

SPOTLIGHTS

Welcome to our Spotlight series.

Real success in the real world.
Day after day we witness how Apple technologies truly enrich the lives of students and staff, transforming the way they live, learn and work.

Spotlight is our way of capturing and sharing with you great examples of great practice and innovation from Higher Education.

We hope you enjoy these wonderful stories of success.

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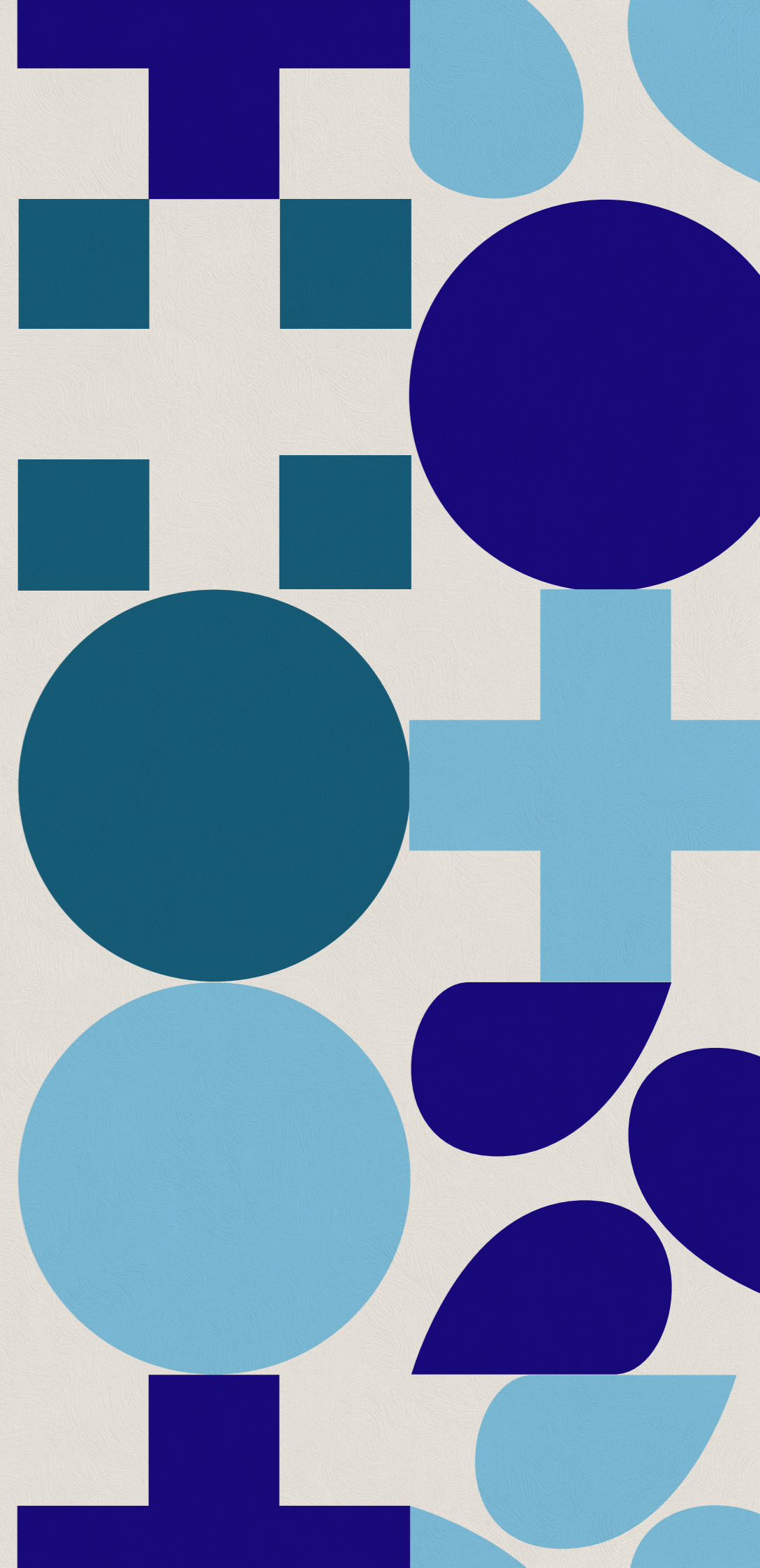


UNIVERSITY OF LEICESTER

Leicester Medical School

For over 40 years Leicester Medical School have produced skilled, professional and caring doctors equipped for the modern health service.

