

“It was expected that we could do that”
Deconstruction of gender stereotypes in a digitised world? How
teenagers and young adults view the digital future.

Summary of Volume 1 of the research project "DigiTyps"

Nadja Bergmann, Ronja Nikolatti, Claudia Sorger

Co-authors, Literature section:
Marcel Fink, Gerlinde Titelbach



Supported by the Rights, Equality
and Citizenship Programme
of the European Union (2014-2020)



LEGAL NOTICE

This summary was prepared by L&R Social Research in cooperation with the IHS as part of the EU Programme "Rights, Equality and Citizenship Programme 2014–2020". Co-financing was provided by the Office of the Lower Austrian State Government, the Vienna Workers' Fund, the Women's Service of the City of Vienna (MA57), and the Vienna Chamber of Labour.

Authors: Nadja Bergmann, Ronja Nikolatti, Claudia Sorger; Co-authors, literature section: Marcel Fink, Gerlinde Titelbach

Title: "It was expected that we could do that" Deconstruction of gender stereotypes in a digitised world? How teenagers and young adults view the digital future.

Summary of Volume 1 of the research project "DigiTyps"

Vienna, 2022

Media owner:

L&R Social Resarch GmbH, Liniengasse 2A/1, 1060 Vienna

All rights reserved. The content of this pamphlet may be reproduced in whole or in part only if reference is made to the source

The content of this report represents the views of the authors and they are responsible for it. The European Commission assumes no responsibility for any use made of this content.

Contents

1	Introduction: Objectives and questions of the present study	2
2	Literature-based background: gender stereotypes – gender-segregated employment market – digitalisation	3
3	Empirical approach: Exploratory and quantitative approach	4
4	Perception of digital change in the world of work from the point of view of teenagers	5
5	Selected occupations and gender stereotypes	6
6	Educational and career guidance: Desire for more support and more information for orientation in the worlds of education and work	7
7	Summary: Towards a digital future?!	8
8	Literature	11

1 Introduction: Objectives and questions of the present study

The project "Digityps - Entstereotypisierung von Berufsbildern und Ausbildungskonzepten im digitalen Wandel" ("Digityps – De-stereotyping job profiles and training concepts in the digital transformation")¹ deals with the question of whether the digitalisation-related upheavals currently taking place in the world of work represent an opportunity to mitigate gender-specific ascriptions of jobs.

Austria's education system and employment market are characterised by pronounced horizontal (as well as vertical) segregation accompanied by mutually interactive stereotypical notions of males' and females' respective skills, abilities and occupations. Manual and technical professions and apprenticeships principally employ males, while it is mainly females who are employed in social and nursing occupations. Required skills are still more likely to be ascribed to women or men, respectively. In the context of gender-specific ascription processes, how are changes induced by digitalisation perceived? Can these allocations be mitigated by current developments? Are individual professions and apprenticeship opportunities less "clearly" seen as "belonging" to one gender, at least?

The thematic/conceptual framework for the project consists of three central points of reference: "digitalisation", "gender stereotypes" and "gender-specific segregation in the employment market". Empirically, the present research project focuses primarily on teenagers and young adults and on their perception of digital change from a gender perspective.

In addition to general findings, the focus is on four specific fields of occupation: technical and manual professions, professions in the field of information and communication technology (ICT), nursing professions, and teaching. The selection of these fields of occupation can be explained by their varying proximity to digitalisation and the different gender-related composition of the occupational groups. The project will be implemented at a regional level in Vienna and Lower Austria. This ensures that the integration of urban, industrial and rural areas also takes any different developments and conditions into account.

The "DigiTyps" project is being implemented by L&R Social Research in cooperation with the Social and Economic Research Institute IHS, bab Unternehmensberatung GmbH, and the Network of Austrian Women's and Girls' Advice Centres. The team is supported by strategic project partners from the Office of the Lower Austrian State Government, the Vienna Workers' Fund, the Women's Service of the City of Vienna, the Chamber for Workers and Employees for Vienna, the Chamber for Workers and Employees for Lower Austria, and the Austrian Employment Market Service.

