Rolling 10-year yield on the S&P 500 since 1814 till March 2009 (in %, p. a.)

1st Kondratieff 1780-1830 Steam engine

2nd Kondratieff 1830-1880 Railway, steel

3rd Kondratieff 1880-1930 Electrification, chemicals

4th Kondratieff 1930-1970 Automobiles, petrochemicals

5th Kondratieff 1970-2010 Information technology, communications technology

6th Kondratieff 2010-20XX Environment technology? Nano-/ Biotechnology? Health care?

Transformation

Panic of 1837 1837-1843

Long Depression 1873-1879

Great Depression 1929-1939

1st & 2nd Oil crisis 1974-1980

Financial Crisis 2007-2009

18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
-2%
-4%
-6%
-8%
-10%

1819 1829 1839 1849 1859 1869 1879 1889 1899 1909 1919 1929 1939 1949 1959 1969 1979 1989 1999 2009
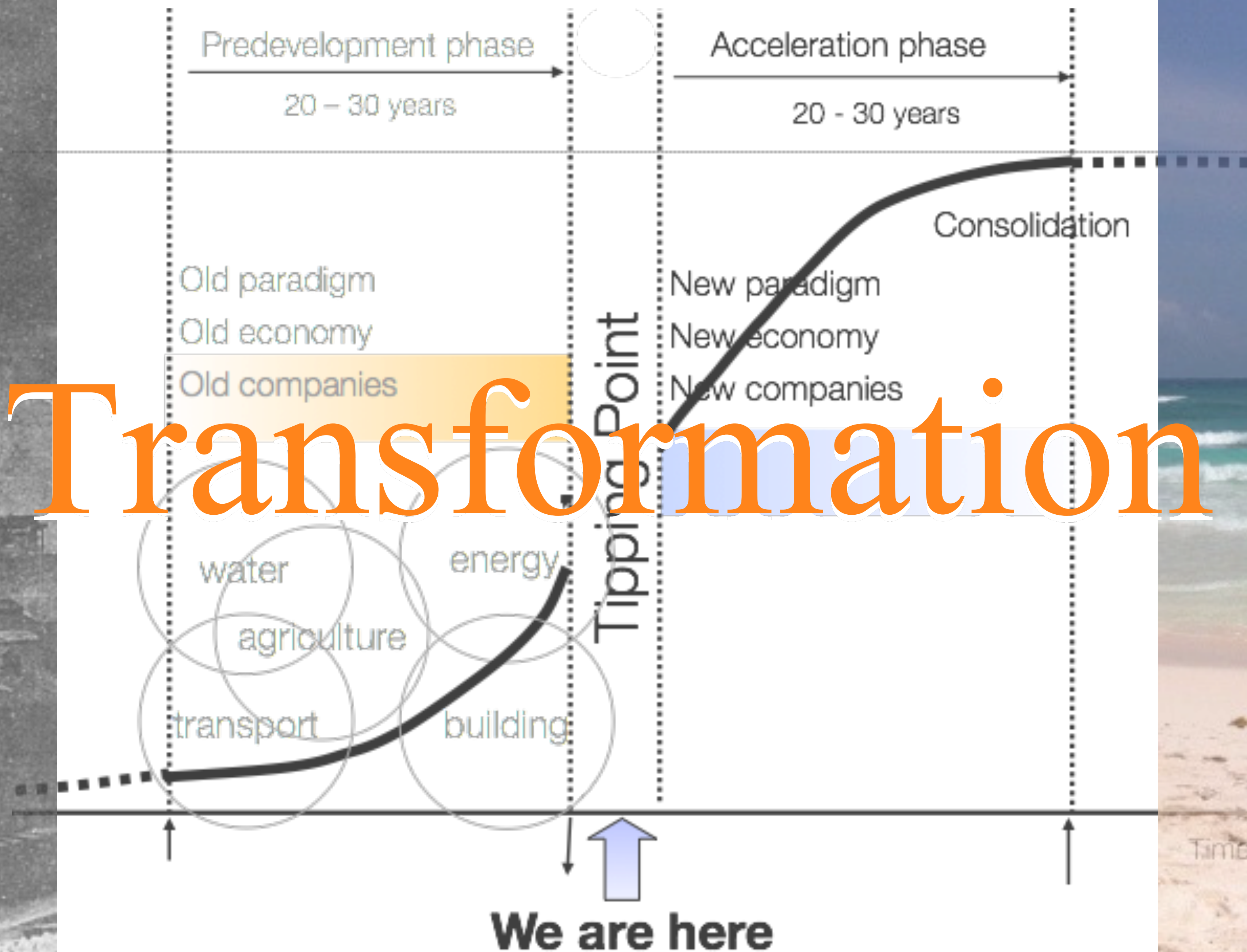
■ Rolling 10-year yield on the S&P 500

Source: Datastream; Illustration: Allianz Global Investors Capital Market Analysis

This is not an ADB material. The views expressed in this document are the views of the author/s and/or their organizations and do not necessarily reflect the views or policies of the Asian Development Bank, or its Board of Governors, or the governments they represent. ADB does not guarantee the accuracy and/or completeness of the material's contents, and accepts no responsibility for any direct or indirect consequence of their use or reliance, whether wholly or partially. Please feel free to contact the authors directly should you have queries.

