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GENERAL TENDENCIES OF THE INTERFACE DESIGN: ANTWERPEN'S CASE

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ABSTRACT

This paper summarises the main topics and discussions of *Smashing Conference Antwerp 2024*, with a focus on contemporary tendencies in UI and UX design, including design systems, inclusive practices, data visualisation, and the integration of generative AI. It highlights both practical industry cases and broader philosophical reflections, emphasising the convergence of technology, creativity, and human-centred values.

Keywords: *AI, creativity, design systems, innovation, interface, UX, UI*

Introduction

Smashing Conference Antwerp 2024 took place from 27 to 31 October in Antwerpen, Belgium, at the famous *Bourla* Theatre, bringing together around 500 designers and developers for a multi-day series of presentations and workshops focused on real-world design challenges (https://smashingconf.com/antwerp-2024/). The event offers a concentrated snapshot of current practice in UI/UX and serves here as the primary basis for identifying tendencies.

Methodology

This article is a conference report based on: on-site observations and notes; a review of the official program and speaker materials; a study of publicly available artifacts (speaker sheets, slides, and published videos) and books, websites, and other materials related to IT, design, and other related industries.

Discussion

The conference focused on solving real design problems and the latest trends in user experience design. The conference programme covered various aspects: design systems, usability, inclusive design, UX research, product design, enterprise UX and many more.

Special emphasis was also put on new, less explored areas, from seniors and eco-friendly design to remote collaboration and user privacy. The common message that ran through much of the talks was that design must be human-centred, ethical and adaptable to changing technologies. Workshops were held alongside the presentations to provide in-depth training in specific skills (e.g., design systems planning or user interface design). The special atmosphere of *SmashingConf* should also be highlighted – "It was the most thoughtful, welcoming and warm design conference I have been to in a long time," said designer Fabricio Teixeira, highlighting the special atmosphere created by the *Smashing* team. This positive, enthusiastic backdrop clearly encouraged creative ideas and open discussion, which are critical for the development of the industry. The conference highlighted a number of current trends in graphical user interface (UI) and user experience (UX) design that reflect broader industry changes.

Design systems – centralised collections of styles and components that ensure consistency across large products – continue to grow in importance. Several speakers (e.g., Nathan Curtis and Cameron Worboys) stressed that it is becoming increasingly important for organisations not only to create a design system, but also to manage and develop it effectively. This includes aligning processes, tools and roles between designers and developers. The trend shows that the maintenance of design systems is becoming a separate competency (called Design Operations or Design Processes). In parallel, the closer integration of designers and developers in their daily work is becoming more important. Christine Vallaure's talk on the interaction between *Figma* and CSS (When Figma meets CSS, YouTube.) highlighted that the line between design and coding is gradually blurring – modern tools (such as *Figma* with its new plugins and *Dev Mode*) allow both sides to work in a common environment and reduce the traditional "PSD to code" type of handover problem. In industry practice, this means that designers increasingly have basic programming knowledge, while developers value design principles, creating true interdisciplinary teamwork.

It is fair to say that remote and hybrid working has become the norm due to the COVID-19 pandemic, and design teams are looking for ways to remain creative and productive in such conditions. At the conference, Di Scarano stressed that facilitation skills – the ability to lead team discussions and co-creation sessions – are now golden (Facilitation Tools for Everyday Productivity. YouTube). Techniques such as short, structured online team exercises can replace long, ineffective meetings. The industry trend shows a demand for tools that facilitate real-time collaboration, writing down ideas and prototyping remotely (e.g., Miro digital whiteboards, *FigJam*, etc.). Even traditional conferences (like *SmashingConf*) are taking this into account – e.g., suggestions and documentation were shared online (*Google Doc* notes, *Slack* group) to involve remote participants. Another trend is the focus of companies on documenting knowledge – design guidelines, research findings and best practices are stored on shared platforms so that team members, regardless of location, can learn and follow common standards.

In 2024, the importance of inclusive design in UX continued to gain ground. This means designing products to be usable by the widest possible range of people – of different

ages, abilities and cultures. At the conference, the engaging and very attractive designer Pablo Stanley, who presented in socks on stage, gave a practical and vivid demonstration of representing diversity in visuals with AI.

