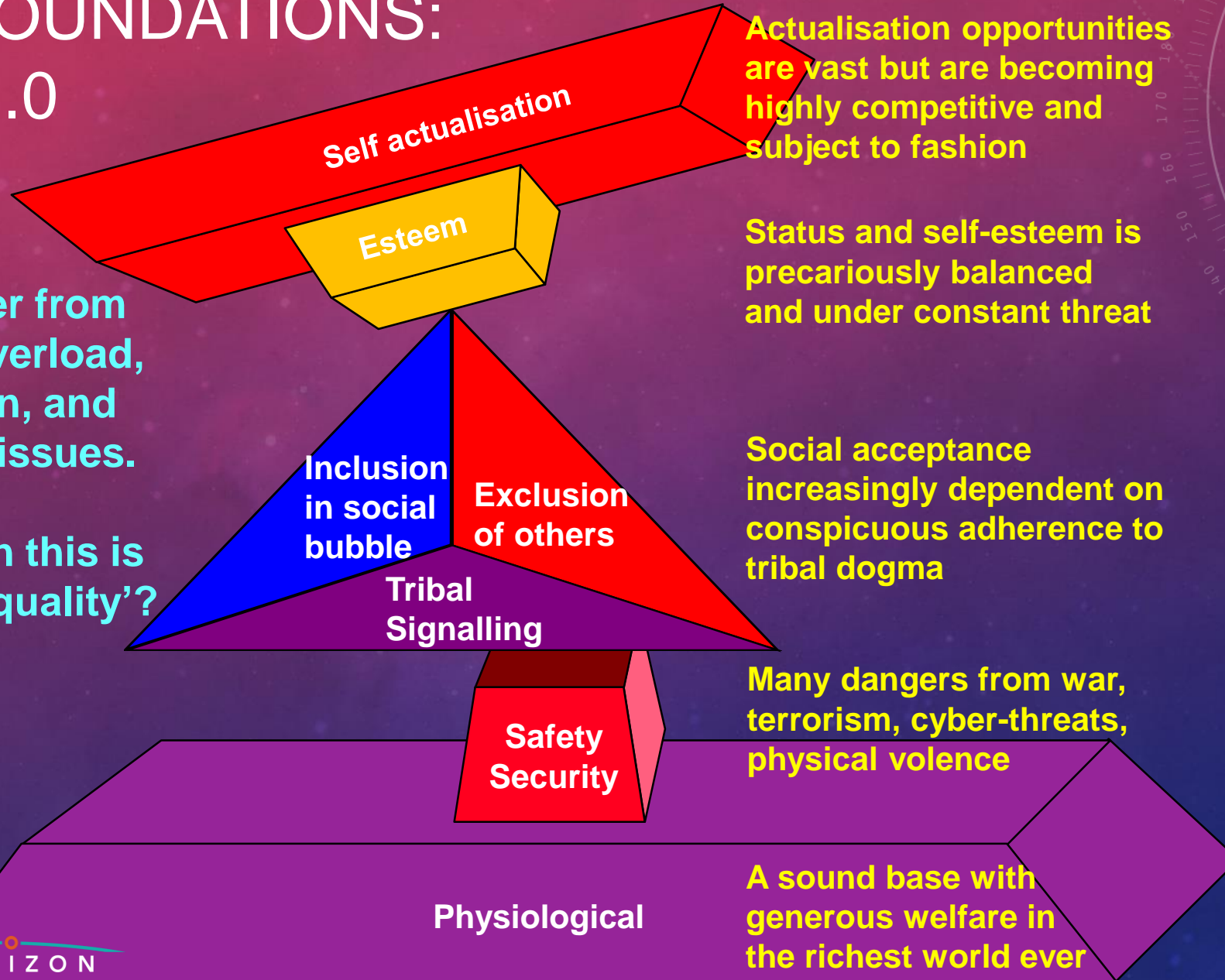


Women and the future

ID Pearson BSc DSc(hc) CITP FBCS FWAAS

WOBBLY FOUNDATIONS: MASLOW 2.0



Many women suffer from poor self-worth, overload, anxiety, depression, and associated health issues.

Surely dealing with this is as important as 'equality'?

GIRL POWER: FEMALE SUPPORT NETWORK



Wide range of organisations, pressure groups and posts specifically addressing inequality by providing additional support aimed at or available only to women

COACHES ARE BECOMING MORE IMPORTANT

A wide range of coaches provide support, encouragement and advice, sometimes one to one, sometimes to a network of followers

Self-worth coaches: You are loved, you are special, you are enough

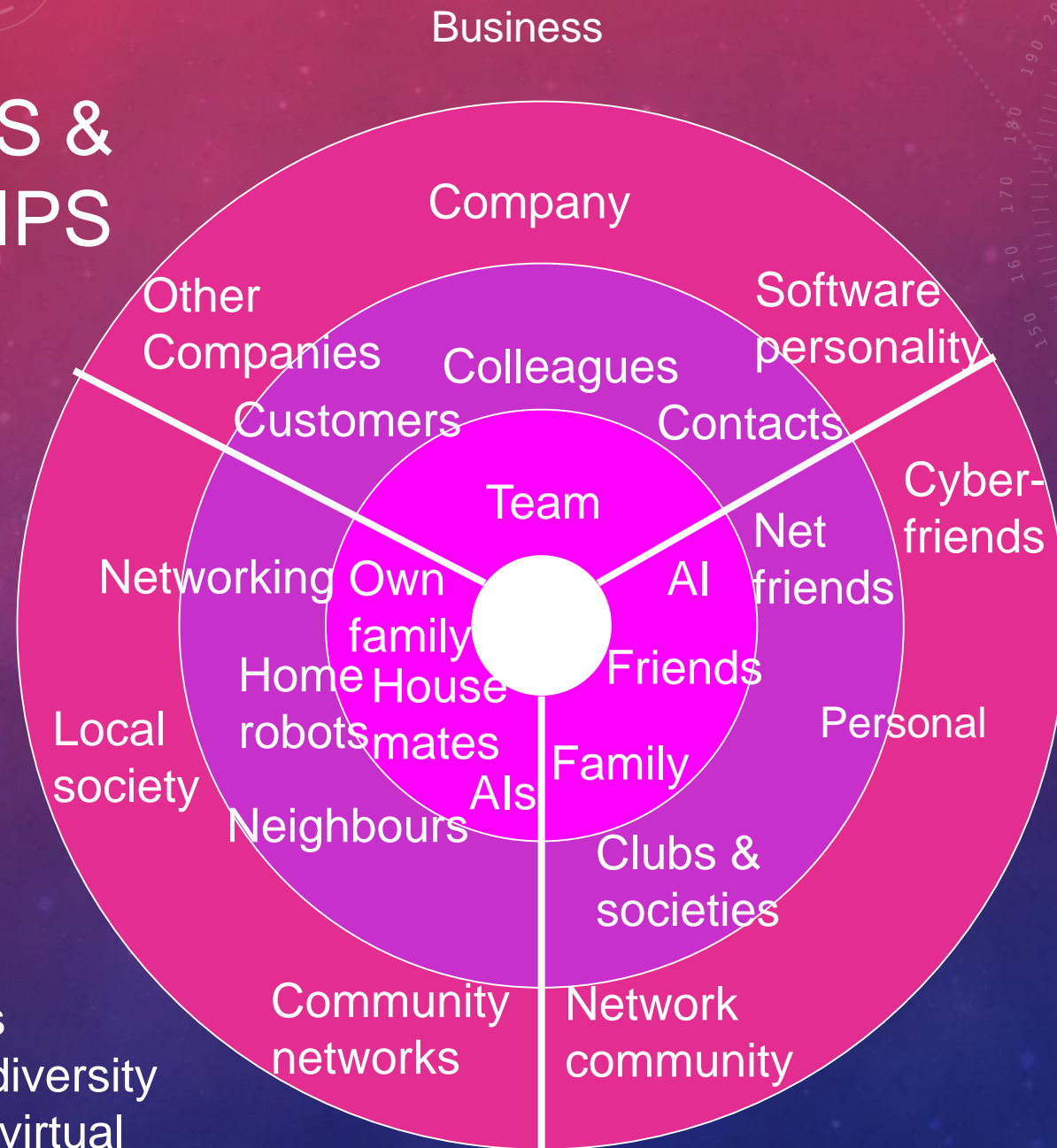
Encouragement: You got this Girl! Frequent messages or mails with encouraging stories about success

Support networks – lifestyle support groups, executive nets, advice, training, sharing problems and solutions, shoulders to cry on

Body image advisors, image and style consultants, body language teachers, fitness coaches, leadership and managing coaches...

