

BENEDIKT MACK
JESSICA COUCH
ORLA VAN SONSBEEK



WELCOME TO OUR WORKSHOP

WHO NEEDS A TEACHER, WHEN YOU HAVE CHATGPT?!



Benedikt Mack

Student Economic
Psychology



Orla van Sonsbeek

Student Business Administration



Jessica Couch

Business and Marketing

Your presenters for today's workshop

WHO NEEDS A TEACHER,
WHEN YOU HAVE
CHATGPT?!



 **INTRODUCTION**

 **GAMES**

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TODAY'S AGENDA



INTRODUCTION

Instructions

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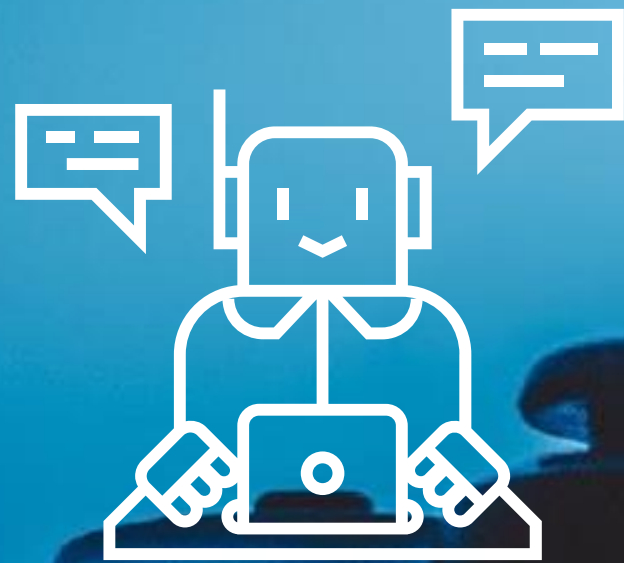
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ChatGPT

Teacher

GAMES



CHAT GPT

VS.



TEACHER

A huge thank you to **Dave Pieplebosch** (teacher of the study Business Administration), who provided us with the teachers perspective for the following game!

Teacher vs ChatGPT - How do you calculate the return of investment and when is this profitable?

To make an organization future-proof so that it can continue, investments in projects or campaigns are required. Every investment carries a certain amount of uncertainty, so in other words every project or campaign carries a risk. Risks on an investment should be rewarded. This reward and the degree of willingness to bear risk (risk aversion) is relevant for every investment.

The lower the risk aversion, the higher the reward. Namely, if you dare to take a lot of risk, you also want to be rewarded for it. So the higher the risk, the higher the reward, profitability or return.

One of the calculation methods to measure the profitability of an investment is the Return on Investment (ROI). Other rate calculation methods to calculate the profitability of a project, campaign or company are:

- Capital turnover
- Gross margin
- Return on equity
 - Net Profit
 - Operating profit
- Return on capital employed (ROCE)
 - Profit before tax

The ROI (Return On Investment) evaluates the overall success of an investment in a project or campaign by comparing the investment returns with the investment initially made by the company or investor in the project or campaign. To calculate company performance you can use ROCE.

So the formula for rate of return on investment (ROI) is:

Rate of Return On Investments = (Income or NOPLAT / Invested capital)

NOPLAT is calculated by: Net operating profit – adjusted Taxes.

Return on investment (ROI) is a financial metric that measures the profitability of an investment. The formula for calculating ROI is:

$$\text{ROI} = (\text{Net Profit} / \text{Cost of Investment}) \times 100\%$$

Net profit is calculated by subtracting the cost of investment from the total revenue generated by the investment. The cost of investment includes any expenses incurred to acquire, improve, or maintain the investment.

For example, if you invested \$10,000 in a business venture and earned \$12,000 in revenue after one year, your net profit would be \$2,000 ($12,000 - \$10,000$). Therefore, your ROI would be 20%:

$$\text{ROI} = (\$2,000 / \$10,000) \times 100\% = 20\%$$

In general, an ROI of 10% or higher is considered a good return on investment. However, the profitability of an investment depends on various factors, including the type of investment, the level of risk involved, and the time horizon of the investment. It's important to evaluate all these factors before making an investment decision.