More broadly, companies are focusing on accessibility standards: colour contrast, navigation with assistive technologies, clarity of content. Increasingly, teams are consulting accessibility experts and testing products with people with disabilities to ensure that digital design does not exclude anyone. In addition, there is interest in design for an ageing population (e.g. adapting fonts and interfaces for seniors) and eco-friendly design – such as energy-efficient app solutions and the use of sustainable materials in physical interfaces. These areas were also mentioned by the *SmashingConf* programme as new areas of research. Although these topics are still gaining traction, they reflect the trend towards value-based innovation – designers want to create solutions that are not only functional, but also socially responsible.

In Privacy and ethics UX design There are increasing demands from users and legislators for data privacy and ethical practices in digital products. For UX designers, this means thinking carefully about how personal information is requested and used, and communicating this clearly to users. This topic was not the focus of a separate talk at the conference, but was highlighted as "uncharted territory" in the programme submissions. Current examples in the sector include 'Privacy UX' – design that helps users understand and manage their data (e.g., easy to find privacy settings, transparent explanations of cookies). Companies are also starting to move away from dark patterns (manipulative design techniques) and look for ethical alternatives to retain users. This trend is part of a broader focus on user trust – good UX now includes not only usability, but also an ethical responsibility towards the user.

With the explosion of data accessibility in the early 21st century, data design has become an important part of UX. Nick Desbarat's presentation showed that creating quality data visualisations requires a careful approach – designers need to think not only about the graphical form, but also about the story the data is telling (How to Create Truly Great Charts. YouTube). The trend is for companies to increasingly invest in specialised data designers or train UX designers in data representation requirements. The aim is to turn complex analytics data into user-friendly, visually appealing reports and dashboards. This also means using new tools, from interactive chart libraries to no-code data analysis platforms. Data storytelling skills are becoming as important as technical skills: designers need to be able to contextualise the numbers and highlight the key message the user should get from the data. This trend is in line with a broader trend in UX: the emergence of deeper specialisations (e.g., content designers, conversation designers, data visualisation designers, etc.) that work together to create a unified user experience.

Overall, the UI/UX field is currently undergoing dynamic change, driven by both rapid technological developments and increasing user demands. Designers need to learn new skills (from facilitation to basic programming), collaborate more closely with other disciplines, while keeping human needs and ethics as the central guiding principles. The *SmashingConf 2024* speeches and discussions showed that industry professionals

are ready for these changes – sharing tools, techniques and ideas on how to design better in today's changing environment.

One of the hottest and fastest growing trends in design technology is the use of generative artificial intelligence (AI) to create images. Tools such as *Midjourney*, *DALL-E* and Stable Diffusion have in recent years become capable of creating visual works of art in a matter of seconds using only text descriptions. In 2023–2024, they have reached a new level of quality: for example, OpenAI's *DALL-E3* is able to generate more detailed and semantically accurate images than its predecessors, and has been integrated into online conversational platforms, making access even more convenient. The magic of these tools lies in their simplicity: any user, by entering a text command, can create an image with an astonishing level of realism and style as designer Gleb Kuznetsov describes, AI-generated artworks have become so common on the internet that one wonders: will AI replace designers in the future? This question was heard both at the conference (in Pablo Stanley's speech) and in the wider industry, but the prevailing view is that there is a transformation of roles rather than a direct replacement.

Integrating AI into the design process is becoming the new normal. Designers are increasingly using tools like *Midjourney* or *Adobe Firefly* to quickly generate idea sketches, concept art and illustrations. For example, in the early stages of product design, a team can create dozens of visual style directions using *Midjourney* and then select the most appropriate one, saving weeks that would previously have been spent drawing manually. *Adobe* has introduced *Generative Fill* and similar AI functionality into its tools (*Photoshop*, *Illustrator*), making the process of correcting and updating generated graphics part of the daily workflow. This means that a designer can insert a text command to add missing elements or delete unwanted objects to a photo, and the AI does it automatically, maintaining a photorealistic quality. Other tools, such as *Canva*, also offer *Magic Design* features that generate visual designs based on user input. This integration makes generative AI accessible not only to specialised technicians, but to any designer, even without programming knowledge (Canva. 2023, Introducing Magic Studio: the power of AI, all in one place). Another, less discussed issue that did not appear at the conference is that of collective taste, as it remains an open question whether any person without an artistic background can adequately appreciate and appreciate AI-generated art.