Transformation

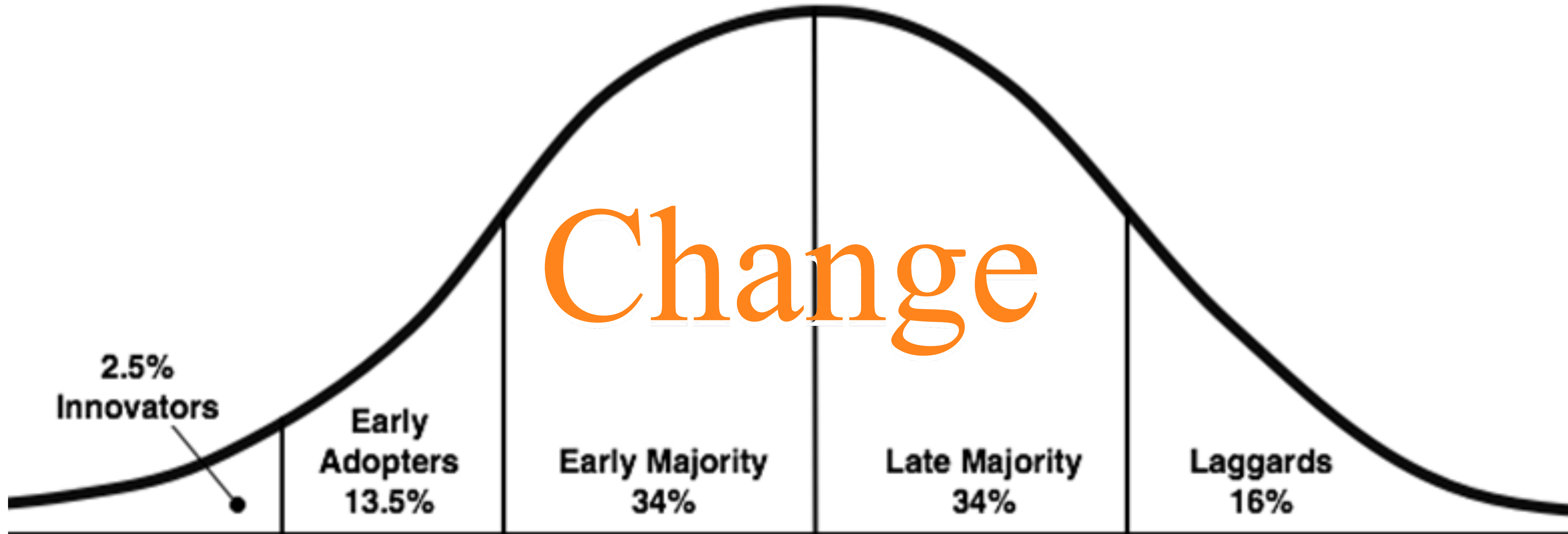Predevelopment phase
20 – 30 years

Acceleration phase
20 - 30 years

Consolidation

Old paradigm
Old economy
Old companies

New paradigm
New economy
New companies

Tipping Point

water   energy

agriculture

transport   building

Time

We are here

Population growth

Wealth growth

Change

2.5%
Innovators

Early
Adopters
13.5%

Early Majority
34%

Late Majority
34%

Laggards
16%

Source: Everett Rogers *Diffusion of Innovations model*

Tracking the Pace of Social Change

Number of states that have removed a ban, by year
(Prohibition shows the number of states that enacted)
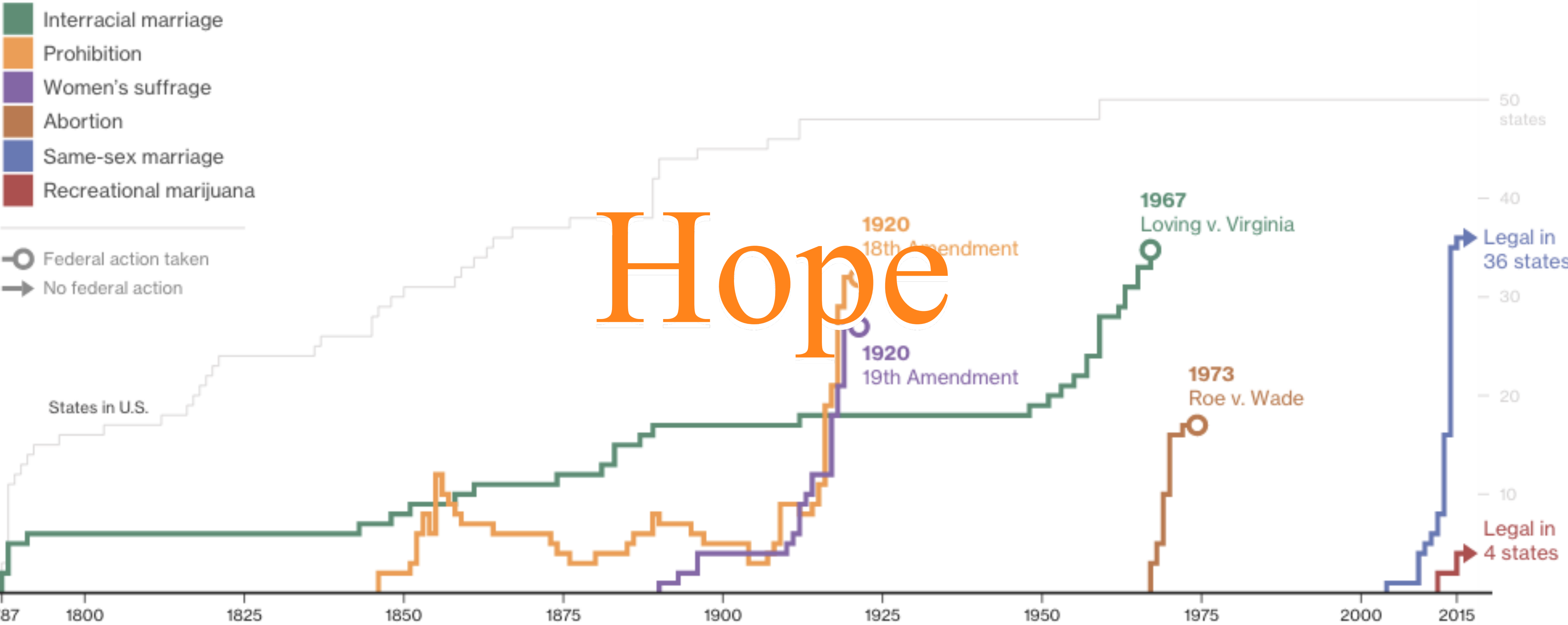
Interracial marriage
Prohibition
Women's suffrage
Abortion
Same-sex marriage
Recreational marijuana

