

TECHNOLOGIES OF DIGITAL WORK

COST Action IS 1202 *Dynamics of Virtual Work training school/course*

3-6 May 2016, Inter-University Centre Dubrovnik (IUC), Croatia

Training school/Course description

Historically, public excitement about new technologies goes through a repetitive cycle. Innovation requires substantial financial support in the form of government and/or venture capital investments. Breakthroughs require large numbers of users and consumers that only a handful of companies manage to obtain. Ideas about novelty and social impact abound in this stage. Once established, companies secure large financial returns and start closing-down innovation in order to establish control and dominance. At that point, national and transnational policy objectives change in order to curtail monopolistic tendencies. The cycle starts over again. The global Internet is in a similar cycle at this point in time. As excitement about the Web 2.0 dwindled down, issues such as privacy, surveillance and commercialisation of online data have emerged to the surface. What was once considered a technological breakthrough, now reveals company policies of cost-reduction by creating globally distributed networks of low-paid and unpaid digital work.

The aim of this international, multi-disciplinary training school/course for PhD students and early-career researchers was to bring together perspectives from critical theory, media studies, science and technology studies (STS), design studies, gender studies, as well as policy analysis in order to discuss how digital technologies relate to work, work-life balance and how societies change accordingly. From a critical perspective technologies are used to establish dominance, value extraction, control and perpetuation of the capitalist system through alienated work and shifting of the work-life balance. From a media studies perspective communication technologies enable social and cultural environments that alter media content production, distribution and consumption patterns. STS perspective takes that all technologies are used and interpreted differently, while sometimes also exhibiting characteristics of social agency in various socio-material configurations. From a design perspective it is a challenge to create technologies that will meet and satisfy the constantly changing needs and desires of users. Gender perspective questions how technologies can perpetuate patriarchal structures and contribute to gender digital divide, while also offering emancipatory possibilities. Furthermore, digital technologies present a challenge for policy makers since they develop at a faster rate than national, regional, and supranational (e.g. EU) legislative systems.

The training school/course looked beyond technological, and other, determinisms and instead focused on technology, first, as a broader organizational,



institutional, cultural, political and economic context in which technical systems are embedded; and second, as a concrete socio-technical system with which humans relate. During the school we examined how these contexts shape digital technologies and work, and also how digital technologies are embedded and how they alter the contexts, practices and routines of human work and work-life balance. We are interested in digital technologies and infrastructures, innovation and value creation, peer production, crowdsourcing, creative industries and different methods of studying and regulating these phenomena.

Training school/course directors

Paško Bilić, Institute for Development and International Relations (IRMO), Croatia
Jaka Primorac, Institute for Development and International Relations (IRMO), Croatia
Eran Fisher, Open University, Israel
Ursula Huws, University of Hertfordshire, United Kingdom
Pamela Meil, Institute for Social Science Research, Munich, Germany
Bjarki Valtýsson, University of Copenhagen, Denmark
Juliet Webster, Open University of Catalonia, Spain

Participants

The training school was attended by thirty two trainees and six trainers that came from thirteen different countries (Croatia, Denmark, Germany, Greece, Israel, Latvia, Lithuania, Poland, Spain, Sweden, Turkey, United Kingdom, and United States). The participants were from within the COST Action but also outside of it e.g. University of Dubrovnik Journalism programme Erasmus+ students.

Speakers and presentations

The training school lasted for four days and it was organized thematically to discuss various aspects relating to the topic of the course. The structure of the working day consisted of the morning and afternoon sessions- for each day a trainer and a moderator were assigned in order for programme to run smoothly. After the morning lecture by the trainer, the session was followed by two PhD student presentations, responses by the trainer of the day and general discussions. The afternoon sessions opened with a talk by an early-career investigator and then followed by more PhD student presentations. The first day covered the topic of *Gender and tech-industries*, and it was opened by Juliet Webster with a lecture entitled “A framework for understanding the dynamic of female participation in technical professions”. Taking the gender perspective in consideration, the discussions during the day stemmed from the issues of techniques of collaboration and questions of sustainability of labour in creative industries, towards the implications of technology on different cultural practices but also audience reception. The second day focused on the *Political economy of digital work and labour*, and it was opened by Eran Fisher with a talk entitled “Technology and labour from Ford to Google”. The lecture opened up the floor for the presentations that tackled issues of ideological and