SmashingConf speakers highlighted several specific applications of AI image generation in design. Pablo Stanley] demonstrated how to train an AI tool to generate images that match a brand's visual identity (Creating Beautiful, On-Brand Photography with AI. YouTube.) – for example, a certain colour palette, angles and, most importantly, inclusive content (diversity of people in images). This is extremely useful for marketing and product illustration where coherent visuals are needed: AI can quickly generate a whole library of photographs that look as if the company had held a professional photo shoot with models of different profiles. Examples like these show that AI image generation is not just a technological novelty, but a practical tool in the hands of designers. It allows both to save resources (less outsourcing to illustrators or photographers) and to experiment with a wide range of ideas in minimal time.

But alongside the opportunities, AI also brings new challenges. In addition to the artistic taste mentioned above, one of them is prompt engineering – the ability to formulate a textual request to an AI system in such a way as to get the desired result. Designers have to learn how to describe the desired image precisely, how to apply parameters (styles, camera lenses, lights, etc.) to control the outcome. For example, to create "a friendly, illustrative background for a bank mobile app with a family using a smartphone in a park, flat design style", an experienced user will know how to structure the team to include both the content details and the desired graphic style. This even creates a new sub-field of design – AI content curation – that manages these tools. Other challenges relate to ethics: the bias and quality of AI-generated images need to be addressed. Models are trained on huge amounts of data, and if they contain biases (e.g., stereotypical gender or racial representations), these can show up in the results. This is why Stanley's example of deliberately including diversity is important – designers need to be able to correct the AI's tendency to generate an 'average' or default version and encourage the tool to generate more diverse content.

One of the most sensitive questions for the industry is: will AI replace designers? The current perception is that AI will become a strong collaborator rather than a competitor. As industry commentators write, "AI will not replace designers, but designers who use AI will replace those who do not". In other words, professionals who learn AI tools and integrate them into their design process will gain a significant advantage in the labour market. But those who ignore the technology risk being left behind. The designer's role is transforming: less time spent on execution (e.g., drawing pixels or creating iterations) and more on conceptual work, monitoring and curating results. Gleb Kuznetsov foresees that in the near future a designer will be able to "go from idea to finished work in minutes instead of days", becoming a visionary who tells the computer what to design and the computer does the rest. This vision is already partly coming true: AI tools really do allow the focus to be on giving creative guidance while technical execution is automated.

In conclusion, AI image generation technologies are significantly expanding designers' creative tools. *Midjourney* and similar services can produce an amazing range of visuals, Adobe and others are integrating AI into existing design tools, and overall, the line between "computer-generated" and "human-made" graphics is becoming increasingly fluid. The key challenge for designers now is to learn how to work with AI to make it work for them. The *Smashing Conference Antwerp 2024* showed that the industry is actively seeking best practices in this area, sharing both the excitement about the potential of AI and warning about new responsibilities (ethics, not losing the human element). AI is becoming part of the design process and a successful designer is no longer just a creative artist, but to some extent a technology conductor who can match human ingenuity with machine power. This was also the theme of Harrison Wheeler's (Design Director at LinkedIn) final keynote, Design's New Frontier: How to Lead in the AI Disruption, that AI is changing almost every aspect of the field and designers need to adapt to these changes to avoid losing influence in their organisations.

From an academic perspective, innovation and technological development are often accompanied by deeper philosophical questions: What is Creativity? How does technology affect society and ourselves? These questions are not alien to designers or thinkers. The ideas of many philosophers can provide a broader context for the meaning of design innovation.

The French philosopher Gilles Deleuze once said, "To create is to resist; to resist is to create." This insight underlines that at the heart of any innovation is the courage to challenge the status quo. In design, this means that to create something truly new and valuable, a designer often has to break with conventional norms and "conventional frames". Innovative design is often born out of resistance to outdated assumptions or inappropriate user experiences. Deleuze's words are in line with a practical approach: innovation is not possible without critiquing and overcoming the existing. Every new design solution that seems revolutionary has a contribution from this spirit of resistance – breaking with tradition and making room for something qualitatively different. At the same time, Deleuze points out the opposite: every resistance creates something new. For example, criticism of an app's poor usability can be the trigger for a completely redesigned, user-friendly version. Thus, Deleuze's philosophy can be clearly seen in design innovation: creativity and change are born in rebellion against the status quo.

