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FUTURES LITERACY METHODS

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The Oslo School of Architecture and Design

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FUTURES LITERACY METHODS

The main aim of Futures Literacy Methods is to transform and convey FUEL4Design outcomes into learning processes.

Learning Future Literacies Methods concerns both the preparation of a complete Futurist Designer training course and the design of small Independent Learning Units to cross breed design studios or speculative/ theoretical courses. The Units are specifically created to cater to the needs of future literacy and geared to acquire knowledge on anticipatory practice, critical future design and future making through the dedicated tools.

This booklet presents one orientation unit (Unit 00) and ten educational content Units (Unit 01 to 11). In the first section of this booklet, there are a set of “Maps” and paths to help educators in navigating through the eleven Units. These maps are meant to be used as suggestive paths rather than prescriptive ones. The basic concept behind these units is to be independent (yet connected). Educators are free to select the suitable units to their courses, put them together and structure their pedagogical paths based on their needs as well as the context of use .

In each Unit, there is a section for the tools and devices. These are tools and devices developed or assembled during the FUEL4Design project. They play an important role in supporting and facilitating the pedagogical process. Each of these tools or devices is linked to the FUEL4Design website, where you can further read about them.

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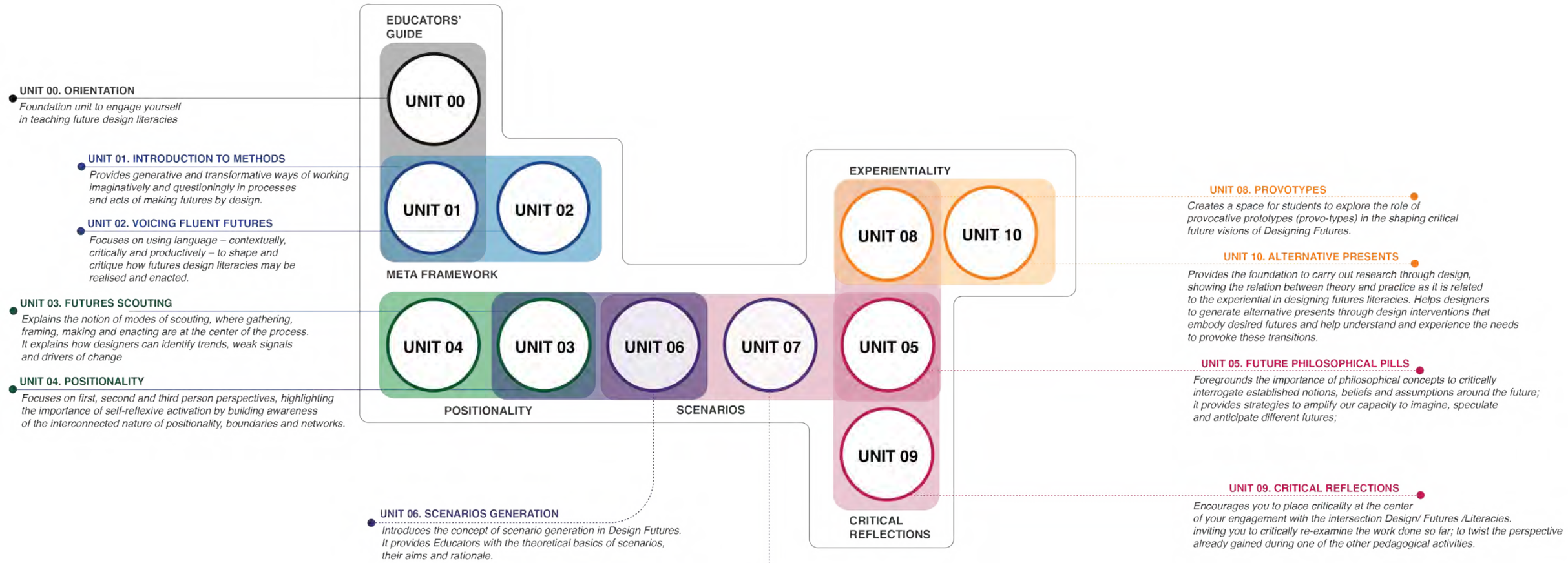


UNIT 00. ORIENTATION
Foundation unit to engage yourself in teaching future design literacies

UNIT 01. INTRODUCTION TO METHODS
Provides generative and transformative ways of working imaginatively and questioningly in processes and acts of making futures by design.

UNIT 02. VOICING FLUENT FUTURES
Focuses on using language – contextually, critically and productively – to shape and critique how futures design literacies may be realised and enacted.

UNIT 03. FUTURES SCOUTING
Explains the notion of modes of scouting, where gathering, framing, making and enacting are at the center of the process. It explains how designers can identify trends, weak signals and drivers of change

UNIT 04. POSITIONALITY
Focuses on first, second and third person perspectives, highlighting the importance of self-reflexive activation by building awareness of the interconnected nature of positionality, boundaries and networks.

UNIT 06. SCENARIOS GENERATION
Introduces the concept of scenario generation in Design Futures. It provides Educators with the theoretical basics of scenarios, their aims and rationale.

UNIT 07. SCENARIOS DEVELOPMENT
Introduces practical and speculative techniques to develop a plurality of visions through scenarios. It introduces the tools to understand how to implement, use and narrate design scenarios.

