



Innovative Measurement Tool towards Urban Environmental Awareness

Sketching & Storytelling

Authors

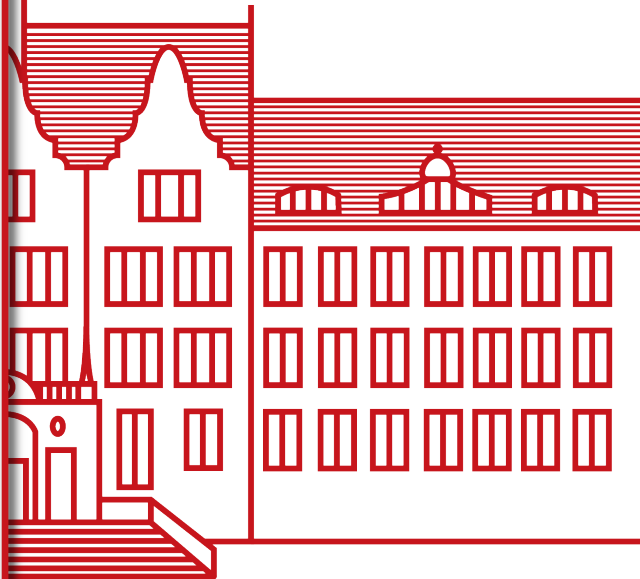
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1 Sketching & Storytelling

1.1 Instructions on how to use the materials and intellectual outputs of Sketch&Draw in the impetus project

With the focus on a teaching session about the needs of climate adaptation impetus developed two booklets for students. One textbook describes the needs for urgent change and helps to spot the point of possible change to discuss in the classroom. The second booklet serves as a sketchbook with walks in the cities of Coimbra, Rotterdam, Klagenfurt, Gdansk, Groningen, Bern, Zurich, Chur where students can apply their knowledge.

These two booklets can be used in any city, but have special strolls in the cities named above.

Classes need about three hours.

First is the teaching with the texts and images. This takes one to two hours. All needed stuff for teaching is in the textbook.

After this, the teacher has to explain, how it works to scan the QR-Tag and follow the walk. The second part of the course is the stroll. The sketchbook contains a full description of steps so that the students can do the walk on their own. After the walk, the task of sketching needs 30-45 minutes.

By doing this work, students learn to spot areas of intervention for climate adaptation. Sketching leads to closer looking and empathy for needs in sustainability in the city.

Booklets:

https://www.dropbox.com/s/p59ufd44a7twv21/booklet_climate_adaption_gzd_online.pdf?dl=0

https://www.dropbox.com/s/6eq40lt7nie7114/booklet_climate_cognitive_mapfini_3_online.pdf?dl=0

Full video tutorial find here:

<https://youtu.be/XjPs0GHiKcU>

What is the impact of sketching on tablets, tackling climate change adoptions?

Sketching on digital devices like tablets are of increasing relevance for today's students who get help from smart drawing apps for visual notetaking to develop climate change awareness. Because of the lack of paper as a playground to depict, the tablets act like the entry point to digital communication media and nourishes the communicative way of sharing ideas.


Sketching on tablets is a multimedia and convergent method that trains students in perception and case analysis, clear observation and reasoning, giving supportive peer reviews by shared content via the digital output channels, and guided reflections. This approach includes the proved research method of sketching and leads this to the digital communication channels. This is an important gain of innovative potential even in the era of online learning and teaching.

The method applies "digital sketching with the ten Sketch&Draw rules for non-artist-skechers" and lets students gain experience of visual research sketch notes and observations and it leads with these drawings to possible scenarios for effective climate adoption. The visual story with hand drawn sketches works excellent in communication because men are highly interested in "handmade", meaning sketched products.

Critics may question the digital production of sketches on tablets in the digital production chain and digital communication chain. But it is highly regarded as an efficient way of social media sharing, that you post what you have already on your device.

Whoever has tried sketching on a digital device knows the advantages in the field of "how to draw a line?" Furthermore, are the advantages of layers, blending layers, digital helps like smart grids and streamlines line, geometric Forms and even photo-layers. There are endless tooltips to enhance your sketch.

The impact of sketching on tablets enables students to personally engage with knowledge and help each other to master the art of sketching itself and sharing knowledge.

Showing images of sketch city student exchange. Moodboard of images. 

Ideasketching Storyboard for Urbanists

Storyboard for Urbanists

This Booklet is an introduction to the most important points of storytelling for visuals like films. The booklet is made for sketchers, that want to develop a story with the pencil like a professional. Because a clever drafting of a plot for a story is important for effective call for actions.

This book can be read by students and teachers and discussed among the class. In the second part, there is space to develop an effective story with the plot of a hero's journey. It takes up to one day to read and understand and sketch a story.

Booklet Storyboard for Urbanists

https://www.dropbox.com/s/y5bi6s9tip8hbva/storyboard_engl_sketchbuch_mai_2020_longforme_d_e_mix_updated_logos.pdf?dl=0

What is the benefit of visual Storytelling in Social Media by ideasketches?

