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Social Network Society New Design Contexts and New Virtual Identities

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Abstract

In the age of post-truth, the social network society lives in several spaces and times simultaneously. This kind of society inhabits the virtual environment as well as the real one and soon, when they coincide, it will no longer be able to distinguish between one and the other, with the same difficulty as it has today in recognising true from false. The virtual environment, made up of algorithms, bots, filter bubbles and fake news, thus becomes the new context in which we exist, and, as designers, we have a duty to consider it as a new possible context of and for design. The contribution aims to analyse how this new artificial environment affects the life, identity and pathologies of the person/user, considered a key element of the design project. An exploration that therefore aims to understand the new design paradigms of today and tomorrow, through the analysis of case studies and theoretical reflections.

Keywords

Post-truth Virtual environment Social media Identity

Post-truth era

In 2016, the Brexit and Donald Trump's election as United States (US) President marked the beginning of a new era. In the same year, the *Oxford Dictionary* elected "post-truth" as the word of 2016. The concept is linked to the phenomenon of fake-news that has affected the socio-political-economic system of this era, as Trump's election and then his governance has shown us.

Here we examine social bots and how they promote the spread of misinformation through millions of Twitter posts during and following the 2016 US presidential campaign. We find that social bots amplify the spread of misinformation by exposing humans to this content and inducing them to share it. (Shao et al., 2018, p. 2)

Indiana University conducted an important study on the phenomenon of fake-news dissemination during the 2016 US election campaign period. Chengcheng Shao and his collaborators demonstrated how bots are a powerful tool for spreading fake-news, programmed to target and distribute content, and how they are an amplifier of disinformation with a high level of engagement, one of the main values on which the social network system is constructed. This study is just one of the many documents that demonstrate the link between the election of Trump and the fakenews phenomenon in the US at the time.

The reason why fake-news probably had such a strong power on people is because they act on what is called cognitive bias, i.e. the unconscious distortion of reasoning (Mensa Italia, 2020). Specifically, the confirmation bias leads people to assign greater credibility to news that confirm their ideas and to ignore those that contradict them. Moreover, according to the study *The spreading of misinformation online* (Del Vicario et al., 2016), the users' acceptance of news as true can be influenced by beliefs and social norms. Users tend to aggregate into communities of interest, which causes segregation and polarization phenomena and, most importantly, they tend to have social homogeneity. All this has a strong impact on the spread of misinformation phenomena (Del Vicario et al., 2016).

The comfort zone generated by Facebook's algorithm also does not help to have access to what people do not believe or do not think because it holds in static bubbles, called filter bubbles (El-Bermawy, 2016), where only posts that could personally interest, make happy and satisfy are shown (Maiello, 2016). Fake-news, filter bubbles, bots and cognitive bias affect people's ability to distinguish, in the social media context, between true and false, between reality and fiction.

In the post-truth flow, people no longer know what to believe and therefore choose to believe in what seems most credible, so the promo GIF for the release of the new *Star Wars* film becomes a shot of a stretch of motorway between Savona and Millesimo in Italy, where a solar panel — spacecraft — has collapsed and people believed that the figure seen standing on it is an A.N.A.S. employee — Storm Trooper soldier of the Imperial Army. Fig. 1

E' appena successo sulla A6, i soccorsi stanno arrivando sul luogo dell'incidente





Fig. 1 Star Wars, Facebook post from December 2016, with related comments published by a local news page in the province of Savona, called IVG, with a promotional GIF for the new release of the Star Wars film.

Salvatore laconesi (2017), data scientist and artist, argues that we have to stop interpreting social networks as an interface for us. Social networks are an interface for Artificial Intelligence (AI) to read us. We are not the users of social, but we are the content; the users of social are the AIs.

