

# *Actionbound*

Interactive scavenger hunt:

A simple, yet versatile, app that works as a digital teacher's aid

Marian Ørgaard ([moe@plen.ku.dk](mailto:moe@plen.ku.dk))  
Kira Tendal ([kt@plen.ku.dk](mailto:kt@plen.ku.dk))



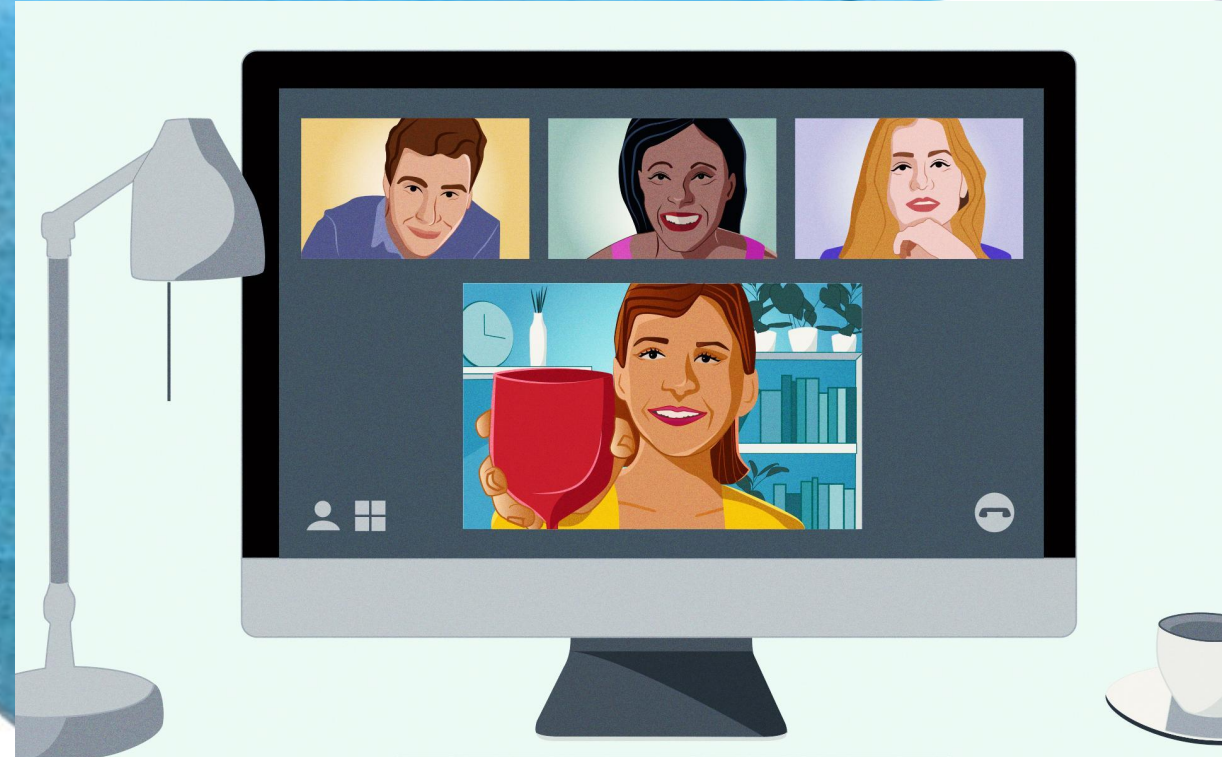
# Our Covid challenge:

To learn **botany**, you need to experience plants **outside**



2019 – a much simpler time

2020 – but how!?!



With the students assigned to social bubbles, we searched for solutions and found

# *Actionbound*

Using this free app (for both iPhone and Android), we designed guided excursions to nature locations that the students could access on their cell phones while walking





# Actionbound

## Visit the location

Decide on a route interspersed with stops  
Take photos (and/or shoot video footage)

## Create Bound (on the PC)

Add each stop with its gps coordinates



Information



Quiz



Mission



Find spot

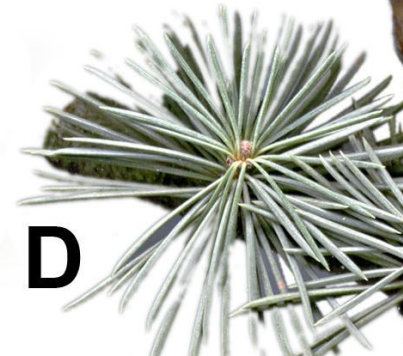
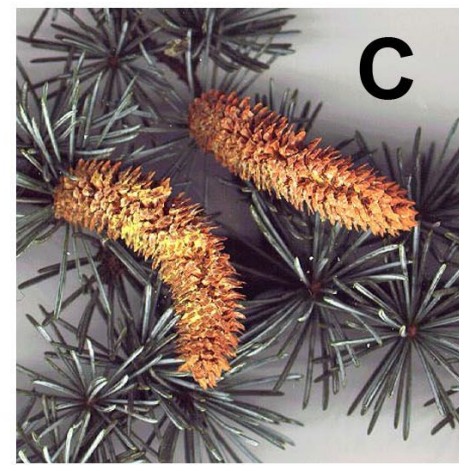
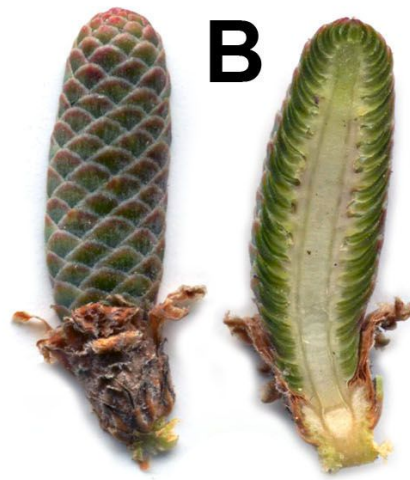