emotional labour, the influence of the social media on the structural changes of the labour market, and with the particular focus on the journalistic profession. On the third day, covering the in-views from the *Media Studies and Science and Technology Studies* the discussions centred on the state of the art and the role of the data science. Thus, the morning session was dedicated to the methodological workshop titled “An introduction to data mining and visualisation methodologies for tracing participation on social networking sites” by Ivo Furman and Savaş Yildirim who gave an overview of the approaches. The same day featured a talk by an invited speaker from the United States, Brian Beaton who gave a talk titled “Decoding Data Science” where he presented the latest research results on critical data science approach. The evening session was dedicated to the public lecture by Pamela Meil “Researching and regulating digital work and labour: how to define it and where to find it” that was held at the University of Dubrovnik and hosted by the Department of Communication Science. The final day followed upon the issues opened by the keynote lecture as it covered the topic of *Policy implications and social relevance*. It opened with a talk by Bjarki Valtýsson titled “Evening out the edges: regulation, commercial social media and civic agency”, that by using examples from research on Facebook participation and policy research on EU regulation tackled the issues of whether/how it is possible to make technology more democratic. The presentations in the continuation of the day dealt with policy implications from the creative collaborative ecosystems and learning, the rise of new type of work with the introduction of the blockchain technology, towards the social contextualisation of algorithmic structures in specific search engines.

The training school/course gave a thorough in-view in the complexity of the relationship of technology and digital/virtual work, and it provided to be a dynamic forum of exchange between PhD students, early career investigators and senior researchers. In the final remarks of the course the participants discussed the possibilities of continuing the discussions in the printed formats.

Additional support:

The attendance of four Croatian participants was supported by the Interuniversity Centre – Ministry of Science, Education and Sports of the Republic of Croatia scholarships scheme.

The public lecture was hosted by the COST MC substitute from Croatia Dr Mato Brautović from the Department of Communication Science at the University of Dubrovnik.

With the courtesy of the [Society of Friends of Dubrovnik Antiques](#) the organizers have arranged a tour around the City Walls of Dubrovnik for the training school participants.

Outreach:

The entire course was live streamed through Twitter account of the Action, and the materials were re-tweeted through the accounts of the participating institutions.

Output:

The organisers are currently exploring the possibility of publishing the papers arising from the training school in an edited book or special issue journal.



GENDER AND TECH-INDUSTRIES TUESDAY, 3 MAY IUC room no. 2	
MODERATOR	Paško Bilić
9:15 - 9:30	INTRODUCTIONS AND GREETINGS
9:30 - 11:00	Juliet Webster (Open University Catalonia, Spain) A framework for understanding the dynamics of female participation in technical professions Women are notoriously under-represented in technological work, particularly in professional occupations. Although this pattern of under-representation is common across many societies, the reasons for it, and therefore the potential remedies, are not. It is important that women's disadvantage in this area is analysed in ways which are sensitive to their context if effective measures to address this disadvantage are to be developed. This lecture will address the issues involved in analysing women's pathways through ICT careers in different social contexts. It will identify the key factors which shape women's engagement with digital technologies, and discuss the ways in which these factors may differ from one society to another, so providing differing environments within which women negotiate their career trajectories. It will offer students a framework for analysis which also provides a framework for action to step up gender equality in technological work.
11:00 - 11:15	Q&A
11:15 - 11:45	COFFEE BREAK
11:45 - 12:00	Reinhard Handler (Karlstadt University, Sweden) Techniques of collaboration. From hacker culture to the creative industries
12:00 - 12:05	Response by trainer
12:05 - 12:15	Discussion
12:15 - 12:30	Sara De Benedictis (King's College, UK) An audience reception study of birth on television
12:30 - 12:35	Response by trainer
12:35 - 12:45	Discussion
12:45 - 14:30	COCKTAIL RECEPTION & LUNCH BREAK

14:30 - 15:15	Jaka Primorac (IRMO Croatia) Sustainability of creative labour. Putting virtual work in the cultural and creative industries context In this presentation I will discuss the relationship between virtual work and creative labour in the cultural and creative industries context. After highlighting the need for a new paradigm that goes beyond the standard/non-standard employment thesis, I will outline how the everyday work of creative cultural workers is entwined in a complex network of online and offline working practices. These practices contribute to the further blurring of the boundary between work-time and leisure-time, to the implosion of the public sphere into the private sphere in the lives of creative workers and towards the (self)-exploitation practices. In this context of rising insecurities and inequalities in cultural and creative industries on a global level, I will further explore whether virtual work can contribute to the development of solidarity and new forms of networking and unionisation among creative workers in order to move towards more sustainable labour practices.
15:15 - 15:30	Discussion
15:30 - 15:45	Hetty Blades (Coventry University, UK) The socio-cultural and philosophical implications of technology on contemporary dance practices and spectatorship.
15:45 - 15:50	Response by trainer
15:50 - 16:00	Discussion
16:00	COCKTAIL RECEPTION by IRMO
POLITICAL ECONOMY OF DIGITAL WORK AND LABOUR WEDNESDAY 4 MAY IUC room no. 2	
MODERATOR	Juliet Webster
9:30 - 11:00	Eran Fisher (Open University Israel) Technology and labour from Ford to Google In this lecture I will delve on the role of technology, particularly production technology, to enforce, organize, and regulate a particular labour regime. I will evoke the Marxist perspective on the politics of technology and its centrality in reproducing class relations. I will then move to the central question of how a new neoliberal labour regime emerged around the new paradigm of digital and network technology. I will give special attention to the mobilization of media audience as labour power and "life itself" into the process of capital accumulation with the aide of social media.
11:00 - 11:15	Q&A

