

# Künstliche Intelligenz

Nutzen und Praxis in der Prozessautomatisierung

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## 1. Künstliche Intelligenz

Was ist das?  
Wo kommt sie her?  
Was kann sie?  
Und was nicht?



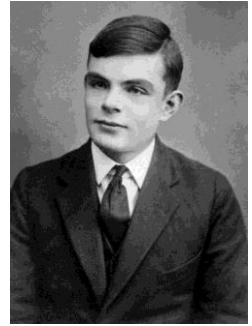
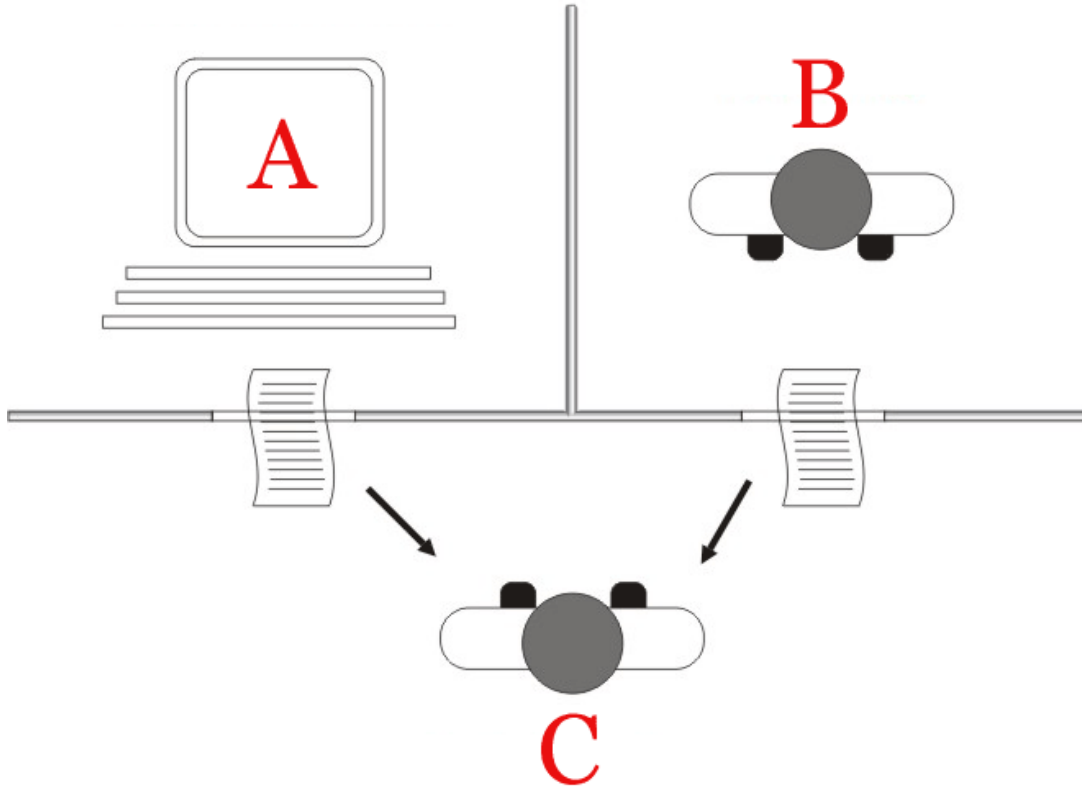
## 2. Nutzen

Wie können  
Endkunden und  
Systemintegratoren  
profitieren?



