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# Editorial: The search for Greener Grass

I've found myself comparing myself to my peers far too much this spring. The idiom "the grass is always greener on the other side" has never felt more true. Unfortunately, I'm sure all of us know that often this train of thought leads to feelings of self doubt and fear instead of motivation to do better.

The problem is, it's really difficult not to pay attention to the differences between us and our peers. We've all gotten used to asking our friends for their exam grades or talking about our results ever since the first grade. Some of us might've even seen it as a competition, while others couldn't care less about numbers on a paper. I consider the latter group strangely lucky.

The difference is that now it's far more difficult to define success. In the past it's usually been enough to get full marks from an exam to feel accomplished. By no means was that always an easy task, but at least the goal was clear. Now, there's so much more. Do you have a job? How big is your apartment? How many connections do you have on LinkedIn? Even if our GPA is a solid 4.5 we won't necessarily feel like we're "doing good". We might not have clear plans for our future or a job waiting for us when we graduate. Suddenly excelling in your studies is no longer enough.

For some dealing with this change is easier than others. If good grades were never your cup of tea now you have the opportunity to showcase all the other things you're good at. Being passionate about your studies, engaging in the community around you and being willing to learn will get you far. On the other hand, struggling to pass courses doesn't exactly help you feel accomplished. It might feel like you're doing something wrong - or even that there is something wrong with you.

But the thing is, there probably isn't anything wrong with you. I am certain all of us have dealt with feelings like this at one point or another: it is a minuscule minority that "has it all figured out". Some of us don't even know what we want to be when we grow up yet - and that's okay. The ones we compare ourselves to, compare themselves to someone else. There's no getting to the top of that chain, so maybe we should stop focusing on it altogether.

But that is easier said than done. Sometimes we can't help but think we'll feel accomplished after we achieve the things our peers already have. Once we get a job, graduate or get a nice house - that's when we will be happy. But with the little experience I already have I know that's not the case: there will always be more to be unhappy with. If this is the path we choose we're likely to never feel successful enough. There is much more to be gained from looking back and appreciating our past achievements instead. It may take a lot of practice to stop looking for the things that others have, and we don't, but I think it's more than worth it to learn.

So If you're anything like me, take my advice: stop looking for greener grass and grow it yourself instead.

Karoliina Oksanen
Editor in Chief

# Puhispalsta

There is a slight, slight chance that you have heard the song "Rakkausseikkailu 2007." by Annika Eklund, as it has been blasted throughout the Otaniemi as the theme song of the Peijaiset during Wappu time. While my music taste, let's say, differs, I have to admit that it is quite a nice and fitting song for Wappu, especially for this Wappu, as the chorus of the song starts with, apologies for my rough translation, "I have waited for this very long". Considering that the Wappu that we just had is the first live version since Spring of 2019 when I was a fuksi, it's certainly true that we have been waiting for a long time.

The last few years have been difficult for everyone, for very different reasons. I could of course discuss this from any angle, but I want to focus on the student community in our guild and the whole of Aalto. The forced distance and isolation has been extremely difficult. We have been unable to meet our friends, make new ones, hang out, party, pretty much anything you expect from student life. Last Fall, and this Spring, we have mostly been able to spend time together with each other, and to enjoy our lives.

It feels a bit bizarre that after two years of waiting, most of the Wappu mayhem is behind us, although Wappu doesn't end. Similarly, it is strange to think that I have spent four months as the president of the guild. At times, it feels like time is moving so fast that you are missing something fun. For me, this relates to two new hobbies I found here at the university: volleyball and band mixing. While I enjoy both greatly, I can't help but at times be annoyed that I didn't pick up on them earlier. I would be better in both of them, and I would have more university years to enjoy them. I think quite a lot of us have the same feeling regarding some things, and this is certainly applicable to student life that has been on a pause for two years.

However, it is important to realize that if you enjoy what you are doing, no matter how good you are at it, it is worth doing it. Along the same lines, it is important not to dwell on the past or be afraid of the future, but to enjoy the now, past good memories, and opportunities of the future. Regarding my presidency and the Wappu, when I stop to think about it and look at what has happened in these past months, I see how much has happened. The guild has organized numerous events and the members have participated in all kinds of happenings around Otaniemi, enjoying their time. Come Summer, the number of events is lower, though never zero. And come the Fall with the craziness of Orientation week and Teekkarius150 celebration, it is quite clear that there will be lots and lots to see and do this year. And luckily we don't have to wait for those for a very long time.

And for my hobbies? I'll probably never be as good of a volleyball player or audio engineer as I'd like to be, but as long as I enjoy them? Who cares? This is something that I am still trying to learn, but like my predecessor said: one potato at a time.

Antti Karjasilta
President

# Intelligence
## metaphors & parallelisms

by Stergios Tsiormpatzis

***Intelligence is defined by the Oxford dictionary of biology as "the coordination of memory, learning and reasoning in animals {...} as the ability of an animal to form associative links between events or objects of which it has had no previous experience (insight learning)" (Hine & Martin, 2004). But is this definition sufficient to understand what intelligence is? Is intelligence just a mechanistic sum of those properties? Can we draw parallelism with artificial intelligence or is the usage of word "intelligence" just a metaphor?***

### *Memory*

Since the Scientific Revolution of the 16th and 17th centuries in Europe, it was believed that only humans from all animals have soul/mind and with that the ability of memory (Weckowicz & Liebel-Weckowicz, 1990). Yet research done especially during the last decade, have refuted the absolute of this view. Instead, nowadays it is understood that many animals have not only procedural / long-term but episodic / short-term memory too (Templer & Hampton, 2013; Panoz-Brown, Iyer, Carey, et.al., 2018; Arranz, Benoit-Bird, Southall, et.al., 2018). Some lines of analysis lead even to the idea of advanced self-representation for some animal species (Fugazza, Pongrácz, Pogány, et.al., 2020). A basic principle that has been found to be in work in the memory of animals is pattern separation in the hippocampus, a feature that has inspired artificial intelligence designing and applications (Modhej, Bastanfard, Teshnehlab, et.al., 2020). It is interested to be noted that pattern separation has not been documented in humans yet. Instead, it has been recently proposed that no pattern separation occur in the human hippocampus, but memory is encoded in a context-independent manner, something that might partly explain some human cognitive abilities such as generalizations, creativity, and abstract thinking (Quiroga, 2020). Even if sciences are still struggling to under-

stand the way human memory works, we customary refer to digital memory, a requirement of artificial intelligence development.