11:15 - 11:45	COFFEE BREAK
11:45 - 12:00	Yuqi Na (University of Westminster, UK) Ideology and digital labour of the internet and social media
12:00 - 12:05	Response by trainer
12:05 - 12:15	Discussion
12:15 - 12:30	Izabela Maria Stefaniak (Katowice University of Economics, Poland) Social Media and the Structural Changes of the Labour Market
12:30 - 12:35	Response by trainer
12:35 - 12:45	Discussion
12:45 - 14:30	LUNCH BREAK
14:30 - 15:15	Krešimir Krolo (University of Zadar, Croatia) Usage of Internet Social Networks as an indicator of social capital of youth I will explore the methodological plausibility and possibility to explore different aspects of participatory culture. While doing so I will engage with the concepts from sociology, and political studies that are best fitted to provide a more detailed answer to understand the dynamics of participation in digital-interactive media environments. For that purpose, I argue that broader understanding of relation between social capital, cultural consumption, cultural capital and participatory culture can fill the gaps in an effort to understand how these practices are revolving around the usage of digital interactive media environments, and how they can lead to a more or less developed participatory practices, both in civic purposes or for the purposes of an active and creative engagement with the contents of digital culture(s). It will also be suggested that certain concepts and theoretical frameworks are more suited for one form of digital communication in comparison to another when technological and communication characteristics of those media are taken into account. First, I will engage with the main concept and definition of participatory culture, and then I will describe the technological and communication characteristics of media used in this analysis - social network sites and video games. These definitions and concepts will be used to juxtapose with theories of social capital, cultural consumption and cultural capital.
15:15 - 15:30	Discussion
15:30 - 15:45	Xante Whittaker (University of Leicester, UK) Behind the news: journalists and the reconfiguration of newspaper journalism in the digital era, a labour process perspective
15:45 - 15:50	Response by trainer
15:50 - 16:00	Discussion

16:00 - 16:30	COFFEE BREAK
16:30 - 16:45	Luka Bulian (University of Zagreb, Croatia) Ideological and emotional labour on Wikipedia: the case of Kosovo
16:45 - 16:50	Response by trainer
16:50 - 17:00	Discussion
MEDIA STUDIES AND STS	
THURSDAY, 5 MAY	
IUC room no. 2	
MODERATOR	BjarkiValtysson
9:30 - 11:00	METHODOLOGICAL WORKSHOP Ivo Furman and SavaşYildirim (Bilgi University Istanbul, Turkey) An introduction to data mining and visualization methodologies for tracing participation on social networking sites
11:00 - 11:15	Q&A
11:15 - 11:45	COFFEE BREAK
11:45 - 12:00	Raul Ferrer Conill(Karlstadt University, Sweden) Gamification of Journalism
12:00 - 12:05	Response by trainer
12:05 - 12:15	Discussion
12:15 - 12:30	Eleni Kostala (Panteion University, Greece) Forms and organisation of digital work and entrepreneurship in the Greek new media industry
12:30 - 12:35	Response by trainer
12:35 - 12:45	Discussion
12:45 - 14:30	LUNCH BREAK
14:30 - 15:15	SPEAKER - Brian Beaton (California State Polytechnic, USA) Decoding Data Science The last 15 years has seen the rise and formalization of data science as a professional field of research and practice alongside broader shifts in scientific communications, computing, and consulting. Data science is the systematic process of creating, building, and structuring knowledge with data. Today, data science is aggressively augmenting and consolidating a



