ITAG SKILLNET AI ADVANTAGE

AI in Plain English

Demystify & Decide

A practical guide to understanding AI and making informed decisions for your business

90-Minute Interactive Workshop

Today's Journey

Part 1: Demystify (45 min)

- What AI actually is (and isn't)
- The AI landscape explained
- How modern AI works
- What AI can do today

Part 2: Decide (45 min)

- AI opportunities for your business
- Build vs. Buy decisions
- Risks and considerations
- Getting started - practical steps

Interactive Demo: We'll use a live AI demo throughout - ask questions anytime!

PART 1: DEMYSTIFY

We're at an Inflection Point

$15.7T

Projected AI contribution to global economy by 2030

77%

of companies using or exploring AI in 2024

100M

ChatGPT users in first 2 months (fastest adoption ever)

> *"AI is the most profound technology humanity is working on. More profound than fire or electricity."*
>
> *— Sundar Pichai, CEO of Google*

What is AI, Really?

Artificial Intelligence: Software that can perform tasks that typically require human intelligence

AI IS:

- ✓ Pattern recognition at scale
- ✓ Statistical prediction
- ✓ Automation of cognitive tasks
- ✓ A tool that amplifies human capability
- ✓ Trained on data (learns from examples)

AI IS NOT:

- ✗ Conscious or sentient
- ✗ Magic or unpredictable
- ✗ Going to replace all jobs
- ✗ Always right or unbiased
- ✗ The robot apocalypse

AI Through the Ages

1950s-80s
Rule-Based AI

If-then rules written by humans

→

1990s-2010s
Machine Learning

Systems learn from data

→

2010s
Deep Learning

Neural networks at scale

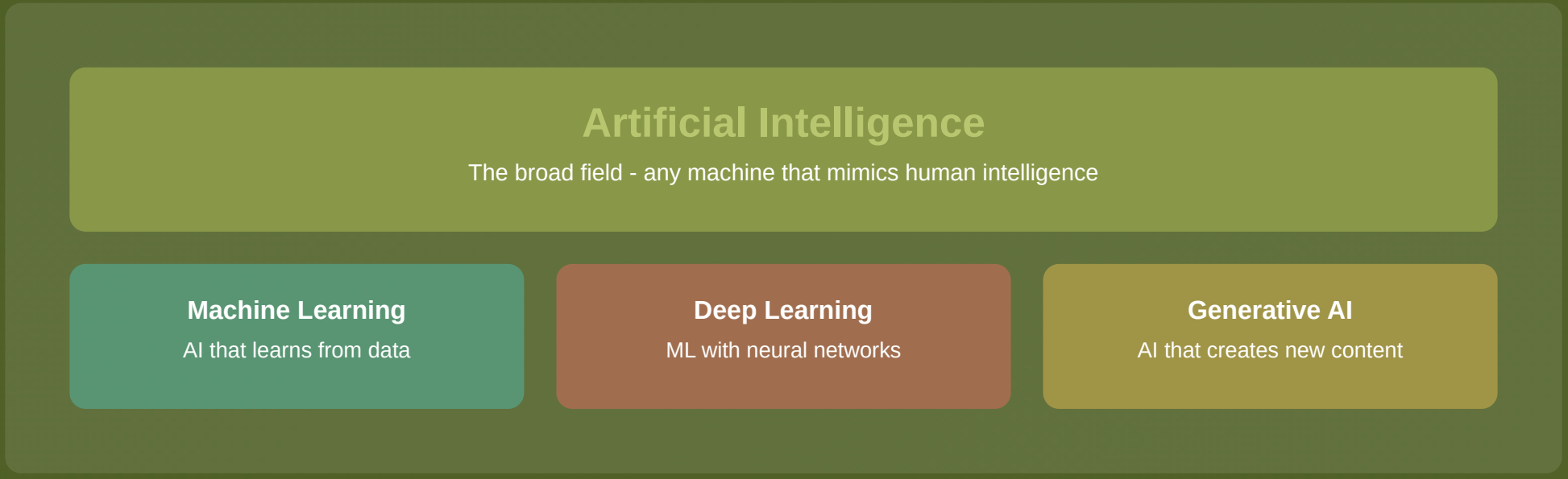
→

2020s
Generative AI

AI that creates content

Key Insight: Each wave didn't replace the previous - they built upon each other. Today's AI uses all of these approaches.