Mentoring, pulling other women up behind you

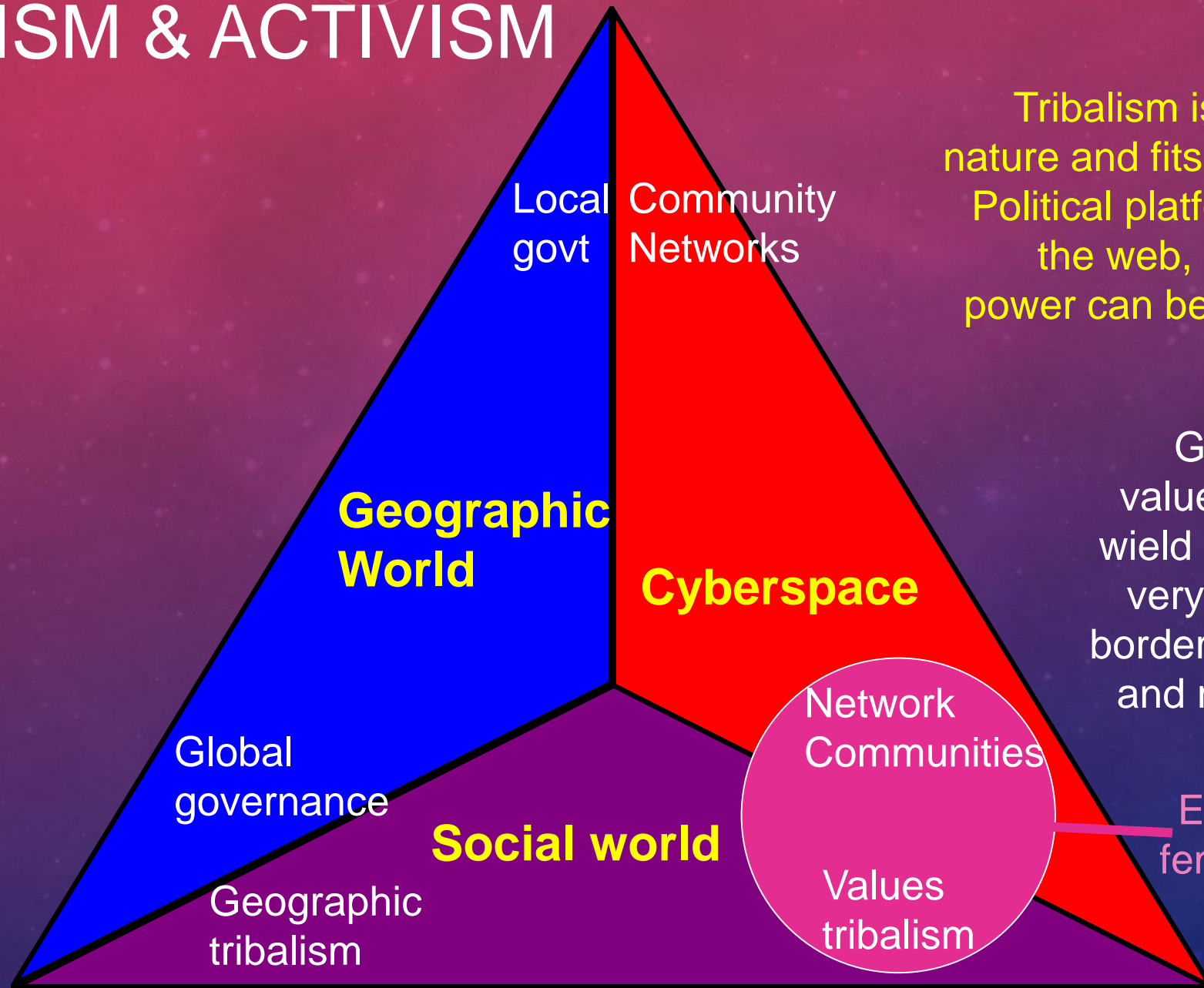
CHANGING HOUSEHOLDS & RELATIONSHIPS



Geographic

- More older people
- More cohabiting friends
- More diverse couples
- More single parents
- More adults living with parents
- More ethnic/cultural/religious diversity
- More kids, more robots, more virtual

TRIBALISM & ACTIVISM



Tribalism is built in to human nature and fits the web perfectly. Political platforms migrate onto the web, where grass-roots power can be mobilised quickly

Groups with shared values or interests can wield grass roots power very effectively across borders. A very powerful and responsive engine

Examples: #MeToo, feminism, pro-choice

WORK CHANGE

AI AND WOMEN

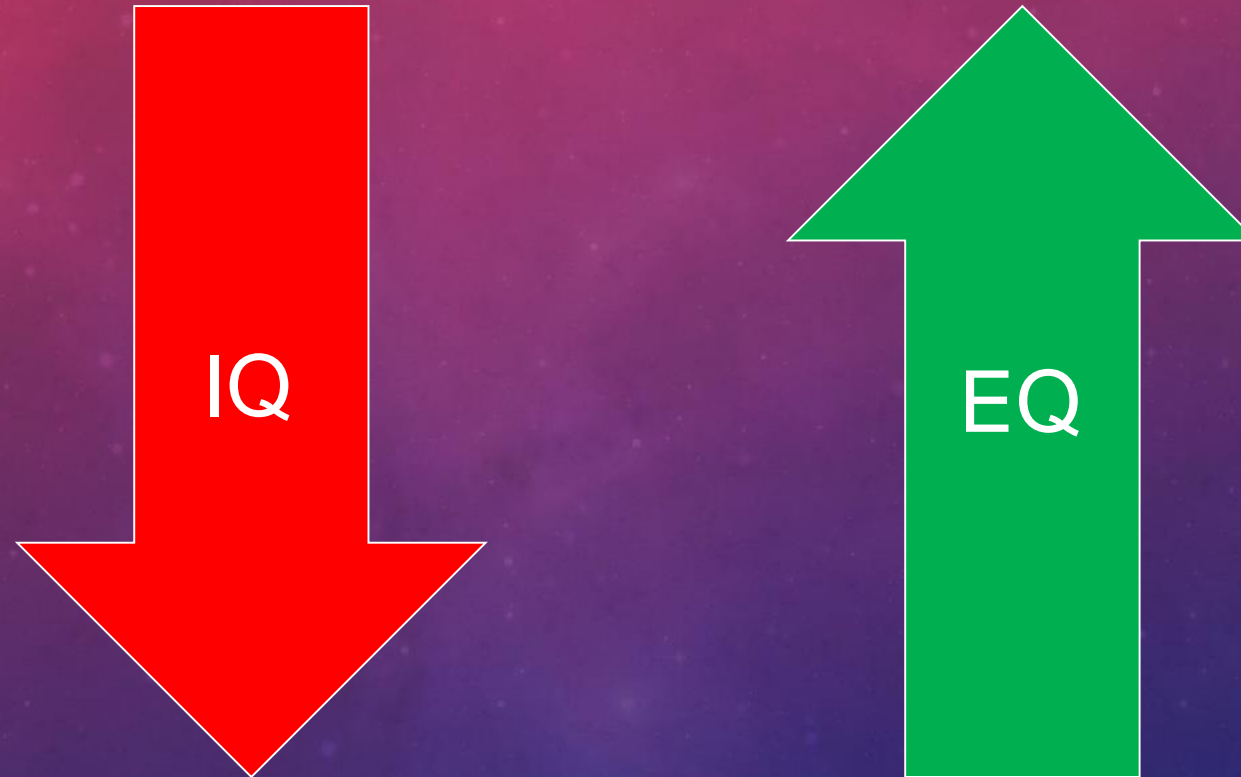
Value of physical/
intellectual
work as AI
develops



Value of Community &
Personal contact

Care economy, human interaction, care-based jobs
IQ advantage reduces, less status, social levelling
EQ advantage grows, emotional skills dominate
Growth of arts, crafts, personal services
Restructuring towards micro-enterprises

HUMAN SKILLS IN AN AUTOMATED WORLD



AI will replace knowledge and intelligence-based tasks long before emotional, 'human skills' tasks