○—— Federal action taken
——▶ No federal action

States in U.S.

1920
18th Amendment

1920
19th Amendment

1967
Loving v. Virginia

1973
Roe v. Wade

Legal in 36 states

Legal in 4 states

Hope

50 states

1787 1800 1825 1850 1875 1900 1925 1950 1975 2000 2015

The world changes rapidly, but education not.

Challenge: how to deliver cost-effective access to quality learning?

funzi

2005

Luca Bruno

2013

NBC NEWS

Michael Sohn

UNESCO
United Nations
Educational, Scientific and
Cultural Organization

NOKIA
open access

TURNING ON MOBILE LEARNING
IN AFRICA and the MIDDLE EAST
> Illustrative Initiatives and Policy Implications

Transforming learning through mEducation

McKinsey&Company

GSMA

GSMA. Mobile for Development Intelligence

Scaling Mobile for Development
A developing world opportunity

GSMA Mobile for Development Intelligence
With support from the Rockefeller Foundation

We naturally took an extensive look into existing research done on emerging markets, learning & mobile in order to gain a wide & deep understanding of the field.

Our Diverse Global Users

London

Istanbul

Beirut

Manila

Bangalore

Nairobi

Lagos

Jakarta

Dar es Salaam

Medellin

Jo'burg

Rio

Based on all the findings, we narrowed down our target audience demographically and geographically…
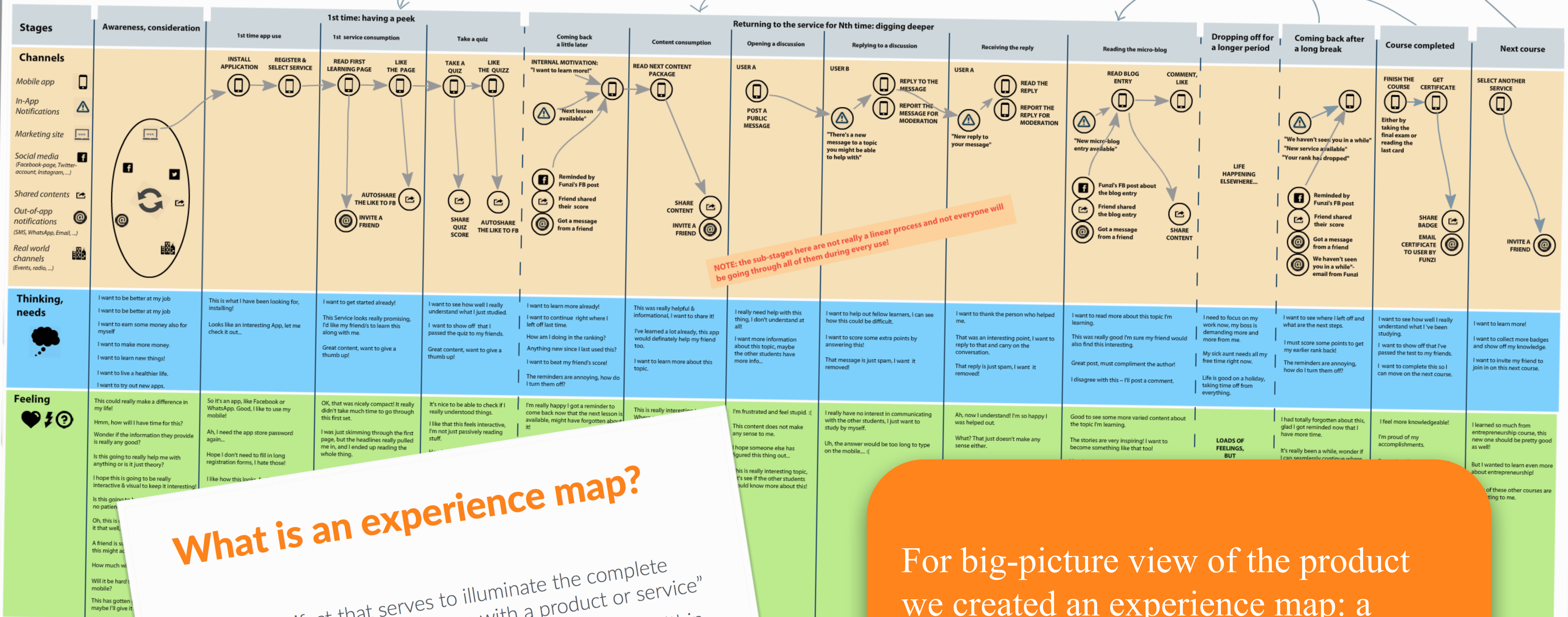
Future winners as target g

