EdTecµ Reflector

AN INSTRUMENT FOR EXPLORING AND REFLECTING ON EDUCATIONAL MEDIA

INTRODUCTION

Welcome to the EdTechReflector, developed by the Unblack the Box initiative (https://unblackthebox.org/en/) and The Basement, the Digital Lab at the Leibniz Institute for Educational Media (https://basement.de).

WHY DID WE CREATE THE EDTECHREFLECTOR?

Over the past decade, educational technology (EdTech) has become an integral part of schooling, and is evolving all the time. With these rapid advances, many educators and designers are asking themselves, for instance,

• how to shape a reflexive use of EdTech in classrooms;

• how to select the EdTech most suited to a specific educational purpose from the vast array of products available on the market;

• how to identify and make full use of the options available, even if only specific EdTech systems or applications are prescribed by school leaders or local authorities;

• how to engage stakeholders (in, for example, schools) in conversations on the potential educational benefits and risks of EdTech and on how to adapt EdTech for their own use.

We have designed the EdTechReflector to help you find answers to these questions.

HOW DOES IT WORK?

The purpose of the EdTechReflector and its five key questions, is to help you explore the educational properties of EdTech in its various forms, such as learning software and apps. You start by noting down some details of an EdTech product you want to reflect on, and the situation(s) in which you plan to use it or are using it already. Having done this, you click through the five questions, each of which offers a set of potential answers from which you can choose (with a few exceptions, multiple answers are explicitly allowed). When you click on an answer, you will see a short explanation, which disappears when you click again. You can browse through all possible answers and explanations before making a selection. If none of the possible answers fit your EdTech product, setting or teaching scenario, or if you wish to add your thoughts, you can use the 'further comments' box at the end of each question. Once you've completed the EdTechReflector, you'll see further ideas and practical tips for a reflective use of EdTech.

Please note: The EdTechReflector is best suited to EdTech products that offer subject-related content (examples might be maths apps, literacy software, etc.). Of course, you are free to try it out with software that cuts across subject or for learning management products; however, you may find that some of the questions can't be fully answered with these products.

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HOW CAN I USE THE EDTECHREFLECTOR?

At first glance, the EdTechReflector may look like a simple, brief assessment tool, as it 'only' includes five questions. You will soon discover, however, that the questions are designed to open up a deeper reflection on EdTech products. This means you don't necessarily need to complete the entire EdTechReflector in one go or find a definitive answer to every question; instead, you may choose to use individual components of it (such as one question only) or just browse through it, gaining prompts for your thoughts and ideas. As an educator, you can experiment with the EdTechReflector by yourself. As a designer or developer, the EdTechReflector may offer you inspiration if you want to learn more about the educational implications of your design decisions. The EdTechReflector's real potential emerges, however, when you use it as a conversation starter with others, discussing the questions, your answers, and the educational considerations and objectives behind them. In this way, the EdTechReflector is a resource for teacher training or school development contexts. It can also operate as a set of guidelines for making (collective) purchasing choices at your school.

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WHAT VALUES UNDERPIN THE EDTECHREFLECTOR?

The EdTechReflector's core approach is to foster critical reflection. It supports you in putting your thoughts and questions on the educational properties of EdTech into words. It aids your reflection on whether EdTech products make sense educationally. It helps you explore how to adapt EdTech products to fit your context. This means that the EdTechReflector sets out to call into question the typical claims and 'promises' of EdTech products – such as how they facilitate self-directed learning or tailor the resource to the learner. It doesn't provide simple answers; instead, its aim is to cast light on the complexity involved in arriving at a robust judgement on the educational properties of EdTech products. It's important to be aware that the EdTechReflector does not seek to evaluate EdTech as altogether 'educationally suitable' or 'unsuitable', but rather to identify *what* and *who* a particular EdTech design is *suitable* for (and for what and whom it is *not*).

CONTEXT OF THE EDTECH PRODUCT'S USE

Name of the EdTech product, link to product (if available):

In which context are you using/do you plan to use this EdTech product?
(You might indicate, for instance, subject, grade level/school year, type of school):

What are your primary educational objectives in using this EdTech product?

