

## Detailed version of the Taxonomy

<b>composition</b>			
point of view	1st person		The scene point of view is through the eyes of the user.
	3rd person		The scene point of view is in front of or on the side side of the user.
	overshoulder 3/4		The scene point of view is from the back of the user, typically over the user's shoulder.
	top		The point of view of the scene is from the top.
	UI only		The illustration is only composed of the UI, there is no 3D scene. The point of view is always TOP, rendering the UI in the camera plane. We can admit representations of fingers and hands.
layout	number of frames	one frame	The figure is structured with only one frame.
		multi frames	The figure is structured with multiple frames.
	sub-framing	inset (PiP)	A frame is included in another frame's space with a different point of view.
		magnification lens	A frame (whatever its nature) is included in another frame's space. This inclusion does not belong to the scene, and does represent something in the scene. It has been made to help the reader understand the figure.
		UI embedded	The UI is embedded in the 3D scene, possibly using perspective.
		UI overlay	The UI has been added on top of the scene (mostly used to illustrate the user view from a AR system).
juxtaposition	The frame is composed of multiple juxtaposed sub-frames. (vertically/horizontally)		

Table 1: Hierarchy of codes for the *composition* category.

<b>visual characteristics</b>				
type	drawing	realism	simplistic	Very simplistic drawings are used.
			realistic	Drawings are close to the reality.
	UI	drawing	The UI has been drawn (by hand or not).	
		rendering	The UI has been generated or captured.	
	photo	The element is a photography.		
	data visualization	The element represents data through a diagram, a graph, a chart...		
	clipart/icon	The figure contains some cliparts or icons.		
text	The figure contains some text to describe some elements.			
color	transparency			Is transparency used?
	hue	colors		The figure uses multiple colors.
		grayscale		The figure uses grayscale
monochrome		The figure is only based on 2 colors : a light and dark color (mostly black and white).		
line style	dashed			Dashed lines are used.
	width			Lines with different width are used.

Table 2: Hierarchy of codes for the *visual characteristics* category.

Visual techniques				
emphasize	region	color area	Emphasize a region of the figure by applying a specific colour in the pointed area.	
	element	arrows	Arrows are used to focus on an element, mostly by pointing to an object.	
		color highlight	A specific colour is used to highlight a specific object.	
		enclosing	exact contour line	The exact contours of a specific object are highlighted using a specific line style.
	circle/rectangle		A circle/rectangle shape has been drawn around the focused object.	
	background	grayed out/blurred	A blur effect or a specific colour with transparency is applied on the background.	
removed		The highlighted objects are detoured and the background is removed.		
anonymization	blur	Parts of the figure are blurred to not be recognized.		
	filling	Parts of the figure are filled with colour to not be recognized.		
grouping and linking	color grouping	Linking/Grouping of elements is made using colours.		
	identifiers grouping	Linking/Grouping of elements is made using identifiers (numbers or letters). Line can be used between the identifier and the element.		
	grouping lines	Lines or Arrows used to link/group multiple elements inside the figure or extra information outside the figure.		
	text annotation	Text attached to an element of a figure (e.g. label, definition) using lines or arrows.		
dynamic	effects	stroboscopic	A stroboscopic effect is used to show the different steps of the motion.	
		waves	Waves are used to show that an element is hitting another element.	
		motion blur	A directional blur effect is used to illustrate motion. The position of the blur can also indicate the path/direction of the movement.	
	lines and arrows	trajectories	Shows the motion path of an element in the figure from the beginning to the end.	
		direction	Shows the direction of the motion.	
		transfer	Shows transition between two states of a model/system.	
		projection	Shows the corresponding projection of an object.	
	Contact shapes	Geometric shapes, such as circles, used to represent the region of contact between two elements.		
structure	identifiers	numbers	Numbers are used (often in a corner) to order the sequence of frames or the different parts of a figure.	
		letters	Letters are used (often in a corner) to order the sequence of frames or the different parts of a figure.	
		title	A different title is used to annotate the sub frames.	
measure	Arrows	Arrows are used to indicate angles, physical dimensions.		
	Text indicator	Text is used to directly show physical dimensions.		

