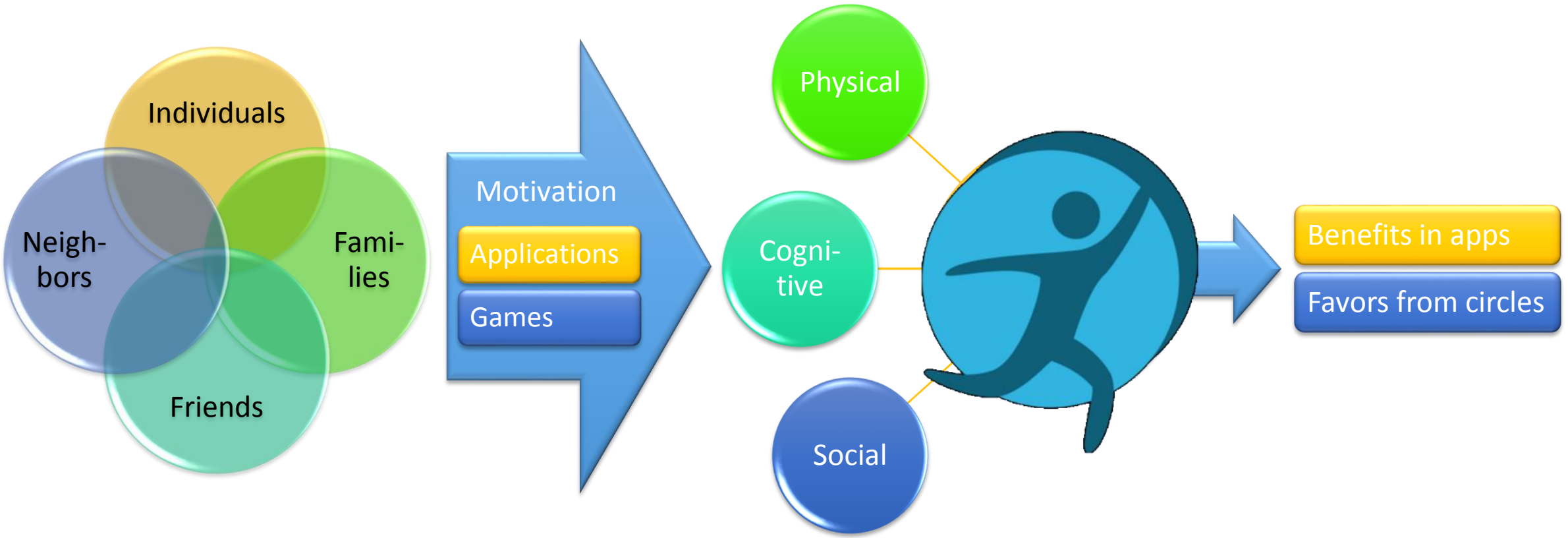
Gamification for Healthy Life
The GOAL platform

Aristodemos Pnevmatikakis

Multimodal Signal Analytics
Athens Information Technology

Second GOAL workshop, Brussels, BE, 7th November 2018

Scope


Individuals
Neigh-
bors
Fami-
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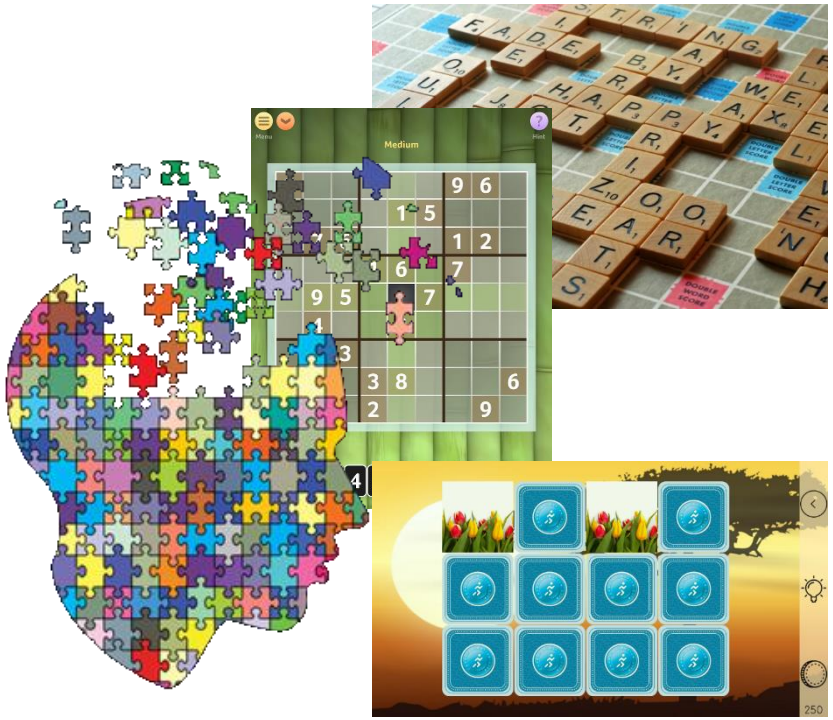
Friends
Motivation
Applications
Games
Physical
Cogni-
tive
Social
Benefits in apps
Favors from circles

