

Working together to build tools and applications that will help save millions of lives

Laerdal Medical and Toptal join forces to develop life-saving tools aimed at curbing preventable deaths from accidents, medical errors, and birth injuries.





Laerdal Medical collaborated with Toptal product managers, designers, and software developers on projects to support its goal of helping save one million more lives, every year, by 2030.

We needed a team that could assist in building our digital foundation. If it wasn't for Toptal, I don't know how we would have done it.

Jochai von Baumgarten
Director, Digital Customer Solutions
Laerdal Medical

The Client

Laerdal is a global enterprise that creates healthcare training solutions for medical practitioners, volunteer groups, educational institutions, and military entities.

The Challenge

Laerdal's team are experts in educational and technical services, and manufacturing healthcare training tools. They needed help building the digital platforms and applications necessary to teach real people how to use them—and further the company's mission of helping save lives.

The Services

Toptal Developers
Toptal Projects
Toptal Designers

The Result

A continuous partnership between Laerdal Medical and Toptal that spans various projects, departments, and company initiatives, with a shared goal of innovating healthcare solutions.

A unique pathway to healthcare

Founded in 1940 by Asmund Laerdal and headquartered in picturesque Stavanger, Norway, Laerdal Medical got its start as a greeting card and children's publishing house, then transitioned to toy manufacturing.

By 1960, the company was known for its vinyl, "furniture friendly" Tomte cars and its Baby Anne doll, a bestseller in Europe.

But in 1958, Norwegian anesthesiologist Dr. Bjørn Lind and Austrian anesthesiologist Peter Safar approached Asmund Laerdal with an idea: to take the soft materials used to create toys and develop a lifelike manikin for resuscitation training purposes. Laerdal agreed, and together the three created Resusci Anne, the world's first patient simulator.

That same year, the Norwegian Civil Defense approached Laerdal with another unique proposition: to use the same soft materials to develop imitation wounds for military training. Again, he agreed, and the company pivoted from toy manufacturing to producing manikins and other medical education products.

Today, Laerdal is a leading provider of training, educational, and therapy products for lifesaving medical care, with 26 subsidiaries and more than 2,000 employees worldwide. The manikins are now computerized and feature sensors that help optimize CPR precision in real time.



Toptal Case Study Laerdal Medical

Helping to save millions of lives

Laerdal's commitment to saving one million more lives, every year, by 2030 drives every aspect of the company's operations. This includes the creation of effective training products and the provision of educational services to implement this goal.

"We breathe that mission every day," says Jochai von Baumgarten, Director, Digital Custom Solutions at Laerdal, "to the point that we make decisions based on impact—i.e., numbers of potential lives we can help save, rather than only looking at dollars and profit."

Baumgarten's team plays an especially vital role in Laerdal's goal: They're innovating the company's digital platform, creating a "glue" between the other divisions. "Our mission is to create a frictionless workflow for our customers," he says.



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Director, Digital Custom Solutions
Laerdal



This digital workflow includes an array of virtual domains that support Laerdal's internal and external efforts. These include Laerdal.com. an e-commerce and content website that also functions as a marketing service; Laerdal Connect, a secure online portal that allows users to store and view Laerdal materials, such as shipment tracking, invoices, educational content, and more; Scenario Cloud, a digital library that houses expert-validated educational resources and scenario materials for simulator users; and other areas, like customer support, site intelligence analytics, and widgets and apps still in development.

"[My team] was essentially a startup inside the company with the digital initiatives that we had," says Baumgarten. He joined Laerdal as a developer in 2009. "When I became the product manager," he says, "I realized that our goal, from day one, was to harmonize our digital portfolio and create a foundation so that any new digital initiative could build on it."

In 2020, Baumgarten and his colleagues at Laerdal identified a need for additional support to meet these digitization targets, stay competitive in the healthcare field, and support the overall goal of helping save more lives. That's when he found Toptal.

Building a digital foundation

Laerdal needed to move fast to stay on track. Toptal stood out to Baumgarten when he started searching for contract workers. His team had utilized other contracting services in the past, but turnover and timing issues made it a challenge to find and retain team members.

"We needed people who could deliver quality in a short time and take responsibility and ownership of their projects," he says.

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Jochai von BaumgartenDirector, Digital Custom Solutions
Laerdal



Toptal provided just that.
Baumgarten was impressed with the process: With just a few short interviews and trial periods, he was able to furnish his team with skilled workers, as were other departments within the company.
Laerdal signed a contract with Toptal in August 2020 and, to date, has worked with Toptal talent in 15

countries across Europe, Africa, and Asia.

"We needed a team that could take care of our digital foundation," says Baumgarten. "If it wasn't for Toptal, I don't know how we would have done it. Our partnership has been the best return on investment of all of the services we've tried because of the quality of talent."



Mapping the future

Laerdal's pledge to help save lives isn't just the ethos that drives the company culture—it was also a lure for Toptal talent.

"Laerdal's mission is very ambitious and touching," says Elena Grigoras, a Toptal digital product manager who serves as a growth strategy consultant for Laerdal. "When I got the proposal, it was an instant yes. The goal to provide and promote healthcare education steered my motivation and commitment. It was like a call to my heart."