Table 3: Hierarchy of codes for the *Visual techniques* category.

interactive Scenario		
purpose	design space	The figure illustrates a set of functionalities, possibilities, commands or use cases available in a system.
	interaction sequence	The figure illustrates an interaction sequence (or storyboard), i.e. a sequence of actions that must be accomplished in a specific order to launch a system command.
	interactive system	The figure illustrates an interactive system but is focused on the setup of this system and its sensing capabilities rather than on the interaction between the user and the system.
time	moving	Time is evolving across the figure, i.e. we can see a transition, progression, within the user's actions and/or the system's responses.
	still	We are observing the user and/or the system at a specific moment in time, without any information on the next/previous user's actions or system's responses.
activity	production	Digital content production: programming, text entry.
	entertainment	Video, music, video games...
	medical	Medical activity.
	driving	Driving.
	2D/3D creation	2D drawing, 3D modelling...
	fabrication	Physical fabrication.
	communication	Communication or exchange between users.
data manipulation	Maps, charts, numbers...	

Table 4: Hierarchy of codes for the *interactive Scenario* category.

Users			
number	Solo-user		Only one user is interacting with the system.
	Multi-users		Multiple users are interacting with the system.
body part	Specific part	hand	A focus is especially made on user's hands. Nothing else if visible.
		fingers	A focus is especially made on user's fingers. Nothing else is visible.
		head	A focus is especially made on the user's head. Nothing else is visible.
		foot	A focus is especially made on the user's feet. Nothing else is visible.
	lower body		Most of the lower body (legs and feet) is visible.
	upper body		Most of the upper body (torso and arms) is visible
full body		Most of the body is visible.	

Table 5: Hierarchy of codes for the *Users* category.

Interactive system			
action	discrete	Pointing	User is pointing at a target.
		Key press	User is pressing a button.
		Symbolic gesture	User is performing a symbolic gesture.
	continuous	translating	User is translating an object.
		rotating	User is rotating an object.
		scaling	User is scaling an object.
		scrolling	User is scrolling a view.
		deforming	User is deforming [a part of] an object/the system.
	writing/drawing	User is writing or drawing.	
Interaction type	touch interaction		Interaction relying on a touch sensitive surface.
	mid-air interaction		Interaction is performed in mid-air. The system may involve controllers, tracking.
	distal interaction		Directly interacting with objects from a distance (through intermediate devices or not).
	on body interaction		The interactive system is on the Human body.
	computer interaction		Classic computer interaction (using keyboard/touchpad/mouse).
	tangible interaction		Interaction with the system is made though tangible objects.
	controllers interaction		Interaction with the system is made with controllers (joysticks, tv remotes).
	gaze interaction		Interaction with the system is made with the eyes.
input channel	tracking based	outside in	User is tracked by the system with external sensors.
		inside out	User is tracked by the system with sensors on/inside him.
	device based	mobile devices	The user is interacting with the system by using a mobile device: smartphones, tablets, smartwatches, etc.
		large surfaces	The user is interacting with the system though large screens: screen on a wall, touch table, tv, etc.
		desktop devices	The user is interacting with the system through desktop input devices: mouse, keyboard, touchpad on a desk, etc.
		laptop devices	The user is interacting with the system through laptop input devices: integrated keyboard, integrated touchpad, etc.
		controllers	The user is interacting with the system using a controller (tv remote, game controller, joystick...)
		tangible objects	The user is interacting with tangible objects
	AR	The user is interacting in an AR context	
	VR	The user is interacting in a VR context	
sound based	speech input	The user is interacting with the system by speaking through a microphone.	
output modality	haptic		There is an haptic response from the system.
	visual	large displays	Visual feedback through large displays (tv, wall screen, touch table..)
		computer displays	Visual feedback through computer screens (laptop, desktop, car embedded display...)
		mobile displays	Visual feedback through mobile displays (smartphones, tablets, smartwatches...)
		projected displays	Visual feedback through a projected image on a surface.
		head mounted displays	AR, VR displays.
		lights	Lamps, leds, any bulbs.
	audible	sound based	The system emits specific sounds.
speech output		The system speaks to the user in his language.	
Situation	Desktop		On a classic desk/table (mostly involving desktop computers, keyboard, mouse...)
	Public/private transport		In a car, bus, plane, on a bike...
	Outdoors		Park, streets.
	Private indoors		At the office, at work, at home...
Public indoors		Malls, stations, museums, at gym. Might involve a crowded place.	

Table 6: Hierarchy of codes for the *Interactive system* category.