The social network algorithm also knows how to move in analogue/digital space and time; it knows very well which content is likely to appear on the *News Feed* while you are on the underground and which is likely to appear while you are in the morning at the office in front of your computer, providing tailor-made entertainment in the bubble. The tailor-made experience is given by the daily information the algorithm is feeding on, i.e. personal data, made of self and existences, thus getting to know users better than family and friends (Youyou et al., 2014). The *Washington Post* lists ninety-eight types of data that Facebook, but in general social sites and apps, use to target users, ranging from the most banal such as gender and age, to the most elaborate and intimate such as the composition of the household and the typology of mother/father (Dewey, 2016).

This virtual social network space is not only strongly modifying society, as the above-mentioned political events testify, but also the lives of human beings.

Dichotomous Existences Between Natural and Artificial Environment

Nowadays we exist online more than we do offline and we spend most of our waking hours in the ether (We are social, 2021), so it would be more correct to consider this virtual space/time a real environment, as indeed Media Ecology claims, according to the well-known sociologist Neil Postman, who first attempted to define this branch. He affirms that the media are actually environments: a complex system capable of influencing thought, behaviour and above all, in general, perception and knowledge. Postman states there is no distinction between the natural/real environment and the artificial/virtual one, but they should be understood as a unity in which, however, both should be investigated at the same time, without distinction (Granata, 2015, p. 11-12). It can therefore be affirmed that the web, and more specifically the social media, have their own space, time, social dynamics, etc. They can therefore totally represent the artificial environment defined by Postman, becoming the new environment in which human beings live and coexist. The noted sociologist Manuel Castells (2000) wondered how the concept of community changes in this new environment. He argues that virtual communities overcome distances at low cost; they usually present an asynchronous nature; they combine the fast dissemination of mass media with the pervasive diffusion of personal communication; finally, they allow multiple memberships in partial communities. Castells recognizes a dichotomy in the concept of community by arguing that virtual communities are communities that follow their own patterns of communication and interaction compared to physical communities, thus acting on a different plane of reality.

Today, therefore, we live in a dichotomous state between natural/ artificial environment, between online/offline, between analogue/ digital, between being a person/user, and we move softly back and forth between one and the other. It is technology that leads us from one side to the other. It is becoming more and more an extension of our own bodies, and perhaps we can say that it will soon be the body that is an extension of technology. This boundary will blur when technology is no longer around the body but within it — contact lenses for augmented reality, chips, etc. — that is, when augmented reality will be integrated 24 hours a day into existences, collapsing this duality and generating a single environment made of "bits and atoms" (Ratti & Claudel, 2017, p. 17). Luciano Floridi (2015) talks about "onlife": a life in which it is impossible anymore to distinguish the concepts of online and offline.

Life, Pathologies and Death in the Artificial Environments

The human being today exists in the artificial environment as well as in the natural one, and therefore one is born, has fun, works, mates, dies, and more. Traces of our online existence will be in the ether for eternity. These online traces in fact enabled Eugenia Kuyda, founder of the software company *Luka*, to build a chatbot version of her friend Roman, who died in a tragic accident. Eugenia and partner Philip collected all the written conversations, in messaging apps and social chats, between Roman and all his family and friends; these conversations were poured into a system through which they could converse with Roman's virtual spirit (Quartz, 2017).

Giovanni Zaccardi (2017) estimates that between 2065 and 2095 the social accounts of dead people could exceed those of the living. The professor of legal informatics explains how a large number of deceased people's profiles remain active and are then fed by updates from relatives or friends who use the profile in a commemorative way. Death is now public and widespread, gathering people around who, through social comments, exchanges of memories and all kinds of posts, find new ways of celebrating the new collective memorial rite, creating a new kind of funeral wake (Zaccardi, 2017).