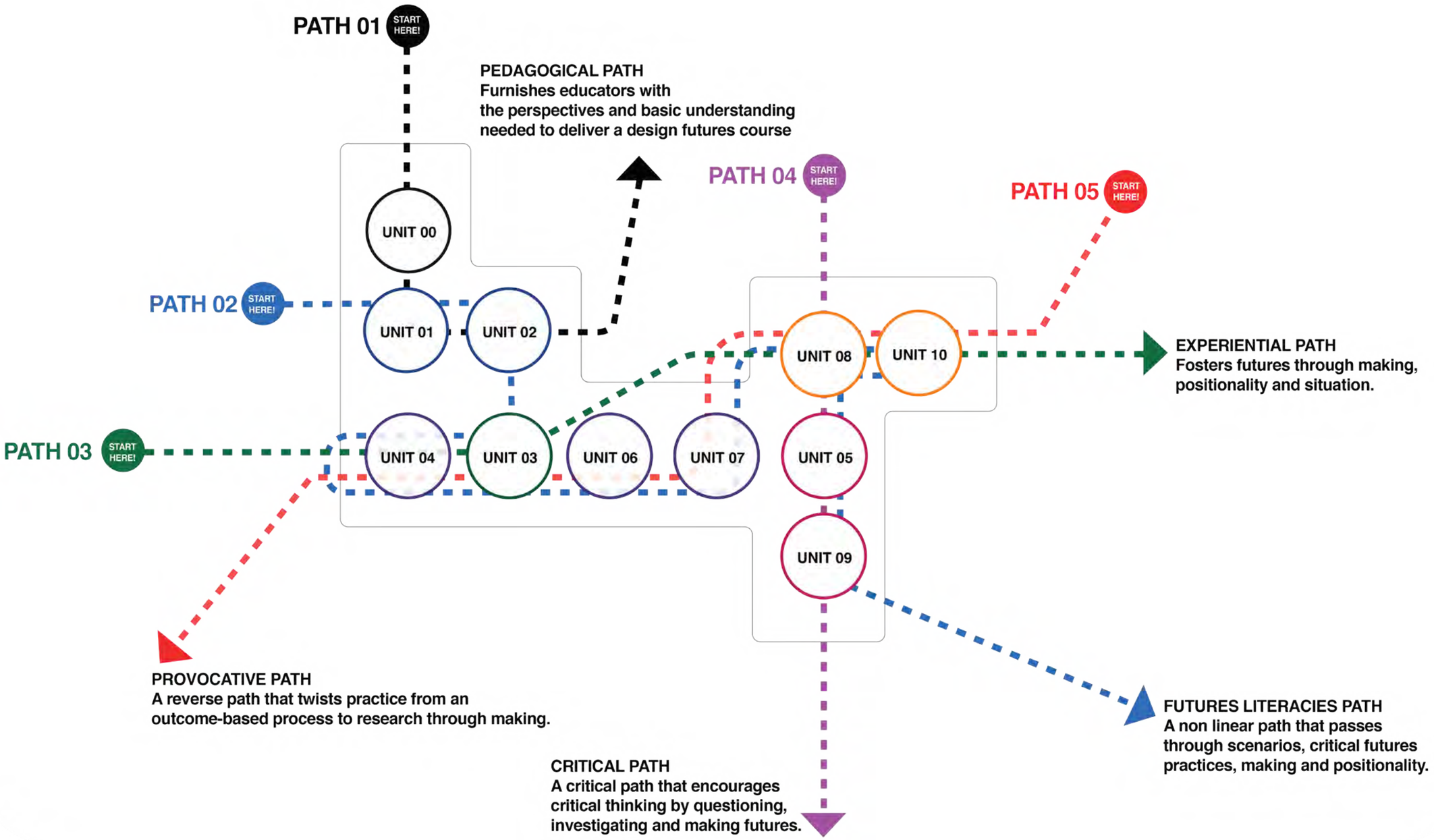
UNIT 08. PROVOTYPES
Creates a space for students to explore the role of provocative prototypes (provo-types) in the shaping critical future visions of Designing Futures.

UNIT 10. ALTERNATIVE PRESENTS
Provides the foundation to carry out research through design, showing the relation between theory and practice as it is related to the experiential in designing futures literacies. Helps designers to generate alternative presents through design interventions that embody desired futures and help understand and experience the needs to provoke these transitions.