- **Young, urban and peri-urban,** mobile centric high achievers
- Highly **aspirational** with a desire to **increase** affluence and **change** current standard of life
- Know **English**, have a **smartphone**, use **data**
- **Four billion consumers** and a **€20 trillion** economical impact by 2025*

*McKinsey&Company - Winning the $30 trillion decathlon

Experience Map

Stages

Awareness, consideration	1st time: having a peek				Returning to the service for Nth time: digging deeper					Dropping off for a longer period	Coming back after a long break	Course completed	Next course
	1st time app use	1st service consumption	Take a quiz	Coming back a little later	Content consumption	Opening a discussion	Replying to a discussion	Receiving the reply	Reading the micro-blog				

Channels

- Mobile app
- In-App Notifications
- Marketing site
- Social media (Facebook-page, Twitter-account, Instagram, ...)
- Shared contents
- Out-of-app notifications (SMS, WhatsApp, Email, ...)
- Real world channels (Events, radio, ...)

1st time app use: INSTALL APPLICATION → REGISTER & SELECT SERVICE

1st service consumption: READ FIRST LEARNING PAGE → LIKE THE PAGE · AUTOSHARE THE LIKE TO FB · INVITE A FRIEND

Take a quiz: TAKE A QUIZ → LIKE THE QUIZZ · SHARE QUIZ SCORE · AUTOSHARE THE LIKE TO FB

Coming back a little later: INTERNAL MOTIVATION: "I want to learn more!" · "Next lesson available" · Reminded by Funzi's FB post · Friend shared their score · Got a message from a friend

Content consumption: READ NEXT CONTENT PACKAGE → SHARE CONTENT · INVITE A FRIEND

Opening a discussion: USER A · POST A PUBLIC MESSAGE

Replying to a discussion: USER B → REPLY TO THE MESSAGE · REPORT THE MESSAGE FOR MODERATION · "There's a new message to a topic you might be able to help with"

Receiving the reply: USER A → READ THE REPLY · REPORT THE REPLY FOR MODERATION · "New reply to your message"

Reading the micro-blog: READ BLOG ENTRY → COMMENT, LIKE · "New micro-blog entry available" · Funzi's FB post about the blog entry · Friend shared the blog entry · Got a message from a friend · SHARE CONTENT

Dropping off for a longer period: LIFE HAPPENING ELSEWHERE...

Coming back after a long break: "We haven't seen you in a while" · "New service available" · "Your rank has dropped" · Reminded by Funzi's FB post · Friend shared their score · Got a message from a friend · We haven't seen you in a while - email from Funzi

Course completed: FINISH THE COURSE → GET CERTIFICATE (Either by taking the final exam or reading the last card) · SHARE BADGE · EMAIL CERTIFICATE TO USER BY FUNZI

Next course: SELECT ANOTHER SERVICE · INVITE A FRIEND

NOTE: the sub-stages here are not really a linear process and not everyone will be going through all of them during every use!

Thinking, needs

Awareness, consideration: I want to be better at my job / I want to be better at my job / I want to earn some money also for myself / I want to make more money. / I want to learn new things! / I want to live a healthier life. / I want to try out new apps.

1st time app use: This is what I have been looking for, installing! / Looks like an interesting App, let me check it out...

1st service consumption: I want to get started already!

Take a quiz: I want to see how well I really understand what I just studied. / I want to show off that I passed the quiz to my friends. / Great content, want to give a thumb up!

Coming back a little later: I want to learn more already! / I want to continue right where I left off last time. / How am I doing in the ranking? / Anything new since I last used this? / I want to beat my friend's score! / The reminders are annoying, how do I turn them off?

Content consumption: This was really helpful & informational, I want to share it! / I've learned a lot already, this app would definately help my friend too. / I want more information about this topic, maybe the other students have more info... / I want to learn more about this topic.

Opening a discussion: I really need help with this thing, I don't understand at all! / I want more information about this topic, maybe the other students have more info...

Replying to a discussion: I want to help out fellow learners, I can see how this could be difficult. / I want to score some extra points by answering this! / That message is just spam, I want it removed!

Receiving the reply: I want to thank the person who helped me. / That was an interesting point, I want to reply to that and carry on the conversation. / That reply is just spam, I want it removed!

Reading the micro-blog: I want to read more about this topic I'm learning. / This was really good I'm sure my friend would also find this interesting. / Great post, must compliment the author! / I disagree with this – I'll post a comment.

