



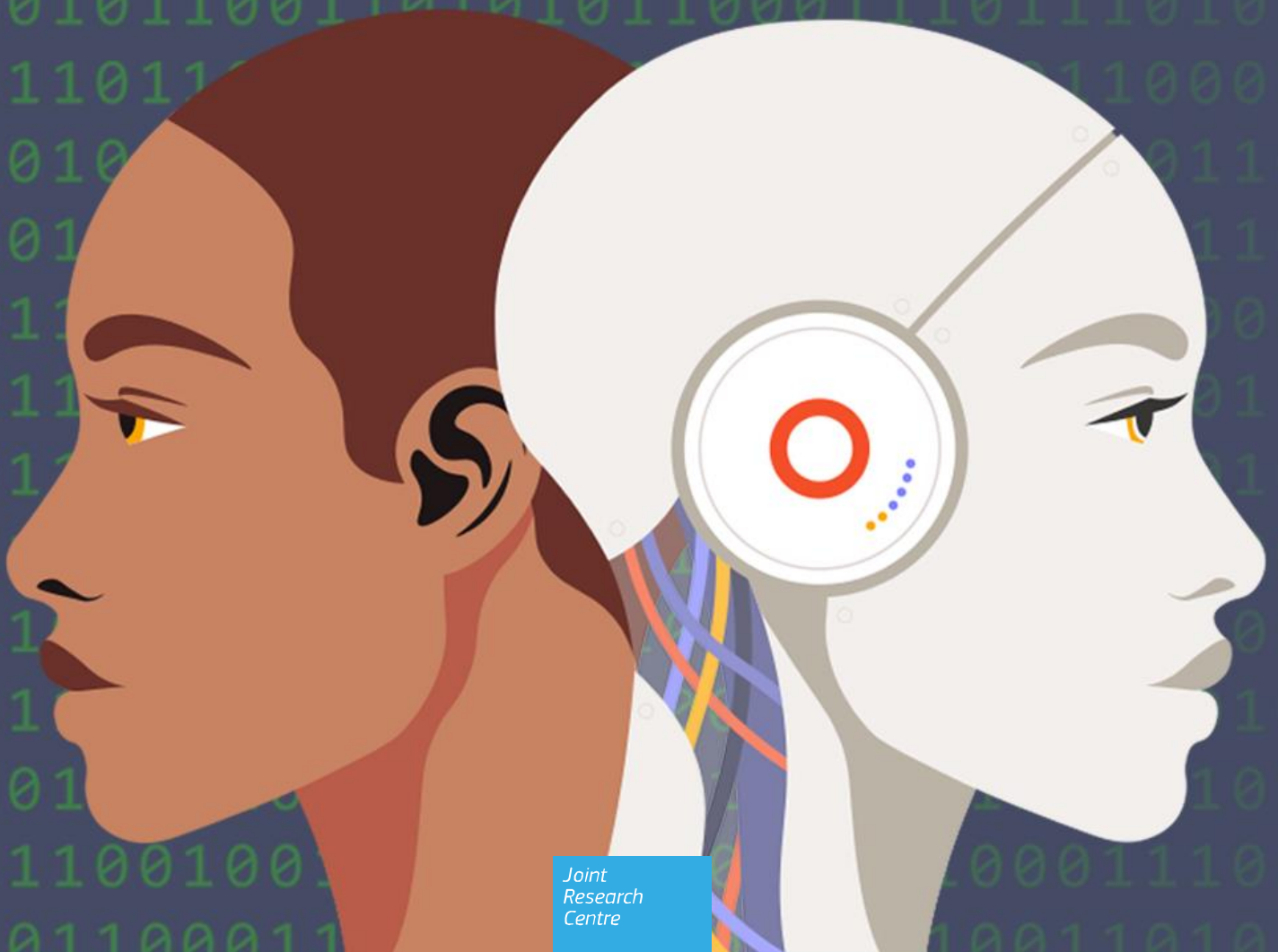
# International Workshop

## Social Class Analysis in the Digital Age: New Approaches and Perspectives

Summary Report

# DIGCLASS

Social Classes  
in the Digital Age  
2024



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## About DIGCLASS

The DIGCLASS project (2021-2024) was born out of the increasing concern in Europe about the implications of the digital revolution for social inequalities and democratic processes. DIGCLASS comprises an interdisciplinary [team](#) of social scientists with [research lines](#) on: (1) the revision and update of existing analytical tools to study the class structure in terms of occupational status and distributive inequality –i.e., income and wealth; (2) the links between socioeconomic position – and its intergenerational transmission, inequalities in life chances and political attitudes; and (3) the identification of new social protection policies to reduce inequality of opportunity and outcomes, fostering more inclusive economic growth.

The DIGCLASS project produces two main scientific outputs: (1) open-access scientific events –a monthly [seminar series](#) featuring world-class academics and the [Real Utopias for a Social Europe](#) workshops on innovative social policy proposals; (2) and a [Working Paper Series](#) including original contributions from the DIGCLASS team and international [external collaborators](#) to be published in high-impact academic outlets.

DIGCLASS is hosted in the [Centre for Advanced Studies](#) (CAS) of the [Joint Research Centre](#) (JRC) at the European Commission (EC) in Seville (Spain).