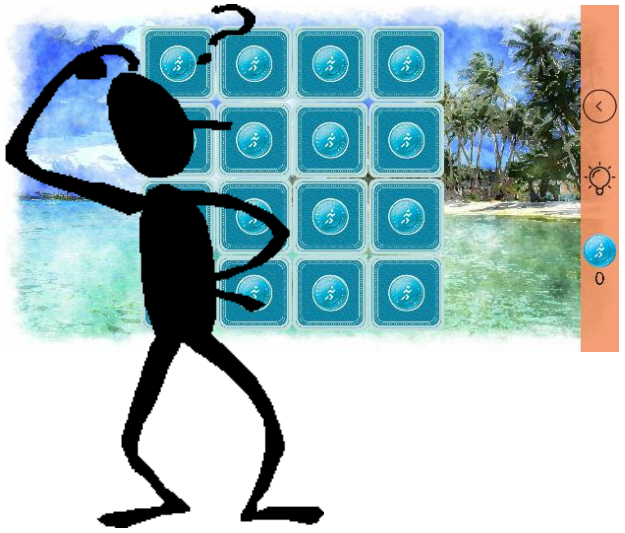
Earning GOAL Coins in games



I am the GOAL Coin

- A single currency across all games
- Motivates you into serious gaming for exercising your brain
- Helps you keep track of your performance

Spending GOAL Coins in games

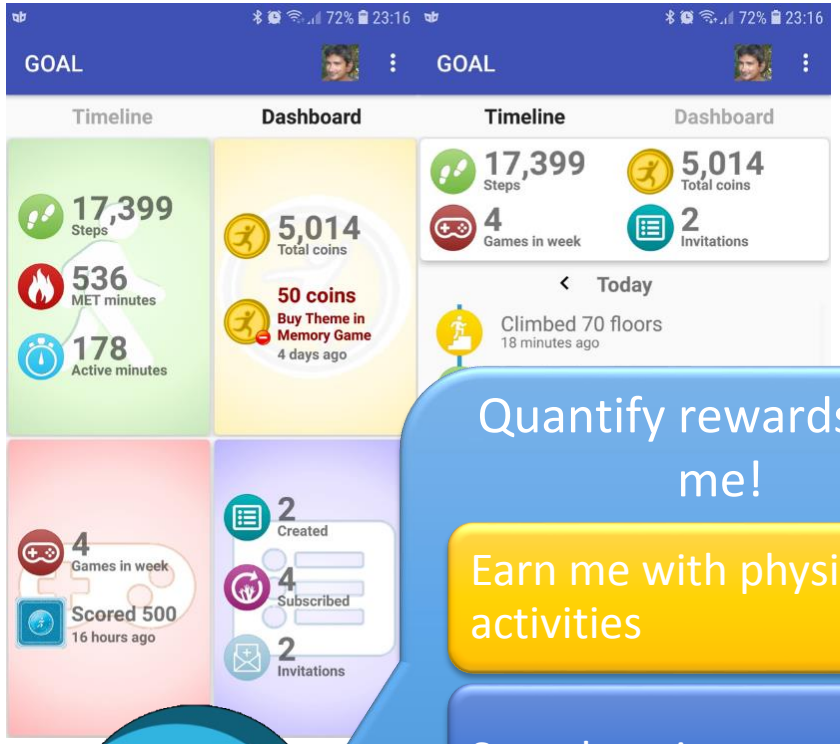


Spend me to get out of deadlocks!

Spend me to buy more puzzles or decks

Spend me to gain instant access to game features

GOAL Coins from physical activity



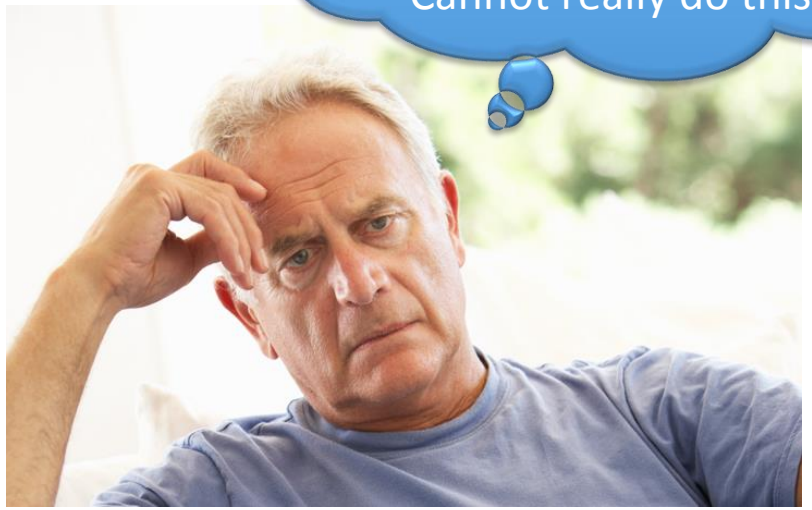
How well am I doing?

Quantify rewards with me!

Earn me with physical activities

Spend me in your games

GOAL Coach: Personalized & digital



GOAL Coins are awarded for all activities in consultation with your personal digital Coach

The Coach considers you and your past achievements to set your personalized goals

Personalized motivations urge you towards a healthier lifestyle

Social GOAL

Are you going for walks or play online with your friends?

- How about setting your own challenges for them, on top of those the Coach sets?

In GOAL's Social Marketplace you can set challenges for others, find challenges others set, and try to fulfil them

- These challenges can involve successes in any game, or physical activity feats
- They can also involve real small things in your life
  - have a friend bring over the newspaper, or a grandson visit you

Are your grandchildren not exercising enough?

