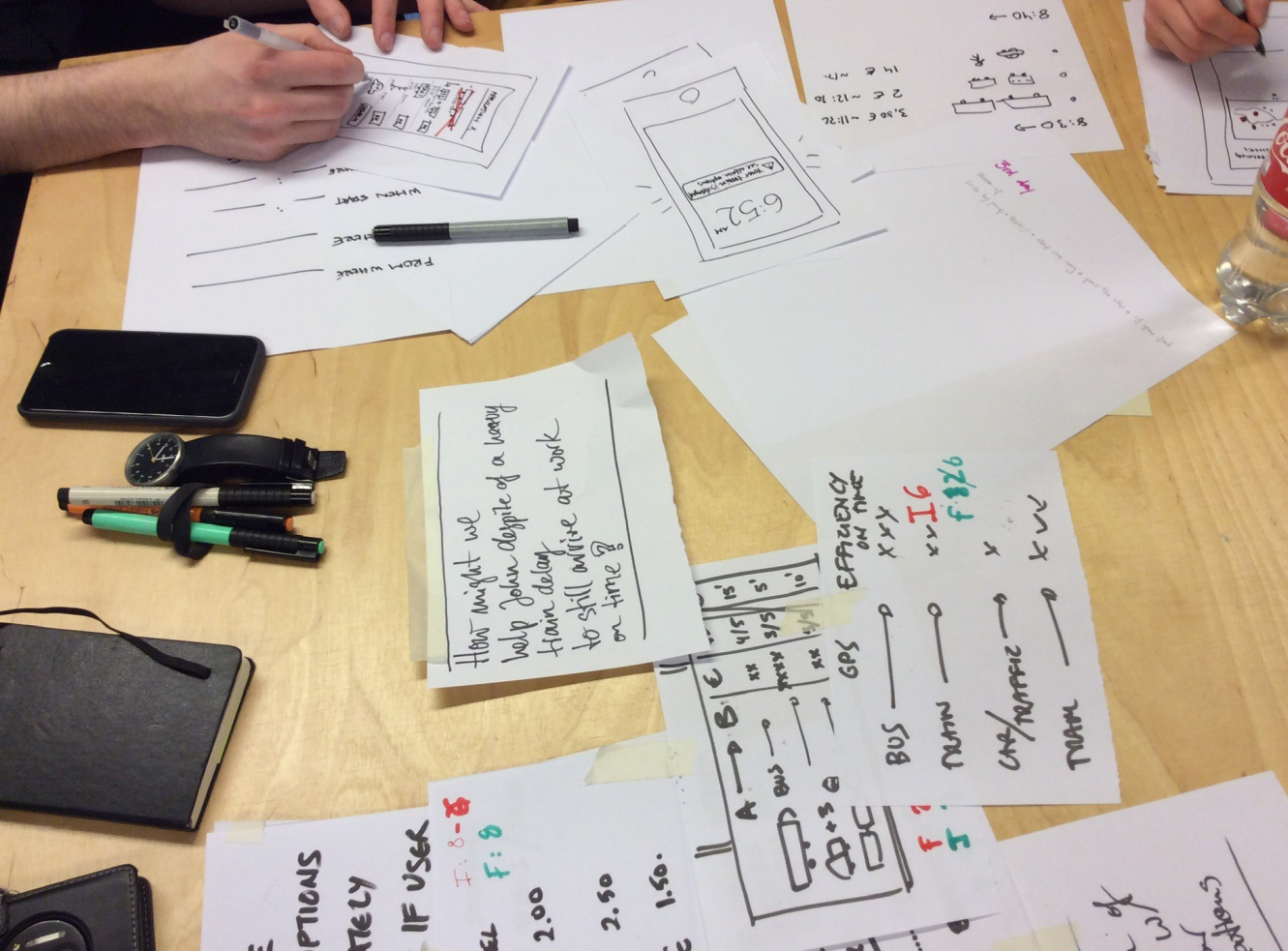
Every digital touchpoint can lead to an immersive customer journey and can turn a linear path into a non-linear experience, where situations and scenarios determine the possibilities and drive value to customers.

Different issues to be considered in digital service design

Today's digital ecosystem may encompass multiple points of access. Understanding how customers interact with devices enables us to maximize the role of digitalization and deliver value to customers.

As we already know, Digital can take many formats and understanding this diversity and how the service adapts to it and integrate customer's information helps to deliver a smoother and integrated experience across multiple platforms and omni-channel solutions.

Gathering relevant data is crucial to perform well and be relevant in digital services, not only is the foundation to enable an integrated customer journey, but also



concerning the privacy of customers. New regulations, such as the General Data Protection Regulation (GDPR) in Europe, targets explicitly how businesses and the public sector handle personal data. These regulations reinforce and ensure that organizations are responsible, reasonable and extra careful with the data they gather from people.

When considering upcoming technologies that are not yet massively adopted, it is essential to know that sometimes they might not be fully functional in the early phases, but a significant number of early adopters have extra motivation to try new things. Sometimes by being attracted by the brand reputation and at other times for being motivated by the technology evolution itself. However, like any other customer, they are looking for a great experience with the service and products they acquired. Examples of new and emerging technologies are Virtual Reality (VR), Augmented Reality (AR), Mixed Reality (MR), Internet of Things (IoT), wearable technologies, robotics, Artificial Intelligence (AI) and 3D printing.

The ethical and moral concerns are enormous in the digital evolution, and new frontiers are being defined to protect people from misleading digital usage. Looking at customer engagement is not enough, and we need to measure impact in the

long-term. We must extend our discovery into the service lifecycle and set values that help everyone to uncover areas that can cause harm. Recently, Facebook faced criminal charges for deceiving consumers about their privacy. Many organizations don't know or have been ignoring the impact they have on people's lives.

The identification of technology and business constraints helps to plan, manage and overcome these existing and future challenges, which usually vary according to time, budget, organization customer maturity level, country and local cultures, legislation, social context, levels of collaboration, or even to the stakeholders' mind-set and sense of ownership.

One of the biggest challenges for stakeholders is the funding for digital initiatives because digital transformation is difficult to measure due to the complex, cross-functional nature of a multi-year journey. Elaborating a feasible, viable and desirable minimal viable service or product (MVS or MVP), supported by an accessible strategy and an easy to understand activation plan can help teams get all the support needed and achieve the desired results.

Creating a great digital Impact

During the past 15 years, we have experienced the surge of diversity in disruptive innovation models, caused by the technology evolution. Today, digital is embedded in our day-to-day life, and it is influencing the way we live and interact with others and with things. It is always important to remind ourselves that technology is an enabler and can only be relevant if progress is based on customer values and the impact it creates in the long term. A people-centric organization that understands the technology impact has an increased chance of delivering a seamless and meaningful customer experience.

In June 2018, Statista published the top 100 organizations in the world by market value in 2018, where five of the ten top organizations have the majority of their business run online, and three are in the hardware, platforms and software business. Digitalization has disrupted real estate business, music, infotainment, transportation, photography, printing, among other industries.

Service Designers will always need to find ways of predicting and steering these fast technology changes towards a more customer-centric and sustainable future approach helping organizations to find their digital future. Are you ready to take this journey?

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7. DESIGNING ENCOUNTERS WITH HUMANOID SERVICE ROBOTS

Annina Antinranta & Jaakko Porokuokka

“When I entered, I realised that I was approaching as if there was a person with a space that I need to respect. I did not just barge in; instead, I approached it like it was a living thing, even though I knew it isn’t. I felt similarly nervous as when meeting a new person. Well, of course there was a new person. It was strange.”

Participant, the Other Encounter performance

“I like it. It’s here every time I get up to wish me good morning.” “It’s so cute! I need to get myself one of those at home.” “Look, there’s that robot again! Ain’t it horrible?” We hear a wide variety of comments when people encounter a humanoid service robot for the first time. Meeting a life-sized humanoid robot can be quite an experience for many. There’s something about the human-like form that triggers our emotions in a completely different manner than most electronic devices. Robots are nothing more than microchips connected to sensors and actuators. In many cases today, their capabilities feel rather underwhelming once the initial appeal wears off. However, our brains appear to have a willingness to perceive that there is something more than mere electronics and mechanics beneath the surface.