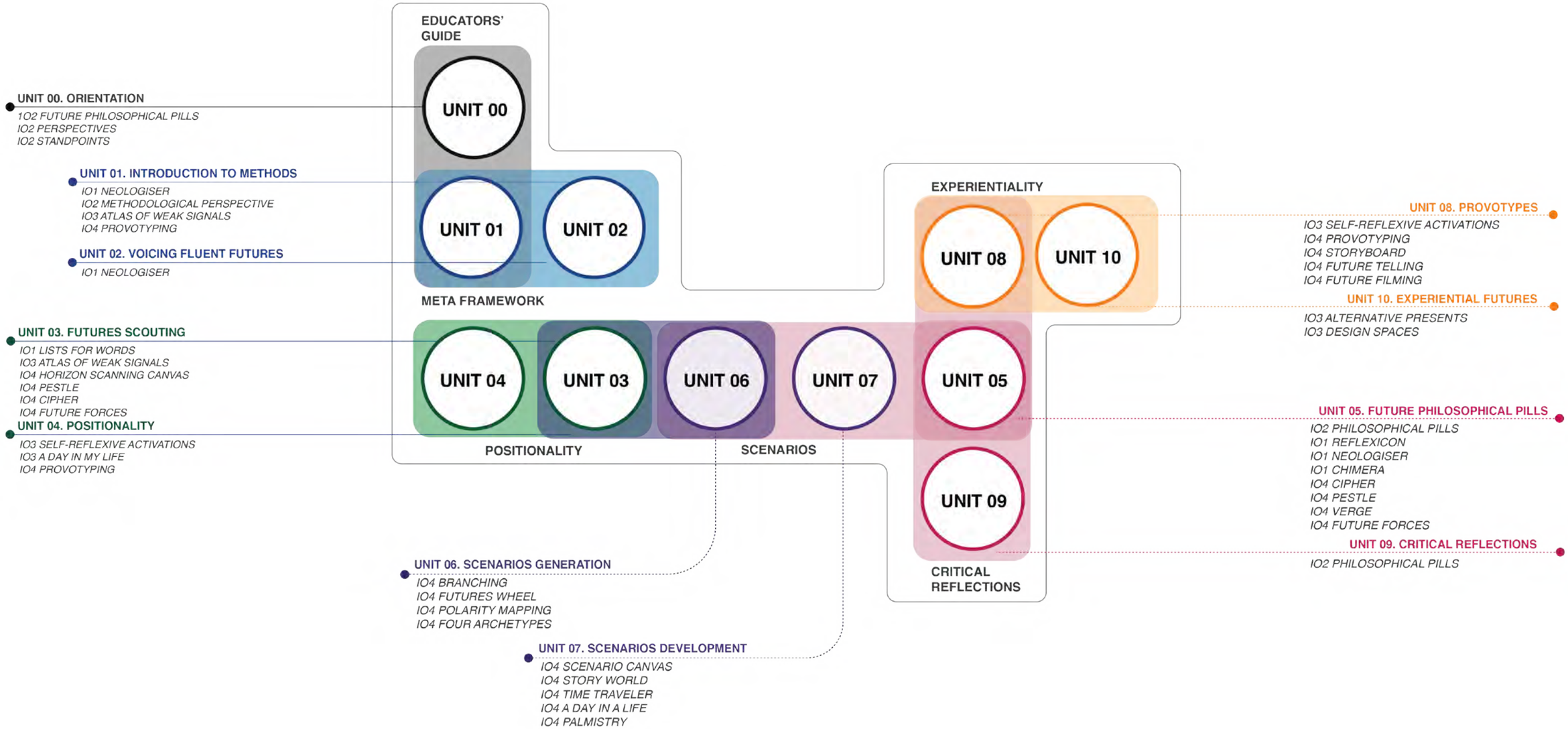
UNIT 05. FUTURE PHILOSOPHICAL PILLS
Foregrounds the importance of philosophical concepts to critically interrogate established notions, beliefs and assumptions around the future; it provides strategies to amplify our capacity to imagine, speculate and anticipate different futures;

UNIT 09. CRITICAL REFLECTIONS
Encourages you to place criticality at the center of your engagement with the intersection Design/ Futures /Literacies. inviting you to critically re-examine the work done so far; to twist the perspective already gained during one of the other pedagogical activities.

EDUCATORS' GUIDE
TO FUTURES LITERACIES METHODS AND METHODOLOGIES
THE PATHS
Suggested pedagogical paths through the units



EDUCATORS' GUIDE
TO FUTURES LITERACIES METHODS AND METHODOLOGIES
TOOLS AND DEVICES



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FUTURES LITERACY METHODS

UNIT 00
ORIENTATION

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DESCRIPTION

This unit provides the foundation for educators to engage in teaching future design literacies. It enables you to deconstruct your prior learning. It challenges you to re-evaluate your teaching practice with a view to reframe the intersection future - design - literacies.

The subject of this Unit is Teaching- This is about understanding how to create a learning environment where to teach future literacies by actively re-imagining the practices of teaching. What is crucial, therefore, is how to unlearn.
The content is centred on facilitating 'change makers' (i.e., your students) to develop the ability to navigate their way through uncertainty and complexity in their future-building practice. Through reflecting on your positionality and its influence on your actions, you will be invited to identify spaces for inclusive interventions with the potential to transform peer / student experience.

The Unit is underpinned by the principles of collegiality and active participation. You will share your own knowledge and experience with the group, and give and receive feedback through presentations, discussion, micro-teaching and peer observation in an atmosphere of mutual support and solidarity. This is a space to foster self-criticality in relation to your teaching practice.
This Unit suggests a series of teaching tools and learning activities which are framed through a collaborative, participatory, reflective, hybrid and transdisciplinary ethos.

AIMS

The Unit will enable you:

• To support you to critically relate educational theory and practice (pedagogical knowledge) to your own disciplinary knowledge (e.g., design studies, future studies, engineering, art, and any other domain you are working with). The aim is to foster an ongoing reflection on how your field of expertise is taught and learned, and to view this process as dynamic and situated. For instance, by learning strategies on how to work with, and facilitate, learners' journey, group work and community building.

• To continually enhance your teaching practice in a way that responds to the complex and evolving contexts of institution, policy, and society. For instance, by examining the drive around decolonization, and other urgent matters emerging in society, by affirming education as a social purpose, which means reflecting on the future of design education, not on the future of educators only.

• To interrogate and demystify your current academic research language and practice so to be aware of gatekeeping mechanisms, and how they impinge on inclusivity and diversity. For instance, by looking at different modes of knowledge-production, hierarchies, and communication; challenging the status quo and developing awareness of alternatives (e.g., journals vs. zines).

COMPETENCIES

The core competence of the Unit is to refine ways of working together to engage with uncertainty in a creative, critical and open manner. Specifically, by engaging with this unit you will acquire and demonstrate the following competencies:

• Reflecting on your attitudes to, and experiences of, learning and teaching to develop ethical awareness of your current position, practices, and contexts.
• Learning how to be empathic, to be an active listener and enabling others.