The AI Landscape - A Simple Map



Types of AI You'll Encounter

Large Language Models (LLMs)

ChatGPT, Claude, Gemini

- Text generation
- Conversation
- Code writing
- Analysis

Image Generation

DALL-E, Midjourney, Stable Diffusion

- Create images from text
- Edit photos
- Design assets
- Product mockups

Predictive AI

Traditional ML in business

- Forecasting
- Recommendations
- Fraud detection
- Churn prediction

How ChatGPT Actually Works

In plain English - no PhD required!

"The cat sat on the ___"

↓ AI predicts the most likely next word ↓

"mat" (92%) | "floor" (5%) | "couch" (2%) | ...

That's it! LLMs are sophisticated "autocomplete" systems trained on massive amounts of text to predict what comes next. They don't "understand" - they're incredibly good at patterns.

Training

Read most of the internet, books, code, and documents. Learn patterns of human language.

Inference

Given your prompt, predict the most likely helpful response based on patterns learned.

The Magic of Scale

Simple concept + massive data + huge compute = emergent abilities

175B

Parameters in GPT-3 (numbers the model learned)

45TB

Training data (books, websites, code)

$100M+

Cost to train a frontier model

Emergent Abilities: At scale, LLMs developed capabilities nobody programmed:

- Reasoning and problem-solving
- Following complex instructions
- Translating between languages

- Writing code in any programming language

What AI Can Do Today

Generate

- Write content
- Create images
- Generate code
- Compose emails

Analyze

- Summarize documents
- Extract insights
- Sentiment analysis
- Pattern detection

Transform

- Translate languages
- Reformat data
- Convert formats
- Simplify/expand

Assist

- Answer questions
- Brainstorm ideas
- Debug problems
- Provide explanations

Real Business Use Cases

Department	Use Case	Impact
Customer Service	AI chatbots, ticket routing, response suggestions	40-60% reduction in response time
Marketing	Content generation, personalization, ad copy	3-5x content output increase
Sales	Lead scoring, email personalization, call analysis	20-30% conversion improvement
Operations	Document processing, data extraction, reporting	70-80% time savings on manual tasks
Development	Code generation, debugging, documentation	30-50% developer productivity gain

What AI Cannot Do (Yet)

Limitations

- ✗ Truly understand or have consciousness
- ✗ Access real-time information (without tools)
- ✗ Learn from your conversation long-term
- ✗ Guarantee factual accuracy
- ✗ Make ethical judgments
- ✗ Replace human creativity and intuition

Common Pitfalls

- **Hallucinations:** AI confidently states false information
- **Bias:** Reflects biases in training data
- **Context limits:** Can't process unlimited text
- **Stale knowledge:** Training data has a cutoff date

Golden Rule: AI is a powerful assistant, not an infallible oracle. Always verify important outputs!

The Major AI Players

OpenAI

GPT-4, ChatGPT, DALL-E

Market leader, most advanced models, Microsoft partnership

Anthropic

Claude

Safety-focused, excellent for analysis and coding

Google

Gemini (formerly Bard)

Integrated with Google ecosystem

Meta

Llama (Open Source)

Free to use, run locally, customize

Microsoft

Copilot (powered by OpenAI)

Integrated in Office, GitHub, Azure

Amazon

Bedrock, Q

AWS integration, enterprise focus

PART 2: DECIDE

Making AI Decisions for Your Business

From understanding to action

Now that you understand what AI is and can do, let's talk about how to evaluate and implement it in your organization.