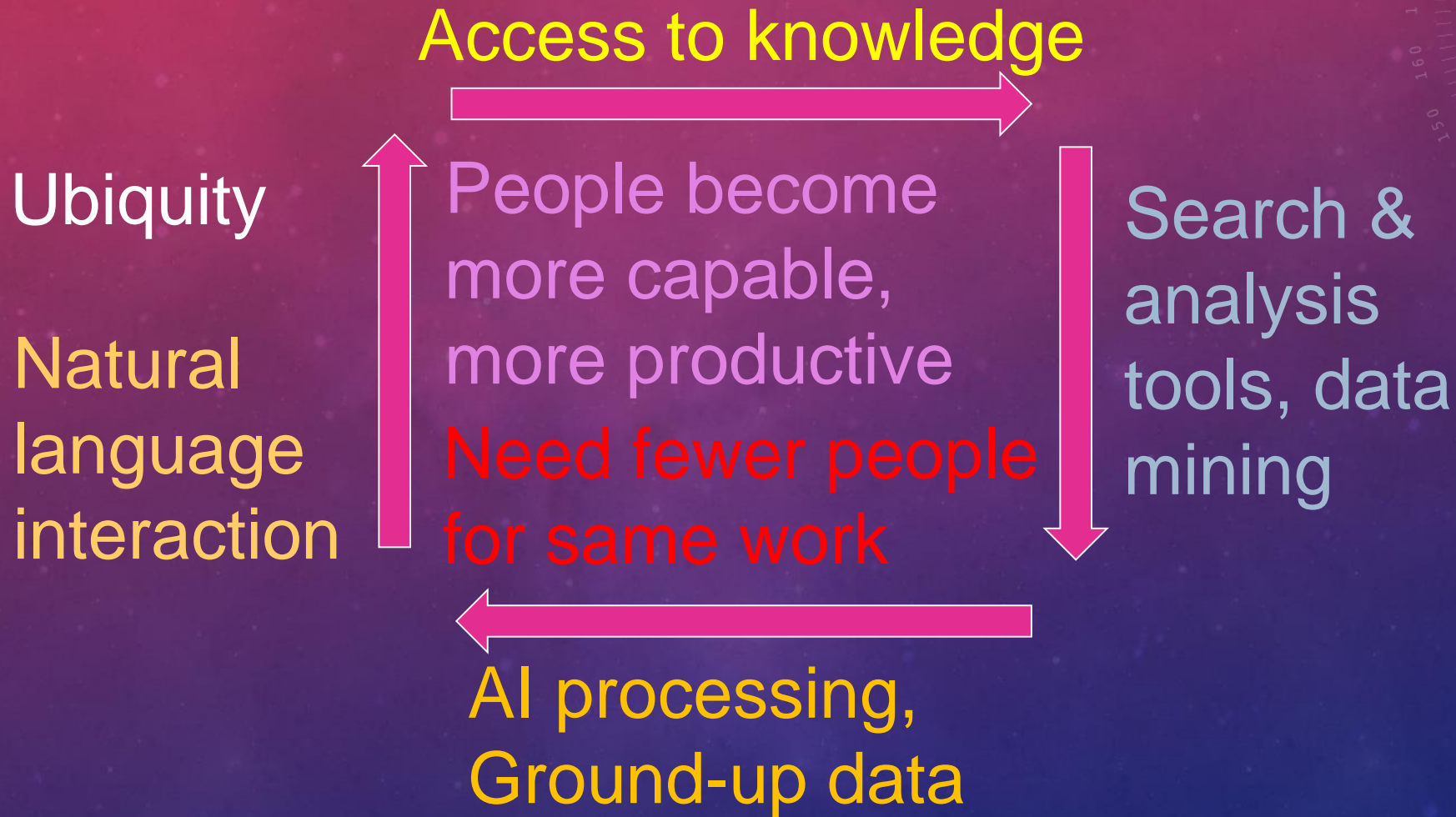
CHANGING NATURE OF WORK

AI will automate some everyday tasks, increasing productivity and upskilling people
This frees people to concentrate more on human interaction
Work will mostly be people oriented – a ‘care economy’
Needs close emotional contact, often face to face
More local travel to deliver personal services face to face, less long distance travel

Robotics will automate much of manufacturing, assembly and distribution
Distribution will become cheaper so will stimulate new businesses
3D printing and ‘part-bake/local finishing’ will allow cottage industry to flourish again

Co-ops, collectives, and informal collaborations of freelancers will exist alongside traditional companies

UPSKILLING V REDUNDANCY



Do you want fewer people, or better people?

FUTURE SKILLS FOR THE CARE ECONOMY

Agricultural Age

Strength

Dexterity

Hunting

Fighting

Navigation

Team Working

Industrial Age

Strength

Dexterity

Engineering

Fighting

Political

Intellect

Management

Leadership

Information Age

Engineering

Global politics

Peacekeeping

Intellect

Creativity

Design

Management

Administration

Leadership

Marketing & sales

Networking

HR

Care Age

Caring

Networking

Human interfacing

Nurturing

Community

Empathy

Counselling

Peacekeeping

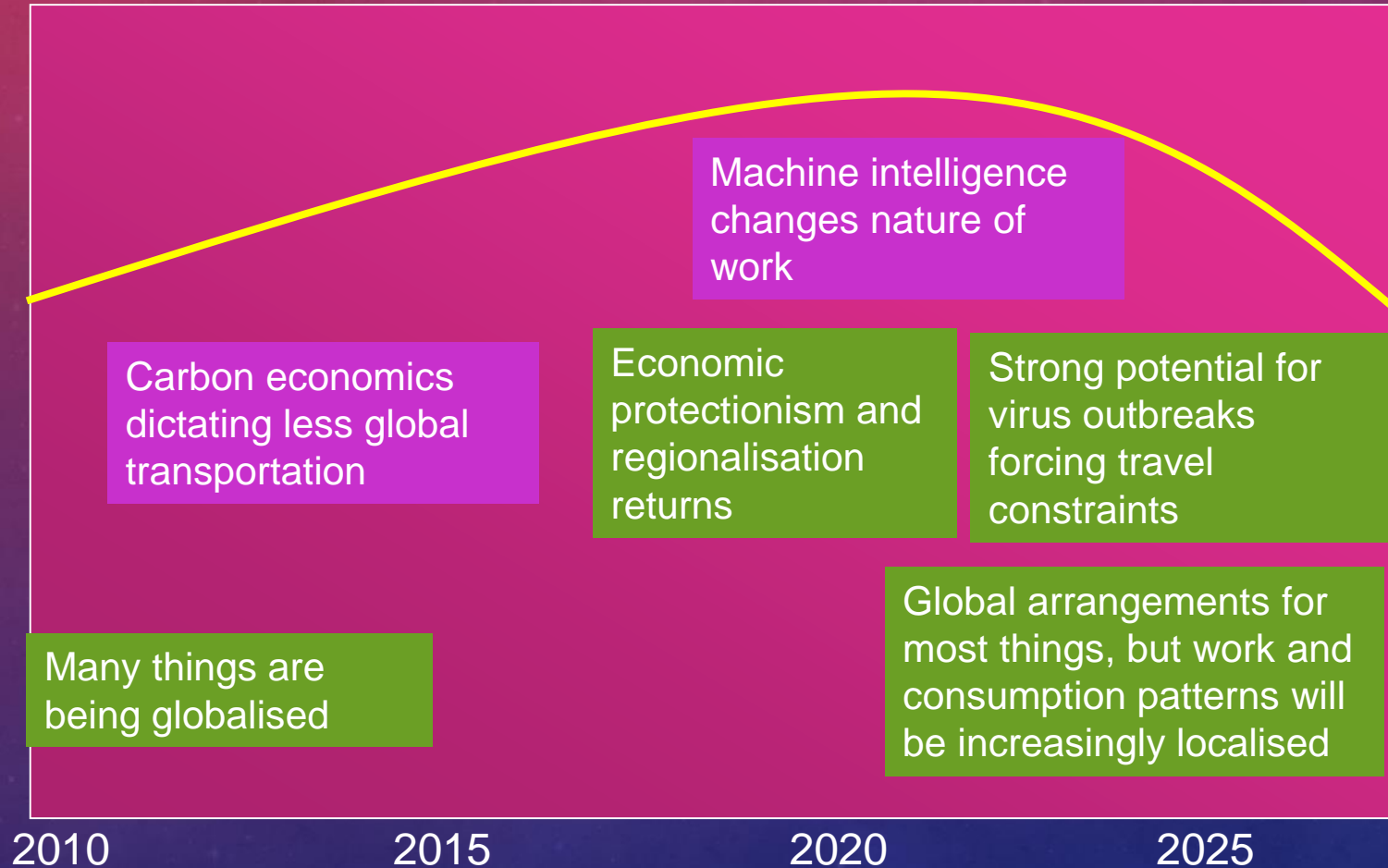
Leadership

Motivation

Marketing & sales

Creativity

SOME REVERSAL OF GLOBALISATION



FEASIBILITY OF UNIVERSAL BASIC INCOME

ECONOMIC GROWTH WILL CONTINUE IN AN AGE OF AUTOMATION

Cost of fairly comfortable existence

Level of affordable UBI

Required pension



The environment will also benefit greatly from the means of achieving this economic growth, via lower raw material needs for a given level of comfort, cleaner energy, better monitoring and intervention, and more funding becoming available for environmental care.

There is no good reason to expect environmental harm due to long term growth.

time

As economy grows, it becomes feasible to provide everyone with a comfortable income whether they work or not & this may be needed to prevent capitalism decline. Feasible in UK by 2050, and those under 35 today in similarly developed countries probably won't need pensions.

NEW TECH WILL HELP MORE THAN IT HARMIS

Economic
influence

Stimulative Technology
e.g. AI, AR, VR,
robotics, 3D printing,
graphene, blockchain

Disruptive
technology

New tech still
disrupts old
industries but it
also enables and
stimulates lots of
new ones

