

## Univ.-Prof. Dr. Stefanie N. Lindstaedt

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### SUMMARY

Since 2010, **Univ.-Prof. Dr. Stefanie Lindstaedt** leads two institutions in Austria:

- **Stefanie is CEO of Know-Center** ([www.know-center.at](http://www.know-center.at)), Austria's leading Research Center for Data-driven business and Big Data Analytics. She has developed Know-Center into one of Europe's Top Big Data Centers with over 150 talents, over 100 (applied) research and consultancy projects annually, and an annual budget of over €10 Mio. It's rapidly growing international network of over 260 scientific organizations and 90 industry partners include Magna, AVL, Infineon, NXP, Siemens, Saubermacher and Energie Steiermark. Stefanie has extensive experience in the acquisition and management of applied research and technology transfer projects and infrastructure development. Together with large media partners (e.g., Austrian Press Agency, Bertelsmann, LexisNexis, Styria Media Group) she has worked on developing technologies and business models for the market exploitation of their content assets and effective utilization of user communities.
- **Stefanie is Director of the Institute for Interactive Systems & Data Science** at Graz University of Technology (ISDS, [www.tugraz.at/institutes/isds/home/](http://www.tugraz.at/institutes/isds/home/)). She has developed the former Institute of Knowledge Technologies (KTI) into the largest institute of TU Graz with 15 research groups and approx. 100 scientists. In the context of the Digital TU Graz initiative, Stefanie has developed and implemented a platform for research data management and analytics across the three universities in Graz (TU Graz, MedUni Graz, Uni Graz) together with data steward services.

Within the last years, Stefanie has spun-off **three start-up companies** from Know-Center:

- Invenium ([invenium.io](http://invenium.io)) is utilizing mobile phone data to explore human mobility at scale
- e-nnovation ([e-nnovation.at](http://e-nnovation.at)) offers digital solutions to make life easier for the elderly
- OpenKnowledgeMaps ([openknowledgemaps.org](http://openknowledgemaps.org)) revolutionizes the discovery of scientific knowledge

Before joining Know-Center, she led various large innovation projects at Daimler (Chrysler) Research in Ulm (Germany) and was a product manager for web-globalization services at GlobalSight in Boulder (USA). Stefanie has extensive industry experience in process and technical consulting, solution sales, marketing and organizational development for international companies.

Stefanie earned her habilitation in Computer Science from Graz University of Technology (TU Graz, Austria), where she has been teaching undergraduate and graduate courses since 2002. She holds an M.S. and a Ph.D. in Computer Science from University of Colorado at Boulder (USA). She has published more than 200 scientific papers in conferences and journals, supported 2 habilitations and supervised 24 Ph.D. theses. Since 2010 Stefanie is General Chair of the AI-Know & I-Know conference series, she acted as General Chair of EBDVF 2018, Program Chair of EDF 2015 and EC-TEL 2012 conferences. Stefanie has an excellent track record in obtaining EU and Austrian funding (e.g. APOSDLE IP, MATURE IP, MIRROR IP, LAYERS IP, STELLAR NoE, OrganicLingua, EEXCESS, CODE, Semi40, ...) and leading large interdisciplinary research projects and groups.

### RESEARCH INTERESTS

Stefanie is an interdisciplinary researcher in the fields of Artificial Intelligence (ANN, ML, Semantics, ...) and Human-Computer Cooperation with application to professional learning (work-integrated learning) and organizational learning. Her research focus is context-aware knowledge services that combine the power of machine learning methods to augment semantic technologies in order to support individual, community, and organizational learning.

## EDUCATION

11/2010	<b>Habilitation (venia docendi) in Computer Science at Graz University of Technology, Austria</b> Thesis: <i>Hybrid Knowledge Services for Knowledge Work Support</i>
12/1997	<b>Ph.D. in Computer Science at University of Colorado at Boulder, USA</b> Major: <i>Artificial Intelligence &amp; Human Computer Interaction</i> Advisor: <i>Prof. Gerhard Fischer</i> , Grade: <i>A</i> , <i>GPA: 4.00</i> Thesis: <i>Group Memories – a Knowledge Medium for Communities of Interest</i>
06/1993	<b>M.S. in Computer Science at University of Colorado at Boulder, USA</b> Major: <i>Neural Computing</i> Advisor: <i>Prof. Michael Mozer</i> , Grade: <i>A</i> , <i>GPA: 4.00</i> Thesis: <i>Comparison of two Unsupervised Neural Network Models for Redundancy Reduction</i>
1991 – 1992	<b>DDAD Stipend</b> for study at University of Colorado at Boulder, USA
06/1991	<b>Vordiplom (B.S.) in Computer Science at Technical University Darmstadt, Germany</b>
06/1987	<b>High School (Abitur) and Mathematical Technical Assistant (MATA) degree</b> Georg-Kerschensteiner Schule, Bad Homburg, Germany
January 22, 1968	<b>born in Bad Homburg, Germany</b> married, two children