Finding AI Opportunities

Ask these questions about your processes:

Good AI Candidates

- ✓ Repetitive tasks with clear patterns
- ✓ High volume, low complexity work
- ✓ Text or document processing
- ✓ Customer interactions (FAQ, support)
- ✓ Data analysis and reporting

Poor AI Candidates

- ✗ Requires real-time accuracy (medical, legal)
- ✗ Highly creative/strategic decisions
- ✗ Emotionally sensitive situations
- ✗ Novel problems with no training data
- ✗ Tasks requiring physical presence

✓ Content creation at scale

✗ Decisions with major consequences

Build vs. Buy: Your Options

Option	Description	Best For	Cost
Use Existing AI	ChatGPT, Copilot, Claude directly	Quick wins, individual productivity	€20-30/user/month
Buy AI-Powered Software	Tools with AI built-in (Salesforce Einstein, etc.)	Specific business processes	Varies by vendor
Build on AI APIs	Custom solutions using OpenAI/Claude APIs	Unique workflows, integration needs	Dev time + API costs
Build Custom Models	Train your own AI models	Proprietary data advantages	High (specialists needed)

Recommendation: Start with using existing AI tools, prove value, then build custom solutions for competitive advantage.

Calculating AI ROI

Costs to Consider

- Subscription/license fees
- API usage costs
- Integration development
- Training and change management
- Ongoing maintenance
- Data preparation

Benefits to Measure

- Time saved (× hourly cost)
- Increased output/throughput
- Error reduction
- Customer satisfaction improvements
- Revenue from new capabilities
- Competitive advantage value

Quick ROI Example:

10 employees × 5 hours saved/week × €50/hour × 50 weeks = **€125,000/year**

Cost: 10 × €30/month × 12 = **€3,600/year** → ROI: **35x**

AI Risks to Consider

Security & Privacy

- Data sent to third parties
- Training data concerns
- GDPR compliance
- Confidential info leakage

Legal & Compliance

- IP and copyright questions
- Liability for AI errors
- Industry regulations
- EU AI Act requirements

Organizational

- Employee concerns
- Skill gaps
- Change resistance
- Over-reliance on AI

EU AI Act: New regulations coming into force - AI systems will be categorized by risk level with

compliance requirements. Plan ahead!

Data: The Foundation of AI Success

Garbage In = Garbage Out

AI is only as good as the data it's trained on or given access to.

Data Questions to Ask

- Do we have relevant data for this use case?
- Is our data clean and well-organized?
- Can we legally use this data for AI?

Data Best Practices

✓ Audit your data assets

✓ Clean and standardize formats

✓ Establish data governance

✓ Document data sources and lineage

- How will we keep data current?
- Where does our data go when using AI tools?

✓ Use enterprise AI tiers (data stays private)

Getting Started: A Practical Framework

1□ **Experiment**
Week 1-2
Try ChatGPT/Claude personally

→

2□ **Identify**
Week 2-4
Find 3-5 quick win use cases

→

3□ **Pilot**
Month 2-3
Small team, one use case

→

4□ **Scale**
Month 4+
Expand what works

Start Small, Learn Fast: Don't try to transform everything at once. Pick one process, prove value, iterate.

Quick Wins You Can Start Tomorrow

Email Drafting

Use AI to draft professional emails, then edit for your voice.

Time saved: 50%

Meeting Notes

Summarize meeting recordings or notes into action items.

Time saved: 70%

Data Analysis

Upload spreadsheets and ask questions in plain English.

Time saved: 60%

Document Review

Code Assistance

Research

Summarize long documents, extract key points.

Time saved: 80%

Generate, explain, debug, and document code.

Productivity: +40%

Quick market research, competitor analysis, brainstorming.

Time saved: 65%

Getting Better Results: Prompt Engineering

How you ask determines what you get

✗ Weak Prompt

"Write a marketing email"

Result: Generic, unusable content

✓ Strong Prompt

"Write a 150-word marketing email for our SaaS product launch. Target audience: IT managers in mid-size companies. Tone: professional but friendly. Include: one compelling benefit, social proof mention, clear CTA for a free trial."