Teacher vs ChatGPT - Is there a way to calculate the risks of investment?

Teacher

There are several ways to calculate risk relative to an investment. It's wise up forehand to know what is the fundamental relationship between risk and return? One way to estimate the opportunity e.g. of cost of capital is finding securities that have the same risk as the project has and to estimate the expected rate of return on these securities. To reduce the risk it's good to have a strategy of diversification, namely it reduces variability.

There are two ways to look at risk:

1. Unsystematic risk – means that it is wise to make a diversified portfolio of projects so there can be a balance of average risk and returns as would be as expected.

2. Systematic risk – some projects are inherently more risk than others, this risk cannot be diversified away (market risk). Risk has always a correlation to the possibility that an expected return will occur. Any method of calculating risk is too limited in its context. As a business professional, you will therefore have to apply several methods to get a better picture of the risk of the investment.

Some methods are:

1. Expected value (EV): is the weighted average of a decision. It gives the investor a rough picture (an indication) on the basis of not much information. E.g. $EV = P \cdot X$ = probability · share price $\Rightarrow 0.4 \cdot € 2,00 = € 0.80$
2. Standard deviation (σ): it measures the risk of the possible variations for e.g. to compare the different EV's. When the σ is higher it means that the risk is higher. It is the root square of the variance.
3. Markowitz's portfolio theory: it's a method for investors with a diversified portfolio of investments in different organizations. It combines EV, σ and
4. Value at Risk (VaR): is calculated to see what the potential loss of an investment is. A portfolio has a daily VaR of 5% of €1,000.- it means there is a 5% chance the portfolio will be reduced by € 1,000.- in value in one day.
5. Scenario analysis: This is used to evaluate project risk on the basis of variability of future cash flows and so net present value.
6. Capital Asset Pricing Model (CAPM): it assumes that the stock market has well diversified investors. The thought in the theory is that investors are risk averse. They accept a certain risk if the return is suitable on that risk. It states that this risk premium is equal to beta times market risk premium.
7. Beta: it's the sensitivity of a stock's return to the return on the market portfolio.

There are several ways to calculate the risks of investment. Here are some commonly used methods:

Standard deviation: Standard deviation is a statistical measure that calculates the degree of variation in a set of data. In investing, standard deviation is used to measure the volatility of an investment's returns. The higher the standard deviation, the more volatile the investment is, and therefore, the riskier it is.

Beta coefficient: Beta is another measure of volatility that is used to assess the risk of an investment. Beta measures the sensitivity of an investment's returns to changes in the overall market. A beta of 1 means that the investment is as volatile as the market, while a beta of less than 1 means that the investment is less volatile than the market and a beta of more than 1 means that the investment is more volatile than the market.

Sharpe ratio: The Sharpe ratio is a measure of risk-adjusted return that takes into account the risk of an investment. It measures the excess return of an investment compared to the risk-free rate (such as a U.S. Treasury bill) divided by its standard deviation. The higher the Sharpe ratio, the better the risk-adjusted return of the investment.

Value at Risk (VaR): VaR is a statistical measure that calculates the potential loss an investment could experience within a given time period, given a certain level of confidence. For example, a VaR of 5% over one year means that there is a 5% chance that the investment will experience a loss greater than the VaR over the next year. VaR is often used by investors to set stop-loss limits to manage risk.

It's important to note that no single measure can fully capture the risks associated with an investment. Investors should use a combination of these measures and other analysis techniques to evaluate the risk of an investment and make informed investment decisions.

ChatGPT

Teacher vs ChatGPT - Can you explain why it is important to make a financial statement?