## PROFESSIONAL EXPERIENCE

2001 – current	<b>Know-Center</b> Graz, Austria	<ul style="list-style-type: none"> <li>• <b>CEO</b> since 2014</li> <li>• <b>Scientific Director</b> (2011-2014)</li> <li>• <b>Research Area Manager</b> (2001-2011)</li> </ul>
2002 – current	<b>TU Graz</b> Graz, Austria	<ul style="list-style-type: none"> <li>• <b>Director of Institute for Interactive Systems &amp; Data Science (ISDS)</b> (since 2017) after merger of KTI with IICM</li> <li>• <b>Director of Knowledge Technologies Institute (KTI)</b> (2011-2017)</li> <li>• <b>Professor for Knowledge Management</b> (since 2011)</li> <li>• <b>Researcher and Lecturer</b> (2002-2011)</li> </ul>
2000 – 2001	<b>GlobalSight</b> Boulder, USA	<b>Senior Manager Services Development</b>
1998 – 2000	<b>Daimler(Chrysler)</b> Ulm, Germany	<b>Researcher and Research Project Manager</b>
1992 – 1997	<b>CU Boulder</b> Boulder, USA	<b>Research Assistant</b>
1987 – 1988	<b>Insotec Consult</b> Frankfurt, Germany	<b>Software Developer</b>

## FUNCTIONS

**Supervisory Board:** FH Kärnten (since 2021), DIH Süd (since 2021), BKS Bank (since 2016)

**Shareholder Board:** e-nnovation (since 2018), OpenKnowledgeMaps (since 2017), Invenium (2016-2020)

**Board of Directors:** GAIA-X Hub Austria (since 2022), Big Data Value Association (BDVA, since 2016), Data Intelligence Offensive (DIO, since 2020), Smart Production Graz (since 2017)

**Coordinator:** Big Data Network Europe (2017-2020, led into EUHubs4Data), Digital Networked Data (DnD, 2013-2016), BioTechMed Data Integration Taskforce (2017-2022)

**Advisory Board for Centers:** Leibniz Information Center for Economics (ZBW, Germany, since 2016), Leibniz Information Centre for Life Sciences (ZB MED, Germany, since 2018), Leibniz Forschungsverbund Science 2.0 (since 2015), Fraunhofer Institute for Graphic Data Processing (IGD, 2017-2021), Leibniz Verbundprojekt Research Data Education (VFDB, Germany, 2017-2020), CEITER University Tallinn (Estonia, 2015-2020), Center for Applied Data Analytics Research (CeDAR, Ireland, 2016-2019)

**Advisory Board for Registered Associations:** NFDI (Nationale Forschungsdateninfrastruktur e.V.) Consortium for Business, Economic and Related Data (BERD@NFDI; Germany, since 2023),

**Advisory Board for Projects:** OMfix project (2017), FFG Roadmap Studie "Daten Durchdringen" (2013-2014), OER4Adults advisory group (2012-2013)

**Advisory Board for Policy Making:** Internetoffensive Österreich (IOÖ, since 2016), EU Connect Advisory Forum (CAF, 2013-2019), EU High Level Interest Group Open Science Cloud (HLEG EOSC, 2015-2017), Kuratorium Alpbach (2017-2020), BMVIT Lenkungsausschuss Energieinformatik, BMWFW Delegierten-Round Table

**Evaluation Committee:** Leibniz Georg Eckert Institute for Educational Media (GEI, 2016), Leibniz Institute for Information Infrastructure (FIZ Karlsruhe, 2018), Leibniz Information Centre for Science and Technology University Library (TIB, 2018), Fraunhofer Institute for Intelligent Analysis and Information Systems (FhG IAIS, 2019)

**Schirmherrin:** Circle of Excellence (2017)

**Editorial Board:** Open Access Journal on Universal Computer Science (J.UCS, ongoing), International Journal for Technology Enhanced Learning (IJTEL until 2016), IEEE Transactions on Learning Technologies (IEEE TLT until 2016)

**Steering Committee of Conferences:** European Big Data Value Forum (2018), European Data Forum (EDF 2015), IMAGINE Conference of the Austrian Funding Agency FFG (2015-2017), European Conference on Technology Enhanced Learning (EC-TEL since 2013), AI-KNOW & I-KNOW Conference Series (since 2010)

**Member:** Labs Network Industrie 4.0 (LNI4.0), Plattform Industrie 4.0 Österreich, Informatik Austria, Software & Data Council Steiermark, European Association on Technology Enhanced Learning (EATEL), Human Technology Cluster Styria (HTS), Complexity Science Hub Vienna, Open Access Network Austria (OANA), European Youth Award (EYA), Österreichische Wissenschaftliche Gesellschaft für Produktionstechnik (ÖWGP), Leading Women TU Graz, Institute of Cognitive Science (ICS) at CU Boulder, Center for Lifelong Learning and Design (L3D) at CU Boulder

### HONORS AND AWARDS

- Female Technical Expert of the Month (FEMtech-Expertin des Monats) February 2013, Austria
- Top 5 Paper EC-TEL 2010
- Best Interdisciplinary Paper Award EC-TEL 2009
- APOSDLE chosen as the FFG Reference Project (Austrian Research Promotion Agency), 2009
- Best Paper Award JKM 2008
- Top 5 Paper EC-TEL 2008
- APOSDLE chosen as the Best Integrated Project on Technology Enhanced Learning, FP6, Call 4, 2006
- One-year scholarship for graduate studies at the University of Colorado at Boulder (1991) from Deutscher Akademischer Austauschdienst (DAAD) and Technical University Darmstadt (TUD), Germany.

