

The future of design education

Around the world in 80 questions

01

We have heard that young people interested in studying design do not know exactly what to expect from their studies - in contrast to those studying medicine, law or engineering, for example.

Our question to you:

How important is a **clear profile of the content and structure** in a design degree?



02

We have also heard that young people interested in studying design do not know exactly what they can do with their degree once they have successfully completed it.

Our question to you:

How important is a **clear profile of the results** in a design degree?



03

We have heard that current design degrees do not enable graduates to earn a living from the first day after graduation - in practical terms - be it as an employee or freelancer.

This means that the course merely offers a mixture of possibilities and references to techniques, tools, methods, specialist knowledge, repertoire and networking, which, however, may be used in different ways.

Our question to you:

To what extent should a design degree provide directly **applicable vocational training** and to what extent should it merely be a **basis for personal development**, which requires an accompanying or subsequent professional activity in order to be applied usefully?



04

We have been told that the actual professional practice in design is extremely broad and diffuse compared with that of doctors, lawyers or engineers, for example, and that this completely blurs the professional profile of a designer.

Our question to you:

How important is a clear and **precise job profile** for professional practice in the field of design?



05

We have learnt that design is to a large extent an unclear term that describes everything that is possible and impossible

Our question to you:

What would change if the majority of people who came in contact with **the term design** were to essentially **associate the same thing with it?**



06

We were told that design is neither art nor handcraft but has peripheral points of contact with both areas.

Our question to you:

How important is it to determine the relationships or **connections between art, design and handcraft** for successful design practice?



07

We have learned that design is an imprecise term associated with contradictory, evaluative, fashionable and marketing nuances.

Our question to you:

Does it matter whether professional practice is identified with the **evaluative term design** or is a new, more neutral term required?



08

We were told that creativity is a central concept in design, but that it is culturally interpreted differently.

Our question to you:

How important is it that all the people involved in design processes share a **common understanding of creativity?**



09

We have learnt that even the selection procedure for admission to a design degree course shapes the entire course of studies or training because it determines the emphasis placed on different influences. Applicants with craftsmanship skills are often preferred, in particular drawing. In addition, people with a stronger sense of imagination and aesthetic perception are preferred.

Our question to you:

What requirements should people applying for a **design degrees and/or design training courses** meet? For example, in terms of skills, abilities, knowledge and character traits?



10

This leads to a follow-up question:

Can the **prerequisites** be placed in a hierarchy?

For example, is empathy more important than curiosity;
self-criticism more important than communication skills;
drawing more important than spatial imagination?



11

We have learnt that the costs for a design degree and/or training course often represent a further filter to achieving the desired mix in terms of diversity.

Our question to you:

What role will **financing models** play in the future in covering the costs for a design degrees and/or design training courses beyond the conventional channels (e.g. parents' financial support, raising credit, scholarships)?



12

We were told that there are fundamental principles to design (e.g. harmony theory, colour theory, design theory) that apply equally to all areas of design.

Our question to you:

Should a design degree and/or design training course begin with a **joint first year of study on the fundamental principles of design?**



13

We have learnt that craftsmanship is a fundamental experience for developing creative qualities ('thinking with hands').

Our question to you:

Should **hands-on experience in workshops** also be required as part of a design degree and/or design training course? (e.g. print, photo, plaster, clay, wood)?



14

We have been told that design practice today has become so highly differentiated that there are actually more differences than similarities between the various areas.

Our question to you:

To what extent is it appropriate to complete a **joint training course** or degree for the successful design practice of messages, objects, experiences, systems, processes and culture?



15

We have heard that working exclusively on the screen limits a designer's horizons and leads to a loss of creative faculties.

Our question to you:

What role should the **training of non-digital work** play in a design degree and/or design training course?



16

We have heard that design today is often seen as the practice of specialists whose core competence is handling the formal-aesthetic parts of a task to enhance the attractiveness of the result.

Our question to you:

Will design continue to be a practice of **formal-aesthetic specialisation** in the future?



17

This leads to a follow-up question:

If design continues to be a practice of formal-aesthetic specialisation in the future, what does **innovation in design** mean?



18

And a second follow-up question:

If design continues to be a practice of formal-aesthetic specialisation in the future, will all the necessary **artistic, aesthetic and technical knowledge** for a successful career be conveyed during the course of studies?

Can designers integrate themselves seamlessly into the production process and work through their tasks according to a plan immediately after graduation, possibly supplemented by a short induction period?



19

And a third follow-up question:

If design remains a practice of formal-aesthetic specialisation in the future, how important is **individual talent**?