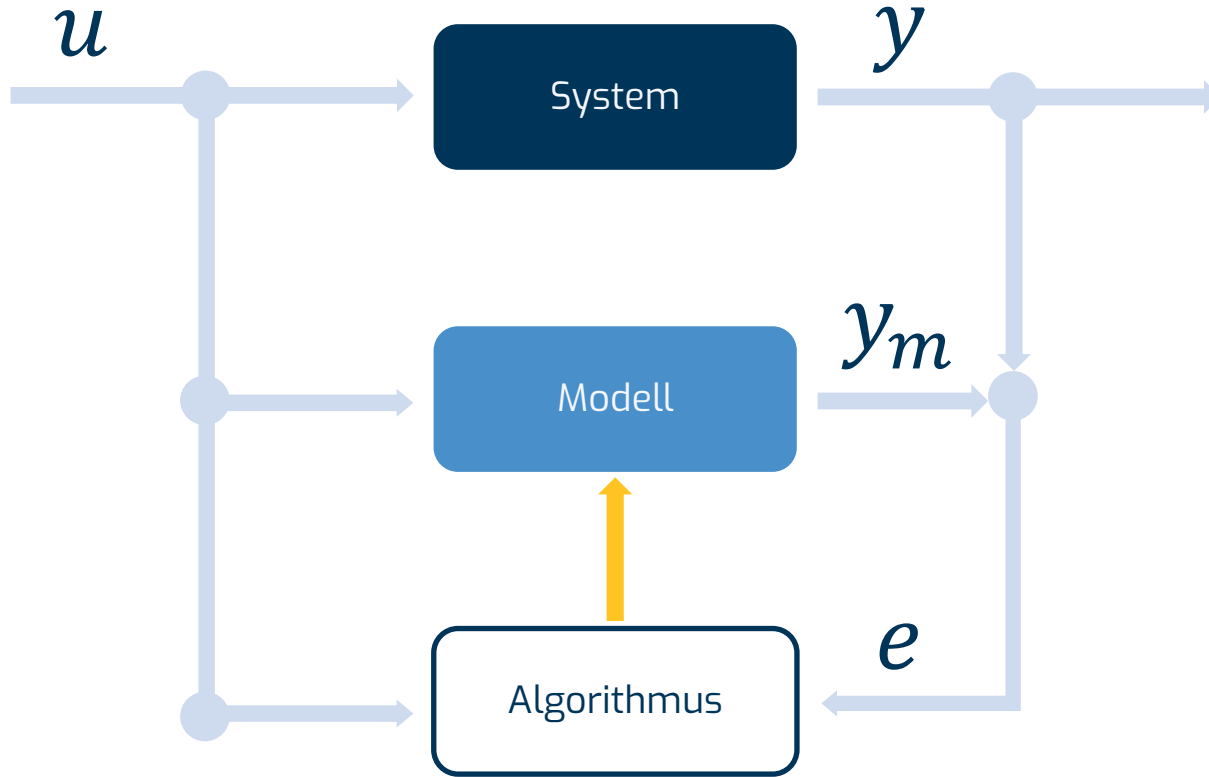
## 3. Praxis

Welche Schritte  
sind notwendig, um  
KI praxistauglich zu  
machen?



Alan Turing  
(1912 – 1954)

Quellen: [Wikimedia](#)



A photograph of a factory interior. In the center, an orange robotic arm is suspended in the air, holding a green component. The background shows a white wall with a horizontal track system and several small black robotic units mounted on it. The scene is dimly lit, with some overhead lights visible.

**KI macht's möglich!**

Quelle: [Youtube](#)



