



Fakultet filozofije i religijskih znanosti, Sveučilište u Zagrebu

Institut za evropske studije, Beograd

Katholisch-Theologische Fakultät, Universität Innsbruck, Institut für Christliche Philosophie

Teološka fakulteta, Univerza v Ljubljani

MEĐUNARODNI INTERDISCIPLINARNI ZNANSTVENI SIMPOZIJ

# UTJECAJ SUVREMENE TEHNIKE NA ČOVJEKA I NJEGOVO SEBERAZUMIJEVANJE

FAKULTET FILOZOFIJE I RELIGIJSKIH ZNANOSTI,  
JORDANOVAC 110, ZAGREB, 20. STUDENI 2020.



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## INTERNATIONAL SYMPOSIUM

# THE IMPACT OF MODERN TECHNOLOGY ON THE HUMAN BEING AND ITS SELF-UNDERSTANDING

FACULTY OF PHILOSOPHY AND RELIGIOUS STUDIES,  
ZAGREB, 20 NOVEMBER 2020.

# PROGRAM

9.45-10.00

10.00 – 10.15

Prijava sudionika

## Otvaranje simpozija

Ivan Koprek, dekan Fakulteta filozofije i religijskih znanosti,  
Sveučilište u Zagrebu

### PRVA SESIJA

Moderatori: Ines Skelac – Ivan Šestak

10.15 – 10.30

**Duboko učenje: jučer, danas, sutra**

**Deep Learning: past, present, future**

Sandro Skansi, *Fakultet hrvatskih studija, Sveučilište u Zagrebu*

10.30 – 10.45

**Razvoj ljudskoga mozga i nove tehnologije**

**The human brain development and new technologies**

Goran Sedmak, *Medicinski fakultet, Sveučilište u Zagrebu,  
Hrvatski institut za istraživanje mozga*

10.45 – 11.00

**Um odlazi, jastvo ostaje**

**When the mind goes, the self stays put**

Marina Novina – Ana Grgić, *Fakultet filozofije i religijskih  
znanosti, Sveučilište u Zagrebu, Institut za filozofiju, Zagreb*

11.00 – 11.15

Rasprava

11.15 – 11.30

Pauza

### DRUGA SESIJA

Moderatori: Barbara Ćuk – Marija Džinić

11.30 – 11.45

**Praktični aspekti i etičke dileme primjene bespilotnih  
letjelica**

**Practical aspects and ethical dilemmas of unmanned  
aerial vehicle use**

Danijel Pavković – Matija Krznar, *Fakultet strojarstva i brodo-  
gradnje, Sveučilište u Zagrebu*

11.45 – 12.00

**Ljudi i nova digitalna prometna okolina**

**People and the new digital traffic environment**

Edouard Ivanjko, *Fakultet prometnih znanosti, Sveučilište u  
Zagrebu*



## **UTJECAJ SUVREMENE TEHNIKE NA ČOVJEKA I NJEGOVO SEBERAZUMIJEVANJE**

**12.00 – 12.15**

### **Filozofkinje na mreži Women Philosophers online**

Luka Boršić – Ivana Skuhala Karasman, *Institut za filozofiju, Zagreb*

**12.15 – 12.30**

### **Poučavanje u doba promjena Teaching Through Times of Change**

Ines Skelac, *Fakultet filozofije i religijskih znanosti, Sveučilište u Zagrebu*

**12.30 – 12.45**

Rasprava

**12.45 – 13.15**

Pauza

## **TREĆA SESIJA**

**Moderatori: Marina Novina – Barbara Ćuk**

**13.15 – 13.30**

### **Virtualne zajednice - između virtualne stvarnosti i stvarne virtualnosti**

**Virtual Communities - Between Virtual Reality and Real Virtuality**

Krešimir Peračković – Hrvoje Petrinjak, *Institut društvenih znanosti "Ivo Pilar"- Filozofski fakultet, Sveučilište u Zagrebu*

**13.30 – 13.45**

### **Crno ogledalo, poboljšanje i nemogućnost zaboravljanja**

**Black Mirror, Enhancement and the Impossibility of Forgetting**

Miša Đurković, *Institut za evropske studije, Beograd*

**13.45 – 14.00**

### **Izazovi moralu i religiji u modernom sekularnom dobu: autentičnost, New Age i transhumanizam**

**Challenges for morality and religion in the modern secular age: authenticity, New Age, and transhumanism**

Bojan Žalec, *Teološki fakultet, Sveučilište u Ljubljani*

14.00 – 14.15	<b>Posthumanizam: posljednji savez čovjeka i tehnike protiv Neba</b> <b>Posthumanism: the last alliance of man and technology against Heaven</b> Aleksandar Gajić, <i>Institut za evropske studije, Beograd</i>
14.15 – 14.30	Rasprava
14.30 – 15.00	Pauza

## ČETVRTA SESIJA

**Moderatori: Marina Novina – Ivan Šestak**

15.00 – 15.15	<b>Tehnološka paradigma i moderni antropocentrizam u enciklici <i>Laudato si'</i></b> <b>Technocratic paradigm and modern anthropocentrism in the Encyclical letter <i>Laudato si'</i></b> Klara Ćavar – Marija Džinić, <i>Teološko-katehetski odjel, Sveučilište u Zadru - Fakultet filozofije i religijskih znanosti, Sveučilište u Zagrebu</i>
15.15 – 15.30	<b>Moralna nutrina u kontekstu dominacije tehničkih i ostalih pozitivnih znanosti</b> <b>Moral Interiority in the Context of Dominance of the Technical and Other Positive Sciences</b> Tadija Milikić, <i>Fakultet filozofije i religijskih znanosti, Sveučilište u Zagrebu</i>
15.30 – 15.45	<b>Samospoznaja i spoznaja Boga u virtualnom svijetu</b> <b>Cognitio sui and cognitio Dei in virtual world</b> Barbara Ćuk, <i>Fakultet filozofije i religijskih znanosti, Sveučilište u Zagrebu</i>
15.45 – 16.00	Rasprava