We've probably
already passed
break-even

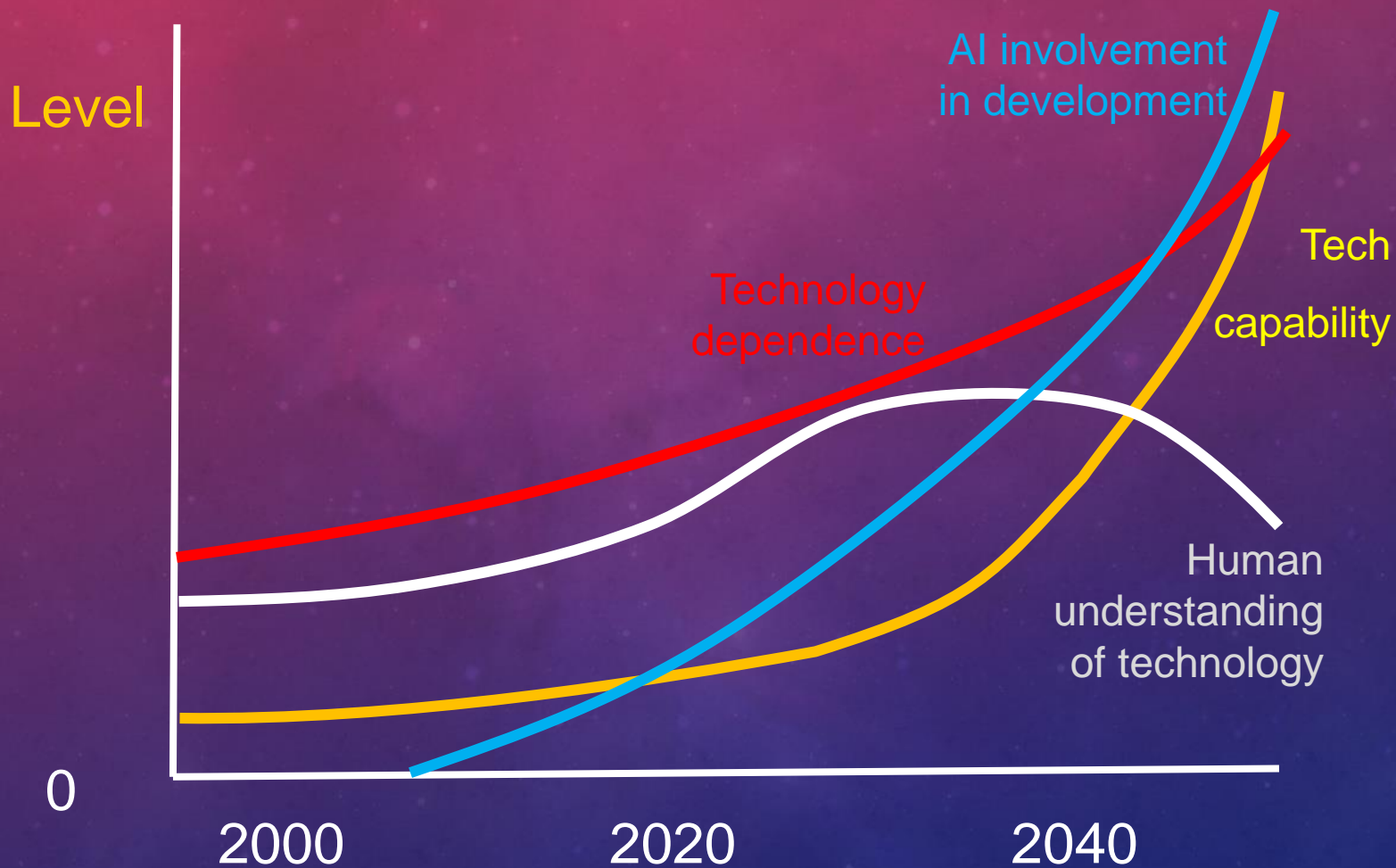
2000

2020

2040

BUT IT WILL CHALLENGE TRUST

As tech develops, we will depend on it more - but understand it less



HOME BUSINESS GROWTH

PROVEN BUSINESS MODELS

Social Networking, AI, 3D printing, robotics, automated distribution etc combine to make it easier to convert a hobby into a thriving small business

Etsy – easy e-commerce platform for home businesses, craft economy

E-Bay – easy sales & shopping, guaranteed service level

Amazon – easy shop set up and managed business services

Uber – connects customer to supplier with standardised service expectations, pricing, mutual reviews

All of these thrive because they make it easy for ordinary people to run a business without having an MBA, marketing, sales, networking, tax, legal or accountancy skills.

'PART-BAKE' MARKETS WILL GROW

This example shows food finishing, but model equally applies to clothing, jewellery, household goods and any products where personalisation/customisation is appropriate



Baking could become a virtual industry

LOCAL FINISHING & PERSONALISATION VIA 3D PRINTING

THINK UBER + ETSY + AI ADMIN



3D printing is more useful for some things than others. Makes sense for cake decoration, novelties & sweets, less suited to everyday foods or meals.

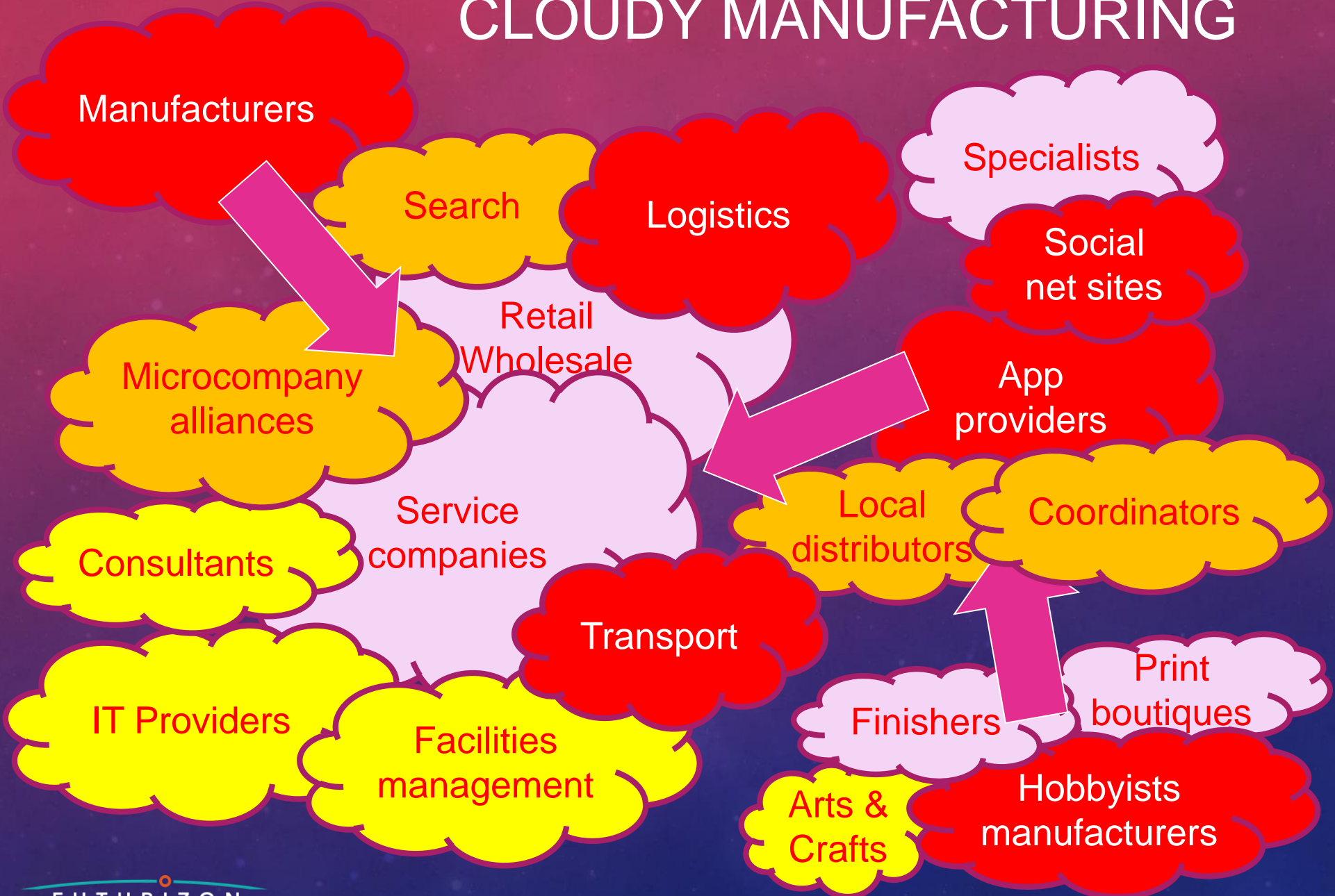
Combined with AI for business admin and easy 'last mile' logistics, it will encourage an Etsy-style craft economy



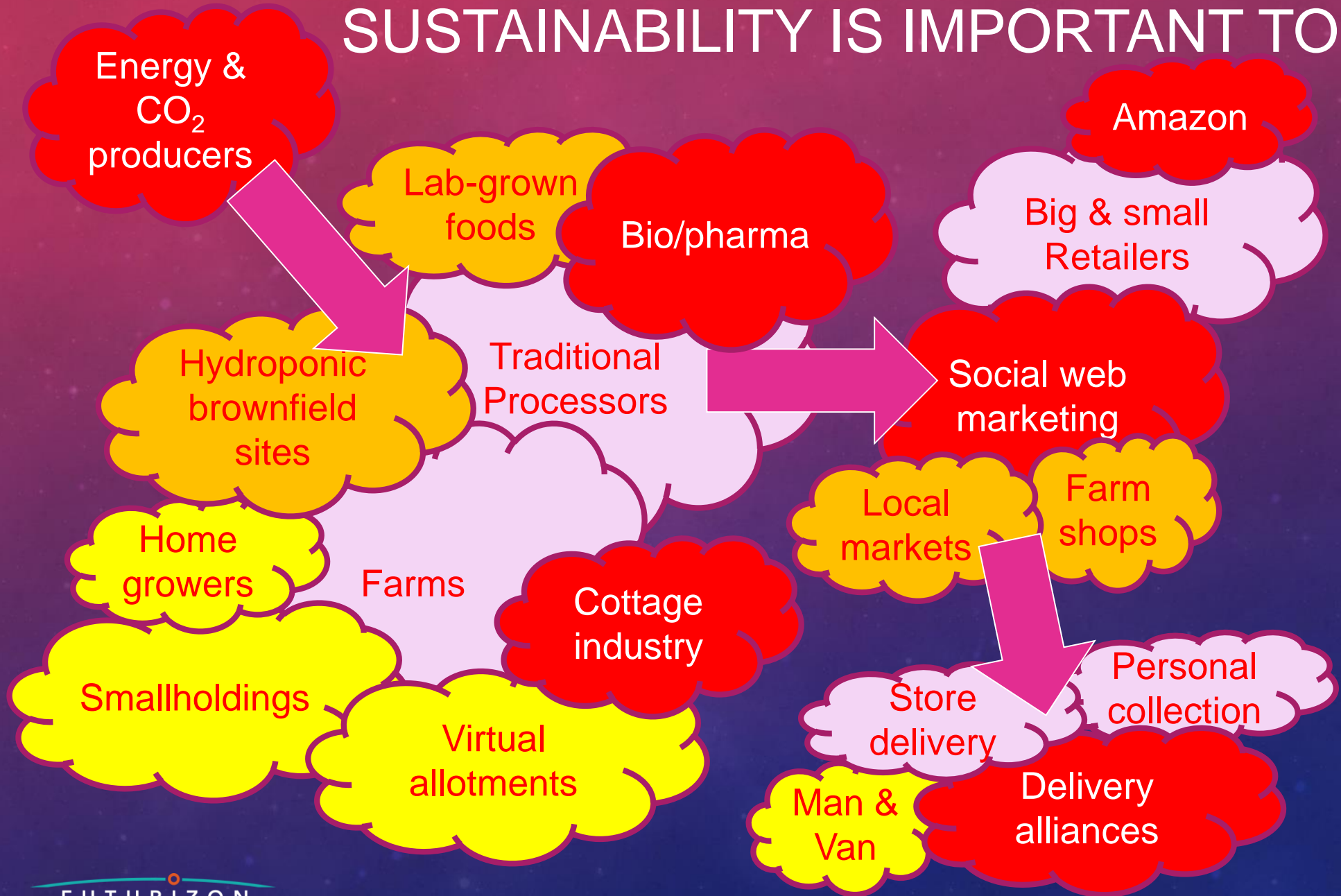
Pick and place robotic assembly may hybridise with 3D printers soon to enable more sophisticated electronic or IoT-enabled products!