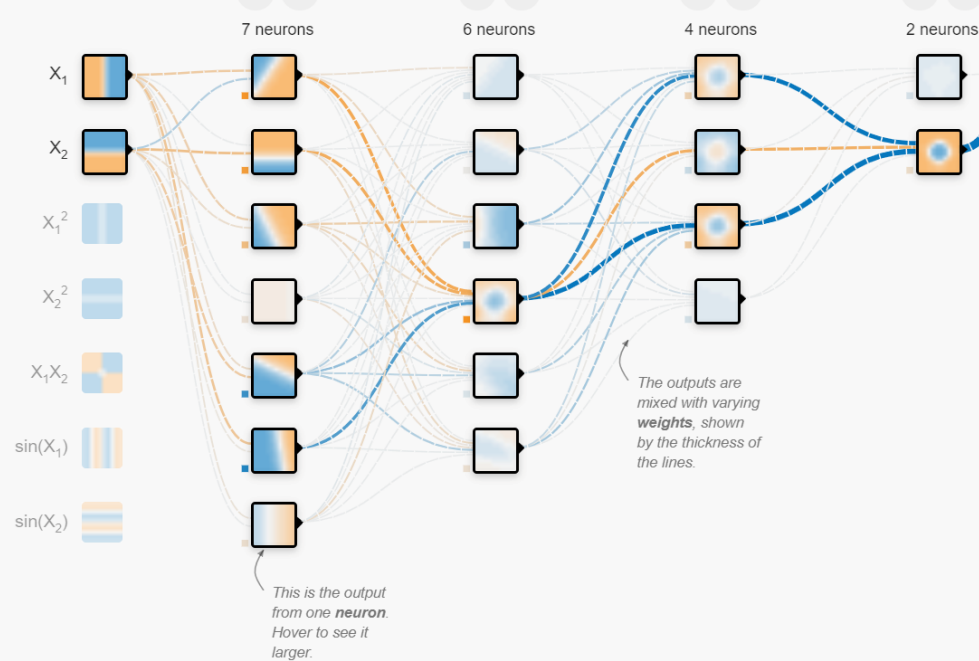
**Aber mit welchem Trainingsaufwand?**

Quelle: [Youtube](#)



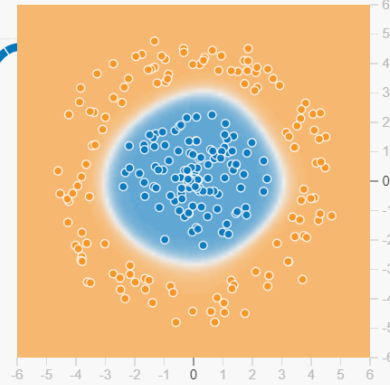
## FEATURES

Which properties do you want to feed in?



## OUTPUT

Test loss 0.001  
Training loss 0.001



Colors shows data, neuron and weight values.

