



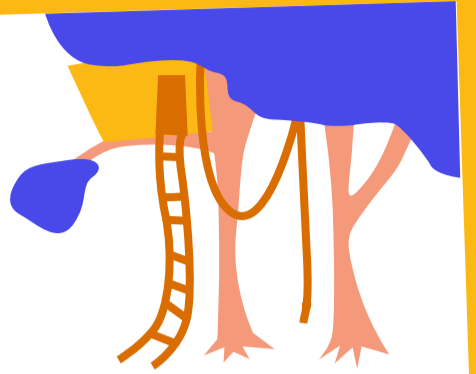
free range kid

Makers Yeah sure! but how? make makers!

When my brothers and I were born, our parents moved away from the city, looking for space and air.

So I grew up in the countryside in the North of Holland. There I became a free range kid.

barn (with workbench)
big house
(veg) garden...



our own little forest,
self built cabins,
rope tracks in the trees

most of all, I am a maker because of
my maker-parents

My dear mum was (is?) a feminist
and made (and makes!) a lot:

wool,
sweaters,
the veg.
garden
clothes,
wine,
ehhh

Hey? That's a bit
like a weather app?
Yeah right!
We had that
before there was
the internet.



Big antennas on our roof!! They're only for the satellite receivers, but the police wouldn't stop detecting. (According to my dad, this was very funny.)



*@deViltmannen know why this was: the wool was thicker than 3 micron. A sheepy sweater is not always itchy. Just pick the extra thin hair.

my hair
is really
thick
(really)

My dad is an electronics engineer.
He used to build everything.
My parents
made us into
makers.

but what if your parents
are not like that? or you live
in a small house in the city?

And the mess!
I can't bear to
think about it



so how to become
a maker?



Why is this
making important
anyway?
Knowledge has
much more
value.

hello!
by being
the living,
making
example!

Knowledge
makes money.
I am the living proof!

and every year:
a lot of black-berry
marmelade



licking out
the large pan
was the best!

**Making
is great.
It makes
us people
happy.**



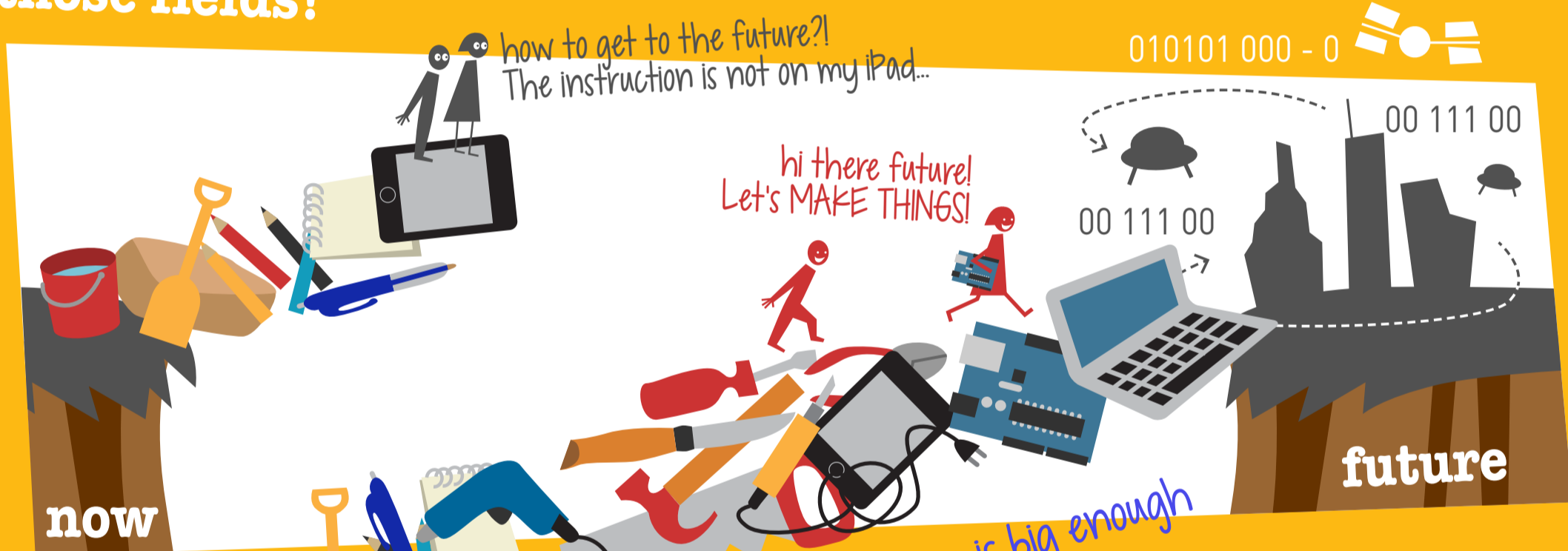
Knitting grannies
know this :)



Roman Krznaric calls it
'The art of living'.
To imagine, plan and
make your own world.
(And he doesn't mean
making an online
purchase.)