Dropping off for a longer period: I need to focus on my work now, my boss is demanding more and more from me. / My sick aunt needs all my free time right now. / Life is good on a holiday, taking time off from everything.

Coming back after a long break: I want to see where I left off and what are the next steps. / I must score some points to get my earlier rank back! / The reminders are annoying, how do I turn them off?

Course completed: I want to see how well I really understand what I've been studying. / I want to show off that I've passed the test to my friends. / I want to complete this so I can move on the next course.

Next course: I want to learn more! / I want to collect more badges and show off my knowledge. / I want to invite my friend to join in on this next course.

Feeling

Awareness, consideration: This could really make a difference in my life! / Hmm, how will I have time for this? / Wonder if the information they provide is really any good? / Is this going to really help me with anything or is it just theory? / I hope this is going to be really interactive & visual to keep it interesting! ...

1st time app use: So it's an app, like Facebook or WhatsApp. Good, I like to use my mobile! / Ah, I need the app store password again... / Hope I don't need to fill in long registration forms, I hate those! / I like how this looks...

1st service consumption: OK, that was nicely compact! It really didn't take much time to go through this first set. / I was just skimming through the first page, but the headlines really pulled me in, and I ended up reading the whole thing.

Take a quiz: It's nice to be able to check if I really understood things. / I like that this feels interactive, I'm not just passively reading stuff.

Coming back a little later: I'm really happy I got a reminder to come back now that the next lesson is available, might have forgotten about it!

Content consumption: This is really interesting...

Opening a discussion: I'm frustrated and feel stupid. :(/ This content does not make any sense to me. / I hope someone else has figured this thing out... / This is really interesting topic, let's see if the other students would know more about this!

Replying to a discussion: I really have no interest in communicating with the other students, I just want to study by myself. / Uh, the answer would be too long to type on the mobile... :(

Receiving the reply: Ah, now I understand! I'm so happy I was helped out. / What? That just doesn't make any sense either.

Reading the micro-blog: Good to see some more varied content about the topic I'm learning. / The stories are very inspiring! I want to become something like that too!

Dropping off for a longer period: LOADS OF FEELINGS, BUT

Coming back after a long break: I had totally forgotten about this, glad I got reminded now that I have more time. / I'm proud of my accomplishments. / It's really been a while, wonder if I can seamlessly continue where...

Course completed: I feel more knowledgeable! / I'm proud of my accomplishments.

Next course: I learned so much from entrepreneurship course, this new one should be pretty good as well! / But I wanted to learn even more about entrepreneurship. / ...of these other courses are ...ting to me.

What is an experience map?

- "It's an artifact that serves to illuminate the complete experience a person may have with a product or service"
- "A visual representation that illustrate users' flow (within a product or service) their needs, wants, expectations and the overall experience"

FUNZi

For big-picture view of the product we created an experience map: a birds-eye-view into how people would find & use Funzi and how it would fit in their lives.

New jobs, new skills?

Top 10 skills

in 2020

1. Complex Problem Solving
2. Critical Thinking
3. Creativity
4. People Management
5. Coordinating with Others
6. Emotional Intelligence
7. Judgment and Decision Making
8. Service Orientation
9. Negotiation
10. Cognitive Flexibility

in 2015

1. Complex Problem Solving
2. Coordinating with Others
3. People Management
4. Critical Thinking
5. Negotiation
6. Quality Control
7. Service Orientation
8. Judgment and Decision Making
9. Active Listening
10. Creativity

Old system,
slow system.

How to create new jobs & employable people with mobile?

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United Nations Development Programme
برنامج الأمم المتحدة الإنمائي

..on subjects that are considered critical to enhance their knowledge and make them more resilient..

TO WHOM IT MAY CONCERN

...gh this statement, the United Nations Development Programme (UNDP) office in Syria, certifies that ...ration with Funzi ltd. Funzi is a mobile learning service for businesses, NGOs, ...with a connected device. It aims to deliver bite-size learning ...services include content production ...reporting and

Case: Driver for the Future
Partner: Jobberman, Nigeria

AWARENESS ➔ **TRAINING** ➔ **LEARNING VERIFICATION**

DIGITAL MARKETING

- 77 000 clicks
- 2 121 users of awareness module

FUNZI MOBILE LEARNING

2,121

804 411 343 310 278 261

TOPIC COMPLETIONS

Moris Ebiowei
Funzi ID: 4805198
has completed the course
Driver for the future, course 1
on Funzi on 14th March 2017

1 Funzi topic

Addresses a high number of users

6 Funzi topics

Topic completions categorize users

1 day group session

Certification & Motivated Drivers

...to apply mobile learning pedagogy to employee training, and distribute learning scalably as well as cost-effectively...

Bidvest

"Replace all negativity and be encouraged.

Negativity holds you back and most definitely sabotages your future."

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Portia Esau,
Johannesburg, South Africa
Entrepreneur, Portia's One Stop

MashUp, South Africa

Entrepreneurial training program ran in Westbury and Orange county in community centers.

230 participants.

117 women.

113 men.

3 batches.

2 locations.

