Oliver Stickel

Fab Lab manager, researcher, founder

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📄 cv-full.pdf / 📄 cv-onepage.pdf
🎓 ORCID / G Scholar / ᴿᴳ ResearchGate

Experience

Self-employed researcher, consultant, educator. Consultation work for organizations interested in Fab Labs, Makerspaces and Community Innovation Spaces. Public and private grant proposals. Teaching. Book project "Handbuch Fab Labs". Meta-Lab Rhein-Ruhr (in formation).
2015–today

Lab leader. I was involved in the setup of RUB-Makerspace as deputy general manager as well as lab leader for the Digital Lab and the Plastics Lab. RUB-Makerspace is a 2000sqm space with a team of 16 people and multiple (sub-)labs. Ruhr-Universität Bochum.
2020–2023

Researcher, project manager, educator. After graduating, I stayed at Uni Siegen to continue building Fab Lab Siegen into a sustainable infrastructure. Apart from the Lab, I worked on/in different projects (see below), published and did a lot of teaching. University of Siegen.
2015–2019

Guest researcher, consultant. Field research, consultations and development of joint project proposals in/with collaborators from the Middle East. University of Birzeit, Univ. of Technology Oman, Goethe Institute, others, (mostly) Palestine.
2014–2019

Founder and manager. I founded Fab Lab Siegen and managed it on its journey from a student initiative in a literal storage room on campus outside the city through many locations to a big, wonderful, colorful, open and community-oriented space with a funded team and filled with people, ideas, tools and machines right in the city center. Siegen.
2013–2019

TA, student researcher. Teaching assistant (mostly in HCI), research assistant (mostly with qualitative field work), IT and media tech support/maintenance. Universities of Siegen and Duisburg-Essen.
2009–2015

Education

Dissertation work - About Fab Labs and Makerspaces as public infrastructure. University of Siegen and self-employed.
2015–today

M.Sc. Human Computer Interaction (honors) - Socio-technical systems design based on qualitative methods. University of Siegen.
2012–2015

B.Sc. Applied Cognitive and Media Sciences - Computer Science and Psychology (without advanced engineering and clinical aspects), grounded in quantitative methods. University of Duisburg-Essen.
2009–2012

Community roles

I (co-)chaired Fab:UNIverse - the conference of Fab Lab managers at German universities - multiple times and help maintain its website. I've also (co-)organized many gatherings such as temporary (Maker)spaces at other events or meetups like the World Usability Day Siegen (2014-2018).

In academic service, I was reviewer/chair for conferences and journals like CHI, JCSCW, C&T or M&C. Occasionally, I've been asked to join committees, mostly on (community) innovation spaces or student issues. I've also been an elected member of different bodies of (self)-governance such as the Senate commission on Strategic University Development and

examination boards at Uni Siegen or head of the student representatives ("Fachschaftsräte") at Uni Duisburg-Essen and Uni Siegen respectively.
Memberships: Verbund Offener Werkstätten, Chaos Computer Club, ver.di, Fab Lab Network, FIfF. Past: UPA, GIG, Hasi, GI.

Teaching	I enjoy teaching and learning a lot. I've always made it a point to try and be open in teaching and have frequently had students from other faculties or external guests in my seminars.

At Uni Siegen, I've been responsible for most elements of the annual mandatory introduction to Human Computer Interaction for years. This included lectures and mentoring up to 40 students per iteration through big, semester-long projects ending in submissions to and wins in national student challenges. Additionally, I've held many different seminars ranging from reading classes on literature about "Making" to very practical seminars on rapid prototyping methods.

At Ruhr-Uni Bochum, I was less involved in structured, academic teaching but tought and learned whatever was needed to help many different Makerspace community members from (many different) disciplines with their - many different - projects.

As a thesis advisor and co-advisor, I have accompanied about 8 Bachelor and Master Students along their paths to graduation. Topics have varied from participatory-design-oriented field investigations to studies about Makerspaces in teacher training to engineering and fabrication of additive tools for industrial processes. Additionally, I've been involved in co-advising state-certified technicians as a pilot project between a university and a technical vocational college. Occasionally, I've contributed to revisions of examination regulations and similar regulatory structures.

I've also developed and held lots of safety and infrastructure introductions.

Skills in Keywords

Making - Makerspace operation / management / safety. Rapid Prototyping (many different methods), CAD/CAM, general (basic) coding, (traditional) web development, electronics and integrated systems for rapid prototyping, basic skills in different crafts / workshop and lab areas.

Human Centered Design - HCI, participatory design, UCD, CSCW, Design Thinking, convergence of agile and UCD.