• Demystifying academic research, its purpose, and philosophical underpinnings, and how to decentering research canons, questioning histories and disciplinary silos

• Developing meaningful relationships with the community of educators, professionals, researchers with each other, and with other species (paying attention to the role of the nonhuman)

• Responding responsibly and ethically to complex situations arising within teaching and learning situations

• Understanding, embracing, and modelling the ethos of the unit. In other words, being prepared to embody the collegial, participatory and hybrid spirit of the unit, which intends to nurture self- reflection, openness, and practices of care tailored to whichever situation you find yourself in.

DEPTH OF DETAIL

This Unit is a pre-requisite for educators before engaging with the rest of the material provided in Units 1-10. The purpose is twofold and concerns these two levels:

• **Level 1:** To provide a solid pedagogical platform ahead of engaging with the units 1-10. This unit will highlight and suggest practices in relation to ways of teaching with particular attention to groups dynamics, inclusivity, diversity, fairness and representation. It will also assist with making an informed choice among the units 1-10 through a selection of the pathways that best respond to your requirements, interests, and needs. It will introduce key terms (glossary) that you will encounter throughout.

• **Level 2 (meta-level):** To inspire educators to apply the learning gained through this unit to your own practice. The meta-level concerns how your way of teaching will change as you keep on engaging with the material and will impact on how your way of using the FUEL4Design material with your students. It fosters self-reflection and self-evaluation and is predicated on an ethos of education as transformative experience for educators and students alike. You, me, everyone: we are learning all the time.

EXPECTED LEARNING OUTCOMES

A. Knowledge and understanding	Articulate your positionality as educator and researcher, in relation to disciplinary practices, research philosophy and ethics.
B. Cognitive Skills	Explore new ways of knowing and sharing knowledge made possible through decentring research and design practice
C. Practical Skills	Identify a focused design topic/exercise/activity that has value for you as an educator/designer, demonstrating how this connects to relevant fields of future study
D. Generic Skills	Critically evaluate institutional, national, and global perspectives of equality and diversity, and their relevance to your academic practice context.
E. Collaborative Skills	Develop and enact hightened ways of working and being together through lived experience so to produce new knowledge

ACTIVITY

Individual task

To assist educators in the process of engaging with the levels indicated above, these tasks are recommended:
• a ‘positionality’ statement to reflect on who you are as an educator/designer, not only in relation to your disciplinary practices but also in considering research avenues that address the contexts in which you work and the individuals you work with.
• a 30-minute learning activity that activates discussion around a theme or issue emerging from your own research (e.g. workshop, seminar, other activity etc.) directed toward a mixed group of 5-8 students.

Group task

Working in collaboration with a small peer group (2-5 or more) to develop a document inclusive of code of conduct / set of principles/ core values informing your teaching practice within a diverse environment. This could be a manifesto-type document, a flow-chart, a diagram etc. and the outcome of a mutually enriching process of discussion, negotiation and collaborative engagement (co-design).

Self and Peer-to-Peer evaluation

It is recommended that educators do self-evaluation throughout this unit. Self-evaluation can be a reflection journal, a series of blog entries or a mini-portfolio of notes and insights. Its purpose is to document your response to teaching practice as it evolves, and your responses to literature and other sources on teaching and learning.
Whenever possible, include Peer-to-Peer evaluation where colleagues come together to share experiences and reflection in a supportive and critically constructive environment.
Ongoing evaluation whether self or peer-to-peer will encourage skills such as risk-taking, independent enquiry, effective negotiation skills, as well as critical and civic engagement.

TOOLS AND DEVICES

Tools and devices appropriate to this Unit are those that encourage educators to reflect on their positionality, to critical appraise their learning and to experiment with ways of exercising agency, even in a ‘risky’ or disruptive mode. For instance, the Perspectives and Standpoints (from the Prompts cards in IO2) assist with questioning the nature of the future you envision, the knowledge it produces, the values and politics attached to it etc. (Perspectives). Also, they assist with reflecting on what can (or cannot) be achieved through the position you express (Standpoints).

Equally relevant here are tools that enable you to question your own learning and experiment with unlearning activities, for instance the Neologiser prompts you to work with imaginative words, each envisioning a different futurescape, with potentially

innovative and alternative roles to cast a new light on the space of future-making

Perspectives

- Ontological Perspective
- Epistemological Perspective
- Methodological Perspective
- Axiological Perspective
- Political Perspective
- Technological Perspective

Standpoints

- Declarative
- Disruptive/ Re-framing
- Reformative
- Rejective

CASES AND EXPERIENCES

In this unit you might want to use the following methods, test them out and embed them in your teaching practice. Feel free to adapt them to your own teaching style. They can be used online and IRL.

• Silent brainstorming: working in silence is a powerful pedagogical technique that affords sustained reflection. It is ideal for intense idea-generation and pattern and vision-building; by diluting the clamour of dominant voices in a group dynamic, it empowers all participants equally

• Vision-building: using image research to collectively populate a board (or a wall if IRL) illustrating a specific future vision (e.g. around a year/theme), usually best initiated in silence. Participants add keywords and comments on each other’s images.

• I DO ARRT (adapted from KaosPilot*): a guided way of setting the scene when facilitating a group. The acronym stands for Intention, Desired Outcome, Agenda, Rules & Roles and Time. Participants co-design the items, making assumptions explicit and building a common culture where everyone feels represented.

**a creative leadership and educational accreditation HERE*
In more detail: how to apply IDOARRT and Micro-teaching

1.IDOARRT
The purpose of IDOARRT is to aid you in co-designing your roadmap across the 1-10 Units in IO5.

It is a tool you can use to set and define your boundaries and scope in relation to IO5. It is predicated on a group working together, thus it requires negotiation and communication skills, and teamworking.

CASES AND EXPERIENCES

As said above, IDOARRT is a way of setting the scene. The acronym stands for Intention, Desired Outcome, Agenda, Rules & Roles and Time. Participants are invited to co-design each item, making their own assumptions explicit and striving to build a common culture where everyone feels represented and heard. Principles:

- Intention: why are we here?