## KEY ACHIEVEMENTS

### SPIN-OFFS

- **Invenium** ([invenium.io](http://invenium.io)) is utilizing mobile phone data to explore human mobility at scale (spun-off 2016, exit 2020)
- **e-nnovation** ([e-nnovation.at](http://e-nnovation.at)) offers digital solutions to make life easier for the elderly (spun-off 2018)
- **OpenKnowledgeMaps** ([openknowledgemaps.org](http://openknowledgemaps.org)) revolutionizes the discovery of scientific knowledge (spun-off as NGO 2017)

### BUDGET AND MANAGEMENT

- **CEO of Know-Center** (since 2014). Managing up to 150 scientists and a budget of about €65 M (2015-2022).
- **Science Director of Know-Center** (2011-2014). Managing up to 56 scientists and a budget of about €12 M (2012-2014).
- **Division Manager at Know-Center** (2008-2011). Managing up to 18 scientists and a budget of about €10 M.
- **Division Manager at Know-Center** (2001-2007). Managing up to 12 scientists and a budget of about €8 M.
- **Director of Institute for Interactive Systems & Data Science** (since 2017) of TU Graz. Managing up to 100 scientists.
- **Director of Knowledge Technologies Institute** (2011-2016) of TU Graz. Managing up to 20 scientists.

### SELECTED EU-PROJECTS

- **Scientific Coordinator of the MIRROR project** (Reflective Learning @ Work <http://www.mirror-project.eu/>, IP, IST FP7, 2010-2013, €9 M budget). Coordinated 15 partners from 6 European Countries. Managed €650,000 budget at Know-Center. Submitted the proposal based on own research ideas and obtained the funding.
- **WP-Leader in the MATURE project** (Continuous Social Learning in Knowledge Networks, [www.mature-ip.eu](http://www.mature-ip.eu), IP, IST FP7, 2008-2011, €10 M budget). Managed €1 M budget at Graz University of Technology. Was one of the 5 core partners who developed and wrote the proposal.
- **Scientific Coordinator of the APOSDLE project** (Advanced Process-Oriented Self-Directed Learning Environment, [www.aposdle.org](http://www.aposdle.org), IP, IST FP6, 2006-2010, €13 M budget). Coordinated 35-45 researchers located in 7 European countries. Managed €1 M budget at Know-Center and €1 M budget at Graz University of Technology. Submitted the proposal based on own research ideas and obtained the funding.
- **Partner in the STELLAR Network of Excellence** (Sustaining Technology Enhanced Learning Large-Scale Multidisciplinary Research, [www.stellarnet.eu](http://www.stellarnet.eu), NoE, IST FP7, 2009-2012, €6.3 M budget). Managed the budget of €170,000 at Know-Center. Was invited to join the STELLAR network and helped to obtain the funding at a commission hearing.
- **WP-Leader of the Organic.Lingua project** (multilingual ontologies and language technologies, PSP, IST FP7, 2011-2014, €2.2 M budget, 11 partners, 36 months). The Know-Center's part of the budget was about €300,000. Helped to obtain the funding.
- **WP-Leader of the LASSO project** (Lookup & Alignment Service with Semantic Open Data, FIT-IT, 2010-2012, €300,000 budget, 4 partners, 24 months). Graz University of Technology's part of the budget was about €100,000. Helped to obtain the funding and led the work package.
- **WP-Leader of the DYONIPOS project** (DYnamic ONtology based Integrated Process OptimiSation, [www.dyonipos.at](http://www.dyonipos.at), FIT-IT, 2006-2008, €300,000 budget, 5 partners, 24 months). Know-Center's part of the budget was about €160,000. Helped to obtain the funding and led the work package.

### TEACHING EXPERIENCE

- Regularly teaches university courses and seminars at TU Graz.
- Supported 2 habilitations, (co)supervised 24 dissertations, 34 Master thesis, and >30 Baccalaureate theses.
- Taught 16 university courses and seminars at Graz University of Technology, Graz University, etc.
- Organized and conducted 4 Ph.D. summer schools, 2 doctoral consortia and 3 conference tutorials.

### PUBLICATIONS AND INVITED TALKS

- Published >70 book chapters, special issues, refereed journal articles and books.
- Published >130 refereed conference and workshop papers.
- Gave >100 invited talks and keynotes at conferences, congresses, summer schools and other events.
- Served on >100 program committees of conferences and workshops.

**ORGANIZED EVENTS**

- General (since 2010) and Program Chair of the I-KNOW Conference series (since 2002). Developed the conference into AI-KNOW - World Congress for AI Enthusiasts ([ai-know.know-center.tugraz.at](http://ai-know.know-center.tugraz.at)).
- ECTEL Steering Committee since 2013.
- Program Chair of EC-TEL 2012 (Saarbrücken, Germany), Workshop Chair of EC-TEL 2011 (Palermo, Italy) and Demonstration & Poster Chair of EC-TEL 2010 (Barcelona, Spain).
- Organized and conducted >34 special tracks and workshops on international conferences and other events.

**COMMUNITY SERVICE**

- Serves on 2 editorial boards and acts regularly as a reviewer for 9 international journals.
- Since 1995 served on >96 program committees of conferences and workshops.

## KNOW-CENTER KEY ACHIEVEMENTS

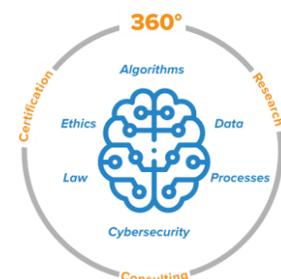
When I first became Scientific Director of the Know-Center in 2011 it was clear that its funding period was running out by the end of 2014 and that a continuation of the center with its existing focus on knowledge management would be unlikely. Therefore, I initiated an internal repositioning process which reinvented Know-Center as Austria's research center for Data-driven Business and Big Data Analytics and one of Europe's leading research centers for data-driven AI. We were last granted COMET funding in 2015, based on an ambitious research agenda and growth goals, which we surpassed in every aspect. The 2018 mid-term evaluation of KC listed 13 strengths, no weaknesses, and unconditionally recommended continued funding.