DIGCLASS contributes to the following JRC research portfolios and [EC political priorities](#): [Innovative policymaking](#); [Inclusive and resilient society](#); and [Education, skills and jobs](#). Visit the [DIGCLASS website](#) to learn more about DIGCLASS, and drop us a line at [jrc-cas-digclass@ec.europa.eu](mailto:jrc-cas-digclass@ec.europa.eu) to stay tuned with our activities.

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# EXECUTIVE SUMMARY

This is the summary report of the International workshop on Social class analysis in the digital age: New approaches and perspective, held in Seville on 4 and 5 December 2024. The first session presents research challenges traditional notions of stable occupational positions, highlighting dynamic transitions throughout individuals' careers. The session on class inequality reveals a surprising stability in earnings stratification by social class in some countries, challenging some assumptions about income mobility. Social class significantly influences earnings trajectories, particularly impacting women due to family-related disruptions. Research on intergenerational mobility highlighted that socioeconomic shifts affect intergenerational support dynamics, potentially hindering opportunities for offspring from disadvantaged backgrounds. Household employment uncertainty impacts children's cognitive development, while broadband internet shows gendered disparities in academic performance, particularly affecting girls from socially vulnerable families. On the second day of the workshop, the first session was dedicated to studying the relationship between technology and labour market inequality. Authors delved into the impact of technology on labour market dynamics and inequality, discussing the polarization hypothesis, economic transformations' effects on politics, and the relationship between robots and labour markets. The following session explored the intersection of technology and politics, examining digitalization's potential for political conflict and policy responses to labour market shifts, including the impact of automation on unionization and political landscapes. Then, the seminar explored different policy responses to technological challenges, discussing citizens' perceptions of labour market risks, effectiveness of policy interventions, and alternative income-guarantee schemes' potential to address social protection gaps. In the last session, we delved into political behaviour amidst technological change, examining upward social mobility, intergenerational mobility's influence on voting, and the role of macroeconomic factors in voter turnout, highlighting the complex relationship between social mobility and political outcomes. Final remarks concluded with reflections on its interdisciplinary nature and the need to understand technological change within broader macro challenges. It was noted that there is a prevalence of empirical over theoretical work in social stratification, suggesting a need for balance and advancement in both domains.

# AGENDA

**Organising and scientific committee:** Leire Salazar, Carlos Gil-Hernández, Guillem Vidal Lorda, Davide Villani, Alicia De Quinto

4<sup>th</sup> December, 2023

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- 10:30-11:00 Registration (JRC Reception) & Coffee (JRC patio)
- 11:00-11:05 Opening Address: **Asunción Fernández-Carretero** (JRC-B6, Head of Unit: Industrial Strategy, Skills and Technology Transfer)
- 11:05-11:35 Keynote: **José Fernández-Albertos** (CSIC & DG Social Security Planning, Spanish Government): Digital transition, and the supply and demand for redistribution
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11:35-13:00

## Session 1: CLASS MEASUREMENT

Chair: Marta Fana (JRC-B6)

**Roujman Shahbazian** (Stockholm University): Later and less? New evidence on occupational maturity for Swedish women and men

**Karin Kristensson** (Uppsala University): What is social class? A machine learning approach

**Antao Li** (Fudan University): A socioeconomic index of occupational status based on online job advertisement data

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14:10-15:35

## Session 2: CLASS INEQUALITY

Chair: Carlos Gil (JRC-DIGCLASS)

**Edvin Syk** (Stockholm University): Class stratification: Evidence from a century of Swedish history

**Nhat An Trinh** (University of Oxford): Social class and earnings growth over the life course

**Guillem Vidal** (JRC-DIGCLASS): Wealth inequality and stratification by social classes in Europe

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15:50-17:40

**Session 3: INTERGENERATIONAL TRANSMISSION MECHANISMS**

Chair: Alicia de Quinto (JRC-DIGCLASS)

**Ginevra Floridi** (University of Edinburgh): Income inequality and socioeconomic divides in parental transfers to young adults

**Marta Facchini** (Sciences Po): How does parents' employment uncertainty affect children's early skills development? Patterns and mechanisms in France

**Pablo Gracia** (Trinity College Dublin): The heterogeneous impact of broadband internet expansion on adolescent educational outcomes: New evidence by intersecting social class, gender, and migrant status

**Mar Cañizares-Espadafor** (UNED): The intergenerational effect of educational expansion: New evidence from a natural experiment using the Spanish 1970 education reform

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**5<sup>th</sup> December, 2023**

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10:00-11.25

**Session 4: TECHNOLOGY & LABOUR MARKET INEQUALITY**

Chair: Davide Villani (JRC-DIGCLASS)

**Katy Morris** (Université de Lausanne): Uneven shifts: The geography of occupational change in France, Italy, Spain and the United Kingdom 1992 - 2018

**Leon Küstermann** (European University Institute): Managers of change: How firms shape whether modernisation leads to polarisation

**Jelena Reljic** (Sapienza University of Rome): The effects of robotisation on individuals' working histories: Evidence from Italy

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11.40-13.05

**Session 5: TECHNOLOGY & POLITICS**

Chair: José Fernández-Albertos (CSIC & Spanish Government)

**Álvaro Canalejo-Molero** (University of Lucerne): The political conflict potential of digitalization

**Fabian Kalleitner** (Freie Universität Berlin): Robots, migrants, and offshoring. How perceptions of labour market risks explain policy preferences

**Paolo Agnolin** (Bocconi University): Robots replacing trade unions: Novel data and evidence from Western Europe

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14.15-15.40

**Session 6: POLICY RESPONSES**

Chair: Leire Salazar (JRC-DIGCLASS Lead Scientist)

**Marius Busemeyer** (University of Konstanz): Digitalization and the green transition: Different challenges, same social policy responses?