- You can create contests for them or any of your circles of people
- Award the winner with some of your GOAL Coins

Main GOAL App

https://play.google.com/store/apps/details?id=gr.ait.msa.goalmainapp

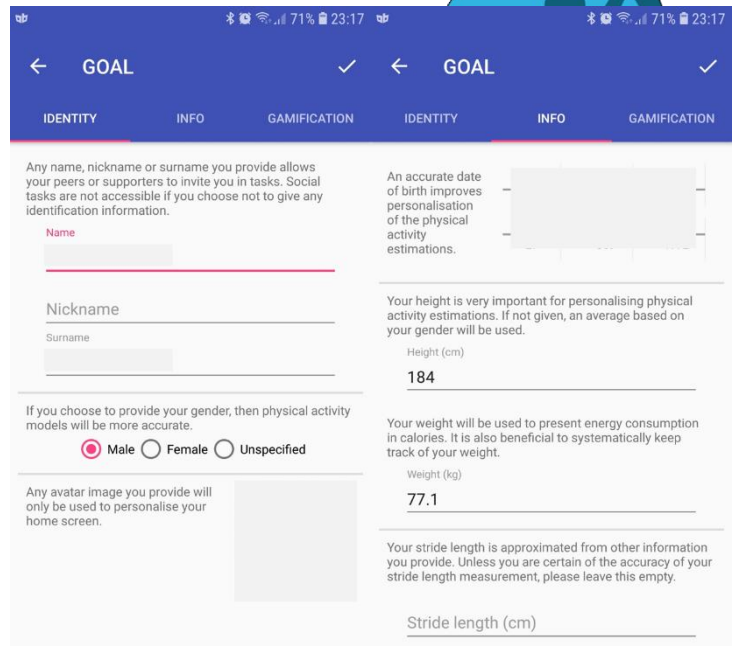
Games of Active Life

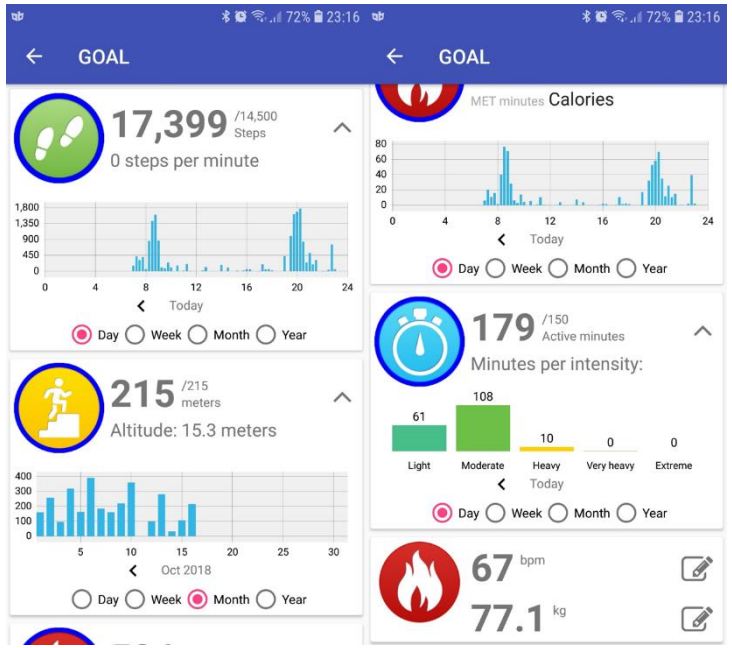
Athens Information Technology Health & Fitness ★★★★★ 3

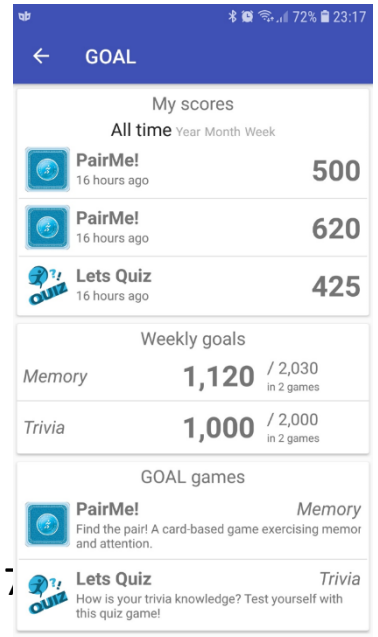
PEGI 3

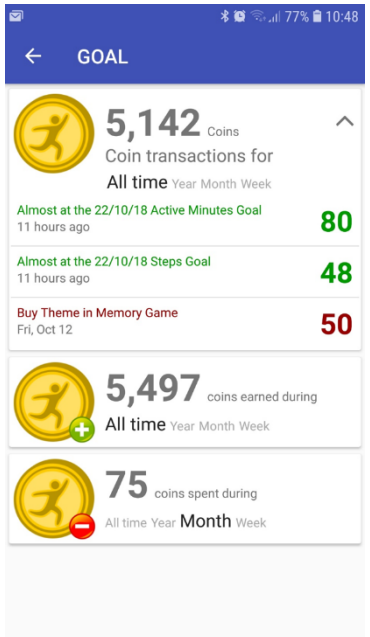
This app is compatible with your device.