CLOUDY MANUFACTURING



SUSTAINABILITY IS IMPORTANT TOO



PAYMENTS WILL BECOME MORE HUMAN

A traditional human trust gesture can verify financial transactions

Electronic signatures can be exchanged via skin or between rings or smart watches or mobiles

Mobile proves presence & identity along with other biometrics

GPS location & time of transaction logged

Voice verification check

“Here’s £20”



Accelerometer can verify actual handshake gesture



More vending machines due to shop decline

BRANDING: NURTURE BEATS EXPLOITATION

Social networking means companies are constantly in the spotlight and can face rapid punishment if they misbehave

People are adopting a more global mindset and care more about people and practices far away than they used to

Resurgence of activism for socialist politics and values

Increasing demand for sustainability, especially packaging

Demand to end exploitative practices and take active role in well-being of host communities

Realisation that AI & automation enables co-working and upskilling rather than redundancy

LIFESTYLE TECH CHANGE

LIFE IS CHANGING FAST



FUTURIZON



ROBOT COMPANIONS & ASSISTANTS



Home androids will replace cars as main expenditure after the home. They will be commonplace
Like cars, people will buy ones they like, with the features they can afford
Many people will form strong emotional bonds with them
However, that will reinforce the differences between machines and people

SELF-STERILISING SURFACES

One-touch cleaning



Millions of tiny structures or micro-needles embedded throughout surface

As voltage is applied across the electro-active polymer, it contracts. Pulling the base together pushes the peak up and ruptures bacteria or loosens dirt particles. Nanostructures kill bacteria & loosen dust and dirt.

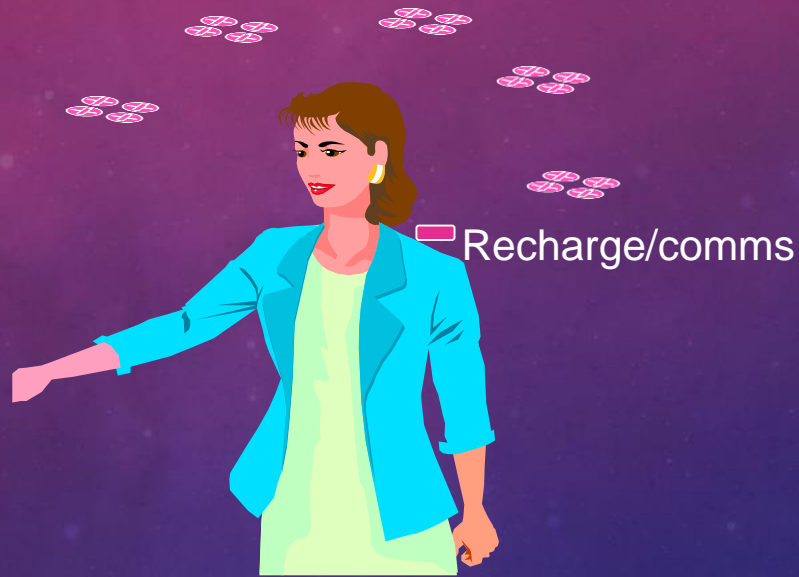
Alternatively, a tuned acoustic wave could push the needles out in waves.

Could be used for hard surfaces or smart packaging.

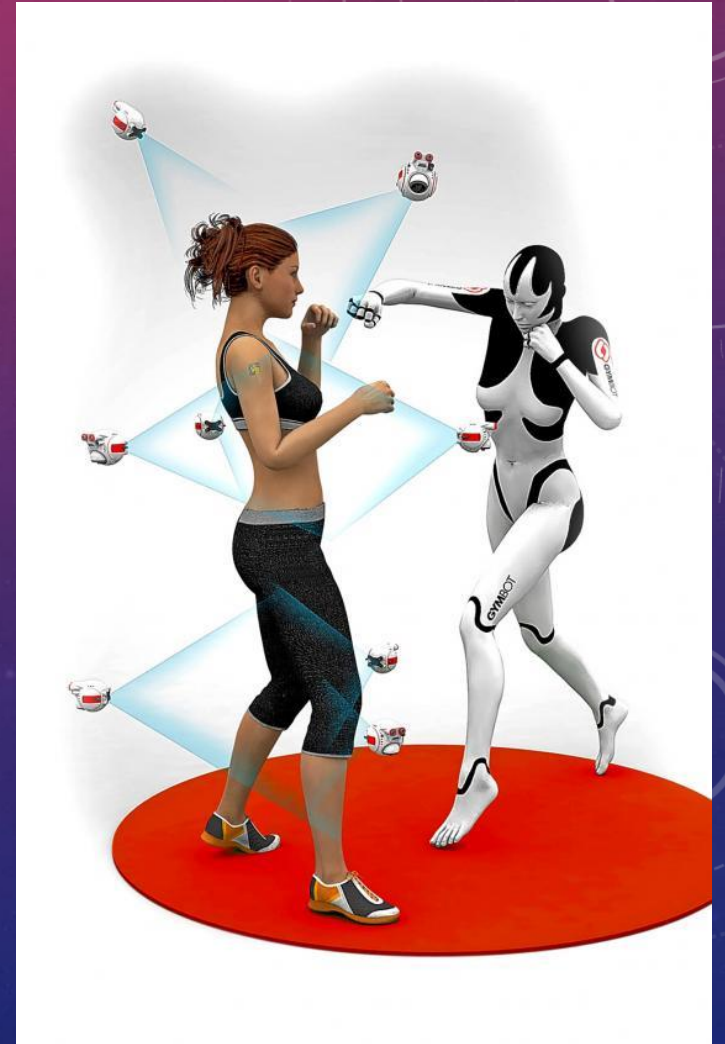
DRONE SWARMS: PERSONAL AI & SELFIES



Shoulder angels



Selfie Swarms



AVATAR MIRROR, ACTIVE MAKE-UP



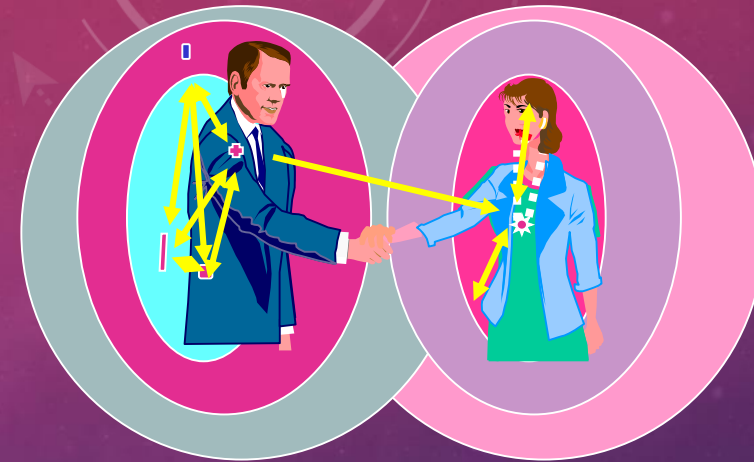
Design yourself as you want to be, not as you are

Use with active makeup, particles can change appearance on demand to let you look how you want all through the day

Choose video image for VR, AR, social media

BIG issue over who decides how others see you, you or them?

DIGITAL BUBBLE



Digital bubbles will change how people network and socialise by enabling intelligent exchange of appropriate information and filtering out 10Gb/s of junk.

Only a bit different from dating apps today.

