

MUNI LAW

Hledání originality v případě počítačových programů naprogramovaných generativní umělgencí

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Afilie

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2. Ochrana počítačových programů v EU/CZ
3. Hledání kreativity (originality) v PKM
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Budoucnost programování



Budoucnost programování

- "Tradiční koncepce": kódování/programování > kód > předmět ochrany
- Matt Welsh, The End of Programming [1]
 - ***Programming will be obsolete.** I believe the conventional idea of "writing a program" is headed for extinction, and indeed, for all but very specialized applications, most software, as we know it, will be replaced by AI systems that are trained rather than programmed.* (p. 34)
 - *AI coding assistants such as CoPilot are only scratching the surface of what I am describing. It seems totally obvious to me that of course all programs in the future will ultimately be written by AIs, with **humans relegated to, at best, a supervisory role.*** (p. 35)
 - *So I am not just talking about things like Github's CoPilot replacing programmers.1 I am talking about replacing the entire concept of writing programs with training models.* (p. 35)
- "Naprogramovaný ubrousek" Chat GPT-4
 - <https://www.youtube.com/watch?v=tQLwBHE5r08>

Budoucnoust kreativiti

- „AI applications are increasingly capable of generating literary and artistic works. This capacity raises major policy questions for the copyright system, which has always been intimately associated with the **human creative spirit** and with respect and reward for, and the encouragement of, the expression of **human creativity**.“
- „The policy positions adopted in relation to the attribution of copyright to AI-generated works **will go to the heart of the social purpose** for which the copyright system exists“. ([2], p. 7, 23)