- Desired Outcome: what will we leave with?

-Agenda: Build your own roadmap according to your own trajectory, needs, and requirements, goals, the gaps you are identifying (but you may not be certain of as yet)

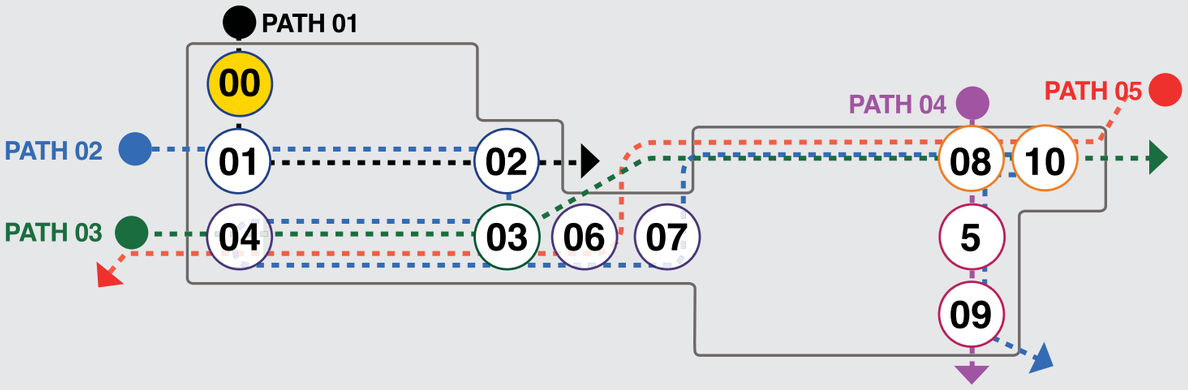
- Roles and Rules: who are we? Who are you?

- Time: what is the timeframe you want/can allocate to their learning to ? Eg 2 hours? 2 days?

2. Micro-teaching
Prepare a 30-min learning activity of your choice (i.e. workshop, seminar or intervention) directed towards a mixed-student cohort that

activates discussion around an emerging themes or issue in relation to design and futures. The purpose of this session is both to highlight your existing practice in relation to design futures and to foster reflection on your teaching. Draw on your existing knowledge and your specialism. What are the aims of the session? How are you engaging your students? What do you want them to achieve? How are you going to self-evaluate?

ROADMAP AND CONNECTIONS



The yellow color indicates the position of the current Unit.

UNIT CONTENT

This unit is called Orientation because it intends to assist you with navigating the complex terrains of future-making throughout the IO5 set of units, by enabling you to find your own mode (of teaching, working, learning, unlearning) . What this Unit does not wish to do is to provide you with a map: in this sense orientation is about you developing your own compass, rather than following a given blueprint. It is your journey of discovery, and is about developing agency, rather than been given all the answers. This also is in line with the meta-level of this project which asks what are futures made of?

Key features of the orientation process:

Building Community: The unit could start with a 3-day induction workshop to build an online cohort dynamic; to share and exchange cultural values; to communicate design tales and backgrounds; to introduce the unit/course ethos and provide key induction sessions. Peer learning is embedded into the course, allowing for the creating of a multidisciplinary community of practice that capitalises on diverse disciplinary, professional, and practice-based ways of knowing.

Testing Tools: Tutors are encouraged to run a pilot of the tools that they will be applying in the different units. A way of doing this is to engage in a Micro-teaching workshop. (Micro-teaching concerns leading a short activity with a peer group as if they were your students). The workshop takes place with tutors working with each other in order to become familiar with the chosen material, adapting it to their own situations and getting ready to implement it (for instance a micro-teaching capsule using the Pills or the Lexicon for a short session). This is a way to enhance your pedagogic ideas, experience, and expertise in collaboration with other members of the programme/course community; moreover, it actively encourages participants to evolve traditional design research and practice approaches by surfacing deep knowledge of creative and professional practice and amalgamating it into their research.

Positioning Yourself: Opening with an introduction to varied ontological and epistemological approaches to constructing knowledge, we will explore together how as researchers and practitioners we situate ourselves in the pursuit and communication of knowledge. By reflecting on your positionality, mapping your positionality, and sharing it with others you create conditions to develop sensitivity and evaluate the impact of your teaching.

Transdisciplinary practices: Educators are encouraged to think and act transversally to unsettle both verticality and horizontality, and the hierarchies these might conceal. They are encouraged to explore the value of transdisciplinary in breaking boundaries and questioning existing disciplinary silos. Investigating and playing with a range of methodologies drawn from diverse disciplinary fields will enable you to develop an experiential understanding of your own knowledge production. Acknowledging expertise in the classroom and voicing the voiceless surfaces issues of how to stay with divergence and engage in bridge-building rather than pushing for consensus.

Educators will be invited to critique research traditions and practices, considering decolonial imperatives and consider what it means to decentre academic research and practice traditions in the 21st century.

UNIT 00 - ORIENTATION

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FUTURES LITERACY METHODS

UNIT 08
PROVOTYPES

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DESCRIPTION

This unit creates a space for students to explore the role of provocative prototypes (provo-types) in the shaping critical future visions of Designing Futures. You should draw upon examples of provo-types from cultural, economic, social and political arenas.

Provocation in design futures is used as a tool for critical reflection upon practice. Provocative prototypes can be introduced by educators to trigger the critical dimensions for design students. It encourages the arena of alternative design practices and injects the design process with other views about future challenges. Provo-types challenge user expectations; sometimes with intended “frustrating artifacts” to accentuate and highlight the issue of debate.