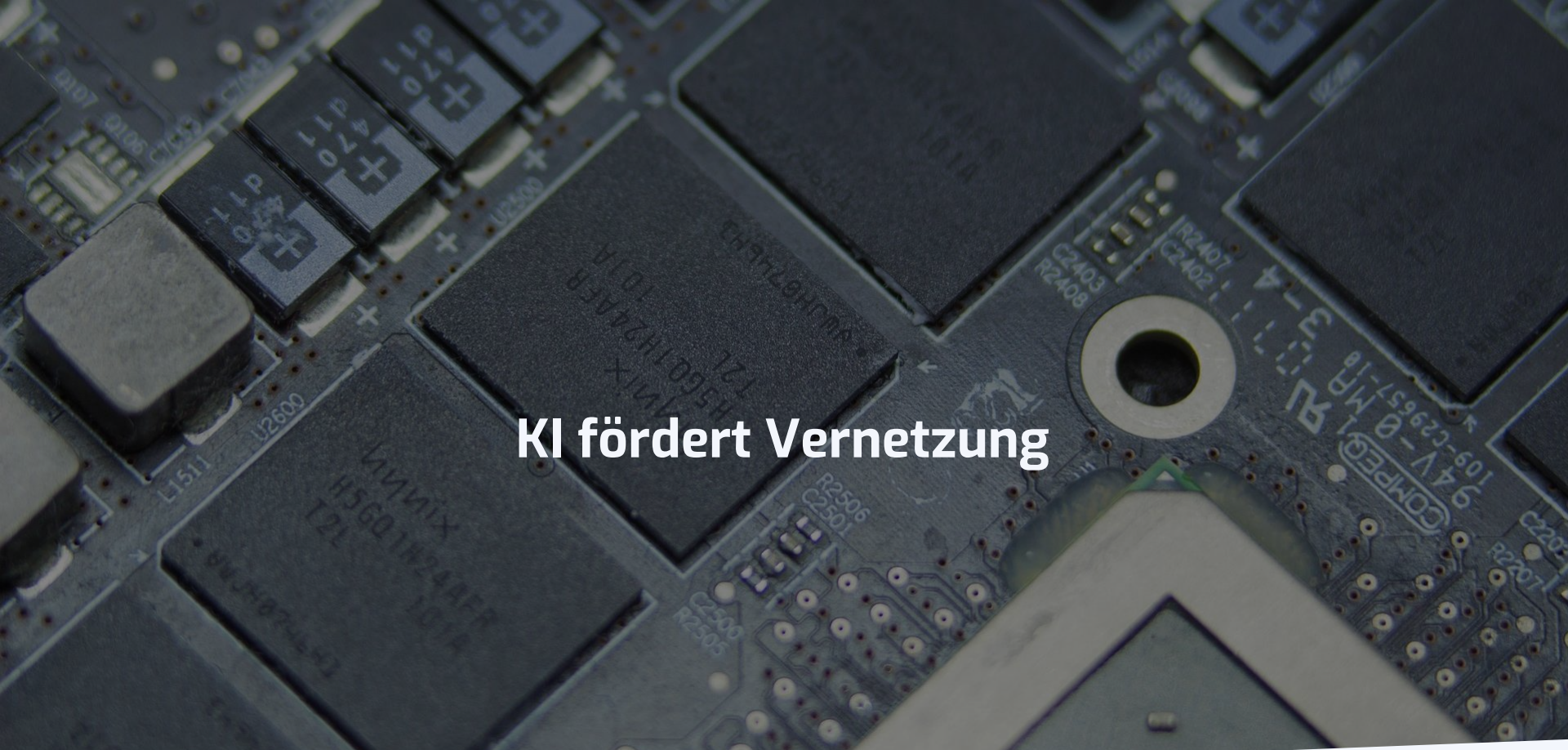
Show test data  Discretize output



Yann LeCun

Quellen: [Wikimedia](#), [Tensorflow](#)

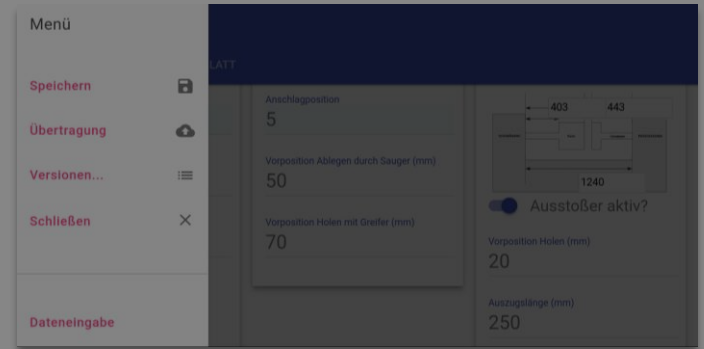
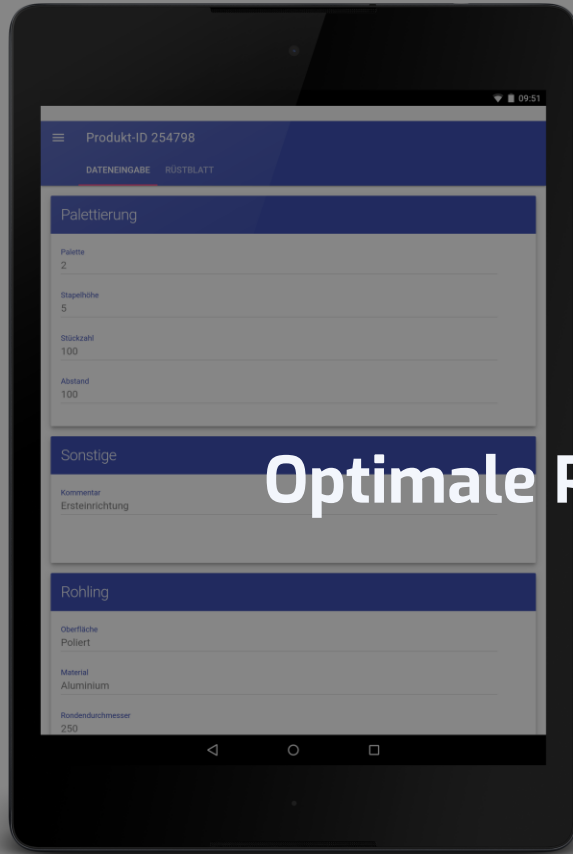