20

And a further follow-up question:

If design remains a practice of formal-aesthetic specialisation in the future, how important is basic **propaedeutic training with subsequent specialisation**, in relation to individual talent and interest, e.g. in the tradition of the Bauhaus basic theory?



21

One last follow-up question:

If design continues to be a practice of formal-aesthetic specialisation in the future, how important is it to **master the basics of craftsmanship** and to train craftsmanship in workshops in the form of traditional colour and harmony theories (wood, metal, plastic, plaster, glass, paper, etc.)?



22

We have heard that successful designers in design processes can express themselves particularly well visually in order to illustrate ideas, arguments and connections.

Our question to you:

How important should **drawing** be in a design degree and/or design training course?



23

We have learnt that two types of tasks are typical in design practice:
So-called tame or simple tasks and so-called wicked problems.

Our question to you:

What role will so-called **tame tasks** play in design in the future? For example, tasks, which, like algebra, can be represented with the help of a linear decision tree, and for which the number of possible solutions can be counted?



24

In reference to wicked problems ...

... our question to you:

What role will **wicked problems** play in design in the future? For example, tasks, whose decision tree grows exponentially raising new questions with each decision that quickly lead to ethical and moral aspects?



25

This leads to a follow-up question:

If wicked problems will characterise design in the future (i.e. tasks that include unclear goals, unclear decision-making spaces, dynamic variability, incompleteness, and dependence of the solution on the interpretation of its task), how will a design degree be able to train students to successfully deal with the **uncertainty in complex contexts** that cannot be (completely) eliminated by factual knowledge?



26

And a second follow-up question:

If wicked problems will characterise design in the future and the solutions depend essentially on the task at hand, will **questions become more important than answers** for successful design practice?



27

We have learnt that many tasks that have characterised design in past decades have been resolved. There are countless free design templates, and programs based on artificial intelligence that enable even amateurs to produce medium to highly professional results at no cost at the push of a button. Aesthetically successful solutions are no longer a distinguishing feature, but an accepted standard.

Our question to you:

What **completely new, so far unresolved tasks** are likely to arise in design in the future?



28

This leads to a follow-up question:

If producing results in design requires neither professional knowledge nor effort, to what extent is **expertise** necessary for successful practice?

Will the ability to make a qualified assessment take precedence over the ability to carry out a task?



29

And a further follow-up question:

If formal-aesthetic expressions are freely available, where in the process do such decisions need to be made, and do these decisions dominate the whole process or result from it?

In other words, how great is the **scope for decision-making for successful design?**



30

We have heard that in the future design will no longer occur in isolation in individual departments, but will be effective across all departments of an organisation.

Our question to you:

To what extent will design be a **cross-sectional practice** in the future, and what consequences will this have for design degrees and/or design training courses?



31

This leads to a follow-up question:

If design becomes an cross-sectional practice in the future, will it be a practice of connection and/or **addition** or a practice of penetration and/or **integration**?



32

We have heard that successful design projects in the future will be increasingly shaped by uniting several disciplines, sectors, hierarchies and international or intercultural elements.

Our question to you:

What role should **interdisciplinary and intercultural cooperation** play in design degrees and/or design training courses?



33

This leads to a follow-up question:

If interdisciplinary and intercultural cooperation are to make up an essential part of design practice in the future, will special **communication skills** for cooperation in international and intercultural structures be needed?

What will the consequences be for design degrees and/or design training courses?



34

We have been told that design practice is characterised by the constant interplay of specialising, in-depth phases and generalising, broad phases.+

Our question to you:

Should design degrees and/or design training courses be oriented towards **specialisation, generalisation** or both at the same time?



35

We have been told that design practice in the future will be less limited to the design of material shapes, but that a significant part of the added value will be the design of successful processes that enable and strengthen innovation.

Our question to you:

Does successful design practice essentially consist of **process-oriented innovation management** in the future?



36

This leads to a follow-up question:

If successful design practice in the future essentially consists of process-oriented innovation management, how important is it to train **methods for controlling** research and development processes in design degrees and/or design training courses?



37

We have been told that in the future design practice will focus on the benefits for the customer throughout the entire development process, and that this perspective will be discussed in relation to other perspectives at the same time in order to achieve an appropriately balanced result.

Our question to you:

Will successful design practice in the future require skills to ensure that all relevant **political, social, economic, cultural and aesthetic design factors** are taken into account - and what are the consequences for design degrees and/or design training courses?



38

We have learnt that design practice does not end once a result has been presented or a solution has been developed for a task. Thinking about the consequences of your own actions over a long period of time and a broader sphere than the here and now is not only an expression of social responsibility, but also a source of sustainable innovation.

Our question to you:

How important is the **critical and/or self-critical reflection** of practice in design degrees and/or design training courses?