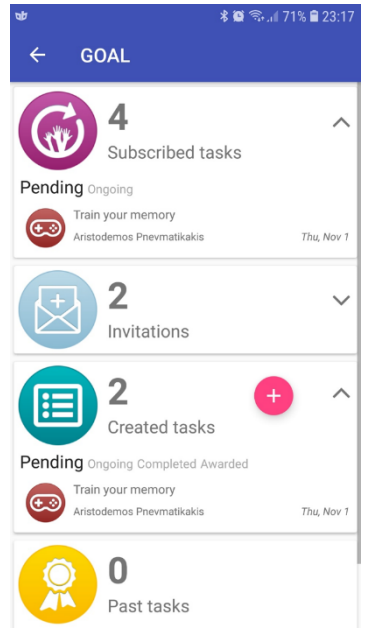
Add to Wishlist Install





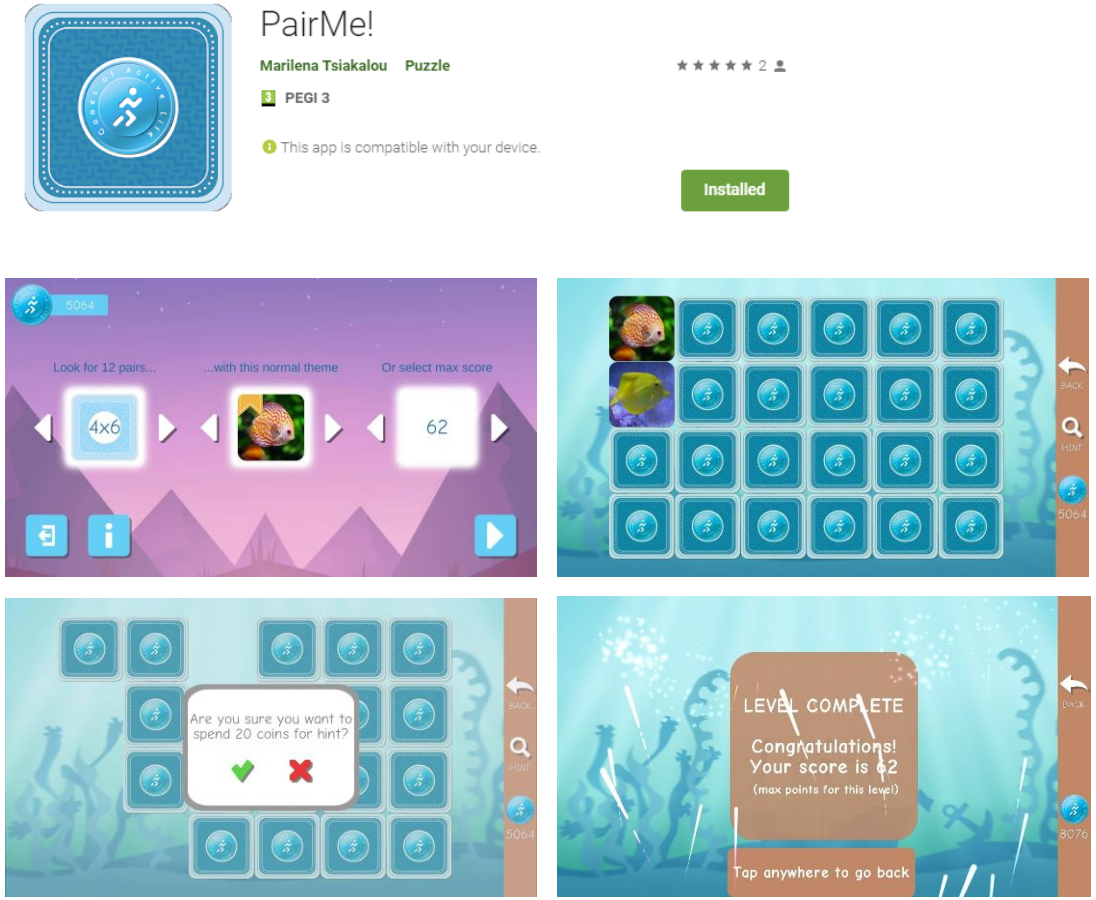




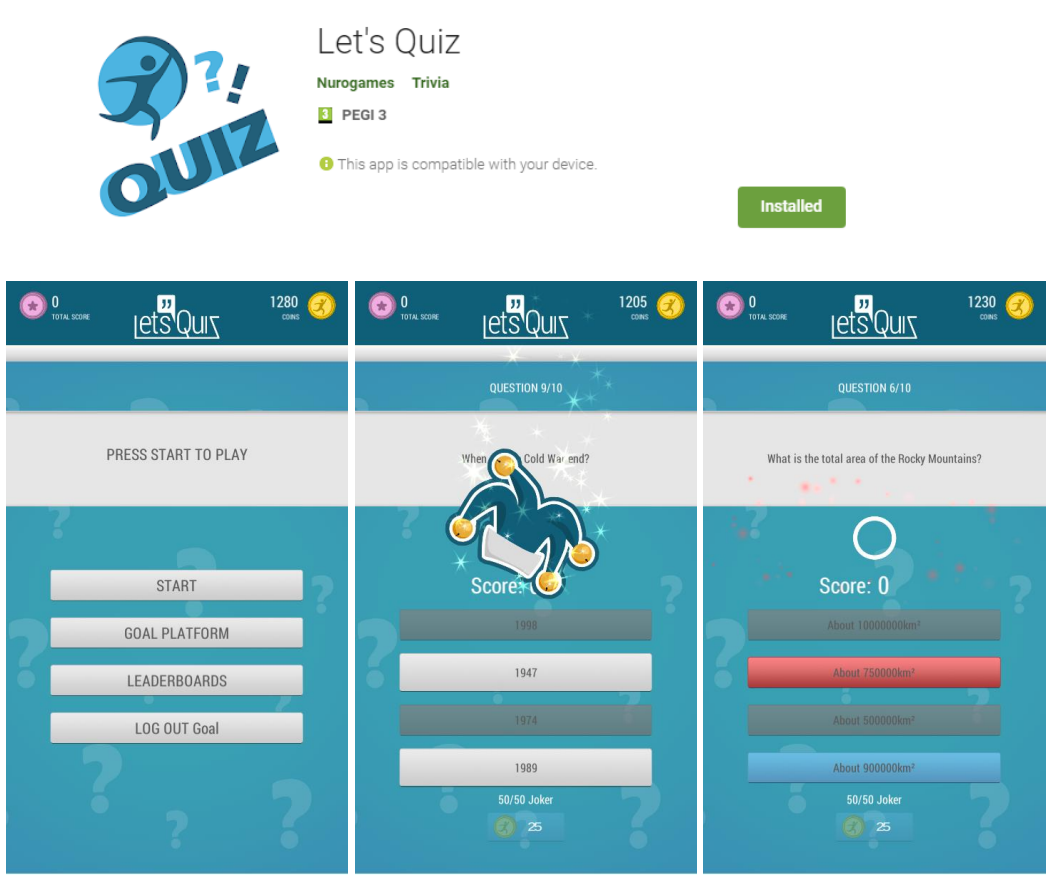


Cognitive games

https://play.google.com/store/apps/details?id=gr.msa.ait.pairMe

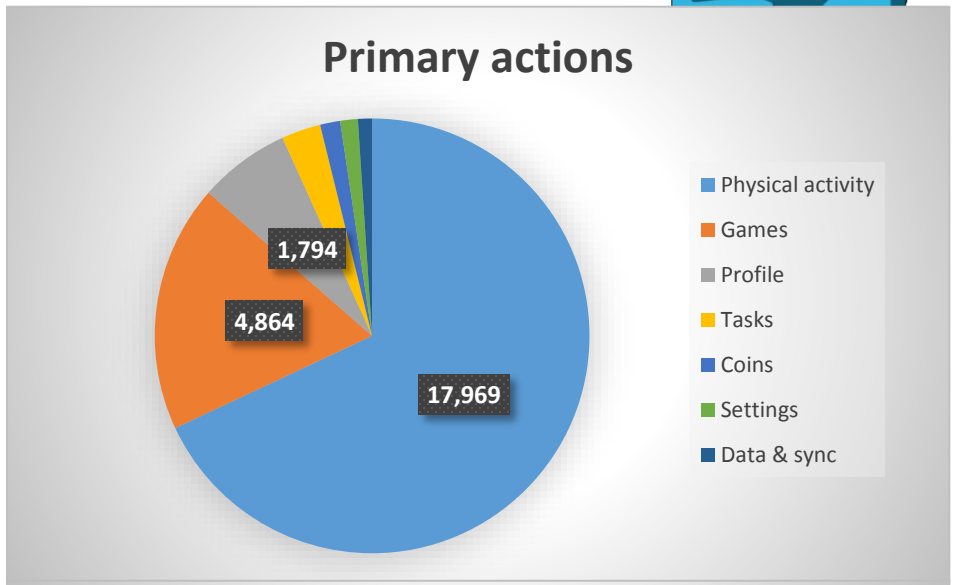


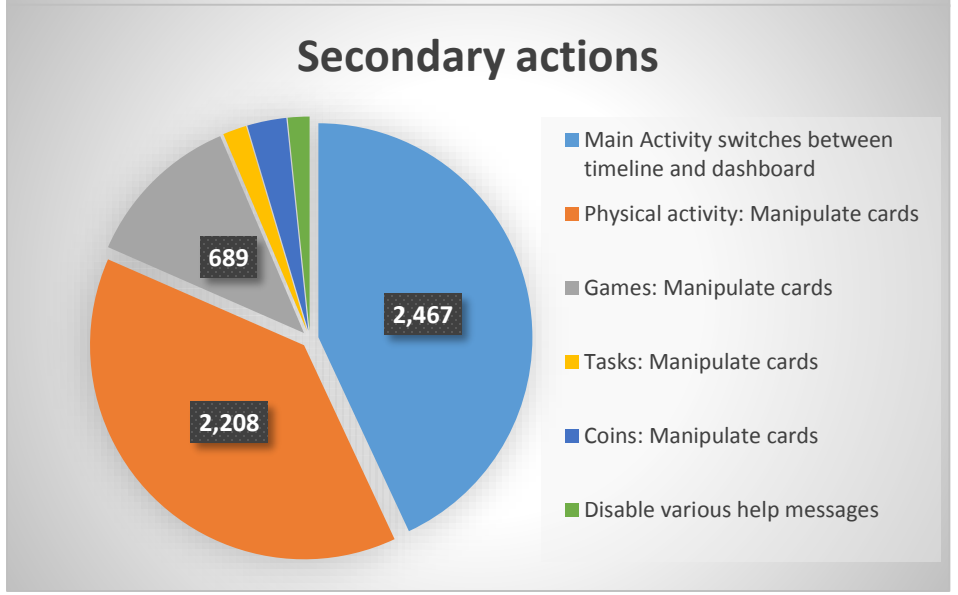
https://play.google.com/store/apps/details?id=com.nurogames.letsquiz



Evaluating GOAL

- 45 users
- 6.5M physical records submitted
- In 2,140 active hours
  - 10M steps walked
  - 80k meters climbed
  - 168k MET-minutes burned
- In 3k game sessions played
  - 216k score accumulated
- 97k UI interactions registered the past 2 weeks





Attracting developers

Why a gaming company should be interested in GOAL?