As service design becomes more complex, designers need to understand how new technologies work. We need to know what kinds of emotional responses it might trigger in people using them and, most of all, we should take part in the design process of the new technologies, such as social robots. We decide whether or not machines replace us in some things we do, or if they are used for enhancing our human performance. We need to ensure that the design is inclusive, ethical and technology is used for designing meaningful services that solve human and biocentric problems.

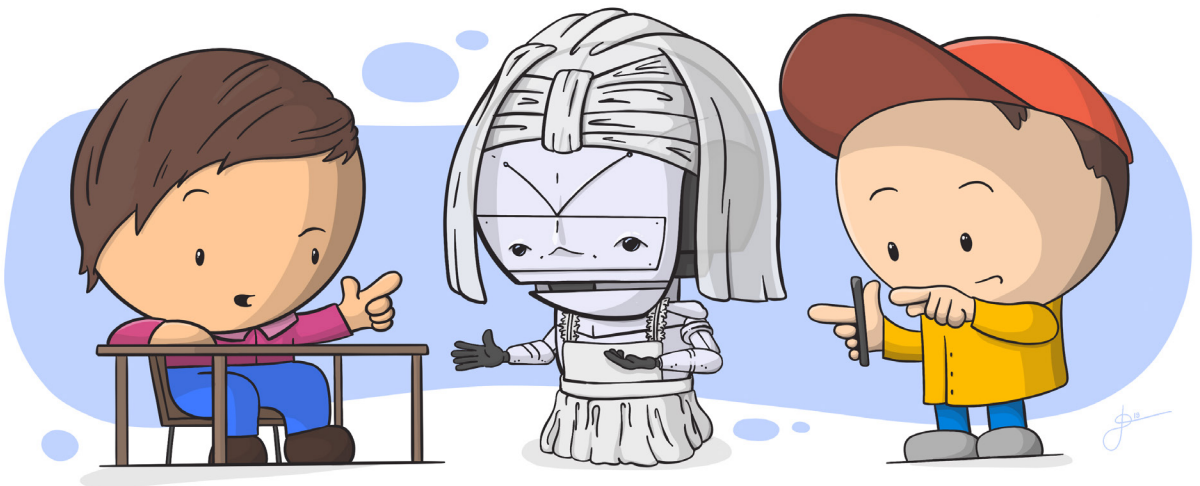
We, the authors of this article, have had the pleasure of experimenting with humanoid robots and seeing up close how people react to and feel about humanoid service robots. Furthermore, we have been exposed to the challenges that putting a computer into a humanoid frame pose for the user experience. In this article, we explore human-social robot interactions.

How we became friends with robots

Robots have been around the industrial setting for a long time. Repetitive tasks, unchanging and carefully limited working environments and professional end users create a solid framework that allows productive use of robots. However, developments in sensor and actuator technologies as well as in computing have made possible the rise of service robots.

Service robots, simply put, are robots that operate outside of manufacturing operations. They fulfil a variety of tasks in different environments. Military drones, farming robots, autonomous cars and household vacuum cleaners, to mention just a few, are all service robots. Two of the fastest growing segments in terms of units sold are logistics robots and PR robots. A humanoid robot most often falls into the latter category.

Jaakko Porokuokka, currently a senior lecturer at Laurea, has been involved in robotics since Laurea UAS started exploring humanoid robots a couple of years ago, taking baby steps with service robots during a research project called Robots and the Future of Welfare Services funded by Academy of Finland. Laurea's aim was to do research in real life care environments. At that time, there were no robot applications in care that could meet the research objectives. After some consideration, Laurea decided to start designing and creating new services with end users in order to proceed with the research.



Annina Antinranta is a design director and experience designer at innovation agency Futurice. She started her co-operation with Momo the humanoid robot when developing the concept and producing the Other Encounter science performance in 2018 for the Helsinki Design Week programme. Futurice started experimenting with social robots in 2017 when the company helped with 3D printing and building an open source InMoov humanoid robot, designed by Gaël Langevin and introduced to Futurice by robotics expert Olli Ohls. A robot named Momo was built in co-operation with Futurice, Metropolia and Aalto University. Later, the design was enhanced to support a research project Robot sign language tutor for children with autism conducted with Satakunnan Sairaanhoidopiiri and funded by Prizztech Oy EAKR. Changes to Momo were designed by robotics designer Minja Axelsson and executed by robotics team Teemu Turunen and Olli Ohls. Annina has also participated in the development of a social robots design framework, led by Axelsson.

Conversations with a robot

“First, I didn’t quite know how, if it was a human, to tell its age. Would it be like two years old, five years, teenager, or an old bearded mentor?”

Participant, the Other Encounter performance.

While humanoid robots are growing in numbers, most people have never encountered one before. When they do, their expectations of the robot’s capabilities seem to be very high. Robots can be divided into two categories: autonomous robots and remotely controlled robots where humans control the actions. Laurea UAS has mainly conducted research using a robot model called Pepper. Manufactured by SoftBank Robotics (formerly Aldebaran Robotics), Pepper is an anime-styled humanoid robot. Covered in shiny white plastic, the 120 cm tall robot also features strong autonomous body language and relies mainly on speech while interacting with people.

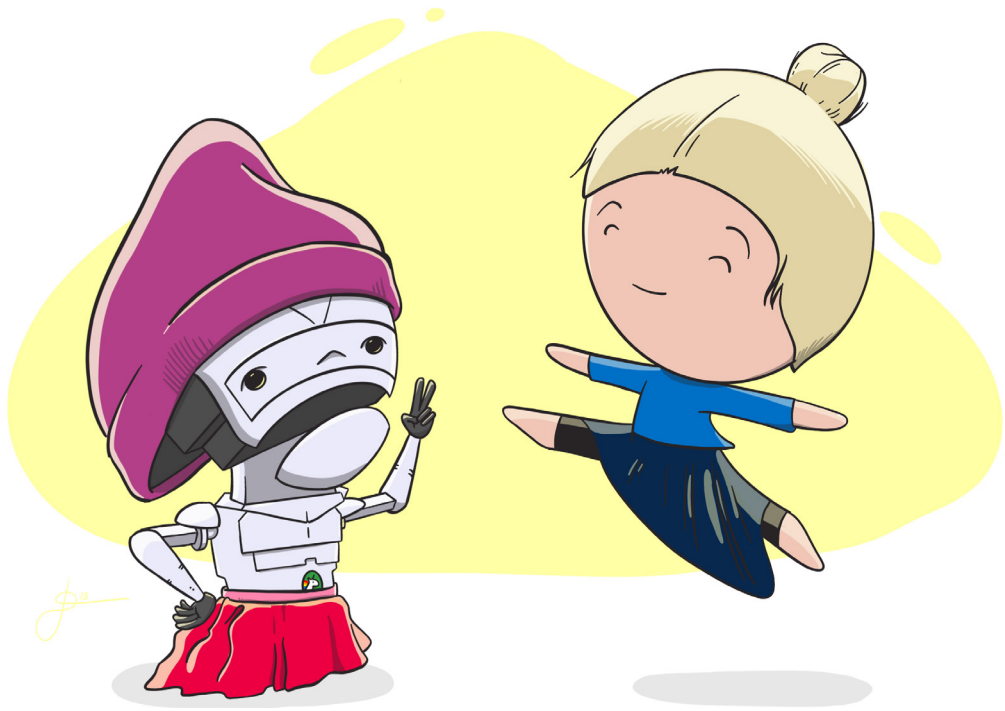
Futurice is experimenting with robotics in many forms. Momo is used as a tool to study remotely operated social robots. This method, called telepresence, means the user operating the robot can be in a different location than the user interacting with the robot. Momo has a camera in its forehead that transmits the image and the sound to the operator and a microphone that enables its responses. The actions and facial expressions are pre-programmed and launched by command during the interaction. Humanoid robots feature many elements that traditional design tools do not yet address. Starting with speech as the user interface, many users struggle to initiate or keep up with a conversation with a robot. While it is entirely possible to build complex conversation trees, building them well and in a way that takes into account the virtually unlimited forms that human-to-human conversation is impossible. The humanoid form is a major challenge to designers as people naturally attempt to

interact with a humanoid robot as they would with a real human being. We all have different meanings for words, even within the same culture.