**Reto Bürgisser** (University of Zurich): Can government policies moderate political backlash to structural economic change?

**Emma Rose Álvarez-Cronin** (Universitat Autònoma de Barcelona): Social protection and in work poverty in Spain: Simulating different income guarantee schemes to fill in the gaps

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15.55-17.20

**Session 7: POLITICAL BEHAVIOUR**

Chair: Guillem Vidal (JRC-DIGCLASS)

**Delia Zollinger** (University of Zurich): Upward mobility, gender, and progressive politics

**Giuseppe Ciccolini** (University of Milan and European University Institute): The intergenerational foundations of class voting: Social mobility and electoral choice in Western Europe

**Berta Caihuelas-Navajas** (Carlos III University, Madrid): Exploring the effects of macro-economic factors on the class gap in turnout

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17.20-17.35

Closing Address: **Leire Salazar** (JRC-DIGCLASS Lead Scientist)

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# DAY 1:

## DIGITAL TRANSITION AND THE SUPPLY AND DEMAND OF REDISTRIBUTION

Asunción Fernández-Carretero (JRC-B6, Head of Unit: Industrial Strategy, Skills and Technology Transfer) welcomed the participants and explained the role of the JRC as a science for policy producer for the European Commission, the main objectives covered by Directorate B in the JRC, and the work conducted by DIGCLASS since its start in 2021. She then introduced the keynote speaker, José Fernández-Albertos, a senior researcher at the Institute for Public Goods and Policies (IPP) at CSIC and the DG for Social Security Planning in the Spanish Government.

Fernández presented alternative arguments about how the digital transition might increase, or on the contrary decrease, the supply of, and the demand for redistribution.

Distributive demands can potentially weaken if (a) the affluent opt out of the welfare state due to technological advancements that allow them to secure private insurance against life-course risk, (b) the political representation of low-income citizens' interests is weak, and (c) the fragmentation among beneficiaries of redistribution strengthens identity politics. Redistribution demands might on the contrary get reinforced (a) if a new (more uncertain) structure of risks leads more to pooling strategies; (b) if societies increase their needs for social protection as they age; and (c) if labour bargaining power strengthens.

Similarly, there are conflicting expectations regarding the supply of redistribution. With digitalisation, identity politics might weaken the role of material interests in policy-making, new forms of targeted redistribution might harm universalism, and certain groups could activate rent extraction strategies to avoid redistribution, especially if there is a process of industrial concentration. Alternatively, certain factors such as the existence of tools to pursue more sophisticated policy designs or the lower pressure to engage in race to the bottom strategies due to the new geopolitical concerns might set a scenario more prone to increase supply.

To conclude, Fernández urged to avoid fatalism when thinking about the fate of social protection in the face of the digital transition, and to pay closer attention to demographic aspects, on the one hand, and to the role of new forms of communication in disconnecting political preferences from material interests, on the other.

## Session 1: CLASS MEASUREMENT

The first session of the workshop, chaired by Marta Fana (JRC-B6), delved into novel avenues for conceptualizing and empirically measuring social class, exploring novel directions in class analysis. Three speakers contributed to this debate: Roujman Shahbazian (Stockholm University), Karin Kristensson (Uppsala University) and Antao Li (Fudan University).

Utilizing data from the Swedish Level-of-Living Surveys covering birth cohorts from 1925 to 1984, Shahbazian and his co-authors scrutinized occupational biographies to discern the timing of class or occupational maturity. Contrary to expectations, their findings challenge the notion that the majority settles into a specific class or occupation relatively early in their careers. The mean age of the last change in class position displays a continuous and upward trend, with no clear evidence of stabilization until around the age of 55, particularly for the older cohorts.

These results suggest a dynamic nature of occupational trajectories, indicating that individuals experience substantial transitions throughout their work lives, with increasing mobility across cohorts. These findings do not support the traditional assumption, well established in the social stratification literature, of occupational positions as stable destinations, urging researchers to reconsider class and occupation as time-varying measures, both intra-generationally and across different cohorts. The implications extend to intergenerational mobility estimates, raising questions about how age and cohort differences are measured.

Overall, this paper called for a nuanced understanding of occupational mobility and for a revisit of its implications for both theoretical frameworks and empirical analyses.

The second paper, presented by Karin Kristensson challenged the applicability of the Erikson, Goldthorpe and Portocarero (EGP) model in capturing social class dynamics within evolving

labour markets. Utilising Lasso regression and a rich dataset from Statistics Sweden, the study assesses the relevance of traditional indicators in defining social class in post-industrial economies. Contrary to the EGP model's assumptions, the research finds that autonomy and flexibility hold little significance, while trade union membership emerges as a key determinant of social class, reflecting historical manual worker associations. Notably, the EGP framework fails to fully capture wage inequalities, particularly side-lining service workers, notably women, from the working class definition. The study's contribution lies in providing nuanced insights into social class dynamics, challenging established models, and offering a contemporary understanding of class components. The research prompted a reconsideration of class classification, emphasizing the need to adapt theoretical frameworks to changing labour market realities, and highlighted the importance of trade union membership in defining social class in the contemporary context.

