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| Topic 1: |
| Topic: Google’s Project Nightingale ignored the standards for handling medical data. |
| Source: Schneble, C. O., Elger, B. S., & Shaw, D. M. (2020). Google's Project Nightingale highlights the necessity of data science ethics review. *EMBO Molecular Medicine,* *12*(3), e12053–n/a. <https://doi.org/10.15252/emmm.202012053> |
| Ethical issue: Google handled data in a manner that was technically legal but ignored many standards for handling personal and sensitive data. |
| Legal Issue: Usually in the USA, the Health Insurance Portability and Accountability Act would offer legal protection over medical data, however Google exploited a loophole that allows for hospitals or healthcare providers to send data to external businesses for processing and quality improvement. |
| Technical Issue: Data Science anonymisation methods such as K-anonymisation should be legislated to be used when handling medical data to resolve the ethical issue stated above. |

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| Topic 2: |
| Topic: Ethical Challenges of Machine Learning in Psychiatry |
| Source: Starke, G., De Clercq, E., Borgwardt, S., & Elger, B. (2021). Computing schizophrenia: Ethical challenges for machine learning in psychiatry. *Psychological Medicine,* *51*(15), 2515-2521. doi:10.1017/S0033291720001683 |
| Ethical issue: Using a machine learning algorithm may bring about harm by suggesting a diagnosis or prediction that is erroneous, and it is of even greater concern if the recommendation by the algorithm is readily accepted by the medical staff. |
| Legal Issue: Psychiatric data on patients would be classified as sensitive data, and hence be subject to the Australian Privacy Principles. |
| Technical Issue: An understanding of machine learning algorithms and the differentiation of supervised, unsupervised and reinforced learning is required to solve this issue. |