AIMS

This unit aims to furnish educators with the resources needed to use provo-types in design future courses. Provo-types can be used to trigger enquiries, provoke discussions, expose assumptions through making. provo-types can be introduced in design futures courses as Research-through-design activities.

1. Explain the notion of designing objects to trigger debates and provoke audience.
The aim here is to introduce the aspects and elements of a provo-type that facilities the probing processes through making.

2. Define the different types of provocative prototypes and their rational
Linking the purpose of a provo-type with the different typologies is essential for students to understand the goal a provoking through making as an activity.

3. Explain the process of developing a provocative prototype

UNIT 08 - PROVOTYPES

COMPETENCIES

This unit will provide competences on futures scouting:

- To gather intelligence about the future within the scope of the general topic or issue through a collection of signals that can be found in the present (trends, weak signals, drivers…).

- To frame these signals, organising and mapping them according to several layers, factors or forces shaping the futures.

-To situate signals taking an immersive approach.

- To identify and relate to trends, weak signals and drivers of change by positioning the students closer to the system they are working on.

- To use the processes above as relational approaches on the practice of futures scouting and be able to shift between the different modes to gain more insights and knowledge valuable for their future-oriented design projects.

DEPTH OF DETAIL

LEVEL 02 – MASTERS

Provo-types for master level students can be an essential tool to trigger debates, reflect on practice or deepen an issue for deeper understanding. They can be implemented in concept design studios taught modules as a terminal design output. They can also be implemented during research phases as probing artifacts.

LEVEL 03 – PhD

For PhD level, a provo-type can be implemented in a research through design approach. In a constructive design research paradigm, provo-types can be used as a tool to probe, test and create discourse around intangible and challenging design issues. Provo-type can be implemented in practice-based doctoral researchers.

EXPECTED LEARNING OUTCOMES

A. Knowledge and understanding	-Understand the notion of Provo-types -Identify the different types of provocative prototypes
B. Cognitive Skills	-Develop the intellectual skills of anticipation and speculation through making
C. Practical Skills	-Learn how to develop and generate provocative and diegetic – prototypes that are situated in the future
D. Generic Skills	-Develop making skills for future context
E. Collaborative Skills	-Develop co-design skills in making and discussing design future issues.

ACTIVITY

Activity A | Rough Provo-typing

Description: Develop rough and quick provo-types as a medium to discuss particular design futures issue. This can be one through any media or communication material. A product, a digital experience or even an advertisement.
Aim: To trigger and provoke discussion about a particular issue future issue.
Duration: varies according to course length
Method: Refer to IO4 Futures Design toolkit-Provot-yping
Rough provo-types (product, communication, advertisement, and paper models)

Activity B | Future Telling

Description: Acting a future situation by using the Provo-type. This might include outsider participants to be involved in the future-telling workshops with students.
Aim: use the Provo-type in a specific situation.
Method: Refer to IO4 Futures Design toolkit-Provo-typing
Duration: varies according to course length

Activity C | Future Filming (Design Fiction)

Description: Creating a Design fiction video that includes the developed provo-type. The video can be a situation or story about particular issues or activities.
Aim: Contextualize and situate the provo-type in the story world created in a video medium.
Method: Refer to IO4 Futures Design toolkit-Provotyping
Duration: varies according to course length

TOOLS AND DEVICES

1PP DESIGN INTERVENTIONS
HERE

PROVOTYPING
HERE

STORYBOARD
HERE

FUTURE TELLING
HERE

FUTURE FILMING
HERE

CASES AND EXPERIENCES

POFF: PoliMi Futures Fictions.

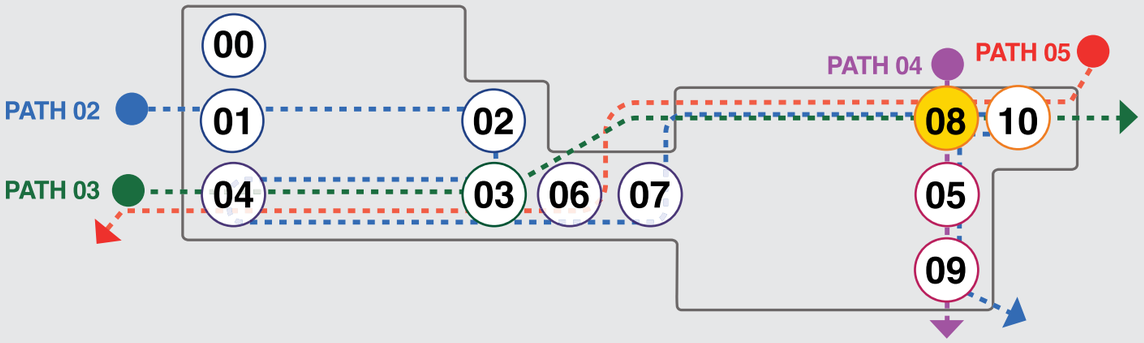
Polimi futures fictions is part of the concept design studio for master's students of integrated product design at Politecnico di Milano

the aim of concept design studio is to stimulate the students for the definition of a product/service concept and scenario, valorize the experience and creative dimension.
The course – placed at the beginning of the Concept Design Studio – had the objective to open the envisioning capacity of the students. The course has adopted a Research through Design method in the conviction that the activity of designing artefacts (more or less consciously) is a way of learning and this – in a meta-knowledge system – is a way to uncover, or better let insights and new concepts emerge, the different steps of trend research and scenario building had initially triggered the student's ability of exploring frontier topic and future perspectives through some specific tools and techniques. Rough prototypes have been developed and transformed into 'performative artefacts' or the so called 'diegetic prototypes.' The results are narrated through Design Fiction: a short movie's narrative structure contextualizes new concept technologies with the futures' social sphere.

