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Zpráva ze zahraniční služební cesty

Jméno a příjmení účastníka cesty	**Ing. Petr Knížek**	
Pracoviště – dle organizační struktury	Náměstek sekce digitalizace a technologie	
Pracoviště – zařazení	---	
Důvod cesty	**International Conference on Technology, Knowledge & Society**	
Místo – město	**Barcelona**	
Místo – země	**Španělsko**	
Datum (od-do)	**10. – 13. Března 2019**	
Podrobný časový harmonogram	10. Března 2019 – odlet do Španělska 10. Března 2019 – přílet do Barcelony, ubytování, 11. Března 2019 – začátek konference, jednotlivé workshopy, semináře a odborné diskusní příspěvky 12. Března 2019 – pokračování konference, jednotlivé workshopy, semináře odborné diskuse účastníků a ukončení konference 13. Března 2019 –odlet a přílet do Prahy	
Spolucestující z NK	----------	
Finanční zajištění	NK (letenky, ubytování a strava)	
Cíle cesty	Účast na konferenci, která je odborností zaměřena na technologie, znalosti a společnost	
Plnění cílů cesty (konkrétně)	Workshopy a prezentace : • Living in Digital Times • Social Transformations • Mobile Media • Workforce Impacts • Technological Determinism • Virtual Environments • New Media Ecosystems	
Program a další podrobnější informace	https://techandsoc.com/2019-conference/program#block-2	
Přivezené materiály	----------	
Datum předložení zprávy	18 Března 2019	
Podpis předkladatele zprávy		
Podpis nadřízeného	Datum:	Podpis:
Vloženo na Intranet	Datum:	Podpis:
Přijato v mezinárodním oddělení	Datum:	Podpis:

Zpráva je pracovníkem do mezinárodního oddělení předložena nejpozději při vyúčtování cesty do 2 týdnů po jejím ukončení. Bez cestovní zprávy nebude provedeno vyúčtování. Při výjezdu více pracovníků na tutéž služební cestu s týmž programem lze odevzdat společnou cestovní zprávu.

Anotace jednotlivých aktivit :

1. **Living in Digital Times**
   a. ***Learning through Unlearning: What People Need to Re-learn about Using Digital Technologies***
   A recent study examining perceptions of information security identified that people are mostly concerned about potential day-to-day threats that can affect them, and more importantly, their children. The study also found that most people don't understand how to protect themselves because they have not been well educated about how to use technology safely and effectively. The authors suggest the need for courses or full educational programs in digital living. Our study examines how perceptions of digital natives differ from digital immigrants in that digital immigrants have real-world, pre-online experience to better put the use of online resources into context, as digital natives have less of an understanding in separating their virtual world from the real world. Our digital technology involves new advantages and new risks, only by means of education can these risks be mitigated.

   b. ***ICT Boundary Strategies and Spatio-temporal Rhythms in Everyday Working Life***
   The previous clearly defined spatial and temporal boundaries between work and private life are weakening in the trail of new technology and the digitalization of society. Access to ICT functions (email and text messages) enables employees to continue working after they leave the office. This study explores the process of how digital technology interacts with and affects relationships between work and private life, working conditions and wellbeing. It focuses on how digital technology is actively used by employees to manage accessibility to the different spheres. Using technology to achieve a balance between work and private life spheres is described as ICT boundary strategies. A case study was carried out involving three multinational industrial companies in Sweden. Time diaries and semi-structured interviews with a sample of 40 employees were used to see on how they manage the challenges of digital working life. The results indicate a wide variation in the participants' ICT boundary strategies for balancing work and private life. The presentation highlights: how technology is tweaked to manage accessibility to different spheres by using multiple devices, keeping the spheres separate on ICT devices, and active use of ringtones; how work and private life are separated by dedicating technology to certain places (sedentarization); how the permeability of the domain boundaries varies depending on whether the sender is a family member, friend, work colleague or manager. Different strategies appear to be related to personal preferences, contextual variables such as workload, and the strategies of other colleagues and family members.