A financial statement is a document that summarizes a company's financial transactions and provides an overview of its financial performance over a specific period of time. Financial statements typically include an income statement, balance sheet, and cash flow statement. Here are some reasons why financial statements are important:

Helps with decision-making: Financial statements provide important information about a company's financial health and performance. This information is essential for making informed decisions about investments, loans, and other financial matters.

Provides transparency: Financial statements provide transparency into a company's financial activities and help stakeholders understand how the company is performing. This information is important for investors, lenders, employees, and others who have a vested interest in the company.

Helps with compliance: Financial statements are required by law for many businesses, and failing to comply with financial reporting requirements can result in legal and financial penalties. Accurate and timely financial reporting is essential for maintaining compliance with regulatory requirements.

Enables benchmarking: Financial statements allow companies to compare their financial performance to that of other companies in their industry. This helps identify areas where the company is performing well and areas where it needs to improve.

Overall, financial statements provide a snapshot of a company's financial health and performance, which is essential for making informed decisions, maintaining compliance with regulations, and driving business success.

The financial statement is an overview of all the company's financial transactions over a certain period. It is a compilation of various financial statements such as balance sheet, cash flow statement and income statement. It shows what the financial health is how they perform.

It is important because:

- It helps a company to benchmark it self with other company's in their market, like competitors. To see how they perform in comparison with their competitors or other company's in their field.
- Provides for several institutions, including the tax authorities, and other stakeholders like investors important information about the company. It helps to promote transparency, but it remains a snapshot. In addition, there are so many possibilities to present financial statement as a certain truth. It is important to make the correct financial interpretations to improve transparency in use. History shows several case were it went wrong.
- Financial statements are required by law. So several authorities demand a correct financial statement to comply regulatory requirements.

Teacher vs ChatGPT - How do you calculate the break-even point?

It is an analysis to determine how much the turnover should be for a company before they make a profit. The BEP is the point where the level of sales at which profits are zero. In other words where total revenues equals total costs.

Break-even point (BEP) is a scenario calculation to inform managers of how far the estimated can be before the project breaks down and lose money. For a lot of projects the make-or-break is sales. You can also look at costs and how high they can go before the project gets into the red.

The formula is:

BEP of revenues = Fixed costs (including depreciation) / additional profit from each extra dollar of sales, or

Operational BEP (Q) = Fixed costs / (Price per unit - Variable costs per unit) \Rightarrow BEP Q = C / (P - V)

Fixed costs (C) are costs that stay constant independent of the level of production output.

Price per unit (P) is the price the buyer pays to the selling party

Variable costs per unit (V) are the costs that vary with the number of products produced e.g. raw materials of labour.

Q is the number of products.

Example:

C= € 100,000.-, V= € 100,- per unit, P= € 200,-

BEP= 100,000.- / (200 - 100) = 1000 pieces

Conclusion: if the company sells less than 1000 pieces they lose money, when they do the opposite it's makes a profit.

The break-even point (BEP) is the point at which the total revenue from sales is equal to the total costs of production, and there is no net profit or loss. To calculate the break-even point, you can use the following formula:

$$\text{BEP} = \text{Fixed Costs} / (\text{Price per Unit} - \text{Variable Costs per Unit})$$

Where:

Fixed Costs = The total costs that remain constant regardless of the level of output

Price per Unit = The selling price of each unit

Variable Costs per Unit = The total costs that vary with the level of output divided by the number of units produced.

To illustrate this formula, let's assume that a company has fixed costs of \$50,000, a selling price of \$20 per unit, and variable costs of \$10 per unit. The break-even point can be calculated as follows:

$$\text{BEP} = \$50,000 / (\$20 - \$10) = 5,000 \text{ units}$$

This means that the company needs to sell 5,000 units to cover its fixed and variable costs and break even. If it sells less than 5,000 units, it will make a loss, and if it sells more than 5,000 units, it will generate a profit.

Teacher vs ChatGPT - What is a balance sheet

and how do you use it?