## **UTJECAJ SUVREMENE TEHNIKE NA ČOVJEKA I NJEGOVO SEBERAZUMIJEVANJE**

### **Organacijski odbor:**

*Barbara Ćuk*, docentica (predsjednica odbora), Fakultet filozofije i religijskih znanosti, Sveučilište u Zagrebu

*Marina Novina*, docentica, Fakultet filozofije i religijskih znanosti, Sveučilište u Zagrebu

*Ivan Šestak*, redoviti profesor, Fakultet filozofije i religijskih znanosti, Sveučilište u Zagrebu

*Mikolaj Martinjak*, asistent, Fakultet filozofije i religijskih znanosti, Sveučilište u Zagrebu

*Bojan Žalec*, redoviti profesor, Teološki fakultet, Sveučilište u Ljubljani

*Miša Đurković*, znanstveni savjetnik, Institut za evropske studije, Beograd

*Aleksandar Gajić*, viši znanstveni suradnik, Institut za evropske studije, Beograd

*Josef Quitterer*, redoviti profesor, Katolički teološki fakultet, Sveučilište u Innsbrucku

### **Programski odbor:**

*Barbara Ćuk*, docentica, Fakultet filozofije i religijskih znanosti, Sveučilište u Zagrebu

*Marina Novina*, docentica, Fakultet filozofije i religijskih znanosti, Sveučilište u Zagrebu

*Ivan Šestak*, redoviti profesor, Fakultet filozofije i religijskih znanosti, Sveučilište u Zagrebu

*Miša Đurković*, znanstveni savjetnik, Institut za evropske studije, Beograd

*Josef Quitterer*, redoviti profesor, Katolički teološki fakultet, Sveučilište u Innsbrucku

### **Organizatori simpozija:**

Fakultet filozofije i religijskih znanosti, Sveučilište u Zagrebu

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Katholisch-Theologische Fakultät, Universität Innsbruck, Institut für Christliche Philosophie

Teološka fakulteta, Univerza v Ljubljani

**Jezici simpozija:** engleski jezik, hrvatski jezik

SANDRO SKANSI

### Duboko učenje: jučer, danas, sutra

Duboko učenje je danas dominantna paradigma umjetne inteligencije. O ovom ćemo izlaganju istražiti nastanak ove paradigme (i, općenitije, kibernetike) iz filozofije 1943., njene tehničke i filozofske ambicije, način funkciranja osnovnih modela (usporedba obične neuronske mreže i LSTM-a), i limitacije koje je pokazao bAbI skup podataka.

### Deep Learning: past, present, future

Deep learning is at present the dominant paradigm in Artificial Intelligence. In this exposition we will explore the birth of this paradigm (and, more generally, cybernetics) from philosophy in 1943., its technical and philosophical ambitions, the functionality of basic models of deep learning (comparison of a simple neural network and an LSTM), and the limitations delineated by the bAbI dataset.

GORAN SEDMAK

### Razvoj ljudskoga mozga i nove tehnologije

Razvoj ljudskoga mozga je složen i dugotrajan proces. Završetak razvoja mozga događa se između 25. i 30. godine života. Prema dostupnim studijama više od 80% ljudskih gena sudjeluje u procesima razvoja ljudskoga mozga. Poremećaj u bilo kojem periodu ili bilo kojeg od gena može dovesti do značajnih promjena u načinu funkcioniranja mozga. U mnogim raspravama postavlja se pitanje koliki je utjecaj gena, a koliki je pak utjecaj okoline na razvoj našega mozga. Moderna neuroznanstvena istraživanja pokazala su da na razvoj mozga jednako utječe i geni i okolina, te da je za normalan razvoj mozga važna interakcija ovih dvaju čimbenika. Stoga i nove tehnologije značajno utječu na razvoj ljudskoga mozga. Je li taj utjecaj novih tehnologija na razvoj mozga pozitivan ili negativan, moći ćemo utvrditi tek u narednim godinama. No jedna je činjenica sigurna – nove tehnologije zaista utječu na razvoj ljudskoga mozga.

### The human brain development and new technologies

The human brain development is a protracted and complicated process. The end of brain development can be placed between 25 and 30 years. According

to recent studies, more than 80% of human genes are involved in brain development. The disorder of any gene at any time point can significantly change the way a brain function. A lot of debates argue how big is the influence of genes, and environment on the brain development processes. The modern neuroscience research has shown that both genes and environment have the same influence on the brain development. Therefore, new technologies can significantly influence brain development. However, is this influence positive or negative will be determined in the coming years, but one fact is certain – new technologies are influencing the human brain development.

## MARINA NOVINA – ANA GRGIĆ

### Um odlazi, jastvo ostaje

Prije više od dvadeset godina u filozofski je *milieu* uvedena ideja proširenog uma (PU). Njezini autori, Andy Clark i David Chalmers, tu su ideju zasnovali na svojoj intuiciji. Teško je suprotstaviti se ljudskim intuicijama. To se čini groznim izborom – intuiciju ili imate ili nemate. Ako ju imate, onda se te intuicije pridržavate i podupirete je novim ili poboljšanim argumentima, a isto vrijedi i za prigovore koje možda imate. Kada je 1998. članak “The extended mind” objavljen, postao je najcitatiraniji filozofski članak toga desetljeća. Filozof Ned Block kazao je da je teza o PU 1998. bila neistinita, ali da je danas istinita. Što se dogodilo da se ona danas čini istinitom?