# KI fördert Vernetzung



Losgröße 1?



Optimale Parameter aus Daten lernen!



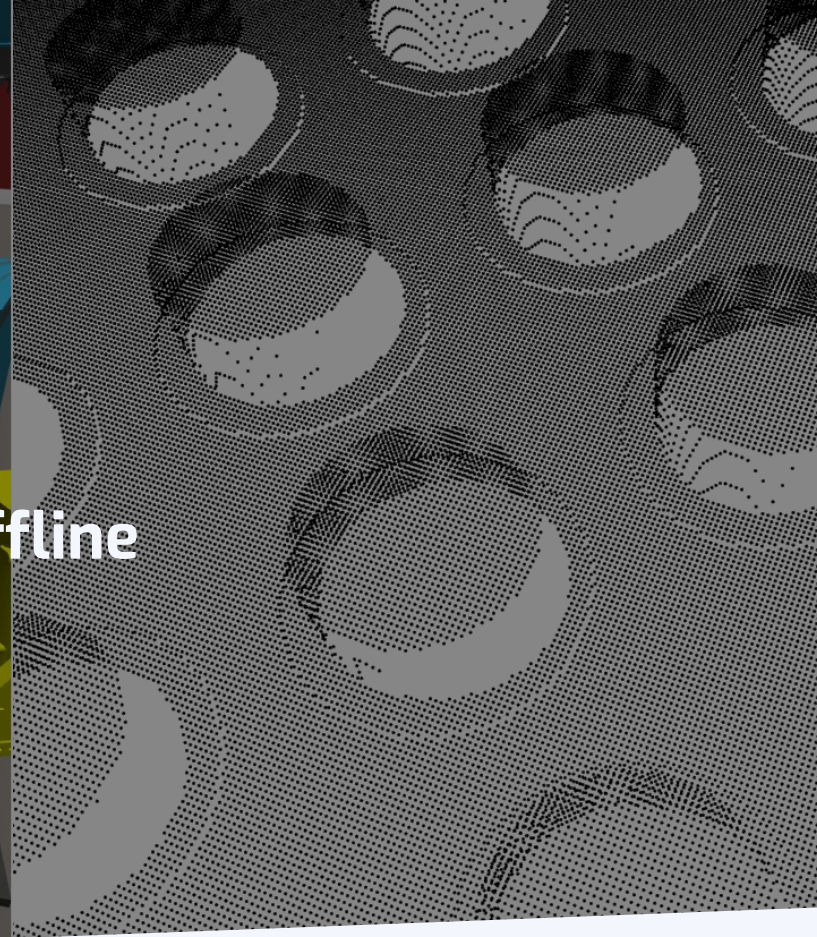


# Apps statt Monolithe



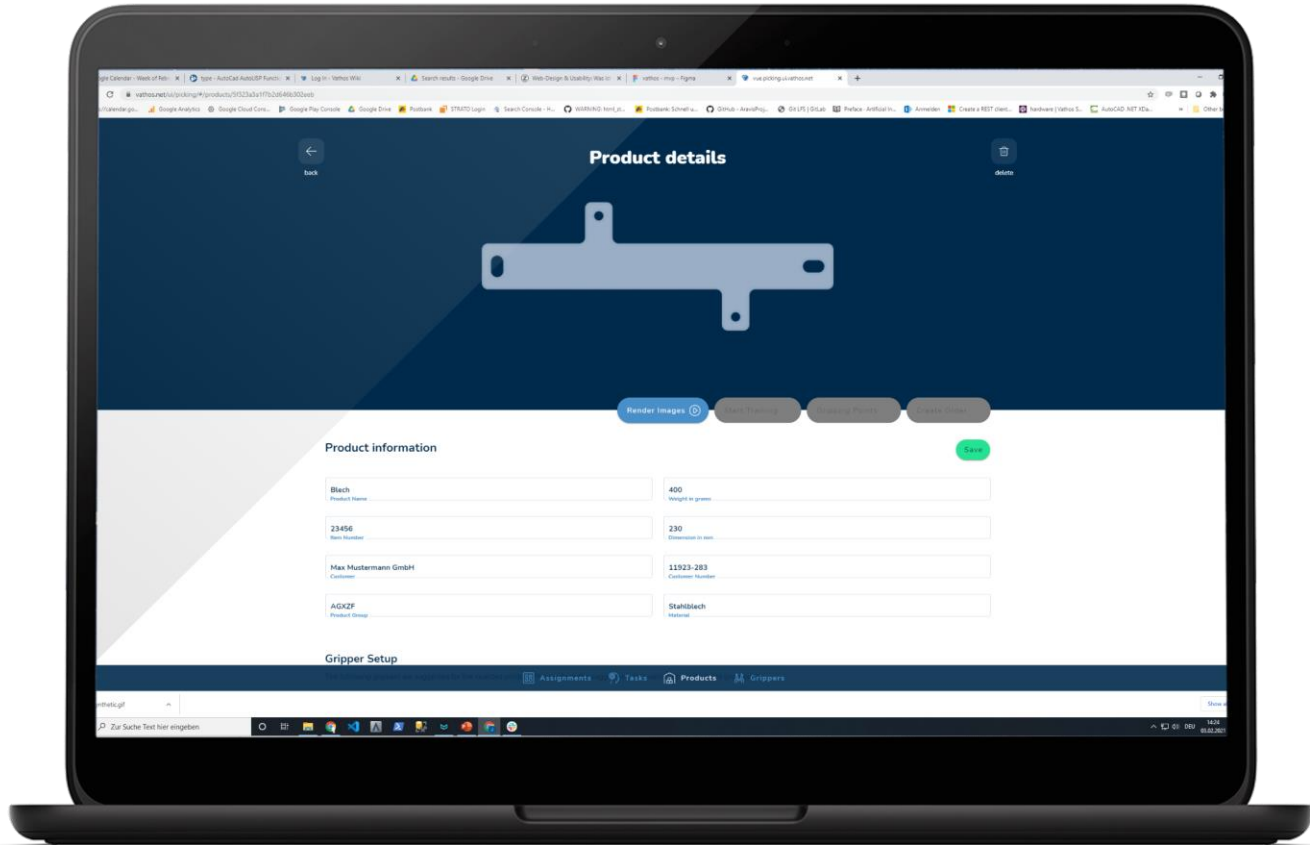
Close-up photograph of a mechanical assembly. Several vertical green strips are mounted on a wooden surface with screws. At the bottom, there are metal brackets or supports, also secured with screws. A small white label with a plus sign, a cross, and an arrow is visible on the right side of the assembly.