A balance sheet is a financial statement that provides a snapshot of a company's financial position at a specific point in time. It presents a summary of a company's assets, liabilities, and equity, and shows the relationship between them.

The balance sheet is organized into two main sections:

Assets: This section lists all of the resources that a company owns and controls, including cash, accounts receivable, inventory, property, and equipment.

Liabilities and Equity: This section lists all of the debts and obligations that a company owes to others, including loans, accounts payable, and taxes. Equity represents the ownership interest in a company and includes capital contributed by owners, retained earnings, and other equity accounts.

To use a balance sheet, you can analyze it to determine a company's financial health and stability. By examining the relative proportion of assets and liabilities, you can assess a company's liquidity and solvency. For example, if a company has a large amount of cash and marketable securities relative to its liabilities, it may be more able to weather short-term financial challenges. Additionally, if a company has a high amount of equity relative to its liabilities, it may be considered less risky by investors.

Overall, the balance sheet is an essential tool for evaluating a company's financial position and making informed investment decisions.

Every organization is obliged to share its financial data publicly. Some small organizations are exempt from this. This is subject to various legal rules. The balance sheet provides an overview, as a snapshot, of the financial position of an organization. It shows what the assets and debts of an organization are and how they relate to each other.

The balance sheet has an assets side and a liability / equity side. For investors it provides important information to make a well-calculated investment. They can make on the basis of several key figures well-considered financial decisions to invest in the company, e.g. to buy shares.

Key figures can be:
• Liquidity ratios: acid test, current ratio
• Solvency ratios

The asset side shows the possessions with which the organization realizes its business. The debt and equity side shows how that's been financed by equity and debt.

Teacher vs ChatGPT - Can you explain how the cashflow is used and how to calculate this, the way a teacher would

Cash flow is a financial term that refers to the amount of cash or cash equivalents moving into and out of a business during a particular period of time. It is an important indicator of a company's financial health because it provides insight into how much cash the company has available to pay its debts, reinvest in the business, and distribute to its owners.

Calculating cash flow involves subtracting a company's total cash outflows from its total cash inflows for a given period. The result is the net cash flow, which can be either positive or negative.

ChatGPT

To calculate cash flow, follow these steps:

Identify the period of time for which you want to calculate cash flow (e.g. a month, a quarter, a year).

Determine the total cash inflows for that period. This includes cash received from sales, investments, loans, and any other sources of income.

Determine the total cash outflows for that period. This includes cash paid for expenses such as salaries, rent, utilities, supplies, and any other costs incurred by the business.

Subtract the total cash outflows from the total cash inflows to calculate the net cash flow for the period.

A positive net cash flow means that the company had more cash inflows than outflows, indicating that the company generated cash during the period. This is generally viewed as a positive sign for the company's financial health. On the other hand, a negative net cash flow means that the company had more cash outflows than inflows, indicating that the company used up cash during the period. This may be a cause for concern and may require the company to take measures to improve its cash flow, such as cutting expenses, increasing sales, or obtaining financing.

Cash is KING!

Cash flow, is a financial term to indicate cash or other cash elements. It indicates the financial health of an organization by showing how much cash an organization has to pay its debts to its creditors. But also how financially strong the organization is to invest in, for example, innovations or payments to shareholders.

A positive cash flow indicates that the organization has more income than expenses and for a negative cash flow it means the opposite is true. In the last situation, the organization should always take measures to reduce costs and reduce expenses.

You can calculate a cash flow as follows:

Teacher

• Cash flow = cash inflow - cash outflow, or
• Net cash flow = net profit after tax + depreciation.

Profit is not the same as cash flow. Profit is what you have left over at the end of the financial year as an organization through everything you have converted minus the costs. Cash flow is the money flow through your company, both incoming and outgoing.

Net income and cash flow can differ from each other. There can be two reasons for it.

- Income statement does not recognize capital expenditures as expenses, instead it will be seen as an annual deduction for depreciation.
- The income statement uses accrual method of accounting, revenues and expenses are accepted when sales is made instead of when cash is paid or received.