Ideja PU protivi se intuiciji da “sve što je važno u pogledu [našeg] uma mora ovisiti isključivo o onome što se zbiva unutar [naše] vlastite kože, unutar stare tvrđave kože i lubanje” (Andy Clark, citiran u *New Yorkeru* 2. travnja 2018). Nadalje, ideja PU niječe da su osobe same po sebi potpune i da im ne treba pomoći. Pomoći što je zagovornici PU nude samo su obična oruđa kojima se svakodnevno koristimo, kao što su olovke i papiri, bilježnice, mobiteli, papirići za bilješke i tako dalje, koje inkorporiramo u naše mišljenje ili, točnije, kojima se koristimo kako bismo imali misli koje inače nikad ne bismo imali. Zagovornici PU sa svojom intuicijom idu i dalje. Činjenica da se koristimo svojim mobitelima kako bismo zapamtili telefonske brojeve, rođendane, dnevne rasporedе, izračune ili kako bismo se snalazili u svijetu na najprirodniji način čini kiborzima, naime zato što u svoje najintimnije jastvo inkorporiramo vanjske uređaje. I u tome je kvaka. Zagovornici PU

tvrđili bi da kamo ide um, slijedi ga jastvo. Dakle, ne samo da inkorporiramo vanjske uređaje u naše najintimnije jastvo nego jastvo prenosimo u njih.

U ovome izlaganju želimo iznijeti neke prgovore ideji da se jastvo može proširiti onako kao što to tvrde Clark i Chalmers. Svoje prgovore temeljimo na trima skupinama razloga. Prvo, iako postoji krajne raznolike koncepcije ljudskog jastva, u ovome je kontekstu o jastvu najprimjerenije razmišljati kao o utjelovljenoj individui. Ako je tako, onda ga u prvom redu valja shvatiti kao *biološki* utjelovljenu individuu, odakle slijedi da se ono ne može protegnuti izvan bioloških granica ljudskog organizma. Drugo, pojedino mentalno stanje karakteristično za tako shvaćeno jastvo ne može se promatrati izolirano od čitave mreže mentalnih stanja, tako da ako, primjerice, i možemo protegnuti ljudsku memoriju, to ne znači da smo time protegnuli jastvo. Treće, i povezano s time, kad bismo jastvo i mogli proširiti, to bi bilo krajnje nepoželjno, jer nikad ne bismo mogli biti sigurni da je ono što smo proširili uistinu jastvo. Stoga možemo zaključiti da ako i jest moguće da um ode i odluta, jastvo ipak ostaje.

### **When the mind goes, the self stays put**

More than twenty years ago, the idea of an extended mind (EM) was introduced to the philosophical milieu. Its proclaimers, Andy Clark and David Chalmers, based the idea of the EM on an intuition which they had. It is hard to confront people's intuitions. It seems like an awful choice – you either have it or you don't. If you have it, then you go on and back it up with new or improved arguments, and the same applies to the objections you may have. Back then in 1998 when the paper "The extended mind" was published, it became the most-cited philosophy paper of its decade. The philosopher Ned Block said that the EM thesis was false in 1998 but is true now. What has happened that made it true now?

The idea of the EM goes against intuition "that whatever matters about [our] mind[s] must depend solely on what goes on inside [our] own biological skin-bag, inside the ancient fortress of skin and skull" (Andy Clark, cited in *New Yorker*, April 2, 2018). Furthermore, it rejects that persons are complete in themselves and in no need of help. The help which proclaimers of the EM are offering is just ordinary tools which we use daily, like pens and papers, notebooks, cell phones, post-its, and so on, which we incorporate into our thinking, or more accurately, which we use in order to think thoughts we could never have otherwise. The proclaimers of the EM go further in grasping their intuition. The fact that we use our cell phones for memorizing phone numbers, birthdays, daily schedules, calculations, or finding our way

in the world, makes us cyborgs in the most natural way, namely, because we incorporate external devices into our most intimate self. And here is the catch. The proclaimers of the EM would say that where the mind goes, the self follows. Hence, it is not just that we incorporate external devices into our most intimate self, but we also transmit self on them.

In this paper, we want to make some objections to the idea that the self can be extended in the way proposed by Clark and Chalmers. We base our objections on three groups of reasons. First, while there are vastly different conceptions of the human self, the self is in this context most appropriately understood as an embodied individual. Consequently, it is first and foremost *biologically* embodied individual, from which it follows that it cannot be extended beyond the biological limits of the human organism. Second, a particular mental state that is characteristic of the self as a biologically embodied individual cannot be grasped as insulated from the entire net of mental states; consequently, the extension of, say, human memory does not entail the extension of the self. Third, and related to this, even if the self could be extended, this would be highly undesirable, since we could never be certain that the extended mind is the true self. In conclusion, we believe that even if it possible for the mind to go and wander away, the self stays put.

## DANIJEL PAVKOVIĆ – MATIJA KRZNAR

### Praktični aspekti i etičke dileme primjene bespilotnih letjelica

Bespilotne letjelice su zbog svoje fleksibilnosti osobito korisne za obavljanje različitih zadataka, te se stoga sve češće primjenjuju u civilnom sektoru za podršku iz zraka prilikom nadgledanja katastrofa, misije traženja i spašavanja, za precizna poljoprivredna i geodetska mjerena. Nadalje, bespilotne letjelice se u posljednja dva desetljeća sve više koriste i za različite vojne primjene, kao što su primjerice izviđanje i podrška kopnenim snagama te izravno borbeno djelovanje. Budući da su svojim opsegom primjena i djelovanja bespilotne letjelice postale dio naše svakodnevice, sve češće se postavlja pitanje sigurnosti i etičnosti njihove primjene. Ovdje se poglavito misli na sigurnost zračnog transporta i potencijalne rizike narušavanja privatnosti pojedinca, ali i na etičke aspekte primjene letjelica s povećanom razinom autonomnosti u odlučivanju, poglavito u sigurnosno osjetljivim misijama.

Cilj je ovoga predavanja upoznati slušatelje, a potom i čitatelje s tehničkim mogućnostima primjene bespilotnih letjelica, ali i iznijeti potencijalne etičke dvojbe u njihovoј primjeni.

