

**MUNI**  
FI

# **Deepfake a technologie za ním**

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PB016 Umělá inteligence I

# Obsah

- Co je to deepfake?
- Jak funguje?
- Kde se používá?
- Jak poznat deepfake?

# Co je to deepfake?

- Falešné video vyprodukované počítačem
- Video i zvuk
- Používají se generativní kontradiktorní sítě



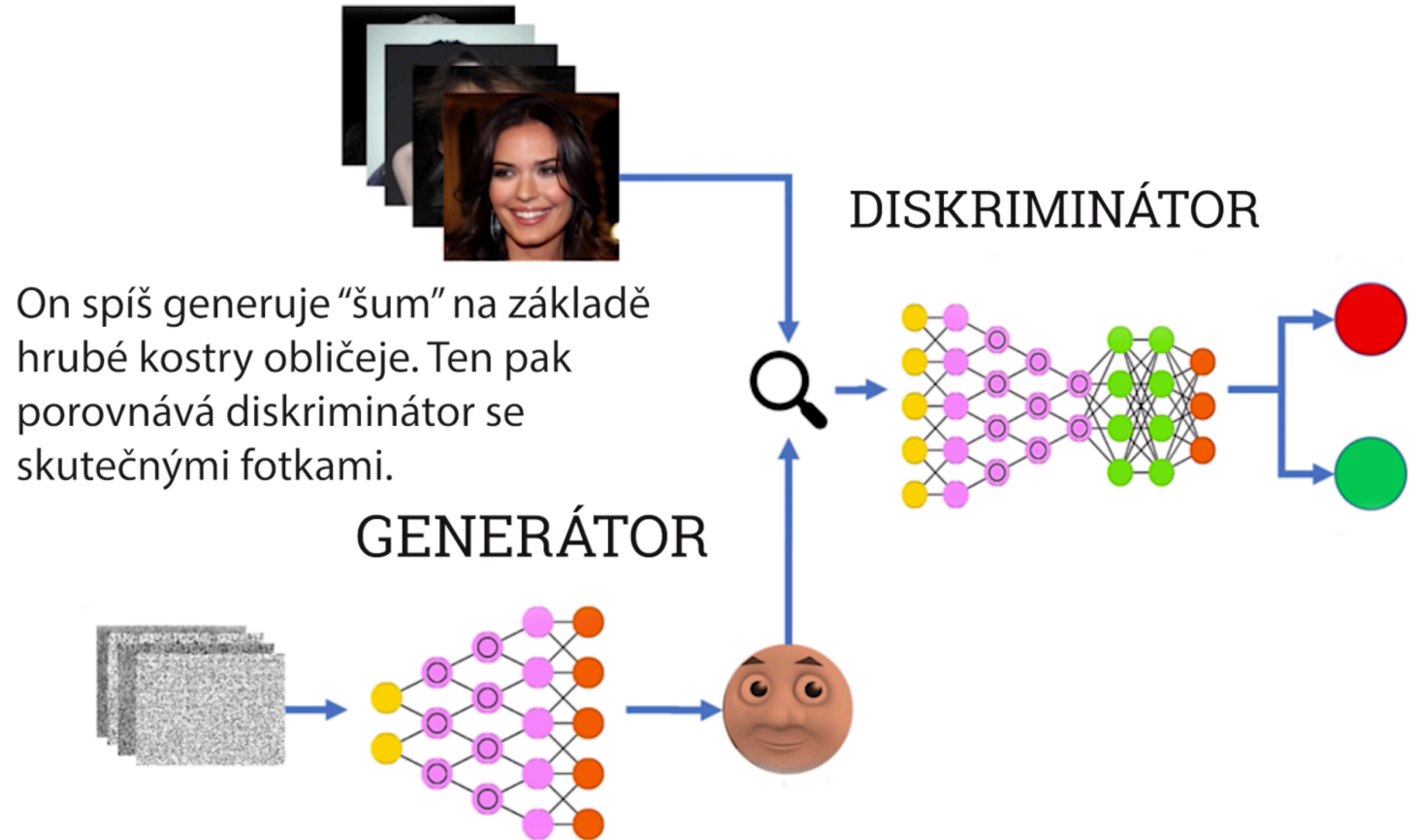
<https://makeagif.com/gif/obama-peelee-deep-fake-NUyaQL>



<https://www.wikiwand.com/en/Deepfake>

# Jak funguje?

- Neuronové sítě
- Generátor
- Diskriminátor
- Generativní  
kontradiktorní sítě  
(GANs)



<https://www.youtube.com/watch?v=RP9bKAHaaAo>

# Kde se používá?

- Pornografie
- Krátká videa
- Politika - tvorba dezinformací

# Jak poznat deepfake?

- Sledování detailů
- DARPA MediFor
- Siwei Lyu - Mrkání

# Zdroje

- [https://www.youtube.com/playlist?list=PLZHQObOWTQDNU6R1\\_67000Dx\\_ZCJB-3pi](https://www.youtube.com/playlist?list=PLZHQObOWTQDNU6R1_67000Dx_ZCJB-3pi)
- <https://www.rollingstone.com/culture/culture-news/deepfakes-nonconsensual-porn-study-kpop-895605/>
- [https://www.vice.com/en\\_us/article/kzm59x/deepnude-app-creates-fake-nudes-of-any-woman](https://www.vice.com/en_us/article/kzm59x/deepnude-app-creates-fake-nudes-of-any-woman)
- <https://www.youtube.com/watch?v=VWrhRBb-1lg>
- <https://www.youtube.com/watch?v=zS1Aee2X3Yc>
- <https://www.polygon.com/2018/10/17/17989214/harrison-ford-solo-movie-deepfake-technology>
- <https://www.youtube.com/watch?v=RP9bKAHaaAo>
- <https://towardsdatascience.com/family-fun-with-deepfakes-or-how-i-got-my-wife-onto-the-tonight-show-a4454775c011>
- [https://www.irozhlas.cz/zpravy-domov/dezinformace-e-mail-prezident-volby-drahos-zeman\\_1802090600\\_ogo](https://www.irozhlas.cz/zpravy-domov/dezinformace-e-mail-prezident-volby-drahos-zeman_1802090600_ogo)
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- <https://www.technologyreview.com/s/611726/the-defense-department-has-produced-the-first-tools-for-catching-deepfakes/>
- <https://www.darpa.mil/program/media-forensics>
- <https://arxiv.org/pdf/1511.06434.pdf>
- <https://www.youtube.com/watch?v=Sw9r8CL98N0>
- <https://towardsdatascience.com/understanding-generative-adversarial-networks-gans-cd6e4651a29>