### *Learning*

The cognitive way of learning (manipulation of information using the mind) is a feature of humans and animals too, requiring memory as a prerequisite. As humans, cognitive learning is achieved by using our previous experiences or knowledge to mentally preview the effect of possible manipulations of our environment and anticipate the consequences that could occur. Primates and other animals (including birds) have been demonstrated to be able of cognitive learning (Clark, Douglas, Choi, 2020; Clayton, Emery, 2005). That is the method used in different machine learning approaches for artificial intelligence too, both for supervised, unsupervised, and even reinforcement learning (Tutorials Point, n.d.). Yet, an important element of learning, common for humans and animals, is missing from artificial intelligence at its current stage of development: the cultural knowledge transmission (van Schaik, Graber, Schuppli, et.al., 2017), the way different animal populations (including humans) learn how to survive (Safina, 2020). In humans, learning is neither just error and trial nor "uploading" of ready knowledge, but an active, complex process of interaction that in a sense covers the whole development of each human being. Is there any prospect for machine learning to achieve such levels of learning that we could speak of artificial intelligence learning as something more than a metaphor for the way human beings learn?

### *Reasoning*

The third element of biologically defined intelligence, reasoning, is the one most strongly related to human cognition and logic, the process of drawing logical inferences (Britannica, n.d.). Once again, animal's reasoning is a long-discussed topic in philosophy (Andrews, & Monsó, 2021). Causal reasoning is something that have been investigated scientifically with a focus to the usage of tools (mostly) by primates. Even if it has been found that many animals seem to function as if they understand causality and its violation, most of them seems to lack the ability to make causal deductions and draw logical conclusions (Schloegl & Fischer, 2017). But logic (Human-centered AI Group, n.d.), especially Boolean logic, is at the core of computing and artificial intelligence (Darwiche, 2020). In fact, some studies have gone so far as to claim that neural networks of artificial intelligence not only have begun reasoning like humans but even beat humans at understanding relationships between different objects (Hutson, 2017). But could we really suggest that we understand human reasoning? Is reasoning just the rules of Boolean logic or even of typical logic? Or is it a sum of properties of human neurology and psychology that is developing during the interaction of the humans with their environment?

Besides, is typical logic alone enough as a characteristic of reasoning to explain the complexity of nature? Or is the dialectical logic a necessary overarching reasoning method that in essence reflects the way nature functions? And if so, is there any approach that could make artificial intelligence to begin using similar reasoning approaches?

### *Reductionism or organic whole?*

As briefly shown above, elements of the three main constituents of a biological definition of intelligence are present not only in humans but in some animals and in artificial intelligence too. The question is: are we allowed to reduce intelligence to those three constituents alone? Even more, are the limited elements of those three constituents that are currently employed in artificial intelligence systems an acceptable description of what intelligence really is? The position of the author of this short essay is that despite the recent technological advancements in the domain of artificial intelligence – considering the involvement of quantum computing too (Dilmegani, 2022) -, we are still far away from needing to change the usage of the word "intelligence" from a metaphor to a valid parallelism. The inherent motivation for exploration of the environment, with its dynamic interplay between survival, existence, preference, choice, all the relationships and experiences that shape us as intelligent social beings that modify their environment for the satisfaction of their needs, does not exist in artificial intelligence systems.

Looking of intelligence as a developing ability of human life, we are forced to recognize sociability as a defining factor. Put it in other words, considering intelligence as an organic whole instead of reducing it to some of its mechanical characteristics, we recognize multiple internal levels of organization and interactions. The primary neurological structures together with the psychological background that is developing during the interactions with the nature, are the most clearly recognizable levels of organization. But those are dependent to the relationship with the other humans as well as the socially created structures of knowledge and learning. In short, depends to the whole development of human society. Intelligence is a natural and historical phenomenon. Artificial intelligence has not been developed the same way, and maybe it is not possible to follow the same way of development. Instead, it might be more proper to say that artificial intelligence is the product of human intelligence, and at the same time the most recently developed of the means created from the society for the improvement of the activities of the human intelligence.

The picture of the background is taken from the book by Alexei Leonov and Andrei Sokolov "ЖДИТЕ НАС, ЗВЕЗДЫ (The Stars are Awaiting Us)", published in Soviet Union in 1967. Its title is «Космические монтажники (Space assemblers)». Used under a creative common licence with attribution of the creator Соколов Андрей Константинович (1931-2007)

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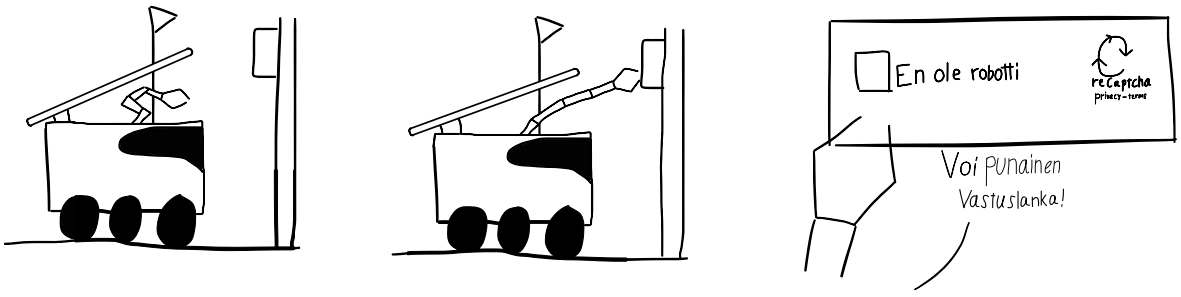
# Uusia kuljetusrobotteja Otaniemessä

Kapteenin loki, tähtipäivämäärä 47634,44: Espoon Otaniemeen on saapunut tuntematon tähtilaivue, joka koostuu pelkistä rahtialuksista. Ne eivät käyttäydy vihamielisesti vaan näyttävät elävän eräänlaisessa symbioottisessa suhteessa teekkarikylän asukkaiden kanssa. Alukset eivät ole varsinaisia tähtilaivoja, vaan eräänlaisia sähkölaivoja, sillä ne käyttävät voimanlähteenään akkuja ja sähkömoottoreita. Aluksen tyypiksi tunnistettiin virolaisvalmisteinen e/s (electronic ship) EML Broad Bay.

