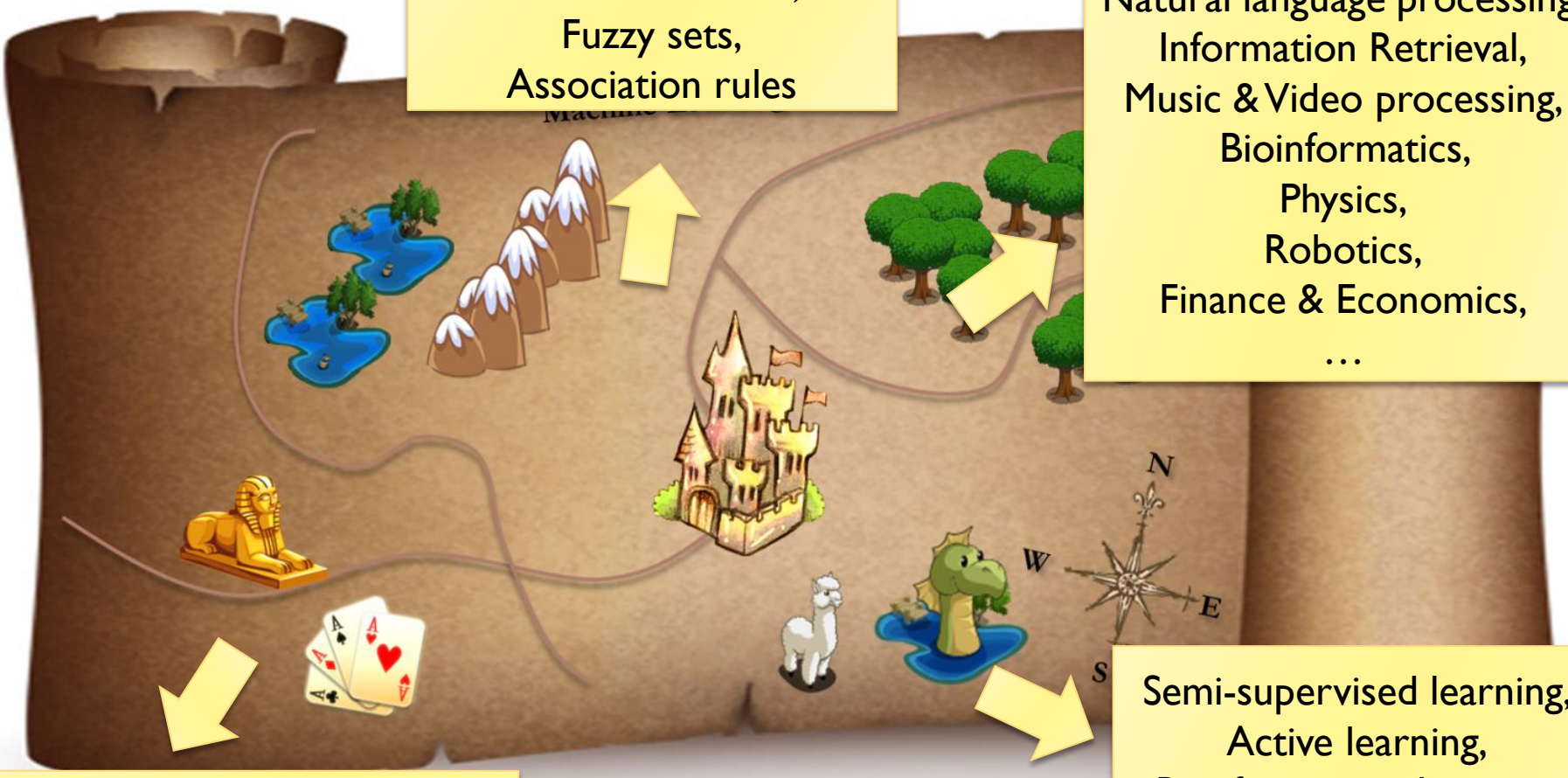
Conclusion

Conclusion

Graphical models,
Neural networks,
Fuzzy sets,
Association rules

Computer vision,
Natural language processing,
Information Retrieval,
Music & Video processing,
Bioinformatics,
Physics,
Robotics,
Finance & Economics,
…

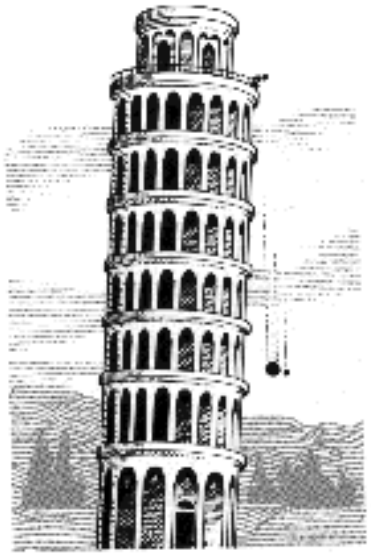


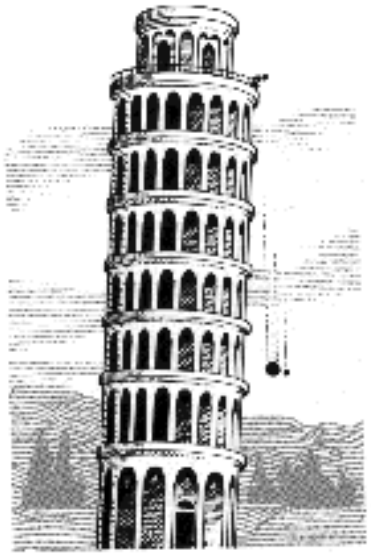
Statistical Learning Theory,
PAC-theory

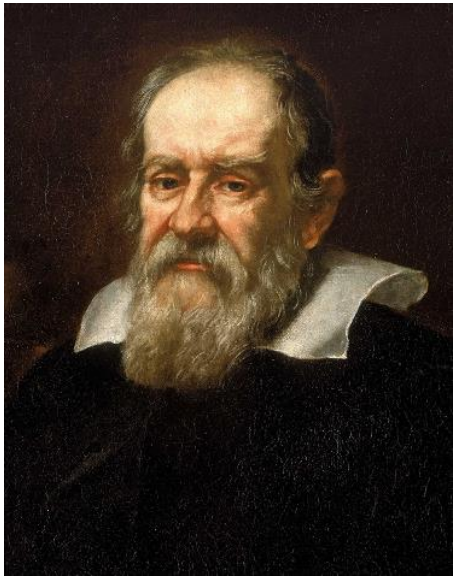
Semi-supervised learning,
Active learning,
Reinforcement learning,
Multi-instance learning,
Deep learning