   c. ***Beyond Technophobia: Societies Embracing Technological Innovation***
   Beginning as an elitist technological innovation whose sole function was to transmit data, today the Internet and digital media play a central role in a global transformation process that affects all sectors of society, economy, politics, and

the single individual (Castells 2005). Both the enormous growth of Internet users during the last decade and the increasing diversity of the respective usage possibilities reflect today's societal importance of the Internet and digital communication. The integration of the Internet into everyday life leads to a redefinition of lifestyles within an entirely mediatized society (Krotz 2012). In this paper, we will analyse by way of example some of the fields where technological innovation meets social transformation. The area of work may serve as a first example. The working environment is being transformed fundamentally along with the use of digital media: Not only communication has accelerated and proliferated, but also a blurring of the boundaries between leisure time and worktime can be observed (Roth-Ebner 2016). Second, childhood is increasingly being affected by the ubiquitous exposure to media, e.g. smartphones and tablets, which has consequences for peer communication, the organisation of family life and the way learning is performed (Livingstone 2013). As a third example, media content production has transformed in a way that users are participating much more in production processes. Traditional media are losing their function as gatekeepers (Bruns 2008), meanwhile bloggers and YouTubers attract diverse audiences. Therefore, we have to rethink common models of the public (Van Dijk 2013).
Theme:Technologies in Knowledge Sharing

2. Social Transformations

a. *Informational Sharing and Cultural Diversity in the Digital Age*

With digital technologies facilitating the information sharing and knowledge exchange, virtual communities have become a global space that could facilitate consumers' information search. This proposal examines how technologies have changed Internet users' information sharing behaviors and discusses the influence of cultural diversity in electronic word-of-mouth (eWOM) communication. Specifically, this proposal argues an important role of culture in information sharing in virtual communities by examining how new technologies have shaped and impacted the knowledge exchange process.
Theme:Technologies in Knowledge Sharing

b. *Being in the Digital World: Flusser and the Future of Thinking*

It has been over three decades that Vilém Flusser expanded his philosophy of photography into a prophetic vision of humanities' leap into a universe of technical images. Revisiting the notion of the future of writing (and, as a consequence, the end of history) as well as the notion of a return of image-based thinking allows for directly questioning how digital technologies change the possible answers to the age-old quest of what it means to be human. This philosophically driven exploration of the digitalized world that we now inhabit is the goal of my paper. Using Flusser's unique phenomenological approach I will investigate the ways in which knowledge is formulated and how understanding is shaped by our altered being in the (digital) world. Flusser foresaw and anticipated but never actually experienced the fully connected

existence of Homo Digitalis and engaging his ideas now is more important than ever. A separate but connected line of inquiry is the question of absence and presence, a dynamic that is at once at the core of how humans communicate and inhabit the world and a central concern of the effects of technology on us. The goal is to go beyond the cataloging of potential or already visible problems of digital technologies' impact on human psychology and think about the state of being that we are in now in a concrete and phenomenological way.

3. Mobile Media

a. *Education through Mobile Devices for a Course of Mathematical Analysis*

The emergence of the Information Technologies and Communications has been a substantial change in the nature of research and teaching. The first references that are about the use of ICT in Mathematics is through Computer Assistants. As a result of the rapid progress that these technologies have experienced, today we can think of a new conception of learning mediated by the use of mobile devices and beyond, work network, allowing you to extend the class and this scenario the creation of communities of online education. This paper proposes a Methodological Proposal based on teaching using mobile devices for a course of Mathematical Analysis of Computer Science students. Are specified digital, personal and communication competences needed for this purpose as well as Math competences. Likewise the status of applicability of the M-Learning in Cuba and in specific in the University of Havana from the creation of technological classrooms features.

4. Workforce Impacts

a. *Putting AI to Work: Technology and Policy for Enabling the Workforce*

Overview: Technologies powered by artificial intelligence (AI) promise to transform the future of work, with wide-ranging effects on employment, wages, and income distribution. In the face of dystopian forecasts of robots replacing workers, we have an opportunity to consider how AI and intelligent tools can enhance and augment human labor rather than replace it. Emerging technologies can be applied to make the workforce more inclusive, helping to bring new populations into the workforce or assist workers to maintain meaningful employment as they age. We explore the pace and extent of the effects of AI on the workforce with a particular focus on its adoption for innovations serving the aging and individuals with disabilities where we investigate application of AI in training and workforce development; job discovery, selection, and access; and enhancing and augmenting human labor. In order to better ensure the development and deployment of AI in the workforce is more inclusive, especially for older populations and those with disabilities, we conclude with private and public sector policy recommendations that seek to support development of educational and workforce training models, inclusive design and reasonable accommodation

considerations in the workplace, and development of economic and social safety nets for those caught in the crosscurrent of automation.