32 new companies.
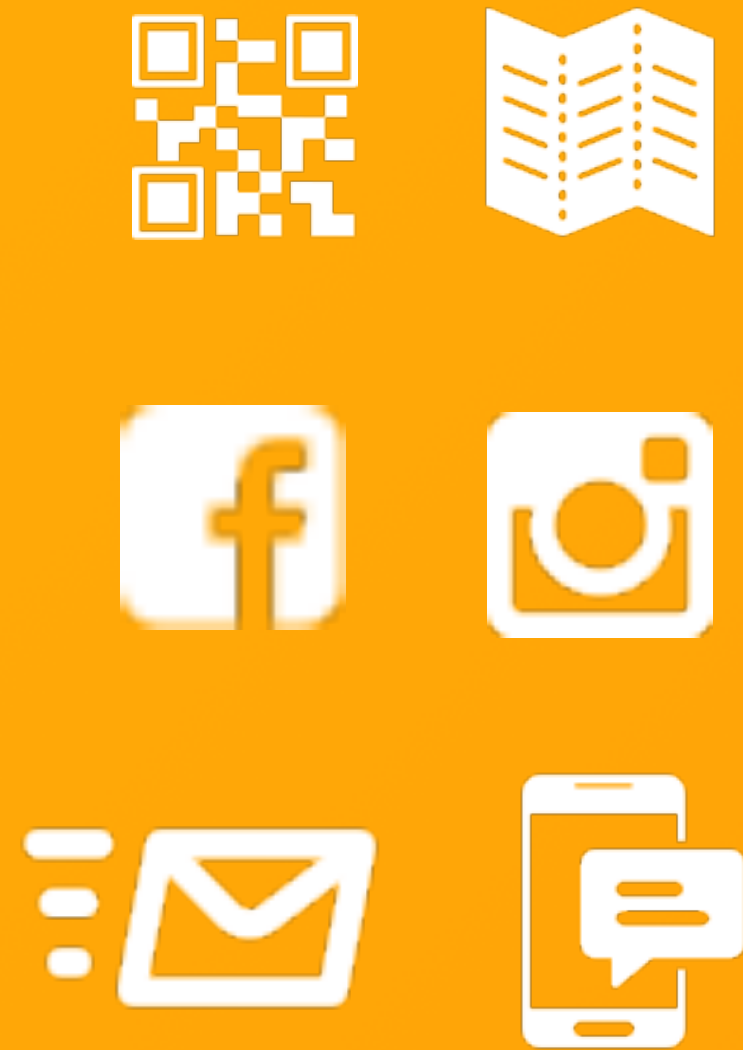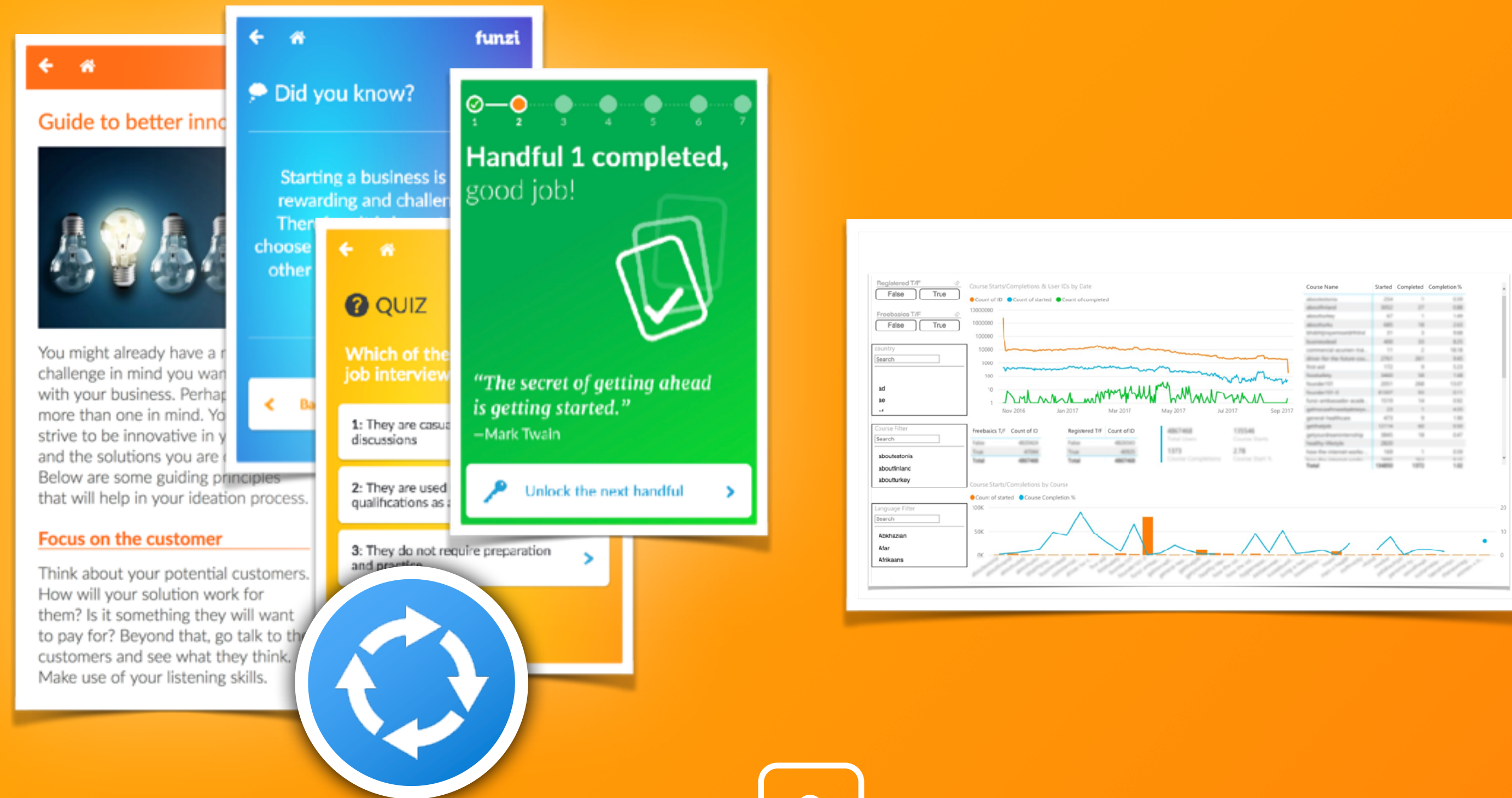