QUESTION 1:
HOW DOES THIS PRODUCT DELIVER ITS CONTENT?
(MULTIPLE ANSWERS POSSIBLE)

Using EdTech in a way that keeps your educational objectives in sight means understanding how EdTech products frame the content they aim to teach or reinforce, which in turn shapes how students access this content.

This EdTech product mainly provides or enables tasks that rely on

reproduction (focussing on the repetition of content).

application (focussing on applying knowledge or skills within a pre-given framework).

transfer (focussing on transferring knowledge or skills to a new area or a new context).

The EdTech product primarily enables

cognitive

creative

'hands-on'

approaches to learning.

The EdTech product primarily enables

individual

collaborative/cooperative

approaches to learning.

Other things that are important to me about this question:

QUESTION 2:
HOW DO STUDENTS LEARN WITH THE PRODUCT?
(MULTIPLE ANSWERS POSSIBLE)

EdTech products frequently claim to promote a 'personalised' learning experience, i.e. they provide students with a flexible learning environment adapted to their needs. It is worth checking how exactly the product's architecture guides students through tasks and considering the educational implications of these processes.

The learning process is accompanied by hints and tips, that are

related to the specific task at hand.

more general in character and encourages students to reflect on their learning.

The learning process is organised around motivational components that primarily

encourage competition or seek to inspire students to optimise their individual performance.

centre on the content students encounter and emphasise the broader context of the learning that takes place, pointing, for example, to connections with other school subjects or topics.

Other things that are important to me about this question:

QUESTION 3:
HOW DOES THE EDTECH PRODUCT PROVIDE FEEDBACK TO STUDENTS AND SHOW THEM HOW THEY ARE PERFORMING? (MULTIPLE ANSWERS POSSIBLE)
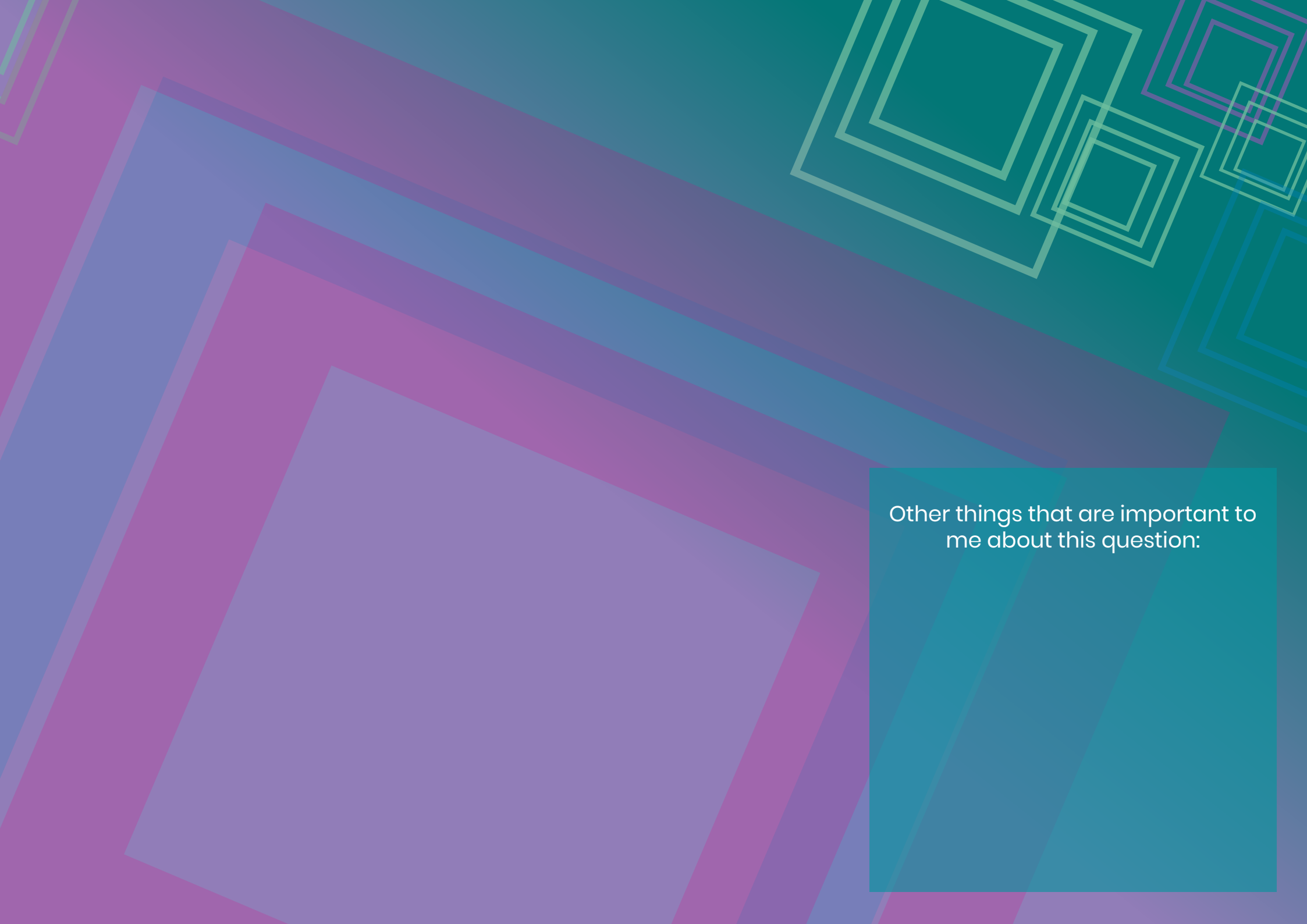
Many EdTech products claim to provide faster and more personalised feedback to students than teachers do. Since the design of feedback mechanisms in EdTech products always conveys a specific view of learning processes, the feedback is likely to influence students' perceptions of their own performance. This in turn encourages particular behaviours and discourages others.