Important are the cash flow statements. Those statements show the incoming and outgoing cash from operations, investments and financing activities.

Cash from operating activities are those cashflows that comes from company's core activities. Cash from investing activities are those cashflows a company has made by acquire a new company or an investment in equipment or plant. The last can be activities such as sale from stocks. Every calculation of the cash flow statement starts with net income adjusted by non-cash items.

Teacher vs ChatGPT - What kind of theories can you use to do change management?

Change management is a profession that has a lot of scientific research. So you can choose different theories. To choose a certain model it is necessary that the criteria of that model suits to the need of the changes. Different factors are important to choose the right theory or model.

The easiest models are the following models:

1. Lewin's change model – Unfreeze, Move, Refreeze. It states that you have to unfreeze the states quo of the company before you can implement the change – called the moving phase - and finally you have to refreeze it as the new status quo for the future of the company. This thinking has a disadvantage, because it's linear thinking and change is never a linear situation in an organization.

2. Another often educational model is the 8-steps of Kotter. This is an improvement of the model of Lewin. These steps are:

1. Create urgency 2. Form a powerful coalition 3. Create a vision of change 4. Communicate the vision 5. Empower action 6. Create quick wins 7. Build on change 8. Make it stick. Kotter improved the model of Lewin. His steps 1 & 2 are the Unfreeze phase of Lewin, the steps 3,4,5,6 and 7 are the phases in Moving and the final step 8 is the phase Refreeze.

The disadvantage of his theory is that it is a general model for every change situation.

3. Color thinking of Leon de Caluwe & Hans Vermaak. This theory round colors is that every color has it's own movement and approach in change management. The framework states that it helps in thinking in the view how others think about change. The five colors are:

4. Yellow – the starting point is that change can only be realized with influential people. This is in political contexts or organizations where politics is relevant;

Blue – rationality is very important and not power. Analyzation of the problem gives the best solution of the problem and will be implemented by a plan. It's mainly on the hard side of an organization, like systems, strategy or structures.

Red – motivation and behavior are the aspects that are important. People only change their behavior when they are stimulated to do so. Management by walking around is an example.

Green – learning is the symbiose of change. Change of the organization can only be made when the behavior of employees is changed. But the constraint is that employees already know how and what to change.

White – change is continuous process it has in its own context everything flows. A example is to change the structure to the changes in the business landscape or society.

There are several theories that can be useful for change management. Here are a few examples:

1. Lewin's Change Management Model: This model consists of three stages: unfreezing, changing, and refreezing. It suggests that change can be best achieved by first unfreezing the current state, then implementing the change, and finally refreezing the new state to make it the new status quo.

2. Kotter's Eight-Step Change Model: This model involves eight steps that organizations can follow to successfully implement change. These steps include creating a sense of urgency, building a coalition of support, creating a vision for the change, communicating the vision, empowering others to act on the vision, creating short-term wins, consolidating gains and producing more change, and anchoring new approaches in the organization's culture.

3. Action Research Model: This model involves a process of diagnosing a problem, planning and implementing change, and then evaluating the results to determine if the change was successful. It is an iterative process that involves ongoing feedback and continuous improvement.

4. Appreciative Inquiry: This approach involves focusing on an organization's strengths and positive aspects rather than its weaknesses and problems. By exploring and building on existing strengths, organizations can create a more positive and proactive approach to change.

These are just a few examples of the many theories and models that can be useful for change management. The specific theory or approach that is best suited for a particular change initiative will depend on a variety of factors, including the nature of the change, the organizational culture, and the stakeholders involved.

Teacher vs ChatGPT - Can you explain the Lewin's Change management model on a deeper level with examples?

Lewin's Change Management Model is a three-stage model that explains how to implement change in an organization. The three stages are:

Unfreezing - In this stage, the current state of the organization is analyzed, and the need for change is identified. This stage involves breaking down the existing mindset or habits that are preventing change. This could involve changing people's attitudes or behaviors or removing obstacles to change.