funzi
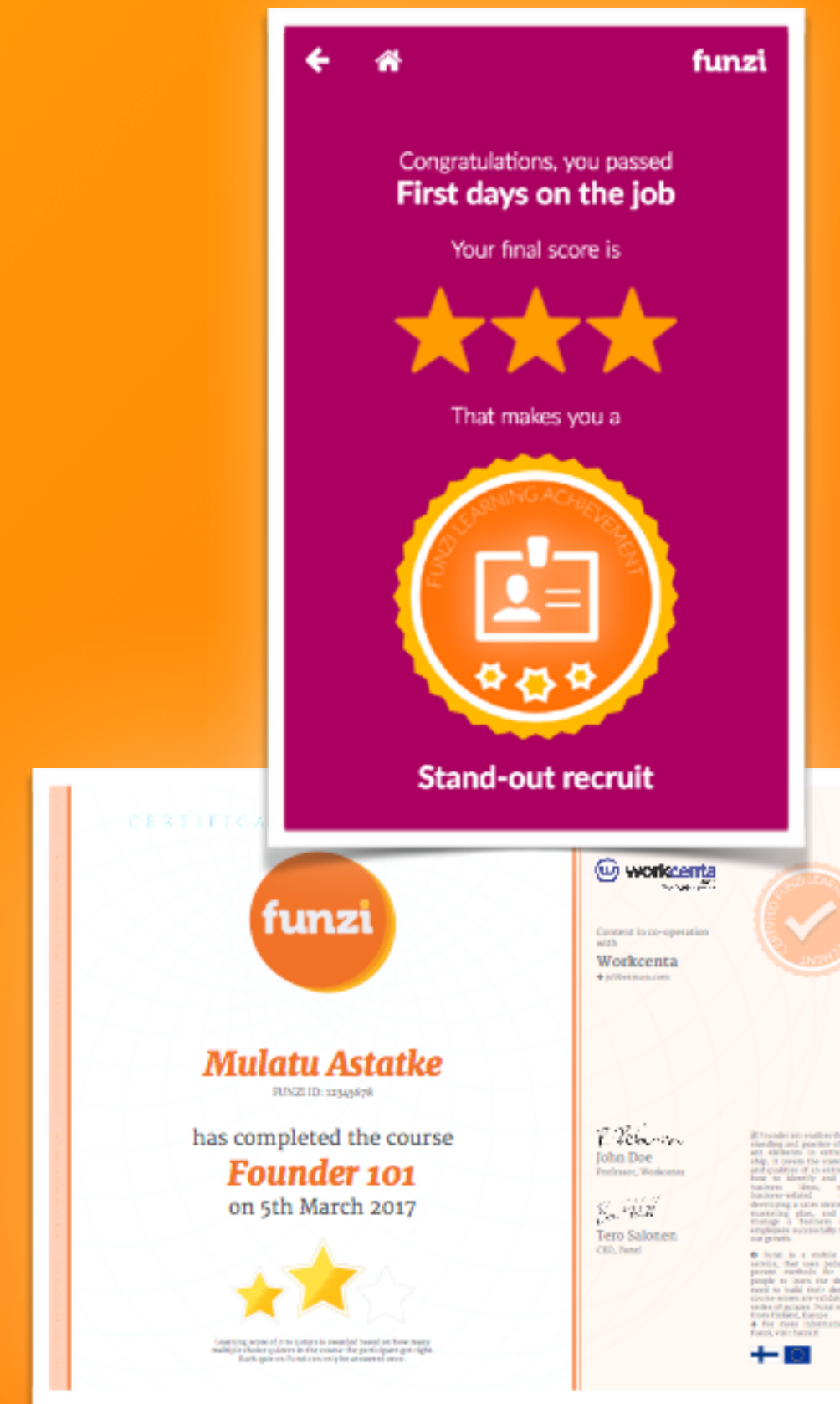
Mobile learning