Projects and People - Project development, social innovation, fundraising, agility / "Skunkworks", community and team development, operations (with)in public service and public administration.

Methods - Constructionism, human-centered teaching and learning, mixed-methods, action and field research, participatory methods and participatory action research, (Maker-)space(s) as a method.

Personal

Birth date: 12 June 1987

German: native, English: fluent, French: rudimentaire, Latin: obliviscebam.

I enjoy camping, water, (working on) motorbikes, cooking and books.

Projects and funding

Maker in Residence is an effort at RUB-Makerspace to invite Makers from different disciplines to share knowledge. I co-led the first two funding rounds and managed the 2023 residency.
Regional donors, 20-40.000€ p.a.

2023–today

MentorINN is a project between three universities to found Ruhr School of Design Thinking, to support Design Thinking in academic teaching and to

2022–2024

share course material. I was part of the proposal team and occasionally helped in the project.
Stiftung Innovation in der Hochschullehre ('foundation for digital teaching in academia'), about 20.000€.

SMAPS - the center for smart production systems - was a research-infrastructure project on additive fabrication and smart systems for industrial tooling (mainly forming processes). I was part of the proposal team and briefly involved in the ramp-up and procurement phase.
European EFRE-fund (EFRE.NRW), about 3m€.   2019–2022

FAB 101 was a research project of four German universities on Fab Labs in academia. It focused on cooperation, tools, education and infrastructure. I developed the core idea, led the proposal, was project manager and part of the operative team.
Federal Ministry of Education and Research, about 1.2m€.   2017–2020

YALLAH - "You All Are Hackers" was a student exchange / hackathon project. Students from Palestine and Germany visited each other and worked on socio-economical issues and art using "maker-methods" (info slides from 2017). I developed the core idea after my own visits to Palestine as a student, led the proposal and helped recruit and set up the staff who took over. German Academic Exchange Service (DAAD), about 225.000€.   2016–2018

ZEIT.RAUM Siegen was a project between a museum, three university chairs and Fab Lab Siegen to develop a 3D-printed, interactive city model and a regional Wiki for a museum installation. I coordinated the ideation phase, wrote most of the proposals, was part of the negotiation team, built the first prototypes for model and wiki and recruited the project staff.
Regional societies, University of Siegen, other sources, about 190.000€.   2016–2018

Internet-Cafe4Refugees was a project we set up when Uni Siegen housed hundreds of refugees. We provided tech support, hardware and internet connection together with the local freifunk.net community.
Volunteer work, hardware donations and enough local funding for student aids to cover daily opening hours.   2015–2016

Fab Lab Siegen was my baby for many years and my first real experience in regards to being a founder and the world of fundraising. My old team is still running and growing the Lab and it has become local infrastructure.
Calls for student projects, donations, other sources, about 100.000€ in money and more in hardware donations during the first three years. Later, funding strategies changed when the project became official university infrastructure. The spaces for the lab were and are co-sponsored by private-public partnerships.   2013–today

CUBES was a research project on community-based innovation in software and usability for small and medium sized enterprises. I was involved as a student, then researcher, then (interim) project manager for the project reporting and closing.
Federal Ministry for Economic Affairs and Energy, about 800.000€.   2012–2015

Awards and honors

Honorable Mention Paper Award, "Mensch und Computer" (M&C) conference for Praktiken der Nutzerintegration im Entwicklungsprozess von KMU (see below), German Informatics Society (GI).   2015

Arthur-Woll award for an exemplary master thesis , University of Siegen and association for the support of the economic faculty.   2015

pwc award for best graduate of the faculty, University of Siegen and PricewaterhouseCoopers.   2015

Scholarship Tallinn Summer School on research methods in Human-Computer interaction, University of Siegen.   2014

First Prize "Student Usability Challenge" for Social Flashcards, German Informatics Society (GI).   2013

Publications	**Handbuch Fab Labs: Einrichtung, Finanzierung, Betrieb, Forschung & Lehre** by Iris Bockermann, Jan Borchers, Anke Brocker, Marcel Lahaye, Antje Moebus, Stefan Neudecker, Oliver Stickel, Melanie Stilz, Daniel Wilkens, René Bohne, Volkmar Pipek, Heidi Schelhowe. Bombini-Verlag.	2021

shARe-IT: Ad hoc Remote Troubleshooting through Augmented Reality by Thomas Ludwig, Oliver Stickel, Peter Tolmie, Malte Sellmer. Journal on Computer Supported Cooperative Work 30, pp. 119–167. — 2021

Fab:UNIverse - Makerspaces, Fab Labs and Lab Managers in Academia (slides) by Oliver Stickel, Melanie Stilz, Anke Brocker, Jan Borchers, Volkmar Pipek. Workshop at Fab Learn Europe Conference '19. — 2019