# Actionbound

## Fleshing out the stops:


Adding photos, explanatory  
graphics (and if you are up for it  
videos or sound clips)


Testing comprehension






# Wonderfully simple user interface, but with a lot of creative leeway


 **Mission**  
Assign the participants a creative, solvable task for which there is no right or wrong answer.


**Mission briefing** 


**B**


**I**














Take a selfie in front of the holy grail.


**Type of solution**


Please select

 Text

 Upload picture

 Upload video

 Upload audio

 None



Information



Quiz



Mission



Find spot



## Opgave 9 (1/4)

Når I går til venstre, finder I dette fantastiske træ

Her er en fokusart. Sig dens danske og videnskabelige arts- og familienavn højt for hinanden.



# Example of a stop

## Opgave 9 (2/4)

Det er *Cedrus atlantica*, atlas-ceder, som hører til Pinaceae, Gran-familien.

Prøv at mærke på dens nåle - med lidt god vilje kan man godt erkende, at de er firkantede.

Læg mærke til kogle-anlæggene (de er nærmest ikke til at få øje på, sorry, men så er der et billede nedenfor). Atlas-ceder har 2-årig kogleudvikling, så I kan stadig se de kogler, der blev bestøvet i efteråret.



## Opgave 9 (3/4)

Kig på kvistene. Hvad er langskud, og hvad er kortskud? Hvordan sidder nålene på de to forskellige skud?

## Opgave 9 (4/4)

Hos atlas-ceder sidder nålene spredt på langskuddene, og i knipper (bundter) på kortskuddene. I kan se det nogenlunde på billedet.







## Quiz

Let the participants find the right answer in order to earn points and/ or get ahead.

Quiz

Answer

Settings

Time limit

Mode i

Multiple choice



Relaxed scoring i

Answers

Solution

Correct ▾

De har kun 1 enkelt knopskæl



Endeknopperne er op mod 1 cm lange



Endeknopperne er 2-3 cm lange



Knopperne sidder spredt



Knopperne - især endeknopperne - er tæt hvid-hårede



Der er ingen fodfligsar



Der er et fodfligsar, der cirkler hele vejen rundt om grenen fra den ene side af bladarret til den anden



Add



Save



Cancel





# Why do we use ActionBound now

Botany requires a lot of excursions to nature locations with narrow hiking trails and studying minute morphological features of plants.

With classes of 60+ students, it's not feasible for everyone to see and hear what the lecturer is saying and showing.

## Stop #1



Use your hand lens to study the reproductive features of the moss





Botany requires a lot of hands-on exercises in the classroom. With classes of 60+ students it is difficult to attend to every request for elucidation during exercises.

Now we encourage the use of cell phones in the classroom as an aid for both teachers and students ☺






# How do we use (and reuse!) ActionBound now

- ✿ Introducing key concepts
- ✿ Keying (i.e. identifying a plant to a taxonomic level using a reference work)
- ✿ Excursions
- ✿ Easily accessible information during exercises (like a SOP for the lab)
- ✿ Maintenance and elaborative rehearsal
- ✿ Students create their own Bounds as coursework





# Future plans

- 1) Incorporate *AV* into existing Bounds
  - 2) Build a multi-disciplinary introductory Bound for new landscape architect students
  - 3) Build Bounds targetting other groups, e.g., high school students, continuing education
  - 4) Public Bounds to showcase our in situ research on combining recreational needs with biodiversity
- 



# Feedback

It works really well on the excursions, because you are not restricted to staying in a large group with a lecturer

AB is great for rehearsing the curriculum, **but please provide answers for the questions**

Good **and bad**. Personally, I think that **using my cell phone can be a huge distraction** when I'm outside in nature. But as a learning tool that's "extra", maybe when you have an extra hour, it's really excellent. Or also when you're just sitting at home 😊

Absolutely super! Also great for working with at home

ActionBound has been a really good and contributing addition to the teaching. There could be a lot more; that would be really good!

Very good – it's calming to move in a smaller group and grasp more of what's being taught

Action bound was super cool and a great way to lead the student and really help, even if it wasn't a physical help



# Thank you!

Currently, we are working with Stephan Gertz and Rasmus Fløe Mølbak on building a Bound to introduce people to the beautiful garden at Frederiksberg Campus, Landbohøjskolens Have.

Just scan the QR-code on the right for a sneak preview.

Finally, we would like to thank **Stephan** and **Rasmus** for all their help, the **Pool for Teaching Development with Digital Elements**, the **Make A Difference conference**, and **all of you** for listening.



Scan this QR code with the Actionbound app to start the Bound



