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#### **School Day of the Future**

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#### **Envision the School Day of the Future**



By all accounts, the education community is in the midst of a profound shift, straddling between the constraints of its legacy while pushing for muchneeded change.

Part of the anxiety around these changes is the uncertainty of the future. No one wants to experiment with the welfare of our kids, but at the same time, it's clear as day that the status quo is holding them back from succeeding.

Everyone has an opinion about what the idealistic school day of the future will look like, if not specifically hour-by-hour, then at least by broad themes. I spoke to a number of changemakers and progressives about this topic and will post those interviews below.

My question: How do *you* think an average school day in 2020 (or even beyond) for a K-12 student will be structured? At home, in the community, online? Where and how will educators interact with learners? You can leave your answers as a comment on this post, or on the **MindShift Facebook page**.

Some revolutionary changes are already happening in pockets across the country and across the world. That's natural — grassroots movements take shape organically, especially with technology as the medium and the rocket fuel. And maybe those changes will continue to grow over time rather than by a sudden decree of state or federal mandate.

Either way, those abstract ideas are becoming more crystallized day by day. The future might not be here, but it's near. I believe we're closing in on it.

### School Day of the Future: Learning in 2025



Adil Tahawai: future learner

What will a typical school day in the year 2020 (or beyond) look like? How and where will kids learn? What will be the role of the teacher, the parent, the education community?

Over the coming weeks, I'll post responses from respected authorities on the field byway of articles, video interviews, and innovative projects.

We'll launch the series with a collaborative project by **Knowledgeworks** and **Collective Invention** for **Grantmakers for Education** that shows what learning will look like in the year 2025. The group created scenarios of the future from the perspective of learners and educators in order to help grantmakers understand what kind of innovations would make the biggest impact on learners.

#### From Learning 2025: Forging Pathways to the Future.

The heart of formal learning is the relationship between a learner and a mentor, teacher or technical master. That relationship is supported by family and community. Traditionally we've built schools at the center of our communities to enable such relationships for larger numbers of children. In today's world, the mentor-learner relationship is now managed by various entities, from school districts to charter school networks to home-school networks to—increasingly–online communities. **Continue reading**  $\rightarrow$ 

# Work or Fun? The Future School Day Blurs the Boundary



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When kids are having fun, they don't even realize they're working. The learning process happens organically: curiosity is piqued, and their quest to learn is turned on like a light switch. Off they go.

Dr. Sugata Mitra's vision of the future school day revolves around the flip of that switch. And everything in his experience, including his famous "hole-in-the-wall" story, proves it. Provide a wired computer to a group of kids — no matter what their cultural demographic — and they will learn on their own, because they're interested. Because they want to.

I spoke to Dr. Mitra at the **Big Ideas Fest** last month, and asked him to articulate how he thinks the school day of the future should be. In his trademark storytelling style, he illustrates that ideal day.

#### Future School Day Should Be Based on the Real World



Continuing the series on the future school day, here's how **Rob Lippincott, PBS Senior Vice President, Education**, believes the ideal should be.

Learning is a dynamic, just-in-time, fully interactive set of experiences that add up to life. We are ALL learning at ALL times. Schooling is a societal structure designed to accomplish a frustratingly amorphous set of developmental goals and fulfill a shifting set of social expectations.

Ideally, schools should be resource-rich environments where people from 2-102 (perhaps only required for those from 4-16 or 18) can participate and receive formal recognition for achievement. They should be some combination of the attributes of temples/gymnasia/libraries/laboratories/game parlors and all carefully designed and staffed to encourage, engage, inspire, assess and reward learning. They should not be modeled on

penitentiaries built to most efficient accommodate and process a specific class of behavior difficulties.

We need to balance the needs of the workforce (keep immature minds and hands out of jobs until they can be productive; allow parents to work a full day without neglecting their children) and the natural developmental sequence of the human mind and spirit (challenge and support each individual to identify and accomplish proximal development milestones and desired learning outcomes). **Continue reading**  $\rightarrow$ 

## Future School Day Encourages Exploration



Microsoft

A NASA photo of Olympus Mons, the tallest known mountain in the solar system, using wide-angle imagery from NASA's Viking orbiters and the Mars Orbiter Camera.

A vision of the school day of the future from **Curtis Wong**, principal researcher at Microsoft focusing on interaction, media, and visualization technologies. Wong has authored more than 45 patents pending in areas such as interactive television, media browsing, visualization, search, gaming and learning. Wong worked on **Project Tuva**, which links the lectures of Nobel Prize winning Physicist Richard Feynman with interactive simulations and related content and the **WorldWide Telescope**, which essentially turns a computer into a telescope and features the largest collection of ground and space-based imagery that can be accessed online.

Whenever I think about what a school of the future would be like, I remember the first time I visited the Vivarium Project Open School in Los Angeles over 20 years ago. It was conceived by Alan Kay and was exploring some new ideas around the classroom, the role of teachers and the potential impact of networked computers among other ideas in the ecosystem of learning.

My first impression in talking to the students in the classroom was that they were responsible for their own exploration and they worked in teams. The teacher spoke with the whole class for a few minutes about the broader goals of the exploration, but most of his

time was spent with each of the small teams of students that were working on researching and exploring problems in the context of the larger goals. The teacher was more of a coach and provided suggestions for areas to explore rather than giving answers to questions. Students were challenged and sought out resources to help themselves to understand and build the solutions that helped them make progress to understanding the bigger problems.