WIPO REVISED ISSUES PAPER ON INTELLECTUAL
PROPERTY POLICY AND ARTIFICIAL INTELLIGENCE

Role umělice

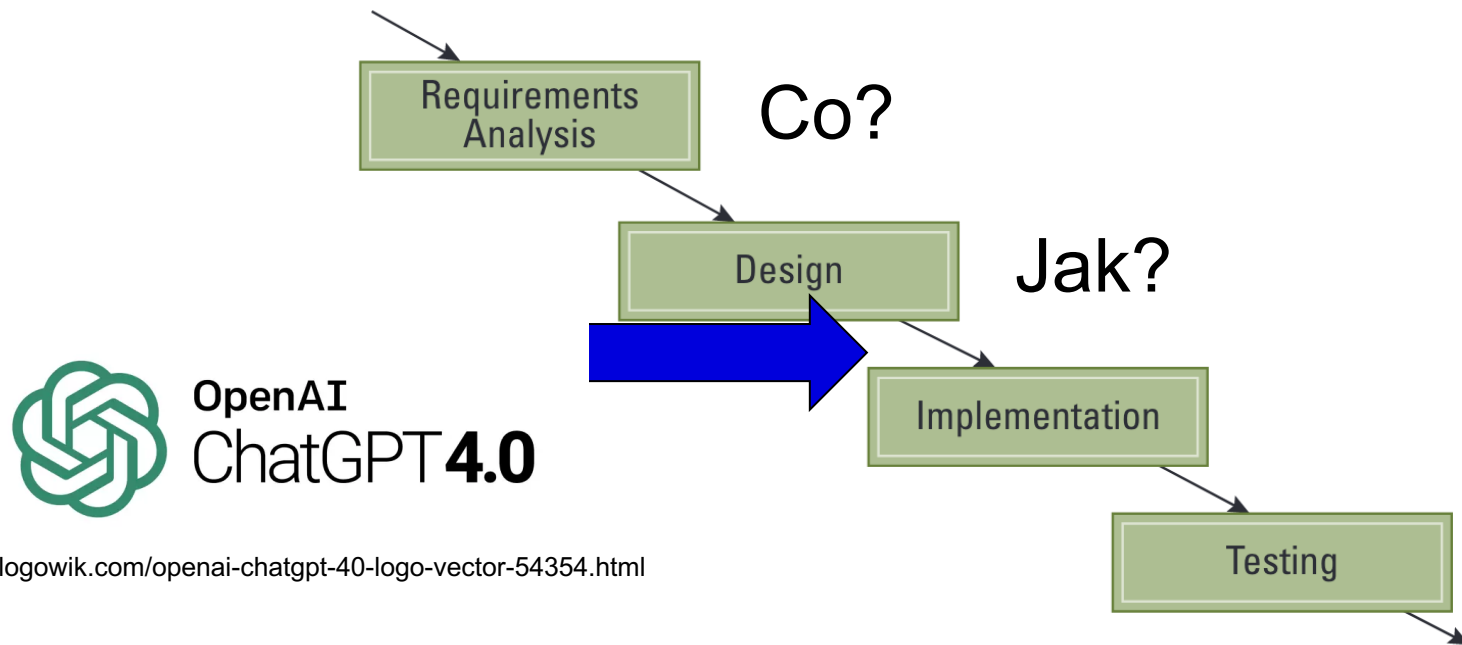


Figure 7.2 The traditional development phase of the software life cycle ([3], p. 395)

2. Ochrana počítačových programů v EU/CZ

Ochrana počítačových programů v právu EU/CZ

- GA Szpunar C-13/20 *Top System*
 - “de facto system of protection *sui generis*“
- Funkční povaha, která není reflektována autorským právem [4, s. 2333]
 - Explicitně vyjmuta SAS v WPL
- Jako dílo literární
- Uživatelské příručky a manuály > standardní díla
- Přípravný koncepční materiál

SDEU > originalita

- Mantra originality “vlastní duševní výtvor autora”
- Hugenholtz/Quintais test
 - Domain, Human intellectual effort, Originality/Creativity, Expression ([5], p. 77 a násl.)
- Kde se manifestuje originalita/kreativita:
 - “conception,
 - execution,
 - and/or finalisation (or redaction)” ([5], s. 74)
- *”As long as the output reflects creative choices by a human being at any stage of the production process, an **AI-assisted output is likely to qualify for copyright protection**. This is true even if the AI system has played a significant or even predominant role in the entire creative process.”* ([5], s. 76)
(Relying on Painer)
- *„... mere human intervention at the conception and redaction stages **could suffice for copyright protection**.”* ([5], s. 81)

CAVEAT! (2020!)

- *“In extreme cases, the AI system **will not leave its users any meaningful choice** beyond pushing a few buttons. Such cases are evident in the domain of natural language generation (relying on unsupervised learning), such as the GP-T2 and GP-T3 text generator from OpenAI discussed above.” ([5], s. 84)*
- Je zde mýtický “personal touch”?
- Dá se najít v přípravném koncepčním materiálu?

Judikatura

- EU - ITA: případ “floral fractal” (Corte di Cassazione, ORDINANZA 2315/2021, Civile Ord. Sez. 1 Num. 1107 Anno 2023) > a priori není vyloučena kreativita, ale je nutno zjistit skutkově kde je
- USA: *Thaler v. Perlmutter* (District Court for the District of Columbia) > Creativity Machine / work-for-hire
 - HUMAN NEEDED!
 - “A Recent Entrance to Paradise”



(Je třeba citace?)

3. Hledání kreativity (originality) v PKM

Co je to PKM?

- R7 2009/24: „*Tento výraz zahrnuje rovněž přípravné koncepční práce vedoucí k vytvoření počítačového programu za podmínky, že povaha těchto prací v pozdější etapě umožní vytvoření počítačového programu.*“
- Velice precizní nevyjádření počítačového programu
- *Dacom* stažená předběžná otázka
- NL NS, 2019 (ECLI:NL:HR:2018:56) – ne všechny materiály jsou přípravnými > jen pokud může být program přímým výsledkem

Dvojitá povaha PKM

- *„It must obviously cover a situation in which a program has been specified by a formalism – for instance quasi-coding – which leaves little freedom for a programmer in transforming it into a source program. But how much freedom should be allowed before there is an independent literary work and an independent program has to be decided in the context of a concrete case.“* ([7], s. 406)
- Co to může být ve výsledku?
- **Odvozené dílo? Spoluautorské dílo? S kým?**
- Ale pozor (díky prof. Leistnerovi) je zde manifestováno podkladové dílo v dostatečně určitě a objektivně určitelně

1989: Je to nástroj?