39

This leads to a follow-up question:

If successful design practice no longer ends in a finished, coherent product, but in an **agreement between those involved** in the process, what are the consequences for design degrees and/or design training courses?



40

We have learnt that certain personality traits are more important for successful design practice than specific skills.

Our question to you:

What role should **personality development** play in design degrees and/or design training courses?



41

We have heard that design is an evaluative a practice, whose standards are based not only on political, social and cultural frameworks, but also on common values within the organisation and each individual's attitude.

Our question to you:

How important is the **examination of values and attitudes** for design practice, and what are the consequences for design degrees and/or design training courses?



42

We have heard that innovation in design is not only limited to technical and functional renewal and aesthetic change, but also involves a responsible contribution to the improvement of an individual's life situation.

Our question to you:

What is the **real purpose, meaning and value of future innovations** in design?

And what are the consequences for design degrees and/or design training courses?



43

We have learnt that an essential critical aspect for successful design in the future will increasingly involve consideration of the context within which the design is used or applied.

Our question to you:

To what extent will secure knowledge of the **needs, values, attitudes, interests, goals, expectations and wishes of situational use** within their context be necessary for successful design practice in the future?



44

This leads to a follow-up question:

If the relationship between **use and context** become increasingly important for successful design practice in the future, which methods and techniques or instruments need to be taught in design degrees and/or design training courses?



45

We have learnt that design projects must increasingly be regarded as open-ended or incompletable, comparable to software that continuously receives incremental updates and more extensive updates at greater time intervals.

Our question to you:

How important will the development of results, regarded as **a stage along the way to a new task** rather than end of the task at hand, be for successful design practice in the future?

And what will the consequences be for design degrees and/or design training courses?



46

We have been told that, although the availability of (decontextualised) information has dramatically increased, access to secure or action-guiding knowledge has not kept pace.

Our question to you:

How can **specific knowledge in design** be grasped and named, and what constitutes expertise as a basis for successful design practice?



47

We have learnt that social science skills (e.g. critical reading, systematic research, structured writing and differentiated argumentation) are important for clarity of thought.

Our question to you:

What proportion of a design degree and/or design training course should be devoted to **reading, writing and debating?**



48

We have been told that the methods used in the humanities and social sciences (e.g. interviews, observations, documentations) are necessary for gaining insight into the conception of solutions in design.

Our question to you:

To what extent should activities such as **observing, listening and documenting** be taught in design degrees and/or design training courses?



49

We have heard that design has often failed in the past because the task has quickly become too big or pragmatic boundaries have been overstepped in an attempt to present a general solution rather than dealing with a specific issue.

Our question to you:

Is the demand to provide a **holistic solution** appropriate or presumptuous in successful design practice?



50

We have learnt that the rapid testing of possible solutions and their consequences will become increasingly important for successful design practice in the future.

Our question to you:

To what extent should **experimenting, changing perspectives** and bringing together previously unconnected aspects be trained in design degrees and/or design training courses?



51

We have learnt that interpersonal communication skills are crucial for successful design practice

Our question to you:

What role should the training of **verbal and non-verbal communication skills** play in design study courses, also in relation to visual expression skills?



52

We have heard that successful design practice increasingly relies on individual appearance and performance in discussions and presentations.

Our question to you:

To what extent should training skills in **moderation, argumentation and presentation** play a role in design degrees and/or design training courses?



53

We have been told that mental abilities, attitude and mindset play an important role in successful design practice, whereby the border between personality traits that can be trained to limited extent and those that cannot is fluid.

Our question to you:

Should design degree and/or design training courses involve the teaching of mental abilities, e.g. **thinking out of the box**, and changes in attitude?



54

We have learnt that design practice is always project-oriented.

Our question to you:

Should design degrees and/or design training courses be structured as **integrated projects or specialised subjects?**



55

We have heard that a 4-phase, 'learning by doing' model (practical work, theoretical reflection, gaining general knowledge from a single experience, which can then be communicated) provides a suitable framework for successfully conveying relevant material in design degree or design training courses.

Our question to you:

How can acquiring **theoretical knowledge and training practical applications** be balanced within design degrees and/or design training courses?



56

We have learnt that successful didactics at a higher education level is based on the six levels of the so-called taxonomy of educational objectives (knowledge, understanding, application, analysis, evaluation and development).

Our question to you:

How important is a **clearly defined sequence of learning objectives** in design degrees and/or design training courses?



57

We have learnt that an iterative approach to didactics at a higher education level is necessary for acquiring an in-depth knowledge of the material.

Our question to you:

To what extent can material in design degrees and/or design training courses be taught as **repeating loops** and associated skills?