## **Practical aspects and ethical dilemmas of unmanned aerial vehicle use**

Unmanned aerial vehicles are exceptionally useful for executing different tasks due to their flexibility, and are thus frequently used in the civilian sector for air support in disaster management, search and rescue missions, precise agriculture and surveying. Moreover, unmanned aerial vehicles have been increasingly used for different military applications, such as reconnaissance and ground force support roles, and for direct battlefield action. Since unmanned aerial vehicles have become a part of everyday life due to their widespread use and variety of applications, there is an increasing concern with their operational safety and ethical aspects of their use. This is primarily associated with the air traffic safety and potential risks of individual privacy rights, but also with the ethical aspects of using unmanned aircraft with increased decision autonomy, especially in sensitive security-related missions. The aim of this lecture is to bring closer to the interested audience both the technical aspects of the unmanned aircraft use and analyze potential ethical dilemmas of their application in different situations.

## **EDOUARD IVANJKO**

### **Ljudi i nova digitalna prometna okolina**

Od davne povijesti je za ljudsku civilizaciju važan transport ljudi, dobara i podataka. Za transport su se koristila različita tehnička rješenja koja su omogućavala civilizacijama veliki napredak kao i dominaciju nad drugima. Cestovni je transport jedan od najstarijih oblika transporta. Povijest svjedoči o njegovu snažnom razvoju. Automobil, kao najčešće prometno sredstvo značajno je promijenio izgled naših gradova, a čemu su pridonijeli i sustavi upravljanja prometom i to od prvog ljudski upravljanoga semafora pa sve do cjelovitoga integriranoga sustava upravljanja prometom u sklopu paradigmе pametnoga grada, koji utjelovljuje koncept sveznajućega velikoga brata s mogućnošću učenja i poboljšavanja tijekom rada. Pri tome takav sustav upravljanja u svakom trenutku prati sve korisnike prometa, njihove odluke i promjene u samoj infrastrukturi. Sustav također prati i odluke operatera, izlučuje posljedice učinjenih odluka te sprema snimljene zapise za buduće korištenje. Takav nadzor značajno mijenja ponašanje korisnika prometa u smislu boljeg poštivanja prometnih pravila, vremena odziva vozila žurnih

službi te povećanja atraktivnosti javnoga gradskoga prijevoza. Osim toga, u tijeku je vrlo intenzivan razvoj umreženih i autonomnih vozila koja su jedan oblik mobilnih roboata. Za njihov siguran rad su bitna tri zakona roboteike Isaaca Asimov-a. Umrežena i autonomna vozila će rasteretiti ljude od aktivnoga upravljanja vozilom te povećati propusnost postojeće prometne infrastrukture, a što je i motivacija za njihov razvoj. Postavlja se naravno pitanje, kada će ljudi dostatno vjerovati takvim autonomnim vozilima. Ostaju i otvorena pitanja glede neizbjegnjenih nesreća – žrtvovati primjerice putnike u vozilu ili druge ljude u blizini? Rješenja za takve 'dileme' autonomnih vozila morat će u njihov sustav ugraditi čovjek, njihov tvorac, na temelju vlastitih moralnih i etičkih načela.

## **People and the new digital traffic environment**

From ancient history, the transport of people, goods, and data has been essential for human civilization. Various technical solutions were used in transport to enable civilizations to make significant progress and dominate over others. The road transport mode is one of the oldest and has been subject to considerable development and substantial changes throughout history. As the most common means of road transport, the availability of cars has significantly changed the appearance of our cities, including traffic management systems. From the first human-driven traffic light to a fully integrated traffic management system within the smart city paradigm embodying an omniscient big brother concept with the ability to learn and improve during operation. Simultaneously, such a management system continuously monitors all available traffic users, their decisions, and changes in the infrastructure itself. It also monitors operator decisions, studies the consequences of decisions made, and stores acquired knowledge for future use. Such established full supervision significantly changes traffic users' behaviour in terms of better compliance with traffic rules, emergency vehicles' response time, and increasing the attractiveness of public transport. Besides, the development of connected and autonomous vehicles, a form of mobile robots, is currently very intensive. Isaac Asimov's three laws of robotics are important for their safe work. Networked and autonomous vehicles will relieve people of active vehicle management and increase the throu-

ghput of the existing transport infrastructure, which motivates their development. There is an open question when people will trust the machine enough to transport them without their influence on the transport process. This open question is especially important in cases of an unavoidable incident in which a living being, animal, or human will be injured. A moral dilemma arises that the machine has to solve by using the knowledge and experience of man. Sacrifice the passengers in the vehicle or other people from the vehicle's environment? The needed knowledge to make such a decision can only come from humans' moral and ethical principles as creators of such machines, or in this case, connected and autonomous vehicles.

## LUKA BORŠIĆ – IVANA SKUHALA KARASMAN

### Filozofkinje na mreži

U izlaganju će biti riječi o prednostima i nedostatcima interneta pri uvrštavanju filozofkinja u kanon povijesti filozofije. Dostupnost državnih i crkvenih arhiva, digitaliziranje knjižnih fondova i pristupačnost znanstvenih radova, značajno je pridonijelo otkrivanju „novih“ filozofkinja. Naime, pokret uvrštavanja filozofkinja u kanon povijesti filozofije teče paralelno sa sve većom dostupnošću izvora pa se pod tim vidikom može s pravom reći da je razvoj interneta zaslužan za taj dio sveopće povijesti filozofije. Osim proučavanja samih podataka i djela o filozofkinjama, otvorila se i mogućnost lakše suradnje među proučavateljima povijesti filozofije u svijetu tako da su se stvorile kritične mase znanstvenika sličnih interesa te su se оформili centri za proučavanje povijesti filozofkinja (npr. Center of the History of Women Philosophers and Scientists u Paderbornu). Navest ćemo kao primjer naše proučavanje austrijske filozofkinje hrvatskoga porijekla Helene Druskowitz (1856.-1918.).