Fab Lab Education in German Academia by Oliver Stickel, Anke Brocker, Melanie Stilz, Antje Möbus, Iris Bockermann, Jan Borchers, Volkmar Pipek. Proceedings from the Fab14 Conference '18, pp. 39-46. — 2018

Praxisorientierte Projektstudie zur transdisziplinären Entwicklung innovativer Produkte by Oliver Stickel, Stefan Krick, Timo Scherer, Tamara Reinicke, Volkmar Pipek. Regional conference on innovative teaching. — 2018

Fab Labs and Interdisciplinary Academic Teaching: A research agenda (poster) by Oliver Stickel, Melanie Stilz, Volkmar Pipek. Proceedings from the Fab Learn Europe Conference '18, pp. 104-105. — 2018

Computerclubs und Flüchtlingslager - Ein Diskussionsbeitrag zur Forschungs- und Bildungsarbeit aus praxistheoretischer Perspektive by Oliver Stickel, Konstantin Aal, Marén Schorch, Dominik Hornung, Alexander Boden, Volker Wulf, Volkmar Pipek. In: Langreiter, N., Löffler, K. (eds.) - Do it! Yourself? Fragen zu (Forschungs-)Praktiken des Selbermachens. transcript. — 2017

3D printing/digital fabrication for education and the common good by Oliver Stickel, Konstantin Aal, Verena Fuchsberger, Sarah Rüller, Victoria Wenzelmann, Volkmar Pipek, Volker Wulf, Manfred Tscheligi. Workshop at Communities & Technologies conference '17. — 2017

MuC-Makerspace: Academic practices in Community Innovation and (Digital) Fabrication by Oliver Stickel, Melanie Stilz, Volkmar Pipek. Workshopband der Mensch & Computer Konferenz (MuC) '17. — 2017

User Integration in Agile Software Development Processes: Practices and Challenges in Small and Medium Sized Enterprises by Oliver Stickel, Corinna Ogonowkski, Timo Jacobi, Gunnar Stevens, Volkmar Pipek, Volker Wulf. In: Cockton, G., Lárusdóttir, M., Gregory, P., Cajander, Å. (eds) - Integrating User-Centred Design in Agile Development. Springer. — 2016

Infrastructuring & Digital Fabrication by Oliver Stickel, Volkmar Pipek. In: Mayr, H., Pinzger, M. (eds.) - INFORMATIK 2016, Lecture Notes in Informatics (LNI). Gesellschaft für Informatik. — 2016

Usability Quartett (Neuauflage und Erweiterung) by GermanUPA, Oliver Stickel, Alisha Tilsner, Elisabeth Schwerdtner, Susanne Speh, Cindy Waldinger. Method Cards, GermanUPA (see pitch). — 2016

Report series for SME on understanding users (1, 2, 3) by Oliver Stickel, Sebastian Draxler, Volkmar Pipek et al. Wissenschaft trifft Praxis by "Mittelstand Digital". BMWI / BMWK. — 2016

3D Printing with Marginalized Children – An Exploration in a Palestinian Refugee Camp by Oliver Stickel, Dominik Hornung, Konstantin Aal, Markus Rohde, Volker Wulf. Proceedings of the 14th European Conference on Computer Supported Cooperative Work (ECSCW) '15, pp. 83-102. — 2015

Appropriating digital fabrication technologies - a comparative study of two 3d printing communities (slides) by Thomas Ludwig, Oliver Stickel, Alexander Boden, Volkmar Pipek, Volker Wulf. Proceedings of the iConference '15. — 2015

Praktiken der Nutzerintegration im Entwicklungsprozess von KMU (slides) by Oliver Stickel, Corinna Ogonowski, Timo Jakobi, Gunnar — 2015

Stevens, Volkmar Pipek, Volker Wulf. Tagungsband der Mensch & Computer Konferenz (MuC) '15, pp. 103-112.