Alukset ovat pieniä, hyvä että kyytiin mahtuu elintarvikkeita edes yhden miehistön jäsenen tarpeiksi. Miehistöstä puheenollen, sitä ei aluksissa ole. Sanomattakin on selvää, ettei ohjaamoon humanoidi mahdu, mutta ei siellä pieniä vihreitä miehiäkään ole. Laivaa ohjaa sen sijaan elektroniset aivot. Tämän vahvistavat myös laitteen rungossa olevat herkät sensorit, tarkat kamerat ja lukuisat anturit. Alukset liikkuvat itsenäisesti joko tekoälyn tai kauko-ohjauksen avulla. Ehkäpä niitä ohjataan emoaluksesta käsin.

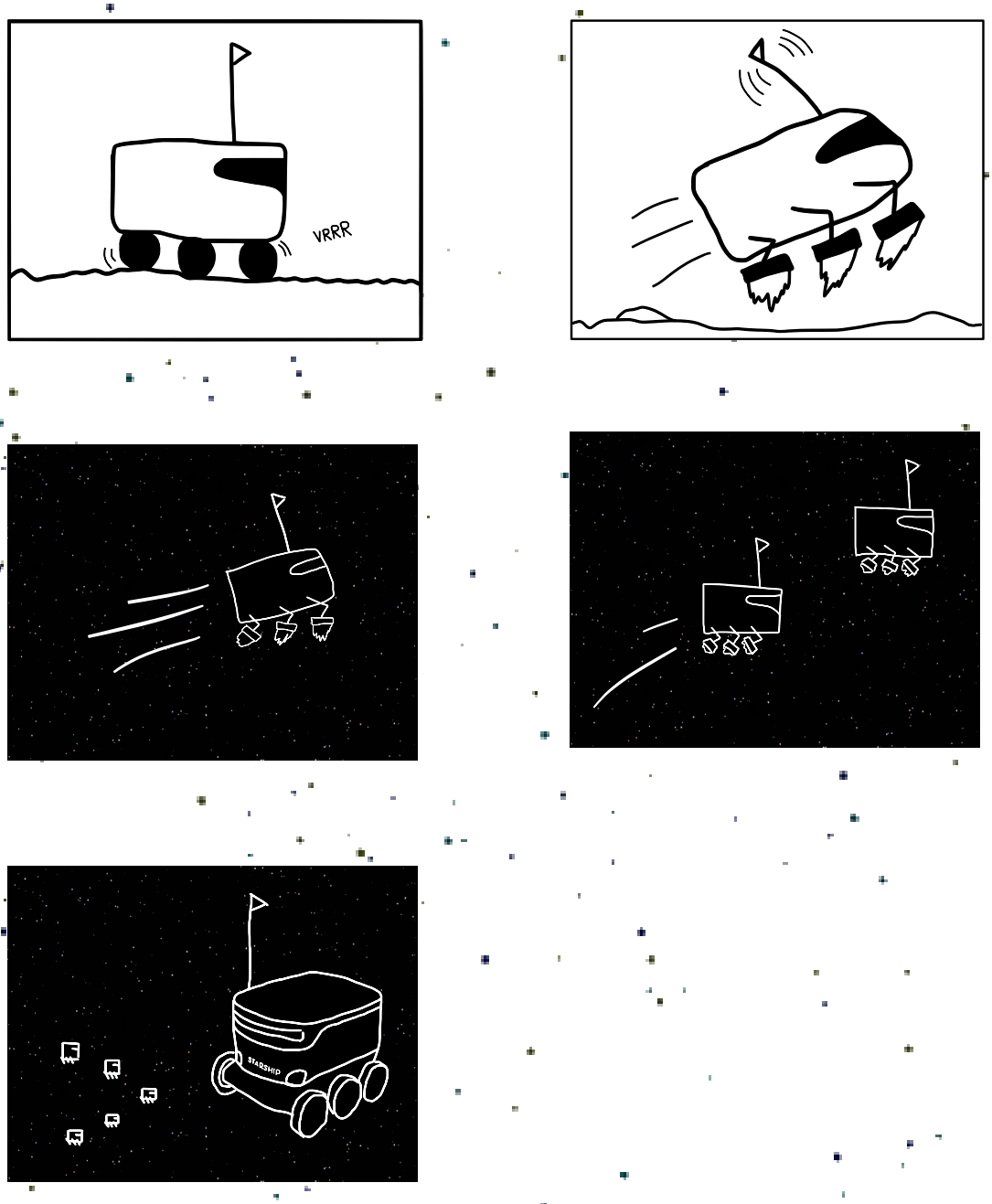
Kapteenin loki, lisäys: alus on jumissa tienpientareella. Se lähettää hätäsignaalin, joka kuulostaa seuraavalta: “Could you please put me back on the road?” Kyllä se oli selkeää englantia! Nyt ohikulkija kohtaa moraalisen ongelman: olisiko oikein hinata alus takaisin tielle? Tulisiko silloin rikkoneeksi pääohjesääntöä, joka kieltää luonnolliseen kehitykseen vaikuttamisen? Pitäisikö jumiin jääneet alukset jättää luonnonvalinnan armoille? No, ehkei kuitenkaan, kyseessä ei ole älyllistä elämää, jolla olisi sivilisaatio omassa elinympäristössään vaan lauma robottiautoja Otaniemessä.