5. Technological Determinism

a. *Design in the Age of Autonomous Machines: Modeling Inclusion, Dialogue and Behavior;*

In the coming two decades, automation is expected to significantly displace new categories of human labor forces, as artificial intelligence (AI) and mobile robotics (MR) increasingly take on non-routine cognitive tasks. While designers, educators and technologists fare relatively well in the overall susceptibility-to-displacement rankings, they will nonetheless need to grapple with the impact of blended, moving systems that are capable of emulating causal reasoning and human insight. This article briefly chronicles the trajectory of AI and robotics research over the last fifty years, describes some of the unique dilemmas inherent in complex human-computer interactions, and proposes a mode of engagement with automated systems for designers and engineers centered on communication, behavior and interdisciplinary knowledge. In particular, designers' various expertise in articulating tools, expressing meaning and shaping user experiences are presented as essential ingredients for cultivating effective interactions between humans and machines. Moreover, by fostering inclusivity, dialogue and positive social behaviors, designers can encourage people to recognize and safeguard human capacities for learning, reciprocity, civility and labor as long-term advantages.

6. New Media Ecosystems

a. *New Media Ecosystems: Amazon and the Emerging Knowledge Economy*

The ongoing industrial migrations of new technologies (game engines, artificial intelligence, augmented and virtual reality, and 3-D imaging) across commerce, news, entertainment, prototyping and manufacturing, scientific visualization, education and within the military suggest they have broad power for organizing the cultural field. In a multi-million-dollar deal with game developer Crytek, Amazon licensed the CryEngine in 2015 as a codebase for its own proprietary Lumberyard engine; the company's goal was to expand the Amazon Web Services ecosystem by consolidating a suite of products and services for video game developers (tools for building, hosting, and livestreaming). And with its 2017 acquisition of Body Labs, a 3D body modeling startup, Amazon expanded its investments in artificial intelligence; the company's interest in avatar-based technologies is part of a broader visual communications and e-commerce strategy. This paper foregrounds Amazon as a case study model of an emerging new media ecosystem--an industrial arrangement that has emerged to concretize the exchange value of integrated software and hardware mechanisms, with the broader goals of connecting information to e-commerce, pairing knowledge to technobiographic identity models, and shaping the emerging technology trends for communities (no-fault algorithms and conversational computing). With close attention to Amazon's

acquisition and build strategy, and its hermetic information systems and workflows, this paper unravels the complex intersectionality of the company's technocentric portfolio.

b. ***Professional Learning Communities: Possibilities for Distance and Online Learning***

One of the challenges of asynchronous course delivery is that by nature they involve less live interaction that either face-to-face classrooms or using online synchronous platforms. For the most part, establishing collaborative online communities for students is considered basic to course delivery. For those engaged in online teaching it is well understood that the creation of dynamic online learning communities entails much more than connecting students enrolled in the same course. Making learning meaningful with authentic opportunities for participants to engage in "deep learning" was, in this case study, a paramount feature to the course design. Marrying the opportunities technologies offer with this goal led to the creation of an assignment aimed towards knowledge creation and purposeful use of digital tools and resources that enable and accelerate the process of deep learning. The study is descriptive and exploratory in nature. The focus of this exploration is an assignment entitled Leadership & Informal Assessment - Preparing for a Professional Learning Community. This task was intended to embed the assessment framework within the context of the assignment. Data collection was analyzed using the following items on a 5- point scoring scheme. Did the assignment: create a session whereby participants are actively involved in learning and using embedded technology, reflect a understanding of the principles assessment and the topic of focus? And, adopt a facilitating approach? The results indicate promising possibilities that may have implications across several realms beyond course delivery.

c. ***Mobile Learning: The Study in the Palm of your Hands***

This article aims to investigate the current Art State's on different experiments carried out in the Mobile Learning's area. Through an RLS (Systematic Literature Review) it was researched in recent articles an overview of analyzes and results about the usability aspects involved in this type of educational platform. The work presents results of research (nationally and internationally) carried out with three types of participants: children, adolescents and young people, which show experiments' results regarding ergonomics, user experience, usability and also reflections on the interaction process between students and educational platforms. The methodology used follows the guidelines suggested by the authors Levy and Ellis (2006), which present a sequence of steps and activities to be followed in RLS. T