- **KC is one of the nine top European research centers for Big Data.** As one of only 9 big data research institutes in Europe, and as the only one in the German speaking area, KC has been awarded the iSpace label in Gold by the European Big Data Value Association (BDVA).
- **KC has actively pursued an expansion strategy since 2015.** Our team grew from 40 to 150 people. Industry consortium size increased from 26 to 90 partners, including 7 of the 10 largest Styrian companies, 10 of the 25 largest Austrian companies and 5 of the 10 most innovative Austrian companies. Industry assignments grew from 100k€ to 1.8M€ and EU funding grew from 0.3M€ to 2.5M€ annually. KC is the top K1 COMET center in terms of EU project acquisition, participating in 17 and coordinating 3 EU projects, acquiring 7.4M€ EU funding since 2019.
- **KC has strategically developed its research agenda.** In 2015, we founded a new research area on Data Management for AI headed by Prof. Matthias Boehm, who joined us on an FFG endowed professorship from IBM. We also founded a new research area on Data Privacy for AI, headed by Prof. Christian Rechberger, who joined us from TU Graz. We refocused the research area Knowledge Visualization to Human-AI Interaction, headed by Prof. Eduardo Veas, who now holds a Styria endowed professorship on Intelligent and Adaptive User Interfaces at TU Graz. KC won three COMET modules in highly competitive calls for basic research on Privacy-Preserving and Explainable AI (DDAI, led by KC), Theory-inspired Machine Learning (HybTech, led by LEC) and, recently (as one of 6 out of 17 applications) Human-centered AI (DDIA, led by KC).
- **KC generates value for Austria's economy and society.** We support the Austrian research landscape, including other COMET centers like LEC, MCL, and AC2T, and universities like TU Graz, Uni Graz, and Medical University Graz (MUG), with research data management services. KC consulted the Austrian government on AI, provided training to Austria's Parliamentary Directorate and General Court of Accounting, and Prof. Stefanie Lindstaedt is on Austria's Future Operations Platform. KC supports Austria's small and medium enterprises through two national Digital Innovation Hubs (DIH) and by being core consortium partners in three European EDIH proposals.
- **KC contributes to Austria's start-up ecosystem.** We created three Spin-Offs (Invenium, OpenKnowledgeMaps, E\_nnovation), earned 800k€ when Austria's largest Telecom provider bought our Spin-Off Invenium, and invested the proceeds into our own "Spin-off Factory" initiative. The goal is to spin-off at least one company every year, thus making the technologies developed at KC available to a multitude of players.

For the next funding period (2023-2030) I again repositioned KC (this time only slightly) with an ambitious research program on **Trustworthy AI & Data for sustainability, Industry 4.0 and life sciences.**

In order to support organizations in making AI applications secure and trustworthy (and in response to GDPR and the AI Regulation) I have started the **TRUST YOUR AI** ([www.trustyour.ai](http://www.trustyour.ai)) initiative together with our partners TU Graz, Uni Graz, SGS, and a constantly growing number of supporting companies which provide the use cases.

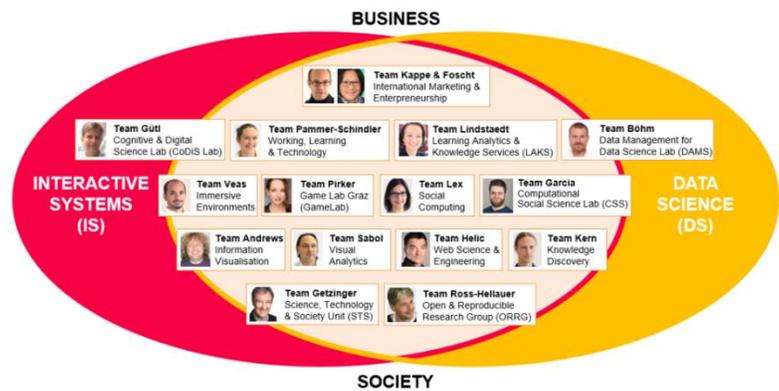
- **Research:** We work on the (further) development of international standards and research-associated metrics that ensure trustworthy use of AI.
- **Consulting:** We advise companies on the development of trustworthy AI systems and accompany them while preparing for conformity testing.
- **Certification:** We develop new multidisciplinary tools and techniques that enable a (semi-)automatic criteria assessment.



## KEY ACHIEVEMENTS TU GRAZ

### Institute of Interactive Systems & Data Science

In 2011 I became professor for knowledge management at TU Graz and took over the lead of the Knowledge Technologies Institute (KTI). After reinventing the Know-Center (see above) I initiated the merger of KTI with the Institute for Information Systems and Computer Media (IICM). The idea of the merger was the integration of two major research streams: Interactive Systems (IS) and Data Science (DS).



In 2017 the new institute started its operation under my leadership with the **mission**:

"We unite research on all aspects of Artificial Intelligence (AI) in order to (1) make systems interactive and adaptive to humans based on data, and (2) to support humans to interactively create insights from data".