Rahtilaivat noudattavat kiltisti jalankulkijoiden liikennesääntöjä. Ne eivät mene suojateiden yli punaisen valon palaessa. Tämä aiheuttaa välillä ruuhkia. Niitä ei tässä mallissa ole, mutta seuravaa versiota varten kehitysehdotuksena olisi lisätä ruumasta ulos työntyvä robottikäsi, joka voisi painaa nappia suojatiellä. Se olisikin äärimmäinen “en ole robotti” -testi!




Nämä kuusipyöräiset ystävämme palaavat tähtiasemalleen lataamaan akkujaan aina silloin kun maassa on yö. Päivisin ne kuljettavat tavaroita tähtiasemalta eli Alepasta teekkarikylään sen asukkaille korvausta vastaan, joka maksetaan maan valuutassa. Kyläläiset sopivat kuljetuksista kännykkäsovelluksen kautta. Kuljetuksen tultua perille alukset soittavat (tai ainakin luulevat soittavansa) eri tilaisuuksiin soveltuvaa juhlallista musiikkia. Sen valintaan käyttäjä voi itse vaikuttaa.

Pyörillä kulkevat robotit ovat ekologinen vaihtoehto kotiinkuljetuksille ja paljon turvallisempi kuljetusdrooneihin verrattuna. Työskennellessään ihmiskunnan parissa robotit pitävät pyöränsä visusti tienpinnassa kiinni. Mutta kukapa tietää, vaikka nekin osaisivat lentää.



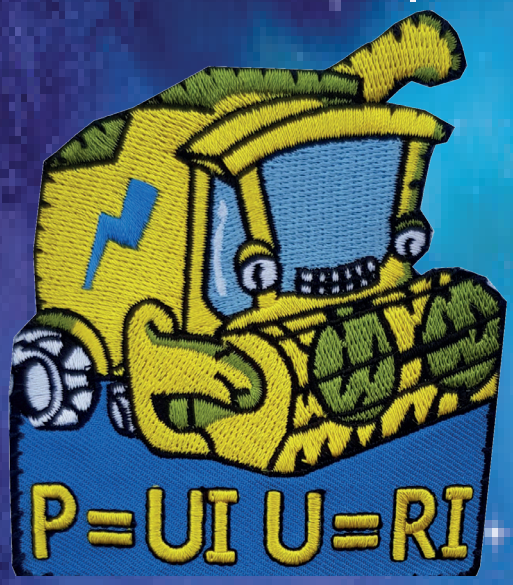
# Overall badge jokes that don't translate


Alko Aalto
This is also making fun of the fact that Aalto and Alko have the same initials. This badge has the setup reversed. The university name is inside the liquor store logo. It is funny because we are very good customers of Alko.


Hinausvaara – fyysikoita
Hinaaminen or towing in English means seemingly endless, intense debate over more or less meaningful things. This is something almost every physicist is quilty of. Hinaaminen coincidentally means towing in Finnish and vaara means danger and that is why a vehicle in tow is on the badge. The whole phrase becomes "danger of towing — physicists nearby".


Kelmu
What do telmu, pelmu and elmu have in common? They are all live music organizations. Elmu stands for elävän musiikin yhdistys and the letter in front is a location qualifier, t for Turku for example. Uncoincidentally, kelmu means fresh plastic wrap in Finnish.


Liian rikas kauppikseen
This badge is a part of a larger series of badges. They are all of the form "too x for y", where x is a trait that is loosely related to y. This one for example says "too rich for business school". The joke in all of these is basically that they don't make much sense — being rich isn't a necessary condition for studying in a business school nor is being too rich an obstacle for that.




Puimuri
Every physicist is familiar with Ohm's law, a fundamental law of electricity. It appears in many forms and two of them are seen on the badge. P = UI for power and U = RI for voltage. Join these laws with the letter M and we have the word PUIMURI which is a very common mmemonic for the two laws. The word puimuri means harvester in English and that is why it is on the badge.

Sori on darra - pahoinvointia rakentamassa
This is a fun one. This badge is making fun of the Orion Pharma company. Let's go over this word by word. We have the name of the company broken up to two words "sori on". It means literally "Sorry I have". Then we have the word pharma changed into the word darra which means a hangover. So far we have "Sorry I have a hangover". Then we have the company slogan "hyvinvointia rakentamassa" that has also been modified into "pahoinvointia rakentamassa". The right version of the slogan means "constructing well-being" and for the modified version we have "constructing nausea".



A%
We are all familiar with the emblems of our university: A! A" and A?. We are also very familiar with the liquor store Alko. It's funny enough that Aalto and Alko start with the same letter. I would interpret A% as alcohol percentage and hence Alko university.

# Matrix multiplication: what's all the fuss about?

by Konsta Kemppainen (Oxygenol)

***Take a moment to imagine that you're an early mathematician who just so happens to stumble upon just the right ideas to essentially invent linear algebra. This, of course, is not how the real problem-solving process actually works, but it is a common fantasy among mathematicians.***

***You cannot contain your excitement. You've just invented magical tools that allow you to work with collections of numbers. Since these collections of numbers were originally motivated by your desire to define movement and position in space, you decide to call them vectors (an organism that spreads disease). "You can't spread disease without movement, can you?" you exclaim playfully. This was before the internet, so instead of Googling it, your peers will have to use a dictionary to verify that it is indeed a real word. The idea of seeing their surprised little faces gives you great satisfaction.***

***But you're not a mathematician just because it makes you the coolest kid on the block. You're a problem solver by nature, and being bright as you are, you quickly realize that there's still plenty more to figure out.***

With regular real numbers, the notion of a function has proven itself to be beyond useful. Functions are what bring unpredictability and a certain notion of change to otherwise dull and static definitions. Since vectors have a certain notion of motion almost built into them, it would be a fair bet to claim that some functions that map vectors to other vectors could yield tremendous insight for a myriad of problems.

Something that you've already proven is that any set of linearly independent vectors that span the whole space can uniquely represent any element of the vector space. You call these vectors basis vectors, because while they're generally not unique to the vector space in question, together, they form a foundation upon which to construct every element of the vector space.