MOBILE   COURSE

1

RAISE AWARENESS

100 000 users see course ad on social media

2

PROVIDE INFORMATION

40 000 users click ad and get initial information on the theme

3

COMPLETE

20 000 users complete course

Your upskilled *mobile-certified* target group

EXAMPLES: Users study mobile learning course and acquire entrepreneurial skills and attitude, like product and service development, sales, financing, and leadership.

funzi

Blended learning

MOBILE   COURSE

CLASSROOM   TRAINING

1   2   3

4
INTENSIVE CLASSROOM TRAINING

5
VERIFICATION & CERTIFICATION OF SKILLS

Your upskilled *partner-certified* target group

EXAMPLES: Users study mobile learning course and acquire entrepreneurial skills and attitude, like product and service development, sales, financing, and leadership. These skills are deepened and enhanced in intensive classroom training and tasks, which also verify the new skills. Blended learning combines the best of mobile and face-to-face learning.

funzi

Blended learning + train-the-trainers

MOBILE ▢ COURSE · · · CLASSROOM 🧑‍🏫 TRAINING · · · MOBILE ▢ COURSE · · · CLASSROOM 🧑‍🏫 TRAINING

1 2 3

4 5

6
TRAINER SELF-SELECTION
1 000 users take the given opportunity to study further to become a trainer

7
TRAIN-THE-TRAINER MOBILE COURSE
200 users complete the TTT course

8
TRAIN-THE-TRAINER INTENSIVE TRAINING & CERTIFICATION
10 users complete the intensive training

Certified trainers start training the next batches of users & trainers ensuring scalability of model

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UNESCO Chair in Learning Society and Futures of Education

Building Global Capacity for Futures Thinking

What is the future?

funzi

Where is the future?
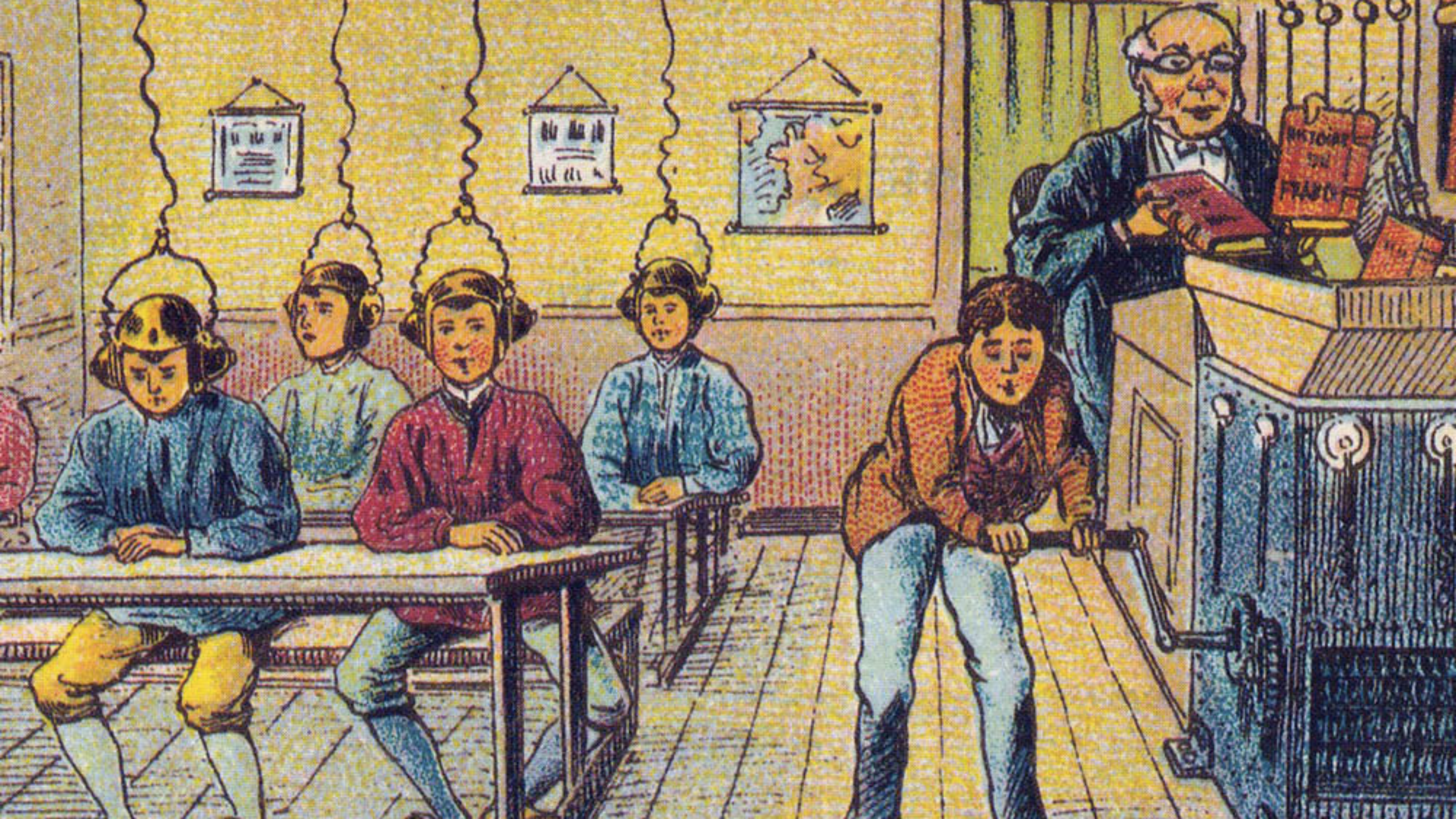
Let's make better mistakes tomorrow. ❤️

Thank you!

Aape Pohjavirta
Chief Evangelist, Founder

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