Through visual idea design, diverse urban needs in a city can be made visible and thus flow directly into the complex urban development and its planning. The spectrum ranges from "good ideas" to comprehensive portfolios with concrete solutions. Citizens should thus be included in the planning processes and the diverse approaches to solutions coordinated by online systems, made transparently and access to influential data material supported.

This is exactly where Sketch&Draw comes in: the urban population or those directly affected by specific urban development processes sketch out imaginative solutions and planning criteria. The sketch of an idea can outline the future by possible scenarios. These necessary images and scenarios of a possible future and thus support innovative solutions. In the best case, it can even create a future-relevant design or concrete solutions for complex problems.

In European cities, the threats of climate change are crucial for urban development and human security. Although cities are increasingly experiencing new approaches to local adaptation planning, there are still significant barriers and limits, such as:

- Limited availability of up-to-date data on local conditions.
- Lack of awareness and civic attitudes of ignorance of climate change and its impact on basic well-being and local conditions in our streets and neighbourhoods, lack of public interest, and finally ...

- The lack of interdisciplinary approaches and public action to solve local problems, and often the inability to choose optimal solutions from a set of alternative measures.

These limits could be overcome by introducing an extended holistic, interdisciplinary approach.

This consists of a combination of technical and scientific expertise. Here we use sketches made on smart devices, that depict the real world. Stories must be told that explain possible scenarios after one symptom has been observed and sketched in the real world.

But why is this all so challenging? Why do we lose so many people on the way to a climate adapted world?

And how can problems be conveyed to the broader audience? It needs the skills of Storytelling.

But why does storytelling seem not to work in the climate change adoption and sustainability discussions?

With Sketch&Draw we open the toolbox of image making? And from image making to storytelling, there is more than one thing to know.

This is new here: We reverse-engineer the storytelling by starting at the very beginning of the image: the sketch

Sketching stands like a root of a plant at the beginning of image creation and further on it determines the visual Storytelling and its effects.

There is only one answer to this question: Do we want to deal with climate change adoption?

This is actually the wrong question, because the answer has to be: we have to adopt! And even more: without each and every country in the world from Asia to Africa and Europe to America and Australia – we all have to deal with this problem immediately. And for this reason we need the power of social media driven storytelling and its snowball effects.

So, the way of climate change adoption leads us to a story, and it is a thriller, with all the ingredients of thrill and death, villain and protagonists. But this time, we are not only the audience. The climate crisis has changed to a climate catastrophe. And if we do not cope with the tackling of the problem, ... why isn't this a thriller?

After some doubtful decades of endless climate discussion, now the time is ready for actions. Because if we do not reach the Paris goals of temperature reductions, we will be lost. But it could look like we have an immense gain of interest at the moment, even on tik-tok or Instagram, platforms, some months ago not known for such discussions. And social media knows no borders or climate zones. These platforms are now spreading all over the world.

Former stories worked with the scenario of anxiety. But we should face the positive options like digitalization and artificial intelligence ... and we need them all.

We need a vision of the better. Because dystopia needs to become positive scenarios. We need to become aware that this tiny and fragile range of climate, let's call it our temperature range for liveability, defines our lives. Only small changes make our planet hostile, landslides, hurricanes, floods show us, that our lives are bound to climate. And it is not the world that will end, it's us. Because we can't live in a world with a climate that is out of range. This is, what we endanger by not reacting to the needs of climate adoption.

We have already stretched this range of global warming. We are in the discussion from two to three degrees ... and some start to think of even five degrees augmentation.

So let's look closer: When we look at this picture, we all are able to find out – this is a war picture. Even, when we have never seen such a thing in real life. We have such pictures for war, for flooding, for wildfires, even meteorites collisions. No one doubts and everyone agrees. These pictures are iconic and given.

But there is no such picture for climate change. And why? Because climate change is complex. We can see climate change by symptoms, all open for interpretation. If we have a wildfire, one says: It's climate change! The other says: this is a wildfire, and we have had wildfires ever since.

But it has always been the great trick of the devil, to make man believe, he didn't exist.

And like the devil, the climate crises are not visible, but the symptoms are. And therefore, we have no image of climate change. And no idea of life on a planet with a climate of 3 degrees plus. We can't imagine a world, where we can't escape to a good climate zone, because there is none.

We actually have to look at all the individual subsystems and see when they tip over. We have to see when they develop irretrievably in a direction that we no longer like, or even more, when these changes are no longer reversible.

And this is what sketches are for. They help us to observe the world in detail, these tiny individual subsystems.

We need to see the symptoms first, and from them, we go to the possible scenario. We have to break up these two things in two steps. And the manifold scenarios, each in its own way, is important to understand. And the whole complexity of climate change is only to be understood as an array of possible detailed scenarios, but not as a whole.

If we do not understand a threat, then we cannot confront it. So we need to have understood what the threat is by observing what the trigger of the scenario is, then we can respond. So we need to create this space for action so that we can master climate adaptation.