They were the first UK medical school to adopt a 1:1 student iPad programme at undergraduate level, an initiative that was launched back in 2013.



Context

Enabling mobile learning and equality across all students

Leicester Medical School (LMS) prides itself on its technology-enhanced learning. LMS were the first UK medical school to adopt a 1:1 student iPad programme at undergraduate level, an initiative that was launched back in 2013. This programme is both attractive to prospective candidates and a vital leveller among the student body, which is comprised of circa 1350 undergraduate students at any one time.



The challenge

Creating high quality learning experiences online

Interactive, multimedia-based learning can be instrumental in helping medical students to quickly grasp key concepts, assist revision, and collaborate with their peers and lecturers.

However, preparation of learning materials to support all digital platforms was not always possible due to device inequality amongst learners.

With LMS students coming from a diverse range of backgrounds, not everyone would be equipped

with the right device to unlock this progressive learning style. The Medical School would otherwise struggle for access to PC labs on a daily basis, which was simply unrealistic.

Thus, to ensure fair and equal access to learning materials meant taking ownership of addressing gaps in student device equality.

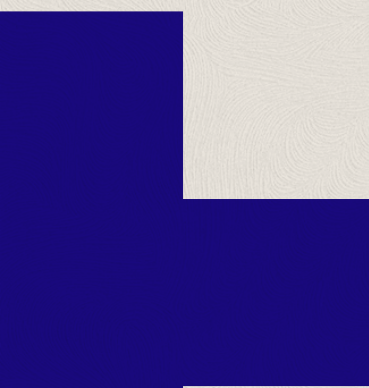
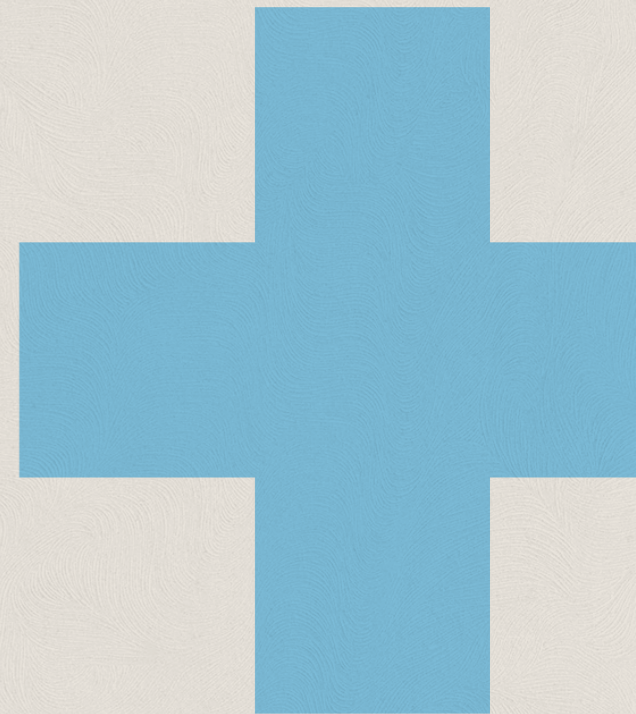
The move to individual iPad devices was spurred on by four core challenges:

Facilitating fully inclusive interactive learning.

Giving medical students access to all learning material, and their own notes wherever they were learning, especially in live learning sessions.

Better enabling of personalised feedback.

Helping staff modernise their teaching, include more multimedia, and be more creative.



The solution

Using iPad to facilitate collaborative digital learning

A 1:1 iPad programme for all medical students, the first of its kind in any UK medical school. More commonly seen in education for younger pupils, this solution has proven to be pedagogically well-suited to both medicine and other higher education programmes.

An additional challenge during deployment was overcoming the perception among some in the education community that an iPad is just for consuming. According to Terese Bird, School Educational Designer at LMS, this is very much the opposite of the reality: "Come and see how our students are creating and collaborating using iPad in ways that are not easily done on laptops or phones. We have seen real 'game changing' developments take place and,

most pleasing of all, the students themselves have often driven them forward."

Why iPad?