Die richtige Frage zur richtigen Zeit: Ereignisbedingte Fragebogen-Studien mittels und über Smartphone-Apps by Julian Dax, Thomas Ludwig, Oliver Stickel, Volkmar Pipek. Workshopband der Mensch & Computer Konferenz (MuC) '15.   2015

3D Printing as a Means for Participation in Developmental Settings - A Field Study by Oliver Stickel, Dominik Hornung, Sarah Rüller, Volkmar Pipek, Volker Wulf. Proceedings of the Participatory Innovation Conference (PIN-C) '15.   2015

Educating the next generation of Makers - 3D Printing with marginalized refugee children: Exploring Making and digital fabrication from a HCI perspective through an exploratory field study in refugee camps in the West Bank. My master thesis at the institute for Information Systems and New Media & the CSCW research group, University of Siegen.   2015

(Open) Usability Method Toolkit. Open library of Usability and User Experience methods, originally in German as "CUBES-Methodenfinder". Has since been expanded on and translated by students at Fab Lab Siegen.   2015

Bottom-Up Kultur in Siegen: Ein Bericht über aktuelle Strukturen, Entwicklungen und Umnutzungsprozesse by Oliver Stickel, Alexander Boden, Gunnar Stevens, Volkmar Pipek, Volker Wulf. In: Habscheid, S., Hoch, G. , Schröteler-v. Brandt, H., Stein, V. (eds.) - DIAGONAL Jahrgang 2014: Umnutzung - Alte Sachen, neue Zwecke. V&R unipress.   2014

Beteilige Deine Nutzer! Fallstudie eines systematischen Vorgehens zur Integration von Nutzer-Feedback in agilen Entwicklungsprozessen by Sebastian Draxler, Oliver Stickel, Frank Rosswog, Gunnar Stevens. Wissenschaft trifft Praxis by "Mittelstand Digital", issue on User Experience - Positives Erleben betrieblicher IT, pp. 36-45. BMWI / BMWK.   2014

Towards Sociable Technologies: An Empirical Study on Designing Appropriation Infrastructures for 3D Printing by Thomas Ludwig, Oliver Stickel, Alexander Boden, Volkmar Pipek. Proceedings of the Designing Interactive Systems Conference (DIS) '14, pp. 835–844.   2014

Computer supported urban gardening (poster) by Oliver Stickel, Thomas Ludwig. Proceedings of the Designing Interactive Systems Conference (DIS) '14, pp. 77–80.   2014

Nutzerintegration in Softwareprojekte durch Multi-Channel Feedback. by Sebastian Draxler, Oliver Stickel, Dominique Winter, Gunnar Stevens. Tagungsband der Mensch & Computer Konferenz (MuC) '14, pp. 175-184.   2014

Playful, collaborative approaches to 3D modeling and 3D printing (poster) by Thomas von Rekowski, Alexander Boden, Oliver Stickel, Dominik Hornung, Gunnar Stevens. Tagungsband der Mensch & Computer Konferenz (MuC) '14, pp. 363-366.   2014

Computer im Grünen: IT-Systeme zur Unterstützung urbaner Gärten by Oliver Stickel, Thomas Ludwig, Volkmar Pipek. Tagungsband der Mensch & Computer Konferenz (MuC) '14, pp. 303-306.   2014

3D Printers as Potential Boundary Negotiating Artifacts for Third Places (slides) by Thomas Ludwig, Oliver Stickel, Volkmar Pipek. Workshop Proceedings of the Designing Interactive Systems Conference (DIS) '14.   2014

Come_in@palestine: adapting a german computer club concept to a palestinian refugee camp by Konstantin Aal, George Yerousis, Kai Schubert, Dominik Hornung, Oliver Stickel, Volker Wulf. Proceedings of the conference on Collaboration Across Boundaries (CABS): culture, distance & technology '14, pp. 111-120.   2014

Customer Feedback and UCD in Agile Software Development by Oliver Stickel, Sebastian Draxler, Gunnar Stevens. Workshop Proceedings of the NordiCHI '14.   2014

Come_IN: Expanding Computer Clubs Towards Tinkering and Making by Oliver Stickel, Dominik Hornung, Volkmar Pipek, Volker Wulf. Workshop   2014

Proceedings of the NordiCHI '14.

Page navigation in touch based interfaces. My bachelor thesis at the Interactive Systems research group, University of Duisburg-Essen. · 2012

Tu nicht so erwachsen! (excerpt) by Isabel Arnold, Johannes Bauer, Filip Bubenheimer, Julia Eib, Sarah Gekeler, Tobias Keinath, Luisa Klink, Jakob Köster, Jonka Mezger, Tien Loc Nguyen, Oliver Stickel, Sonja Zimmermann (eds.). Graduation book. Self-published (300pcs). · 2006

XESCOE - x-tendable environment for soundcard operated experiments (user handbook, slides) by Benedikt Rudolph, Oliver Stickel, Niklas Reisser. Land Baden-Württemberg at Landesbildungsserver (offline since 2019). · 2005

Unpublished work

These might or might not be continued at some point.
Thoughts and feedback are welcome!