Where to go next

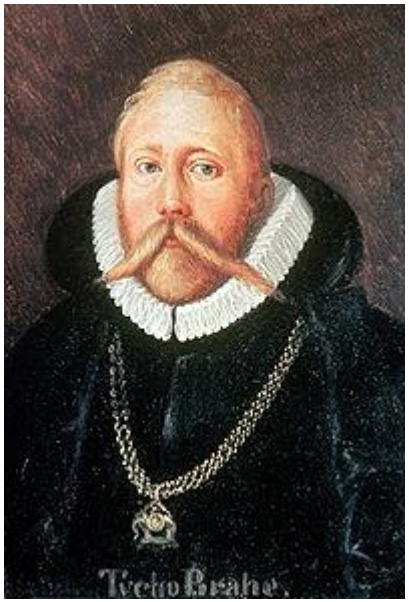
- Books:
  - "The Elements of Statistical Learning" (Hastie & Tibshirani)
  - "Pattern Recognition and Machine Learning" (Bishop)
  - "Kernel Methods for Pattern Analysis" (Shawe-Taylor & Cristianini)
- On-line materials:
  - http://videolectures.net
  - + Coursera, Udacity, edX
- Tools:
  - Python, R, RapidMiner, Weka, Matlab, Mathematica, …

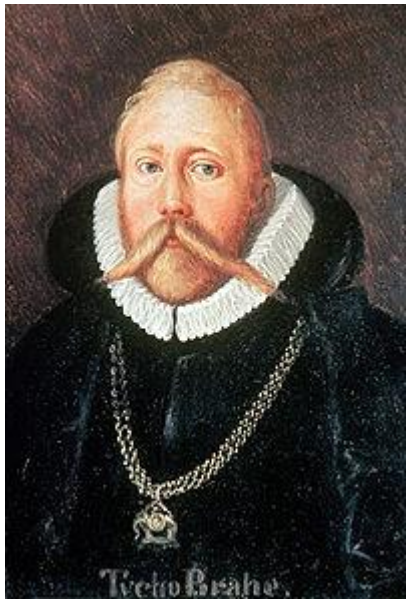






$$s = \frac{a}{2}t^2$$


Tycho Brahe.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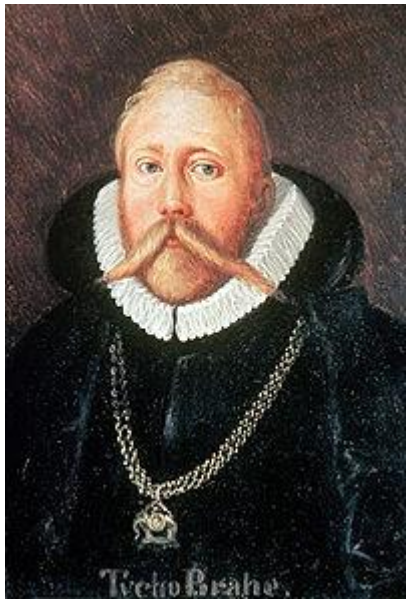
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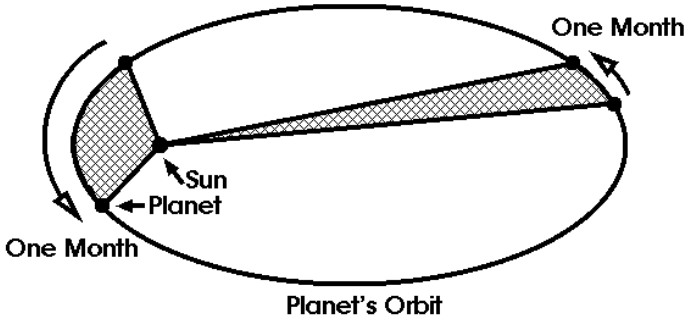
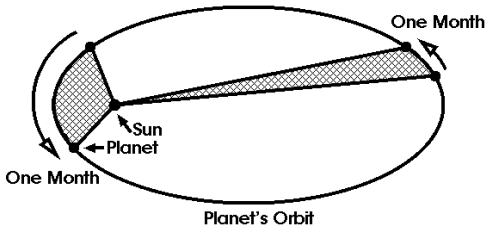