On social networks we not only die, but we also fall ill with new digital diseases. The artificial environment makes us weak, like the natural one, and therefore more likely to fall ill, affecting our attention span, orientation, emotional state, stress, and more. This is because we have "ancient minds in a high-tech world" (Gazzaley, 2016). A study in 2008 showed that people were already exposed to 34 gigabytes of information per day, about 137,000 bits per second — an amount that would be enough to saturate the memory of any PC within a week (Bohn & Short, 2012) — but the human mind can process a maximum of 120 bits of information per second (Levitin, 2014, p. 7). So every second back in 2008 we were exposed to a thousand times more information than our mind could afford. Information overload anxiety is closely related to the concept of how much limited information and simultaneous activities the mind

can handle. Wurman (1989) in *Information Anxiety* defines it as the gap between data and knowledge, i.e. the proportion between what we know and what we think we should know. He argues that as the overload increases, so does the gap.

If in 2008 the ratio of mental capacity to information was one to a thousand, what might have happened twelve years later? How big is today the gap between information and knowledge? Nowadays, humanity produces 44,000 exabytes of data by living online, and it is estimated that by 2025, 400 exabytes of data could be produced per day (Tremolada, 2019), when up to 2005 humanity had been produced a total of about 5 exabytes (Cairo, 2013, p. 15). It is not just the amount of data generated that has increased exponentially, but also the amount of information we are exposed to everyday through various media and devices. Consider also that only on Facebook, for example, at each access, about 15 thousand contents compete to appear on the feed (De Felice, 2017), catalysing the user in a flow of filtered information in which what can be defined as *mindless scrolling* occurs, that is, the compulsive. distracted and passive scrolling on one's social feed (Lieberman. 2017). A Microsoft study (Gausby, 2015) reveals that as the amount of information increases, attention spans drop, and in 2013 they were already below the level of a goldfish, eight seconds compared to nine seconds for a fish. The report also shows that our multitasking has improved, meaning that we are able to do several things at the same time, but only in a few seconds.

It would seem that there are three seconds for which it is possible to attract the user's attention with a social content in order to lead him to explore the content, to click, or to do something else (Giovanetti, 2020). Consider the strong impact that this new time factor and the reduction of the human attention span has had in the world of advertising and marketing, where brands now fight to get into our feeds, to get our attention and to differentiate themselves.

As Floridi (2015) argues, technologies are built initially to save our time and then to destroy it. Every change in social networks, every development of them, every new aspect seems to want to affect our autonomy from them. The recent Instagram Stories (IG Stories) have once again changed the rules of social networks, the rules of our virtual environment, making us even weaker and more dependent. In fact, IG Stories appeal to the psychological phenomenon called F.O.M.O. (Fear Of Missing Out), that is, the fear of feeling excluded, of missing out on something so important as to create anxiety in feeling disconnected. Psychologists define it as the pervasive apprehension that others might have rewarding experiences that you are excluded from (Genner, 2017). IG Stories have a high level of passivity compared to the scroll of the feed because while the scroll is an active action that requires the movement of my thumb to move from one post to another, on the other hand the IG Stories scroll by themselves, like a television with automatic zapping, every 15 seconds (maximum duration of the IG Stories).

Social Network as a Tool for Design Project

In the age of post-truth, social networks — based on algorithms, fake-news, bots and filter-bubbles — define our new virtual habitat, affecting our identity, our perception of the world and our knowledge of it. But how does all this impact on the designer's profession and role? Two of the most important, and first, projects that attempted to investigate how social networks, or in general the Internet, affect our society were *Selfiecity*, in 2014, and *Network Effect*, in 2015. *Selfiecity* was developed by a multidisciplinary group, including the international data scientist Lev Manovich, and Moritz Stefaner, interface designer. They used 3,200 geolocated selfies in five cities around the world to carry out a theoretical, artistic and quantitative study of that popular phenomenon. The result was the evidence of interesting patterns of investigation on the evolution of the current society (Manovich et al., 2014).

The *Network Effect* explores the impact of the web on humanity and the topic of user-generated data. Through the aesthetics of data visualization, it aimed to question the usefulness of big data and make people think about their possible potential (Harris & Hochmuth, 2015).