To that end I can imagine the classroom of the future being organized loosely like the Vivarium Open School, but this time having much richer online resources that provide the full spectrum of instruction, exploration and assets and tools to allow students to research and construct their own learning experience and synthesize their learning, which can then be shared with others for further exploration by other students. **Continue reading**  $\rightarrow$ 

## Students Learn at Their Own Pace in the Future School Day



School of One

Each student learns at his or her own pace in the ideal school day of the future, according to Christopher Rush, co-founder of the **School of One.** 

In practice, this is already happening with the New York school pilot program. A student arrives in school in the morning and answers five questions that will be calculated in a customized algorithm to figure out what she'll be doing that day. That algorithm will decide which teacher she'll work with, her level of learning based on what she learned the previous day, and her specific activities.

The movement toward personalized instructions has been around for a while, but maybe it's technology that can help get to that goal.

I asked Rush to elaborate further:

# Students' Own Interests Will Drive the School Day of the Future



Flickr:Yasmin\_F

The U.S. Department of Education has a clear vision of what the future school day should be. That's apparent from my **interviews with Karen Cator**, the director of education technology.

It's also clearly outlined by the department's deputy director Steve Midgley. I asked Midgley to spell out his thoughts about the topic.

I think if many of the innovators I see working in the sector today are successful, we'll see a school experience that looks significantly different in 2020 than it does today. Technology will play a role, but the key changes will have been in educational approach not technology.

Interest-driven learning, with a focus on projects that are relevant to individual students, will be key. I think we'll see more and more students even in elementary school doing "real" science. Similarly, I think student journalism reporting on real events outside the school will grow, and students will acquire skills they need such as language arts, critical thinking, research, problem solving and team work through these sorts of activities. Student programmers are already making significant contributions to the technology sector, though their numbers are small. I suspect we'll see their numbers and contributions increase greatly in the next 10 years.

#### When you provide flexible opportunities for students to learn, every single one takes the opportunity, and sometimes in ways that you don't expect.

I grew up in a Montessori school that my parents founded, and a lot of the techniques employed in that school focused on independent learning. The teachers there support students to move as quickly or slowly as they want, while ensuring that every student can develop a range of skills. This kind of individual support for students will be even more relevant and wide-spread in 2020. In my experience when you provide flexible opportunities for students to learn, every single one takes the opportunity, and sometimes in ways that you don't expect. Of course, the teachers, parents and support staff still have to provide plenty of guidance, support and motivation! **Continue reading**  $\rightarrow$ 

### Learning Happens Everywhere in the Future School Day



Flickr:NMCSecondLife

Virtual Learning is seamlessly available to connect students to each other, to their learning guides, to experiential learning, to content, and to other mentors and learners around the world.

Clearly, I'm not the first or only one who's given thought to the notion of the idealized school day of the future. I've gotten some thought-provoking responses from a lot of folks, and one of them comes from reader Brian Kuhn. Brian writes the blog **Shift to the Future**. His dayjob is manager of information systems at a school in British Columbia, Canada. Here's his vision, as described on his **blog**.

It's Tuesday, Sep. 8, 2020, the first day in the new school year and Stephanie is excited. Being 11 years old and having demonstrated leadership skills in her learning portfolio last year, she knows that she gets to take on more leadership roles with her peers and the younger kids.

Stephanie is already waiting in her mom's car eager to get to school. She's already tapped into her Communicator to update her status and check with her friends to see where they'll meet-up. Arriving at the school 10 minutes later, Stephanie seeing her friends Jordon, Blake, Sophie, and Raj, jumps out and runs up to the entrance to join them. They talk excitedly for a few minutes, each hearing the other in their native language thanks to their Communicators (these kids come from different home language groups). As they file into the building, a friendly artificial voice says good morning to them by first name and in their own language. The kids file off to the learning commons for orientation.

In the learning commons, the 500 or so kids of all ages don their virtual learning (VL) visors to join in with their principal and their learning guides (aka teachers) for orientation. The students are taken on a journey through the school to familiarize them with the learning spaces, safety features, etc. **Continue reading**  $\rightarrow$ 

## Future School Day: Self-Paced Learning, Creating, and Collaborating

Salman Khan has an idea or two about what the future school day should be. In fact, the founder of **Khan Academy** — a series of thousands of YouTube videos that teach everything from calculus to the French Revolution — is working on making it happen as we speak.

It goes something like this:

- Every student working at his or her own pace.
- Students working in groups and helping each other.
- Teachers working one-on-one with students.
- And a school day full of creative, hands-on projects that give kids practical knowledge and experience.

Here's Sal Khan describing it in his own words.

For those who missed the original article describing the program, here it is in full.

For the first time in history, the children of one of the most well-heeled people on earth are getting the same education as those with far less means in places like Calcutta, Kabul, and East Palo Alto.

Salman Khan made this point in reference to the well-known fact that Bill Gates' kids watch and learn from the free Khan Academy, instructional YouTube videos on math, science, and the humanities. It's the perfect example of technology helping to close the achievement gap. Continue reading  $\rightarrow$ 

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## Students Will Build Their Own Future School



Flickr:Janet Dancer

For Dale Dougherty, founder of **Maker Faire** — the personification of the do-it-yourself movement — the future school day combines learning with doing.

**Dougherty** has spent at least the last decade preaching the invaluable benefits of making things by hand. The reason is simple: you'll learn more about it — whatever it is — if you make it yourself. Through the **Maker Faire** events, where thousands of people congregate to celebrate the DIY movement, **Make Magazine** and **Craft** website (full disclosure — I worked as the editor of the print version of Craft Magazine a few years ago), Dougherty is drawing out the natural tinkerers and makers in all of us.

His theory applied to education, whether it's formal or informal, is premised on the same ethos.

#### "That confidence to learn anything is what education ought to be about," he says.

So what's the first step in creating the idea school day of the future?

First, build the learning space, of course.

Here's the entire interview.



Read more about the School Day of the Future series.