The third speaker was Antao Li, who critically examined the traditional approach to quantifying occupational positions in the context of inequality and mobility, highlighting the atomistic fallacy inherent in deriving occupational status from individual-level characteristics. To address this, the research introduced a novel method, the DJM-SEI (Digital Job Market Socio-Economic Index), leveraging online job advertisements to construct a measure of social stratification. The methodology involved an innovative application of machine learning techniques to analyse extensive data from the Chinese labour market, focusing on job-level rather than individual-level attributes.

Preliminary results showed that the DJM-SEI, emphasizing economic resources such as salary, demonstrates superior predictive power over established measures like International Socio-Economic Index of occupational status and the Treiman's international prestige scale. Notably, the DJM-SEI offers nuanced insights into the occupational hierarchy, presenting variations in rankings across specific job categories. The study further validates the new measure using Chinese social survey data, affirming its efficacy in predicting cultural consumption, subjective social status, and health outcomes.

Overall, this research introduces a transformative approach applicable beyond the Chinese context. The DJM-SEI not only provides an alternative but

potentially superior occupational scale, offering researchers a reliable tool to comprehend the complexities of the contemporary job market globally.

## Session 2: CLASS INEQUALITY

Recent growth in wealth and income inequalities prompt discussions on the links between distributive inequality and class measurement. Income now surpasses, in practice, occupational class as the preferred socioeconomic indicator for stratification scholars, aligning with claims about the diminishing explanatory power of big class schemes to account for economic inequality dynamics.

In this context, the workshop's second session, chaired by Carlos Gil (JRC-DIGCLASS) focused on analysing economic inequality and stratification in life chances by mainstream occupational classes across different European countries, comprising three papers.

The first paper presented by Edvin Syk (Stockholm University) scrutinised market income stratification by social class in Sweden from 1920 to 2020, challenging assumptions about the impact of radical equalisation of class divisions. Despite Sweden's historic egalitarian transformation, the research revealed surprising stability in earnings stratification by social class. While shifts in earnings dispersion occur within and between classes, overall stratification remains constant, suggesting that policies aimed at reducing income inequality may not necessarily disrupt existing class structures.

The second paper, presented by Nhat An Trinh (University of Oxford), explored individual earnings trajectories within social classes using German Socioeconomic Panel data and administrative records. Findings showed that social class significantly influences earnings trajectories, fostering more significant similarity within classes. Classes characterised by service relationships exhibit diverse and generally upward trajectories, while those with commodified relationships (i.e., labour contracts) show homogeneity across individuals, increased volatility within persons, and relatively flat trends. Particularly for women, family-related employment disruptions distort these patterns.

The third paper, presented by Guillem Vidal (JRC-DIGCLASS), bridged sociological and economic



perspectives on class analysis by examining the relationship between occupational classes and wealth inequality compared to income inequality. Drawing on the Luxembourg Wealth Study spanning five European countries in the early 21<sup>st</sup> century, the findings challenged assertions about the declining explanatory power of classes by illustrating persistent wealth inequality and stratification between occupational classes. Occupational classes still emerge as more effective at capturing between-group income inequality and stratification, underlining the significance of economic resources (i.e., rents) beyond labour market attachment in advancing social class research.

These papers underscore the enduring complexity of class-based inequalities in the distribution of income and wealth. The stability of income stratification in Sweden challenges assumptions about the transformative power of economic equalisation, emphasising the resilience of class divisions in an egalitarian society. Examining individual earnings trajectories within social classes sheds light on the intricate dynamics shaping labour market rewards, especially in family-related disruptions for women. Lastly, the exploration of wealth inequality by classes in contemporary capitalism accentuates its persistent stratification between occupational groups, indicating the multifaceted nature of economic disparities extending beyond traditional income measures. These nuanced insights call for a comprehensive understanding of class dynamics, including measures of stratification, wealth and gender heterogeneity, to inform more effective policies addressing inequality and social mobility.

Taken together, the presented evidence supports the sustained relevance of standard occupational class schemes, based on employment relations, in explaining economic inequality and predicting life chances throughout careers.

### Session 3: INTERGENERATIONAL TRANSMISSION MECHANISMS

The third session at the workshop, chaired by Alicia de Quinto (JRC-DIGCLASS), aimed to shed light on the dynamics of intergenerational transmission mechanisms, a subject of growing concern given the persistence of income disparities and varying access to opportunities among different social strata. For that purpose, this session counted on four academic experts

that showed the multifaceted challenges embedded in the study of intergenerational social mobility, focusing on the potential implications of income inequality, employment uncertainty, educational improvements, and technological advancements.

Firstly, Ginevra Floridi (University of Edinburgh) offered a compelling analysis of the relationship between income inequality and parental financial support to young adults. Using longitudinal state-level data linked to parent-child dyads in the USA, the paper analysed changes in wealth, income, and educational gradients. The findings suggested that during periods of rising inequality, upper-class and higher-educated parents increased financial support to their young-adult offspring, while lower-class and lower-educated parents were less likely to provide monetary assistance. This socioeconomic shift in intergenerational support, as highlighted by Floridi, has implications for social mobility, potentially hindering opportunities for those coming from disadvantaged backgrounds.