One Month
Sun
Planet
One Month
Planet's Orbit


One Month
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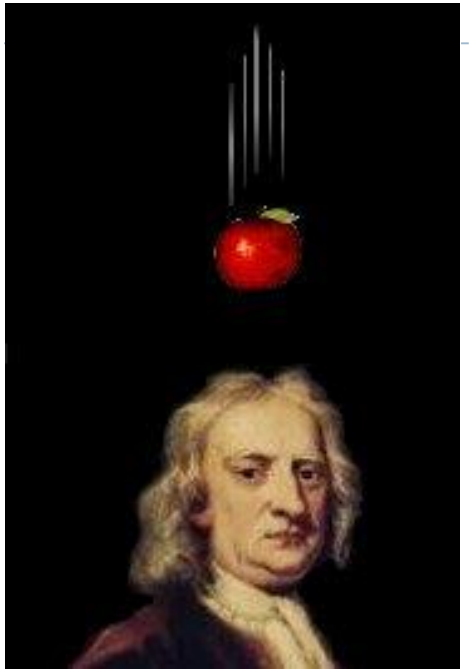
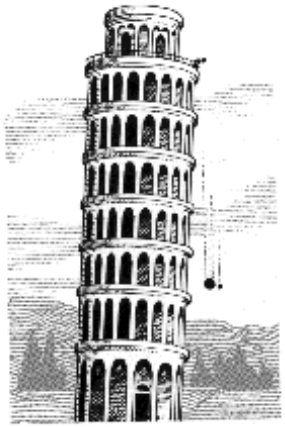
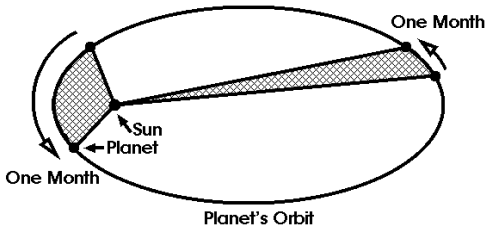
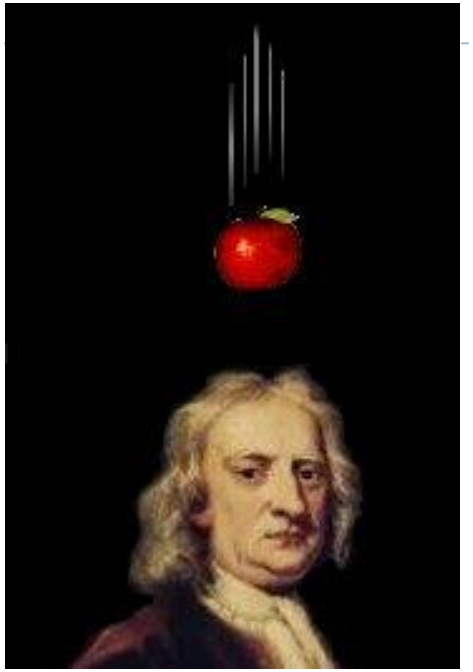
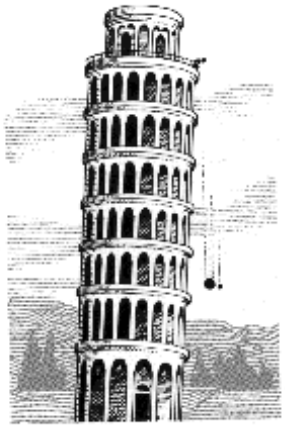