- *...a large number of works are now generated by means of a computer program which serves **as a tool to generate new programs**. The question arises as to whether authorship of these programs generated by the first computer program should reside with the creator of the first program, or with the person who causes it to generate other works. Since the first program is no different in its function from any other tool used to create a work, such as an instruction manual by means of which another work is created, it would seem appropriate that the person who uses such a tool to generate programs should be considered as the **creator of those programs**. [6]*

1989: The „tool“ approach

- *„In practice, such a person may be the operator of the computer, or the natural or legal persons who retain the right to exercise the rights in programs which they have commissioned or which have been created by their employees. In these circumstances it is doubtful that a right to claim paternity of the programs generated by a machine could be upheld. **The human input as regards the creation of machine generated programs may be relatively modest, and will be increasingly modest in future. Nevertheless, a human 'author' in the widest sense is always present, and must have the right to claim 'authorship' of the program.**“ [6]*

Realita? Smlouva s uživatelem „nástroje“

ChatGPT Art. 3 Content – „**OpenAI hereby assigns to you all its right, title and interest in and to Output**“.
<https://openai.com/policies/terms-of-use>

GitHub Co-pilot 2. Ownership of Suggestions and Your Code.
GitHub does not claim any ownership rights in Suggestions.
You retain ownership of Your Code.
<https://github.com/customer-terms/github-copilot-product-specific-terms>

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4. Závěry

SD prompt: two middle-aged academics thinking about intellectual property



Závěry

- PKM – “the last bastion of human creativity”?
- Kódování – bude někoho zajímat?
- A kdo je autor?
- Je to jenom akademické téma?

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Děkuji vám za pozornost a vaše otázky!

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Zdroje obrázků

– <https://stablediffusionweb.com/#demo>

Zdroje

- [1] WELSH, Matt. 2023. The End of Programming. *Communications of the ACM*, January 2023, Vol. 66 No. 1, Pages 34-35 10.1145/3570220
- [2] WIPO SECRETARIAT. WIPO CONVERSATION ON INTELLECTUAL PROPERTY (IP) AND ARTIFICIAL INTELLIGENCE (AI), WIPO/IP/AI/2/GE/20/1 REV. MAY 21, 2020, REVISED ISSUES PAPER ON INTELLECTUAL PROPERTY POLICY AND ARTIFICIAL INTELLIGENCE
https://www.wipo.int/edocs/mdocs/mdocs/en/wipo_ip_ai_2_ge_20/wipo_ip_ai_2_ge_20_1_rev.pdf
- [3] BROOKSHEAR, J. Glenn and Dennis BRYLOW, 2020. *Computer science: an overview*. 13th edition, global edition. NY, NY: Pearson. ISBN 978-1-292-26342-7.
- [4] SAMUELSON, Pamela, Randall DAVIS, Mitchell D. KAPOR and J. H. REICHMAN, 1994. A Manifesto concerning the Legal Protection of Computer Programs. *Columbia Law Review* [online]. 94(8), 2308–2431. ISSN 0010-1958. doi:[10.2307/1123142](https://doi.org/10.2307/1123142)
- [5] EUROPEAN COMMISSION, DIRECTORATE-GENERAL FOR COMMUNICATIONS NETWORKS, CONTENT AND TECHNOLOGY, HARTMANN, C., ALLAN, J., HUGENHOLTZ, P. ET AL.. *Trends and developments in artificial intelligence – Challenges to the intellectual property rights framework : final report*, Publications Office, 2020, <https://data.europa.eu/doi/10.2759/683128>
- [6] PROPOSAL FOR A COUNCIL DIRECTIVE ON THE LEGAL PROTECTION OF COMPUTER PROGRAMS, /*COM/88/816FINAL/REVISED VERSION - SYN 183 */OJ C 91, 12.4.1989, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:51988PC0816>
- [7] [2] BING, Jon. Copyright protection of computer programs in DERCLAYE, Estelle, ed., 2009. *Research Handbook on the Future of EU Copyright*. Cheltenham, UK : Northampton, MA: Edward Elgar. Research handbooks in intellectual property. ISBN 978-1-84720-392-2.