In the Other Encounter project, the aim was to study the future of communication, human-robot interaction and trust. What elements make the conversation flow and what gestures are crucial in order to have a fluent conversation. The Other Encounter took place on 11 September 2018 as part of Helsinki Design Week. Visitors had conversations with a robot and witnessed others doing the same. Eighteen participants signed up as interviewers to ask Momo about anything, ranging from politics to the meaning of life. Three volunteers gave their voices to Momo to answer the questions: the philosopher Johanna Ahola-Launonen, media personality Tuomas Enbuske and musician Kasmir. The conversations ranged from getting married to a toaster to bringing peace to the world. Momo met the guests seated at the shop window of the Columbia Road office in central Helsinki. Visitors to Helsinki Design Week could walk by, watch and listen to the conversations. Backstage, participants were interviewed and their responses were recorded. The first Other Encounter event was organised as co-operation between Futurece, Futurece Robotics, Columbia Road and Apple Cyber Collective. Helsinki Digitalents helped with recording the event. As part of the Helsinki Design Week event, Momo wore a unique dress by Jatuli. The voice was intentionally modulated as not human by sound designer Tuomas Ahva.

From the Other Encounter project, it was learned that the robot as a user interface can be a liberating experience for the people controlling the robot. Johanna Ahola-Launonen (philosopher) and one of the three actors playing Momo in the encounter, said she felt like she was wearing a fancy mask that allowed her to make whatever harsh statements she wanted to about world peace as it was the robot that was doing the talking. She felt the robot is allowed to sound like a pamphlet and talk about great matters. Kasmir (musician), who played Momo in the second part of the conversations, said he oddly felt like he was the robot and needed to be in a role. He wondered if it was because people expect robots to be overly matter-of-fact. He questioned if it is creepier if the robot behaves just like a friend. Tuomas Enbuske (journalist), who played Momo in the first conversation round, said people were polite and wondered if it is related to our human ability to recognize faces. *“Even a simple fake face is an archetype, people talk to it like a human.”*

While technology is not yet capable of fulfilling all expectations, humanoid robots have certain strengths in comparison to more traditional user interfaces. In numerous experiments, we have seen that certain user groups, such as senior citizens, find humanoids easily approachable and interesting. Also, children in particular are keen to approach the robot and see how they can interact with it. Leveraging the strengths of a humanoid robot requires a designer mindset. It is one thing to create a service that can be used, but making the experience pleasant and memorable requires more than getting things done.



Experimentation as a tool for designing human-robot interactions

“Knowing Momo is controlled by a human, I would trust it just as much as I’d trust any human, who I meet on the street. I am a trusting person and I believe that by default people wish you well, unless there is a reason to think otherwise. Seven, on a scale from one to ten, then.” Participant, the Other Encounter performance

As service designers, we are responsible for designing future-capable services and also developing our design tools and methods to match the needs of designing for a rapidly changing, technology focused environment. One of the core skills in navigating unknown futures is learning to stretch the mind. Many great insights come from experimentation.

More often than not, people seem to have the perception that robots are here to take over existing jobs. While that holds some degree of truth, we believe that robotics will be used more and more to provide services in new ways. Not only for the good of the service users but also in ways that are unforeseen. One good example of this comes from Japan where robots are used to empower disabled people to return to working life. Using a smart combination on telepresence and more traditional robotics, people are capable of serving as the eyes, ears and brain of a waitress robot. When it comes to service robotics, we are expecting to see more and more innovations for the good of mankind evolve.

Prototyping services has traditionally been about making the shitty first draft, such as making mockups and role playing services. With new emerging tech, we need to take this further. We should prototype services but also collect information on human behaviour and how we change when interacting with emerging technologies. We should explore in real-life scenarios and settings how people interact with our prototypes with their real functionalities, such as understanding the technologies and how they shape the products, and how we should shape those technologies. To boldly go where no human has gone before.

Prototyping future smart services requires us to look beyond traditional prototyping and think about how to explore customer behaviour, which is complex and dependent on several human factors. A few examples of the new service design tools co-developed during the last couple of years include the following. The Intelligence Augmentation design toolkit, which is an open source machine learning toolkit for service designers and non-tech experts for learning and designing smart future services. The first version of the toolkit was a collaboration between design and tech co-founded by Annina Antinranta, data scientist Daryl Weir, tech wizard Paul Houghton and visual designer Alena Parshina. The team prototyped the kit with the help of a large design community. Since then, the toolkit has been collaboratively developed further by a large community of service designers and data scientists, including service designer Aino Maijala and Futurice head of innovation and biometrics Tugberg Duman. Another example of the new tools is the social robots design framework by service and robotics designer Minja Axelsson. The framework sets guidelines for designing smart future social robots.

We are facing global problems that cannot be solved by a single discipline or person. As designers, we need to develop and expand our community, build bridges and share our tools and methods, build on top of them and constantly seek out what is new. Much of our work with robots is of an experimental nature. However, we can see how these experiments have built our capabilities as design professionals in the niche area of service robots. As service robots are still an upcoming technology, we also want to make sure that we are not left behind when they inevitably become more mainstream. A few years ago, we were in a situation where every idea seemed to somehow transform into a mobile application. People have gotten so used to mobile phones that thinking of mobile phones as the interface for services had become natural. Being exposed to a phenomena has the side effect that people start understanding the possibilities of that phenomena more and more. As the footprint of robots in the daily lives of ordinary people grows, our ambition is to be at the frontline of pioneers in terms of the opportunities robots provide in the field of services.

8. FUTURES DESIGN - WHY DESIGN NEEDS FUTURES?

Minna Koskelo & Anu Nousiainen

While studying in the Service Innovation and Design Master's programme in 2011, we started to investigate design, foresight and innovation processes for the purpose of creating what we call today 'futures design'. Since we both already had long experience in foresight, and we had utilized trends research in various client projects, we could not help but wonder why futures thinking was missing from the literature of service design and, on the other hand, why there was no human-centricity clearly acknowledged in the foresight literature. Therefore, as business practitioners, we felt strongly about creating the next paradigm shift by combining these two academic fields. After two years of research, we then created a new domain called Futures Design, which includes business, design and foresight approaches, all rooted in systems thinking. The work led to EU-level trademark establishment and service concept called Futures Fit® (owned and developed by the authors of this article Koskelo & Nousiainen).

Futures design in practice means designing futures fit solutions and making futures fit decisions that are by default sustainable and viable. The solutions are also both desirable for people and feasible in terms of their realization - spotting the window of opportunity. Futures design therefore requires deep, holistic, systemic and systematic understanding of the existing and future operational environment: its various actors, contexts, motives, practices and interfaces. The goal of the futures fit solutions is to impact positively on people, the public sector, the private sector and the planet. We facilitate innovation and transformation as well as build capabilities for learning organizations through the Futures Fit® approaches, methods and tools.

We have developed futures design practices and discipline based on academic and scientific knowledge as well as practitioner work as entrepreneurs with a client base including big and small organizations from both the private and public sectors, and from municipalities to retail. In addition to business, design and foresight fields, we have captured pedagogies, learning and coaching in the Futures Fit® concept in order to highlight People Primacy in everything we do: people are the source for innovative ideas and people are the ones who make change real. In this article, we want to share what we have learned and best practices from the past decade. In addition, we propose the next practices that we strongly believe in, based on our experience, continuous learning and development of the sciences.