The summary of Volume 1 is part of a three-part series that deals with the question of de-stereotyping digital training and professional fields. Volume 2 deals with companies' perspectives on the topic, and Volume 3 with that of careers advisers and education consultants.

The results of the empirical surveys also form the basis for development work within the framework of this project, and specifically the development of de-stereotyping instruments and tools for career information and guidance as well as in the context of company recruitment.

¹See: <https://digityps.ihs.ac.at/>

2 Literature-based background: gender stereotypes – gender-segregated employment market – digitalisation

The three thematic reference points "digitalisation", "gender stereotypes" and "gender-specific segregation of the employment market" form the thematic/conceptual framework for the project. Although extensive research on the individual thematic strands already exists, the interdependencies are not highlighted.

Ridgeway (2009) particularly emphasises the need for a multi-level analysis in order to combine structuralist or materialist and microsociological approaches ("doing gender"). Since the empirical work of the project "DigiTyps" also deals with the interaction of gender segregation (as a structural phenomenon) and gender stereotypes (as cultural *knowledge*), this can provide important conceptual suggestions. Ridgeway (2009) sees gender as a social primary category that we use in interactions to react to other people without great (cognitive) effort and to differentiate ourselves and others. Based on research in the field of social and cognitive psychology, Ridgeway concludes that "we are framed by gender literally before we know it" (ibid., 148).

Gender stereotypes are generally very influential. They serve to categorise people socially along the lines of typical behaviour patterns. They play a relevant role in the context of employment-market segregation, but also in concrete terms in teenagers' career choices. It is precisely because social categorisation and assignment via differences works that stereotypes influence the attribution of occupations that are more associated with "typically female" or "typically male" characteristics. Differences do not necessarily lead to inequalities, but they can be relatively easily transformed into inequalities. If structural changes are to be instigated, it is essential that gender stereotypes are considered the primary social categorisation. Otherwise, we always run the risk that the changes themselves are based on thinking that is distorted according to gender (Ridgeway 2006, p. 148 ff.).

As studies show, gender stereotypes and gender-role expectations become firmly established very early on in development. Precisely because social categorisation according to gender determines our interactions and also our image of ourselves, it is extremely difficult to break down cultural stereotypical ideas. With a focus on teenagers and young adults, the influence of gender stereotypes on career and training choices is relevant. Gender segregation in the employment market is one of the most persistent inequalities in industrialised countries, including Austria. Fritsch et al. (2020) demonstrate that the division of fields of occupation by gender is even on the rise. The professions largely practised by women include, for example: secretarial assistant, hairdresser, beautician, nursery assistant, afternoon caregiver, and home and family caregiver. "Men's professions" in the sense of the definition applied are, for example, computer-software developers and analysts, construction technicians, supervisors in building and civil engineering, and electrical engineers. In 2015, the majority of working women (just under 59%) in Austria worked in a "female occupation", an increase from under 50% in 1995. In contrast, the proportion of women in "male professions" decreased slightly from 13% to 8% during the period observed (Fritsch 2018).

It is evident that the influence of gender on self-definition has consequences that are far from negligible. Identification with a social group and a sense of belonging can prevent young people from training in "atypical" occupations. Self-assessment of one's abilities is very relevant. Girls demonstrate lower self-assessment in connection with technical or mathematical skills, which in turn correlates with cultural stereotypes that girls are not sufficiently competent in this area (Master & Meltzoff 2020, p. 164 ff.). Existing gender stereotypes in occupations therefore have an impact on identification or sense of belonging, but also on self-assessment of abilities. This also seems to continue in the case of digital skills: a survey by Initiative D21 shows that

younger age groups (14–24 years old) have the strongest digital skills, but that young women are less competent in all areas surveyed (ibid. 2020, p. 12). EIGE comes to the same conclusion: young men have more faith in themselves than young women do. This can be directly linked to the choice of occupation. "Girls' lower perception of their own capacity in using digital technologies makes it less likely that they will engage in digital jobs in the future" (ibid., 2019, p. 60).

This therefore illustrates empirical relationships between gender stereotypes, self-assessment of digital skills, and teenagers' career choices. Whether and how digitalisation can be used to offer opportunities to break down these stereotypical perceptions of the working world is rarely discussed. Clarifying this question is what makes collecting the beliefs and opinions of the target group concerned so relevant.