Secondly, Marta Facchini (Sciences Po) focused on the impact of household employment uncertainty on children's early skills development in France. Drawing on existing frameworks related to family investment and family stress models, Facchini showed that employment uncertainty, especially in the case of both parents experiencing it for a long period, negatively affects children's cognitive development. These findings highlight the relationship between parental employment stability, gender roles, and the development of the educational and professional trajectories of younger generations.

Pablo Gracia (Trinity College Dublin) addressed the impact of broadband internet expansion on students' academic performance, utilising a quasi-experimental approach with Norwegian data at the municipal level. The study uncovered gender, social background, migrant status, and academic achievement level disparities in the effects of broadband internet coverage on academic performance, with boys experiencing small but significant improvements compared to girls. These gendered patterns intersect strongly with social background, highlighting divergent impacts on students from different socioeconomic strata. Notably, the findings suggest that the expansion of broadband internet in municipalities in Norway contributed to reducing inequalities in school

performance among boys. However, it also reveals a worrying pattern of socio-digital disadvantage among girls from socially vulnerable families.

Finally, Mar Cañizares-Espadafor (UNED) offered a lens into the long-term effects of increasing compulsory schooling on intergenerational educational outcomes. For that purpose, Cañizares-Espadafor and her co-author exploited a Spanish educational reform adopted in 1970, which extended compulsory schooling from 12 to 14 years. Leveraging data from the Survey of Health, Ageing, and Retirement in Europe (SHARE), the study assessed the impact of the reform on parental education and subsequent outcomes for their children. The results indicate a positive association between parental education levels and the likelihood of children attaining at least upper-secondary education. Strikingly, both low- and high-SES families seem to benefit equally from the reform, challenging conventional notions about the role of educational reforms in achieving equality of opportunity.

# DAY 2:

## Session 4: TECHNOLOGY & LABOUR MARKET INEQUALITY

Technology in the labour market plays a pivotal role in shaping socioeconomic dynamics. It contributes to the widening or narrowing of economic disparities and impacts different labour market outcomes, such as the demand of labour and the content of jobs. These topics were tackled in this session, the fourth in the workshop, chaired by Davide Villani (JRC\_DIGCLASS), which included Katy Morris (Université de Lausanne), Leon Küstermann (European University Institute) and Jelena Reljic (Sapienza University of Rome).

Katy Morris' study engaged in a discussion regarding the polarization hypothesis, which has gained popularity in the literature. This hypothesis states that, in the last decades and as result of the automation process, occupations/jobs at the top and bottom of the distribution have increased their presence, while jobs/occupations at the middle of the distribution (mostly composed by manual workers) have become scarcer.

Utilizing European Union Labour Force Survey data and the job skill method developed by Wright and Dwyer, the study tested two hypotheses: (a) the diverging destinies hypothesis, according to which regions follow different pathways, either upgrading, downgrading or polarisation, and (b) the parallel trends hypothesis, suggesting the similarity of long-term structural shifts in employment and thus expecting similar regional (upgrading) trends within countries. The analysis divides occupations into job skill quintiles and examines employment changes over time at the regional level in four countries.

The findings contribute to understanding the impact of globalization and technological change on the occupational structure in Europe. First, in alignment with the parallel trends hypothesis, the study reveals a universal upgrading trend at the regional level across diverse institutional contexts. High-skill job opportunities increased, while low-skill jobs diminished in every region studied. These results reveal considerable differences with part of the literature on the topic (that often indicates a similar pattern across countries/regions) and imply that there may be differences in the

evolution of occupational patterns across countries. Second, supporting elements of the diverging destinies hypothesis, considerable heterogeneity in the rate and type of regional occupational upgrading is identified. Strong upgrading and employment growth in economic capitals contrast with weaker upgrading and sluggish employment growth in more peripheral regions. The overall direction of change is uniform, but the speed and context of upgrading vary across regions.

Secondly, Leon Küstermann investigates the impact of economic transformations on political systems. With the rise of far-right parties globally posing a challenge to democracy, recent research has focused on the relationship between economic modernization and the extent of support for these parties. Workers in occupations threatened by technological change and by globalization may experience relative status decline, making them susceptible to far-right narratives. However, it remains unclear whether changing occupational structures inherently contribute to far-right support whether political reactions are contingent on the institutional environment. The paper contributes to this debate, focusing on the German experience.

The paper specifically analyses the effects of restructuring across firms and how they affect political behaviour, especially regarding far-right support. Küstermann proposes two different studies. The first uses micro-level data from the German Socioeconomic Panel. These data are linked to German firm-level registry. The findings show that restructuring increases support for the far-right among affected workers, particularly in occupations that are more vulnerable to economic change. Moreover, instability has an important role to play, as the effects are mainly concentrated in firms relying on flexible labour arrangements. The second study, examining how restructuring events were managed at the firm level, reveals major differences in outcomes. In this case, the author found that far-right support decreases in counties affected by restructuring events, regardless of how they were managed at the firm level.

These results bear important consequences as they challenge the deterministic relationship between macro-level employment structures and micro-level political outcomes, emphasizing the essential role of firms in moderating political radicalization among workers. For public policy, the results show

the importance of aligning *firm strategies with societal goals to avoid political backlash against economic modernization, e.g., by strengthening inclusive business practices and job security.*

The third speaker, Jelena Reljic, presented a paper analysing the impact of robots, nurturing a burgeoning literature on the impact of new technologies on labour market outcomes. Data employed in this study come from the social security records in Italy that encompass public and private employees, as well as various categories of self-employed individuals. These records provide annual data for each working relationship within a given year, including gross earnings, the duration of employment in weeks and details about the nature of the working relationship. This dataset has been matched with the robot intensity index to study the relationship between robotization and three main groups of indicators, i.e. cumulative working years, average earnings and mobility.