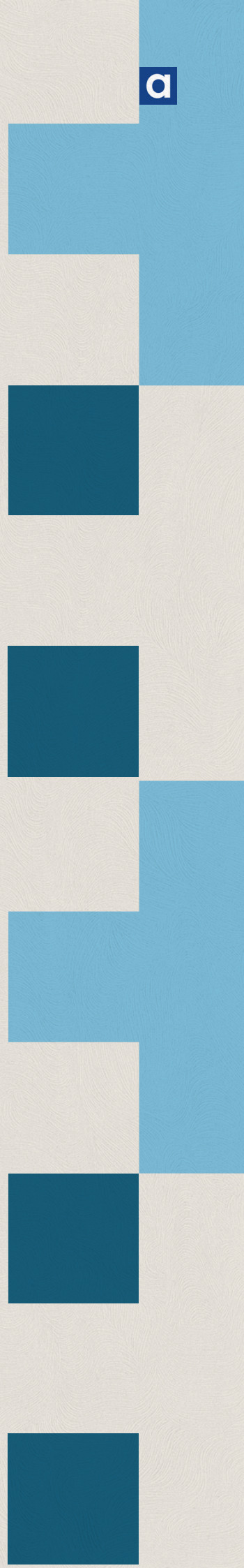
Portability — With iPad, students can travel into campus without the burden of having to carry folders of notes and heavy books. Students can save, categorise and access their learning notes in the cloud over the duration of their studies, and can then refer back to them at any point in their future learning.

Top class devices — In the past, some students would bring aged laptops to some classes, and struggle with powering them up. But now all students have the iPad devices in every class, with no charging issues.

Meeting individual learning preferences — Different learning

styles suit different students. iPad enables the student to capture their notes however works best for them, be that by using an Apple Pencil to take handwritten notes, or by typing them using either an external or the screen-based keyboard.

Hybrid teaching capabilities — Some students can be physically present in a group learning situation with the teacher, whilst others are learning remotely. By supplying one additional iPad per group, remote students can log into the session, so that no learner needs to miss the group discussion. During COVID-19, this was particularly useful to learners who were unable to attend group work sessions due to shielding.



“I am now doing things in class that I have always wanted to do but have lacked the technology to do.”

Always-on access to learning materials — There is a wealth of online learning materials, such as eBooks, that students can access on the go using their iPad. Educational applications, such as 3D-modelled anatomy images and apps, enable students to prepare for cadaver dissection by understanding how bodily systems and organs connect to each other.

Draw along — Teachers can use interactive tools during teaching and outside of live sessions, such as encouraging students to ‘draw along’ on the iPad devices with the teacher during lectures to develop their understanding of anatomy.

An “assessment revolution” — In lectures, staff are able to use audience response systems and formative quizzes, with students responding on iPad devices.

To further their own learning, students can use the quizzes to self-test their knowledge at any time and receive instant feedback. The Medical School is now able to stage secure digital assessments for large numbers of students without any fear of students being ill-equipped or disadvantaged.

Perception of iPad on wards — The perception of an iPad in a clinical environment was also a key factor. Terese says: “When a student uses an iPad on the ward, it is recognised as a learning tool and is seen as acceptable, in comparison to phones which are seen as a distraction. iPad devices also facilitate their clinical procedural sign-offs, a learning technique which is key to progressing and graduating.”



The Outcomes

The outcomes of the roll-out have been impressive: “Everyone having iPad devices makes support and choice of learning materials much easier for me. I don’t have to worry about some people’s operating systems not handling the chosen platform or learning tool,” continues Terese. But the benefits extend much further. For one, LMS were better positioned for COVID-19 than other schools and departments, as all students could join webinars and other sessions with their iPad devices, without skipping a beat.

Staff outcomes

Staff can schedule digital assessments with much more flexibility than other, less-equipped departments who get stuck trying to book sufficient university PC labs.

Staff lead “draw with me” sessions in lectures, knowing that every iPad user can draw. Drawing is not possible on laptops and is an inferior experience on smartphones.

Students can free-type their answers to complex questions posed in lectures. These answers are instantly collated (using software such as Top Hat) and can then be used to guide and develop ongoing teaching and learning.

“None of us could have envisioned how students’ free-text replies to questions in lectures would deepen in-class discussion, and provide staff the ability to reflect on these later to judge how to change teaching focus to address any knowledge gaps. Our digital platform has redefined the lecture experience in this case.”



Student outcomes

In hospitals and GP surgeries, most computers must be severely locked-down to maintain security. When on clinical placement this limits on-the-job learning by prohibiting students from accessing off-network resources.

Having their own iPad allows the student to quickly access and add to any learning material and continue their digital learning.

Knowledge from online sources can be quickly accessed and assimilated.