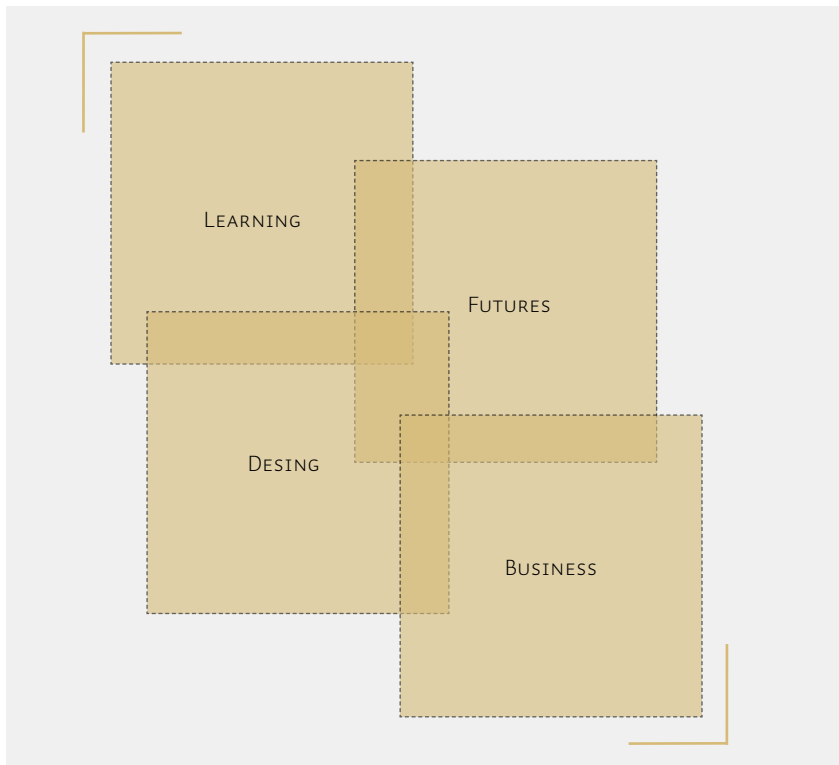


Image 1. Futures Fit® service concept key disciplines. (Minna Koskelo & Anu K. Nousiainen 2019.)

Futures fit solutions for decision making

The most important thing for futures design is to provide comparable, alternative and actionable solutions for decision making that are futures fit. The futures design process therefore includes methods from futures thinking throughout the process, and expands design research beyond today's observations and insights. By exploring the changing operational environment and people's values, attitudes, practices

and behaviour with applied futures thinking methods, we are able to identify and consider the potential drivers of change and emerging patterns.

In order to make and present futures fit solutions, one must start by spending time understanding the business and operations, and by identifying current strengths and weaknesses in terms of, for example, resources, capabilities and assets. From there we move on to goal-setting and the desired future state. We stretch our thinking with questions such as: What kind of future do we want to enable or build? What is the future journey we inspire people to join? What kind of value do we want to create in this world? What do we want to change and have an impact on? What is our unique role in the desired future? Who do we need on-board? In this phase, futures thinking helps us understand what the drivers of change that enable the desired future are, while, on the other hand, what might hinder the desired future state.

After setting the target, we apply the design process in exploring, concretizing and evaluating alternative paths to the desired future. The process transforms even more into decision tools creating process when customers, partners, strategy, brand, organizational culture and unavoidable constraints are being investigated. Carefully selected KPI's help decide the meaningful solutions. As everything is interconnected and the values and attitudes are changing towards sustainability and social responsibility futures fit KPI's should cover people, business and planet – the impact on society. In futures design, the solutions are being co-designed with people and thus the criteria and KPIs will be crystallized and specified during the process. When we have people, customers and stakeholders as co-designers, they become engaged and motivated to realize the future.

In order to be among forerunners – or even to succeed – organizations need to have a deep understanding of their target customers' changing needs and value creation practices. This also ensures that outcomes are meaningful for people and valid for the organization. Too often, decisions and solutions are built inside organizations based on assumptions about customers or customer data from the past, not futures. In futures design, we do not stick to the present and current insights, but we apply foresight and explore alternative futures and future customer needs. This requires that we consider existing megatrends and signals of change: novel trends and weak signals that provide hints about the futures. In practice, this means either systematically monitoring the changes in the operational environment or utilizing available weak signals, trends and megatrends in designing futures fit solutions.

However, scanning the environment should be continuous and not a rapid random activity. In an optimal case a focused, systematic and holistic (PESTE) trends research is being carried out to guarantee that all the relevant drivers of change have been taken into account. For this purpose we have developed a specific 'Futures Fit® Monitoring Tool'. Monitoring tool ensures high quality environmental scanning and elevates the standards of trends research. Monitoring Tool includes methods from both design and futures research. Additionally it covers systems thinking, hyper

local and global perspectives and aims to identify novel rising trends from various sectors and sources including observing people and obtaining digital data sources. Monitoring Tool also helps to avoid the common pitfalls and cognitive bias referred to as blindsight including groupthinking or neglecting taboos.

Systematic signals gathering and consistency in presenting what is changing is essential for decision making. The best results are being achieved when client organization participates into signals gathering. This way the capability is being built simultaneously within the organization. The aim is to gather signals about the future and interpret them into actionable foresight that consequently enable futures fit decision making. This requires shared understanding about the change. “Futures Fit® Trendcards” (<http://trendikirjasto.laurea.fi>) are concise and comparable descriptions about the potential, probable and possible changes. Trendcards specifically describe the evolution of change (hindsight – insight – foresight) with clear statement about the next phase (novelty). They always include systems based approach ensured by the “Futures Fit® Monitoring tool”. Trendcards are an excellent discussion, ideation, evaluation and roadmapping tool.

People primacy: Covering 100% of future needs and roles

Nowadays, and even more in the future, not only solutions but also problems are social as everything is interconnected (Jalonon et. Al., 2017). This relates to the micro and macro levels, and calls for a new kind of cooperation between people, private and public, for the sake of our planet. Organizations have to put a lot of emphasis on having all relevant stakeholders on board in order to succeed and create a positive impact. This calls for a boundary-crossing and holistic approach. We call this “Futures Fit® Value Network mapping” that comprehensively covers roles, relations, interdependencies, emotions, tangibles, intangibles and trends to inspire thinking beyond the current situation and the obvious.

The dominant logic for business is the customer, the people. The actor-to-actor approach (Wieland et al., 2012) emphasises that value is created in complex evolving systems and value networks. People today are partners, developers and even competitors for the organizations. People primacy becomes concrete through systematic and holistic mapping of future value network actors and potential new partners. If the business case or business model covers all related roles, interactions and dependencies, it also has a better chance of being viable. In futures design, the key questions are: Who co-creates value in the future? Who are the customers in the future? and Who are the people affecting the future states?

Being people-centric does not mean you aim to have everybody on board. Instead, we aim to cover 100% needs and future roles. Therefore, futures design goes to pioneers, leading edge, opinion leaders, extremes, experts and communities who are the co-creators and sources of future opportunities. Pareto’s rule applies: Who are the 20% that create 80% of the value and needs? Adding the people primacy layer

to the future value network mapping means taking into consideration both facts and feelings. Based on the science of positive psychology, the focus should also be on those relations that are strong and trustworthy.

People primacy encourages focusing on sustaining meaning and motives in systems: people's experiences and feelings as well as their implications. In addition, futures design challenges the existing since it is already now clear that AI and robots will be part of the future value network map. An emphatic and forward-looking shift in mind-set is required for the creation of shared value between individuals, organizations, society and systems. Emotions are keys to our latent needs.

Participatory resource-wise process: The future is co-created

In order to create an efficient and agile participatory process with tangible and relevant future state outcomes, you need to understand the critical value network actors deeply - as described in the previous chapter - and create an engagement plan on how and when to activate the needed people in various activities, such as collecting information, creating ideas, evaluating solutions and making decisions. We call this the "Futures Fit® 3S process", where we always need to take three participatory steps: (1) to sense the operational environment holistically, (2) to make



sense out of the insights and (3) to seize the new opportunities. We do this together every time. By nature the process is inclusive, not exclusive. The timing and the methods should fit the actual goal of the task and the various roles and personalities realizing the task, whether they are busy line managers, distracted experts or sceptical customers. The goal is to let people concentrate on their part and expertise with the process they can trust.

Co-designing the future often follows the grounded theory approach (e.g. Strauss A. & Corbin, J. 1998) and convenience sampling (e.g. Patton, M. Q., 1987) in the agile process: You first go to people who are capable of giving or creating the first answers. Then you spot people who can enrich or challenge the first ideas. Finally, you find the people who can validate the hypothesis and appoint a timeline for the window of opportunity. The collaboration, crowdsourcing and co-design activities are motivating and easy if the participant clearly understands his own role in the process, that is, what is expected and when. We have created “Futures Fit® Co-creation Profiles” for the purposes of managing expectations and recruiting people at the right time with the right tasks. With this tool each participant can identify their own value creating role in the process.