Your mind wanders off to think about what a function from R^3 to R^3 could possibly look like. But you quickly

realize that this set of functions is just incomprehensibly big, and the vast majority of them (effectively all of them) are absolutely uninteresting.

Then, maybe partly by trial and error, maybe in part by thinking about wanting to conserve some structure of the input space, you might consider the restrictions

a*f(x) = f(a*x)
and f(x) + f(y) = f(x + y)

for all a\in\mathbb{R} and x\in{R}^3.

If you take just one of these restrictions alone then some ridiculous ***"cause as much chaos as possible"*** sort of discontinuous function still has a fair shot at satisfying the criterion. But impose both of them on a function, and you notice something truly magical.

In your playful spirit, you consider an $R^3$ vector space with the basis vectors i, j and k. You know, by your previous result, that any vector in $R^3$ can be expressed using some real coefficients a, b, and c, such that x = ai + bj + ck. You're absolutely dying to know where such a vector could possibly end up after being mapped by the function. So, you pick up your fancy quill and get to work. Here's what you find.

f(x)
= f(ai + bj + ck)
= f(ai) + f(bj) + f(ck)
= a*f(i) + b*f(j) + c*f(k)

You pause to marvel at the result. What you realize is that any function satisfying the two criteria can be expressed purely in terms of where that function takes an arbitrary set of basis vectors. And that idea generalizes to all functions that map vectors to other vectors, since any arbitrarily long sum can always be separated into smaller chunks, and f(i) is not required to have the same dimension as i.

You notice that these special functions have some interesting geometric properties. For example, vectors parallel in the input space remain parallel after the transformation in the output space, at least in the case of $f : R^2 \to R^2$. This motivates you to call these functions linear transformations.

Now, just to test the waters, you might consider the "simplest" possible set of basis vectors, which arguably is {[1 0 0], [0 1 0], [0 0 1]}. It is quite amusing to know that later mathematicians would go on to call a "simple" basis like this one a standard basis or a canonical basis. A linear transformation from $R^3$ can be completely described by where it takes these three basis vectors.

Since this is such an eloquent way to express a linear transformation, you decide that a bit of special notation might be in order.

What we today think of as matrices is how you decide to denote where the basis vectors end up after the transforma-

tion. With a matrix on the left side of a vector, you have something that looks an awful lot like multiplication. And sure enough, this is how people would eventually choose to refer to your discovery. But you, of course, were motivated not by classical multiplication but by function syntax to put the matrix, which really is a type of function, on the left side of the input variable, which in our case happens to be a vector.

So what we think of today as matrix multiplication is essentially whatever you get when you demand that the operation is linear and that we consider where the "simple" basis vectors get mapped to.

But there's a little more to the story. What about two matrices?

Well, it would be natural to think of the product of two matrices as a matrix that represents the transformation of first performing the transformation of the matrix on the right and then the one on the left (compare it to composite functions).

But what kind of transformation is that? Well, if you think about the product AB, then the first column of B tells you where the first (simple) basis vector lands. But we need more. We also want to transform it by A. So what do we do, we take the first column of B and perform A on it. The result is a vector, and that vector represents where the first (simple) basis vector gets mapped to when you first map it to wherever B tells you to map it and then map it to wherever A tells you to map it. And this is crucial information for encoding the composite transformation AB.

The result, of course, is that the first column of AB is the matrix A multiplied by the first column of B, the second column is the matrix A multiplied by the second column of B, and so on.

There are two things to note:

1) This makes perfect sense, because AB needs to specify, column by column, where the (simple) basis vectors end up after being transformed by first B and then A.

2) This matches our modern "formal definition" of matrix multiplication. If you've internalized the line of reasoning here and whatever mnemonic you use to actually do the computation, you'll see the parallel right away.

The photos of the background are by Iris Kause

Two remarks:

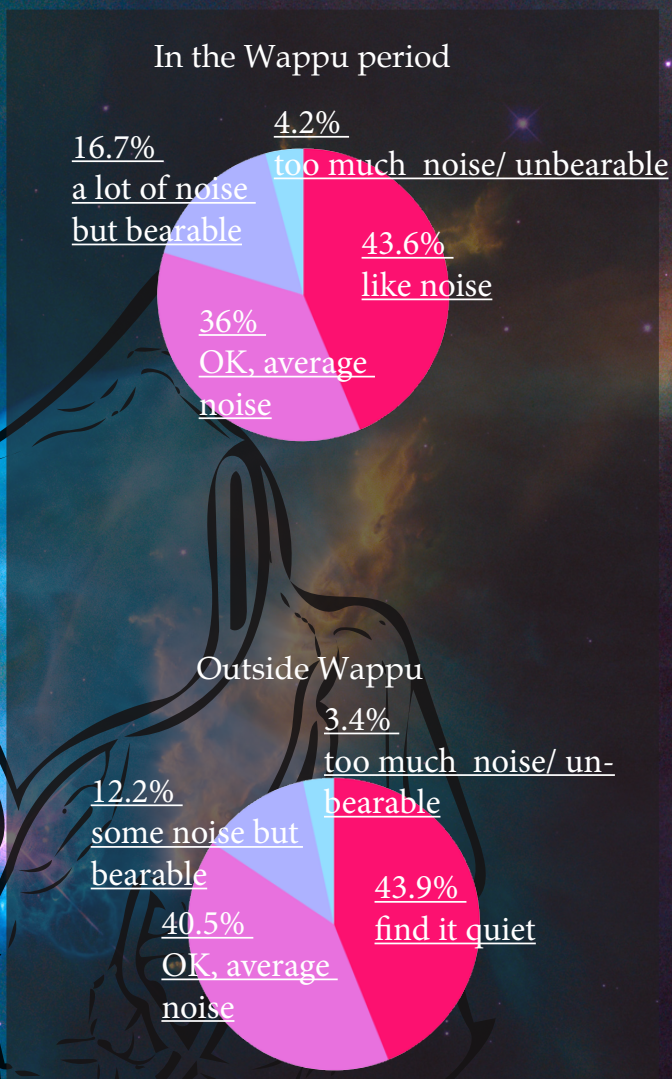
1) Even though we started off by defining matrix-vector multiplication, it is actually encompassed by regular matrix multiplication, which we achieve by being a little clever. One way to see that is to think of the vector as a matrix that only has one column, which means that it's a linear transformation that transforms a single basis vector. But what kind of vector space has a single basis vector (or, more precisely, a set of basis vectors with size 1)? Well, the real number line does, for example. So now, matrix-vector multiplication is really just matrix multiplication where the basis vector (which in the case of real numbers is just the number one) gets mapped to whatever the first matrix (the "vector") specifies, and that, in turn, gets mapped by the second matrix. So the product, in essence, is a map that maps a real number to a vector, which is indeed what we observe by our definition, and there is nothing inconsistent about thinking of the vector as in fact being a matrix that specifies a transformation. Once again, the product is just the composition of two transformations. Yes, the dimension of the element changes, but we never restricted ourselves in that regard.