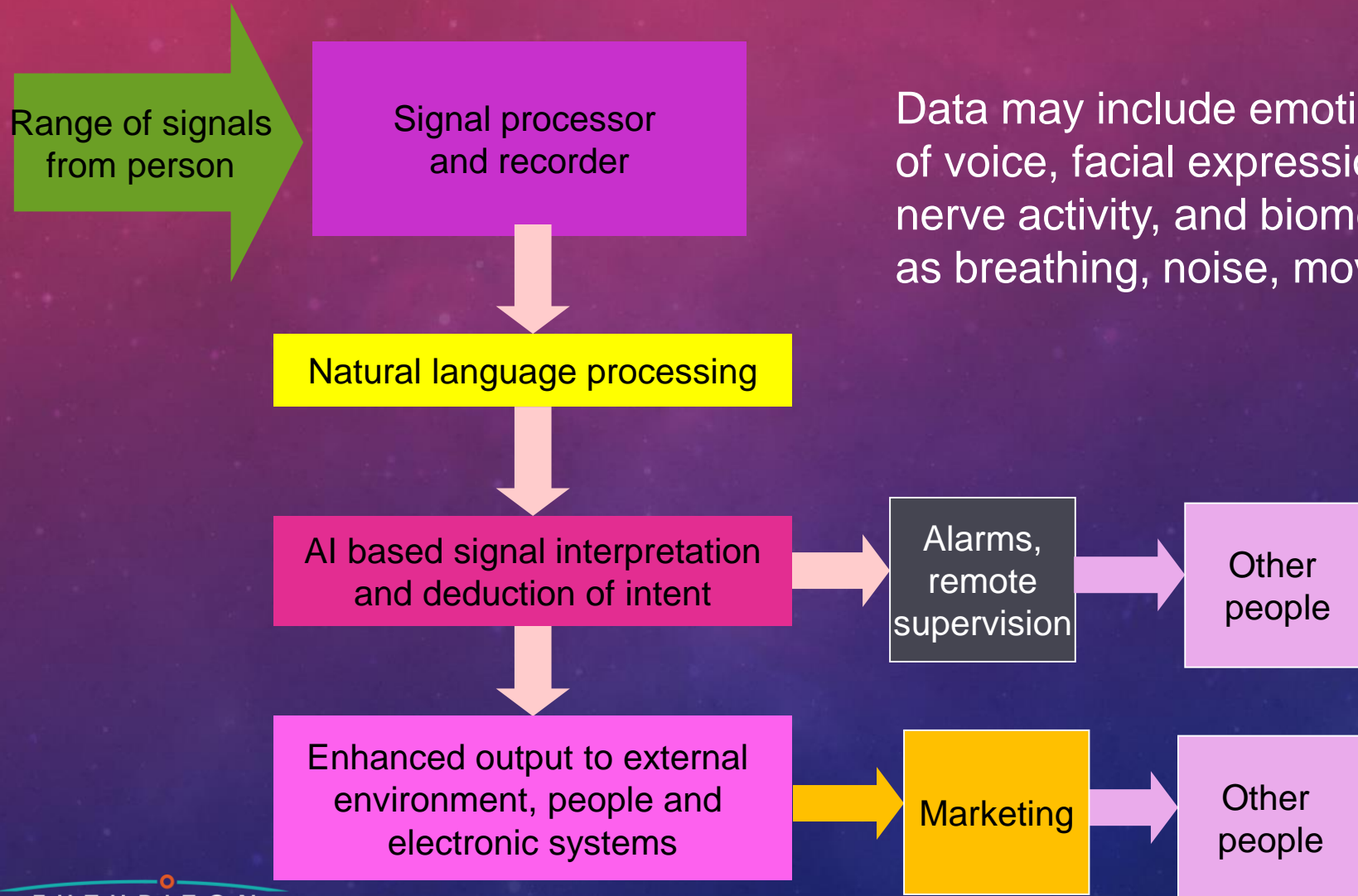
Single? **Yes**

Compatible personality and sexuality? **Yes**

Free Friday evening? **Yes**

Desperate enough to go out with me? **Yes**

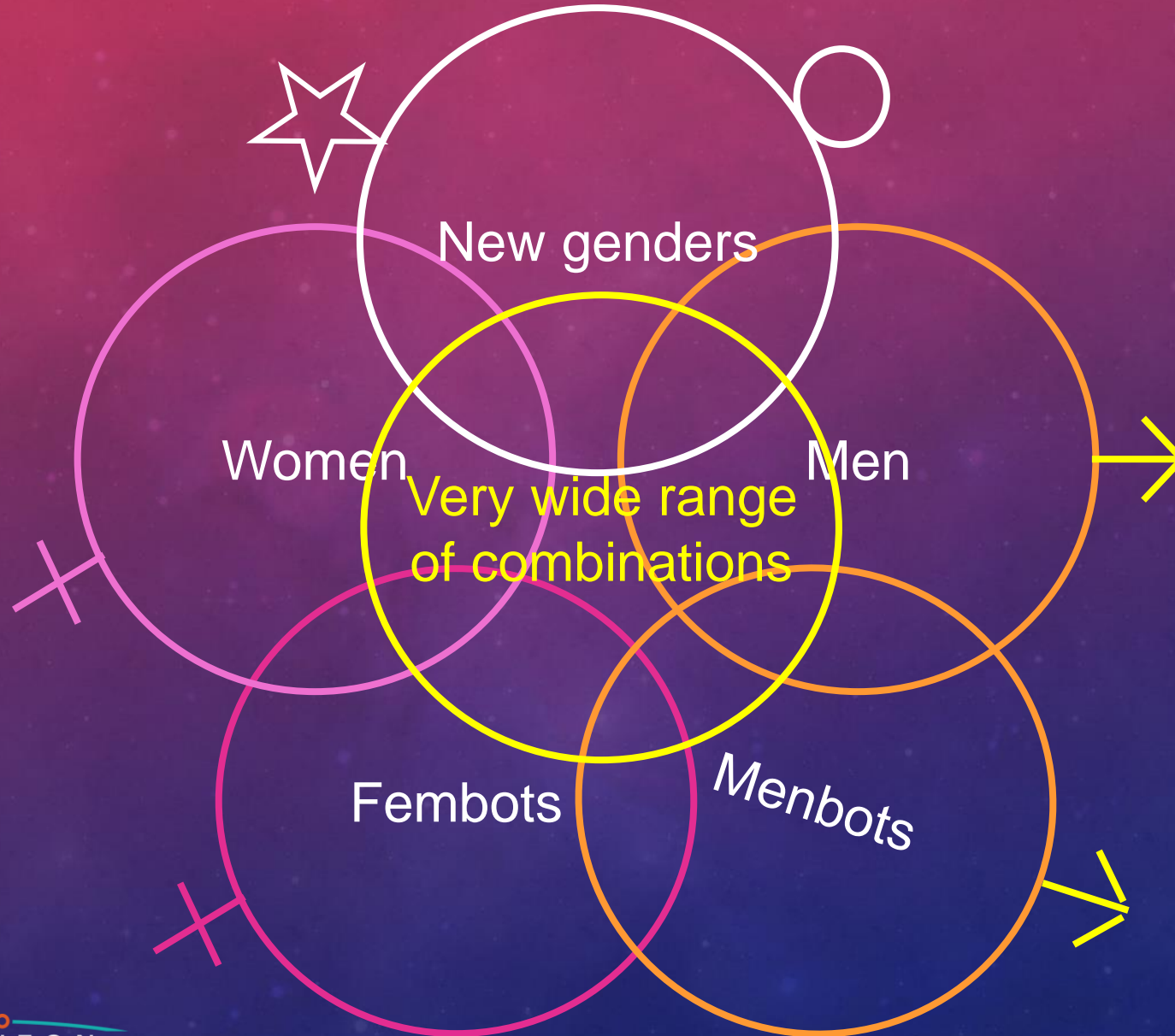
THE BODY IS BECOMING A MARKETING DATA SOURCE



Data may include emotional state, tone of voice, facial expression and gestures, nerve activity, and biomedical data such as breathing, noise, movement.

GENDER, RELATIONSHIPS, SEX & REPRODUCTION

FUTURE SEX/GENDER



FUTURE GENDER

If M & F represent physical appearance and m & f represent psychological gender identity, then we could state:

$$G = xM + yF + am + bf$$

but

social nets, VR, AR & computer games add a new dimension. Someone can be simultaneously one gender in real life and another online or virtually at same time, so people can have multiple simultaneous genders

So, if we use imaginary numbers to express virtual gender, then:

$$G = xM + yF + icM + idF + am + bf + iem + igf$$

And if we allow for new biotech creating new kinds of device mapped onto nervous system, then we need to add hundreds of other terms too

SEX TECH: HOW CLOSE CAN YOU GET?