Co-designing futures with a multidisciplinary group of people requires the best tools and methods of selection, creating the logical flow of activities as well as enabling an open and positive emotional climate for the participants. Facilitation is truly at the core of futures design where intangibles, systems and scenarios evolve. Very often, futures design is about the side products: facilitating change and learning that happens at both the individual and organizational levels. The facilitation therefore involves several aspects that need special attention and expertise in the physical, digital and social contexts that are omnipresent. The next practices of facilitation take into account neurosciences, human sciences and arts. Facilitation is about designing and orchestrating an empowering rhythm in several ways, such as:

- Creating moments that support both focused individual work and team work.
- Ensuring recovery and reflection in the midst of challenge.
- Balancing between familiar and unfamiliar contents and methods.
- Making people think with their hands and minds.
- Giving room for improvisation and strategic serendipity in the focused process.

The next evolution: Experiential futures design

One of the key targets of futures design is to create a sense of urgency about the future: the foresight should be seen as important as insight from the past and present for the action and decision making. The future is here already. We believe that by creating tangible and concrete comparable alternatives about the future states brings the future even closer to traditional decision making and KPIs. At the same time, we believe that experiential futures design is the next domain in co-creating meaningful and futures fit value, and in making futures fit decisions. In practice, we would not only tell future stories and show future solutions but immerse ourselves in the future states to truly experience the potential in alternatives. This makes the

futures easier to approach and enables us to enter the future as human beings with our multiple roles, perspectives and senses, and realize our roles as active co-creators of the future.

There are several effective ways of creating experiential futures and activating people to be futures designers. One way is to create a prototype or artefact about the future solution. The value of prototyping comes through co-design: while building the prototype people start to discuss and think with their hands. This makes their expertise and tacit knowledge visible from the unconscious. Prototype builders are facilitated with questions such as “What if?” and “Then what?”, which they start to ask more often and count on their creativity (vs. analytical thinking). Explaining and sharing the understanding is about demonstrating, not only storytelling. Fast realizations and learning together about the futures requires tangible(s), and thus prototypes and artefacts as tools. Digital platforms, tools and 3D printing provide even more options for prototyping.

We clearly see the rising need for futures spaces in our work and have already created a concept for “Futures Fit® Space”: They are physical and digital maker spaces where you can sense the future and co-design the desired future—to make decisions about intangibles. Imagine if you could step into AR- and VR-enabled physical rooms or digital space where you can experience the new strategy of your organization instead of reading about it; to see and test its manifestations, such as related new solutions, customers, business models, KPIs, operational environment and value network actors. The space is a co-design futures laboratory where you can observe spontaneous reactions that people have towards the new. This is an excellent metric to start with.

Further, the futures space can be designed for innovative research such as problem-solving role play or an “Escape Room” for solving a dystopian scenario. The space activates people to realize futures and make them understand their own role and the roles of others in a critical situation, desired future or strategic project. While simulating and playing out the future state, solution or risk the actors are able to track back (ref. backcast, reverse engineering) to find moments of truth and game-changing realizations for the future. Creating tangibles to play with empowers ownership and agency, which is really important as futures are often perceived as tacit, token or taken for granted (Gough, 1990).

We firmly believe in a holistic and systematic approach that involves the whole complex and evolving system: the multi-actor value network, the contexts, the different motives and targets of people, and the impact of actions and changes in the system. New technology enabled solutions will help here in terms of system dynamics modelling, impact analysis and immersive simulation creation. Contextual design research will also change dramatically with technology advancements: when our mobile phones already know where we are and applications monitor our activities,

emotions and surroundings, we belong to joint research platforms and innovation ecosystems that not only aim at AI-enabled solutions through data gathering but hopefully connect people as assets and change-makers for better futures.

Final words

In an era where the pace of change is faster than ever before, where everything is interconnected and the biggest challenges are social, there is no other way but to be human-centric and futures fit with every action and resource. Today, successful organizations are learning organizations that have realized their role in the system, their desired future and their impact on society—at the micro and macro levels. As Candy S. (2019) says, designers and futurists have a great deal in common. We could not agree more. This notion was the starting point for our work in 2011. Also (Gordon et al., 2019) have now highlighted how strategic foresight is increasingly being used to enhance design process. With this increasing awareness, we continue our pioneering work and mission of creating more Futures Fit® organizations and more futures designers powered by people primacy.

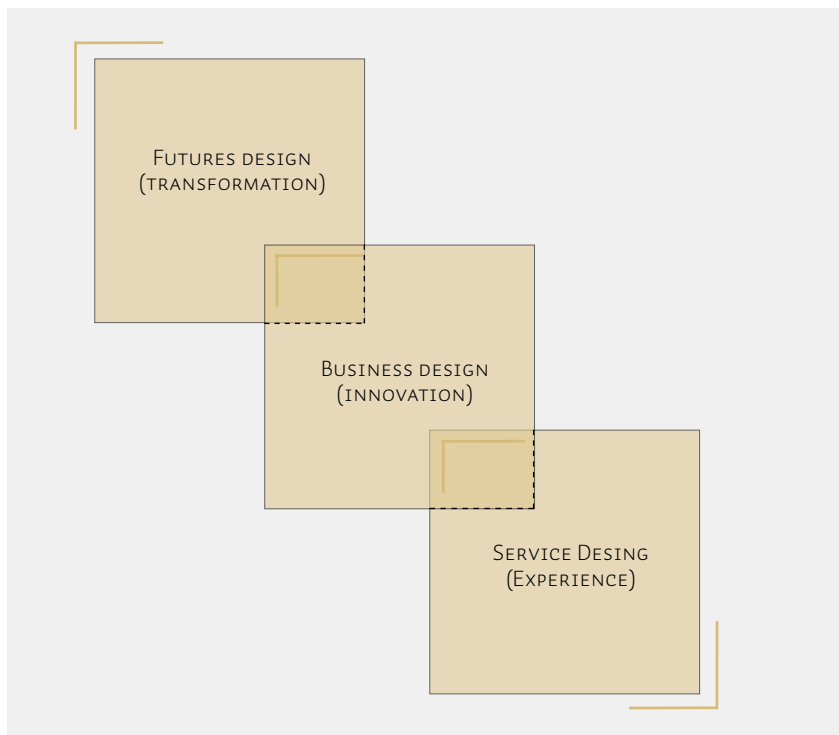


Image 2: Evolution of design discipline. (Minna Koskelo & Anu K. Nousiainen 2019.)

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9. SID ALUMNI AND STUDENTS STRENGTHENING SERVICE DESIGN NETWORK

Tarja Chydenius

Network building is an essential part of working life. For many students, one core take-away from Laurea's SID Master's studies has been networking with like-minded professionals. Besides building important individual contacts, different working life networks and communities are valuable knowledge sharing platforms for our future experts. Therefore, Laurea has taken many initiatives to establish networks or liaise with important regional and global organizations. One of the most relevant for our SID students is the global Service Design Network (SDN).

Becoming part of a service designer community

With its global and local events, content creation, high-quality publications and networking platforms, SDN offers access to a service design community of thousands of global professionals. At the same time, important expert knowledge and perspectives can be exchanged across nations, organizations and disciplines. Many activities are run locally in more than 45 national or regional chapters. The network offers memberships for professionals, students and organizations, and also an opportunity to be a community follower for free.

The network's Finnish chapter was founded in 2012 by Laurea's SID team members. The aim of the local chapter is to grow markets for service design, promote knowledge about the practice and discipline, and provide a professional networking community for service designers in Finland. With its more than 1000 members and community followers, the Finnish chapter has grown to be one of the global

network's most active chapters. Most of the activities in Finland are focused around the Helsinki area, but some events are occasionally hosted by the Tampere and Turku city teams, too.

The chapter's activities enable Laurea students, alumni and staff to connect professionally with many of the field's commercial, governmental, third sector and other educational stakeholders. Many Laurea people have enjoyed these benefits, and professionals and students affiliated to Laurea have become an indispensable part of the SDN Finland chapter's activities. Since its founding, the chapter has been run by people close to us. The co-founder and the first chapter representative was Senior Lecturer Tarja Chydenius, followed by our SID Advisory Team Member Jaana Komulainen. The current Chapter Representative is Laurea alumni and service designer Teija Hakaoja.