3 Empirical approach: Exploratory and quantitative approach

An empirical survey was carried out among teenagers and young adults based on the comprehensive literature analysis. The research team were focused on combining different methods from social science.

In order to focus on the views and opinions of young people, **nine open, exploratory focus groups** were held with a total of 62 participants aged between 14 and 24 in Vienna and Lower Austria. Between November 2021 and January 2022, 41 young women and 21 young men participated in mixed and same-sex groups comprising an average of seven people. The duration of each focus group was approximately two hours.

Thanks to the support of the project partners and the willingness of the institutions, it was possible to gain insights into the perspectives of young people from different backgrounds and at different stages of their (vocational) education, for which we would like to thank all participants, especially the participants of the focus groups from Gymnasium Rahlgasse, the BFI, the Sprungbett für Mädchen in Wien and ZIB Training in Lower Austria (St. Pölten and Wiener Neustadt), as well as all of the secondary-school pupils from Lower Austria and the students from Vienna.

In terms of content, the focus was on perception of digitalisation in general and in relation to the world of work and training, on the digital, social and other skills necessary for selected occupations, gender ascriptions, and experience with career-guidance services.

Based on the results of the literature analysis and the findings from the focus groups, we also created a **quantitative online questionnaire** (LimeSurvey). The survey ran from the beginning of February to the end of March 2022. Restrictions in the group related to place of residence and age. For example, only persons who were aged between 14 and 21 and living in Vienna or Lower Austria at the time of the survey could participate. The duration of participation was approximately 10 to 15 minutes.

The questions included in the questionnaire cover the topics of careers in the digital transformation, career choice and career orientation, and self-assessment and ascription of skills, professions and interests.

A total of 857 teenagers and young adults completed the questionnaire in full; partially completed questionnaires were not included in the analysis. Since this is an open survey without an access code, no personal data was collected; the survey is therefore completely anonymous.

The evaluation focused in particular on gender differences in response behaviour. In addition to the indicated gender, group comparisons were also made with regard to other social and demographic variables surveyed.

42% of the respondents were female and around 57% were male; 2% defined themselves in another way. Almost 60% of the respondents were of compulsory-education age (up to 18), 40% older.

About one-third of the respondents lived in Vienna and about two-thirds in Lower Austria. Of these, around 44% described their place of residence as more urban and around 56% as more rural. The majority of participants stated that they were doing an apprenticeship or out-of-company education at the time of the survey (57%). Around 20% were in a employment-market policy project, almost 14% at school, and around 4% were in employment. Schoolchildren and high-school students are underrepresented in the sample.

4 Perception of digital change in the world of work from the point of view of teenagers

Overall, from the initial discussions on the subject of digitalisation and the working world in the focus groups, it can be stated that there is a complex discussion among teenagers and young adults about where digitalisation plays a role and what changes are being pushed forward. Digitalisation is perceived as a comprehensive process that connects the world – smartphones and social media are the focus of teenagers' attention.

Regarding the world of work, on the one hand common occupational groups are classified as digitalisation-related, especially occupations related to information and communication technology, but also occupations related to social media and online marketing in the broadest sense, plus medical professions and generally more highly qualified professions. Nursing professions, many apprenticeship professions (including manual and technical professions) and professions classified as low-skilled are considered more remote from digitalisation. Educators and teachers are placed in the middle.

No gender-specific attributions are made explicitly in the free discussion. Implicit gender-stereotyped images nevertheless play a role in some discussions, for example when the work of (female-dominated) nurses is contrasted closely with that of medical staff. At the same time, assumptions that can be described as "atypical" become visible. For example, this concerns the assessment of (now highly digitised) apprenticeships such as mechanics as minimally digitised. However, both fields also point to the fact that less observable activities in everyday life are followed by "more old-fashioned" images than those that are visible every day. For example, parts of the work of a supermarket worker or a waiter, generally considered to be minimally digitised, were described by the teenagers as digitised.

In addition, it is striking that digitalisation is also subject to a certain level of status-thinking: a higher degree of digitalisation is particularly attributed to highly qualified professions.