**By now ISDS is home to 15 research groups with a total of approx. 100 scientists and the largest institute at TU Graz.** While the mission of the Know-Center is to perform applied research and to bring new technologies into our partner companies, the mission of ISDS is to conduct basic research on the interface between interactive systems and data science. In addition, over the years we have been able to establish research groups at the interface of computer science research to business and to society:

- International Marketing & Entrepreneurship
- Open & Reproducible Research
- Science, Technology & Society

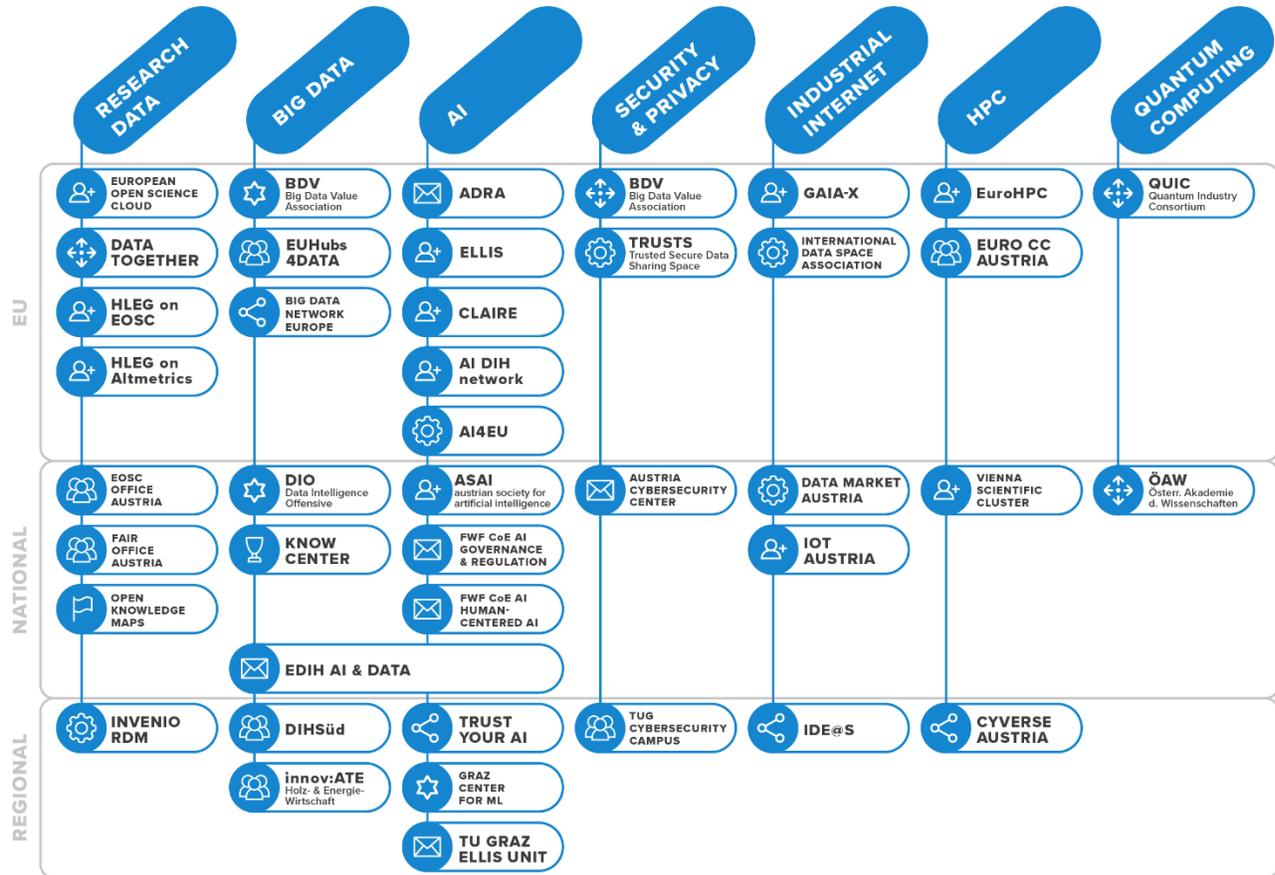
### Digital TU Graz Initiative

At about the same time TU Graz launched the **Digital TU Graz initiative**, through which the digitalization of the university should be advanced. It consists of four focus areas of digitalization: Administration, Teaching, Research and 3<sup>rd</sup> Mission. I took over the leadership of the research pillar, while at the same time contributing also to teaching and 3<sup>rd</sup> Mission. My own research group on Learning Analytics & Knowledge Services developed and implemented the following services, the operation of which is now in the process of being taken up by TU Graz library, IT and other TU Graz units:

- **Research Data Management**  
After a full year of requirements elicitation and focus groups we decided to implement two systems at TU Graz: invenio RDM – an open-source platform developed under the lead of CERN ensures the archiving of data and software. CyVerse – an open source developed under the lead of University of Arizona allows to collaboratively store, share, and analyze data.
- **Data Stewards**  
Through the help of ministry funded projects we were able to hire and train 4 data stewards who train our researchers and PhD students on the above-mentioned systems (and others) and to help institutes to organize their data.
- **Learning Analytics**  
Within the pillar teaching we developed a number of different tools (on top of MOODLE) which allow for students to use their own data to improve their learning journey and for recommender systems to suggest actions, learning groups, etc.
- **Research on Implications of Digitalization**  
In order to better understand the effects of our different digitalization activities, the Science, Technology & Society research group conducted a study across the whole TU Graz which helped us to adapt our approaches. In addition, it enabled us to study the effects of the COVID pandemic on the uptake and effects of technologies.

### KEY ACHIEVEMENTS EUROPEAN INITIATIVES

My interest in helping to shape policy and research directions through participation in EU initiatives was triggered in 2013 when I first became member of the Connect Advisory Forum (CAF). Since then, I have actively engaged in a number of topical streams as illustrated below. Either I participate myself in the initiative or I identify relevant people from my teams to do so. The objective of participation is always to anticipate changes in funding schemes, to bring in my ideas and help shape the initiative, to help create national and regional pendants, and to connect the initiatives in order to provide value for our partners.