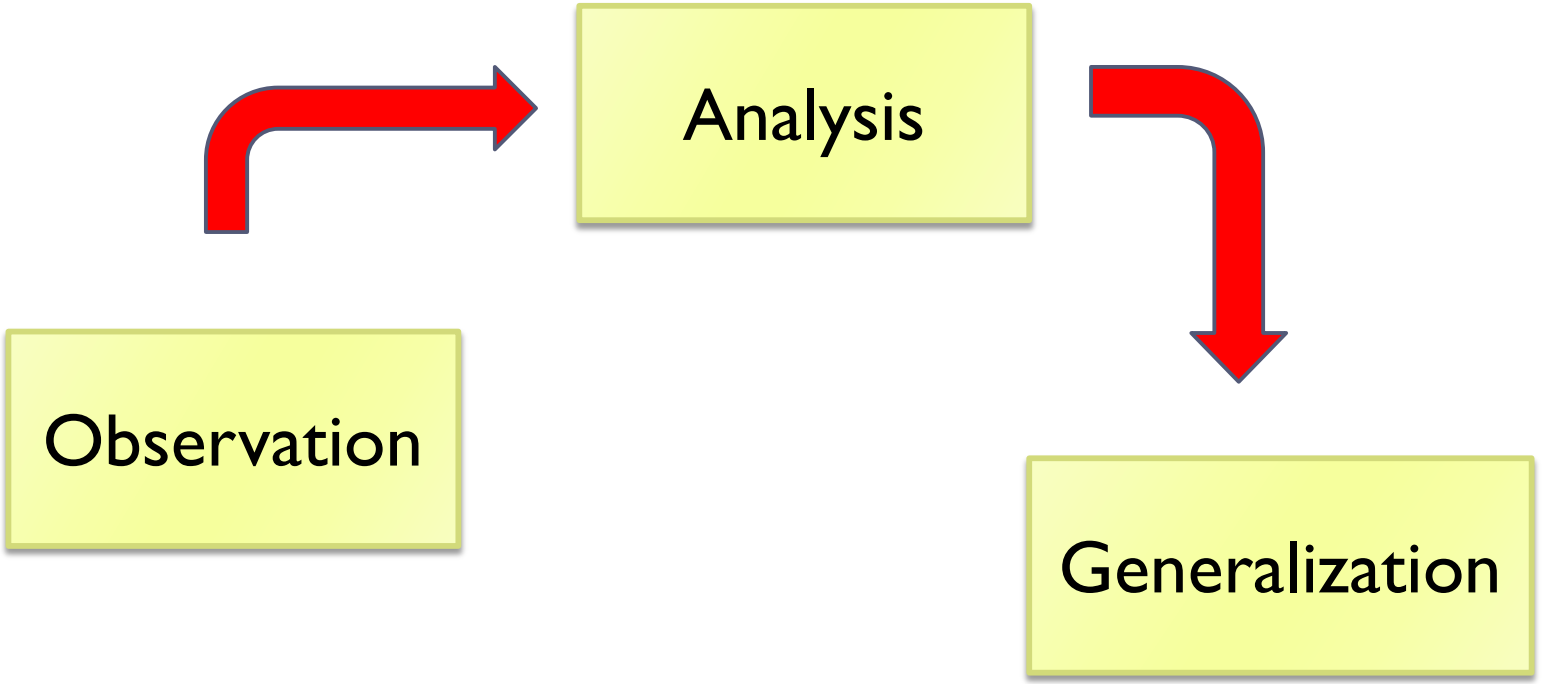


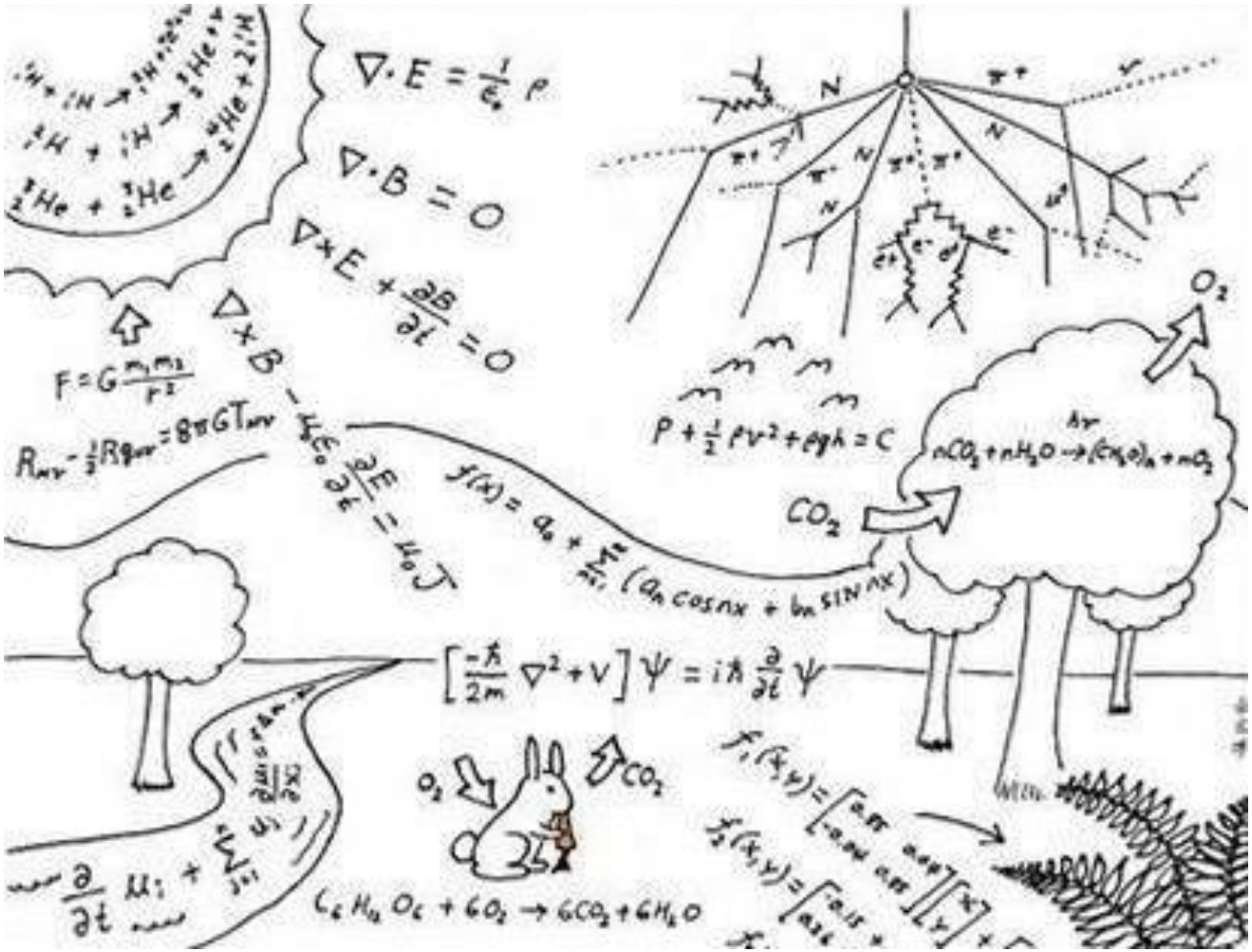


$$\vec{F} = m\vec{g}$$

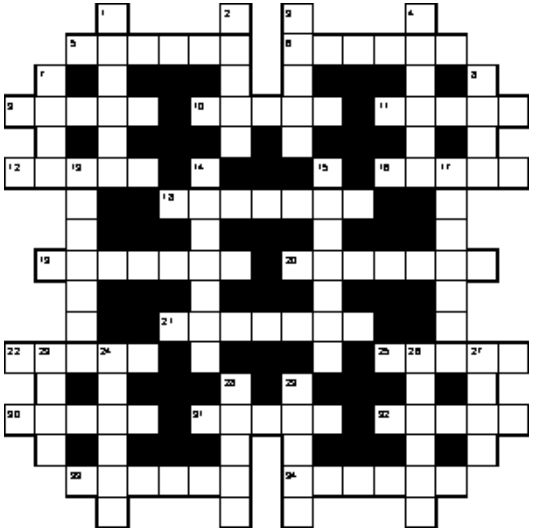


Science



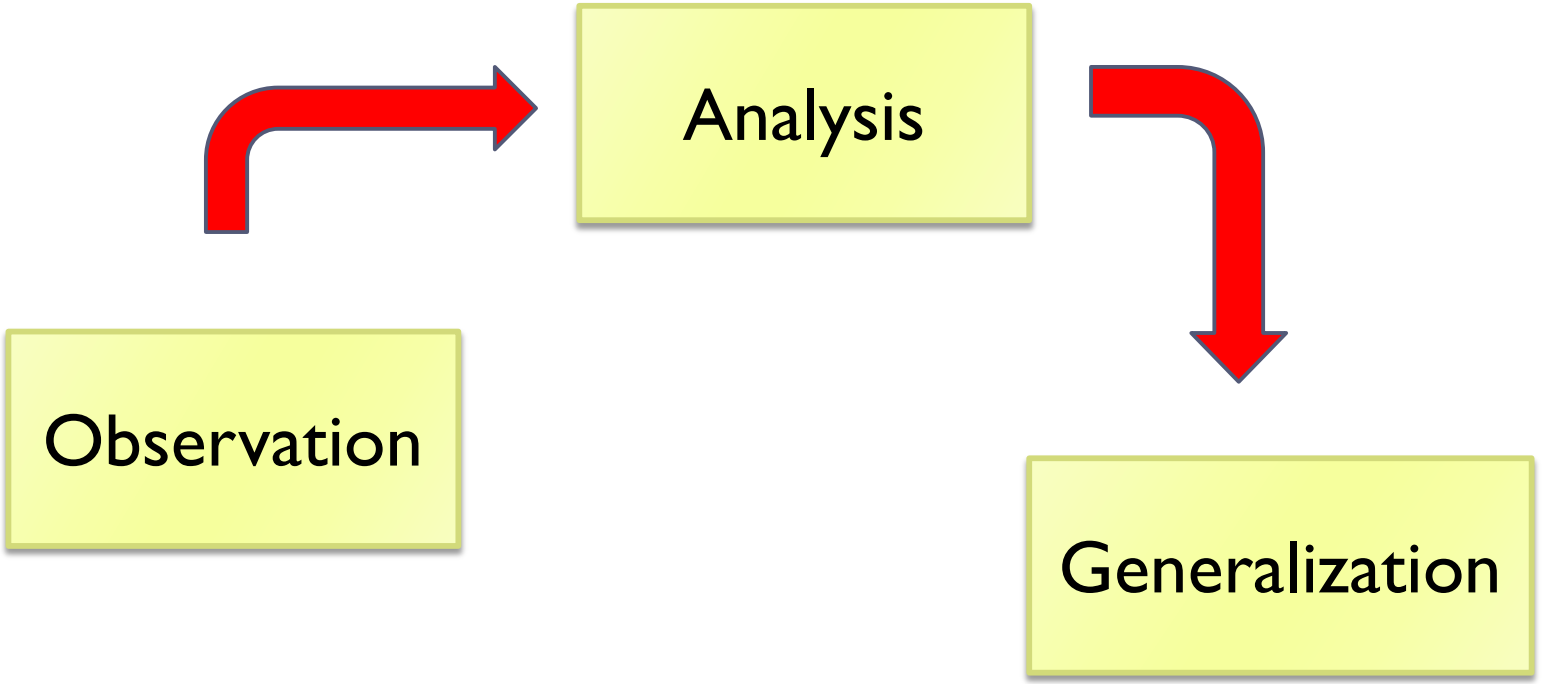

$\nabla \cdot E = \frac{1}{\epsilon_0}\rho$
$\nabla \cdot B = 0$
$\nabla \times E + \frac{\partial B}{\partial t} = 0$