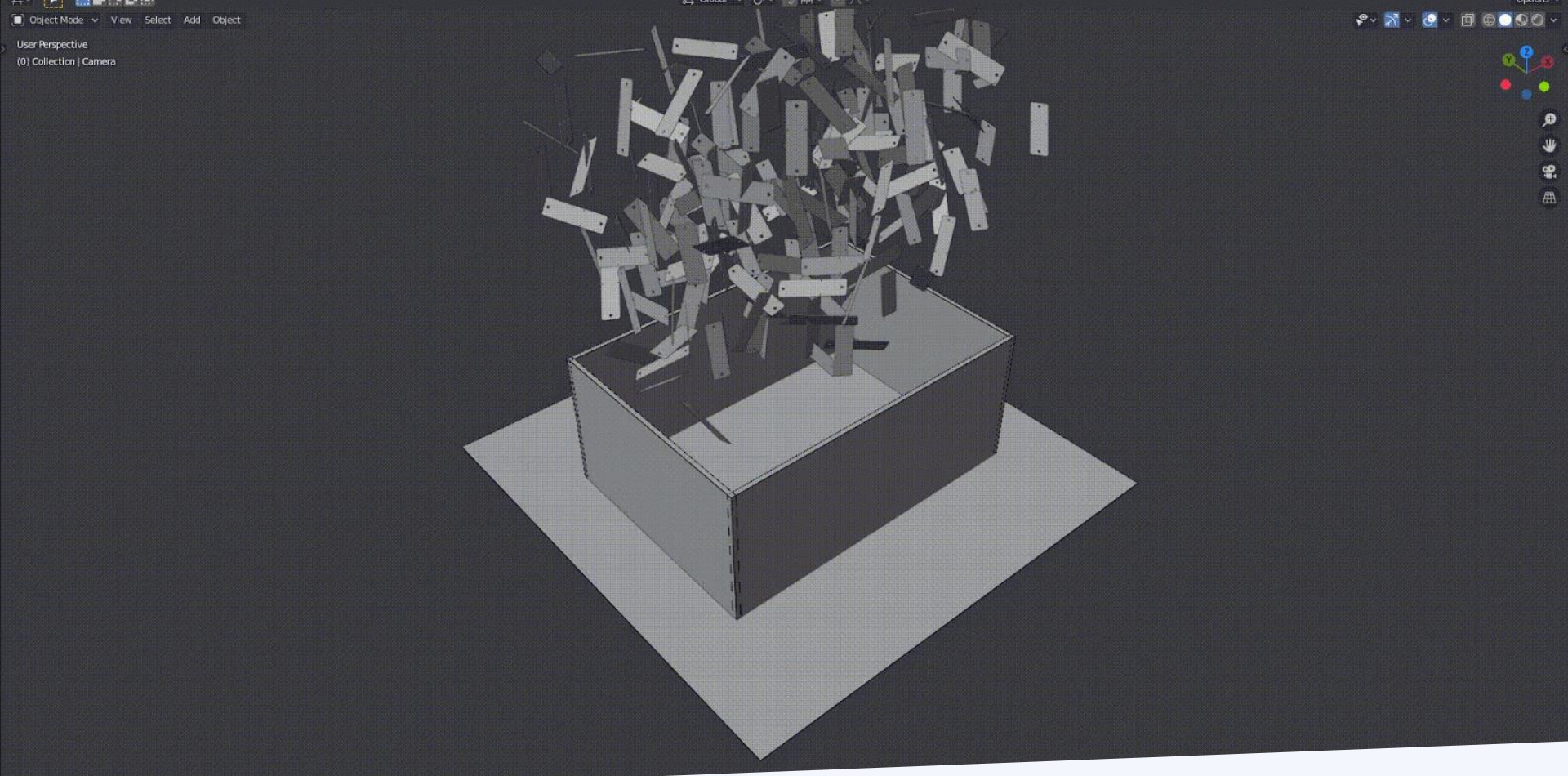
# Digital statt analog



## Online statt offline

Quelle: [Kristina Enes, RIF](#)