Michel Foucault has also written extensively on how society shapes knowledge and how this knowledge can suppress new views. In his writings we read the idea that all power inevitably faces resistance – "Where there is power, there is resistance", said Foucault (Foucault, 1978. p. 95). This idea can also be applied to technology and design: dominant technological standards and paradigms often gain 'power' – they determine how people think, what is considered the norm. But sooner or later there are designers or thinkers who challenge this power by offering a different perspective. For example, at a time when complex, feature-laden software dominated, the user experience (UX) movement emerged, resisting the idea of "the more features the better" and instead emphasising simplicity and user needs. Initially, this approach was at odds with the existing discourse of power in technology, but resistance gradually created a new norm: today, user-centred design is a given. From a philosophical point of view, this confirms Foucault's observation: innovation is born in a struggle with existing power (ideas, norms), and over time this struggle can change the discourse itself. The American futurist and inventor R. Buckminster Fuller famously aphorised: "You will never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete". This idea applies very directly to innovation processes in design and technology. Fuller calls not to focus on "beating" the old system within its rules, but to create an entirely new system in which the old problems are no longer relevant. In a design context, this might mean, for example, that when users complain about the complex navigation of a website, a radical solution would be to redraw the whole service model – perhaps even abandoning the website concept in favour of a mobile app or voice assistant that solves a user need more directly. Fuller's advice to "build a new model" echoes a design thinking approach where innovators take a broader view – not just fixing the flaws in an existing product,

but redefining the problem itself. Fuller's quote also embodies foresight: true innovation often makes the old approach irrelevant. For example, the advent of smartphones was a new model that made a whole range of individual devices obsolete (mp3 players, compact cameras, paper maps). This strategy – to create something so superior that the old becomes obsolete – has become the motto of innovators in many sectors.

Technology and media theorist Marshall McLuhan once aptly noted the dialectic of human-tool interaction: "We make our tools, and then the tools make us." This insight underlines that technology is not neutral: as soon as people create a new tool (such as a smartphone, social networking or design software), it begins to have an inverse impact on their own lives and mindsets. For designers, this McLuhan principle reminds us that design shapes user behaviour. For example, interface design determines how people access information, communicate or even think (thinking patterns can be influenced by, say, a character limit on Twitter or the presence of a 'Like' button). Understanding that tools shape us, designers take responsibility to create tools that shape us in a positive direction – to foster productivity, creativity, communication, not dependency or divisiveness. At the same time, McLuhan's insight also invites self-reflection on innovation: every design innovation will change the context in which people operate, so we need to think one step ahead: what are the implications of what we create? This philosophical perspective helps designers to see the bigger picture, beyond the short-term goal of "making things prettier or more comfortable", and to be aware of the impact on people's habits and society as a whole.

To summarise, the philosophers' insights highlight the deeper meaning of innovation: it arises from overcoming the status quo (Deleuze), it requires a critical examination of power and norm structures (Foucault), it is realised through the creation of new paradigms (Fuller), and it inevitably changes us (McLuhan). In design and technological development, these principles are not abstract: they help us to understand why innovation happens and remind us that each innovation is part of a larger evolution of human thoughts and ideas. Such a philosophical framework can enrich designers' perspectives by asking strategic questions: what are we really changing with this new solution, what values does it embody and what kind of world will it shape? After all, as the German philosopher Friedrich Nietzsche said, "man needs chaos within himself to create a dancing star" – and it is this creative restlessness and vision of new "stars" that designers bring to our everyday technological world. A similar message was also expressed by the conference's Mystery Speaker – "Life is a Mystery". This presentation was a symbolic reminder that the beauty of creativity and life lies in the unknown.

The discourse of innovation and design is shaped not only by philosophers, but also by the leaders of the field itself – design thinkers, entrepreneurs and technology visionaries, whose quotes often become slogans among designers. Their insights help to articulate practical principles to guide us and connect academic thinking to the real world of business and products.

Tim Brown, CEO of IDEO and a promoter of design thinking, defines the role of design in innovation as "Design thinking is a human-centred approach to innovation

that uses a designer's toolbox to integrate human needs, technological capabilities and business success enablers." (Brown, 2008. Design thinking, pp. 84–92.) This complex definition, coming from an industry practitioner, reflects the fact that good design simultaneously addresses desirability, feasibility and viability – or, in Brown's words, combines the desirable, the doable and the profitable. For designers, it's a formula: innovation will emerge where user preferences, the power of new technology and business goals meet. For example, when developing a new app, design thinking will require exploring unmet user needs (desirability), considering what today's technology makes possible (feasibility), and making sure the solution will make economic sense (viability). Tim Brown's guiding principle is human-centredness in innovation: despite the whirlwind of technology, the starting point is always the person and their problem. This approach is widely adopted by start-ups and corporations alike, making designers interdisciplinary intermediaries between engineers and business people.