LEGEND

- BOARD OF DIRECTORS
- MEMBER
- ISPACE GOLD AWARD
- SERVICE PROVIDER
- PENDING APPLICATION
- CORE TEAM
- COORDINATOR
- SPIN-OFFS
- TASK FORCE

## RESEARCH AND WORK EXPERIENCE

<p>since Dec. 2011</p>	<p><b>Know-Center GmbH, Graz, Austria</b> (<a href="http://www.know-center.at">www.know-center.at</a>)  <i>Know-Center is Austria's leading research center for data-driven business and big data analytics funded by the Austrian COMET program and 50% owned by Graz University of Technology. By undertaking applied science projects, Know-Center bridges the gap between science and industry.</i></p> <p><b>CEO</b>          Developed Know-Center in one of Europe's top Big Data research centers (iSpace label in Gold). Managing up to 150 scientists and an annual budget of over €10 M (budget €65 M 2015-2022)</p> <p><b>SCIENCE DIRECTOR</b>          Managing up to 56 scientists and a budget of about €12 M (2012-2014)</p>
<p>since Oct. 2011</p>	<p><b>Graz University of Technology, Austria</b></p> <p><b>DIRECTOR INSTITUTE FOR INTERACTIVE SYSTEMS AND DATA SCIENCE (ISDS)</b>          Created ISDS through merger of KTI with the IICM institute and developed it into the largest institute at TU Graz with approx. 100 researchers and 15 research groups.</p> <p><b>DIRECTOR KNOWLEDGE TECHNOLOGIES INSTITUTE (KTI)</b>          Leading research groups of up to 20 researchers in the fields of knowledge technologies, social computing and cognitive systems.</p>
<p>2001 – Nov. 2011</p>	<p><b>Know-Center GmbH, Graz, Austria</b> (<a href="http://www.know-center.at">www.know-center.at</a>)</p> <p><b>DIVISION MANAGER KNOWLEDGE SERVICES</b>          Responsible for division strategy, product development, service design, project acquisition and multi-project management.</p> <ul style="list-style-type: none"> <li>• Expanded the team from 3 to 18 researchers</li> <li>• Acquired partners, customers and research funding</li> <li>• Managed applied research projects (total budget of about €8 M) in 2002-2007</li> <li>• Helped to obtain a 7-year 1<sup>st</sup> period funding for Know-Center, with about €7 M for the Division in 2008-2011.</li> <li>• Helped to obtain funding commitment for the period 2 funding for the Know-Center, with about €6 M for the Division in 2012-2014</li> <li>• Developed a portfolio of knowledge services and software frameworks</li> <li>• Developed services and products of the customer companies by applying knowledge technologies and software frameworks</li> <li>• <b>I-Know</b>: since 2002 helped to organize and establish the International Conference of Knowledge Management (<a href="http://www.i-know.at">www.i-know.at</a>) and since 2010 acted as the program co-chair. See section Community Service for details.</li> <li>• <b>PWM</b>: Under Stefanie's lead Know-Center ran the "Plattform Wissensmanagement" (<a href="http://www.pwm.at">www.pwm.at</a>) – the largest German-speaking community on the topic (about 1,200 registered members)</li> </ul> <p><i>EU-Funded Projects:</i></p> <ul style="list-style-type: none"> <li>• <b>Organic.Lingua</b> (<a href="http://www.organic-lingua.eu">www.organic-lingua.eu</a>): Helped to obtain the funding for a European PSP project on multilingual ontologies and language technologies (€2.2 M budget, 11 partners, 36 months). Know-Center's part of the budget is about €300,000 (2011-2014).</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>MIRROR</b> (<a href="http://www.mirror-project.eu">www.mirror-project.eu</a>): Initiated, obtained the funding for and scientifically coordinated a European integrated project on reflective learning at work (€9 M budget, 16 partners, 48 months). Know-Center’s part of the budget was about €650,000 (2010-2013).</li> <li>• <b>APOSDLE</b> (<a href="http://www.aposdle.org">www.aposdle.org</a>): Initiated, obtained the funding for and scientifically coordinated a European integrated project on work-integrated learning (€13 M budget, 12 partners, 35-45 researchers, 48 months). Know-Center’s part of the budget was about €1 M. Graz University of Technology's part of the budget was about €1 M (2006-2010).</li> <li>• <b>MATURE</b> (<a href="http://www.mature-ip.eu">www.mature-ip.eu</a>): Helped to obtain the funding for and led the work package of a European integrated project on knowledge maturing (€10 M budget, 13 partners, 48 months). Graz University of Technology's part of the budget was about €1 M (2008-2011).</li> <li>• <b>STELLAR</b> (<a href="http://www.stellarnet.eu">www.stellarnet.eu</a>): Helped to obtain the EU funding for the Network of Excellence in the field of technology-enhanced learning (€6.3 M budget, 16 partners). Responsible for €170,000 allocated to Know-Center (2009-2012).</li> </ul> <p><i>Austria-Funded Projects:</i></p> <ul style="list-style-type: none"> <li>• <b>LASSO</b> (<a href="http://www.lassoproject.org">www.lassoproject.org</a>): Helped to obtain the funding for and led the work package of a FIT-IT project on Lookup &amp; Alignment Service with Semantic Open Data. (€300,000 budget, 4 partners, 24 months). Graz University of Technology's part of the budget was about €100,000 (2010-2012).</li> <li>• <b>DYONIPOS</b> (<a href="http://www.dyonipos.at">www.dyonipos.at</a>): Helped to obtain the funding for and lead the work package of a FIT-IT project on DYnamic ONtology based Integrated Process OptimiSation (€300,000 budget, 5 partners, 24 month). Know-Center’s part of the budget was about €160,000 (2006-2008).</li> </ul>
<p><b>2000 – 2001</b></p>	<p><b>GlobalSight, Boulder, Colorado, USA</b>  <i>GlobalSight is a leading provider of infrastructure software and strategy for Web globalization. The San Jose based company was incorporated in October 1997 and attracted \$45 M of financing from JHWhitney, 3i, DFJ and Deutsche Bank.</i>  <i>Department: Professional Services Organization</i></p> <p><b>SENIOR MANAGER SERVICES DEVELOPMENT</b>  Responsible for definition, customization, pricing and marketing of professional service offerings</p> <ul style="list-style-type: none"> <li>• Increased the efficiency of knowledge exchange between professional services and sales, product marketing and engineering departments by defining and implementing processes and tools for knowledge management and documentation</li> <li>• Ensured scalability of customer support services by creating and implementing a new multilingual customer support center, including defining the operational processes and specification of customer management tools</li> <li>• Influenced the product development road map by performing task analysis, requirements elicitation and specification for innovative parts of GlobalSight System4</li> <li>• Increased sales by providing solution sales activities, including globalization maturity assessment, custom service creation, sales visits, contract creation and negotiation</li> </ul> <p><b>TECHNICAL AND STRATEGY CONSULTANT</b>  Provided consulting services to customers, such as AltaVista, CNet, ebankinter, Garnter, etc.</p>
<p><b>1998 – 2000</b></p>	<p><b>RESEARCH PROJECT MANAGER</b>  Responsible for research and research project acquisition based on the business needs and constraints of DaimlerChrysler business units (specifically, Mercedes)</p> <ul style="list-style-type: none"> <li>• <b>EU-funded project on collaborative learning at the workplace (CORONET)</b>  Created a complete testable specification of the collaborative learning system by using novel methods of requirement elicitation to obtain user requirements from the business units and other application partners. Responsible for managing the internal project staff, collaborating with the business units and coordinating with the other project partners.</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>International Project on Systematic Exchange and Reuse of Software-Engineering Experiences through Software Experience Centers</b> As a part of the team led by Prof. Kurt Schneider, worked with two business units of DaimlerChrysler to establish systematic ways of exchanging and reusing software-engineering experiences across projects and business units. Provided consulting in the requirements engineering, process improvement, reviews and inspections, risk management and quality management.</li> <li>• <b>Object-Oriented Software-Reuse in Distributed Architectures</b> In order to develop methods for the assessment and improvement of object-oriented software development processes, defined and led research packages in the areas of effort-measurement, reviews and inspections, assessment of oo-software architectures, oo-documentation and experience-based usability engineering.</li> </ul> <p><b>PROCESS CONSULTANT</b> Provided consulting in process improvement (CMM), subcontractor, risk and quality management, software engineering, cost estimation and fault tracking to various business units of DaimlerChrysler. Contributed to the development of a software quality organization at Mercedes-Benz.</p>
1992 – 1998	<p><b>University of Colorado at Boulder, Boulder, Colorado, USA</b> <i>Department: Computer Science and Center for LifeLong Learning and Design (L<sup>3</sup>D)</i> <i>Advisor: Professor Gerhard Fischer</i></p> <p><b>RESEARCH ASSISTANT</b> Contributed to several research projects funded by NSF, ARPA, CASI, US West and NYNEX:</p> <ul style="list-style-type: none"> <li>• Organizational Memory, Organizational Learning</li> <li>• Designing Useful and Usable Computational Environments: Tools for User-Centered and Evolutionary Development of Domain-Oriented Systems</li> <li>• Human-Centered, Intelligent Agents: Supporting Communication and Collaboration in Domain-Oriented Design Environments</li> <li>• Beyond Object-Oriented Programming: A Knowledge-Based Architecture for Contextualized Software Design</li> </ul> <p><b>VISITING RESEARCHER</b> (Summers 1994 and 1995)</p> <ul style="list-style-type: none"> <li>• NYNEX Science &amp; Technology, Department: Intelligent Interfaces, New York, USA</li> </ul>