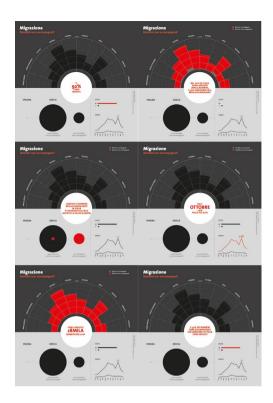
Based on these, and other possible case studies, in 2017, an "on action research" — a definition given to an active moment of the research — named From Data to Stories started at the Università degli Studi di Genova Department of Architecture and Design, in collaboration with Nicoletta Raffo (Liçaj, 2017). This experimental project had a twofold objective: on the one hand to test the social environment by analyzing it from the designer's point of view and, on the other hand, to understand how communication is changing today and how social media can be used as an ethical and effective communication tool.

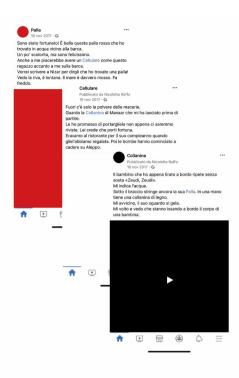
The results of the experimentation led to interesting considerations on the theme of data and narrative referred to the social environment, but especially on the users' ways of perception and knowledge, as inhabitants of the virtual environment and recipients of the designer's communication messages. It was structured on the creation, and consequent comparison, of two communication models: Model A Fig. 2, corresponding to an animated infographic model, designed to adapt an infographic to the dynamics and timing typical of social media, and Model B Fig. 3, a tale format which collects the same dataset of the previous model, but discloses it through a non-linear narrative.

Operatively, a politically and socially relevant issue that aims to raise awareness among people has been chosen: the Mediterranean migratory phenomena.

Effectively, after analyzing a group of datasets taken from the UNHCR platform, data were divided into 3 categories related to the theme of migration in Europe: unaccompanied children (defined UASC), separated families, deaths and missing persons.

The first step was the structuring of an Excel personal dataset. Within the UNHCR website, documents and reports containing data were analyzed in order to detect two types of data: macro-data, i.e. data already aggregated, and micro-data, i.e. data still awaiting aggregation.



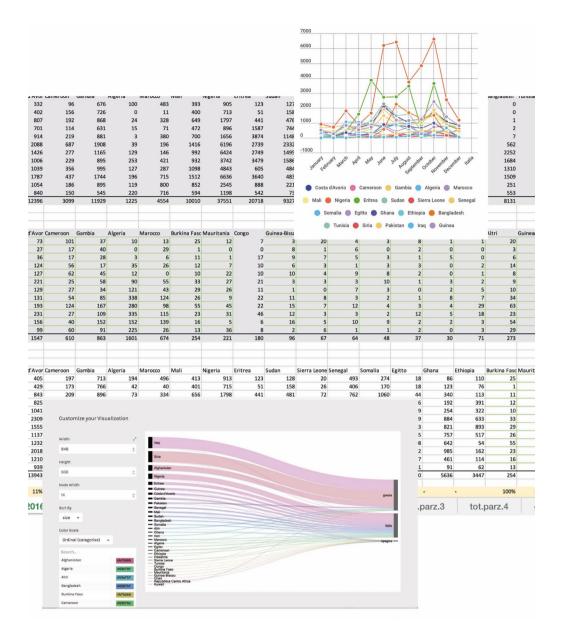


Data on monthly arrivals were analyzed, ranging from 17 to 32 countries — depending on the country of arrival of the migratory flow — in order to understand the phenomenon in its entirety. In addition to an analysis of arrivals subdivided on a monthly basis, it was deemed necessary to scan by gender and age. This detail level proved useful in understanding who the protagonists of these migrations were and how the phenomenon could affect family relationships. Finally, the analysis of the data relative to deaths and missing people in the seas of the Mediterranean is inevitable and significant, especially when comparing the countries of arrival.