The importance of social media is not only evident in their own use, but also in the importance that teenagers and young adults place on social media in the working world. For example, online marketing skills are seen as important for (almost) all professions for commercial reasons. From the point of view of the focus-group participants, however, digital skills related to this or general digital skills that teenagers already have or need are not taught in a school context, but are assumed and acquired themselves. In view of the high level of interest shown by teenagers and young adults, but also the high level of importance given to them, it is all the more regrettable that – at least so far – there have been few educational or training-specific

placement activities to provide young people with comprehensive support in acquiring digital skills.

5 Selected occupations and gender stereotypes

Based on the situation in the employment market, which is characterised by stable gender segregation with women increasingly being represented in occupations that are associated with a low degree of digitalisation (Ohlert & Boos 2020), we wanted to focus on selected occupations when dealing with teenagers and young adults. This includes technical and manual professions, ICT professions, nursing care for the elderly and the sick, and teachers.

Both in the focus groups and in the online survey, the teenagers and young adults tend to assign the selected professions to the "typical" gender as per the horizontal segregation, with technical and manual professions, followed by elderly and nursing care, more gendered than teachers. In addition, the questionnaire survey shows that male respondents tend to be more likely to be ascribed to their suitability for the profession based on gender; both in external ascription for elderly and nursing care as well as teaching to women, and in the form of self-ascription for manual and technical occupations to men.

With regard to the competences ascribed to the selected professions, it can be summarised that social skills are paramount in nursing and teaching – both women-dominated professions. In addition, these two fields of occupation are described as stressful and strenuous, which is why the participants of the focus groups consider a love for the profession to be necessary. In nursing, digital skills play a subordinate role or have little influence on the profession; teachers should be better-acquainted with digital technology, however these skills are often considered non-existent. In the case of manual and technical trades, the focus is more on specific skills (manual skills and technical understanding) and in the case of programmers on digital skills. Overall, however, social skills are considered to be necessary in all selected occupations. In the ICT sector, in particular, teenagers and young adults address interdisciplinary communication and cooperation as well as networking and self-promotion. When dealing with influencers, a combination of social and digital skills is also visible: If you want to be successful in this profession, you need knowledge of the target group, communicative skills and a likeable demeanour, as well as knowledge of and practical ability with digital technology.

The self-assessment of selected skills shows that young people have a relatively high degree of confidence in basic digital skills and interpersonal skills. Respondents feel less proficient in mathematics and programming. Gender gaps are less evident in digital skills. Young women consider themselves more competent in the use of social media, and young men in programming. There are major differences in terms of mathematical skills (male respondents feel more proficient) and the ability to relate to others (female respondents feel more proficient).

The ascription of skills – although usually over half state that both genders are equally capable – reflects certain stereotyped ideas. This is particularly pronounced in terms of programming (around 50% ascribe this more to men) and in empathising with others (almost 50% ascribe this more to women). The group comparison here points to a difference that needs to be emphasised: female respondents increasingly ascribe interpersonal skills (except 'starting conversations with others') to women; male respondents ascribe greater computer literacy to men. Programming is different: more female than male respondents tend to trust men with this.

The teenagers and young adults consider occupational gender segregation to be principally in their personal interest, and in some cases stereotypical ascriptions are made with regard to gender. Almost half of the respondents in the online survey consider interest in digital technologies to be independent of gender, but 50% ascribe it to men more. Personal interest

as an influencing factor varies depending on the profession, while it is more prominent for programmers than for nurses.

In deeper discussions in the focus groups held, we were able to gain insights into how the teenagers and young adults themselves perceive the interaction between society, gender stereotypes and occupational segregation. This paints a very differentiated picture that cannot be summarised in one general statement. The participants often justify the ascription of a gender to a profession on the basis of their own personal experiences. This all the more clearly underlines the call to reduce horizontal gender segregation in the employment market. As the participants increasingly see women in nursing care and men in technical and manual professions, they also ascribe more associated skills to them. In addition, we were able to observe in the focus groups that, as well as skills, certain hobbies also follow a similar pattern. In some discussions, however, gender ascriptions are also understood as socially constructed and are critically reflected on. The influence of socialisation (in early childhood) on interest and career choices is discussed in particular.