Another famous industry quote comes from Steve Jobs, who highlighted the essence of design in product development: 'Design is not just how something looks and feels. Design is how it works" (Walker, 2003). This short phrase has become a cliché for UX designers around the world. Jobs reminds us that aesthetics is only one dimension of design – usability and functionality are just as (if not more) important. From an industry perspective, this was the foundation of Apple's product philosophy and has become a cornerstone of good practice today: a gorgeous interface is worthless if it doesn't provide an intuitive and efficient experience for the user. This is also true for today's users – research shows that users judge products on how well they solve their problems, not just on how beautifully they are designed. Jobs' quote serves as a reminder for designers to always ask: "Does my design work for the user? Does form follow function?" This is consistent with the modern design principle that function and form are not opposites, but harmonious wholes – in good design they merge into an inseparable experience.

UX researcher Jared Sproul is often quoted as saying: "Good design, when done well, becomes invisible. It's only when it's done poorly that we notice" (Spool, 2016). This observation accurately describes the ideal of user flow invisibility: if the interface is intuitive, the user simply reaches their destination without getting caught up and doesn't even think they are experiencing "design". But pitfalls, confusion, unnecessary steps – they stand out and catch the eye immediately. In industry, this idea encourages usability testing and iteration: designers try to identify all the user's difficulties and fix them until the product "disappears" into the user's hands, allowing them to focus on the task rather than the interface. Sproul's quote also implies the holistic nature of design: many factors (information architecture, visual cues, speed of response, etc.) must converge to achieve this invisibility. Good design therefore requires care and attention to detail to make the end result seem easy and obvious.

Today's technology leaders also often stress the importance of creativity and interdisciplinarity in innovation. Steve Jobs, for example, praised the intersection between the humanities and the technical sciences. He said that Apple's success is based on the company being "between technology and the liberal arts", creating products that are

both technologically powerful and humanly appealing. This vision promotes the idea in the industry that design is not an isolated process, but a bridge between engineer and user, between algorithm and story. Following this idea, many companies are building multidisciplinary teams where engineers, designers, anthropologists and writers work side by side to ensure that innovation is both technically ingenious and relevant to human desires.

Gemma O'Brien stood out among the *SmashingConf* speakers with her presentation "Words That Bloom". Gemma O'Brien is an internationally renowned designer and artist and gave an attractive and practical insight into the process of creating large-scale handwritten and wall murals. Her creative demonstration showed the step-by-step path from gathering inspiration materials and sketching by hand to digitally painting on an iPad and painting the final result into a mural. O'Brien encouraged designers to step away from their screens and try calligraphy and handwritten illustration to expand their creative skills.

Quotes from industry leaders and experts succinctly express the practical principles that guide design and innovation: be human-centred (Tim Brown), don't lose focus on functionality (Steve Jobs), create solutions that transcend existing paradigms (Buckminster Fuller), and ensure that design serves the user so smoothly that it becomes transparent (Jared Sproul). Taken together, these insights form a kind of set of industry dos and don'ts that help structure the thinking of both the new designer and the experienced product manager. They remind us that innovation is not an end in itself – it must bring real benefits to people; that design is not a luxury – it is a prerequisite for success; and that the greatest achievements come from combining creativity with strategy and technology. The content of the *Smashing Conference Antwerp 2024* echoed many of these messages, both explicitly and implicitly, demonstrating that industry practitioners and thinkers globally are talking in the same direction: to create innovative design that improves lives, using modern tools and a deep understanding of people.

All in all, *SmashingConf Antwerp 2024* provided an in-depth insight into both practical design innovations and confirmed the core values and principles that permeate the development of the industry. Keynote speakers shared concrete techniques and experiences – from design and code synergy to inclusive AI graphics – while resonating with the big ideas: that design is for people's wellbeing, that innovation is born from breaking boundaries, and that in the age of technology, the human factor is more important than ever. The overall message of the conference and the trends discussed clearly showed: UX and UI is a dynamic and multifaceted field where creativity, technology, philosophy and business converge. The old divide between creative and functional designers was a little more pronounced, but that doesn't change the fact that designers today need to be craftsmen, strategists and empaths – and this holistic view is what *SmashingConf* fostered, inspiring professionals to keep learning, sharing and co-creating a better digital world.

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