$F = G\frac{m_1 m_2}{r^2}$
$P + \frac{1}{2}\rho v^2 + \rho g h = C$
CO_2
O_2
$\left[\frac{-\hbar}{2m}\nabla^2 + V\right]\Psi = i\hbar\frac{\partial}{\partial t}\Psi$
$C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O$

Why?

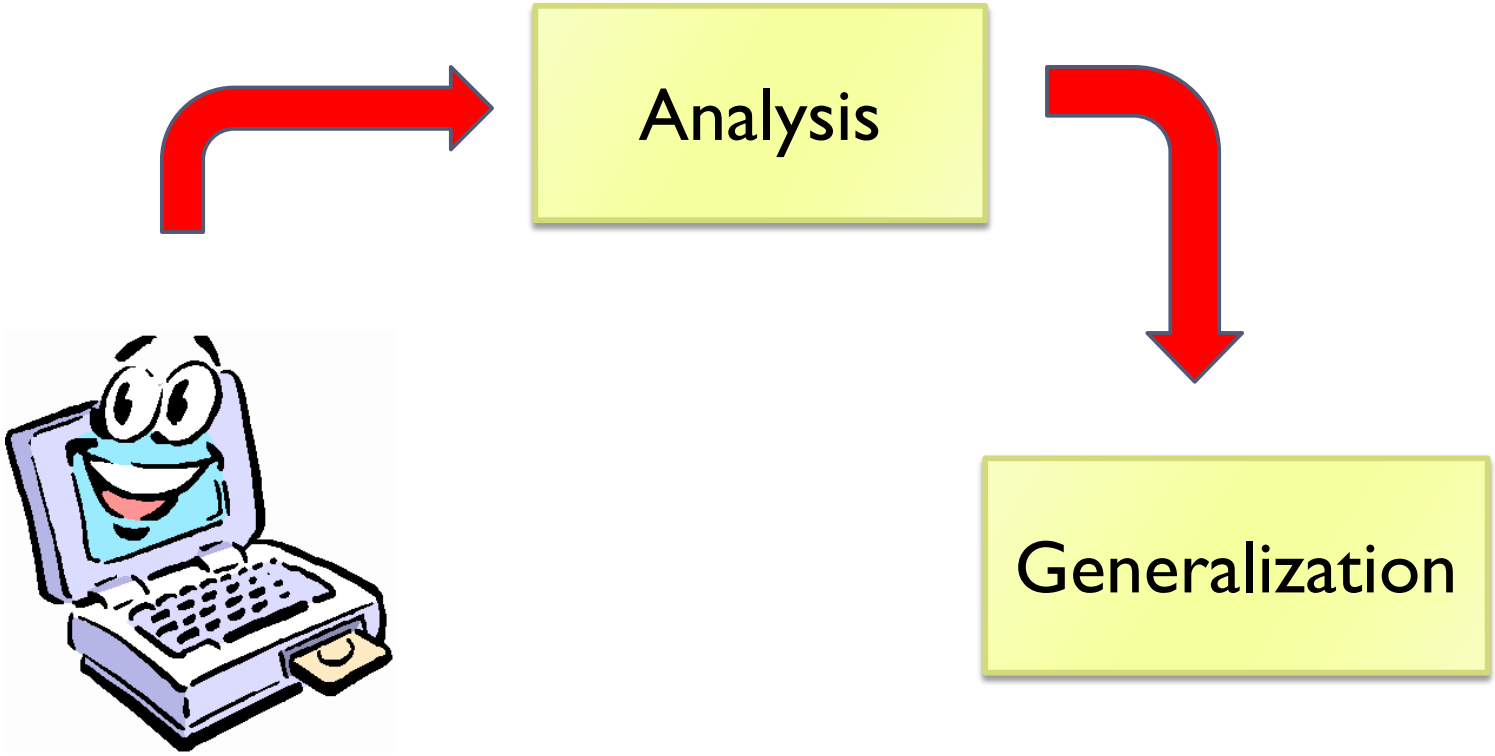


Why?