6 Educational and career guidance: Desire for more support and more information for orientation in the worlds of education and work

The surveys and evaluations with teenagers and career advisers in the DigiTyps project also serve to analyse how digitalisation and gender stereotypes are perceived in the context of career guidance. Building on this, the basis for career-guidance tools that are as de-stereotyped or as de-stereotyping as possible ought to be developed in a further step.

According to Gottfredson (1981) and Boll et al. (2015), the self-concept, which is essentially composed of gender, social class, and assessment of one's own abilities and interests, plays a fundamental role in constituting career guidance. This also matches the results of the survey and the focus groups, although gender-specific differences are clearly evident here.

The analysis of the situation regarding career guidance must be preceded by the fact that the teenagers and young adults surveyed were looking back on almost two years of the COVID-19 pandemic and that their experience with educational counselling and careers advice has been moulded by this period in which it was not possible to provide many services.

The question of which aspects are decisive in the choice of career reveals that personal interests and the assessment of one's own abilities are central to the choice of career and therefore to the choice of education too. Personal interests are paramount, and play an even greater role for young women than for young men. Secondly, the assessment of one's own qualifications for possible aptitude also plays a slightly greater role for young women than for young men. Digital technology as such plays a minor role in career and apprenticeship choices, and was considered very important by 19% of young men and 16% of young women.

Based on the high significance of personal interests for the choice of career, it would therefore be crucial that personal interests are taken into account in career guidance. To this end, the question of which interests could be reflected in which apprenticeships and careers in order to expand the range of possible occupations and apprenticeships would have to be clarified based on teenagers' living environment.

Apart from school-based services for career guidance (work-experience days, attendance at professional fairs, skills and interest tests, and careers advice), the main source of information on occupations and training is general online research and social media such as Instagram, Facebook and Snapchat.

What is striking in any case is the pronounced desire expressed in the online survey and in the focus groups for more career-guidance support at school as well as in other services. Career guidance should not be "dealt with" through one-off events, individual services or work-experience days, but instead should be an associated process. Teenagers want a realistic insight into the professional lives of people who work in these fields.

In the case of desired professions or apprenticeships, which the teenagers were able to provide in an open-answer option in the survey, ICT professions (programmers, network technicians) and professions that are part of the digital transformation (game developers, e-commerce, application development) are only desirable to a relatively small part of the teenagers surveyed, although interest in this is somewhat higher for young men than for young women. When asked about desired occupations, it appears that many teenagers are very much oriented towards traditional occupations such as hairdressers, car technicians or office clerks, and have little insight into newer occupations. This should not mean that their interests in these professions should not be taken seriously but that, by identifying other professions, including newer and digital ones, the range of options could be broadened.

7 Summary: Towards a digital future?!

Despite the persistence of the debate on digitalisation concerning topics of technological progress and the changes in the industrial sector due to digital technology and automation, discussions from a gender perspective are increasingly coming to the fore (Bergmann et al. 2017, Pimminger & Bergmann 2020). This could also include the results obtained here, which also deal specifically with the interactions between occupational employment-market segregation and gender stereotypes in the context of digitalisation from the perspective of young people. It will only be possible to seize the chances of de-stereotyping the world of work in the digital transformation through discussions with the different target groups (Volume 2 and Volume 3). It can already be assumed that active design is pivotal. With regard to teenagers and young adults, the following points towards a gender-equal employment market through and with digitalisation are particularly crucial.

Practical career guidance

In general, the qualitative focus-group survey shows that teenagers and young adults have a very comprehensive picture of digitalisation and the digital transformation in the employment market. Therefore, it is not only professions in the ICT sector and jobs related in the broadest sense to social media and online marketing that are considered to be highly digitised. Traditional service professions in the catering industry (waiters) and in the retail trade are also considered to be activities that are increasingly determined by the use of digital technology. On the other hand, occupations in the manual and technical field are perceived as less or minimally digitised. This may indicate that the debate labelled "Industry 4.0" is less relevant and present for young people. Instead, their perception appears to be influenced by personal experiences and visibility. In order to provide young people with an accurate picture of professions regarding the use of digital technology, but also beyond this, it is therefore crucial to provide practical career-guidance services. This tallies with the wishes and experiences of young people in career guidance, as well as with findings from available literature. Especially when it comes to arousing young women's interest in the STEM sector and the digital field, positive experiences are effective through practical trials (e.g. in Master et al. 2017, Wentzerl & Funk 2015). The online survey also shows that a large proportion of respondents generally want **more support in career guidance**.

