The 12 Human Factors principles

Use the 12 Human Factors principles as guidance to create better systems, workflows, and working conditions. Build capacity, set people up for success, strengthen safety and performance, and foster a culture of learning and continuous improvement.

	Human Factors principle	People, design & technology application	Organisation, learning & culture application
01	**Setting people up for success** Setting people up for success means creating systems, processes, and working conditions that support effective performance and make it easy to do the right thing – and difficult to do the wrong thing.	Technology, tools, procedures, and working environments are designed to support the right actions and discourage the wrong ones.	Work processes, resources, leadership, and organisational arrangements foster psychological safety and enable people to speak up, share, and contribute, strengthening the organisation's capacity for success.
02	**User-centred design** Technology designed around people's needs, capabilities, and limitations helps them perform effectively, safely, and comfortably.	The design of products, interfaces, tools and physical environments is based on users' needs, capabilities, tasks, and working conditions.	The organisation develops processes, services, learning programmes, and initiatives by involving employees and understanding the needs and realities of employees and stakeholders.
03	**Failing safely** The best possible working conditions equip people to handle errors effectively when they occur, making it safe to fail.	Technologies and systems are designed to detect and contain errors early, prevent serious consequences, and protect people from harm.	The organisation enables people to openly report and respond to errors, supported by psychological safety, effective communication, and a learning culture. This helps contain problems before they lead to significant safety, quality, or operational consequences.
04	**Reducing unnecessary complexity** Systems and processes that make work simple, clear, and manageable create better conditions for people to perform.	Products, interfaces, and procedures are designed to be as simple and intuitive as possible.	Organisational processes, decision-making structures, and governance arrangements are kept simple and understandable.
05	**Supporting human performance** Designing systems, processes, and working conditions around how people actually work supports better human performance.	Technology and physical environments are designed around human strengths and limitations, including attention, memory, workload, and decision-making.	The organisation supports sustainable performance and overall worker wellbeing through competence development, reasonable workloads, and adequate resources.
06	**Designing for adaptation** Work varies, and situations change. Flexible systems and processes enable people to intervene and adapt to unexpected situations.	Technologies, interfaces, and systems offer flexibility, enabling users to intervene and manage variability and unexpected situations.	Organisations have capacity and enable people to make appropriate changes in response to changing conditions, disruptions, and emerging risks.

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07	**Making work visible** Making relevant information and the realities of work visible across technology and organisations helps people understand what is happening, how the wider system is functioning, and where attention is needed. This supports informed decisions and appropriate action.	Information, status, alarms, and feedback are presented clearly, enabling users to understand the situation and take appropriate action.	Data, decision-relevant information, risks, and work processes are made visible across different parts awnd levels of the organisation – from frontline workers to top management.
08	**Learning from everyday work** Learning from everyday work helps people understand what good looks like and inspires continuous improvement.	Technologies and physical environments are designed and improved based on an understanding of actual use and work as performed.	The organisation systematically learns from normal operations, successes, and everyday experience – not only from incidents and failures.
09	**Cocreating with end users and stakeholders** Involving users and stakeholders in design and development leads to safer, more intuitive, and workable solutions. Structured co-creation and learning from how users adapt solutions in everyday work support better design.	Users are actively involved in designing, evaluating, and improving products and services, bringing knowledge and experience from real-world use into the design process.	Employees, customers, and partners help develop the organisation's solutions and ways of working, combining top-down organisational direction with bottom-up knowledge, experience, and ideas from those closest to the work.
10	**Designing for recovery** Systems may be disrupted or placed under strain. Good design builds the capacity to adapt to changing conditions, recover from disruption, and restore effective functioning.	Systems and technologies support rapid troubleshooting, adaptation, and recovery, helping users restore effective functioning following disruption.	The organisation builds capacity to adapt and rapidly restore operations, quality, and collaboration following disruption. Teamwork, open communication, mutual support, and organisational flexibility enable people to adapt and reorganise as conditions change.
11	**Creating conditions for speaking up** People need to be able to raise concerns, share uncertainties and ideas, and make improvements. Good systems and organisations make it easy and safe to speak up, contribute, and be heard.	Technology, interfaces, and work systems make it easy for users to communicate concerns, uncertainties, ideas and feedback, and contribute to improvements.	The organisation creates psychological safety and supports speaking up, open reporting, knowledge sharing, and constructive exchanges of concerns, ideas, and perspectives.
12	**Respecting diversity and variability** People differ in capabilities, experience, and perspectives. Good design recognises this variability rather than assuming there is one best way.	Design takes account of differences in experience, competencies, language, age, and physical and cognitive capabilities, enabling people to achieve successful outcomes in different ways.	The organisation recognises and uses diversity in competencies, perspectives, and ways of working, acknowledging that several approaches can lead to successful outcomes rather than one universal best practice.



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