- GOAL facilitates penetration into a new market, with many users at least in Europe: the tech-aware elderly.
- Benefit from new funding schemes
  - Real money offered in exchange for spent GOAL coins
  - Not just from the player (traditional source)
  - But also from local authorities and health insurance systems (public and private companies)

What does GOAL do to facilitate the work of developers in the interested companies?

- Clear way to integrate to GOAL via its rich API and accurate documentation
- Concise form to extract the info GOAL needs to handle the scores of the game

Thank you!

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Motivating a healthier lifestyle

The technology viewpoint

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Scope

- What
  - Exercise body and mind
  - Interact with others & affect their lifestyle
- How
  - HW & SW needs

Exercise body & mind

- Originally improve & then maintain performance
  - Following personalized training programmes
  - Playing cognitive games
- Needs
  - Engaging games
  - Physical & games' activity monitoring
  - Personalised (realistic) goal setting
  - Feedback & rewards

Interact with others

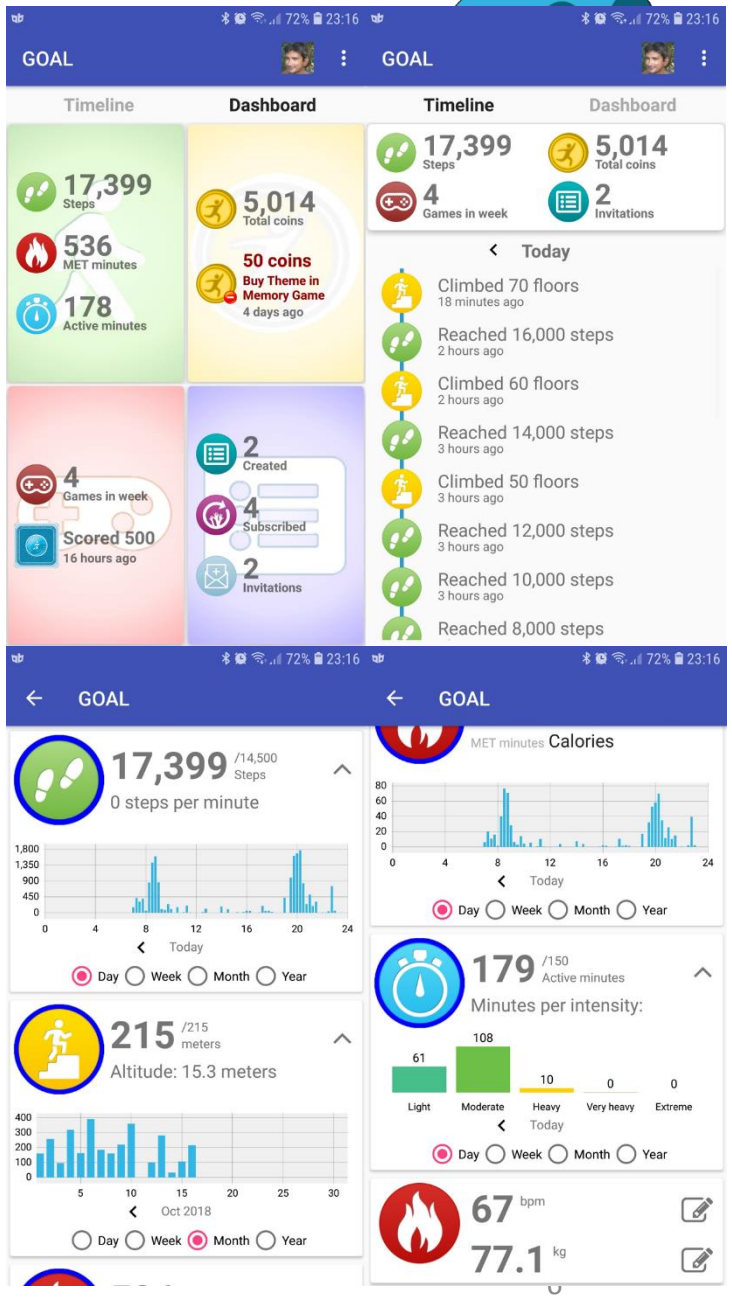
- Affect others & allow them to affect you
  - Motivation by peers
- Needs
  - Social tools: friends, followers, competitions
  - Gamification layer for progress monitoring

Addressing the needs: HW

- Physical activity monitoring
  - Accelerometer, barometer, GPS
- Wearables
  - Activity bands
    - Perfect form factor
    - Good battery life
    - Not owner of data, need to get them from servers at later time, no real-time feedback
  - Smartphone
    - Pocket…
    - Good battery life
    - Owner of data, available immediately
  - Smartwatch/smartphone combination
    - Perfect from factor
    - Medium battery life
    - Owner of data, own SW partitioned between smartwatch/smartphone, data available once the two are communicating