Exploit high self-assessment of media-usage skills

Social media plays a key role among teenagers and young adults. According to the Youth Internet Monitor (Buechegger & Schedenig 2022), 81% of young people in Austria use Instagram, and 70% use TikTok. These two social networks were also frequently discussed in the focus groups. In addition to their own use and being active in different social media, the teenagers and young adults view this as a source of potential for almost all professions in the field of online marketing. Young women's high self-assessment as well as the (external) attribution of media-usage skills to women in particular could offer opportunities and starting points to **increase young women's interest in digital technologies beyond the field of application.**

Enhance social skills

The survey shows very impressively that young people ascribe occupations to a gender following the horizontal segregation of the employment market. In the discussions of the focus groups, it was also clear that this allocation can often be attributed to observations. This highlights the need to **actively reduce occupational segregation.** In all selected occupations, teenagers and young adults addressed the need for social skills. These play a relevant role in the ICT sector in particular, but also in activities related to social media (influencers). The online survey also shows that young women are better off in this respect and that these skills are also more likely to be ascribed to women. Targeted enhancement of social skills in general and addressing the **need for social skills in the digital sector** could help reduce occupational segregation. Busch (2013b) also points out that jobs and skills that are increasingly ascribed to women (such as being caring, in connection with jobs in the caregiving sector) need to be valued more.

Explicitly make gender stereotypes a topic

In addition to this "realistic" derivation, however, there are also some stereotypical gender ascriptions both in terms of occupations, skills and interests. The effectiveness of gender ascriptions is particularly striking when comparing self-assessment with the ascription of selected skills. For example, **the ascription of skills includes more gender bias than self-assessment;** this is particularly striking when it comes to programming and the ability to empathise with others. In addition to concrete assistance and the **strengthening of self-confidence** when dealing with digital technologies, this finding makes clear that it is important to focus more on gender-sensitive career guidance and to address the potency of gender stereotypes **openly and explicitly** in early school education.

The importance of addressing stereotypical notions in addition to structural changes is also evident in the treatment of influencers. Whether or not this activity is considered professionally similar – teenagers and young adults tend to categorise influencers less according to their gender. Nevertheless, a distinction is drawn between topics and areas in which men (fitness, gaming) and women (beauty) are more likely to be represented. Here, too, it is important to enter **into an open discussion with teenagers and young adults and to lead a debate on the influence of (traditional) gender roles and expectations.**

When choosing a career, personal interests and assessment of abilities is central for teenagers and young adults, though both are more relevant for young women in the online survey. At the same time, it turns out that both interest and the ascription of skills are suggested by the young people themselves. At the same time, this is reflected in the selection of a profession in the questionnaire: female respondents would rather exercise a profession in the medical field,

while male respondents would rather be computer scientists or mechanical engineers. **Gender therefore plays an explicitly insignificant but implicitly significant role .**

Actively shape the digital transformation

It is difficult to gauge how the work of the future will be changed by the introduction of digital technology, but at the same time it is characterised by ambivalent developments and experiences (Carstensen 2016). The fact that development can and should be actively interfered with in order to seize opportunities is often emphasised (Kohlrausch & Weber 2020, among others). The digital transformation of the world of work also provides an opportunity to renegotiate gender relations in the world of work and to break down stereotypical expectations (Kutzner 2021).

For example, it is important to always think of gender as a "distorting" category, because promotional measures fall short if they themselves are based on stereotypical ideas (Ridgeway 2009). The results of the surveys indicate that above all there is a need to focus more on gender stereotypes in **education** and to focus on **practical, gender-sensitive career guidance**. Although teenagers and young adults increasingly stress that gender is not a factor, they remain more likely to ascribe certain professions, interests and skills to men and women.