Changing - Once the unfreezing stage is complete, the organization moves into the changing stage. In this stage, new processes or procedures are introduced, and the organization is transitioned from the old state to the new state. This stage can involve a lot of experimentation, trial and error, and adjustment to find the best way to implement the change.

Refreezing - In the final stage of Lewin's Change Management Model, the new state is solidified as the new status quo. This stage involves embedding the change into the organization's culture, systems, and processes to ensure that it becomes a permanent part of the organization. This can involve creating new policies or procedures, training employees, and reinforcing new behaviors through recognition and reward systems.

Example: A company has identified that it needs to implement a new customer relationship management (CRM) system to improve its sales process. In the unfreezing stage, the company would analyze the current sales process, identify the need for change, and communicate the need to employees. In the changing stage, the company would implement the new CRM system and train employees on how to use it. In the refreezing stage, the company would embed the new system into its culture and reinforce its use through rewards and recognition for employees who use the system effectively.

The change model of Lewin is a simple model. Every phase consists the following steps:

Unfreeze:

- Recognize need for change
- Determine what needs to change
- Encourage new behavior and attitudes
- Management supports completely
- Understand the doubts and manage them

Moving:

- Plan the changes
- Implement changes – use PDCA (Deming cycle)
- Help employees to understand new concepts and the point of view

Refreeze:

- Stabilize and reinforce changes
- Integrate changes as normal
- Develop ways to sustain change
- Celebrate success

Example :

Context: A production organization Y is under pressure from a large group of important customers. They no longer want to pay the high price because the organization has no added value in their strategy and growth as customers. The management has set up a strategic plan to start servicing. This servitisation is unknown to production and office staff. No one wants to change and start selling services. How???

Unfreeze: The organization has to come out of the status quo and become detached from the old habits and thinking patterns.

Moving: New working methods and customer-oriented behavior must become part of employees.

Refreeze: When the customer-oriented thinking and behavior is central in the organization, the organization is in a new status quo.