Results show that there is no significant relationship between robot density and employment level. Similarly, robot exposure also bears no relation with earnings, while a more multifaceted result is obtained in the case of workers' mobility. Robot exposure is associated with lower mobility of workers within a given sector and a higher mobility towards other sectors within manufacturing. Importantly, there is no significant transition of those workers more exposed to robots towards services, suggesting that there is no evidence of a structural pattern of mobility of workers more exposed to robots towards industries different from manufacturing.

At the same time, the paper also finds that robotization does not lead automatically to increased unemployment, although it is positively associated with the resource to redundancy schemes (*Cassa integrazione*) and part-time jobs. Overall, these findings reveal that, in Italy, exposure to robots is not automatically associated with weakening employment from manufacturing, but it is rather related to changes in work patterns (e.g. higher part-time) and redundancy schemes. Moreover, these findings reveal the importance of these institutional mechanisms to compensate the potential negative effects deriving from robotization.

## Session 5: TECHNOLOGY & POLITICS

Chaired by José Fernández-Albertos (CSIC and Spanish Government), the fifth session of the workshop delved into the complex dynamics between technology and politics. The session brought together three researchers. Their studies explored different dimensions of this relationship, focusing on the implications of digitalization for political behaviour, labour market transformations, and policy preferences.

Álvaro Canalejo-Molero (University of Lucerne) kicked off the session by discussing his team's ambitious project examining the political conflict potential of digitalization. Canalejo-Molero highlighted that, despite digitalization's profound societal impact, it has surprisingly remained a marginal issue in discussions about political conflict and behaviour. His research aims to fill this gap, focusing specifically on the labour market, the area with the most apparent distributional consequences.

The team's objective is to identify the "winners" and "losers" of digitalization and investigate whether these groups can form opposing views, thereby potentially leading to conflict. Canalejo-Molero highlighted that while digitalization is not currently shaping political competition, if the winners and losers can be clearly identified, and their opposing views mobilized, it could become a significant political issue in the future. This research underscored the need to consider the political implications of digitalization, especially as it continues to transform the labour market and redefine the distribution of economic benefits.

Next, Fabian Kalleitner (Freie Universität Berlin) presented his study on how perceptions of labour market risks guide policy preferences. Kalleitner's research focused on three significant labour market changes –digital transformation, labour migration, and offshoring. The study hypothesized that people's policy preferences are influenced more by their perceptions of these risks than the objective risks themselves. The research unveiled an interesting pattern of policy preferences among individuals who perceive themselves to be at higher risk.

In particular, Kalleitner and his team found that these individuals are more likely to support compensatory measures rather than social investment measures. One of the key findings of their study was a strong negative relationship between risks potentially induced by immigration and welfare-based policy preferences. On the

other hand, they found a clear positive correlation between risks associated with AI and offshoring and regulation-based policy preferences. These findings highlight the importance of subjective risk perceptions in shaping policy preferences, and the need to consider these perceptions when examining the political implications of labour market changes.

The final presentation of the session came from Paolo Agnolin (Bocconi University). Agnolin discussed his team's work on developing a new database on unionization at a region-by-sector level across 15 European countries. The team posits that automation can have far-reaching political outcomes by affecting the power and influence of trade unions. Their preliminary findings suggest a direct link between automation and a decrease in unionization.

Agnolin's team argues that the decline in unionization, driven by automation, creates political space for the radical right. This suggests that de-unionization can contribute to the expansion of the radical right in the political landscape. These findings underscore the potential political ramifications of decreasing unionization due to automation and the need to consider these implications in discussions about the political effects of technological change.

In conclusion, the fifth session of the workshop provided a comprehensive exploration of the political implications of digitalization. The presentations shed light on the societal and political shifts brought on by digitalization, particularly in the labour market. They revealed the complex interplay between perceived and actual labour market risks, policy preferences, and subsequent political behaviours. The insights gained from this session will undoubtedly prove invaluable in shaping our understanding of the evolving political landscape as we continue to navigate the digital age.

## Session 6: POLICY RESPONSES

The sixth session of the workshop, chaired by Leire Salazar (JRC-DIGCLASS) displayed cutting-edge research on social policy responses to technological challenges.

In the first presentation, Marius Busemeyer (University of Konstanz) –in joint research with Sophia Stutzmann and Tobias Tober– presented evidence on citizens' perceptions of risks entailed

by two different sources of structural labour market challenges, the digital and green transitions, and on how these translate into preferences for social policies. Instead of generally focusing on preferences for redistribution, which often leads to mixed results, this research distinguishes between different types of policy tools. Past research had tentatively suggested that individual automation risk correlates with support for compensation –such as unemployment benefits– and a refusal of social investment instruments –like educational provision and on the job training. The literature on risks related to the green transition is, so far, much more scarce and inconclusive.