### Women Philosophers online

In the presentation, we will talk about the advantages and disadvantages of the Internet in respect of the inclusion of women philosophers in the canon of the history of philosophy. The digitization of book collections and the accessibility of scholarly articles, as well as the availability of state and church archives, have significantly influenced the discovery of “new” women philosophers. The movement of including women philosophers in the canon of the history of philosophy runs in parallel with the increasing availability of sources, so we would almost dare to say that the development of the Internet

is responsible for this part of the universal history of philosophy. Moreover, the Internet has significantly enhanced various possibilities of establishing cooperations among researchers of the history of philosophy in the world so that there have emerged the critical masses of scientists of similar interests and various centres for studying the history of women philosophers were established (e.g. The Centre of the History of Women Philosophers and Scientists in Paderborn). As an example, we will cite our study of the Austrian philosopher of Croatian origin, Helene Druskowitz.

## **INES SKELAC**

### **Poučavanje u doba promjena**

Pandemija uzrokovana SARS-CoV-2 virusom uzrokovala je različite promjene i izazove u našem osobnom i profesionalnom životu. Veći je dio komunikacije postao virtualan, pri čemu koristimo različite online platforme. To je utjecalo na naše živote na različite načine: prvo, teško je prihvatići da smo morali promijeniti mnoge svoje svakodnevne navike. Drugo, pojavilo se mnogo nesigurnosti i brige za vlastito zdravlje i zdravlje drugih. Treće, morali smo promijeniti svoj način rada, odnosno početi koristiti različite digitalne platforme za poučavanje studenata. To je uzrokovalo potrebu za dekonstrukcijom naših životnih i profesorskih rutina. Nadalje, moguće je i da se naš način seberazumijevanja promjenio. Tijekom izrade ovoga izlaganja intervjuirani su profesori s različitih fakulteta ( $n=10$ ) i analizirana su njihova iskustva.

S druge strane, studenti su također u izazovnoj poziciji. Teško im je učiti nove stvari bez izravnoga kontakta s profesorima i kolegama. Nadalje, za neke je od njih ova situacija i emocionalno izazovna jer nemaju fiksni raspored i predavanja. Prema tome, profesori, osim poučavanja studenata istih sadržaja kao i ranije, ali na novi način, također trebaju studentima biti podrška.

U ovom će predavanju biti prikazani i rezultati upitnika o studenskim potrebama u ovo novo, digitalno doba studiranja. U istraživanju su sudjelovali studenti triju fakulteta ( $n=60$ ).

Konačno, ponudit će se zaključci i prijedlozi temeljeni na rezultatima upitnika i intervjeta.

## **Teaching Through Times of Change**

The pandemic caused by SARS-CoV-2 virus caused different changes and challenges in our personal and professional life. Most of the communication became virtual, using different online platforms. This has been influencing on our lives on different levels: firstly, it was tough to accept that we had to change a lot of your everyday habits. Secondly, there is a lot of uncertainty and care for your health and other peoples' health. Thirdly, we had to change our way of working; i.e., start using different digital platforms for teaching students. This caused a need for a deconstruction of our routines of living and teaching. Further, our way of self-understanding might be changed. During the preparing of this presentation, interviews with professors from four different faculties were conducted ( $n=10$ ), and their experiences were analysed.

On the other hand, students are also in a challenging position. They find it difficult to learn new things without direct contact with their professors and colleagues. Further, some of them experience emotional challenges, as they do not have a fixed schedule and lectures. Therefore, professors, except teaching the students the same contents they had taught them before, but in a new way, also should provide support for them.

In this presentation, the results of a questionnaire about students' needs in this new, digital era of studying will be shown. The students of three different colleges were participated ( $n=60$ ).

In the end, we will provide conclusions and suggestions based on the results of the questionnaire and the interviews.

## **KREŠIMIR PERAČKOVIĆ – HRVOJE PETRINJAK**

### **Virtualne zajednice - između virtualne stvarnosti i stvarne virtualnosti**

Informatička tehnologija je u posljednja tri desetljeća ušla u sve sfere ljudskih života a današnje generacije mlađih srednjoškolske i studentske dobi su već od najranijega djetinjstva odrastale upotrebljavajući razne uređaje i aplikacije, kako za učenje i školske obaveze, tako i za igru i zabavu. Razvojem komunikacijskih tehnologija i društvenih mreža, dolazi također i do pojave novoga tipa virtualnih društvenih odnosa koji u mnogim slučajevima postaju i *virtualne zajednice*.

Iako su takvi obrasci djelovanja kod većine pripadnika mlađe i srednje generacije već prilično ukorijenjeni (što nam pokazuju i podaci Državnoga zavoda za statistiku o rastu informatičke pismenosti), ovogodišnja globalna

pandemija naglo i brzo je nametnula i većem djelu radno-aktivnog stanovništva upravo život u virtualnoj stvarnosti, koja sada poprima i svoju inverznu dimenziju o kojoj je govorio Castells: postaje *stvarna virtualnost*. Budući da virtualno postaje realno s obzirom na iskustvo aktera i posljedice, a ne više samo prostor za povremenu zabavu i komunikaciju mladih na društvenim mrežama, u ovom radu se propituje koliko su društveni odnosi u uvjetima prisilnoga prostornoga distanciranja, transformirani pa i transportirani od tradicionalnih društvenih odnosa u primarnim zajednicama u nove obrasce virtualne interakcije.