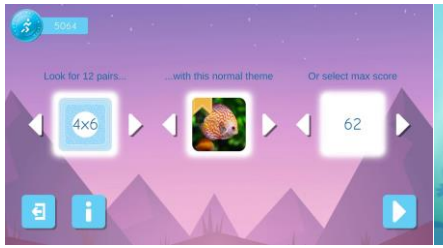
Addressing the needs: SW

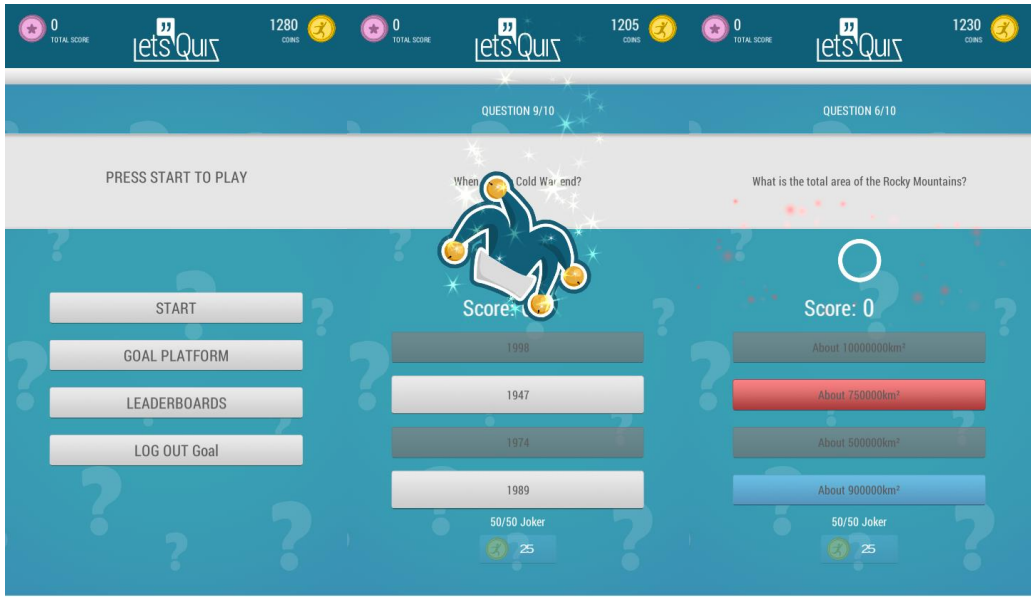
- Physical & games' activity monitoring
  - Collect data
    - Physical activity
    - Games played
    - Data from peers
  - Process sensor data
    - Steps, speed, physical activity recognition, energy expenditure
  - Present data
    - Indicators, graphs
    - UI complexity needs to vary to address different user groups



Addressing the needs: SW

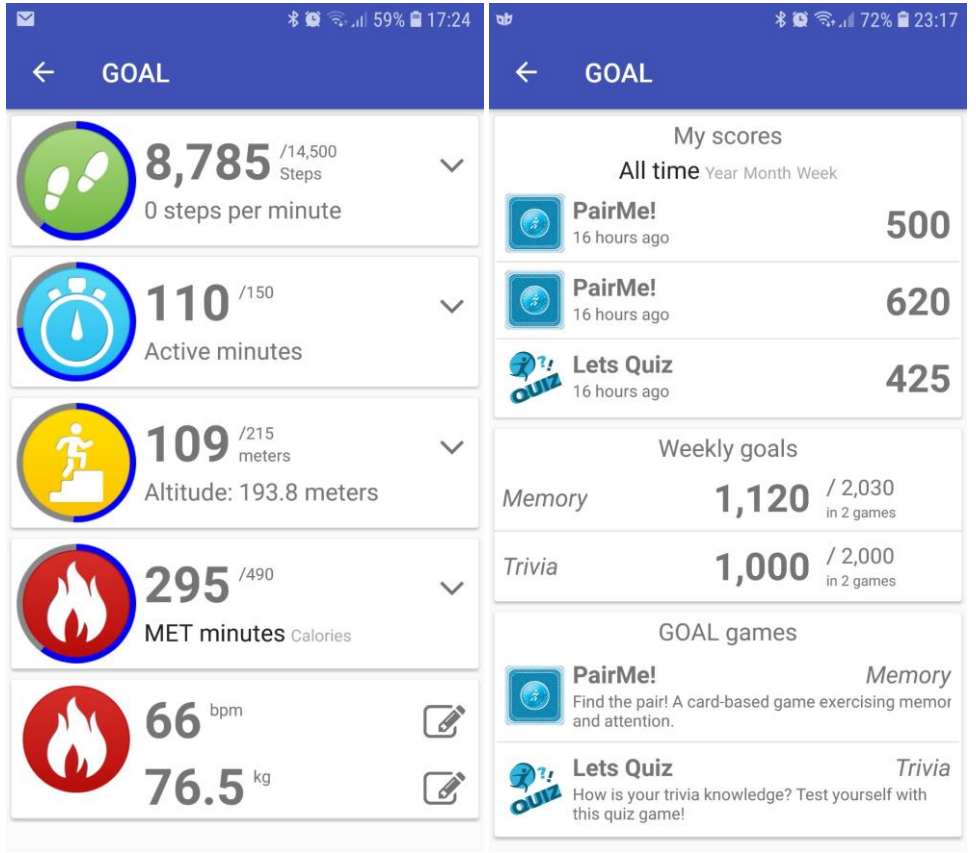
- Engaging games
  - Simple games from developers of the system
    - Proven solutions: Puzzle games, number games…
  - Involve game studios
    - Once a user base is established, offering penetration to new markets
    - Benefit from new funding schemes
      - Not just payed by the player (traditional source)
      - But also from local authorities and health insurance systems (public and private companies)