Towards a conceptual model of HCI and Making

HCI motivations for establishing, positioning and operating a Fab Lab

Poster draft on HCI and Fab Labs

On self-expression through 3D printing / digital fabrication

Literature review draft on Fab Labs and Makerspaces in academia

On better interfaces for (educational) 3D modeling tools

Der große Bruder in uns?

Study proposal on the institutionalization of shared machine shops

Proposal for a cultural probe study about domestic digital fabrication

Talks & slides

Like most real work, the materials linked here have not been created alone.
Thank you to all collaborators!

Introduction to soldering · 2023
Introduction to plastic recyling / Precious Plastic
General Fab Lab / Makerspace introduction and safety: German / English

Build your own air quality sensor (web-view) · 2022
Introduction to Mixed Reality
Microcontroller Basics (web-view)
Introduction to CAD (two days)
Introduction to measuring for electronics
Introduction to making PCBs
Introduction to CNC milling

How to develop workshops in/for Makerspaces · 2021
Introduction to and safety in digital/electronics labs (web-view)
Guest lecture & workshop on Arduino for Female Entrepreneurs at RUB
Q&A and 360-tour through RUB-Makerspace at Aachen Maker Meetup

WTF is Fab Lab (Siegen)? (extended version: What is a Fab Lab) · 2019
Prototyping with Arduino (semester-long seminar, English)
Makerspaces, Fab Labs and Lab Managers in Academia
Fab Lab guest lecture for Folkwang Fab Diplom at Folkwang Universität
Talk & workshop on Fab Labs as culture labs

Fab Labs & 3D printing guest lecture, faculty of engineering at Uni Siegen · 2018
Guest lecture & workshop on Arduino in a nutshell with the Media Computing Group from RWTH Aachen at Folkwang Universität
Socio-Informatics guest lecture for Current Topics in Media Computing and HCI at RWTH Aachen (podcast)

Project FAB101 · 2017
Project ZEIT.RAUM Siegen
Wissenschaftstheorie
Using technology creatively for SMI/IHK Siegen
Digital Fabrication in education (similar to 2019 WS on culture labs)

Children's university talk on how to make stuff
Introduction to HCI (semester-long lecture & tutorial): German / English
Fab Lab Siegen   2016
3D printing for beginners at MakerFaire Ruhr (see 2015 seminar)
Demo session on user projects from Fab Lab Siegen for IHK Siegen (some
of the projects see 2019 slides on culture labs)
3D printing for beginners at re:publica 2016 (see 2015 seminar)
Interaction Design with Arduino (semester-long seminar, German)

Workshop on Usability & User Experience: one day / two days   2015
3D printing (semester-long seminar, German)
Making@Palestine talk & 3D printing workshop at re:publica 2015
Industrie 4.0 meets Making
Appropriating digital fabrication: A study of two 3D printing communities
Praktiken der Nutzerintegration im Entwicklungsprozess von KMU

Makers@Palestine (at MakerFaire Hannover, Hackspace Siegen, others)   2014
Video of a talk about Fab Lab Siegen at WUD Siegen 2014
3D printing for beginners at MakerFaire Dortmund (see 2015 seminar)
3D printers as boundary (negotiating) artifacts

On Fab Labs (Handout)   2013
Social Flashcards learning app concept
Synchronous and asynchronous collaboration
HackDock - a 3d printed Macbook accessory
KUSi - launch of the Siegen usability competence center
Tutorial development for an exergame for the elderly
HCI-Lab Siegen (predecessor of Fab Lab Siegen)

On User Experience   2012
Clifford Nass - the man who lied to his laptop
John Dewey - art as experience

Educational game prototype "Food Balance" (poster)   2011
Cindy Sherman
Pathological Internet Use
3D animation project "Star Trek TOS" (the animation)

OpArt   2010
Das (schwarze) Quadrat
(Web-)Typografie (Handout)
The perfect thing - Imco lighters

Additional links   **Other files:** Linked files from above and more are available here.

makerspace.rub.de / on GitLab / video tour

fablab-siegen.de / on GitHub / **videos:** 2018 - on Campus / 2020 -
"Herrengarten" / 2023 - current space / 2021: Interview with Fab Lab
Siegen's community manager

fab101.de / on GitHub

fab-universe.de / on GitHub

yallah.exchange / exhibition.yallah.exchange

Usability Method Finder

wiki.zeitraum-siegen.de

World Usability Day Siegen

Interviews: Deutschlandfunk Kultur / Deutsche Welle / UPA / Radius 92.1

News articles: RUB-Makerspace at Mark51/7 / "Nachtbetrieb auf Mark
51/7" (pp. 8-9) / 3D printing with children / refugees at Fab Lab Siegen /
Fab Lab Siegen moving into the city

My old blog posts on the Fab Lab Siegen website