And that's why storytelling is important. You have to explain these symptoms and a single scenario. But always again. That's how you can initiate understanding.

So we have to start before the climate deniers. Nowhere is science more in agreement than on climate science. And yet there are deniers. The observation by sketching starts significantly before the fronts of climate deniers.

It is common sense: there are only possible scenarios. Scenarios are paths, correctives for predictions. Here it is important to show the options for action. They give us the sovereignty to shape the future. So we have to start with the options for action and the sovereignty to shape them. That is why communication through stories based on observations, sketched, individual and in-depth observations is so important.

Pointing out creative space, knowing how to face climate change, that's important. We should be able to experience ourselves as creators. So all we have to do is open the toolbox. Choose something! Flex your muscles! You are challenged! Do something, experience yourself positively as a creator for the future climate adopted world. 🍷

Character Design for Animation & Game

The aim of this booklet is to lead through the process to develop a game. Every game has its story and its character.

It serves as a help during a game jam, 24 hours of a game hackathon. It is self-explaining and leads students to develop characters for the field of sustainability and games in this field.

Plan your game or animation by this game design document for character design. The story will be developed later, but it shall be in our mind already. Some first questions have to be answered.

This document is important for the communication between the ideators and the designers as well as the game developers. Get your character by answering those questions first. Doodle and sketch details. Think always of iterations. It will be a rolling process.

You need at least three characters: a protagonist and a second character to talk to. And another character for the drive of the story.

Booklet Character Design for Animation and Game

https://www.dropbox.com/s/ye7hcn7o3zyrp48/Characterdesign_for_animation_game_impetus_fini_fini.pdf?dl=0

Why is sketching a research tool for climate adoption perception?

To know all the different places, where we can see symptoms of climate change, is the first step to efficient visual storytelling with sketches. The digital pencil and the needed time to draw helps to look closer and detect more details. And during this time awareness grows. Critical thinking is of increasing relevance for today's students who have to develop these skills.

Looking closer by sketching trains students in precise observation, case analysis, clear reasoning and notation, giving supportive peer reviews, and guided reflections. Because only a deeper perception of the first symptoms of climate change opens the frame for calls for actions.

Sketching as a research tool has always been applied and will furthermore apply on "drawing is thinking". Since climate change is visible in symptoms of environment, weather, plants and more, these signs can be shown by being depicted. This is the reason for the depicting.

It may be challenging to deconstruct the environment into symptoms, already detectable and not be overwhelmed with all the complexity. But it will be a rewarding thing when symptoms become part of the visual storytelling in climate adoption via social media, because like this, we can show where we can change our behaviour.

Other techniques like photos may work louder than sketches, but they miss the human approach of looking closer and to understand the whole complex system of climate change.

The greatest power of drawing is that it can simply represent in this way of visual storytelling for climate adoption the future. Drawing becomes together with storytelling the powerful tool for understanding the needs of climate adoption. 📌

The why of sketching global warming and climate adaption

This booklet is made for class use. It takes you in the city and asks you for communicative entry points to sustainability in the city. You need about 3-4 hours to go through this booklet in the city.

How can we draw attention to the problem of climate change in cities so that the urgency is recognized early enough? And how can we take initial measures in the future.

This sketchbook serves as a tool for raising awareness of the current climate change situation. In order to be able to perceive the major impacts of climate change, the small signs in the immediate vicinity must be recognized.

For this purpose, sketching is a good tool, because it forces you to look closely. And even more the visual analysis of the situation by means of diagrams or illustrations helps to see the connections.

And it is important to observe the changes over a certain period of time. 📷

Booklet Climate Scan Gdansk

https://www.dropbox.com/s/o6jyrw3qjpv37j/booklet_climatescan_marec_danzig_fini_fini.pdf?dl=0

Urban Sketching

Sketch your own Circle Selfies

Why is there a need to rethink the way we live in the city?

If we send out our students with the task to make a selfie, they think more about their surroundings.

Taking a photo means always dealing with perspective. What shall be in the picture around you? With what do you identify?

This is why we send the students out to depict themselves. It takes one afternoon to three days to sketch these images.

- Because Corona has shown us that we need new models of free areas.
- Because the back-yards are too good for hot air conditioners and their exhaust.
- Because trees reduce particulate matter.
- Because parks are priceless important for children and their urge to move.
- Because cities with the paradigm "cars first" provoke less social interaction.
- Because medical costs become unaffordable.
- Or simply because it gets too hot and too cramped in the cities.

1.2 External materials

See: <https://impetus.aau.at/outputs/>

Folder: S&S

- [S&S Visual instruction.pdf](#)
- [S&S instruction.pdf](#)
- [S&S Character design for animation.pdf](#)
- [S&S Booklet sketching Gdansk.pdf](#)

- [S&S Booklet cognitive map.pdf](#)
- [S&S Booklet adaptation steps.pdf](#)
- [S&S Storyboard for urbanist.pdf](#)