Result: Targeted, usable content

The CRAFT Framework:

Context (background info) + **R**ole (who AI should be) + **A**ction (what to do) + **F**ormat (how to structure) + **T**one (voice/style)

Creating Your AI Policy

Every organization should have clear guidelines

What to Include

✓ Approved tools and platforms

✓ Data classification rules (what can/can't be shared)

✓ Review requirements for AI outputs

✓ Attribution and transparency requirements

Key Principles

- **Human oversight:** AI assists, humans decide
- **Transparency:** Disclose AI use when appropriate
- **Privacy first:** Never share sensitive data

✓ Training and competency expectations

✓ Incident reporting procedures

- **Quality control:** Verify AI outputs
- **Continuous learning:** Update as AI evolves

Enabling Your Team

Training

- Basic AI literacy for all
- Tool-specific training
- Prompt engineering workshops
- Security awareness

Champions

- Identify early adopters
- Create AI champions network
- Share success stories
- Peer support system

Governance

- Clear policies
- Feedback mechanisms
- Usage monitoring
- Regular reviews

Culture Matters: The organizations winning with AI are those that create safe environments to experiment and learn.

What's Coming Next

Near-term (2024-2025)

- AI agents that can take actions
- Better reasoning capabilities
- Multimodal (text + image + voice)
- More specialized industry models
- Lower costs, faster responses

Medium-term (2025-2027)

- AI workflows replacing manual processes
- Personal AI assistants
- AI-first software design
- Autonomous coding agents
- Enhanced creativity tools

The Competitive Imperative: Companies not exploring AI now will find it increasingly difficult to catch up. The best time to start was yesterday. The second best time is today.

Live Demo Time!

Let's see AI in action

Interactive AI Assistant Demo

We'll demonstrate real AI capabilities with live examples

What We'll Show

- Conversation with ChatGPT
- Real-time data analysis
- Content generation
- Problem-solving assistance

Your Questions

Bring your own challenges! We can try:

- Drafting a specific email
- Analyzing sample data
- Brainstorming solutions
- Explaining complex topics

Key Takeaways

Demystified

✓ AI is pattern recognition at scale, not magic

✓ LLMs predict likely responses based on training

Decision Framework

✓ Start with existing tools, prove value first

✓ Focus on repetitive, high-volume tasks

✓ Always verify AI outputs for important work

✓ AI has real limitations - it hallucinates and can be wrong

✓ Create clear policies before scaling

✓ It's a powerful tool, not a replacement for thinking

AI is not about replacing humans. It's about augmenting human capabilities to achieve more.

Resources to Continue Learning

Try These Tools

- **ChatGPT:** chat.openai.com
- **Claude:** claude.ai
- **Microsoft Copilot:** copilot.microsoft.com

Learn More

- Coursera: AI for Everyone
- LinkedIn Learning: AI Courses
- OpenAI Documentation
- Anthropic's Claude Guides

Stay Updated

- The AI Daily Brief (newsletter)
- TLDR AI (newsletter)
- Lex Fridman Podcast
- AI-focused LinkedIn groups

- **Google Gemini:** gemini.google.com

Take-Home Lab: Don't forget your hands-on lab exercise! Practice makes perfect.

Questions & Discussion

What questions do you have?

No question is too basic - if you're wondering, others probably are too!

Common Questions

- Will AI take my job?
- How do I convince my boss?
- What about data privacy?
- Where should we start?

Deep Dives Welcome

- Specific use cases
- Technical questions
- Industry-specific concerns
- Implementation challenges

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Thank You!

Go forth and experiment with AI

Remember:

The best way to understand AI is to use it. Start small, stay curious, and keep learning.

Complete your take-home lab to solidify today's learning

Questions after today? Reach out!

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Skillnet Ireland Reaction To Learning 2025

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