Other things that are important to me about this question:

QUESTION 4:
HOW DO I, AS A TEACHER, SEE MY STUDENTS' PROGRESS?
(MULTIPLE ANSWERS POSSIBLE)

A key feature of most EdTech products is the visualisation of students' progress for teachers. Products use a range of designs for this function. A product's design impacts teachers' view of students' learning. This in turn can impact their decision-making.

Other things that are important to me about this question:

QUESTION 5:
MORE POINTS TO FURTHER YOUR THINKING ABOUT EDTECH

The quality of EdTech products depends on the context in which you use them. The questions that follow invite you to think about further aspects of using EdTech. Again, you can add other points that are important to you.

Other things that are important to me about this question:

WHAT HAPPENS NEXT?

As we noted in the introduction, the EdTechReflector is not so much about judging EdTech products as 'suitable' or 'not suitable' for educational purposes overall, but rather seeks to assist you in thinking about the purposes to which the design of a specific EdTech product may be more or less suited. We hope that your journey through the EdTechReflector has helped you

Think about the purposes to which the design of a specific EdTech product may be more or less suited.

gain an idea of how you might assess particular products. In using the EdTechReflector, you may have noticed that the educational potential of some EdTech products is very limited. You may have become concerned about using some products. If this is the case, you might decide to stop using the product. If this is not possible – perhaps because your school requires you to use it – the EdTechReflector can help you to address your concerns in conversations with colleagues or senior leaders in your school.

On the next page, you will find additional tips and hints to promote an 'educationally aware' use of EdTech in the classroom, when preparing lessons and assessing student work. We strongly encourage you to talk to your students about how the design of an EdTech product can affect their learning process and the ideas of learning they pick up from using the product. Perhaps you will involve your students in a considered use of EdTech. You could, for instance, prompt them to experiment with the product's settings. The EdTechReflector can support you in this process.