	<p>number of pre-existing fields of knowledge production in the sciences and beyond. The profession sits at the fulcrum point between data and meaning making, and at the core of larger efforts to figure out (through improvisation) new modes of wealth creation with a material or medium (data) that has a much longer, mundane history. This lecture will not debate whether data science is a science but instead focus on how to “decode” data science using methods drawn from media studies and STS. Topics to be covered include the embryonic profession’s communication patterns, tools, work styles, analytical habits, visual strategies, and social structures. The lecture will also discuss creativity challenges in data science and where data science fits within the growing body of scholarly literature on data and society.</p>
15:15 - 15:30	Discussion
15:30 - 15:45	<p>Julia Velkova(Sodertorn University, Sweden)</p> <p>Free software beyond radical politics: negotiations of creative and craft autonomy in digital visual media production</p>
15:45 - 15:50	Response by trainer
15:50 - 16:00	Discussion
18:00 – 19:30	<p>PUBLIC LECTURE: Pamela Meil (Institute for Social Science Research, Munich, Germany)</p> <p>Researching and regulating digital work and labour: How to define it and where to find it</p> <p>Although there is a lot of discussion about digital work and labour, it’s diversity makes it difficult to pinpoint and therefore a challenging topic to research and measure. Digital work can be embedded in traditional work organizations, exist in innumerable sectors, and of course, in internet-mediated online labour exchanges and other digital environments where it is less tangible and harder to track. It is part of a shifting terrain of what exactly constitutes work in which boundaries between offline and online as well as work that is unpaid and paid are getting increasingly blurred. How can we conceptually understand the complex division of labour and value capture surrounding work in digital environments? What methods can be developed to capture a form of work that has no workspace and whose actors and tasks are constantly changing?</p>
LOCATION:	
University of Dubrovnik, Branitelja Dubrovnika 41 Street, Room 131	
POLICY IMPLICATIONS AND SOCIAL RELEVANCE	
FRIDAY, 6 MAY	
MODERATOR	Jaka Primorac
9:30 - 11:00	<p>Bjarki Valtýsson (University of Copenhagen, Denmark)</p> <p>Evening out the edges: Regulation, commercial social media and civic agency</p>

	<p>In his work <i>The Hacker Ethic and the Spirit of the Information Age</i>, Himanen juxtaposes Weber's protestant ethic to that of the hacker ethic. Himanen thereby creates a polarisation between two dominant sets of values. On the one hand money, work, optimality, flexibility, stability, determinacy, result accountability. On the other hand passion, freedom, social worth, openness, activity, caring and creativity (2001). This polarisation has been persistent within much literature, where on the 'hacker' side of the argument, concepts such as user empowerment, co-creation, producers, prosumers, creative audience, users-turned producers and interactive audience are meant to illustrate the emancipative side of engaging in various digital media environments. However, the other, somewhat darker site is certainly prevalent as well exemplified in the fantasy of participation, extensive data mining, surveillance and commercialisation on social media. The aim of this talk is to 'even out the edges' by discussing commercial social media from both perspectives, focusing particularly on regulation, Facebook and civic agency. I will therefore briefly account for regulatory frameworks and how these relate to user terms on Facebook. However, in order to 'even out the edges' I will also account for data that I collected in 2012-2015 through expert interviews, focus groups, qualitative interviews and observations containing in all 46 respondents. By accounting for how respondents perceive civic agency on commercial social media, the aim is to reach a more nuanced conceptual framework than the before mentioned buzzwords bear witness to.</p>
11:00 - 11:15	Q&A
11:15 - 11:45	COFFEE BREAK
11:45 - 12:00	<p>Adamantia-Antigoni Papageorgiu (University of Leeds, UK)</p> <p>Creative collaborative ecosystems and the emerging professional identities</p>
12:00 - 12:05	Response by trainer
12:05 - 12:15	Discussion
12:15 - 12:30	<p>Jelena Dzakula (Ofcom, UK)</p> <p>Digital currencies, blockchain technology and mining – new type of work at the heart of a new disruptive technology</p>
12:30 - 12:35	Response by trainer
12:35 - 12:45	Discussion
12:45 - 14:30	LUNCH BREAK
14:30 - 15:15	<p>Paško Bilić (IRMO, Croatia)</p> <p>Utility, relevance, objectivity: layers of ideology and labour behind Google's search algorithm</p> <p>In this talk I will examine the closely knit relationship between Google's ideologies of neutrality and objectivity and its global market dominance. Neutrality construction comprises an important element sustaining the</p>

	<p>company's economic position and is reflected in constant updates and changes to utility and relevance of search results. A full account of the relationship between company engineers, internet users and the labour of human raters who adapt search results to local languages in global markets is not entirely disclosed by the company. To understand the underlying importance of ideology and digital labour for the cultural economy of Google publicly available documents and multiple reports from media specialising in search engine business are analysed. The complexity of the research question and the lack of reliable information require an inductive, explorative and critical approach to determine contingencies between publicised technical decisions and to clarify how, and where, they interweave with profit motives and discourses legitimising these choices. Theoretically, the talk draws on the social contextualisation and social arrangements of machines and algorithms and, more broadly, on the approaches from the critical political economy of communication and digital labour.</p>
15:15 - 15:30	Discussion
15:30 - 15:45	<p>Ingrid Forsler (Sodertorn University, Sweden)</p> <p>Thinking together: Teacher's online collaborative learning in Sweden, Estonia and Finland</p>
15:45 - 15:50	Response by trainer
15:50 - 16:00	Discussion
16:00 - 16:30	FINAL COMMENTS AND FAREWELLS