58

We have heard that continuous learning is necessary for successful design practice.

Our question to you:

How important is it for successful design practice to **continue educating yourself**, even after completing a design degree and/or design training course, and what role should colleges or higher education institutions play in this?



59

This leads to a follow-up question:

What value will **online tutorials** or **MOCC formats** have for successful design practice in the future?



60

And further follow-up question:

Will design colleges and higher education institutions still be able to keep up with the pace of **development of learning opportunities** outside formal higher education in the future?



61

We have learnt that the gratification systems in higher education and the free economy differ greatly. This means that achievements within a design degrees and/or design training courses are evaluated significantly differently from those in professional practice.

Our question to you:

Is it necessary to synchronise **gratification systems** in design degrees and/or design training courses with those in professional practice?

And what are the consequences for design degrees and/or design training courses?



62

We have been told that design graduates receive too little practical experience with real business clients.

Our question to you:

When should design students start collaborating on real projects with **business clients**?



63

We have heard that design graduates have misconceptions about economic relationships and therefore underestimate the complexity of tasks.

Our question to you:

How important should **learning about economic relationships** be as part of a design degree and/or design training course?



64

This leads to a follow-up question:

Are **design and business** outside higher education institutions, in reality, two sides of the same coin, and so inseparable that they need to be taught together?



65

And further follow-up question:

If **design and business** are taught together, is the goal is to impart business expertise to design and design knowledge to business?

Or is the goal to develop something new for which there is currently no specific term?



66

We have learnt that real tasks in the form of business cases form part of the established training at business schools.

Our question to you:

What relevance could the **business case** format have for the future of design degrees and design training courses when applied to real design tasks?



67

We have learnt that in the future the typical tasks involved in designing objects will disappear behind their application (the so-called experiential benefit). They will merge into larger use contexts that will only become tangible at a few points or moments as material phenomena ('eco-systems').

Our question to you:

What significance will the **invisibility of systems** have for successful design practice in the future, and what consequences will this have for design degrees and/or design training courses?



68

We have learnt that the digitisation of all work areas has long since been incorporated into design and all related areas.

Our question to you:

How important is the **mastery of current techniques in the digital production** of objects, images and services (e.g. 3D printing, layout and image processing, web and app coding) in design degree and/or design training courses?



69

We have been told that digitisation is comparable to literacy, and that in the future anyone without a sound knowledge of data and algorithms will be viewed in the same way as someone who is illiterate today.

Our question to you:

How important should teaching **data analysis and programming skills** be in design degrees and/or design training courses?



70

This leads to a follow-up question:

To what extent will design practice in the future be about the **design of, with, by and even for data** or algorithms?

And what are the consequences for **design degrees and/or design training courses**?



71

We have learnt that digitisation is fundamentally changing design practice because it cannot simply be integrated into existing processes, but rather changes the processes themselves.

Our question to you:

Does digitisation in design require a **focus on integration or transformation** (or transformation through integration), and what are the consequences for design degrees and/or design training courses?



72

We have been told that successful design practice processes in the future will increasingly depend on the ability to measure quality of the solution.

Our question to you:

To what extent can the **quality of a successful design** be measured by interaction, conversion and transaction rates?



73

This leads to a follow-up question:

If the **qualities and effects of successful design** are measured, do they need to be taught as part of design degrees and/or design training courses?



74

We have heard that disciplinary boundaries have limiting effect. Preventing or reducing this effect is referred to as interdisciplinarity, transdisciplinarity or post-disciplinarity. This contradicts the traditional structure of higher education institutions.

Our question to you:

What **form** does an institution need to take for a design degree and/or design training course?



75

We have been told that innovations in design arise at the edges and not at the centre.

Our question to you:

Is there a **periphery** to a design degree and/or design training course, and what is there?



76

This leads to a follow-up question:

Is there **an educational core** to design degrees and/or design training courses with parts that cannot be omitted under any circumstances?



77

At the end of most of the interviews we conducted about the future of design education, we arrived at the idea that the general conditions and tasks in design will have changed so fundamentally in just a few years that this new practice should no longer be called design. The current situation is basically comparable to the situation 100 years ago when a new practice of designing commercial serial products with division of labour in industrial contexts was termed design in order to distinguish it from older practices.

Our question to you:

What new term should be used to describe a **new practice of design** within the changed contexts of digitisation where the distinction between unique and series no longer makes sense?



78

To conclude, we'd like to ask a fantasy question:

If you were the **king or queen of your country for a day** and had the opportunity to irrevocably change the way design is taught, what would you change?



79

And now that you have read through all the questions:

Is there a question that is missing or that hasn't been answered?



80

And:

Did you think any of the questions were superfluous?



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