The Power of Collaboration

Unlocking the Potential of Artificial Intelligence – Together

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Artificial Intelligence. It Is Beyond Technology.

AI is much more than a tool or system that can help us make our processes faster, more accurate and efficient. It is a technology that can turn thousands of years' worth of data into valuable information and find answers and solutions to urging global questions. It is man-made intelligence – based purely on human intelligence – that has the potential to transform our and our children's lives for the better.

The question is whether we are doing enough today to advance this technology to its true potential. The answer is probably no. Focusing on the development of technology only is not enough. The concept of collaboration and public understanding need to be integrated into the processes. We need to recognize the power of joining forces, collaboration, transparency, and accessible information which all lead to better understanding and trust.

Our debates need to change from conventional to renewed, focusing on challenges, opportunities, failures, and successes. They need to be open and targeted not only towards experts and leaders but also across industries and societies. The source of information needs to be trusted and neutral. They need to create curiosity, spur creativity, and bring people together on a global level.

SwissCognitive – The Global AI Hub

Driven by passion for cognitive technologies, as well as commitment for Switzerland and the coming generations globally, SwissCognitive was founded by Dalith Steiger and Andy Fitze in 2016. Together they share over 50 years of knowledge and experience in the world of digitalisation and emerging technologies and are serving as globally recognized figures for AI for humanity.

Since its foundation date, SwissCognitive's vision is being strongly realised – becoming the Global AI Hub with a trusted network of industries, organizations, academia, enterprises and start-ups, transparently discussing the challenges, opportunities, and development of AI. SwissCognitive has already successfully involved over 30 industry sectors representing over 3.5 million employees. It is cooperating with over 400 companies and organizations, reaching over 470k followers in the global AI eco-system. It regularly connects its on- and offline community and puts the spotlight onto practical use cases and hands-on experiences – transferring the hype around AI into real business.

	30+ Industry Sectors
	400+ Partners Globally
	Repr. 3.5m+ Employees
	470k+ SoMe Followers
	100+ Stages
	Worldwide Presence
	Global Ambassadors

### The Swiss and Global AI Ecosystem

Artificial Intelligence is diversifying Switzerland's global image, extending it well beyond watches, chocolate, banks, and beautiful landscape. For many consequent years Switzerland has been named as the most innovative country in the world, underpinned by world-renowned universities and research institutes, including ETH Zurich, EPFL. Switzerland hosts the highest number of AI companies per citizen, and recently, it has also been named a potential leader for ethical AI globally. Based on the stable and reliable business environment that is unbureaucratically supported by the government both on cantonal and

government level, tech giants, such as Google, Disney Research Studios, IBM, and Microsoft are all running their AI research from Switzerland. With a strong history in life sciences, Switzerland is also driving AI development in healthcare. SwissCognitive brings all the stakeholders in the AI ecosystem together, to connect, exchange, and thrive with collective power for the benefit of the society.

Facilitating Exchange in the Global AI Ecosystem

SwissCognitive, with the power of experience and knowledge stemming from its global network, transparently addresses the development and challenges of AI. With collective cross-industry knowledge, leaders can find answers and solutions to the questions that their own teams and organisation face. They can gain insight and hands-on guidance on how to lead employees, the management, boards, as well as the customers through digital transformation while adapting the power of AI. As a whole, SwissCognitive opens doors to knowledge, experience, and talents, and with that, provides a strong instrument for sustainable development and competitive advantage. It facilitates collaboration locally and globally, offers services in advisory, positioning, and campaigning, and maximizes business opportunities in existing and new markets.