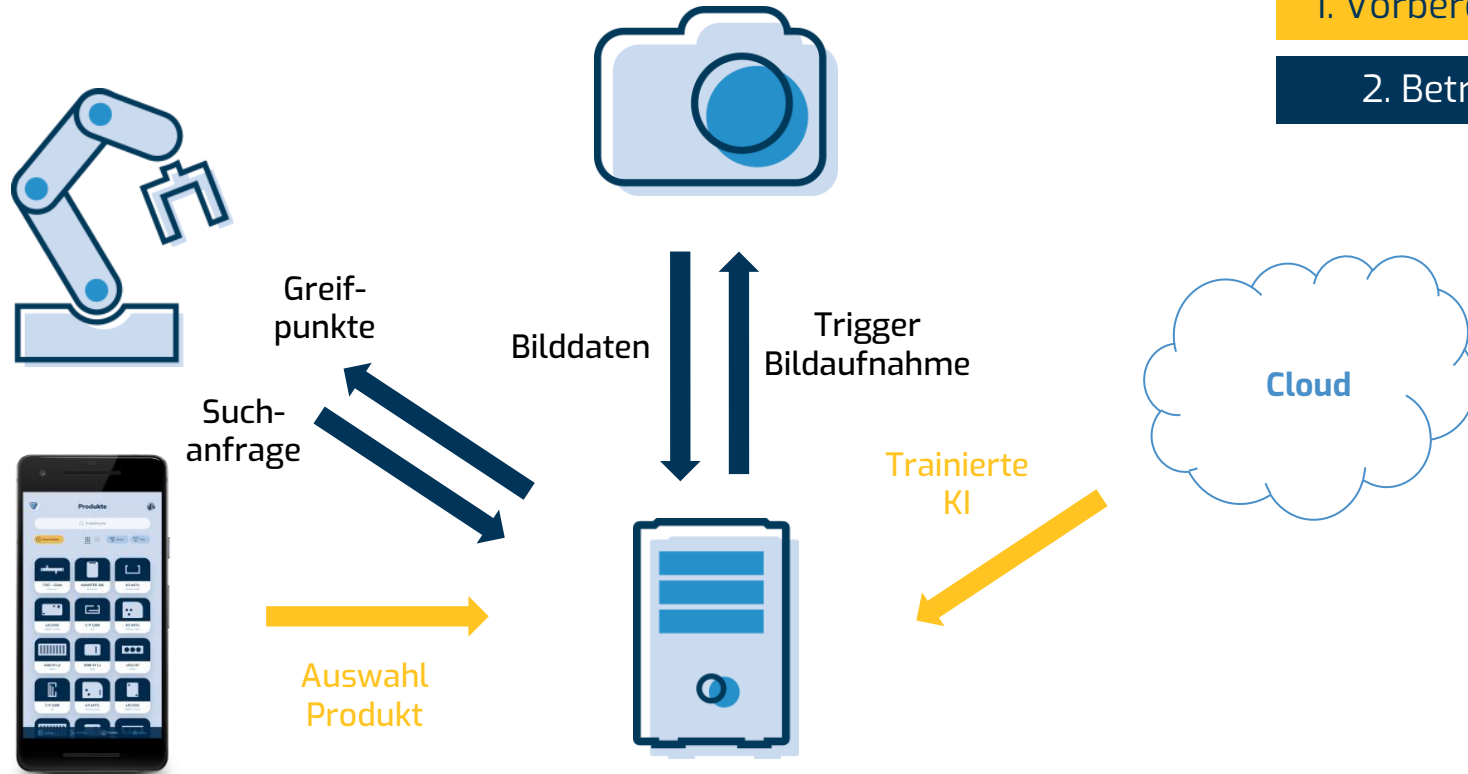






1. Vorbereitung

2. Betrieb





### Online statt offline

KI fördert Vernetzung smarterer hochspezialisierter Komponenten.



### Digital statt analog

Mechanische Vorrichtungen sind ein Flexibilitätshemmnis. Digitalisierung dank leistungsfähiger KI-basierter Algorithmen.



### Software aus dem Baukasten

Komposition von Softwarebausteinen statt Individualprogrammierung dank Vernetzung.



### Lernen aus Daten

Die optimale Einstellung einer Vielzahl von Parametern kann durch KI gelernt werden.

# Vielen Dank für Ihre Aufmerksamkeit!



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