Grigoras worked with Laerdal on two projects. The first was in the midwifery education business unit, evaluating product benefits and digital development requirements. As the team's first product manager, she was tasked with creating a short- and long-term project strategy for combining analog products from the midwifery education team with content from the digital platform.

"The midwifery team was sitting on a very rich land of exploratory data," says Grigoras. She scanned the information gathered from the obstetrics and pediatric simulators and other internal and external research metrics to get a better feel for the landscape they were working within. "The healthcare education and simulation market is huge and very complex. I had to understand our challenges, opportunities, constraints, and user problems, and use those metrics to create a tactical roadmap."

Grigoras worked cross-functionally, tapping into Laerdal's many resources and divisions, and with a service designer (also a Toptal talent) to create the framework for a commercial product. Together, they were able to craft essential recommendations for improvement. Grigoras devised a plan for bundling the services—educational and training materials with analog products—and releasing them as digital subscriptions with different price points.

"The stars really aligned on this project," says Grigoras. "In just three months, we managed to set the direction and come up with clear positioning and a proposal for a new product offering."

For her second assignment at Laerdal, Grigoras is working in a different arena, looking at the digital suite of products, as well as the customers' journeys, and determining the product development opportunities for the healthcare education segment. This explorative work offers a stark contrast to the tactical, step-by-step midwifery project: Here, Grigoras conducts the full market research and the competitive landscape analysis, identifying new spaces where Laerdal could innovate and improve on existing concepts and products.

"I am extremely thrilled and passionate about how far we have come on our discoveries and the magnitude of impact and value it could potentially bring to Laerdal's customers, as well as to the entire healthcare education system," she says.



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The goal to provide and promote healthcare education services and solutions steered my motivation and commitment.

Elena GrigorasToptal Digital Product Manager



Elena GrigorasDigital Product Manager
Toptaler since 2022

Communication paves the road to success

In the world of medical education, where precision and accuracy are paramount, communication is crucial. According to Baumgarten, daily check-ins are a pillar of the business. Toptal talent work remotely but are also invited to work in the Stavanger offices and, on occasion, attend customer visits. They're made to feel like a true part of the team.

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The developers I've worked with at Laerdal are very good at what they do and have a lot of experience—not just with dev but with a variety of projects.

Petar Kekez Toptal Software Developer Kelechi Ibekwe, a Toptal product designer who worked on a blended learning approach for a CPR training portal at Laerdal, says he wasn't always sure who on his team was a Laerdal employee or a Toptal talent.

"That speaks to the integration of the team," he says. "No one knows where you're coming from—you're just treated like a team member and a part of the culture."

For Toptal software developer Petar Kekez, communication goes beyond the daily meetings he has with his team at Laerdal—it's also a core component of the work he does.

Kekez works on web app development at Laerdal, both on existing apps and the creation of new ones. One of his projects involves automating translations so the apps can support multiple languages for international users. He used cloudbased translation technology from a SaaS company, Smartling—which provides the translating—and built an integration between Bitbucket and Smartling's APIs. The content files are taken from the applied code, translated, then brought back to the code, making the process automatic so the app developers don't have to manually translate the files themselves.

One could say Kekez's work on the app is like his role as a contractor: creating a seamless virtual partnership between Laerdal and Toptal. It's a process that's rewarding for all involved, especially Kekez. "The developers I've worked with at Laerdal are very good at what they do and have a lot of experience—not just with dev but with a variety of projects," he says.

"I can only say positive things about the team and their knowledge, and how we all work together."



A legacy of collaboration



For Laerdal, a family-owned business in its ninth decade of operation, innovative work would be impossible without a strong company culture.

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Laerdal is an inspiring place to be. The mission-driven culture, the long-standing values, the leadership foundation, and the critical challenges that we try to solve fuel my energy and determination, and keep me committed and inspired. I feel that I'm in a space where I can contribute my knowledge and talent, and put those contributions to good use.

Elena GrigorasToptal Digital Product Manager

It's the glue that holds the team—and its partnership with Toptal—together. It's also a continuation of the work Asmund Laerdal started in the 1940's, when the suggestions of curious thinkers helped evolve his business from making toys to creating lifesaving medical services. The culture of collaboration is his legacy."

Baumgarten feels that Toptal has been a great match in terms of identifying talent that align with the company's values. "Toptal knows our preferences and how to find people that will thrive in our culture," he says.

"A positive side effect of working with Toptal is that you can be reassured the skills will be there. It puts me in a position where, during the interviews, I can focus more on the human side of the candidate. We want people where, if there's a bit of fun going on at work, they feel like they can join in."

For Grigoras, the welcoming culture helped her not only feel comfortable on the team, but also excel at her work. "Laerdal is an inspiring place to be," she says.

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Toptal continues to assist Laerdal with several ongoing projects in various stages of development—and Baumgarten hopes the collaboration will continue. "We've been really successful with long-term engagements in our talent partnership with Toptal," he says.

"I hope it goes on for a long time."



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