In this research, policy preferences are assessed using survey data from the working age population in six high-income countries and through ad hoc experimental instruments. Most citizens demand some kind of policy action to face digitalisation and the green transition, with differences in levels across countries. Average support is substantially higher for social investment than for compensatory policies, and this pattern applies to the two types of potential labour market shocks, the digital and the green.

Even though individual risk perceptions varies across the two sources of labour market risks, the effects of these on policy preferences are quite similar, according to the results. Individuals who are at a higher risk are more likely to support compensatory rather than social investment measures.

The second presentation, by Reto Bürgisser (University of Zurich), in collaboration with Silja Häusermann, Thomas Kurer and Susana de Pinho Tavares, addressed the issue of political backlash after structural disruption. Prior contributions had mainly focused on the links between changing occupational structures –led by technological change– and rising political dissatisfaction.

The research takes advantage of the introduction of the French Professional Security Contract (CSP) in 2011, specifically designed to support workers affected by structural change. The authors use combined sources of data to determine whether this targeted intervention was effective in reducing the extent of political backlash –while it is well established that austerity measures fuels populism among voters, the reverse mechanism has been less often considered.

The findings showed that the CSP is effective in moderating the relationship, at the municipal level, between economic vulnerability and turnout and radical right vote shares. However, despite the substantial policy intervention entailed by the CSP, the moderation effect is not strong. The municipal-level analysis was then combined with original survey evidence. Target beneficiaries do understand the aims of the policy programme, value its goals and appreciate its economic effectiveness. Hence, the limited mitigating effect of CSP is not due to a misunderstanding or misperception of policy effects. However, even though beneficiaries think that the CSP program benefits them, they perceive other social groups as benefiting even more. This important finding implies that those at risk of structural change may not need or demand material compensation alone, but react sensitively to whether policies recognise their particular situation and grievances.

In the last presentation, Emma Rose Álvarez-Cronin (UAB) presented her joint work with José A. Noguera and Álex Giménez simulating alternative income-guarantee schemes in Spain and their potential to fill in gaps in social protection. Income support policies in conventional welfare states fail to include non-standard workers, either because they are not entitled to contributory benefits or because non-contributory social transfers are not compatible with labour income. This typically creates income instability for many households, as well as gaps in social protection.

There are discussions on which alternative income support policies would be better suited to tackle in-work poverty and inequality in this scenario. The debate mainly revolves around two alternatives: 1) in-work benefits, such as Wage Supplements (WS) or Guaranteed Income (GI) programmes compatible with labour income, and 2) a flat-rate Universal Basic Income (UBI). In Spain, unemployment benefits cover 65% of the unemployed, in-work poverty is almost 12%, overall at risk of poverty rate is over 20% and non-take-up in the new, non-contributory, national minimum income scheme (IMV) is as high as 58%.

Using a combination of EU-SILC data and the EUROMOD microsimulation tool, the presentation covered two aims: analyse the current coverage gaps in the Spanish income guarantee system, broadly considered, and assessing the potential effect –in terms of poverty and inequality alleviation– and the budgetary burden of existing

tools, and different reforms of those, and the development of innovative proposals under various parametrisations.

The results suggested that the existing model has a limited impact on poverty reduction due to excessive targeting. To eliminate coverage gaps, reforms in both design of the policies and in their implementation –for instance to mitigate non-take-up– would be required. Compared to the national minimum income scheme (IMV), introducing a more generous income guarantee with a wage supplement would entail a greater reduction of overall poverty and in-work poverty. A Universal Basic Income would imply full eradication of poverty, but at the cost of a very substantial public investment and a very ambitious tax reform.

The three papers collectively highlighted an upswing in methodologies alternative to conventional survey data, enabling the generation of richer theoretical expectations and extraction of nuanced details about policy preferences and impacts.

## Session 7: POLITICAL BEHAVIOUR

Chaired by Guillem Vidal (JRC-DIGCLASS), the seventh and final session of the workshop provided a deep dive into the complexities of political behaviour in the context of technological change. The discussions centred on upward mobility, gender and progressive politics, the effects of macroeconomic factors on the class gap in turnout, and the relationship between intergenerational social mobility and voting choice.

Delia Zollinger (University of Zurich) commenced the session by presenting her co-authored research that explores upward social mobility trajectories among women in the UK, Germany, Spain and Sweden. The aim was to understand how women interpret and experience upward social mobility against the backdrop of economic and social change, and how these perceptions might influence their political attitudes. Traditionally, research focus has been on groups perceived as disadvantaged by economic and social change. However, women, especially those with higher education and experiencing upward mobility, are often categorised as beneficiaries of societal transformations. Zollinger's research sought to delve deeper into this category of "knowledge society winners" to understand

whether they truly perceive themselves as beneficiaries of these transformations.

Zollinger's research found that the connection between individual experiences of upward mobility and political attitudes is not strictly gendered. However, a stronger link was found when examining women's collective trajectory. Women who perceived a positive collective trajectory for their own gender were more likely to feel confident about future opportunities. This link extended to mobilization around gender equality but did not necessarily translate into broader sociocultural progressive attitudes. This nuanced understanding of how women perceive and respond to social mobility, both individually and collectively, significantly contributes to understanding the dynamics influencing political behaviour.