We would be very interested to read about your experience with the EdTechReflector. When you have filled in this PDF document, we invite you to send it to info@unblackthebox.org.
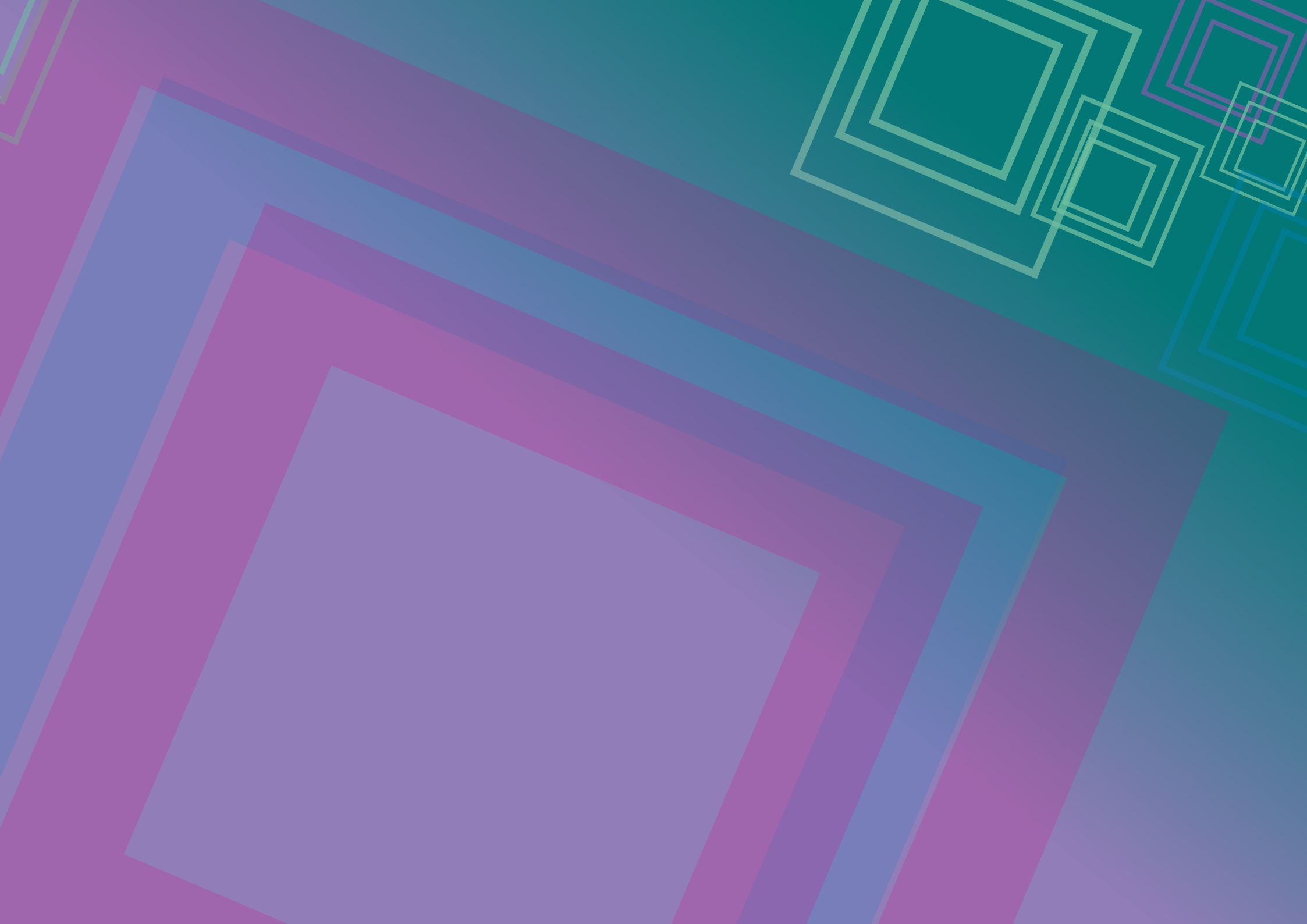
Your feedback is crucial to the process of optimising the EdTechReflector so that it can be as useful as possible to you and other teachers. We're also curious to know how teachers actually assess various EdTech products. We would love to be able to share this knowledge with others.

Would you like to know more about us and our work? For further details about an educationally aware use of EdTech and for opportunities to connect with others and share information and experiences visit unblackthebox.org/en and basement.gei.de.
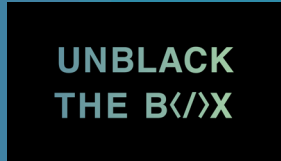
PRACTICAL TIPS FOR USING EDTECH

Congratulations! You've been on a journey of deep engagement with the educational implications of EdTech design. To round off the EdTechReflector, here's some inspiration for a reflective use of EdTech products in your classroom.

ABOUT

The EdTechReflector emerged from a collaboration between the Unblack the Box initiative (www.unblackthebox.org/en), the Basement and the Digital Lab at the Leibniz Institute for Educational Media (http://basement.gei.de). It is available in German and English.
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EdTechReflector: An instrument for exploring and reflecting on the properties of educational media

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