Technology impacts us all, no matter where we come from or what we do professionally. And even though this technology may still be in its infancy, SwissCognitive facilitated close to 100 practical AI use cases to be brought on stage – providing excellent opportunities to learn, exchange and brainstorm about successes and failures. The choices of use cases are plentiful. Here we demonstrate three that are likely to change our lives for the better.
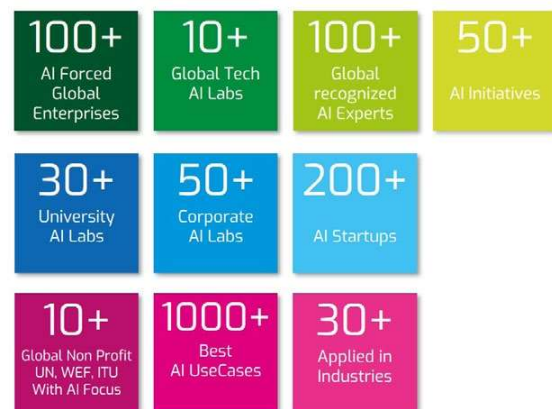
Empowering Older Adults to Lead Independent Lives

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COVID-19 showed us that we need to find new ways of interacting socially and of caring for each other – especially for our older relatives. Technology can and will help to overcome physical distance and to bridge uncertainty about wellbeing and safety. However, it needs to be designed carefully to match the needs of grandparents and treat them with respect.

AI offers various opportunities to achieve exactly this. Voice as an interface is a fantastic new tool that can be easily adapted by older people if the interaction is limited to simple commands. At CARU we utilize this to trigger an emergency call by voice and to receive and send voice messages into a family group chat.

Further, every human leaves «traces» in the room climate when being in a room: Air quality changes, noise level increases, brightness can be adapted. Using machine learning to identify patterns of regular behaviour and to detect anomalies is another field that CARU is tackling with the versatile IOT device. As all analysis is based on room parameters, no device needs to be worn on the body.

Like this, AI brings peace of mind to families and their loved ones in a respectful way.

AI in Dental Medicine – Automated Cephalometric Analysis

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Cephalometric x-ray analysis is a fundamental protocol in orthodontics; being annually performed ca. 10 million times; each requiring an effort of only ca. 10 minutes. Anatomical landmarks must be localized precisely by the specialist, and geometries (angles, ratios, distances) are derived to quantify a patient's maxillo-facial morphology for further diagnosis and therapy planning.

By using massive artificial neural networks (ca. 1/400 of the number of neurons in a human brain), CellmatiQ automated the cephalometric analysis to one second. The training data comprise approx. 3,000 x-rays; analysed and statistically validated in peer-reviewed campaigns by a large expert group. This «AI-as-a-Service» is medically certified and productive since 2019. The «Arnold Biber Prize» of the German Orthodontic Association awarded for the scientific validation confirmed that the AI «is in no way inferior to the points determined by doctors».

CellmatiQ's platform enables systematic data management for AI training and the efficient production of AI analysis modules for use via the Internet or direct integration into medical systems. Further applications under development are for example the identification / classification of caries and the pathology detection in panoramic x-rays.

AI has arrived in dentistry and will increasingly support dentists with better process efficiency and a consistently high-quality level.

Using AI to Create Client-Centric Structured Products and Enhance Growth

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Over the last couple of years, innovation in the structured products markets has predominantly evolved around the issuer side concentrating on new digital tools and platforms which automate and streamline back-office processes. Such tools / platforms allow optimized pricing for structured products, increased automation, reduced costs and ultimately enable lower ticket sizes for customized structured products.

This evolution opens the opportunity for wealth managers to serve a larger client segment by offering a tailored solution for each and every client. The missing piece that our experts added to the digitized value chain is an intelligent algorithm which can design structured products based on client-specific data, such as client risk profile, portfolio allocations, investment view, preferences, and restrictions.

This scalable and intelligent technology is vital for unlocking the next level of growth in the structured products market, both in terms of market size and service quality due to massive efficiency gains through a holistic automation as only suitable products are proposed. In addition to the formalized client preferences DeriRobo makes use of sophisticated artificial intelligence to unlock hidden client preferences allowing a highly personalized and immersive investment journey for the client.