Following Zollinger's presentation, Giuseppe Ciccolini (University of Milan and European University Institute) shared his research exploring the relationship between intergenerational social mobility and voting choices. His study critically examined commonly held assumptions about social mobility and class. Ciccolini's research focused on both the vertical and horizontal dimensions of stratification. Vertical mobility refers to the upward or downward movement within a socioeconomic hierarchy, often associated with changes in income, class, status, or power. Conversely, horizontal mobility refers to a change in role or position within the same level of a hierarchy, such as a career change within the same socioeconomic status.

Ciccolini's findings suggested that individual social mobility trajectories, regardless of whether they are vertical or horizontal, do not significantly affect political outcomes. However, a key finding was the significant impact of individuals' perceived social mobility –relative to their parents'– on their confidence about future prospects. Interestingly, Ciccolini's research found little evidence to support the classic hypothesis that upwardly mobile individuals are more supportive of centre-right parties, or that downwardly mobile individuals are more likely to vote for radical right parties. Instead, the study unveiled a more nuanced and complex effect of social mobility on political outcomes. Ciccolini's research highlights the importance of a more comprehensive understanding of social mobility, considering both vertical and horizontal

dimensions, in assessing its impact on political behaviour.

Finally, Berta Caihuelas-Navajas (Carlos III University) presented her research exploring the effects of macroeconomic factors on the class gap in voter turnout. Her study aimed to bridge the divide between the literature on turnout and social. She sought to understand how macroeconomic factors, specifically unemployment, influence the class gap in voter turnout. In her research, Caihuelas found that unemployment most significantly impacted manual labourers –economic conditions significantly influence political participation, particularly among lower socioeconomic classes. Her work underscores the importance of considering macroeconomic factors when analysing the class gap in voter turnout, a dimension often overlooked in traditional political behaviour research.

Furthermore, her research suggests that broader structural economic conditions, such as high unemployment rates, can exacerbate disparities in political participation among different social classes. This finding highlights the importance for policymakers and researchers to consider the economic landscape in their analysis of political participation, which can offer more comprehensive understanding and effective strategies to encourage voter turnout across all social classes.

## CLOSING REMARKS: MANY ACHIEVEMENTS AND SOME UNRESOLVED CHALLENGES

Leire Salazar (JRC-DIGCLASS) closed the workshop offering some final remarks summarising her main takeaways. She first referred to the remarkable success of the format of the event, which included researchers from different fields, regions and academic traditions and at various stages of their scientific careers, all of them interested in social inequalities. This variety surely enriches each other's work and provides more nuanced views on the phenomena at stake. Interdisciplinary approaches are indeed crucial to overcome disciplinary niches, which are often fixated in small technical details, old conventions that might not be useful or applicable anymore or at least not in specific contexts, etc. Fresh, unconstrained looks from other disciplines are very important. But also discipline-specific expertise needs to be acknowledged and

honoured. Collaborations across disciplines, which are fortunately more frequent and fruitful over time, should aim at finding the right balance between these two positions.

An important source of scientific enquiry during the workshop had to do with determining the role of technological change in several *explananda*. This has of course proven a challenging endeavour. Lingering questions include what is specific to technological change vis-à-vis other macro challenges –demographic change, including migration trends, the climate crisis and its consequences, globalisation...–, whether the loser/winner and compensation logic is equally applicable to all these processes, and still useful, analytically, to explain risks and social policy needs, or how we can design empirical strategies that can causally disentangle the various effects.

The contributions presented in the workshop, representative of the best research being produced, suggest that more empirical than theoretical work is being produced at the moment in the social stratification field. The rational action hype and work on analytical sociology, which was once groundbreaking and drove significant theoretical advances, appears to have substantially slowed down. In political economy, on the contrary, there is a stronger sustained tradition aiming at theory building. It would be important to understand why these differences exist and advance in both the theoretical and empirical domains.

Salazar also referred to the need to overcome fixation on certain stylised sexy facts (for instance about occupational change, social mobility, the extent of economic inequality...) that are apparent for some (dominant) countries but that are far from universal. Many of the excellent pieces of research presented in the workshop have been a perfect testimony of the existence of heterogeneity, across countries and by subgroups of the population. This variance needs to be identified, acknowledged when talking about stylised results and, when possible, research efforts should be devoted to explaining this variation in addition to describing it.

The workshop has also displayed clear advancements as regards the availability and use of more and increasingly varied data (in nature and sources) and methods (for instance, microsimulations, experiments or machine learnings approaches). Social scientists have been

gathering greater amounts of reliable evidence on the drivers of inequality and the mechanisms underlying intergenerational persistence of advantages and disadvantages based on increasingly sophisticated data collections, designs and methods. However, we still can do a lot more progress at identifying what works, in terms of institutional settings and public policies, for reducing inequality of outcomes and opportunities, increasing social mobility, avoiding social exclusion, mitigating the potential displacement effects of technologies... –the big societal challenges.

Scattered, small-scale data collections and narrowly focused research efforts should be supplemented by more ambitious investments with broader purposes in both the data collected and research objectives. For instance, more systematic comparative designs would be required to determine the causal role of macro factors such as institutions, demographic changes or the economic climate, and the interplay between aggregate- and micro-level factors.

Salazar concluded by thanking the Scientific Development Programmes Unit –Jutta Thielen-del Pozo and Shane Sutherland supported the planning of the workshop; Desislava Stoyanova, Chiara Perucconi and Angela Cardinali took great care of the financial and logistic aspects– and Asunción Fernández-Carretero, Javier Alba and Lysann Siegl in the JRC Seville site for their kind contributions.



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