Back in the 1980s Donna Haraway used the *cyborg* metaphor of a "cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction" (Haraway 2016, p. 5; cited by Berscheid et al. 2019, p. 242) in order to break up socially anchored dualisms by means of new (digital) technology. This is about much more than just gender as a social category, however. Further research has to be carried out in order to analyse the interaction between different dimensions of inequality (as well as socio-economic background, education, ethnicity, disabilities, etc.) in the context of the digital transformation in the employment market using intersectional access (Degele & Winker 2011). This need can also be gleaned directly from the data collected: professions with higher qualifications are perceived as digitised, and digital technology is linked to necessary financial resources.

8 Literature

- Bergmann, Nadja; Gassler, Helmut; Lechner, Ferdinand & Pretterhofer, Nicolas (2017): Digitalisierung – Industrie 4.0 – Arbeit 4.0 – Gender 4.0, Projektbericht L&R Sozialforschung und Zentrum für Soziale Innovation im Auftrag des Sozialministeriums. Wien.
- Berscheid; Anna Lena; Horwath, Ilona & Riegraf, Birgitt (2019): Cyborgs revisited: Zur Verbindung von Geschlecht, Technologien und Maschinen, *Feministische Studien* 19(2), S.241-249.
- Buchegger, Barbara & Schedenig, Hannah (2022): Jugend-Internet-Monitor 2022. Das sind die beliebtesten Sozialen Netzwerke. *medienimpulse*, 60(1).
- Busch, Anne (2013): Der Einfluss der beruflichen Geschlechtersegregation auf den „Gender Pay Gap“. Zur Bedeutung geschlechtlich konnotierter Arbeitsinhalte. *Kölner Zeitschrift für Soziologie*, 65, S.301–338.
- Carstensen, Tanja (2016): Ambivalenten digitaler Kommunikation am Arbeitsplatz. Zur Persistenz der Argumente im Automatisierungsdiskurs. *Aus Politik und Zeitgeschichte*, 66(18-19), S.39-46.
- Degele, Nina & Winker, Gabriele (2011): Intersektionalität als Beitrag zu einer gesellschaftstheoretisch informierten Ungleichheitsforschung. *Berliner Journal für Soziologie*, 21, S.69-90.
- Fritsch, Nina-Sophie (2018): Arbeitsmarkt, Berufe und Geschlecht in Österreich, *SWS-Rundschau*, 58(4), S.307-327.
- Fritsch, Nina-Sophie; Liedl, Bernd & Paulinger, Gerhard (2020): Horizontal and vertical labour market movements in Austria: Do occupational transitions take women across gendered lines?, *Current Sociology*, S.1-22.
- Master, Allison; Cheryan, Sapna; Moscatelli, Adrianda & Meltzoff, Andrew N. (2017): Programming experiences promotes higher STEM motivation among first-grade girls. *Journal of Experimental Child Psychology*, 160, S.92-106.
- Master, Allison & Meltzoff, Andrew N. (2020): Cultural Stereotypes and Sense of Belonging Contribute to Gender Gaps in STEM. *International Journal of Gender, Science and Technology*, Vol12 (1), S.152-177.
- Pimminger, Irene & Bergmann, Nadja (2020): Gleichstellungsrelevante Aspekte der Digitalisierung der Arbeitswelt in Deutschland. Expertise für den Dritten Gleichstellungsbericht der Bundesregierung, <https://www.dritter-gleichstellungsbericht.de/de/article/217.gleichstellungsrelevante-aspekte-der-digitalisierung-der-arbeitswelt-in-deutschland.html>.
- Ridgeway, Cecilia L. (2009): Framed before we know it. How Gender Shapes Social Relations. *Gender and Society*, 23(2), S.145-160.
- Wentzerl, Wenka & Funk, Lore (2015): „Als ich selbst an der Maschine war, war ich erstaunt wie leicht es ging“ – Kriterien zur Gestaltung von Berufsorientierungsveranstaltungen für Mädchen. in Micus-Loos, Christiane & Plößner, Melanie. (Hg): *Des eigenen Glückes Schmied_in!? Geschlechterreflektierende Perspektiven auf berufliche Orientierungen und Lebensplanungen von Jugendlichen*. Wiesbaden: Springer VS, S.135-153.