THEORETICAL COMPARISON

To summarize

First impression

Length of explanation

Writing style

Dependent on detail in question

Tone of voice

Expertise



INSIGHTS

Grasping insights

Tone



Empathy



Creativity

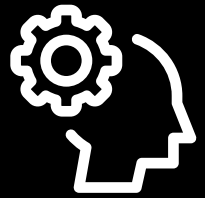




PAINTING PICTURES

Dystopian picture

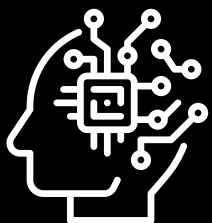
TEACHERS GET REPLACED BY AI



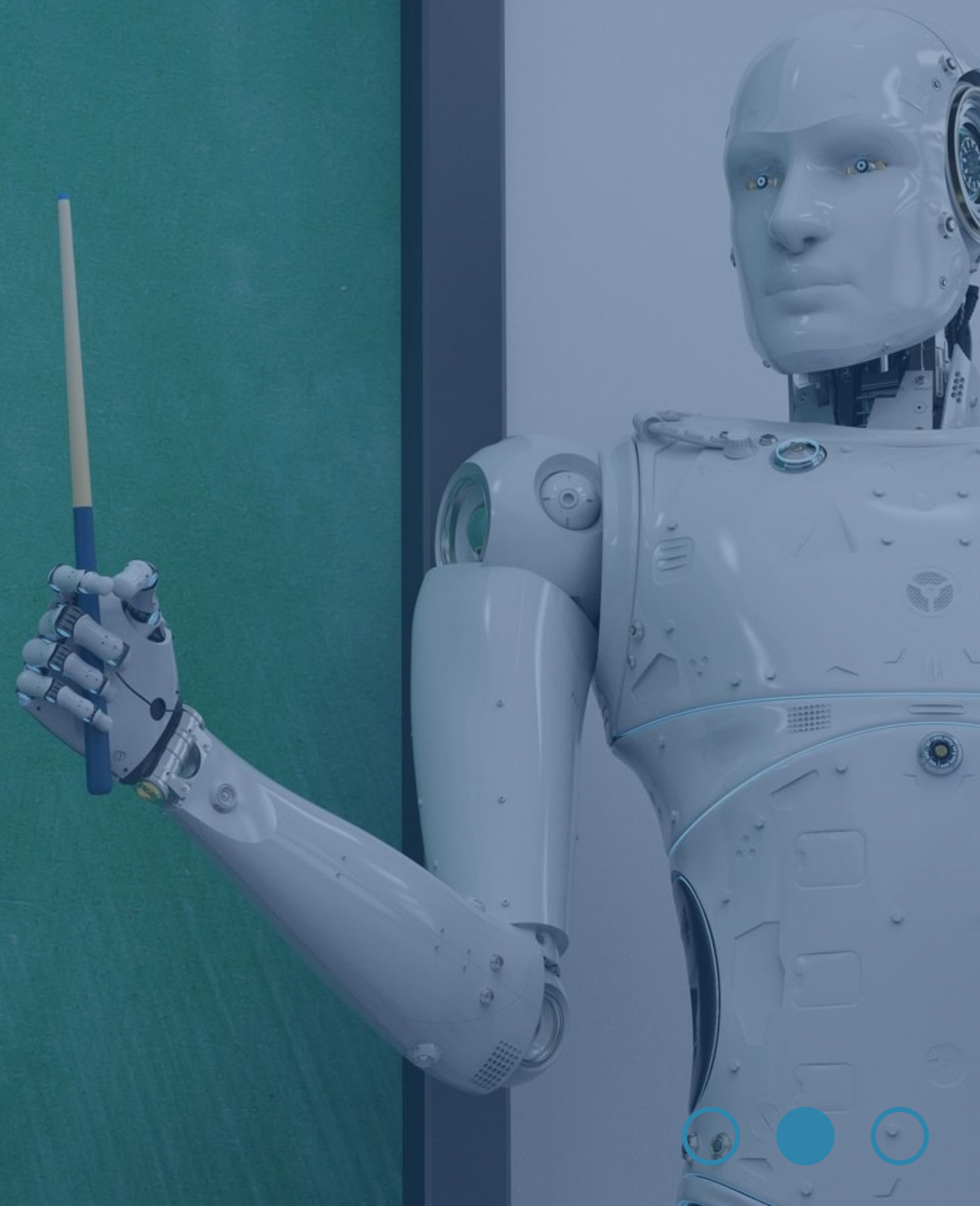
Lack of human connection and empathy,
with rising inequality



No adaption to individual student needs
and lack of important qualitative skills



High technological dependency and
reliance on only one source of information

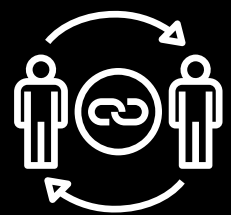


Utopian picture

TEACHERS WORK HAND IN HAND WITH AI-TOOLS



Offer personalized and tailored learning journeys for students



Use of AI-tools for time-consuming tasks while focusing on teaching important qualitative and social skills

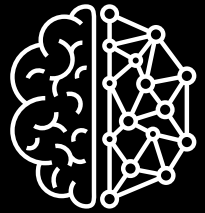


Strengthen teachers' capabilities by enhancing understanding for students



Building Bridges

INDICATIONS FOR TEACHERS TODAY



Acknowledge Chat GPT as a teaching tool
not a cheating tool



Use Chat GPT to offer students a unique
and balanced learning & teaching journey



Integrate Chat GPT in the preparation and
teaching process



“While I possess knowledge and instructional capabilities, the holistic aspects of teaching, including human connection and empathy, are best provided by human teachers”

-Chat GPT

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