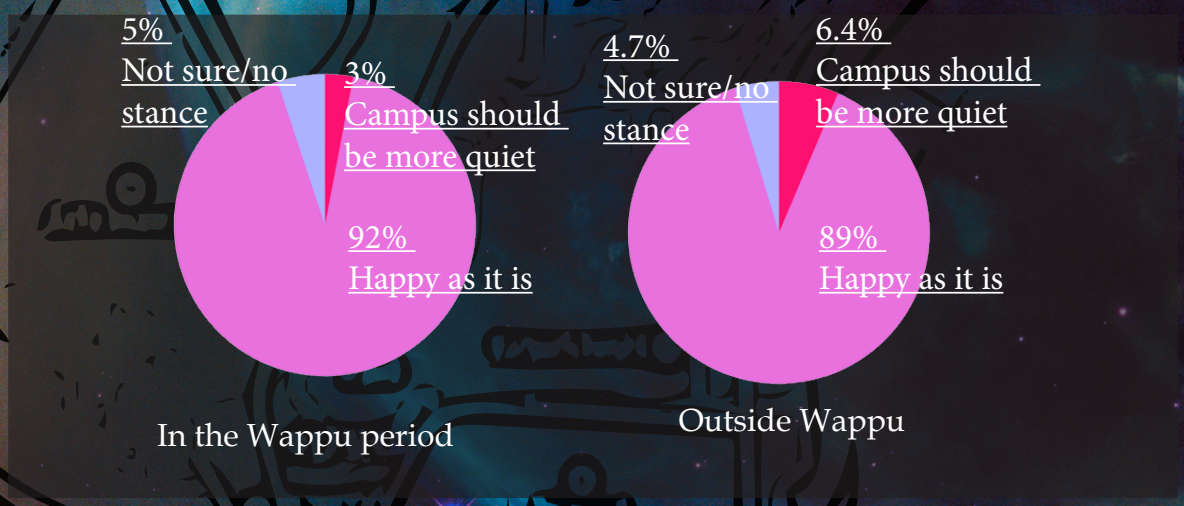
2) Our choice of basis vectors was quite arbitrary. Why the set {[1 0 0], [0 1 0], [0 0 1]}? Surely there would be other choices as well! And yes, that's true, but I think we can all agree that that is the most natural choice from which to derive a definition. It's just very clean. And yes, this does mean that we can't just imagine the basis vectors {[2 0 0], [0 2 0], [0 0 2]} and picture the identity map and then conclude that the identity map should be denoted [2 0 0; 0 2 0; 0 0 2] by virtue of the fact that that is indeed where the identity map maps that particular choice of basis vectors. Obviously that matrix doesn't represent an identity map for the simple reason that our definition makes an implicit choice of basis vectors for us and if you choose different ones then you will run into trouble. Note that there is nothing wrong with thinking about a vector space using different basis vectors! In fact, it can sometimes be an incredibly powerful tool (for example if your basis vectors are eigenvectors). But if you want to perform transformations, then you have to be careful about the fact that our definition is butter smooth only for the standard basis, and if your basis is too fancy, then you need to perform another linear transformation (a change of basis) to that basis first.

# How loud is Otaniemi?

"Normal is an illusion. What is normal for the spider is chaos for the fly."
— Morticia Addams.

Student life can be summarized into three main mottos: "I can't afford it", "It's not alcoholism until you graduate[1], and "Wabbu ei lobbu", not necessarily in that order of importance. It is no wonder then, that if you were to gather some thousand young, broke, drunk (or tipsy depending on whom you ask) teekkarit in the holy period of April- May, mayhem would ensue. And although most people celebrate the chaos and welcome it with accolades and empty beer cans, others, understandably, find themselves deeply inconvenienced by it.
Wappu is not the precursor of a problem. The excessive partying and festivities and by extension the increase in noise levels, however, may exacerbate an already existing problem for some people. After we noticed some surfacing opinions regarding the noise level at campus, we decided to ask around and see what people thought of the matter[2]:



"When there was noise outside OK20 during Tour De Walpuri, the noise stopped exactly at 01.00 when the event ended. So hats off to the orgnizers. Sometimes the tunnel raves keep me up at night."

"The noise and frequent partying makes it practically impossible to have a normal sleeping schedule. Frustratingly, asking partying people to quiet down doesn't do much as there will be another group making noise within half an hour."

"I live next to Smökki, I haven't slept in weeks. It's terrible and no one is really doing anything. During the week there is a rule that after 01:00 the electricity is closed off there but people just bring their own loud speaker and continue to be very loud. The building of Smökki is so badly built all the noise is coming out and I can't even tune it out with ear plugs."

"I don't think this is such a binary thing that could be reduced to "should noise be reduced or not". I don't mind big parties particularly on important dates cause they're to be expected and they obviously have tons of value, but I have absolutely zero compassion if it's 1) just a small bunch of people making a disproportionate amount of noise 2) pointless or stupid noise like drunk shouting or fireworks (outside new year's eve) 3) summer when there are no official parties in Otaniemi and people have to keep their windows open due to the heat 4) people partying in their own apartments outside quiet hours, directly disturbing their neighbors. Also, I think it should be reconsidered whether "normal" parties and afterparties need to have music at the level where you can't even talk to anyone in the party. I understand and appreciate events where music or dancing is the main focus, but it makes zero sense to me to blast generic music on full volume after quiet hours in social events where music really isn't the priority."