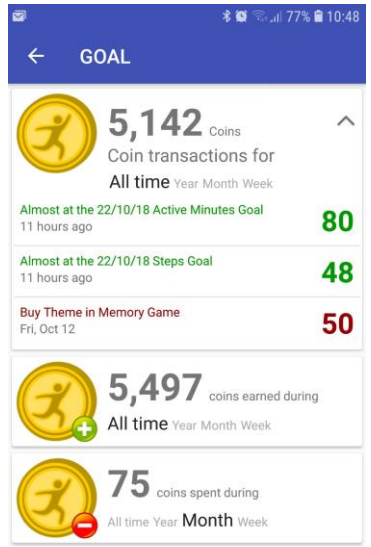
Addressing the needs: SW

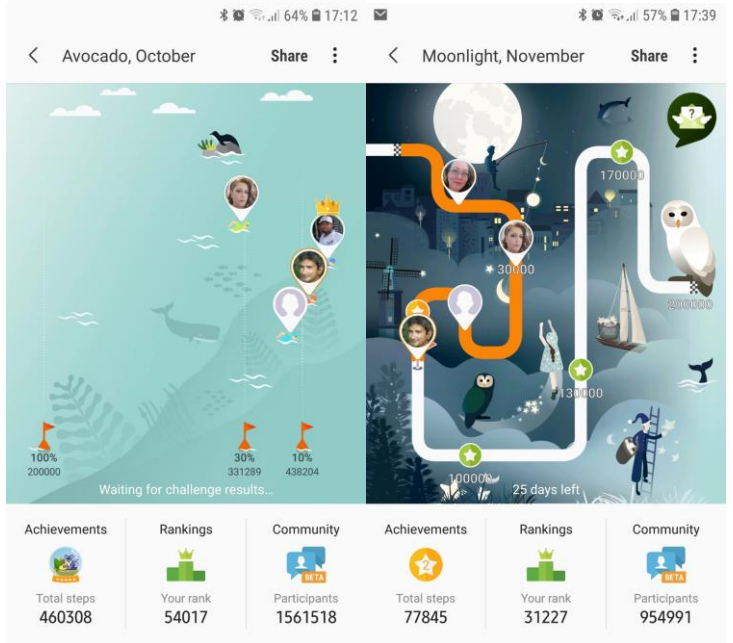
- Personalised goal setting
  - Collect past achievements from user but also user peers
  - Decide if user needs to be motivated to improve or to maintain current level
  - Provide and present goals and progress at them



Addressing the needs: SW

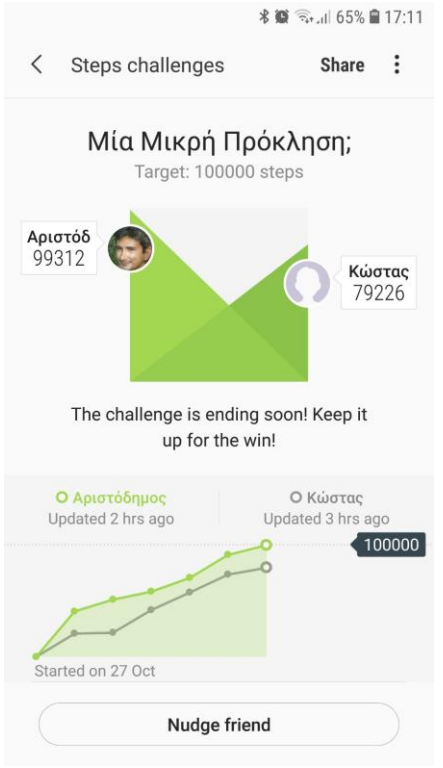
- Feedback & rewards
  - Individual progress
  - Gamification layer for progress monitoring
  - Virtual rewards
    - Badges offering recognition amongst peers
    - Coins earned, to be spent in other aspects of the system
  - Actual rewards
    - Negotiable with 3rd parties once user base is established
    - Within families

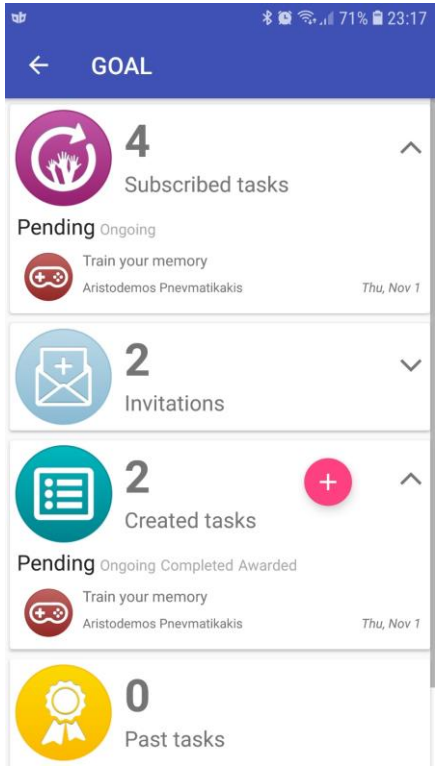




Addressing the needs: SW

- Social tools
  - Connecting with users
  - Challenging users
    - Tasks monitored by the system (physical & cognitive achievements)
    - Tasks monitored by users (come to visit, wash the dishes…)





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