Events bring the network alive

In order to enable genuine networking, SDN Finland has focused on running various activities where its members can meet face-to-face and learn from each other. The chapter organizes professional events of different formats on a monthly basis. Many of SDN Finland's events have been extremely popular, filling up in minutes. Examples of popular events are the MeetUps, of which we hosted seven during the spring 2019. The year opened with a MeetUp with the well-known service design



Image 1. An expert panel at an SDN MeetUp at Telia agreed on the need for defining service design management. Laurea alumnus Tuomas Harviainen, second on left.

author and also Laurea's visiting lecturer Marc Stickdorn. The spring season ended with a MeetUp hosted by company Telia featuring a Finnish co-author of Touchpoint, The Journal of Service Design. Laurea alumnus and Tampere University's Professor Tuomas Harviainen presented his article on managing service design, and the topic was further discussed by an expert panel and elaborated on in small groups.

Another very popular event concept has been the SDN Finland Book Clubs where books related to the field of service design are studied and discussed together. Typically, the events are hosted by the network's various members and other local actors within the service business or public services. These events provide an excellent peek into different service design forums and workplaces for our students, and an opportunity to liaise with other professionals.

The Finnish chapter has also made major efforts to realize internationally recognized events. In April 2018, the chapter hosted a conference attended by over 300 domestic and international service design enthusiasts. Besides knowledge sharing, the event united many old and new members to discuss current trends in service design. Nearly twenty Laurea SID alumni, students and staff members contributed their time and energy to implement the conference day. Overall, the event was a successful example of agile volunteer-based networking and activity bringing together service design agencies, service business providers, educational institutions and other service sectors. The first big national conference was hosted in 2015, also run by people closely affiliated to Laurea.



Image 2. The Finnish SDN chapter hosted a second SDN national conference in Helsinki in April 2018. Several of the volunteers who helped to run the successful event were Laurea alumni.



Image 3. SDN Chapter representatives brainstorming in Dublin at SDGC18 Chapter workshop. Laurea alumni, the Polish chapter representative Katarzyna Młynarczyk on left.

Besides events, the chapter aims to provide benefits for its members and boost service design markets by implementing new kinds of initiatives. One great example is the Service Design Kick Grant programme in 2016, where three winning start-up companies qualified for free service design coaching by experienced senior service designers. A more recent initiative is a mentoring programme aimed at recent graduates or junior service designers.

True global connections

SDN activities are run all around the globe by many national and regional chapters. Many international Laurea SID alumni have engaged themselves in their local chapters. Currently, Laurea alumni bring their energy to SDN Poland, SDN Belgium and SDN Arabia. The hallmark of SDN's yearly activities are the global conferences hosted around the world. In 2019, the SDGC19 will be hosted in Toronto. These outstanding events provide an opportunity to meet international peers, keep up with the latest trends in the field, run workshops or showcase the members' own service design projects. The global conferences are a great way of updating update one's knowledge but also offering an opportunity to take part and be recognized in the yearly Service Design Award competition.

What goes around comes around

Above all, SDN is a voluntary organization. One might wonder what makes so many people want to contribute their time and energy to the network in addition to their busy working lives. Two SDN Finland Chapter Core Team members share their motivations for working among the group of other chapter activists.

An energy boost for daily work

Teija Hakaoja, the current Chapter Representative of SDN Finland, graduated from the Laurea Service Innovation & Design Master's degree in 2015. Currently, she works as a Lead Designer at Silver Planet but also allocates time in her busy schedule for service design networking.

“At Laurea, I was able to build a wide network with wonderful professionals sharing a similar interest in service design. I still get to meet many of them and even work with some of them in our chapter activities. SDN offers a great community to share experiences and liaise with old and new colleagues. I see SDN first of all as an enabler. It is very rewarding to see how people get to develop themselves and grow as service designers. Especially rewarding is to see people finding new contacts and even jobs through the network,” says Teija.

Her own employer has also recruited new employees from among SDN Finland's members or event participants. The events provide candidates with a platform to manifest their skills as organizers or speakers, for example.

Teija has also observed that the network offers new perspectives for developing her own work:

“I really get a lot out of this, although it takes time. I wish I could do even more but even with this time investment it is a lot of fun and gives me new energy for my daily work. Widening my perspectives among fellow professionals and learning something new is always rewarding.”



Image 4. Teija Hakaoja, SDN Finland's current Chapter Representative finds volunteering at SDN rewarding for both her own business and self-development.

Developing skills at different levels – as a learner and as a teacher

Eliisa Sarkkinen is another Laurea link in SDN Finland's Core Team. She is an SID alumnus who recently changed her service designer career into that of teaching service design at Haaga-Helia University of Applied Sciences. She had occasionally participated in the chapter events already as a student and took a more active role in coordinating the SDN Kick Grant programme for start-ups in 2015. She joined the SDN Finland Core team a couple of years ago.

“Already the SDN Kick Grant programme was a great opportunity to follow how experienced senior service designers coached the start-ups with co-creative approaches. It made me realize how important it is to share tacit knowledge in practice. As a junior at that time, I wanted to see how organizations develop their activities with service design, and I wanted to get to know people who design service as their main work responsibility. SDN is a fun hobby for me. In the network, I get a lot of good energy and learn by doing things together with people outside my own organization. I often also keep my eyes open for prospective project partners,” says Eliisa. She adds: “I have learnt a lot in SDN activities. It has been an important bridge for me in becoming a service design professional. As a Laurea student, it was easy to join the network’s activities.”



Image 5. Eliisa Sarkkinen (front row on right) co-ordinated a group of 20 volunteers to run the SDN HKI18 conference. Here with a group of Laurea students or alumni:
Back row from left: Theo Damianos, Virve Vakiala, Mikael Seppälä
Middle row: Tarja Chydenius, Johanna Iivari, Ulla Partanen, Terhi Pennanen, Teija Hakaoja
Front row: Zorana Botic, Pamela Spokes, Eliisa Sarkkinen

10. THE SID PROGRAMME TODAY AND TOMORROW

Virpi Kaartti

When the SID programme was launched, it was a forerunner globally. In the forward to this publication, Katri Ojasalo elaborated on the development work of the programme based on the identified needs for the new competencies in companies and organisations. Since 2009, several programmes focusing on service design have emerged, whether they are based on design, business management, engineering or some other field in the universities where they are provided (Becermen & Simeone, 2019; Ferruzca, Tossavainen, Kaartti & Santonen, 2016). Furthermore, service design courses are offered as elective or advanced courses as part of a degree programme in another subject area.

Over the years, the SID curriculum has kept its relevance surprisingly well. The structure and the broader themes have remained. However, the content of the individual courses has evolved in parallel with the increase of new knowledge and literature in the field. Furthermore, the companies and organisations who give project briefs to students bring the latest knowledge and expertise to the courses; for example, their service design approach and toolkit or context specific challenge with their insights concerning the field, to name a few. Sometimes, the learning environment is formed around a Laurea research and development project, which is one way of sharing the latest research results with students and exploring new applications of robotics, for example. This way of learning represents Laurea's Learning by Developing approach, in which students are not only engaged in analysing theoretical problems but are constantly seeking solutions to real-life situations arising from working life (Ojasalo, 2018; Raji, 2014).

The Master's thesis, which is one third of the studies, allows students to deepen their ability to apply the learned theories in practice, their analytical skills, their

project management and R&D competence, and their social skills. The thesis always has a commissioner who has a challenge that a student explores and aims to solve with the support of the organisation and its stakeholders, and their personal thesis supervisor from Laurea. Often, a thesis project is a service development project where a student follows the chosen service design process and applies methods and tools in practice, which are suitable for the project in question. There are other approaches that are gaining ground at the same time. The latest thesis publications discuss service transformation, organisational capabilities, change, and team/customer experience. The context of these theses varies from the public and private sectors to government and NGOs.