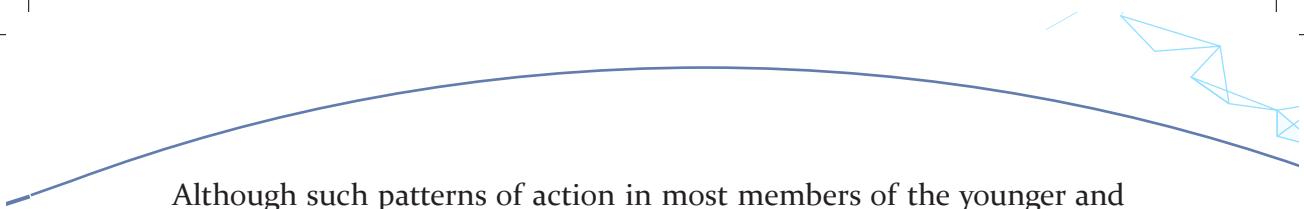
Iz tog razmatranja nameću se nužno i pitanja jesu li te *virtualne zajednice* u pravom smislu riječi *zajednice* prema klasičnoj sociološkoj definiciji F. Tönniesa, te je li ta nova *virtualna društvenost* zaista društvenost kakvu smo prije podrazumjevali, ili ti novi obrasci od nas traže određenu teorijsku rekonceptualizaciju i redefiniranje klasičnih pojmoveva u društvenim i humanističkim znanostima.

Stoga se najprije polazi od danas već zaboravljenoga temeljnoga pojma *zajednice* koju Tönnies razlikuje od pojma *društva*, te se posebno razmatra pojam koji on uvodi: *duhovna zajednica* kao ona u kojoj članovi nisu povezani krvno niti mjestom, već zajedničkim mentalnim životom zajedničkim su-djelovanjem u istom pravcu i istom smislu. Upravo se taj pojam može povezati i sa suvremenim konceptom virtualne zajednice kako ga definira H. Rheingold. Riječ je o zajednicama koje nastaju kada ljudi nastavljaju javne rasprave putem Interneta dovoljno dugo, sa dostatnim ljudskim osjećajem, da čine mreže osobnih odnosa.

Osim navedenoga, u radu će biti dan i kraći pregled teorije informacijskog društva M. Castella, koja je već postala temeljni okvir za razumijevanje suvremenih društvenih procesa i polazna točka za empirijskih istraživanja o pozitivnim i negativnim učincima novih tehnologija na društvo i na svakodnevne obrasce ljudskih života.

## **Virtual Communities - Between Virtual Reality and Real Virtuality**

Information technology has entered all spheres of human life in the last three decades and today's generations of young people of high school and student age have grown up from the earliest childhood using various devices and applications, either for learning and school obligations or for play and entertainment. With the development of communication technologies and social networks, a new type of virtual social relations is also emerging, which in many cases become *virtual communities*.



Although such patterns of action in most members of the younger and middle generation are already quite ingrained (as shown by the data of the Central Bureau of Statistics on the growth of information literacy), this year's global pandemic suddenly and quickly imposed on the majority of the working population, life in virtual reality which now also takes on its inverse dimension of which Castells spoke: it becomes *real virtuality*. Since the virtual becomes real if we consider the experience of actors and consequences, and no longer just a space for occasional entertainment and communication of young people on social networks, this paper examines how social relations in conditions of forced spatial distancing, transformed and even transported from traditional social relations in primary communities into new patterns of virtual interaction.

This consideration necessarily raises the question of whether these *virtual communities* are in the true sense of the word *community* according to the classical sociological definition of F. Tönnies and whether this new *virtual sociability* is really the sociability we understood before, or whether these new patterns require a certain theoretical reconceptualization and redefining classical concepts in the social sciences and humanities.

Therefore, we first start from the now-forgotten basic notion of *community* that Tönnies distinguishes from the notion of society and especially consider the notion he introduces: a *spiritual community* as one in which members are not connected by blood or place but by common mental life through joint co-operation in the same direction and in the same sense. In particular, this term can be related to the modern concept of virtual community as defined by H. Rheingold, which arises when people continue public debates via the Internet long enough, with sufficient human feeling, to form networks of personal relationships.

In addition, the paper will present a brief overview of M. Castells' theory of information society, which has already become a fundamental framework for understanding modern social processes and a starting point for empirical research on the positive and negative effects of new technologies on society and everyday life patterns.

**MIŠA ĐURKOVIĆ**

**Crno ogledalo, poboljšanje i nemogućnost zaboravljanja  
Black Mirror, Enhancement and the Impossibility of Forgetting**

Modern cognitive and experimental science is increasingly working to explore the meaning and importance of forgetting. Forgetting happens to be

one of the most important mental functions on an individual level, since it enables healing, purification of thoughts from difficult memories, prevents obsession with problems and eliminates the possibility of psychosomatic illnesses. On the other hand, like a computer, with memory cleared of redundant and unnecessary data, the brain processor processes data better, performs cognitive operations faster, connects laterally, etc. In Christianity, repentance and confession have a deep therapeutic function of resolving and then suppressing the thoughts that burden a person.

At the level of marital relations, partners overcome crises and also through forgetfulness, try to suppress past problems and build on what is valuable, what connects them and what leads them further. Digging through marriage histories can lead to tragedies like the one described in Ibsen's *Wild Duck*.

At the level of collective memory, as Ernest Renan warned, the functioning of a nation depends not only on common memory but also on common forgetting of certain unpleasant moments from the history or genealogy of nations. Contemporary Spain is the best example of the "usefulness of the forgetting" strategy that the nation chose after Franco's death.

The famous British TV series *Black Mirror*, which has become a symbol for the challenges that modern and futuristic technology bring to man, in a number of episodes deals with the problems that arise due to the obsession of gadget culture with abolishing of forgetting through technological enhancement. Several important episodes are based on gadgets that expand memory and make it constantly available, not only to an individual actor but also to a whole range of other subjects to whom data from people's history is available. As *Facebook* reminds us of beautiful events without our consent, in the *Black Mirror* some less benevolent actors extract unpleasant, humiliating and compromising moments, blackmail us or use them for endless punishment. In addition, such possibilities encourage us to endlessly dig through our own and other people's histories, to reconstruct the deceased people we miss from the data left on social networks, to play horror narratives for players based on one's deep fears, or to keep the complete consciousness of the deceased on the hard disk, in your brain or in the AI egg.