Contemporary Science

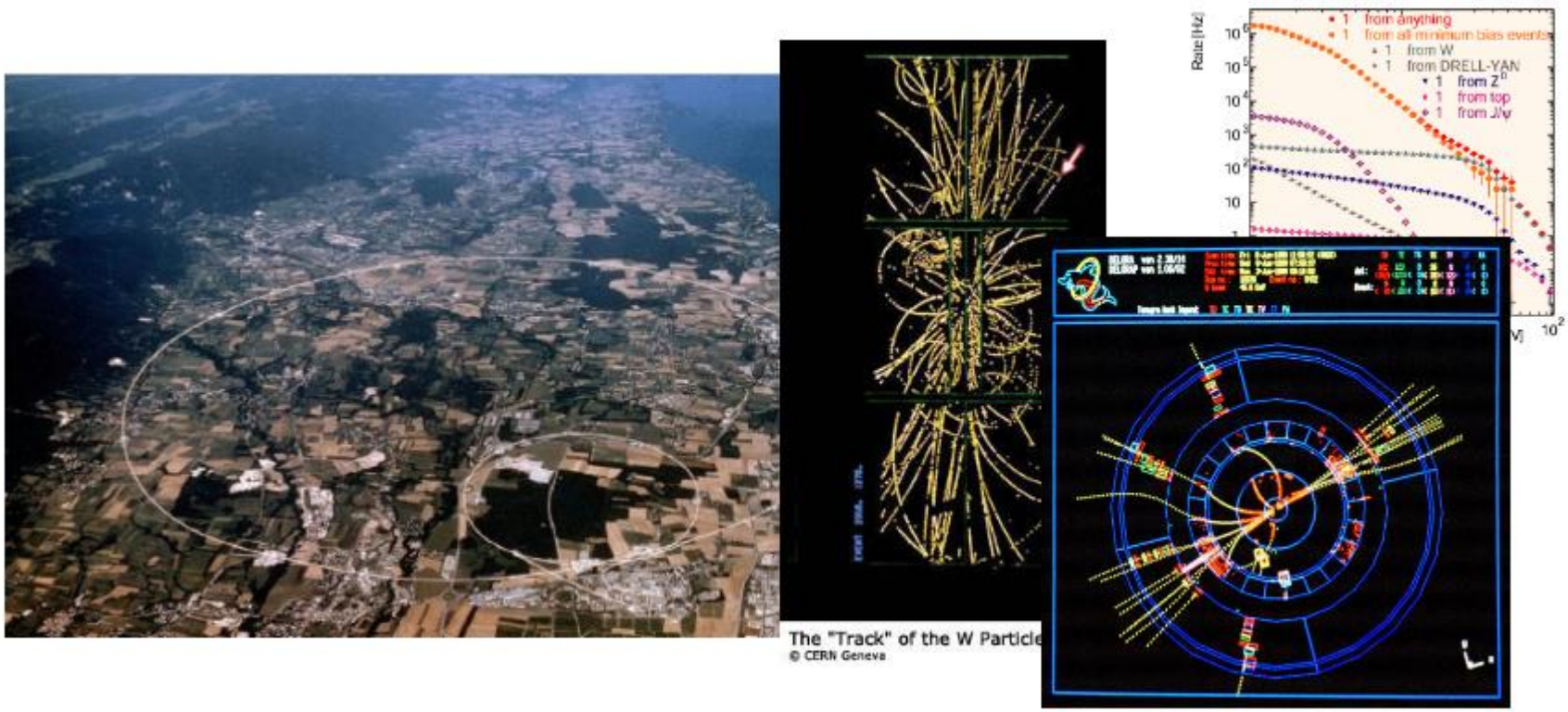


Contemporary Science

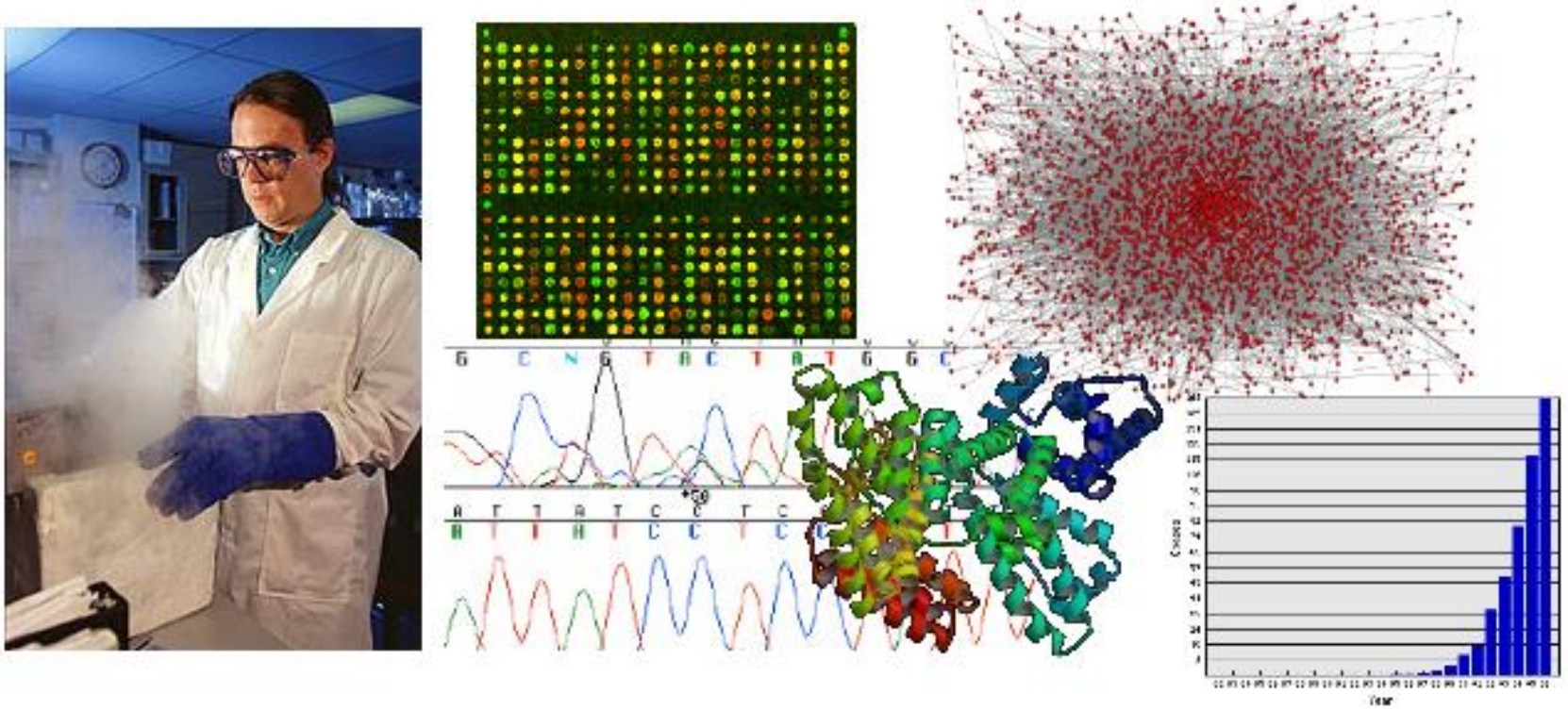


Contemporary Science