In the SID curriculum, expertise in the field of service innovation and design is divided into four main categories: 1) Developing insights into a business, its customers, business environment, and future trends; 2) Creating innovative value propositions; 3) Managing the service business; and 4) Fostering the service culture and service leadership. From the outset, the business point of view has been embedded in the programme and it is seen as part of the service innovation and design competencies. Business competencies are critical for a Service Designer in general and even more so when you are a Master of Business Administration. However, occasionally, there are discussions with students asking if the business competencies are valid in the public sector. This is also considered in this publication by Martin Jordan, who states that: *“Public servants equipped with both design and business skills are more versed than others in ensuring that invested taxpayers’ money results in the creation of public value.”*

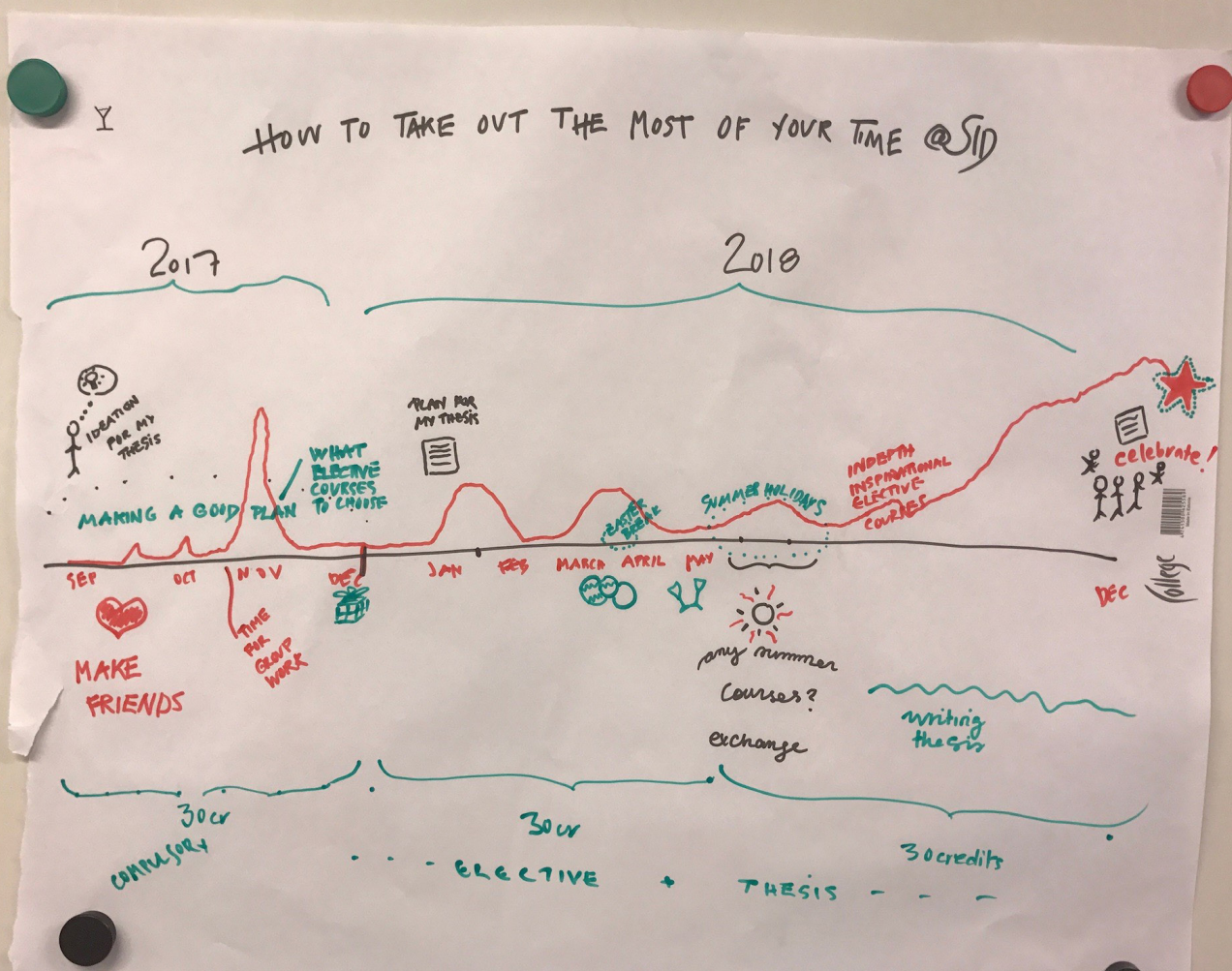
The course offering the programme is versatile as it gives students possibilities to design their study path according to their own learning objectives, taking into consideration their prior skills, knowledge and experience acquired through education, work or other activities. In addition to their first degree, students need to have at least three years of work experience before they can apply to the programme. This multi-disciplinary and cross-cultural student group enables fruitful discussions and takes learning to a level that could not be achieved with any other approach. So far, the most valuable discussions have been held during the contact sessions that are organised on a monthly basis, in a way that makes it possible for the students to work full-time alongside their studies. Even if there is pressure for virtual studies (which are already offered to some extent), students value the face-to-face meetings and report it is the best part of their studies. Considering the time and effort they invest in their studies, the contact sessions need to be planned and facilitated carefully. They enable knowledge sharing, learning from each other and creating new knowledge together, which is an essential part of the collective study concept of SID.

The need for continuous learning is recognised in Finland and Europe (Oosi et al., 2019; Sitra, 2019). Studies in a Master’s degree programme offer one solution to this challenge. Universities of Applied Sciences operate in close cooperation with working life, thus supporting the integration of work and studies. Furthermore, studying in a multi-disciplinary and cross-cultural group of professionals opens up

novel insights and accessibility to various networks, which are highly important in today's working environment.

Ojasalo states in her forward: "Service innovation and design have become core competencies in all professions." There is not one single study path to follow in becoming a professional in service innovation and design. In this multidisciplinary field, you often have one degree representing a certain discipline and you can build on that in the direction that interests you and corresponds to your personal background and goals. This unique combination of various competencies will be your competitive advantage in the job market. What we want to offer is a versatile, relevant and flexible programme, and support and guide students to design their personal study paths in a real-life and communal learning environment.

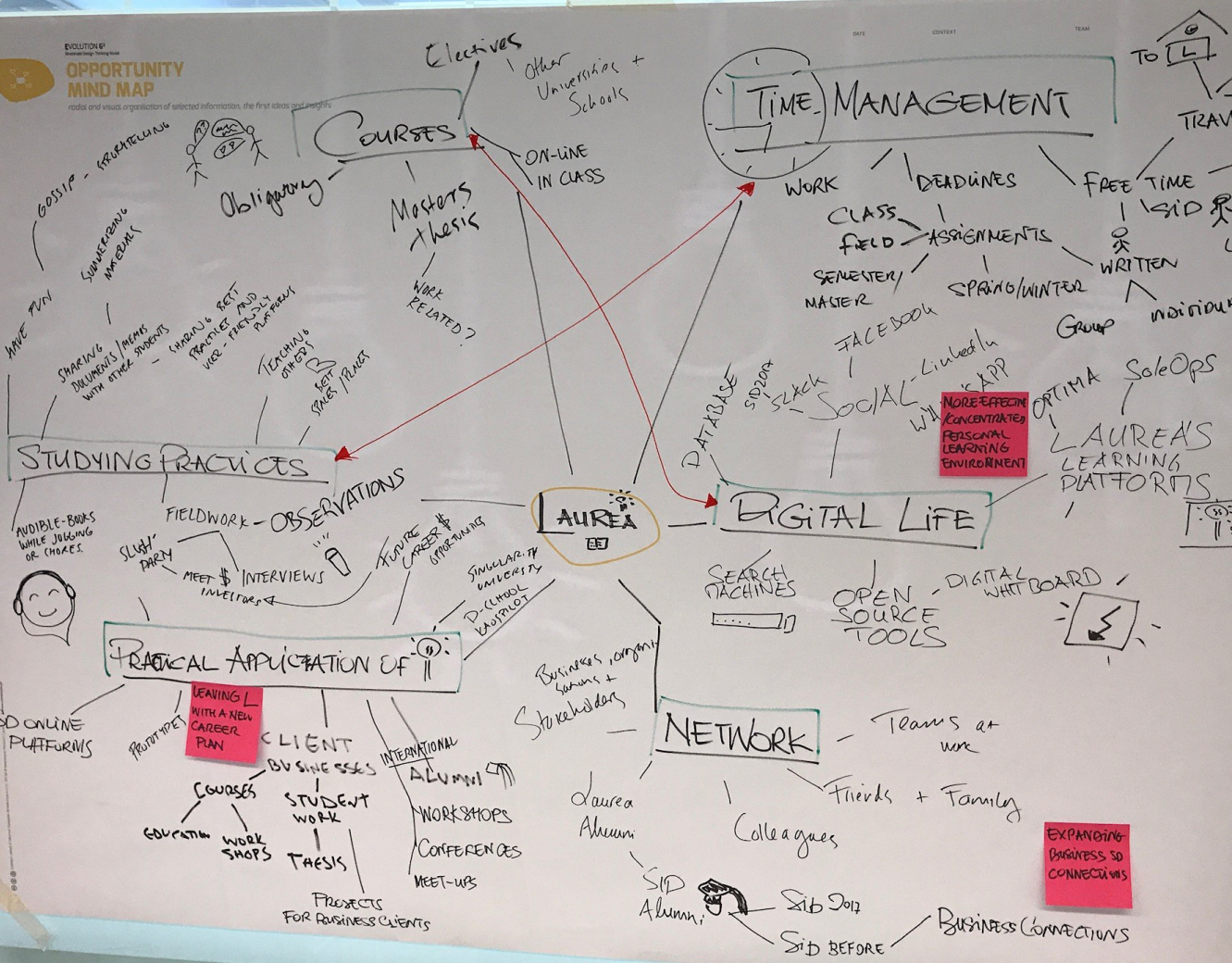
At our 10th anniversary celebration, we are going to hold a workshop together with our students, alumni, advisors and staff to develop the SID curriculum further. We anticipate we will also get feedback on how to implement the studies in the best possible way. It is now time to turn the page and begin a new chapter for the next decade.