All students can communicate instantly with everybody within LMS, developing a strong sense of community.

Collaboration enabling apps, such as AirDrop file sharing, make group learning a swift and straightforward activity.

When surveyed, 92% of LMS students strongly agreed, or agreed, that: “The IT resources and facilities provided have supported my learning well.”

This was the 7th best overall response to this question in the UK, and the 4th best overall response in England.

- National Student Survey (NSS) 2020

The Future

Leicester Medical School are now developing the iPad digital platform for the teaching and learning of their Joint Educational Programme in Medicine and Clinical Sciences that is coordinated with Chongqing Medical University, China. Medical students in China will be able to be taught “The Leicester Medical School way.”

Also on the agenda is a new system for clinical procedure sign-offs in clinical scenarios, coupled with a new e-portfolio platform. Of this, Terese says “these should further revolutionise our clinical phase of teaching.”

“Before LMS, I had always sworn by paper-based notes and thought an iPad was a bit of a gimmick to get prospective students to enrol.

Now, I rely on my iPad as my main source for studying, annotating lectures, revising and collaborating on group work with my classmates.”

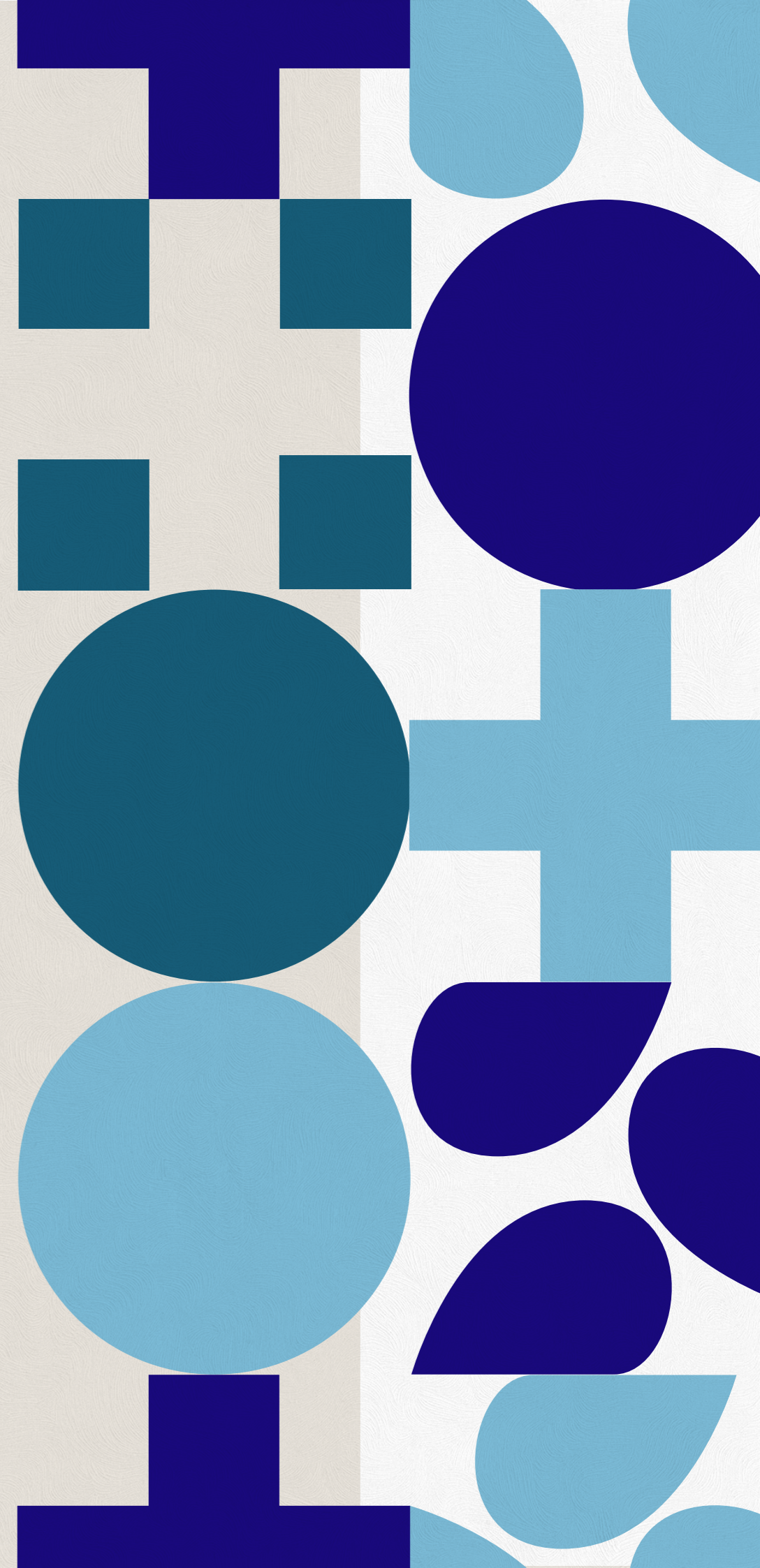


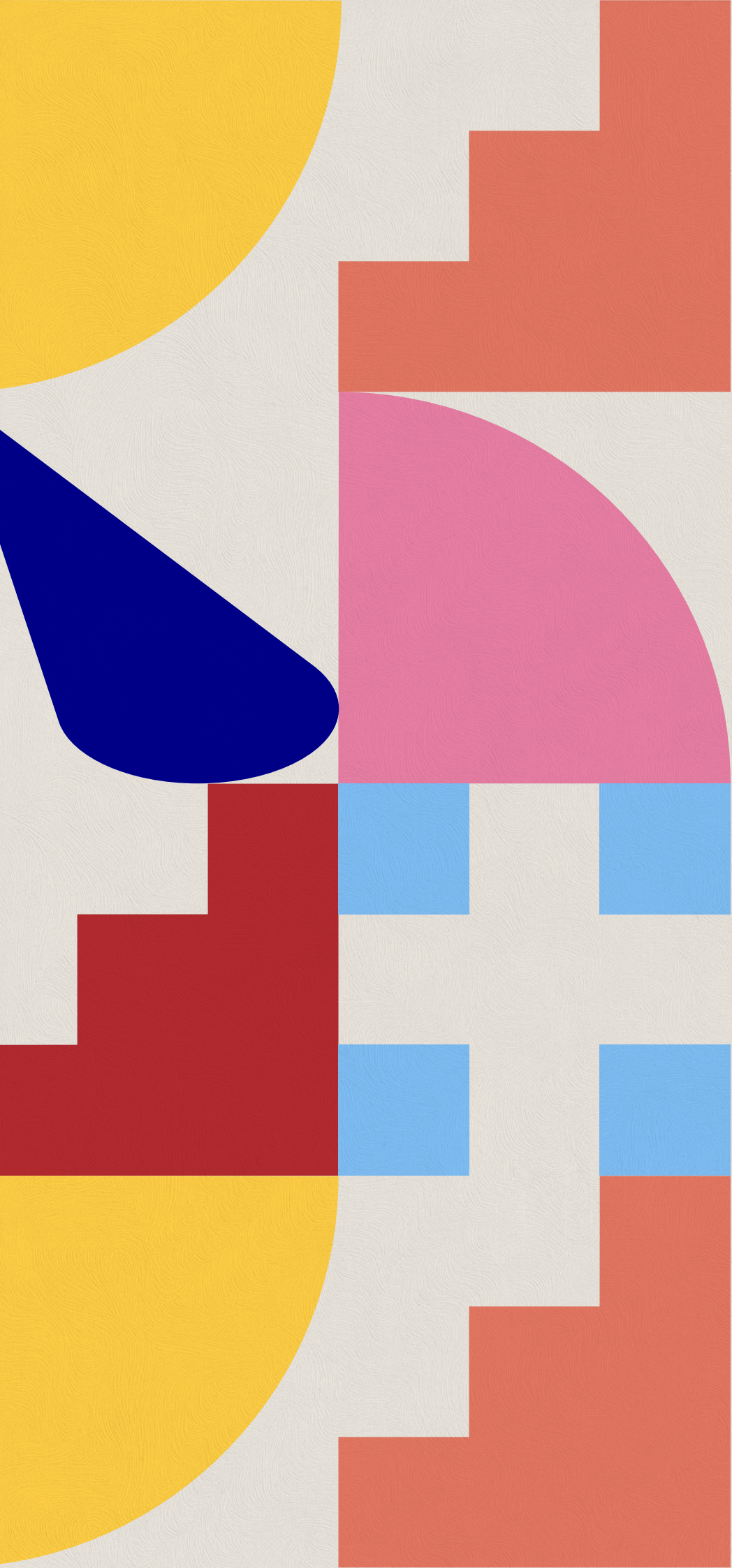
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