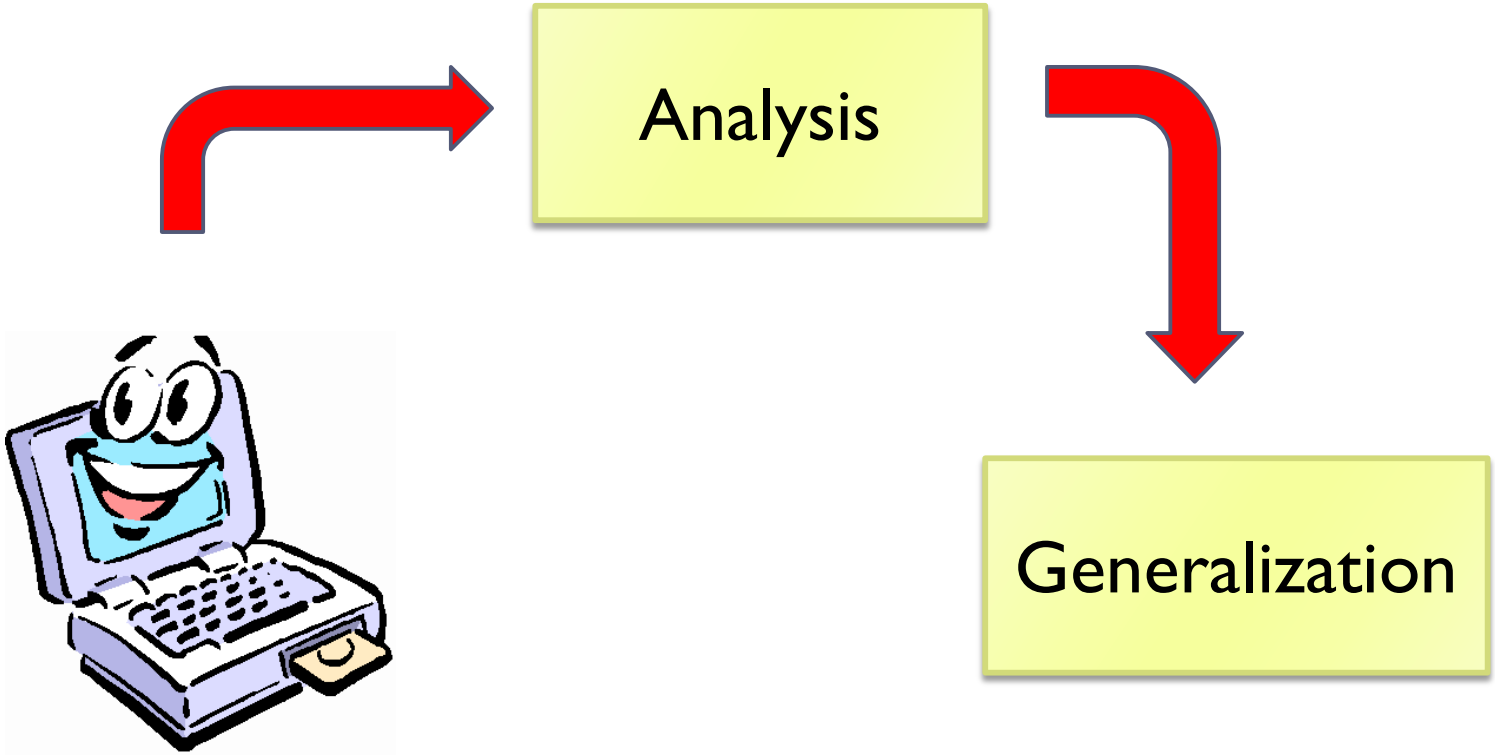
Contemporary Science



Contemporary Science



Contemporary Science



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