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EVOLUTION OF OPPORTUNITY MIND MAP
read and visual organization of selected information, the first ideas and insights



AUTHORS

Virpi Kaartti

Virpi Kaartti (M.Sc.Econ.) is Head of the Master Degree Program in Service Innovation and Design at Laurea University of Applied Sciences. Besides teaching and leading the Master's degree program, she works actively in the R&D projects. There are two ongoing projects, Finnish Design Academy and Product Validation in Health. Virpi has initiated and organized several international Service Innovation & Design seminars, and Nordic ServDes2012 Conference in Finland together with her colleagues. Currently she is making her PhD studies in the University of Johannesburg.



Auli Guiland

With long term experience in Foodservice Development and Design in Finland, Germany, and France, Auli joined Laurea in 2005 in the role of Principal lecturer in hospitality management. Auli has participated in the Master Program in Hospitality Management and Master in Service Innovation and Design since the beginning of these educational lines. Auli has been responsible for courses in research methods and supervision of numerous Master Thesis. Aside from this she has actively promoted research and development on Future Working Life Skills and participated in several international projects on this thematic.

Educational background: Phil.Lic (2004), University of Turku, Authorized nutritionists (1980), Master of Agriculture & Forestry (1978).



Katri Ojasalo

As Vice President Katri Ojasalo is responsible for the Bachelor and Master level education at Laurea University of Applied Sciences. She completed her Ph.D. on service productivity at Hanken School of Economics in Helsinki, Finland in 1999. Service businesses have been her research field for over 20 years; she is author or co-author of four business books and more than 50 scientific articles, book chapters and research papers. As principal lecturer, she was in charge of planning and starting the SID Master's degree programme at Laurea in 2009.



Martin Jordan

Martin Jordan is the Head of Service Design at the UK Government Digital Service in London. There, he is shaping what service design is in government and how it is done. He helps government increase its service design capability through recruitment, training and mentoring, and builds a strong service design community across the UK government. He co-organises London's Gov Design Meetups and International Design in Government events. Earlier this summer, he published his MBA thesis on 'Creating public value through service design'.



Marika Järvinen

Marika Järvinen is a pioneer in service design and co-development in Finnish healthcare. Since 2010, she has been utilizing service design in the healthcare sector to develop service and the service experience. The main idea of her work is to support an organization in creating its own innovation and development capability so that the organization can practise continuous development on a daily basis with the power of the whole organization. Her aims are to inspire and encourage people to develop and offer them the means and methods to make it possible. She feels that the most rewarding part of her work is listening to and collaborating with customers and employees. To support her work, she graduated from the Laurea Service Innovation and Design programme in March 2019. Her previous education is as Master of Science, and she also has a degree in Marketing Management and Quality.





Mikael Seppälä

Mikael Seppälä MBA, M.Sc. (Economics), MA (Adult Education), M.Soc. Sci. works for the Finnish Innovation Fund Sitra in Sitra Lab, which is a social lab that seeks to strengthen Finland's capabilities in tackling wicked problems. He has previously worked in multiple roles in education, IT and design. Mikael's 2017 thesis in the Master's Degree Programme for Service Innovation and Design was titled Service Systems Design - Developing Human-centric Systems in Organizational to Ecosystemic Scales.

Erkki Salo

Erkki Salo, 38, is an MBA SID programme alumni (2012–2014). He has been working for about 10 years in the field of fundraising, and before that in sales and marketing. In 2007–2016, Erkki worked for Fida International, where he was Fundraising Manager for over six years, and also as a member of the Red Nose Day executive team for one year. After Fida, he worked as Service Experience Manager for Hintsa Performance. Since 2018, Erkki has been working as Fundraising Director for John Nurminen Foundation with a mission to protect the Baltic Sea and preserve its heritage for future generations.



Jane Vita

Design Director, NA at Digitalist Canada

<http://www.janevita.com/>



With over 20 years of experience, Jane's used her expertise in many design competencies to work in more than 50 projects for a range of different industries and countries. At Digitalist, she supports a team of 12 designers in Vancouver and facilitates internal and external dialogue around the Service Design practice. In client projects, she acts as a lead consultant helping customers discover their digital future. Previously, Jane conducted lectures on Service Design in Digital Context at the Laurea University's Service Innovation and Design Master's program, where she also graduated in 2013. She regularly shares her work in publications, workshops and conferences.

Annina Antinranta

Annina Antinranta is a concept and experience designer, futures thinker and coach. She has a diverse background in art, service design, UI and UX design, branding, marketing, product design and performing arts and music. For the past twenty years, she has worked with customers from start-ups to multinational companies designing concepts, from mobile phone apps to physical attractions and visitor experiences. Annina is a co-founder of the award winning Tulevaisuuspäivä 2019 (Futures Day), aimed at bringing future literacy to everyone's toolkit, and a co-founder of the Service Design Award 2018 nominated Intelligence Augmentation Design Toolkit, aimed at demystifying machine learning. In recent years, she has focused on training and coaching designers and non-tech experts on future smart service creation. Annina currently works at Futurice as a design director and lead service designer.



Jaakko Porokuokka

Jaakko Porokuokka is a designer, facilitator and educator. His professional background spans design, facilitation, technology and security management. His current research projects focus on digital co-creation, social robots in welfare services and logistics robots in the hospital environment. Jaakko is a long-time ambassador and organiser of Helsinki Service Jam and a Service Design Award 2018 -nominee for Boost+Inno innovation model. Jaakko currently works as Senior Lecturer in the Laurea UAS Safety, Security and Risk Management team.



Minna Koskelo

Minna Koskelo is a futures designer and futures activist. She is a business owner, lecturer and founder of a Futures Specialists Helsinki Network where the aim is to increase the awareness and benefits of futures thinking. Minna's mission is to bring people primacy and futures thinking into decision making and empower agency in creating desired futures. Minna is also a co-founder of the award winning Tulevaisuuspäivä 2019 (Futures Day), aimed at increasing futures awareness and futures literacy.





Anu K. Nousiainen

Anu K. Nousiainen is a design lead and futures designer with a strong background in business. She is currently working at VTT where she combines science and design for better futures. Anu sees the impact of her work in other people's success. She loves to facilitate learning and to co-create new horizons.

Tarja Chydenius

Senior lecturer Tarja Chydenius has been part of the SID team and run study units in SID master's degree since 2009. She is also a service design module coordinator in the business administration bachelor's degrees in Leppävaara. Tarja is a cofounder and core team member of SDN Finland, one of the most active and proportionally biggest national chapter of the network. She heads the SDN Global Chapter Team since 2014 and represents the local chapters in SDN's global Leadership Team. Tarja currently also works on her doctoral dissertation studying cultures' role in service design.





Virpi Kaartti & Auli Guiland (eds.)

SERVICE INNOVATION AND DESIGN: STORIES OF THE EMERGING THEMES AND IMPACT OF THE EDUCATION

Laurea University of Applied Sciences has been a real trailblazer in the field of service innovation and design. This publication is devoted to the 10-year-old service innovation and design (SID) Master's degree programme at Laurea. It includes eight stories in which SID alumni and one SID faculty member discuss emerging themes related to service innovation and design and provide examples on how SID education has affected them and the fields in which they work.