Students worked in teams of 10 members over the course of 5 weeks that led to a future product concept for each team: Challenge 01: Horizon Scanning; Challenge 2: Framing Signals; Challenge 03, Building Scenarios and Personas and Challenge 04: Design Fiction

Tools from the Futures Design Toolkit have been used and tested in PoliMi Futures' Fictions course to test and evaluate the toolkit.

ROADMAP AND CONNECTIONS



The yellow color indicates the position of the current Unit.

UNIT CONTENT

Section 01: What?

01. Futures by Provo-Making

This section highlights the role of provocative design outputs in making futures visceral and tangible.
Provocative prototype or (provo-type) indicates a type of a design output that aims to open a discussion or a conversation around a particular issue of the future. It acts as a catalyst to provoke reflections from the viewers. It amplifies the issue under discussion through physical or digital means.

Theoretically, provo-type capitalizes on activity theory that considers external and internal contradictions of activities. In this view, contradictions or tensions can be considered as dialectical processes of change that, in turn, develops new forms of activity. The aim is to expose the issue in order to find other ways of doing, making or enacting social change (Boer & Donovan, 2012).

The relationship between provo-types and futures arises from the overlap between activities of investigation and new possibilities of design. Provo-typing lies in this intersection area and acts as a bridge between both sides. Provo-types expose and accentuate tensions around the area of investigation, the aim is to make these tensions explicit, so designers and participants can reflect and look at them from a different perspective(s).

Provo-typing can be “tools for creating meaning” (Disalvo, 2012) and evoking discussion by creating discursive space. Tharp and Tharp (2019) define key views for creating a discursive artifact. Provo-types can be seen from these five lenses:

Clarity: What is presented? is it clear or unclear on purpose?
Reality: Could the provo-type be technically feasible? is it connected to reality in a sense?
Familiarity: How familiar is the provo-type? would it be easy or intentionally difficult to relate to?
Veracity: Is this a true object, or a spoof? How truthful is this artifact?
Desirability: would this artifact be desirable or needed? Or an artifact that forms an undesirable

Looking at provo-types from those five

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lenses, it’s apparent that provo-types are tools to deliver meaning. Malpss (2018) notes that this perspective is aligned with Krippendorff (2006) thesis that users build “situated meaning when they encounter artifacts”. In this case, the designer is the mediator who pilots how the provo-type should look like. Should it be clear or ambiguous, frustrating or satisfying? A rational object or a subversive one? These decisions depend on what meanings and issues does the project intend to achieve and deliver to the audience.

Provo-types and Diegesis

Provo-types in futures practice can be considered as a kind of a diegetic prototype. This is a term that came originally from cinema studies. David Kirby (2010) explained diegetic prototypes as unreal objects that depict scientific concepts in fictional worlds. (Celi and Formia, 2015)

Bruce Sterling, the futurologist who coined the term design fiction defines it as “the intentional use of diegetic porotypes to suspend disbelief in the future” (Sterling, 2005). From this premises, we can identify one role of provo-types to suspend the disbelief about futures, and to make use of a design object not only as terminal but as medium.

Another role of provo-types is to go beyond the mental models of the future. Gives users the chance to touch, feel, and interact with possible futures. It turns futures from verbal to visceral (Candy & Dunagan, 2017).

Diegetic provo-types

The word diegetic comes from diegesis. Coulton and Lindley (2016) define diegesis as the ‘world of the story’. The diegesis of a story is built from any element inside that specific story “world”. In this sense, if the actors in the story can hear or touch or feel this element, it can be diegetic. Any element

that can be called diegetic is “contextually consistent” with the other elements in its diegesis. “Diegetic prototypes don’t need to exist in reality and must only be consistent with their own diegesis”. These diegetic prototypes, allow the audience and viewers to be “situated” in the diegetic reality of the design fiction, and this makes diegesis to “situate via proxy” (Coulton and Lindely, 2016)

Provo-types can be part of the design fiction process. Explaining the rationale behind design fiction, Lindley and Coulton propose that they:

(1) are something that creates a story world,
(2) have something being prototyped within that story world,
(3) do so in order to create a discursive space.

A provo-type can be situated within this framework, where a provo-type can be considered a diegetic prototype to be situated in a specific story world.

02. Different types of Provo-types and purposes
Typology of prototypes in relevance to design purpose

A typology of a provo-types maybe extensive. As Candy and Dunagan explain (2017), Provo-typing are not exclusively restricted to futures situated of conventional design outputs such as a) Print, b) Concept images, c) Prototypes, d) Physical artefacts. It may also include any other medium or objects that might be created to evoke and think about possible futures. This can be extended into installations, mail art, advertisements, immersive theatre, guerilla intervention, digital simulation (VR/MR/AR) and games. Candy and Dunagan, 2017: P.137) elaborate that “Tangible, immersive,

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interactive, live, and playable modes are all in scope".

Post optimality and para functionality: Another dimension of the provo-type is the post-optimal and para-functional design output. Anthony Dunne proposed the concepts of post optimal and para functional design in his book Hertzian Tales (1999). The post optimal object is suggesting user-unfriendliness approach, this approach distances the gap between people and the object. It critiques the conventional functional and ergonomic uptake of the commercially driven design. The prefix para- explains the and suggests crossing the borders of and realms of functionalism and utility. This approach precludes the interaction and pushes towards interpreting the meanings behind the design object. Which is the purpose of a Provo-type. (Malpass and Maze)

Section 02: Why ?

05.Rationale and purpose in design futures
The aims of creating a provo-type and rationale behind it.