2010: Can touch

2025: Can link nervous systems

2030 Can share sensations

2040: Can link brains for direct zero-activity sex interaction

2050: Can share enhanced consciousness in machine

2055: Can share or swap bodies

2075: Can merge completely

DREAM LINKING

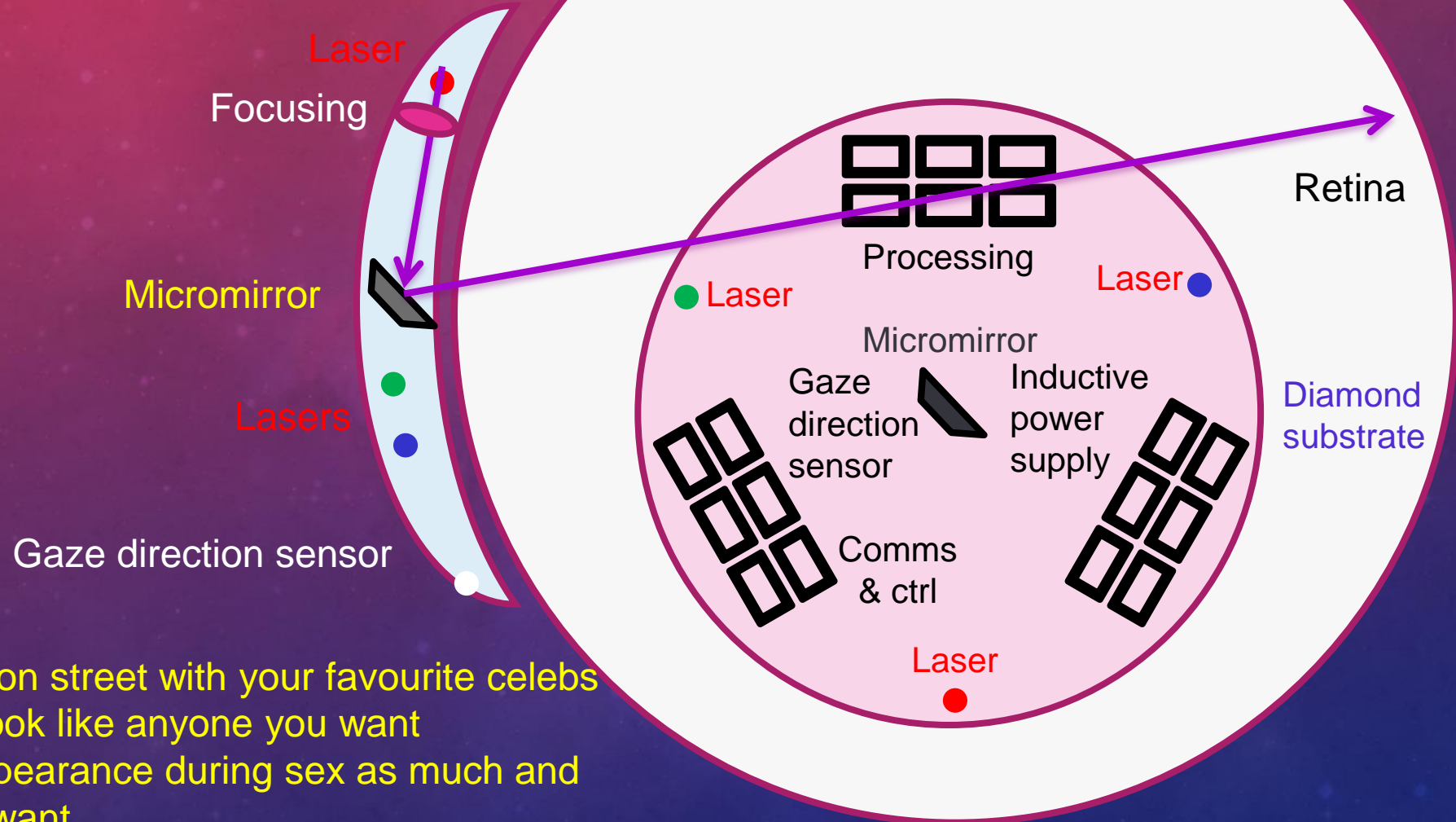


Dream state detected in each person and appropriate imagery and sound generated in both headsets by computer.

Ongoing detection of thoughts and emotions during the dream influences choice of material.

Teledildonic links to share wet dreams

ACTIVE CONTACT LENS



Replace people on street with your favourite celebs
Make partners look like anyone you want
Change their appearance during sex as much and
as often as you want
This could bring in the ultimate in objectification

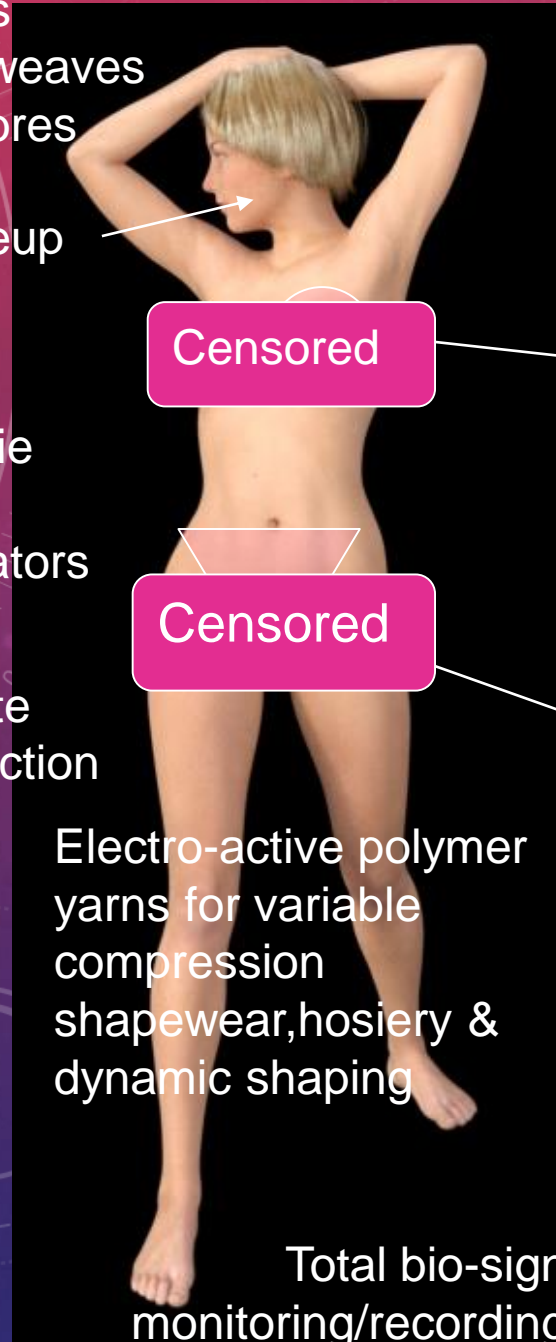
Van der Graaf hair waves
Optical hair extensions, weaves
Electro-active polymer fibres

Video makeup

Interactive video lingerie
with smart fabrics and
smart membrane actuators

Full networking for remote
play and direct toy interaction

Internet of genitalia



Censored

Censored

Electro-active polymer
yarns for variable
compression
shapewear, hosiery &
dynamic shaping

Total bio-sign
monitoring/recording

SEX FASHION

Polymer display nipple enhancement
Thought-emotion recognition links
Electro-active polymer membranes
Vibrating membranes
Electronic nipple stimulation
Active skin nerve links for experience
record/replay or robot/toy interface

Polymer displays for video pubic hair
Location-based shavers/trimmers for
precision trim patterns
Thought-emotion recognition links to
control request/instruction icons
LED pleasure indicator
Electronic aroma/perfume control
Flat panel speakers
Electro-active polymer membranes
Vibrating membranes
Electronic stimulation
Active skin nerve links for experience
record/replay & robot/toy interface

RE-DESIGNING SEX VIA BIO-INFOTECH

Possible to redesign sex by reassigning links between physical action and neural stimulation

Form and function totally separable

Can link transcranial magnetic stimulation to drug release for synchro-drugs

Physical actions loosely coupled to sexual response

Any action or circumstance could be trigger for any stimulus

Can link directly to vagus nerve & septal area to avoid mess

Orgasmatrons, pleasure sticks, real magic wands

Brain add-ons will allow new sex organs, new senses, new 'ports'

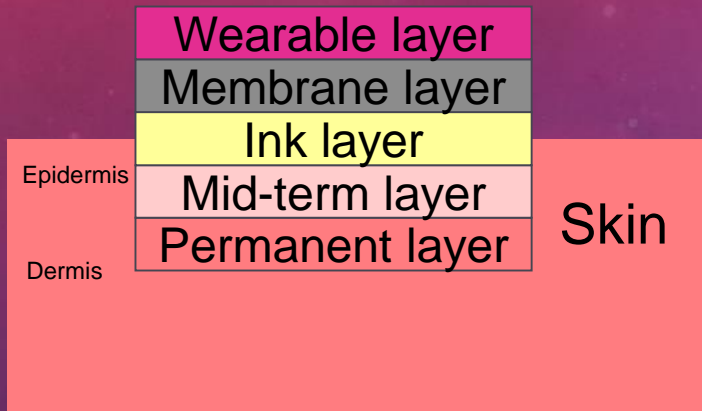
Freed from genital limitation - multiple simultaneous sex

New sexes, genders roles, organs and toys can be invented

Stimulating claustrum region of brain lets you switch off consciousness to time-freeze, robotise or mannequinise someone, and they won't even remember when they awaken

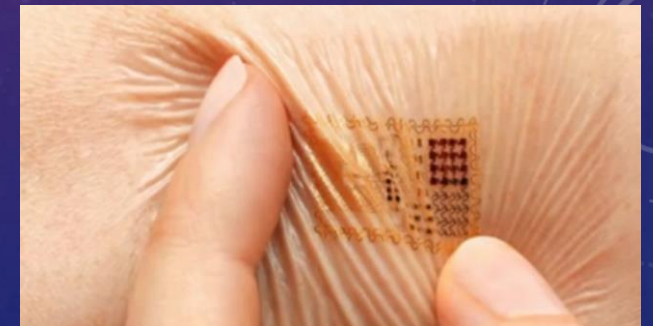
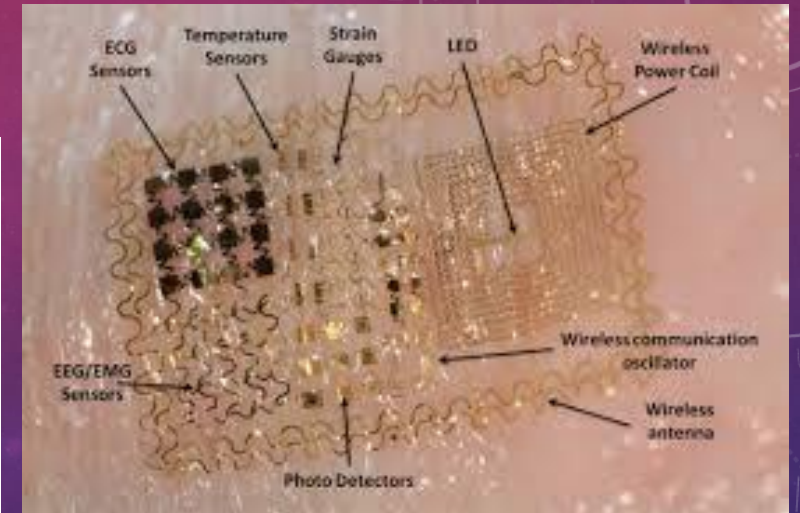


ACTIVE SKIN ALLOWS SENSORY RECORDING & REPLAY



Skin-based electronics can link blood chemistry and nerve signals to external networks and systems. Biological IT is still IT.