*But it is also
of vital importance:*

**Having a large knowledge base in different fields
makes you more creative. Making is one of
those fields!**



*Only when the knowledge base is big enough
can we make the bridge to the future.
With this base, (tech) making becomes one of
the strategies at hand!*

**How can
we learn
this?**

**Become
a Creative
Person in
two weeks,
guaranteed
success!**

**Creative
in 3 easy
steps!**

A lot of happy users!

as seen on TV ;)

Well, no. Definitely not like this.

It's different for everyone

How? Maybe these three ways...



No, these are not learning styles. They're more like starting strategies. And we all use them all. They vary, depending on topic, location, available time, your helpers, everything! And they're all good for making (obviously).

hey? Is this some sort of disclaimer?

People start their making process using these different strategies.

And once they're on it, they switch strategies intuitively and constantly.

Without any difficulty.

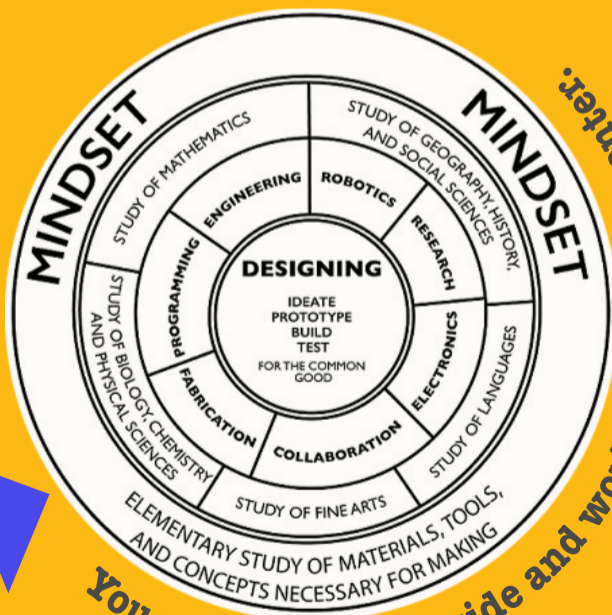
Choosing a strategy is a subconscious and intuitive process.

1 2 3 4 5 done
One method can never serve all

So, how to teach this?

Easy: a big knowledge- and experience base.

I really like Patrick Benfields STEAM model for maker education. (Inspired by Bauhaus.)



You start on the outside and work towards the center.

In his model, the maker-mindset is very important.

This mindset to me:

- to be able to start
- always try
- learning by doing
- learning from and with others
- with all senses
- and a lot of fun!
- being vulnerable
- everything is material
- everything is inspirational
- more?



And be as brave as you can! Always.

All children should have their own personal toolbox*

*both literally and figuratively
it's about being self confident
so you feel free while making (crazy) plans
this toolbox should be very diverse:

All children should have knowledge of- and experience with materials, tools and hardware. But knowing (about) concepts is equally important. They are your thinking tools: To be able to think about what you want to make or achieve and why.



Yes, YOUR toolbox. Makers make makers: teachers must be makers as well! With a hammer and saw, but also the maker of your own maker-education. <3



Hands-on experience, knowledge, love for making and creating and some great ideas!

And (how) does it tie in with all other things children learn?

Can we come up with suggestions for the content of this maker toolbox? What is interesting, exciting and important?

Think of your perfect toolbox!

material	tools and hardware	concepts	concepts
<input type="checkbox"/> clay	<input type="checkbox"/> saw	<input type="checkbox"/> making	<input type="checkbox"/> art based learning
<input type="checkbox"/> pencils	<input type="checkbox"/> knives	<input type="checkbox"/> failing	<input type="checkbox"/> cooking
<input type="checkbox"/> paint	<input type="checkbox"/> fire	<input type="checkbox"/> philosophy	<input type="checkbox"/> design thinking
<input type="checkbox"/> wood	<input type="checkbox"/> soldering iron	<input type="checkbox"/> sharing	<input type="checkbox"/> looking
<input type="checkbox"/> metal	<input type="checkbox"/> oven	<input type="checkbox"/> coding	<input type="checkbox"/> feeling
<input type="checkbox"/> foods	<input type="checkbox"/> MakeyMakey	<input type="checkbox"/> ?	<input type="checkbox"/> ?
<input type="checkbox"/> elect	<input type="checkbox"/> Arduino	<input type="checkbox"/> ?	<input type="checkbox"/> ?
<input type="checkbox"/> plas	<input type="checkbox"/> tablet	<input type="checkbox"/> ?	<input type="checkbox"/> ?
<input type="checkbox"/> ?	<input type="checkbox"/> 3D printer	<input type="checkbox"/> ?	<input type="checkbox"/> ?

what do you think?
would you share your lists?

core competences?
end-terms?

You might think: "Well ok. But didn't some clever person think of this already? Can't I just implement their plans?"

You can, but I don't think you should. Yes, you can read stuff and embrace it as the truth. But isn't it way better to really nurture and grow your own knowledge and insights?

And you share what you've learnt.

So yeah, probably someone made a perfect plan already. And that's great! Check that out and reinvent your own truth. Because tailor made solutions always fit best. Be a maker! Make your (maker) education.

In #mak-ered, nobody is alone! Thank you for your knowledge, inspiration, frantic maker sessions and discussions @arjanvandermeij, @__pi, @mhzalar, @hesteri, @annekefd, @McLemoreAve, @EvanMaikens, @petstnekes, @smartinez, @suzedewit and many more.