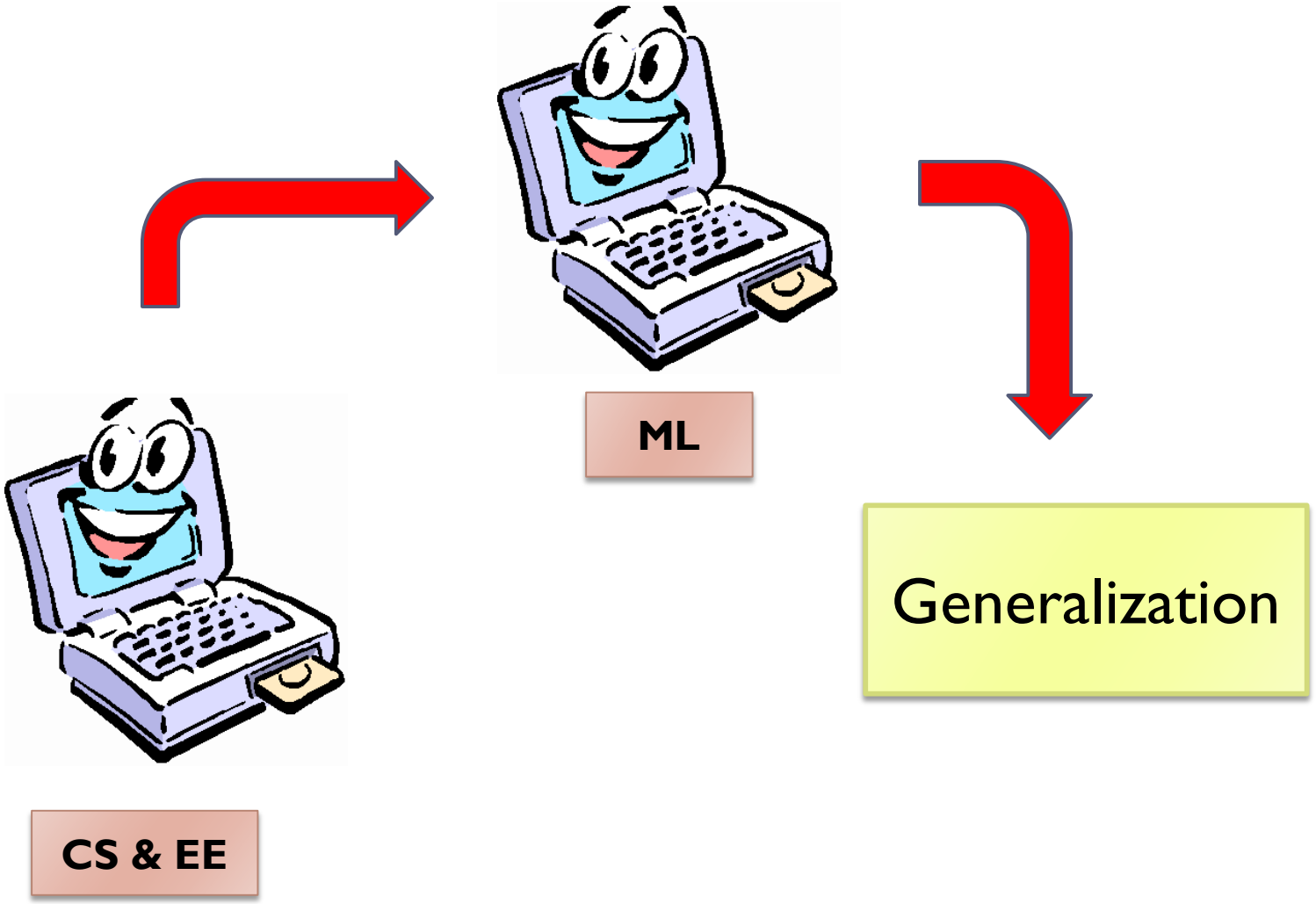

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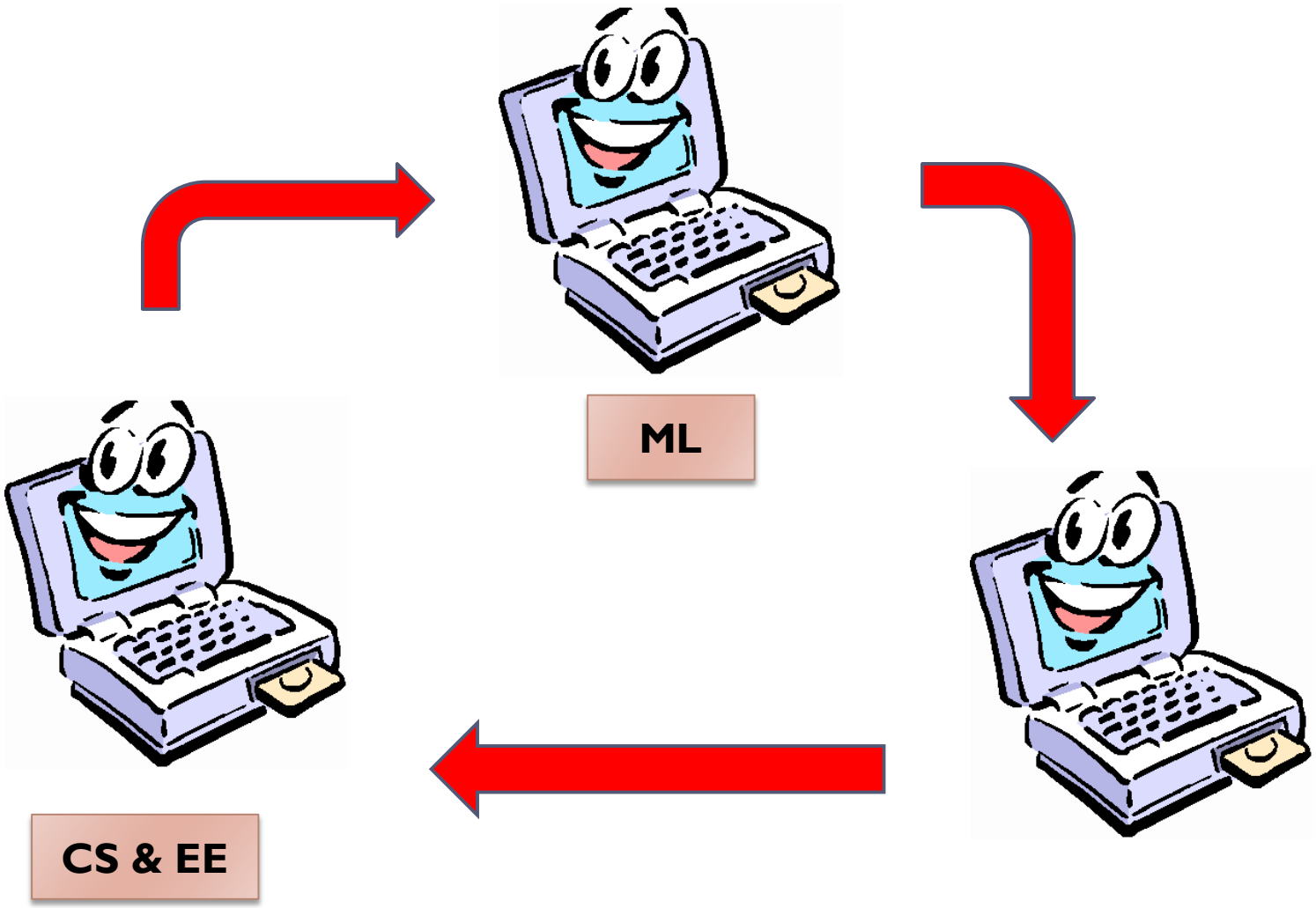

Thank You!