The black mirror speaks very convincingly about the society that is around the corner. In a dialogue with Brooker's ideas, the author re-examines the problems spawned by this future society without forgetting and asks Chernyshevsky's old question from 1862, but from a completely different

ideological perspective: *Что(возможно) делать?* The answer probably lies in the only thing that this *oblivion-less* culture tries to forget – Christian roots of our culture.

### BOJAN ŽALEC

#### Izazovi moralu i religiji u modernom sekularnom dobu: autentičnost, New Age i transhumanizam

Izlaganje ima tri glavna dijela. U prvom se dijelu autor bavi sekularnošću i autentičnošću kao glavnim obilježjima našega doba. U drugom dijelu analizira i uspoređuje transhumanizam i New Age, poglavito sa stajališta njihove kompatibilnosti sa suvremenom zapadnom moralnom i političkom gramatikom. U trećem dijelu donosi neke zaključke o vrijednosti autentičnosti i odgovarajućim zadacima vjerskih zajednica i institucija.

#### Challenges for morality and religion in the modern secular age: authenticity, New Age, and transhumanism

This paper has three main parts. In the first part, the author deals with secularity and authenticity as the main characteristics of our age. In the second part, he analyses and compares transhumanism and New Age, primarily from the point of view of their compatibility with the modern Western moral and political grammar. In the third part, he draws some conclusions about the value of authenticity and corresponding tasks of religious communities and institutions.

### ALEKSANDAR GAJIĆ

#### Posthumanizam: posljednji savez čovjeka i tehnike protiv Neba

U radu se proučavaju nastanak, razvoj, glavni predstavnici i osnovne karakteristike posthumanističkog pokreta, zatim njegove normativne pozicije i ciljevi (uključujući tu u odnos prema tehnici i prirodi), kao i sličnosti i razlike koje suvremeni posthumanizam ima s transhumanizmom. Kako bi se, potom, posthumanistički pokret usporedio s humanističkim modernizmom i uočile njihove osnovne sličnosti i razlike, koje su od ključne važnosti za razumijevanje odnosa čovjeka i tehnike prema prirodnim datostima, u drugom dijelu rada se ukazuje na osnovne karakteristike modernoga humanističkoga antropocentrizma i njegova stava prema tehnici. Završni dio rada tiče se kritike posthumanizma iz perspektive kršćanskoga personalizma koji nam otvara mogućnosti drugačijeg sagledavanja problematike postmodernoga življenja koje posthumanizam želi nadići.

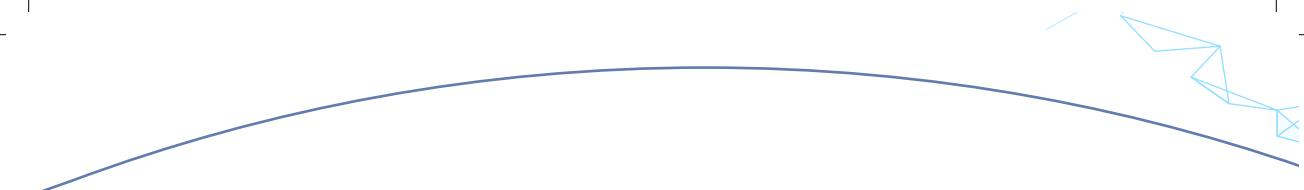
## **Posthumanism: the last alliance of man and technology against Heaven**

The Paper studies the origin, development, main representatives and basic characteristics of the Post-humanist movement, its normative positions and goals (including relation towards technology and nature), as well as the similarities and differences that modern Post-humanism has with Trans-humanism. To compare the Post-humanist movement with humanistic modernism and notice their basic similarities and differences that are crucial for understanding the relationship of man and technology towards natural conditions, the second part of the Paper points out the basic characteristics of modern humanistic anthropocentrism and its attitude towards the technique. The final part of the Paper concerns the critique of Post-humanism from the perspective of Christian personalism, which opens up possibilities for us to have a different view of the problems of postmodern living that Post-humanism wants to overcome.

### **KLARA ĆAVAR – MARIJA DŽINIĆ**

#### ***Tehnološka paradigma i moderni antropocentrizam u enciklici Laudato sì***

Enciklika *Laudato sì* značajan je dokument ne samo za Crkvu već i za čitav svijet. Nikada prije nije na tako originalan način potaknuto pitanje ekološke krize te utjecaja tehnologije na čovjeka. Sveti otac Franjo obraća se svim ljudima dobra volje potičući ih na brigu za »zajednički dom«. Proglašava pogrešnim arogantno i antropocentrično poimanje prirode. Nasuprot tome, predlaže koncept »cjelovite ekologije« koja obuhvaća ne samo odnose čovjeka i prirode, već i odnose među ljudima općenito. Apelirajući na nužnost refleksije nad svim ugrozama prirode, osuđuje dominantnu tehnokratsku paradigmu, potrošačku kulturu i praktični realizam. Upravo je koncept tehnokratske paradigme, razrađen unutar enciklike, glavna okosnica izlaganja. Pohvaljujući dosege tehnoznanosti i sve doprinose koje moderna tehnika čini, ističe važnost njene pravilne usmjerenosti. Upozorava kako čovjek »nikada nije imao toliku moć nad samim sobom i ne postoji nikakvo jamstvo da će ju dobro koristiti, poglavito ako se promatra način na koji se njome služi« (br. 104). Čovječanstvo je prihvatiло tehnologiju prema nediferenciranoj



i jednodimenzionalnoj paradigm. »Ta paradigm veliča poimanje subjekta koji, koristeći logičke i racionalne postupke, postupno pristupa i stječe kontrolu nad vanjskim objektom« (br. 106). Upravo ona razvija kulturu relativizma »koji drži nevažnim sve drugo osim onoga što služi vlastitim neposrednim interesima« (br. 122). Odlika je ovo modernog antropocentrizma koji veliča tehnički um a tehničku misao pretpostavlja stvarnosti umanjujući tako vrijednost svijeta u sebi. Izlaganjem se nastoji približiti razumijevanje odnosa tehnologije i čovjeka suvremena doba, onako kako ga vidi Sveti otac Franjo, te ukazati na poteškoće te možebitne perspektive istoga.