Potential for smart makeup, smart drugs, recording and replaying sensations, hyper-realistic VR...



FUTURE SEX-RELATED ISSUES

24/7 gaze direction monitoring can be used to police harassment & abuse

Full cloud-based recording of all interactions may be required to police consent

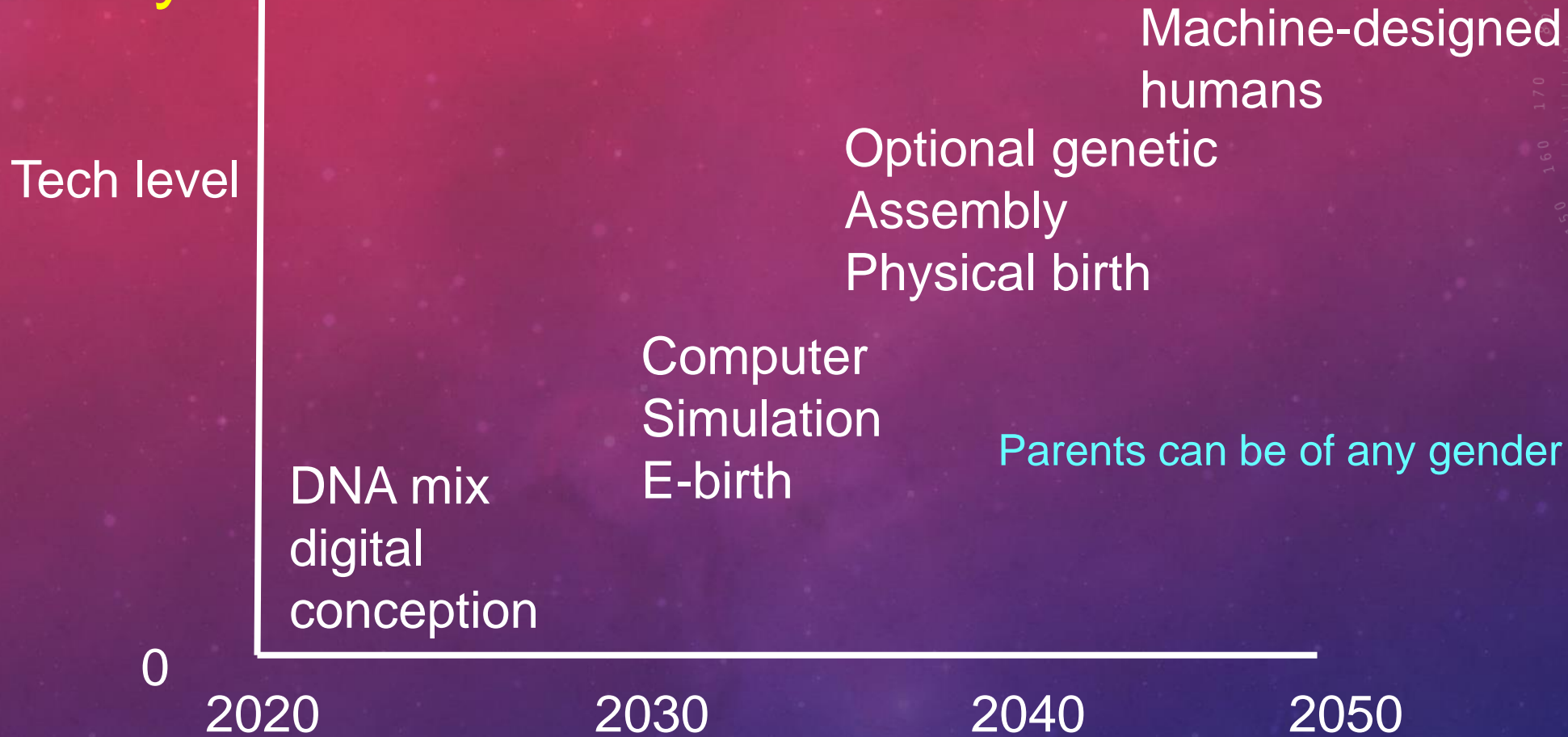
Will it be considered immoral not to GM your kids to give them the best possible start?

Might it be considered immoral to refuse sex with someone without a good PC reason?

Might the State arrange hook-ups to circumvent prejudice and ensure fair access to sex?

Will robot sex dominate because of increasing legal complexity and risk surrounding human sex?

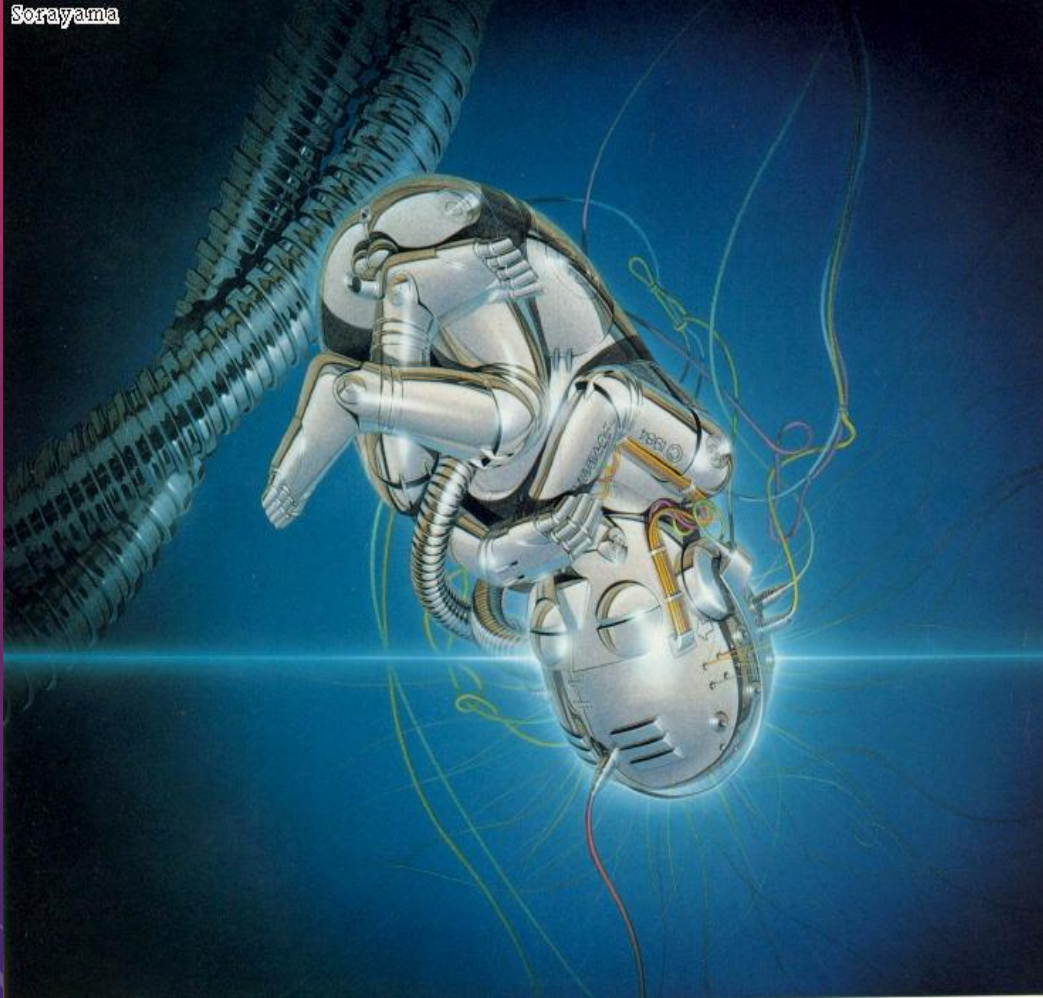
e-Bay-bies



eBaybies are formed by simply combining DNA listings to form a DNA listing for a potential human being. These would initially be just data, so could legally be traded and collected, hence the term 'eBaybies'. In the further future, they could be simulated or the DNA assembled to create physical babies. At what stage of electronic emulation or genetic assembly would a child become legally human?

WOMAN + MACHINE = ?

Sorayama



All sci-fi since the film
'Demon Seed' tells us that:

DNA Optimisation

+

Smarter-than-man machines

=

Trouble

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