Rawgraphs and Infogram were chosen as the main tools to obtaining preliminary and rapid visualization of the data previously structured on Excel, which brought out relationships between groups of data. Fig. 4 These first visualizations have contributed to the understanding of the relationships between the various migratory flows in Europe and have led to the first reflections on the perception of immigration in our country, highlighting how the communication on social networks and politics pushed towards a concept of stereotype and emergency that did not coincide with reality. From the data then emerged the possible relationships between the theme of immigration and the phenomenon of post-truth so these visualizations revealed hidden patterns among data. Based on these patterns was built the communication and storytelling model for Model A, the animated infographics, and Model B, tales. In the following step were analyzed in detail the different social networks to understand which were the most suitable for experi-

Fig. 2 Model A. Infographic from Model A of the experimentation representing data on the topic of UASC (unaccompanied minors), by Ami Liçaj & Nicoletta Raffo.

Fig. 3 Model B. Screenshots from the Model B on Facebook with some tales' episodes, by Ami Liçaj & Nicoletta Raffo.



mentation; these were analyzed according to a series of categories: type of format, tags, hashtags, audience and sharing. As a result of this analysis Facebook was the most suitable, at the time, being the most used platform both in terms of time spent and number and variety of users (Ambrosio, 2015; We Are Social, 2017) — it should be noted that today in 2021 the same process would take into account the significant developments that these social networks have had in recent years, such as the introduction of IG Stories.

Fig. 4 Datasets and visualizations. Process from Excel to rawgraphs and infogram, by Ami Liçaj & Nicoletta Raffo.

The final step of the experimentation consisted in some tests structured on different levels: through targeted Facebook promotions and through qualitative tests in real-time with different users, in order to compare the quantitative analysis provided by the platform with a qualitative analysis made on field. The targeted promotion was structured for a release of the content on social media for a week. As a result of the sponsorship, considering the same settings, Model A posts reached about 12,000 people, with a proportion between reach and impression of about 30% (how many people actually stayed to enjoy the content), while Model B reached about 28,000 people with a proportion of 70% between reach and impression. The qualitative tests were conducted on 12 people between the ages of about 20 and 50 who daily use social media and were characterized by different backgrounds in employment and education.

Thus the results of tests gave interesting outcomes on a concrete list of themes and characteristics of the communication project:

- Time: users spent much more time on Model A than on Model B. The "data-GIF" tool was particularly suitable for this kind of experience, because of its automatic and continuous loop mode, which allowed the user to be in a position of total and comfortable passivity, in the shoes of a spectator. From the tests it results valid and effective the approach of calibrating rhythm and fruition on a scale of seconds typical of social dynamics and attention thresholds of users.
- Themes: a strong social theme strikes the viewer more easily, but precisely for this reason it can be distancing, because it is believed to be designed specifically to create sensationalism and seek likes. It cannot be ignored that social media daily exposes its users to themes that, in the long run, can saturate the interest, with the risk of even creating a sense of annoyance.
- Reliability: most respondents considered both tales and infographics to be credible, although many stated that they do not place particular trust in the information they find on social networks. It emerged, however, that Model A, data one, conveyed more confidence because of the bias that data equals truth. The topic of source in relation to reliability also stands out. Interestingly, testers measured reliability by who published the post rather than the official source of the data (which was often not even noted).
- Interaction: it is almost zero for both models. This confirms
 the passivity of users on social media and therefore makes
 the structure of Model A functional where information
 follows on autonomously without the need for interaction.
 Despite the fact that the GIF is a "stoppable" element, none
 of the users felt the need to do so, letting themselves be
 carried away by the rhythm and speed of the GIF.
- Engagement: Model B was less engaging than Model A, due to its static nature. The dynamism of Model A proved effective in attracting — and maintaining — the attention of users.