## SELECTED PROJECTS

### MIRROR IP (2010-2013)

MIRROR (Reflective Learning @ Work, [www.mirror-project.eu](http://www.mirror-project.eu)) was a project on systematically supporting reflection processes at work. It brought together 15 partners from 6 European Countries and had an overall budget of about €9 M for 48 months (2010-2013), of which Know-Center was allocated about €650,000. An integrated project jointly coordinated by IMC AG (Germany) and Know-Center (Austria), MIRROR was funded within the European Commission's 7<sup>th</sup> Framework Program under the IST work program.

MIRROR was based on Stefanie's research ideas. She wrote the proposal, obtained the funding and acted as a scientific coordinator since the project's start in July 2010.

The overall objective of MIRROR was to empower and engage employees to reflect on past work assignments and personal learning experiences in order to learn in real time and creatively and promptly solve pressing problems. MIRROR helped employees to significantly increase their level and extent of experience in a short time by capturing experiences of others by relying on the astounding human ability to efficiently and effectively learn directly from tacit rather than explicit knowledge.

Under the project, an "AppSphere" was created: a bundle of real-time, interoperable learning applications that can be used in the collaborative and social work environment of the employees. The MIRROR Apps are designed to encourage creative problem solving, engage people to share experiences, reflect on their tacit work practices, collaboratively construct new knowledge, experience new work practices through games and help individuals to learn from others on the job. Besides coordinating the overall scientific activities of MIRROR, Stefanie was responsible for the work package on "Individual Reflection" and substantially involved in the workplace "Capturing Learning Experiences." The project primarily focused on extending the context detection and user profiling services to incorporate information from mobile sensors, including physiological sensors, in order to account for such factors as stress when analyzing activity patterns. As application partners, MIRROR had 2 hospitals, 1 nursing home and 2 enterprises from the telecommunications and IT sectors. By closely collaborating with the health care test beds, research aspects of eHealth and Assisted Ambient Living were addressed.