The ultimate goal of a provo-type is to encourage discussion, communicate ideas about certain issues of the futures and to provoke reflection of the audience (Bardzell et al., 2012) . It develops awareness, expose implications and consequences. Feeling futures can work as a catalyst in this process and turns to be an agent in social change. A more recent formulation of experiential futures practice; "the design of situations and stuff from the future to catalyse insight and change" (Candy & Duganan, 2017).

A provo-type is usually developed as a part of a critical or discursive design process, it operates byind the market driven deign enquiry. The goals of provo-types depend on the goals of the project and the purpose of the practice. For instance, If the project i s directed towards discussing a socio-political issue, so the artifact might follow an adversarial design approach, while a project that discuses an issue about technological futures might follow a speculative design approach.

The role of provocation here is intended to induce critical reflection. Tharp and Tharp (2019, P. 151) Identify the goals for discursive design project as follows:

Remind: Increase awareness of the familiar
Inform: offer new understanding
Inspire: motivate with positive thoughts and feelings
Provoke: Incite reactionary response
Persuade: Convince a position.

These goals can be reached through provo-types. Provo-types or discursive artifacts are part of the process -a central part - yet they are not the only element. They are preceded by extensive background research and scenarios development (check Unit 6 and 7). Both follow a design direction or approach as well as a thorough diegesis where the provo-type should be situated within.

Section 03: How?

07. Provo-type generation process

Making process of a futures prototype
How can a prototype tell a story?

A provo-type is created to follow a particular scenario, setting and setup. It has to be connected with particular diegesis. Candy and Duganan (2017, P.148) suggested the following triangulation for experiential futures, at which a provo-type can be situated.

SETTING: The theme or kind of future (e.g. generic image of the future).
SCENARIO: Specific narrative proposition and sequence of events.

SITUATION: The circumstances of encounter; particular events given physical form at 1:1 scale in various media.

In this sense, provo-types can be developed within a particular setting or theme, in a specific scenario that was developed through a sequence of prospective events and positioning within a specific situation. A provo-type can respond to these enquiries:

What media (or combination there of) is used to build
the story world?
• What prototypes are introduced?
• What impact do these prototypes have on the people and
their environment? (Lindley and Coulton, 2016)

Please refer to IO4 Toolkit on Provo-typing for further explanation on making Provo-types.

Section 04: Positioning

Positioning of design Provo types within the design futures practice.

From a practical perspective, Provo-types do not have a particular and defined position within a futures design process. They can be used either as an exploratory device at the very beginning of the process. They can also be positioned in the very end as a terminal of the design process or outcome. They can also be used throughout the process to verify a hypothesis or to develop one.

For students, it's important to accentuate the distinction between a typical prototype from the provo-type. A typical prototype can be described as a design output that is developed to test, explore or involve stakeholders for focus groups or discussion during the design process the purpose here is to evaluate the design output (Bowen, 2009). While the provo-type is meant to

disrupt normality, challenge assumptions, provoke reflections, initiate debates, and trigger discursive spaces.

A provotype is usually positioned within a practice-based design research, where the aim is to study a futures issue through making. A provo-type is usually situated as a terminal in the design process; yet what applies for the typical design process in terms of being iterative also applies for designing provo-types. As a critical reflexive analysis on practice, provo-types can be designed, presented to participants, and then revisited after collecting insights.

In an educational setup the positioning of provo-typing as exercise highly depends on their role and intended goal of designing them. For instance, In PhD research project; provo-types can be used as an extended case study in an action research methodology where the researcher reflects on his/her own practice. The end result would be contribution to knowledge through reflection on practice. While in Master's level, Provo-types can be implemented as a design output in design studio courses or taught modules. The result in this case is presenting a design project.

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LIST OF TOOLS AND DEVICES

IO1 LISTS FOR WORDS
IO1 FRAMES FOR FUTURES
IO1 FUTURES DESIGN LITERACIES MATRIX
IO1 WORD-O MAP
IO1 NEXUS
IO1 SEMANTIC CATEGORIES
IO1 BALLUSION
IO1 REFLEXICON
IO1 FUTURES DESIGN DISCOURSE MOVES
IO1 CHIMERA
IO1 NEOLOGISER
IO1 UNMAKER

IO2 AFFECTIVE MODES
IO2 PERSPECTIVES
IO2 STANDPOINTS
IO2 PILLS (STEWARDSHIPS)
IO2 PILLS (CAPACITIES)
IO2 PILLS (BELIEFS)
IO2 PILLS (CHARTS)
IO2 PILLS (CRISES)
IO2 PILLS (STORIES)
IO2 PILLS (STRATEGIES)
IO2 PILLS (TRAJECTORIES)
IO2 PILLS (UNKOWNS)
IO2 PILLS (VISIONS)

IO3 ATLAS OF WEAK SIGNALS
IO3 ALTERNATIVE PRESENTS
IO3 SELF-REFLEXIVE ACTIVATIONS
IO3 1PP DESIGN INTERVENTIONS
IO3 DESIGN SPACES

IO4 HORIZON SCANNING CANVAS
IO4 CIPHER
IO4 PESTLE
IO4 VERGE
IO4 FUTURE FORCES
IO4 FPP CANVAS
IO4 BRANCHING
IO4 FUTURES WHEEL
IO4 POLARITY MAPPING
IO4 4 ARCHETYPES
IO4 SCENARIO CANVAS
IO4 A DAY IN A LIFE
IO4 STORYWORLD
IO4 TIME TRAVELER
IO4 PALMISTRY
IO4 PROVOTYPING
IO4 STORYBOARD
IO4 FUTURE TELLING
IO4 FUTURE FILMING

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Co-funded by the
Erasmus+ Programme
of the European Union

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