Comprehension: both models showed that the times dictated by social media are likely to demand explicit messages. In fact, the threshold of concentration that Model B's tale requires, in order to be understood, is quite high and respondents struggle to frame what the implicit purpose of the message is. As for Model A, although most of the respondents understand the data contained therein, only half of them are able to grasp the implicit message, understood as the deeper meaning that emerges by relating the different information.

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Conclusions

The structure of the social group Facebook & Co (Facebook, Instagram, WhatsApp), according to what the founder Zuckerberg said (Maiello, 2016), was confirmed to be a pleasant and comfortable environment in which to take refuge to be happy, or the place of rambling and mindless scrolling, not so suitable for the construction of a well-founded and ethical communication. This causes uncertainty in users and a lack of confidence in the information found on these social networks, making the approach to any kind of message full of cognitive bias. The target of the project, and its analysis, have therefore become more complex. The target has a multiple identity made up of information from both the real world and the virtual one, and the two, as we have seen in the previous paragraphs, do not necessarily match. Having a complete picture allows designers to readjust processes, methods and tools of the project in order to produce physical objects, and not, more functional and respectful of the individual and his dual existence.

Within this context, the "on action research" has attempted to explore from the point of view of design the relationship between user-social network-data-storytelling. At the end of it, it is clear that communication today undergoes a very strong transformation dictated by the factor of time — a few seconds and quickly —, space — the one provided by the social network, our new habitat —, temperature — the level of empathy that is generated through the posted content. Everything drastically influences the success or failure of the message that the designer tries to communicate with the project.

Moreover the experimentation has highlighted the potential of social platforms for their use both as a starting point of the project — drawing data and information as the projects *Selfiecity* and *Networks Effect* — and as a point of arrival of it, as we tried with the "on action research" *From Data to Stories*. In addition, the transition from theory to practice has brought out the gaps in knowledge and skills, emphasizing the need for broader knowledge related to areas such as data science (with regard to the analysis and processing of data) or marketing (with regard to the use of social media as a tool for measurement, observation and dissemination).

References

Ambrosio, G. (2015, January 20). Lo stato degli utenti attivi sui Social Media 2015 in Italia e nel Mondo. *Julius Design*. https://juliusdesign.net/28700/lo-stato-deg-li-utenti-attivi-e-registrati-sui-social-media-in-ita-lia-e-mondo-2015/

Bohn, R., & Short, J. (2012). Measuring Consumer Information. *International Journal of Communication*, 6, 980-1000.

Cairo, A. (2013). L'arte funzionale. Infografica e visualizzazione delle informazioni. Pearson.

Castells, M. (2000). La nascita della società in rete. Università Bocconi Editore. (Original work published 1996).

De Felice, V. (2017, September 28). Facebook, tutte le statistiche che non puoi ignorare. *Ninja Marketing*. https://www.inipamarketing.it/2017/09/28/22-statistiche-di-facebook/

Del Vicario, M., Bessi, A., Zollo, F., Petroni, F., Scala, A., Caldarelli, G., Stanley, E., & Quattrociocchi, W. (2016). The spreading of misinformation online, *Pnas*, 113(3), 554-555. https://doi.org/10.1073/pnas.1517441113

Dewey, C. (2016, August 19). 98 Personal Data Points That Facebook Uses to Target Ads to You. Washington Post. https://www.washingtonpost.com/news/the-intersect/wp/2016/08/19/98-personal-data-points-that-facebook-uses-to-target-ads-to-you/

El-Bermawy, M. (2016, November 18). Your Filter Bubble is Destroying Democracy. *Wired.* www.wired. com/2016/11/filter-bubble-destroying-democracy/

Floridi, L. (2015). The Online Manifesto. Being Human in a Hyperconnected Era. Springer.

Gausby, E. (2015). Attention Span: Consumer Insights. Microsoft Canada. dl.motamem.org/microsoft-attention-spans-research-report. pdf

Gazzeley, A., & Rosen, L.D. (2016). The distracted mind. Ancient Brains in a High-Tech World, The MIT Press.