### MATURE IP (2008-2011)

MATURE (Continuous Social Learning in Knowledge Networks, [www.mature-ip.eu](http://www.mature-ip.eu)) was a project on knowledge maturing in organizations and communities. It brought together 13 partners from 5 European Countries and had an overall budget of €10 M for 48 months (2008-2011), of which Graz Technical University was allocated about €1 M. An integrated project jointly coordinated by the Centre Internacional de Mètodes Numèrics en l'Enginyeria (Spain) and the Forschungszentrum Informatik at University Karlsruhe (Germany), MATURE was funded within the European Commission's 7<sup>th</sup> Framework Program under the IST work program.

Stefanie was one of the 5 core partners who developed the concept and wrote the proposal. In addition, she led the work package "Maturing Services."

MATURE interlinked the individual learning processes within a knowledge-maturing process, which changed the nature of the knowledge in question. Knowledge can take the form of classical content of varying degrees of maturity and involve tasks and processes or semantic structures. The goal of MATURE was to understand the maturing process better based on empirical studies and to build tools and services for reducing maturing barriers.

Stefanie led the work package "Maturing Services." Based on the analysis of usage data and textual content aided by semantic knowledge structures, patterns in the handling of knowledge and knowledge maturing stages were identified. Over the first years, in-depth studies of knowledge maturing practices were conducted in a small software company in Graz (Austria) and a career guidance network in Kent (UK). The project was part of a large-scale survey of knowledge maturing practices in over 100 European organizations. Based on the insights offered by this empirical work, it supported knowledge maturing practices in semantic MediaWikis. Specifically, a demonstrator was developed that utilizes Web 2.0 technologies within organizations and enterprises, visualizes social, semantic and content networks, recommends tags, creates awareness, facilitates discussion

and tracks changes in the organizational knowledge structures. It was evaluated by potential users in workshops to assess its usability and the usefulness of the approach.

### STELLAR NoE (2009-2012)

STELLAR (Sustaining Technology Enhanced Learning Large-Scale Multidisciplinary Research, [www.stellarnet.eu](http://www.stellarnet.eu)) was an EU Network of Excellence whose aim was to unify the diverse community of technology-enhanced learning (TEL). It brought together 16 partners from 9 European Countries and had an overall budget of €6.3 M for 42 months (2009-2012), of which Know-Center was allocated €173,000. STELLAR was funded within the European Commission's 7<sup>th</sup> Framework Program under the IST work program and was jointly coordinated by the Open University UK and the University Joseph Fourier, France.

Stefanie was invited to join the STELLAR network and helped to secure the funding at a commission hearing.

STELLAR was reflected the need of the European TEL research to build upon, synergize and extend the valuable work that was performed in the European Union to achieve its goals under the Bologna Agreement and upon the execution of the Lisbon Agenda. Integrating the excellence achieved by the previous networks (Kaleidoscope and PROLEARN) and moving to a higher strategic policy formation based on leading research were the key objectives that STELLAR addressed by identifying 3 grand TEL research challenges: (1) connecting learners, (2) orchestrating learning and (3) contextualizing virtual learning environments and instrumentalizing learning contexts.

Stefanie's main role within STELLAR was to strengthen the professional learning research community, which she also represented as co-leader of the EATEL SIG ProTEL. Part of this endeavor was to develop and provide a Science 2.0 environment for TEL researchers. Stefanie was part of the competitively-selected data TEL, whose main objective was to standardize the research on recommender systems in TEL by creating suitable benchmarks and develop reference datasets.

### APOSDLE IP (2006-2010)

APOSDLE (Advanced Process-Oriented Self-Directed Learning Environment, [www.aposdle.org](http://www.aposdle.org)) was a project on work-integrated learning. It brought together 12 partners from 7 European Countries and had an overall budget of €13 M for 48 months (2006-2010), of which Know-Center's and Graz University of Technology's were allocated €1 M each. APOSDLE was funded within the European Commission's 6<sup>th</sup> Framework Program under the IST work program and was jointly coordinated by Know-Center and Joanneum Research.

APOSDLE was based on Stefanie's research ideas. She wrote the proposal, obtained the funding and acted as a scientific coordinator throughout the project, managing the team of 35-45 interdisciplinary researchers located in 7 countries.

APOSDLE offered individual learning support to people predominantly engaged in non-routine tasks and contributed new content to the organization's knowledge pool. It followed the "learn @ work" approach, under which learning takes place in the context of the user's *real* work task and in the user's *real* (computational) work environment and uses *real* organizational content for learning. It provided integrated support for all 3 roles that a knowledge worker interchangeably plays at the workplace: the worker, the learner and the expert. We argued that work-integrated learning requires very flexible support, specifically with regard to learning guidance. This project showed how a battery of "learning services" can deliver this flexibility. We developed a domain-independent software framework, which can be instantiated for a specific learning domain in less than 1 month. This software framework was composed of a variety of interoperable services for user context and competency detection, user profile mining and inferencing, context-based retrieval, etc. Our in-depth summative evaluation at 3 application partner sites for 3 months proved that the work-integrated learning approach improved task completion abilities.

**For additional information regarding the above projects, please refer to [www.know-center.at](http://www.know-center.at)**