### ***Technocratic paradigm and modern anthropocentrism in the Encyclical letter Laudato si***

Encyclical letter *Laudato si* is a very important document not only for the Church but also for the world. The issue of the ecological crisis and the impact of technology on a man has never been so originally actuated. Pope Francis exhorts all the people of goodwill to take care of our »common house«. He declares the wrong arrogant and anthropocentric conception of nature. In contrast, he proposes a »comprehensive ecology« embracing the relationship between man and nature and the relationship between the people. Appealing to the necessity of reflection on all threats to nature, he condemns the dominant technocratic paradigm, the consumer culture and practical realism. The technocratic paradigm is a central point of the exposition. Praising the achievements of technology and all the contributions that modern technology makes, he emphasizes the importance of its proper focus. He warns that »never has humanity had such power over itself, yet nothing ensures that it will be used wisely, particularly when we consider how it is currently being used« (n. 104). Pointing on requisiteness to reflect on endangered nature, he addresses the question alluding to the technocratic paradigm. Humanity has taken up technology and its development according to an undifferentiated and one-dimensional paradigm. Technocratic paradigm creates a culture of relativism »which sees everything as irrelevant unless it serves one's own immediate interests« (n. 122). It is also a characteristic of modern anthropocentrism prizing technical thought over reality, compromising the intrinsic dignity of the world. The presentation offers an approach to the understanding relationship between technology and a man of modern times, as seen by the Holy Father Francis, and to point out it's difficulties and possible perspectives.

**TADIJA MILIKIĆ**

**Moralna nutrina u kontekstu dominacije tehničkih i ostalih pozitivnih znanosti**

U ovom radu autor nastoji pridonijeti boljem razumijevanju stvarnosti ljudske osobne moralne nutrine iz perspektive belgijskoga moralnoga teologa Servaisa Pinckaersa. Nju se shvaća u kontekstu danas dominantnoga znanstvenoga pogleda na svijet, u kojemu kategorije tehničkih i ostalih pozitivnih znanosti svojom dominacijom dovode u pitanje ljudski oblik postojanja i djelovanja. Nakon uvodnih misli o važnosti, vrijednosti i nužnosti interdisciplinarnog suradnje, daje se uvid u dvostruka temeljna obilježja ljudskoga života, ovisno o tome imaju li ista obilježja svoj oslonac u moralnoj nutrini ljudske osobe ili tek proizlaze iz tehničkog i pozitivnog pogleda na svijet.

**Moral Interiority in the Context of Dominance of the Technical and Other Positive Sciences**

In this article, the author seeks to contribute to a better understanding of the reality of the human personal moral interiority from the perspective of the Belgian moral theologian Servais Pinckaers. This is to be understood in the context of today's dominant scientific view of the world in which the categories of technical and other positive sciences, by means of their dominance, bring into question the human form of existence and activity. Following introductory thoughts on the importance, value and necessity of interdisciplinary collaboration, an insight is given into the basic features of human life which are twofold depending on whether the same features have their underpinnings in the moral interiority of the human person, or whether they merely are derived from the technical and positive view of the world.

**BARBARA ĆUK**

**Samospoznaja i spoznaja Boga u virtualnom svijetu**

Pretpostavivši:

- a) da načini na koje spoznaje otkrivaju čovjeka njemu samome
- b) da je moguće ocrtati razliku ontičke strukture realnog i virtualnog svijeta, odnos između njih i čovjekov položaj u ta dva svijeta,

- c) da su čovjek sam i svijet tradicionalna polazišta filozofske teologije u spoznaji Boga,
- d) da se u virtualnom svijetu (kiberprostor) mijenja čovjekovo iskustvo i njegov doživljaj sebe, te
- e) da u kontekstu iskustava u virtualnom svijetu (kiberprostor) nemaju svi tradicionalni putovi spoznaje Boga podjednake izglede, autorica istražuje koliko su čovjekov položaj, njegovo okruženje (u najširem i polazišnom smislu shvaćeno kao skup onih za mene drugih, među kojima je i Bog kao prvi Drugi), a koliko njegova virtualnost (kao 'stvarnost' koja je stvorena, smještena ili simulirana na kompjutoru ili mreži) važni za čovjekovu samospoznaju i spoznaju Boga, kako se čovjek pojavljuje u stvarnom i virtualnom svijetu i što očituje o sebi te jesu li filozofija - kao spoznaja samoga sebe i filozofija kao filozofska teologija - i studij filozofije mogući u okolnostima kompjuterizacije svakodnevice, odnosno ukoliko virtualni svijet postaje novi „kozmos“.

## Cognitio sui and cognitio Dei in virtual world

Assuming

- a) the modes he cognizes reveal the human to himself
- b) there is a possibility of outlining the difference between the ontic structure of the real and the virtual world (the cyberspace), the relations between them and the human place in them
- c) the human and the world are traditional starting points for the cognition of God in the philosophical theology
- d) in the virtual world (cyberspace) human experience and self-perception is changing
- e) not all traditional arguments for the existence of God are equally promising in the context of the virtual world and from the experiences in the virtual world the author explores how important are human position and environment or world (in the broadest sense of assembly or set of others and God as the first Other) and its virtuality (as a 'reality' placed, created or simulated on computer or network) for human to know itself and for ways of knowing God, how does human appear and what does human reveal of itself in real and in a virtual world and are philosophy as cognitio sui and philosophy as cognitio Dei (philosophical theology) possible in the context of computerization of everyday life, i.e. as far as the virtual world becomes a new "cosmos".

## CONTINUING EDUCATION IN POLICY ANALYSIS AND POLICY MAKING

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