Genner, S. (2017). *ON/OFF* – *Risks and Rewards of the Anytime-Anywhere Internet.* vdf Hochschulverlag AG.

Giovanetti, F. (2020). How to Stand Out Online in a 3-Second World. *Better-Marketing*. bettermarketing. pub/how-to-stand-out-online-in-a-3-second-worlda533bd7bd84

Granata, P. (2015). Ecologia dei media. Protagonisti, scuole, concetti chiave. Franco Angeli Edizioni.

Harris, J., & Hochmuth G. (2015). *Networks Effect*. http://networkeffect.io

Licaj, A. (2017). Information Visualization. Disciplina liquida intersoggettiva. [Unpublished doctoral dissertation]. University of Genoa

laconesi, S. (2017). [Interview of Ami Licaj – Ph.D thesis, Department of Architecture and Design of Genoa]. Information Visualization. Disciplina liquida intersoggettiva. 215-221.

Levitin, D. (2014). The organized mind. Thinking Straight in the Age of Information Overload. Penguin Publishing Group.

Lieberman, C. (2017). Mindlessly Scrolling for Satisfaction. Garrison Institute. www.garrisoninstitute.org/blog/mindlessly-scrolling-for-satisfaction/

Maiello, A. (2016, April 4). Perché il web sta morendo. Il lavoro culturale. www. lavoroculturale.org/intervista-a-hossein-derakhshan/ angela-maiello/2016/

Manovich, L., Stefaner, M., Yazdani, M., Baur, D., Goddemeyer, D., Tifentale A., Hochman N., & Chow, J. (2014). *Selfiecity*. http:// selfiecity.net/

Mensa Italia (2020, July 16). Bias cognitivi [Video]. You-Tube. https://www.youtube. com/watch?v=8iiKv4sEaxU

Oxford Languages. (2016). Oxford Word of the Year 2016. https://languages. oup.com/word-of-theyear/2016/

Quartz. (2017, July 21). The story of Replika, the Al app that becomes you [Video]. YouTube. https://www.youtube.com/watch?v=yQGqM-VuAK04&t=4s

Ratti, C., & Claudel, M. (2017). *La città del domani*. Einaudi.

Shao, C., Ciampaglia, G.L., Varol, O., Yang, K.C., Flammini, A., & Menczer, F. (2018). The spread of low-credibility content by social bots. *Nature Communications*, 9(1). https://doi. org/10.1038/s41467-018-06930-7 Tremolada, L. (2019, May 14). Quanti dati sono generati in un giorno? Il Sole 24 Ore. www.infodata.ilsole-24ore.com/2019/05/14/ quanti-dati-sono-generati-in-un-giorno/

We are social. (2017). Digital 2016. We are social. https://wearesocial.com/it/blog/2016/01/report-digital-social-mobile-in-2016

We are social. (2021). Digital 2020. We are social. https://wearesocial.com/it/digital-2020-italia

Wurman, S. (1989). *Information Anxiety*. Doubleday.

Youyou, W., Kosinski, M., & Stillwell, D. (2014). Computer-based personality judgments are more accurate than those made by humans. *Pnas*, 112(4), 1036-1040.

Zaccardi, G. (2017). Il libro digitale dei morti. Memoria, lutto, eternità e oblio nell'era dei social network. DeA Planeta Libri.

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Designrama

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Dedicating ourselves to this Journal does not represent a new adventure, since diid disegno industriale — industrial design has been in existence for twenty years and has come a long way. A path that proceeds, outside the national borders, to make this Journal be read and appreciated by a wider public, through codes and models belonging to the international scientific community. A process pursued through appropriate indexing, always insisting on the requirements that qualifies it as a Journal intended for the international community of researchers, scholars and design experts.

Starting from the tradition of *diid* Journal, my aim is to find a way to welcome the best international scientific contributions, without abandoning the debate on those cultures that design embodies and without which it would have remained only a system of practices.

Flaviano Celaschi

BUP Bononia

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