"Hearing music and noise around campus on Wappu gives it a fun night-festival-type vibe :)"

"I'd like the campus to be even more noisy during Wappu week, that spreads the feeling."

"Most people's noise problems seem to come from club rooms and house parties at night. In spite of this, it's often not possible to reach the party apartments to complain, because they may have another locked door before it."

"I'm happy that the campus has a 'student life' vibe, and that includes parties at weird times of the week and day"

"I think partying and free style of living is what makes Otaniemi special. If it would be more quiet, we would lose something special."

"The SMT area has been remarkably quiet this Wappu and this season in general. I am super lucky to be living here, since other areas of campus seem quite a bit louder. I would ask that my answers only be attributed to the SMT area; people who report excessive noise in other areas definitely have a valid point, and I sincerely hope that some form of resolution is found. No one deserves to live with noise-induced insomnia or anxiety."

"I used to live in otaniemi from 2011-2018 and I miss those days, partying and seeing other people party. I didn't mind any parties, but goddamn those constant fire alarms at jmt1"

"I understand the frustration, but also I think people need to expect that Wappu is a very important event for uni students, especially teekkaris. Yes, the partying lasts for a few weeks, but it's once a year. Maybe just starting the communication of expectations of noise on campus should be clear since some places are much more quiet than other."

"I often find the bit of noise that I can hear quite homely. If I want it to be quiet for some reason I can just close my window and it won't bother me in any way. My tinnitus (ringing in the ears) makes it really hard for me to be in a quiet room so I prefer to have some background noise."

"I think that the main problem in Otaniemi isn't the noise itself but miserable sound insulation in some buildings."

What's interesting to note is that, people perceive the noise complaints to be larger in number than what we observed. Based on the answers we got, 10 out of 236 responses found the noise to be too much, unbearable and/or bothersome on Wappu period and 8 out of 237 outside of Wappu period. Although these perspectives may be in the minority, they are still valid. Everyone experiences life on campus differently. And everyone should feel safe to express their opinions and strive to improve their living arrangements. Hate speech should not be tolerated, under no circumstance. A question such as this, can be regarded as an opportunity for constructive discussion. Let us look past any disagreement in views and embrace our differences and aspire to build a welcoming and non toxic community. Opinions on the matter vary.

For those disturbed by the noise, a question arises: On whose shoulders lies the responsibility of finding a solution? Is it on the students themselves, who should move to quieter places? Is it on the party organizers and noise makers, who should be more considerate to fellow residents? On AYY and HOAS, who should include disclaimers attached to different locations or consider better acoustic isolation in the buildings? There might not be a right or wrong answer to this question.

For those who are pro-noise the question in itself may be unreasonable and lidicrous even. The question they would ask is: How to make more noise?

But the question I ask you, dear reader, is how to live together, in this vibrant campus, in discordance, yet with respect?

[1] Kvantti does not advocate alcoholism, Please drink responsibly!

[2] Disclaimer:
The data gathering, as was pointed out to us by awesome feedback, is in no shape or form scientific or reflective of the true situation and may be biased. Results are highly likely to be skewed so readers are encouraged to take this article and opinions present in it with a grain of salt.

EX MORTIS (suom. “krapulasta”)

Olit olet oluessa
Häipyi huolet humalassa

Nousit nautit nousuissa
Lauhtui lepsuus laskuissa

Kuolit kuolet krapulassa
Kerta kaikkiaan kamalassa


KATSOEN
TOIVO
ELÄNEN

# Rakas kosketus

*Nosta kätesi, tartu taivaaseen*
*niiden vahvoilla piirteillä.*

*Levitä kätesi, piirrä taivaaseen*
*iltoja tulevia, ja menneitä.*

*Laske kätesi, jätä taivas*
*anna hetki kiireiltä.*

*Kiedo kätesi, sinun kätesi*
*yli minun hentoja piirteitä.*

# *VIHTORIN MALJALAULU*

*Kait on mieleni kaita*
*ilman tokajita*
*Ja itseäni en*
*ma pulloon naita*

*Mut ihmeen on tosiaan*
*silloin laita*
*Jos lauantain' ei*
*tokaji maita!*

# Fuksin Unelma

Unelmoipi fyssafuksi,
tulevansa lakitetuksi.

Mahdollista Wappua,
odottaa hän pelossa.

Entä jos jää saamatta,
lakki tältä fuksilta?

Siks' pitkin poikin kaikkialla,
juoksee fuksi urakalla.

Lakkitutkintoa ahkerasti,
suorittaa hän loppuun asti.

Museokierros valottaa,
tupsulakin historiaa.

älkööt sitä unohtako....

Fuusiossa fuksi raataa,
jotta kilta nauttia saattaa.

Viimeinen koitos laulaen,
tämähän hoituu helpoiten?

Vaan eipä siihen lopukaan,
majurin käsky julistaa.

Nyt alkaa kilpa fuksien,
ken viekään voiton peijaisten?

Vappuaaton aamuna,
lakit kohta kourassa.

Ei uskoa voi todeksi,
tämä pieni fyssafuksi.

Vihdoin koittaa keskiyö,
kaksitoista kello lyö.

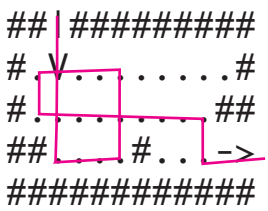
On aika juhlan Walpurin,
siks kaikuu riemu teekkarin!

Essi Nikula & Saskia Pirttiniemi

# Puzzle corner

## Ice maze

You are only allowed to move in the four cardinal directions and can only change direction after crashing.

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## Sanatorni

Muuta ylempi sana alemmaksi sanaksi niin, että joka rivillä vaihdat tai poistat yhden kirjaimen. Kaikki välivaiheet ovat suomen kielen sanoja tai (tavallisia) erisnimiä.

K V A N T T I

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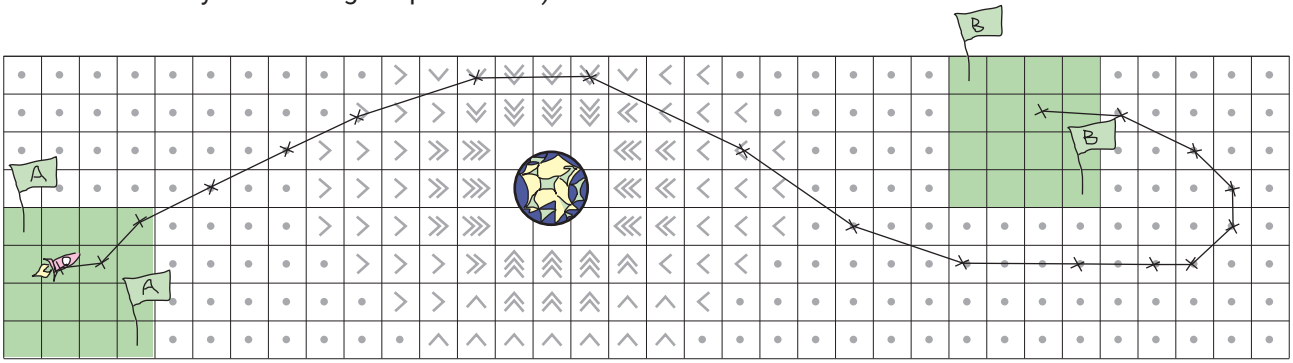
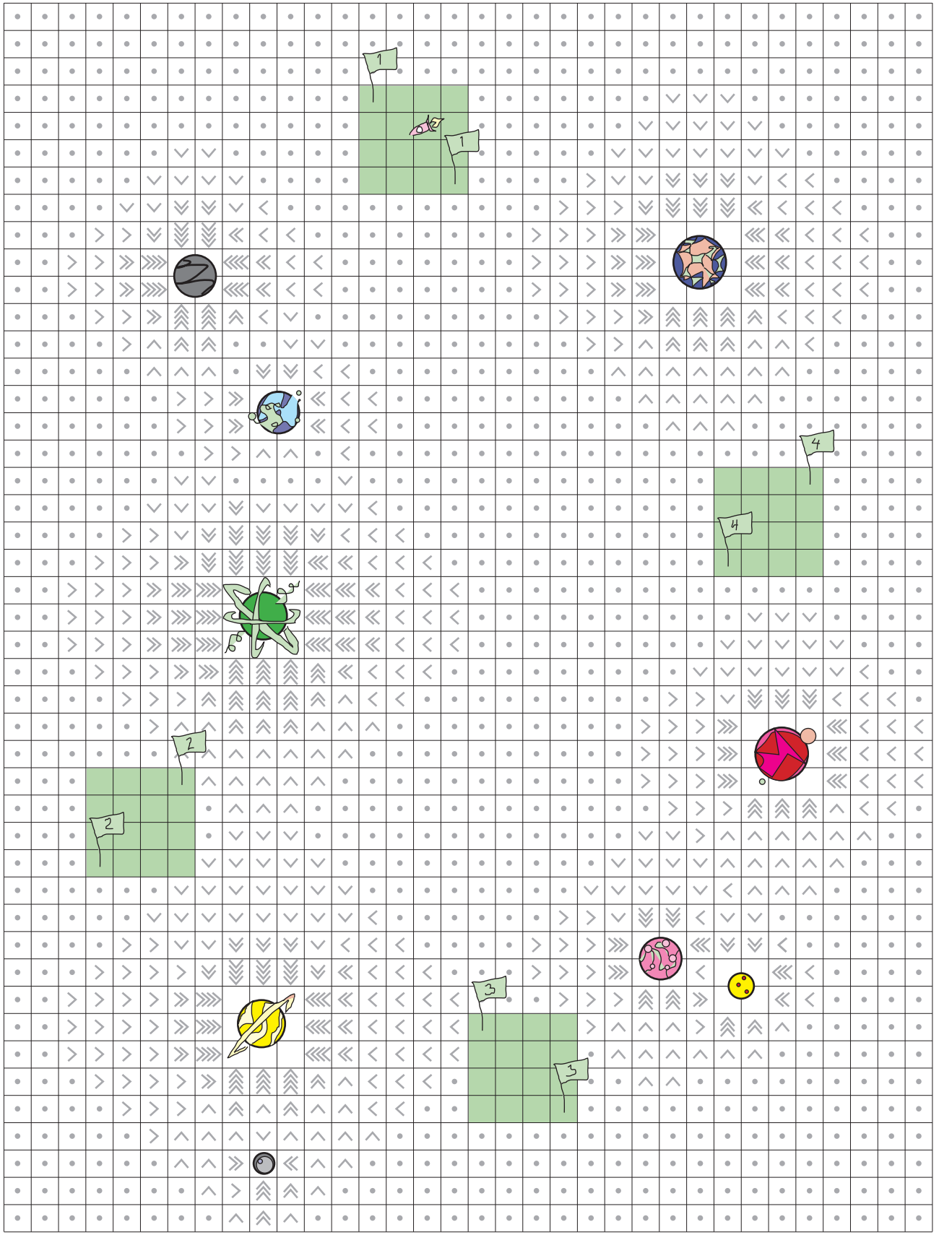
V A P P U

## Space race

Each turn you can accelerate your space ship in one of the four cardinal directions, giving it 1 square per turn velocity in that direction. Once the ship is moving, it has inertia and will continue with the same velocity unless you decide to accelerate or decelerate. Gravitational fileds also cause your ship to accelerate. The number and direction of arrows in the tile tells the effect of the gravitational field. Planets are useful for gaining momentum, but don't crash into them. Also watch out for gaining too much velocity, as it might get difficult to turn. Below is an example play. The next page offers a larger playground where you can try some of the following:

1. Complete the cycle 1–2–3–4–1 in as few turns as possible.
2. Complete the cycle using as little fuel as possible (accelerate on as few turns as possible).
3. Get the space ship on a stable orbit around one or more planets. This might be impossible, but then you can make your challenge to prove that :)

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